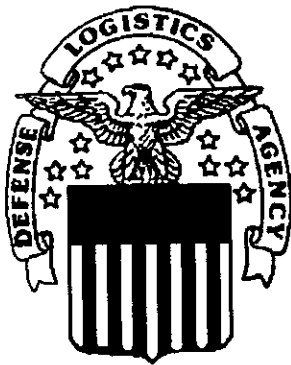


663 7338

File: 541.460.000n
C.H.



THE MEMPHIS DEPOT TENNESSEE

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 663

Part II of II

Method: QUANMET Sample Name: ICV2-1 0014-148-7 Operator: EMF
 Run Time: 07/01/00 15:27:31
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

663 734

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50460	25.217	.96314	.97700	.99334	.97245	25.359
SDev	.00394	.137	.04167	.00045	.00777	.00524	.221
%RSD	.77973	.54506	4.3259	.04614	.78200	.53925	.87081
#1	.49902	25.263	.92322	.97730	.99853	.97564	25.206
#2	.50646	25.237	1.0102	.97730	.99448	.97138	25.301
#3	.50490	25.023	.98579	.97705	.98203	.96552	25.244
#4	.50802	25.345	.93335	.97634	.99832	.97726	25.685
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	27.500	1.1000	1.1000	1.1000	1.1000	27.500
Low	.45000	22.500	.90000	.90000	.90000	.90000	22.500
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0108	1.0031	1.0123	.98558	26.048	25.212	.99656
SDev	.0141	.0062	.0083	.00470	.156	.746	.01128
%RSD	1.3903	.61360	.82024	.47742	.59930	2.9583	1.1317
#1	.99371	.99967	1.0043	.98761	26.019	24.279	1.0095
#2	1.0167	1.0052	1.0119	.98762	26.023	24.943	1.0026
#3	1.0063	.99686	1.0091	.97855	25.887	25.814	.98701
#4	1.0265	1.0108	1.0238	.98855	26.262	25.814	.98720
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	27.500	27.500	1.1000
Low	.90000	.90000	.90000	.90000	22.500	22.500	.90000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.343	1.0026	.98883	24.945	.99440	1.0459	1.0208
SDev	.130	.0068	.01227	.191	.01592	.0315	.0326
%RSD	.51248	.67597	1.2412	.76656	1.6007	3.0150	3.1893
#1	25.366	1.0001	.98515	25.137	.97799	1.0056	.97963
#2	25.328	1.0021	.99005	25.006	.98376	1.0517	1.0412
#3	25.181	.99609	.97533	24.682	1.0056	1.0822	1.0518
#4	25.497	1.0120	1.0048	24.955	1.0103	1.0440	1.0104
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	27.500	1.1000	1.1000	27.500	1.1000	1.1000	1.1000
Low	22.500	.90000	.90000	22.500	.90000	.90000	.90000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0162	1.0320	.98645	.98854	.98237	4.9238	.99122
SDev	.0180	.0030	.03496	.00657	.00549	.0732	.00762
%RSD	1.7702	.29032	3.5444	.66420	.55871	1.4868	.76856
#1	.99706	1.0275	.95981	.99283	.98245	5.0279	.98498
#2	1.0390	1.0335	1.0069	.98968	.98345	4.8779	.99494

#3	1.0081	1.0333	.95405	.97894	.97514	4.8679	.98480
#4	1.0206	1.0335	1.0251	.99272	.98844	4.9216	1.0002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	1.1000	5.5000	1.1000
Low	.90000	.90000	.90000	.90000	.90000	4.5000	.90000

Elem ZN
Units ppm
Avge .99877
SDev .00195
%RSD .19517

#1 .99855
#2 .99749
#3 .99743
#4 1.0016

Errors LC Pass
High 1.1000
Low .90000

Method: QUANMET Sample Name: ICB1

Operator: EMF

Run Time: 07/01/00 15:30:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 736

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00222	.00822	-.00101	-.00689	.00013	.00000	.82288
SDev	.00353	.01866	.01611	.00696	.00036	.00012	.00963
%RSD	158.92	227.14	1593.9	100.99	284.31	18904.	1.1706
#1	-.00740	-.01198	.01807	-.01539	-.00008	-.00009	.80875
#2	.00002	.01183	.00645	-.00859	.00013	.00002	.82540
#3	-.00000	.03211	-.01253	.00121	.00063	.00016	.83026
#4	-.00149	.00091	-.01604	-.00479	-.00017	-.00009	.82711
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00047	-.00035	-.00230	-.00045	.00302	-.15960	.00000
SDev	.00110	.00161	.00185	.00114	.00404	.52826	.00117
%RSD	234.78	459.83	80.110	251.84	134.09	330.99	65e6
#1	.00038	-.00175	-.00407	-.00023	-.00269	-.31704	-.00042
#2	-.00039	.00105	-.00298	-.00022	.00335	-.10999	.00065
#3	.00204	.00104	.00027	.00068	.00671	.52840	.00121
#4	-.00016	-.00175	-.00244	-.00204	.00469	-.73977	-.00143
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01429	-.00025	.00368	.02191	-.00114	.02101	.00002
SDev	.02016	.00049	.00283	.01020	.00639	.01913	.02135
%RSD	141.15	201.61	76.958	46.548	558.63	91.074	115160.
#1	.00408	.00000	.00612	.00859	-.00116	.01139	-.02563
#2	.02041	.00000	.00613	.02304	.00712	.04971	-.00506
#3	.03945	.00000	.00123	.03344	-.00209	.01151	.02568
#4	-.00680	-.00099	.00123	.02259	-.00845	.01142	.00508
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00096	.02794	-.01474	.00234	-.00017	-.00291	-.00024
SDev	.02977	.02858	.01183	.00013	.00109	.04364	.00276
%RSD	3096.6	102.28	80.257	5.5921	653.20	1499.7	1145.7
#1	-.00191	-.01472	-.03062	.00215	-.00150	-.03165	-.00112
#2	-.03240	.04417	-.00206	.00241	-.00017	-.03177	.00381

663 737

#3	.04006	.04411	-.01412	.00241	.00116	-.00872	-.00121
#4	-.00189	.03821	-.01218	.00241	-.00017	.06050	-.00244

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge H.23883
SDev .00249
%RSD 1.0447

#1 H.23618
#2 H.24066
#3 H.23726
#4 H.24124

Errors LC High
High .02000
Low -.02000

Method: QUANMET Sample Name: ICSA 0014-129-11 Operator: EMF

Run Time: 07/01/00 15:33:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 738

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00017	491.88	-.09507	-.03609	.00162	.00003	479.04
SDev	.00320	4.12	.08790	.01122	.00042	.00010	1.92
%RSD	1829.7	.83841	92.461	31.091	25.617	397.86	.40094
#1	-.00378	488.52	.00132	-.04265	.00165	.00015	476.50
#2	.00397	491.18	-.16929	-.01999	.00215	.00002	481.11
#3	.00080	489.98	-.16993	-.04474	.00156	-.00009	479.63
#4	-.00029	497.85	-.04237	-.03699	.00114	.00002	478.93
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value		500.00					500.00
Range		20.000					20.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00068	.01086	-.00203	-.00701	183.53	-.09058	.00159
SDev	.00663	.00002	.00179	.00153	.96	.80832	.00113
%RSD	977.98	.16854	88.091	21.837	.52448	892.34	71.010
#1	-.00906	.01089	-.00027	-.00552	182.43	.94250	.00264
#2	.00440	.01085	-.00081	-.00630	183.92	.09705	.00247
#3	.00528	.01085	-.00298	-.00908	183.11	-.93819	.00048
#4	.00209	.01086	-.00407	-.00715	184.65	-.46370	.00076
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK
Value					200.00		
Range					20.000		
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	487.84	.00370	.00907	.00508	-.02111	.09758	.03597
SDev	3.53	.00048	.00701	.00740	.01530	.03481	.04660
%RSD	.72311	13.057	77.269	145.59	72.473	35.669	129.55
#1	484.15	.00321	-.00090	-.00407	-.01038	.09980	-.02555
#2	488.00	.00359	.01403	.01401	-.01015	.14377	.02575
#3	486.65	.00437	.01391	.00587	-.04271	.06065	.06669
#4	492.56	.00366	.00924	.00452	-.02119	.08610	.07700
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	500.00						
Range	20.000						
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.06270	.08828	-.07064	.01319	-.02279	.52574	.00263
SDev	.07233	.06048	.04103	.00019	.00090	.10694	.00240
%RSD	115.36	68.505	58.080	1.4224	3.9533	20.342	91.294
#1	-.16950	.00887	-.05282	.01335	-.02345	.60910	.00368
#2	-.00923	.15595	-.06451	.01335	-.02146	.48994	.00396

663 739

#3	-.03806	.09117	-.12955	.01298	-.02312	.61364	-.00097
#4	-.03402	.09712	-.03566	.01309	-.02312	.39026	.00386

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem ZN
Units ppm
Avge -.00067
SDev .00094
%RSD 140.58

#1 .00074
#2 -.00126
#3 -.00109
#4 -.00106

Errors NOCHECK
Value
Range

Method: QUANMET Sample Name: ICSAB 0014-104-1 Operator: EMF

Run Time: 07/01/00 15:36:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 740

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94819	490.49	.88202	.89634	.46074	.44968	473.92
SDev	.00387	4.56	.05492	.02514	.00511	.00384	1.24
%RSD	.40784	.93062	6.2266	2.8046	1.1098	.85430	.26183
#1	.94625	487.35	.88031	.88300	.45663	.44728	475.44
#2	.94622	488.05	.80684	.88791	.45856	.44728	473.57
#3	.94631	489.33	.90567	.88068	.45958	.44881	474.20
#4	.95399	497.22	.93526	.93378	.46819	.45533	472.47
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	1.0000	.50000	.50000	500.00
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.96132	.45100	.44300	.47465	182.48	9.8003	.99479
SDev	.00963	.00302	.00496	.00708	.68	.4826	.02007
%RSD	1.0020	.66977	1.1188	1.4918	.37506	4.9240	2.0174
#1	.95798	.45102	.44735	.47236	182.12	10.458	.97759
#2	.95800	.44823	.44083	.46963	181.96	9.3107	.98664
#3	.97547	.44957	.44680	.47147	182.37	9.6385	.99125
#4	.95383	.45520	.43703	.48513	183.48	9.7938	1.0237
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	.50000	.50000	200.00	10.000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	484.17	.45191	.90074	9.9877	.87112	1.0049	.96215
SDev	3.27	.00127	.01049	.1419	.00876	.0655	.02283
%RSD	.67510	.28118	1.1644	1.4207	1.0054	6.5212	2.3729
#1	482.16	.45137	.91049	9.8730	.87225	1.1005	.96982
#2	482.04	.45329	.90556	9.9195	.86747	.99305	.98022
#3	483.50	.45041	.90072	9.9656	.88268	.96921	.92870
#4	488.97	.45255	.88619	10.193	.86207	.95672	.96987
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.50000	1.0000	10.000	1.0000	1.0000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.92215	1.0942	Q.79306	.92866	.87900	9.8040	.45163
SDev	.09744	.0306	.05496	.00988	.00522	.2518	.00227
%RSD	10.567	2.7924	6.9295	1.0636	.59354	2.5685	.50224
#1	.88973	1.1207	Q.77219	.92283	.87667	9.7732	.45059
#2	1.0266	1.0677	Q.72747	.92305	.87501	9.9938	.45049

Analysis Report

QC Standard

07/01/00 03:40:00 PM

page 2

663 741

#3	.80268	1.1207	.85340	.92540	.87767	9.4594	.45040
#4	.96957	1.0678	.81919	.94338	.88665	9.9897	.45503
Errors	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	10.000	.50000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem ZN
Units ppm
Avge .92569
SDev .00720
%RSD .77818

#1 .93625
#2 .92025
#3 .92225
#4 .92402

Errors QC Pass
Value 1.0000
Range 20.000

Method: QUANMET Sample Name: DFGH2B

Operator: EMF

Run Time: 07/01/00 15:41:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

663 742

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00184	.03896	-.03436	-.00635	-.00007	.00010	.08728
SDev	.00408	.01644	.03898	.01305	.00048	.00012	.00379
%RSD	221.49	42.200	113.45	205.28	646.94	126.50	4.3435
#1	.00298	.05952	-.01663	.00604	.00063	.00028	.09286
#2	-.00592	.02663	-.08810	.00324	-.00038	.00004	.08513
#3	-.00000	.04490	.00246	-.01394	-.00017	.00004	.08642
#4	-.00444	.02479	-.03517	-.02075	-.00038	.00004	.08471
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00006	.00000	.00014	.00271	.02195	.15744	-.00022
SDev	.00149	.00176	.00103	.00186	.00241	.62821	.00136
%RSD	2681.8	401650.	756.68	68.683	10.984	399.01	626.16
#1	.00116	-.00036	.00081	.00520	.02146	.90799	.00180
#2	.00066	-.00035	.00027	.00249	.02011	.44213	-.00062
#3	.00055	-.00175	.00081	.00068	.02547	-.40331	-.00087
#4	-.00214	.00245	-.00136	.00249	.02078	-.31704	-.00118
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05374	-.00024	.00000	.02327	-.00582	.02100	.00254
SDev	.01929	.00049	.00245	.01295	.00791	.01305	.02112
%RSD	35.892	204.49	74641.	55.660	135.92	62.146	832.01
#1	.08027	.00001	.00123	.04067	-.01254	.03439	.02561
#2	.05578	.00000	-.00367	.00994	-.00326	.00380	.00513
#3	.03945	.00001	.00123	.02395	-.01173	.02668	.00504
#4	.03945	-.00098	.00123	.01853	.00424	.01913	-.02562
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00578	.05883	-.01066	.00009	-.00033	-.01176	.00000
SDev	.03926	.01022	.00893	.00031	.00145	.05013	.00248
%RSD	679.46	17.372	83.724	351.72	435.89	426.42	747330.
#1	.05153	.07359	-.02022	.00042	.00150	.03722	.00372
#2	.02484	.05588	-.00403	-.00032	-.00150	-.02037	-.00130

#3	.02091	.05588	-.01624	.00005	.00017	.01417	-.00121
#4	-.03236	.04999	-.00214	.00020	-.00150	-.07805	-.00121
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00244
SDev	.00141
%RSD	57.581

#1	.00439
#2	.00249
#3	.00175
#4	.00115

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DFGH2C

Operator: EMF

Run Time: 07/01/00 15:44:19

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 744

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04741	2.0382	2.0035	.96096	1.9695	.05017	52.076
SDev	.00487	.0075	.0388	.00001	.0252	.00052	.157
%RSD	10.261	.36956	1.9371	.00070	1.2794	1.0279	.30124
#1	.04851	2.0465	1.9685	.96096	1.9599	.05008	52.160
#2	.05292	2.0320	1.9800	.96095	1.9391	.04958	52.203
#3	.04706	2.0427	2.0100	.96096	1.9826	.05020	51.851
#4	.04114	2.0317	2.0555	.96097	1.9962	.05084	52.089
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05251	.50662	.20117	.24970	1.0708	50.080	.99145
SDev	.00406	.00177	.00210	.00249	.0024	.531	.01820
%RSD	7.7338	.34967	1.0413	.99679	.22546	1.0595	1.8358
#1	.04948	.50698	.20104	.24812	1.0739	49.823	.98077
#2	.05824	.50838	.19832	.24721	1.0686	49.504	.97169
#3	.05253	.50696	.20320	.25083	1.0693	50.272	1.0031
#4	.04979	.50415	.20212	.25263	1.0713	50.720	1.0102
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	51.954	.50712	.99612	50.478	.49448	.56561	.52613
SDev	.437	.00169	.00693	.743	.01413	.01698	.01517
%RSD	.84177	.33342	.69570	1.4719	2.8569	3.0012	2.8839
#1	51.746	.50885	.99612	50.231	.50913	.55221	.51347
#2	51.457	.50489	.98632	49.582	.49923	.59049	.51347
#3	52.173	.50687	1.0010	50.789	.47547	.55990	.54378
#4	52.440	.50786	1.0010	51.312	.49411	.55982	.53380
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0305	10.110	2.0619	.99033	.98121	2.0478	.49731
SDev	.0491	.061	.0362	.01107	.00641	.0381	.00485
%RSD	2.4168	.59851	1.7567	1.1175	.65291	1.8611	.97538
#1	2.0524	10.099	2.0410	.98669	.97913	2.0392	.49608
#2	1.9685	10.040	2.0349	.97700	.97347	2.0969	.49096

#3	2.0181	10.111	2.1143	.99481	.98378	2.0507	.50110
#4	2.0829	10.188	2.0573	1.0028	.98844	2.0046	.50110
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem ZN
Units ppm
Avge .51974
SDev .00356
%RSD .68427

#1 .52161
#2 .51690
#3 .52383
#4 .51663

Errors LC Pass
High .60000
Low .40000

Method: QUANMET Sample Name: DETV5

Operator: EMF

Run Time: 07/01/00 15:47:26

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00075	.02205	-.03325	.03562	.09132	.00000	129.28
SDev	.00352	.01327	.04359	.00001	.00086	.00012	.72
%RSD	471.84	60.193	131.09	.01685	.94709	3671.9	.55586
#1	.00295	.03769	.01765	.03561	.09018	.00016	130.28
#2	.00147	.02842	-.01252	.03563	.09170	-.00009	128.79
#3	-.00444	.01017	-.07663	.03562	.09220	-.00009	128.73
#4	-.00296	.01194	-.06152	.03561	.09119	.00004	129.31
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00021	.00171	-.00298	.00475	.02059	6.5306	.00680
SDev	.00164	.00181	.00208	.00117	.00228	.5955	.00102
%RSD	789.73	105.49	69.632	24.586	11.082	9.1187	15.011
#1	-.00234	.00382	-.00027	.00611	.02076	7.1798	.00821
#2	.00165	-.00039	-.00461	.00430	.02276	6.1015	.00677
#3	.00002	.00241	-.00461	.00340	.02142	5.9548	.00582
#4	-.00015	.00102	-.00244	.00520	.01740	6.8865	.00638
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	28.471	.02596	-.00122	25.453	.00016	.01725	.01800
SDev	.238	.00049	.00283	.392	.00750	.02752	.00979
%RSD	.83757	1.9016	231.51	1.5382	4635.4	159.48	54.390
#1	28.215	.02670	-.00367	24.969	-.00298	.05744	.01538
#2	28.495	.02572	.00123	25.603	.00760	-.00385	.00525
#3	28.784	.02571	-.00367	25.892	-.00885	.00391	.02566
#4	28.389	.02571	.00123	25.348	.00488	.01152	.02571
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02378	7.6234	.00927	.44229	-.00773	-.01448	-.00126
SDev	.01851	.0265	.01059	.00436	.00042	.04262	.00005
%RSD	77.865	.34729	114.26	.98667	5.4121	294.34	4.2484
#1	-.04761	7.6102	.02044	.43705	-.00715	.03738	-.00130
#2	-.02854	7.6102	-.00401	.44334	-.00782	-.04331	-.00122

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#3	-.01329	7.6631	.00625	.44753	-.00815	-.05485	-.00131
#4	-.00567	7.6102	.01439	.44124	-.00782	.00285	-.00121
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.01634
SDev	.00215
%RSD	13.136

#1	.01936
#2	.01570
#3	.01599
#4	.01431

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DETVR

Operator: EMF

Run Time: 07/01/00 15:50:33

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

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Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00481	.00091	-.03972	.03562	.08992	.00000	128.80
SDev	.00222	.01631	.04078	.00000	.00088	.00012	.39
%RSD	46.094	1789.2	102.67	.00946	.97540	793540.	.30533
#1	-.00592	-.01185	-.09534	.03561	.09068	-.00009	128.47
#2	-.00590	-.00646	-.00098	.03562	.09018	.00015	128.77
#3	-.00148	.02472	-.02005	.03561	.08866	.00003	129.36
#4	-.00592	-.00277	-.04250	.03562	.09018	-.00009	128.61
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00100	-.00038	-.00285	.00430	.01773	6.4185	.00656
SDev	.00087	.00361	.00282	.00105	.00312	.7355	.00079
%RSD	86.873	942.22	98.873	24.378	17.609	11.459	12.062
#1	.00204	-.00178	-.00624	.00339	.01471	6.1877	.00562
#2	.00100	.00102	-.00082	.00520	.02008	6.6450	.00638
#3	-.00008	.00381	-.00027	.00521	.02076	7.2920	.00753
#4	.00104	-.00458	-.00407	.00339	.01539	5.5493	.00669
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	28.478	.02077	.00000	25.477	-.00131	-.00001	.00778
SDev	.231	.00000	.00837	.393	.00495	.00766	.01293
%RSD	.81181	.01593	315570.	1.5421	377.62	112180.	166.14
#1	28.631	.02077	-.00857	25.803	-.00661	-.00387	.00520
#2	28.566	.02077	.00123	25.574	.00527	.01149	-.00498
#3	28.133	.02077	.01103	24.907	-.00114	-.00373	.00511
#4	28.580	.02077	-.00367	25.626	-.00277	-.00392	.02581
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02579	7.6234	-.02484	.44510	-.00881	.04893	-.00001
SDev	.00787	.0348	.01856	.00482	.00118	.04414	.00249
%RSD	30.518	.45593	74.697	1.0828	13.430	90.197	44519.
#1	.01720	7.6749	-.01011	.44962	-.00981	-.00866	-.00141
#2	.03246	7.6103	-.03049	.44700	-.00948	.03734	.00372

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#3	.03247	7.5984	-.01012	.43836	-.00715	.08346	-.00102
#4	.02101	7.6102	-.04866	.44543	-.00881	.08358	-.00131

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.01765
SDev	.00174
%RSD	9.8425

#1	.01567
#2	.01882
#3	.01936
#4	.01674

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DETVRP5

Operator: EMF

Run Time: 07/01/00 15:53:41

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP **663 750**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00074	.00961	-.01708	-.00469	.01752	-.00003	25.124
SDev	.00284	.00925	.02592	.00176	.00034	.00007	.185
%RSD	383.23	96.253	151.71	37.573	1.9482	228.36	.73643

#1	.00297	.02104	-.01250	-.00659	.01785	.00003	25.389
#2	-.00001	.01192	-.05394	-.00318	.01755	-.00009	25.073
#3	-.00296	-.00090	.00664	-.00319	.01764	.00004	25.073
#4	-.00297	.00638	-.00853	-.00578	.01705	-.00009	24.959

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00132	-.00211	-.00366	.00022	.00335	1.2423	.00094
SDev	.00074	.00310	.00446	.00239	.00190	.8948	.00102
%RSD	55.890	147.04	121.78	1067.3	56.702	72.025	108.25

#1	.00072	-.00036	.00136	.00249	.00469	2.2020	.00236
#2	.00209	-.00316	-.00353	-.00023	.00469	.99426	.00048
#3	.00182	.00104	-.00298	.00158	.00335	1.6499	.00093
#4	.00066	-.00595	-.00950	-.00294	.00066	.12293	.00000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.5399	.00420	-.00122	4.9496	-.00760	-.00959	.02562
SDev	.0121	.00049	.00283	.0565	.00558	.02891	.01459
%RSD	.21781	11.780	231.04	1.1424	73.328	301.53	56.966

#1	5.5440	.00396	.00123	4.8845	-.01070	.01910	.00496
#2	5.5276	.00396	-.00367	4.9591	-.01206	-.00387	.03589
#3	5.5548	.00495	.00123	4.9342	-.00803	-.00376	.02567
#4	5.5331	.00395	-.00368	5.0205	.00037	-.04982	.03595

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01145	1.4900	.00877	.08888	-.00116	.04036	-.00034
SDev	.03360	.0155	.02562	.00045	.00081	.04453	.00189
%RSD	293.53	1.0394	292.17	.50123	69.985	110.34	556.71

#1	.04768	1.5032	.02850	.08827	-.00017	.08354	.00249
#2	-.01715	1.4973	-.00796	.08905	-.00083	.01442	-.00131
#3	-.01715	1.4914	-.01818	.08890	-.00183	-.00865	-.00121
#4	.03241	1.4679	.03272	.08931	-.00183	.07212	-.00132

Elem	ZN
Units	ppm
Avge	.00430
SDev	.00104
%RSD	24.080

#1	.00571
#2	.00385
#3	.00329

#4000 .00436

Analysis Report

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Method: QUANMET Sample Name: DETVRS

Operator: EMF

Run Time: 07/01/00 15:56:48

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04953	1.9838	1.9325	.99281	1.9605	.04808	181.06
SDev	.00305	.0185	.0295	.02886	.0188	.00040	.88
%RSD	6.1581	.93462	1.5262	2.9065	.95830	.83884	.48487
#1	.05286	2.0098	1.9653	.97794	1.9669	.04820	182.09
#2	.04990	1.9713	1.9392	.97932	1.9489	.04769	181.31
#3	.04546	1.9842	1.9315	1.0361	1.9839	.04859	180.84
#4	.04987	1.9697	1.8939	.97790	1.9421	.04783	179.99
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05007	.48225	.19031	.24312	1.0284	55.922	.96233
SDev	.00359	.00460	.00231	.00173	.0077	.606	.01376
%RSD	7.1779	.95493	1.2162	.71378	.74775	1.0844	1.4302
#1	.04574	.47910	.19343	.24357	1.0349	56.164	.96435
#2	.05415	.48190	.19072	.24176	1.0289	55.836	.95395
#3	.04890	.48887	.18855	.24538	1.0322	56.561	.98091
#4	.05150	.47912	.18855	.24176	1.0175	55.129	.95013
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	78.690	.50759	.97161	74.147	.48445	.54775	.50844
SDev	.650	.00220	.01443	.921	.01203	.01817	.02448
%RSD	.82660	.43298	1.4848	1.2416	2.4829	3.3179	4.8157
#1	78.996	.50982	.97161	74.292	.49698	.57443	.52382
#2	78.305	.50685	.97651	73.492	.47852	.53624	.48256
#3	79.445	.50884	.98631	75.392	.49165	.54414	.53416
#4	78.014	.50486	.95201	73.412	.47067	.53618	.49324
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9446	17.327	1.9572	1.3791	.93696	1.9592	.47927
SDev	.0368	.132	.0699	.0123	.00602	.0776	.00256
%RSD	1.8905	.76163	3.5728	.89553	.64256	3.9599	.53332
#1	1.9188	17.406	2.0046	1.3835	.94187	1.8670	.48082
#2	1.9341	17.224	2.0146	1.3721	.93455	1.9823	.48091

#3	1.9989	17.471	1.9477	1.3943	.94187	2.0514	.47986
#4	1.9264	17.206	1.8621	1.3665	.92956	1.9363	.47551
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
 Units ppm
 Avge .51742
 SDev .00232
 %RSD .44846

#1 .51766
 #2 .51509
 #3 .52053
 #4 .51641

Errors LC Pass
 High 100.00
 Low -.02000

Method: QUANMET Sample Name: DETVRD

Operator: EMF

Run Time: 07/01/00 15:59:56

663 754

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04807	2.0168	1.9558	1.0186	2.0109	.04890	180.85
SDev	.00144	.0167	.0204	.0050	.0134	.00023	.82
%RSD	2.9934	.82850	1.0422	.49225	.66644	.46877	.45375
#1	.04692	2.0008	1.9277	1.0133	1.9966	.04860	179.69
#2	.04697	2.0080	1.9539	1.0235	2.0262	.04908	181.00
#3	.04842	2.0191	1.9690	1.0221	2.0034	.04884	181.07
#4	.04996	2.0392	1.9725	1.0153	2.0176	.04907	181.62
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04872	.48710	.18977	.24742	1.0440	56.697	.99481
SDev	.00316	.00586	.00232	.00249	.0053	.791	.00863
%RSD	6.4913	1.2023	1.2214	1.0076	.50601	1.3947	.86722
#1	.04578	.48468	.18638	.24447	1.0369	55.871	.98681
#2	.05086	.48463	.19127	.24990	1.0450	57.311	1.0054
#3	.05199	.48325	.19126	.24628	1.0443	56.173	.98883
#4	.04625	.49583	.19017	.24901	1.0497	57.432	.99822
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	80.037	.52243	.97406	76.271	.48624	.54408	.54182
SDev	.502	.00337	.00849	.576	.01984	.03699	.01303
%RSD	.62663	.64466	.87138	.75528	4.0794	6.7990	2.4052
#1	79.410	.51773	.97161	75.722	.46050	.55164	.52369
#2	80.528	.52268	.97161	76.989	.50744	.57460	.54445
#3	79.870	.52366	.96671	75.899	.49391	.49046	.54437
#4	80.340	.52565	.98631	76.474	.48312	.55961	.55476
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9570	17.464	1.9706	1.4093	.94728	1.9822	.48332
SDev	.0313	.081	.0583	.0090	.00569	.1036	.00648
%RSD	1.5982	.46587	2.9606	.63979	.60031	5.2278	1.3414
#1	1.9951	17.371	1.9415	1.3986	.93988	2.1206	.47588
#2	1.9608	17.559	2.0270	1.4189	.95085	1.8784	.48574

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#3	1.9532	17.430	2.0107	1.4055	.94586	1.9937	.48072
#4	1.9189	17.495	1.9030	1.4141	.95252	1.9359	.49095

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.52104
SDev	.00103
%RSD	.19762

#1	.51984
#2	.52234
#3	.52083
#4	.52113

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DETVW 663 756 Operator: EMF
 Run Time: 07/01/00 16:03:03
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00148	.00548	-.01138	-.00431	.00013	.00000	.06174
SDev	.00270	.01095	.02398	.00452	.00048	.00012	.00424
%RSD	182.38	199.94	210.67	104.76	378.91	3818.9	6.8750
#1	-.00000	.01005	.02165	-.00315	-.00017	-.00009	.06348
#2	-.00296	.00283	-.01231	.00022	.00042	.00016	.06348
#3	-.00444	-.00833	-.01977	-.01055	-.00038	-.00009	.05542
#4	.00148	.01735	-.03511	-.00376	.00063	.00003	.06458
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00100	-.00210	-.00176	.42934	.01743	-.08411	.00039
SDev	.00114	.00528	.00052	.00165	.00173	.74529	.00036
%RSD	114.06	251.43	29.504	.38532	9.9441	886.06	93.960
#1	.00163	-.00594	-.00190	.42753	.01944	-.54135	.00084
#2	-.00016	.00524	-.00136	.43025	.01676	.91662	.00045
#3	.00027	-.00594	-.00244	.42844	.01541	-.74839	-.00003
#4	.00228	-.00175	-.00135	.43115	.01810	.03666	.00028
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00136	-.00049	.00123	86.373	.00733	.02670	.00265
SDev	.01898	.00057	.00400	.473	.00278	.03001	.02275
%RSD	1395.2	116.67	325.90	.54768	37.921	112.40	859.14
#1	.00136	-.00098	-.00367	86.042	.00372	.01133	.02577
#2	.02041	.00001	.00123	85.894	.00930	.06509	-.02555
#3	-.02585	.00001	.00123	86.719	.00971	.03423	-.00506
#4	-.00136	-.00098	.00613	86.834	.00658	-.00387	.01543
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00577	7.7514	-.00812	-.00008	-.00025	-.00304	-.00121
SDev	.01993	.0576	.00922	.00028	.00083	.04262	.00008
%RSD	345.72	.74368	113.56	341.62	333.33	1402.2	6.4196
#1	-.00948	7.7749	-.02021	-.00021	.00017	.04884	-.00131
#2	.03246	7.7043	-.01029	-.00010	.00017	.00268	-.00121

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#3	.00957	7.7043	-.00205	-.00032	-.00150	-.00875	-.00121
#4	-.00949	7.8220	.00007	.00031	.00017	-.05493	-.00112
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.12259
SDev	.00130
%RSD	1.0640

#1	.12275
#2	.12404
#3	.12087
#4	.12272

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-1 0014-129-12 Operator: EMF
 Run Time: 07/01/00 16:06:10
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

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Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99989	50.416	5.0102	4.9800	4.9865	4.9609	50.195
SDev	.00404	.356	.1158	.0396	.0466	.0360	.293
%RSD	.40445	.70560	2.3103	.79594	.93511	.72492	.58325
#1	1.0022	50.409	5.0365	4.9691	4.9790	4.9562	50.479
#2	.99447	49.970	4.8863	4.9398	4.9339	4.9179	49.944
#3	1.0037	50.445	4.9606	4.9765	4.9859	4.9637	50.417
#4	.99929	50.841	5.1575	5.0345	5.0473	5.0056	49.942
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0488	4.9697	4.9365	4.9894	51.451	50.742	5.0447
SDev	.0178	.0235	.0194	.0522	.234	.372	.0624
%RSD	.35270	.47326	.39345	1.0453	.45522	.73279	1.2379
#1	5.0597	4.9966	4.9546	4.9752	51.549	50.401	5.0310
#2	5.0370	4.9395	4.9090	4.9380	51.103	50.462	4.9875
#3	5.0678	4.9742	4.9426	4.9824	51.539	50.936	5.0266
#4	5.0306	4.9687	4.9399	5.0620	51.613	51.169	5.1336
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.521	4.9509	4.9752	51.110	4.9612	5.0137	5.0912
SDev	.352	.0231	.0322	.571	.0147	.0461	.0478
%RSD	.69692	.46616	.64646	1.1175	.29710	.91962	.93974
#1	50.638	4.9685	4.9679	51.006	4.9764	5.0011	5.1246
#2	50.056	4.9169	4.9335	50.547	4.9411	4.9539	5.0735
#3	50.494	4.9586	5.0071	50.982	4.9617	5.0462	5.0318
#4	50.897	4.9596	4.9924	51.907	4.9654	5.0536	5.1349
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0860	5.0672	5.0218	4.9743	4.9573	9.7399	4.9623
SDev	.0223	.0341	.0727	.0416	.0311	.1179	.0232
%RSD	.43823	.67252	1.4480	.83685	.62825	1.2101	.46784
#1	5.0758	5.0967	5.0738	4.9724	4.9612	9.5802	4.9687
#2	5.0670	5.0373	4.9476	4.9256	4.9166	9.8619	4.9285

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#3	5.0834	5.0967	5.0937	4.9719	4.9592	9.7418	4.9706
#4	5.1179	5.0380	4.9721	5.0274	4.9924	9.7756	4.9814
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9693
SDev .0185
%RSD .37149

#1 4.9820
#2 4.9450
#3 4.9649
#4 4.9851

Errors LC Pass
High 5.5000
Low 4.5000

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Method: QUANMET Sample Name: CCB1 **663 760** Operator: EMF
 Run Time: 07/01/00 16:09:18
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00111	.00810	-.00856	.00295	-.00022	.00007	.17566
SDev	.00188	.00992	.00677	.02039	.00043	.00012	.00680
%RSD	170.13	122.46	79.164	690.33	190.87	178.80	3.8712
#1	.00298	.01543	-.00114	.01859	.00034	.00002	.18453
#2	-.00151	-.00655	-.01591	-.01879	-.00068	-.00008	.16965
#3	.00147	.01179	-.00481	-.00999	-.00038	.00016	.17738
#4	.00148	.01175	-.01237	.02200	-.00017	.00016	.17108
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00055	-.00000	-.00284	-.00023	.00302	-.14882	-.00047
SDev	.00199	.00239	.00135	.00148	.00169	.50640	.00064
%RSD	359.26	110480.	47.596	654.16	55.893	340.29	136.70
#1	.00061	.00244	-.00135	.00159	.00336	.43351	.00037
#2	-.00145	.00105	-.00460	-.00203	.00067	-.69663	-.00107
#3	.00325	-.00036	-.00244	-.00023	.00335	.08843	-.00031
#4	-.00020	-.00314	-.00298	-.00023	.00469	-.42057	-.00087
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00680	.00001	.01838	.00407	.00149	.00001	.01276
SDev	.02096	.00000	.00490	.00804	.00562	.00989	.01943
%RSD	308.11	20.330	26.665	197.72	376.61	105040.	152.36
#1	.02041	.00001	.01593	.01310	.00843	.01156	.02564
#2	-.02585	.00001	.02573	-.00271	.00267	-.01146	-.01547
#3	-.02041	.00001	.01593	.00859	-.00503	-.00382	.01530
#4	-.00136	.00001	.01593	-.00271	-.00011	.00376	.02556
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01049	-.00001	.00413	.00042	.00050	.00286	-.00088
SDev	.03856	.02946	.02014	.00000	.00061	.06585	.00395
%RSD	367.43	261780.	488.23	.00000	121.72	2304.7	447.58
#1	.00573	.04418	.02656	.00042	.00116	.07197	.00400
#2	.02479	-.01478	-.01838	.00042	.00017	-.07779	-.00567

#3 -.04003 -.01472 -.00603 .00042 .00083 -.02020 -.00093
#4 .05149 -.01472 .01436 .00042 -.00017 .03745 -.00093

Errors LC Pass LC Pass LC Pass LC Pass LC Pass LC Pass LC Pass
High .25000 .50000 .10000 .05000 .05000 .30000 .05000
Low -.25000 -.50000 -.10000 -.05000 -.05000 -.30000 -.05000

Elem ZN
Units ppm
Avge H.04381
SDev .00171
%RSD 3.8999

#1 H.04254
#2 H.04594
#3 H.04443
#4 H.04232

Errors LC High
High .02000
Low -.02000

Method: QUANMET Sample Name: DETX2

Operator: EMF

Run Time: 07/01/00 16:12:25

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

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Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00037	.01650	-.00864	.00028	.00023	.00004	.09714
SDev	.00280	.01533	.06166	.00777	.00021	.00010	.00356
%RSD	761.43	92.906	713.96	2766.6	90.323	296.82	3.6633
#1	-.00148	.00823	-.06905	.00023	.00013	.00016	.09815
#2	.00443	.03944	.03654	.00204	.00054	-.00009	.09982
#3	-.00000	.01010	.05189	.00882	.00013	.00004	.09191
#4	-.00148	.00821	-.05393	-.00996	.00013	.00003	.09868
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00010	-.00000	-.00041	.10513	.01609	.04961	.00082
SDev	.00113	.00134	.00282	.00117	.00134	.38359	.00073
%RSD	1137.2	334320.	694.41	1.1115	8.3447	773.28	89.167
#1	.00045	.00105	.00299	.10649	.01542	.51115	.00169
#2	-.00075	-.00175	-.00298	.10377	.01810	-.42057	.00104
#3	-.00129	.00105	-.00244	.10559	.01542	-.00647	-.00003
#4	.00119	-.00035	.00082	.10468	.01542	.11431	.00056
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01088	-.00049	.00245	87.311	-.00024	.04972	.02567
SDev	.01227	.00057	.00469	1.086	.00784	.00879	.02212
%RSD	112.73	116.96	191.29	1.2434	3204.2	17.688	86.195
#1	.01769	.00001	.00613	86.298	.00857	.04211	.02572
#2	-.00680	-.00099	-.00367	87.268	-.00905	.05731	.03593
#3	.01224	-.00098	.00123	88.827	.00357	.05735	-.00508
#4	.02041	.00001	.00613	86.853	-.00406	.04209	.04610
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01911	7.6764	-.00344	.00024	.00033	.06325	-.00118
SDev	.03820	.0428	.01261	.00030	.00058	.02556	.00010
%RSD	199.89	.55753	366.92	128.61	173.21	40.415	8.0720
#1	.06677	7.6631	-.01005	.00042	-.00017	.03731	-.00111
#2	.03246	7.7043	-.01407	.00042	.00116	.09494	-.00131

#3	-0.01712	7.7161	-.00409	-.00021	.00017	.04883	-.00121
#4	-0.00568	7.6220	.01445	.00031	.00017	.07190	-.00111

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .01308
SDev .00078
%RSD 5.9435

#1 .01359
#2 .01389
#3 .01229
#4 .01255

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DETX5

Operator: EMF

Run Time: 07/01/00 16:15:33

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 764

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00177	.05001	-.01706	-.00639	.00748	-.00003	28.139
SDev	.00209	.01251	.02519	.00303	.00033	.00007	.077
%RSD	118.05	25.014	147.64	47.386	4.4647	230.06	.27490
#1	.00177	.05407	.00086	-.00669	.00742	.00004	28.087
#2	.00328	.06511	.00825	-.00271	.00793	.00002	28.215
#3	.00323	.04498	-.03680	-.00607	.00713	-.00008	28.059
#4	-.00119	.03588	-.04056	-.01010	.00742	-.00009	28.194
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00130	-.00070	-.00217	.38310	1.3020	.50684	.01629
SDev	.00205	.00401	.00180	.00349	.0046	.53896	.00017
%RSD	157.71	575.90	82.820	.91120	.35268	106.34	1.0306
#1	.00153	-.00175	-.00244	.38513	1.3018	.47664	.01605
#2	-.00258	.00245	-.00082	.37790	1.2985	1.0460	.01633
#3	-.00303	-.00593	-.00461	.38513	1.3085	-.22215	.01644
#4	-.00112	.00245	-.00082	.38423	1.2991	.72683	.01633
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.7322	.05402	-.00471	13.456	-.00011	.50233	.01027
SDev	.0811	.00050	.00469	.189	.00785	.02019	.01772
%RSD	.83357	.91764	99.700	1.4038	6831.8	4.0188	172.50
#1	9.7206	.05476	.00142	13.525	-.00838	.48511	.01527
#2	9.6254	.05377	-.00348	13.189	.01046	.52340	-.01527
#3	9.8159	.05377	-.00838	13.630	-.00024	.48501	.02571
#4	9.7669	.05377	-.00838	13.482	-.00230	.51582	.01538
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01487	8.5207	.01708	.11444	-.00133	.00705	-.00102
SDev	.02722	.0376	.01239	.00085	.00043	.06819	.00358
%RSD	183.07	.44121	72.520	.74388	32.275	967.64	351.06
#1	.00534	8.4986	.02676	.11479	-.00150	.01283	-.00121
#2	.01677	8.4810	.00628	.11318	-.00083	.05890	.00362

#3	-001371	8.5633	.00647	.11501	-.00116	.04740	-.00510
#4	.05109	8.5398	.02880	.11479	-.00183	-.09094	-.00139
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.20943
SDev	.00207
%RSD	.98802

#1	.20662
#2	.21056
#3	.20921
#4	.21133

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DETXL 663 766 Operator: EMF
 Run Time: 07/01/00 16:18:41
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00259	.01151	-.01144	-.00469	.01580	.00000	8.9490
SDev	.00075	.00641	.03274	.00152	.00021	.00012	.0533
%RSD	29.047	55.674	286.20	32.394	1.3184	61351.	.59565
#1	-.00294	.00825	-.05400	-.00659	.01553	-.00011	8.8962
#2	-.00299	.00845	-.01225	-.00379	.01603	.00005	8.9934
#3	-.00146	.02112	-.00497	-.00319	.01582	.00015	8.9964
#4	-.00297	.00823	.02546	-.00518	.01582	-.00009	8.9100
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	.00139	-.00217	.20913	.00704	1.0331	.00618
SDev	.00230	.00288	.00344	.00117	.00169	.4566	.00073
%RSD	1728.7	207.25	158.63	.55784	23.982	44.201	11.781
#1	.00029	.00384	-.00190	.20778	.00737	.90799	.00562
#2	.00333	-.00036	-.00570	.21049	.00469	.55429	.00554
#3	-.00156	.00384	.00244	.20959	.00871	1.6499	.00706
#4	-.00153	-.00175	-.00353	.20868	.00737	1.0201	.00649
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.3051	.01978	-.00367	6.2943	-.00363	-.00379	.00517
SDev	.0524	.00000	.00693	.0390	.01224	.03855	.01188
%RSD	.83113	.01345	188.62	.61887	336.72	1017.8	229.67
#1	6.2296	.01978	.00123	6.2527	-.01261	.00394	.01535
#2	6.3466	.01977	-.01347	6.3377	-.01474	.00380	-.00515
#3	6.3113	.01978	-.00367	6.2717	.01109	.03452	.01558
#4	6.3330	.01978	.00123	6.3151	.00172	-.05740	-.00508
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01523	5.7687	-.01167	.06625	-.00091	-.00862	-.00008
SDev	.06414	.0485	.00505	.00029	.00032	.04315	.00482
%RSD	421.05	.84054	43.312	.44201	34.816	500.67	6403.9
#1	-.06290	5.7276	-.01009	.06588	-.00116	.00286	.00371
#2	.05912	5.8216	-.00612	.06652	-.00083	.03758	-.00643

004 1800

#3	-.07433	5.7982	-.01823	.06646	-.00050	-.00868	.00363
#4	.01718	5.7275	-.01222	.06615	-.00116	-.06623	-.00121
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.02658
SDev	.00156
%RSD	5.8531

#1	.02716
#2	.02447
#3	.02815
#4	.02654

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DETXT 663 768 Operator: EMF
 Run Time: 07/01/00 16:21:49
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00296	.00233	-.02743	.03560	.02360	-.00003	24.832
SDev	.00242	.00811	.02595	.00000	.00047	.00008	.160
%RSD	81.699	348.59	94.590	.01157	1.9744	244.57	.64328
#1	-.00000	.00826	-.00856	.03561	.02312	-.00009	24.952
#2	-.00294	-.00266	-.01233	.03560	.02363	-.00011	24.907
#3	-.00592	-.00641	-.06514	.03560	.02342	.00004	24.597
#4	-.00296	.01012	-.02370	.03560	.02423	.00004	24.871
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00127	-.00070	-.00299	.08139	.00854	.87780	.02580
SDev	.00245	.00288	.00188	.00226	.00138	.39656	.00105
%RSD	193.72	408.50	62.951	2.7799	16.192	45.177	4.0637
#1	-.00469	-.00314	-.00570	.07845	.00871	.38175	.02552
#2	.00112	.00104	-.00245	.08117	.00871	1.1237	.02541
#3	-.00092	-.00315	-.00244	.08207	.00670	.74408	.02493
#4	-.00057	.00244	-.00136	.08388	.01005	1.2617	.02732
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	29.272	.00000	-.00490	19.070	-.00471	.03630	.00773
SDev	.175	.00000	.00617	.195	.00528	.01915	.00984
%RSD	.59908	257.49	125.86	1.0208	112.11	52.760	127.20
#1	29.088	.00000	-.00367	18.825	-.01056	.01139	.01538
#2	29.181	-.00000	-.01347	19.002	-.00640	.05739	.01546
#3	29.331	.00000	-.00367	19.235	-.00395	.04196	-.00514
#4	29.488	.00000	.00123	19.217	.00207	.03447	.00523
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02767	6.6247	-.00860	.10657	-.00200	.02586	-.00010
SDev	.04419	.0367	.01499	.00067	.00033	.05407	.00235
%RSD	159.70	.55469	174.28	.62942	16.667	209.12	2340.3
#1	.05913	6.5747	-.00602	.10567	-.00216	.00283	-.00131
#2	.03243	6.6336	.00212	.10646	-.00216	-.03183	.00343

Analysis Report

07/01/00 04:24:54 PM

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769

888 590

#3	-.03621	6.6277	-.00001	.10703	-.00216	.03743	-.00131
#4	.05532	6.6630	-.03048	.10713	-.00150	.09499	-.00121

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02507
SDev .00076
%RSD 3.0501

#1	.02432
#2	.02586
#3	.02451
#4	.02557

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DEV06 663 770 Operator: EMF
 Run Time: 07/01/00 16:24:57
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.00916	-.03909	-.01653	.00010	-.00000	4.1417
SDev	.00371	.01568	.03568	.00118	.00021	.00006	.0115
%RSD	1174.7	171.06	91.291	7.1327	199.83	2760.0	.27770
#1	-.00439	-.00277	.00640	-.01777	-.00017	-.00009	4.1328
#2	.00004	.01198	-.02774	-.01698	.00013	.00004	4.1585
#3	-.00142	-.00279	-.06925	-.01498	.00013	.00003	4.1393
#4	.00450	.03024	-.06576	-.01638	.00034	.00002	4.1361
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00066	-.00245	-.00095	.02375	.21283	.31920	.00650
SDev	.00385	.00242	.00195	.00117	.00302	.44222	.00035
%RSD	580.28	98.944	204.76	4.9239	1.4198	138.54	5.4513
#1	-.00041	-.00454	-.00244	.02240	.21250	-.29116	.00610
#2	-.00040	.00105	-.00190	.02511	.21719	.32136	.00658
#3	.00619	-.00316	-.00136	.02330	.21116	.50252	.00694
#4	-.00273	-.00314	.00189	.02421	.21049	.74408	.00638
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.6549	.00352	-.00487	7.7074	.00053	.01708	.00519
SDev	.0601	.00057	.00245	.1629	.00450	.03143	.01449
%RSD	1.6450	16.205	50.332	2.1142	846.42	183.93	279.08
#1	3.6747	.00303	-.00364	7.8329	.00049	-.01165	-.00510
#2	3.7264	.00402	-.00364	7.8555	-.00448	-.00382	.02566
#3	3.6338	.00303	-.00364	7.6182	-.00033	.05720	-.00504
#4	3.5849	.00401	-.00854	7.5229	.00644	.02661	.00525
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00802	7.8573	-.00960	.02194	-.00008	-.00793	.00083
SDev	.02593	.0473	.01388	.00041	.00087	.05521	.00251
%RSD	323.33	.60175	144.63	1.8748	1052.0	696.31	302.99
#1	.01772	7.8926	-.00405	.02212	-.00083	-.03383	-.00131
#2	-.03565	7.8926	.00423	.02243	-.00017	-.06851	-.00131

058 600

#3	-.02423	7.8515	-.02845	.02160	-.00050	.01225	.00239
#4	.01009	7.7926	-.01011	.02160	.00116	.05837	.00353

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.36197
SDev	.00065
%RSD	.17974

#1	.36171
#2	.36249
#3	.36250
#4	.36117

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DEV09

Operator: EMF

Run Time: 07/01/00 16:28:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 772

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00065	.01058	-.01003	-.00525	.02664	.00003	23.610
SDev	.00085	.00753	.01561	.00170	.00036	.00010	.081
%RSD	130.97	71.177	155.57	32.289	1.3419	308.60	.34514
#1	-.00139	.00100	-.00899	-.00441	.02646	-.00009	23.595
#2	.00009	.01752	-.01290	-.00440	.02646	.00004	23.720
#3	.00009	.00825	.00985	-.00780	.02717	.00004	23.523
#4	-.00137	.01556	-.02809	-.00441	.02646	.00015	23.601
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00157	.00138	-.00136	1.4843	.41544	.58664	.01287
SDev	.00336	.00133	.00221	.0069	.00235	.48040	.00019
%RSD	214.24	96.440	163.16	.46266	.56498	81.891	1.4750
#1	.00019	.00243	-.00190	1.4911	.41427	.11431	.01271
#2	.00245	.00103	-.00244	1.4848	.41829	.73545	.01299
#3	-.00212	-.00036	-.00298	1.4866	.41628	.30410	.01271
#4	.00576	.00242	.00190	1.4748	.41293	1.1927	.01307
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.8410	.03077	-.00239	7.8942	-.00472	.18726	.01536
SDev	.0118	.00000	.00469	.0674	.00393	.01531	.00837
%RSD	.12026	.00398	196.46	.85349	83.279	8.1756	54.479
#1	9.8567	.03077	-.00361	7.9585	-.00654	.17964	.00514
#2	9.8431	.03077	-.00851	7.8812	-.00121	.17960	.01539
#3	9.8349	.03077	.00129	7.9318	-.00175	.17958	.02565
#4	9.8295	.03077	.00129	7.8053	-.00940	.21023	.01528
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00109	6.9674	.01388	.09959	-.00133	.01893	-.00005
SDev	.04206	.0583	.01801	.00049	.00043	.07192	.00251
%RSD	3842.9	.83661	129.72	.49279	32.275	379.93	5152.1
#1	-.05801	7.0042	-.01006	.09980	-.00183	.11405	-.00130
#2	.00682	6.9512	.03270	.09990	-.00116	.02179	-.00140

#3	.04113	7.0218	.01240	.09980	-.00083	-.05887	-.00121
#4	.01443	6.8925	.02049	.09886	-.00150	-.00125	.00372
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .05603
SDev .00155
%RSD 2.7659

#1 .05720
#2 .05558
#3 .05403
#4 .05731

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DEV0D

Operator: EMF

Run Time: 07/01/00 16:34:30

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 774

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00111	.01243	-.02561	-.00882	.02109	.00004	41.760
SDev	.00074	.00837	.01465	.00467	.00025	.00000	.176
%RSD	66.489	67.356	57.203	52.883	1.1725	.43055	.42028
#1	-.00000	.01372	-.00861	-.00656	.02089	.00004	41.596
#2	-.00148	.00285	-.01986	-.00399	.02089	.00004	41.982
#3	-.00148	.02300	-.03136	-.00997	.02119	.00004	41.817
#4	-.00148	.01016	-.04260	-.01478	.02140	.00004	41.646
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00137	.00209	-.00203	.07213	.01407	2.4824	.00315
SDev	.00256	.00563	.00143	.00181	.00095	.3871	.00035
%RSD	186.93	268.85	70.183	2.5144	6.7510	15.595	10.984
#1	-.00248	-.00594	-.00353	.06941	.01541	2.0036	.00287
#2	.00123	.00663	-.00081	.07303	.01339	2.8750	.00337
#3	-.00441	.00245	-.00298	.07303	.01340	2.3487	.00284
#4	.00018	.00523	-.00081	.07303	.01407	2.7024	.00351
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.6990	-.00024	-.00122	8.4081	.00208	.02492	.02061
SDev	.0925	.00050	.00283	.1088	.00566	.02968	.01786
%RSD	1.2020	203.12	231.33	1.2942	272.47	119.09	86.662
#1	7.5683	.00000	-.00367	8.2535	-.00251	-.00399	.00515
#2	7.7071	.00000	.00123	8.4103	.00474	.05754	.01547
#3	7.7370	-.00099	-.00367	8.4795	-.00271	.00389	.01543
#4	7.7833	.00000	.00123	8.4889	.00878	.04224	.04639
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01712	6.3835	-.00650	.14291	-.00299	.00273	-.00126
SDev	.03160	.0436	.01632	.00151	.00064	.08151	.00006
%RSD	184.54	.68352	251.00	1.0556	21.276	2988.1	4.5635
#1	-.04762	6.3747	-.00403	.14078	-.00249	.02584	-.00131
#2	.00194	6.3335	.00416	.14288	-.00383	-.00883	-.00121

#3	- .04000	6.3864	.00415	.14393	-.00316	-.10103	-.00131
#4	.01720	6.4394	-.03028	.14404	-.00249	.09493	-.00121

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02146
SDev .00120
%RSD 5.6112

#1 .02038
#2 .02189
#3 .02060
#4 .02296

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DEV0J

Operator: EMF

Run Time: 07/01/00 16:37:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 776

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.000073	.01649	-.00489	-.00431	.01264	-.00000	57.065
SDev	.00147	.01052	.01196	.00170	.00017	.00007	.147
%RSD	200.65	63.797	244.79	39.605	1.3609	10016.	.25704
#1	-.00001	.02300	-.00111	-.00516	.01249	.00004	56.917
#2	-.00000	.01919	.01023	-.00175	.01279	.00004	57.170
#3	.00002	.02286	-.01631	-.00515	.01249	-.00010	56.963
#4	-.00294	.00093	-.01236	-.00516	.01279	.00003	57.210
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00054	-.00175	-.00217	.04273	.02043	1.8376	.00366
SDev	.00143	.00323	.00241	.00173	.00194	.5993	.00019
%RSD	263.71	184.81	110.86	4.0546	9.4760	32.616	5.2960
#1	.00009	.00105	-.00136	.04138	.02211	1.6499	.00363
#2	-.00268	-.00453	-.00136	.04318	.02211	2.0899	.00379
#3	.00022	-.00454	-.00570	.04137	.01876	1.1064	.00382
#4	.00021	.00105	-.00027	.04499	.01875	2.5040	.00340
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.6969	.00174	-.00245	9.2327	-.00180	.03436	.01543
SDev	.0520	.00049	.00245	.0879	.01089	.02727	.03458
%RSD	.67531	28.495	100.13	.95183	603.74	79.370	224.15
#1	7.6581	.00099	-.00367	9.1491	.00502	.04974	.02579
#2	7.7697	.00198	.00123	9.3082	.00558	.01140	.05651
#3	7.6990	.00198	-.00367	9.3091	-.01767	.01133	.00505
#4	7.6609	.00198	-.00367	9.1645	-.00013	.06497	-.02563
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.03236	6.0452	-.00296	.16219	-.00391	-.01172	.00026
SDev	.02836	.0443	.01112	.00120	.00063	.06614	.00252
%RSD	87.648	.73270	375.71	.74096	16.110	564.44	982.56
#1	-.02854	6.0099	-.01613	.16102	-.00349	-.02039	-.00254
#2	-.07049	6.0805	.01045	.16323	-.00383	.07188	-.00121

#3	-000186	6.0864	-.00606	.16323	-.00349	-.08951	.00238
#4	-002855	6.0041	-.00010	.16128	-.00482	-.00885	.00239
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02727
SDev .00240
%RSD 8.8067

#1 .02598
#2 .02939
#3 .02453
#4 .02918

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DF83W 663 778 Operator: EMF
 Run Time: 07/01/00 16:40:46
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00187	-.00134	-.02267	.03562	.19402	.00000	88.608
SDev	.00253	.01307	.01857	.00000	.00402	.00012	.520
%RSD	135.08	976.86	81.908	.00730	2.0730	3594.2	.58735
#1	.00146	.01006	-.00103	.03562	.18892	.00016	89.216
#2	-.00150	.00648	-.01990	.03561	.19268	.00004	88.499
#3	-.00446	-.01923	-.02347	.03562	.19744	-.00009	87.967
#4	-.00298	-.00266	-.04628	.03562	.19703	-.00009	88.748
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00099	-.00009	-.00353	.02035	.01791	1.2099	.00937
SDev	.00301	.00265	.00160	.00087	.00168	.6733	.00090
%RSD	305.89	3091.0	45.322	4.2646	9.3632	55.648	9.6092
#1	.00007	-.00184	-.00190	.02057	.01741	1.9260	.00908
#2	L-.00544	.00377	-.00244	.02148	.02009	1.6413	.00973
#3	.00123	-.00184	-.00515	.01967	.01606	.59742	.00829
#4	.00019	-.00044	-.00461	.01967	.01808	.67506	.01040
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	27.537	.09567	-.00245	72.235	.00467	.02104	.01811
SDev	.457	.00095	.00469	2.128	.00824	.01804	.02108
%RSD	1.6584	.98843	191.70	2.9460	176.50	85.729	116.39
#1	27.004	.09592	.00123	69.662	.00733	.03436	.01546
#2	27.309	.09493	.00123	71.358	.01293	.01923	.01563
#3	27.937	.09493	-.00367	74.311	-.00666	-.00381	.04624
#4	27.897	.09691	-.00857	73.609	.00507	.03438	-.00488
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01807	6.8042	-.02175	.49147	-.00590	.02054	-.00129
SDev	.04228	.0548	.02504	.00957	.00113	.05530	.00009
%RSD	234.03	.80498	115.11	1.9464	19.174	269.27	7.2561
#1	-.04762	6.7630	.00619	.48013	-.00449	-.03132	-.00121
#2	-.00567	6.7512	-.03244	.48710	-.00549	-.01987	-.00121

STL End

#3	-.05525	6.8571	-.00993	.50057	-.00682	.04939	-.00131
#4	.03627	6.8453	-.05084	.49810	-.00682	.08395	-.00141

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.00471
SDev	.00104
%RSD	22.078

#1	.00532
#2	.00421
#3	.00351
#4	.00579

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DF84H

Operator: EMF

Run Time: 07/01/00 16:43:53

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 780

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00074	.01743	-.01620	.00232	.00036	.00007	.18972
SDev	.00352	.01912	.02303	.00121	.00046	.00006	.00747
%RSD	474.69	109.72	142.15	52.032	129.52	93.952	3.9360

#1	-.00296	-.00273	-.00091	.00102	-.00017	.00004	.18224
#2	.00443	.04313	-.05042	.00302	.00084	.00004	.19998
#3	-.00296	.01740	-.00488	.00362	.00063	.00016	.18935
#4	-.00148	.01191	-.00859	.00161	.00013	.00003	.18730

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00064	.00070	-.00271	.00972	.01022	.66859	.01602
SDev	.00176	.00210	.00104	.00104	.00200	.23451	.00082
%RSD	274.41	300.79	38.320	10.744	19.605	35.075	5.0988

#1	-.00033	-.00175	-.00298	.00882	.00804	.54566	.01490
#2	.00116	.00244	-.00407	.01063	.01274	.87348	.01664
#3	.00286	-.00036	-.00190	.01063	.00938	.85623	.01594
#4	-.00113	.00245	-.00190	.00882	.01072	.39900	.01661

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05986	-.00074	.00123	146.84	-.00206	.00003	.01794
SDev	.00648	.00049	.00400	1.55	.00305	.00766	.01295
%RSD	10.820	66.957	326.20	1.0529	148.39	27155.	72.201

#1	.05578	-.00099	-.00367	147.61	-.00447	-.00382	.03595
#2	.06938	.00000	.00123	144.79	-.00298	.01152	.01534
#3	.05850	-.00099	.00123	146.61	-.00319	-.00384	.00506
#4	.05578	-.00098	.00613	148.37	.00241	-.00375	.01540

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01623	7.7926	.01280	.00105	-.00000	.07482	-.00091
SDev	.03345	.0127	.01521	.00019	.00079	.05905	.00062
%RSD	206.04	.16307	118.83	17.906	207e6	78.918	68.681

#1	.00574	7.7808	-.00390	.00084	-.00050	.08351	-.00131
#2	.05914	7.7926	.02854	.00121	.00116	.12955	-.00122

#3	.02095	7.7867	.02240	.00121	-.00050	-.00875	.00002
#4	.02100	7.8102	.00414	.00094	-.00017	.09498	-.00112

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.2.0000	-.05000

Elem ZN
Units ppm
Avge .01268
SDev .00063
%RSD 4.9456

#1 .01355
#2 .01221
#3 .01222
#4 .01275

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-2

Operator: EMF

Run Time: 07/01/00 16:47:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 782

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99397	50.513	5.0776	4.9946	5.0125	5.0001	49.864
SDev	.00212	.546	.0244	.0439	.0801	.0566	.075
%RSD	.21284	1.0814	.48049	.87977	1.5980	1.1322	.15067
#1	.99309	50.152	5.0848	4.9944	4.9606	4.9674	49.913
#2	.99631	50.797	5.0937	4.9988	5.0477	5.0311	49.849
#3	.99499	51.136	5.0903	5.0462	5.1081	5.0625	49.764
#4	.99149	49.969	5.0414	4.9389	4.9339	4.9394	49.930
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0292	4.9579	4.9216	5.0269	51.336	50.395	5.0834
SDev	.0135	.0201	.0077	.0831	.312	.424	.1142
%RSD	.26809	.40530	.15675	1.6525	.60687	.84090	2.2465
#1	5.0377	4.9422	4.9204	4.9688	51.145	50.160	5.0125
#2	5.0413	4.9700	4.9242	5.0692	51.456	50.712	5.1379
#3	5.0113	4.9798	4.9301	5.1226	51.716	50.789	5.2161
#4	5.0266	4.9395	4.9117	4.9471	51.027	49.918	4.9671
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.762	4.9325	4.9495	51.647	4.9752	4.9865	5.0481
SDev	.522	.0198	.0245	.995	.0326	.0506	.0561
%RSD	1.0289	.40110	.49500	1.9264	.65511	1.0147	1.1104
#1	50.483	4.9229	4.9237	50.991	4.9389	4.9844	5.0017
#2	51.030	4.9437	4.9728	52.131	4.9744	5.0536	5.0738
#3	51.346	4.9537	4.9679	52.803	5.0181	4.9772	5.1150
#4	50.189	4.9100	4.9335	50.663	4.9695	4.9309	5.0019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1210	5.0319	4.9534	5.0147	4.9583	9.9024	4.9649
SDev	.0886	.0072	.0613	.0713	.0483	.1612	.0346
%RSD	1.7296	.14335	1.2370	1.4226	.97407	1.6278	.69684
#1	5.0061	5.0258	4.9350	4.9694	4.9286	10.092	4.9456
#2	5.2052	5.0380	4.9047	5.0488	4.9838	9.8808	4.9835

Analysis Report

07/01/00 04:50:06 PM

page 2

663 783

#3	5.0991	5.0383	5.0431	5.0977	5.0127	9.9356	5.0031
#4	5.1735	5.0255	4.9310	4.9428	4.9083	9.7013	4.9273

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem	ZN
Units	ppm
Avge	4.9464
SDev	.0282
%RSD	.57073

#1	4.9257
#2	4.9437
#3	4.9871
#4	4.9291

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB2

Operator: EMF

Run Time: 07/01/00 16:50:09

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 784

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00038	.01181	-.02464	-.00533	.00016	.00065	.04506
SDev	.00305	.00582	.02833	.00799	.00040	.00019	.00589
%RSD	804.06	49.241	114.98	149.85	254.13	28.927	13.079
#1	-.00000	.01552	-.01619	.00402	.00063	.00080	.04951
#2	.00296	.01730	-.02754	-.01198	.00034	.00080	.05075
#3	-.00003	.01000	-.06141	-.01197	-.00017	.00043	.04059
#4	-.00444	.00444	.00659	-.00138	-.00017	.00055	.03940
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00115	-.00105	-.00217	-.00000	.00771	-.20705	.00020
SDev	.00199	.00419	.00245	.00087	.00322	.29512	.00122
%RSD	172.94	398.08	112.97	255690.	41.728	142.54	620.62
#1	.00116	.00104	-.00081	.00068	.01140	.02804	.00135
#2	.00353	.00383	-.00026	.00068	.00939	.05392	.00115
#3	.00125	-.00454	-.00569	-.00113	.00536	-.54135	-.00093
#4	-.00134	-.00454	-.00190	-.00023	.00469	-.36880	-.00079
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01088	.00050	.01348	.00599	.00245	.00953	.01026
SDev	.02018	.00057	.00490	.00496	.00691	.01157	.02713
%RSD	185.40	113.64	36.362	82.761	282.41	121.40	264.47
#1	-.00136	.00001	.01103	.01039	.00023	.01916	.02564
#2	.00680	.00001	.02083	.00994	.01122	.01921	.00518
#3	-.03945	.00099	.01103	.00045	-.00529	-.00391	.03587
#4	-.00952	.00099	.01103	.00316	.00363	.00366	-.02566
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01432	-.01474	-.01724	.00055	.00033	-.00005	-.00221
SDev	.01954	.00003	.00849	.00050	.00079	.04548	.00250
%RSD	136.47	.21650	49.253	91.056	238.05	86824.	113.32
#1	.03244	-.01472	-.00802	.00094	.00083	-.02029	-.00102
#2	.01718	-.01472	-.02438	.00094	.00116	.03735	-.00083

#3	.01333	-.01478	-.01203	-.00010	-.00050	-.05473	-.00595
#4	.02098	-.01472	-.02452	.00042	-.00017	.03747	-.00102

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.01065
SDev	.00130
%RSD	12.185

#1	.01225
#2	.00958
#3	.01117
#4	.00961

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DF84J

Operator: EMF

Run Time: 07/01/00 16:53:16

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 786

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00146	.01555	-.04462	.00200	.00020	.00015	.43118
SDev	.00271	.01212	.00912	.00070	.00044	.00010	.00950
%RSD	185.99	77.945	20.451	34.748	218.57	63.753	2.2035

#1	-.00294	.01373	-.05027	.00166	.00013	.00015	.43006
#2	.00151	.02465	-.05041	.00166	.00042	.00027	.43259
#3	-.00444	-.00090	-.03119	.00305	-.00038	.00004	.41947
#4	.00003	.02472	-.04660	.00165	.00063	.00015	.44260

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00129	.00139	-.00136	.03075	.03033	1.1474	.00055
SDev	.00192	.00288	.00284	.00187	.00281	.6147	.00052
%RSD	148.74	206.72	209.01	6.0683	9.2688	53.577	94.883

#1	.00336	-.00175	-.00353	.02962	.03016	.61467	.00112
#2	.00155	.00104	.00081	.03233	.03419	1.3825	.00073
#3	-.00128	.00105	-.00407	.02872	.02748	.68369	-.00011
#4	.00152	.00524	.00136	.03234	.02949	1.9087	.00045

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05646	-.00024	.00245	101.15	-.00178	.03827	.01794
SDev	.02270	.00049	.00469	.98	.00136	.03153	.01753
%RSD	40.201	208.01	191.14	.97278	76.198	82.391	97.691

#1	.04762	.00001	-.00367	100.75	-.00250	.04202	.02573
#2	.07755	.00001	.00613	100.06	.00023	.07266	.01538
#3	.02857	-.00098	.00123	102.38	-.00217	-.00381	-.00518
#4	.07211	.00001	.00613	101.40	-.00270	.04222	.03584

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00199	4.5920	.01178	.00156	-.00017	-.00323	.00251
SDev	.03618	.0448	.01822	.00016	.00027	.05197	.00271
%RSD	1821.1	.97636	154.63	10.141	163.30	1611.2	108.07

#1	.00961	4.6156	-.00801	.00151	-.00050	-.07813	.00238
#2	-.00182	4.5980	.00211	.00162	.00017	.00248	.00504

#3	-.04378	4.5273	.02032	.00136	-.00017	.02565	-.00122
#4	-.04393	4.6274	.03271	.00173	-.00017	.03709	.00381

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .01575
SDev .00039
%RSD 2.4909

#1 .01555
#2 .01608
#3 .01530
#4 .01608

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

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Method: QUANMET Sample Name: DFK0AB

Operator: EMF

Run Time: 07/01/00 16:56:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 788

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00073	.00599	-.02938	-.00921	-.00000	.00010	.09359
SDev	.00191	.00787	.04684	.01138	.00015	.00013	.00716
%RSD	260.16	131.49	159.42	123.57	828e6	128.85	7.6471
#1	-.00295	.00277	.02168	-.00471	-.00017	-.00009	.08308
#2	-.00147	-.00273	-.07278	-.02010	.00013	.00016	.09510
#3	.00001	.00818	-.06531	.00469	-.00008	.00016	.09863
#4	.00148	.01573	-.00111	-.01671	.00013	.00016	.09753
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00158	.00174	.00027	.00227	.04793	.37743	.00006
SDev	.00216	.00351	.00413	.00260	.00160	1.0124	.00114
%RSD	136.53	201.65	1517.8	114.73	3.3309	268.23	1797.4
#1	.00034	-.00175	-.00570	-.00113	.04558	-1.0417	-.00163
#2	-.00042	.00105	.00081	.00159	.04826	.39037	.00082
#3	.00446	.00104	.00353	.00430	.04893	1.2703	.00053
#4	.00194	.00663	.00244	.00431	.04894	.89074	.00053
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00680	-.00048	.00123	.06450	.00429	.04401	.01030
SDev	.02255	.00057	.00693	.00391	.00236	.04774	.02441
%RSD	331.46	119.09	562.40	6.0633	55.010	108.48	237.00
#1	-.02585	-.00098	-.00367	.06416	.00452	-.01920	-.01536
#2	.01497	-.00097	.00123	.06642	.00384	.09558	-.00505
#3	.02585	.00002	.01103	.06823	.00727	.05739	.02566
#4	.01224	.00001	-.00367	.05919	.00154	.04226	.03595
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01919	.05588	.00107	-.00008	-.00025	-.04662	-.00121
SDev	.03557	.00480	.02257	.00022	.00032	.05981	.00014
%RSD	185.33	8.5972	2099.3	274.93	127.66	128.30	11.505
#1	-.01704	.04999	.02231	.00016	-.00050	-.08980	-.00131
#2	.04779	.05588	-.02849	-.00032	-.00050	.03696	-.00121

Analysis Report

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#3	.00559	.05588	-.00394	-.00021	-.00017	-.04374	-.00101
#4	.05161	.06176	.01441	.00005	.00017	-.08989	-.00130
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .01248
SDev .00104
%RSD 8.3585

#1 .01302
#2 .01091
#3 .01298
#4 .01300

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DFK0AC

Operator: EMF

Run Time: 07/01/00 16:59:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

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Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04999	2.0246	2.0575	.98037	1.9842	.05108	L.06376
SDev	.00321	.0232	.0703	.02246	.0270	.00047	.00642
%RSD	6.4167	1.1477	3.4154	2.2906	1.3612	.92478	10.065

#1	.04849	2.0040	2.1012	.96097	1.9587	.05061	L.06434
#2	.05002	2.0552	2.0288	1.0018	2.0212	.05173	L.06477
#3	.04701	2.0094	1.9726	.96098	1.9858	.05099	L.05518
#4	.05443	2.0297	2.1273	.99776	1.9713	.05098	L.07073

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04996	.51521	.20385	.25513	1.0905	L.26312	.96995
SDev	.00551	.00648	.00314	.00372	.0089	.63911	.01715
%RSD	11.020	1.2578	1.5421	1.4594	.81474	242.89	1.7680

#1	.04711	.51278	.20453	.25264	1.0813	L.69232	.95707
#2	.05550	.51553	.20398	.25988	1.0994	L.01941	.99173
#3	.04369	.50859	.19965	.25174	1.0846	L-.52409	.97557
#4	.05353	.52394	.20724	.25627	1.0967	L.86486	.95544

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.00748	.51199	-.00229	L.05603	.52781	.52503	L.01730
SDev	.01697	.00416	.00245	.01115	.00607	.03684	.01333
%RSD	226.85	.81216	107.16	19.896	1.1501	7.0163	77.060

#1	L.01769	.50753	-.00351	L.05874	.52017	.52878	L.00182
#2	L.00408	.51743	-.00351	L.05874	.52885	.50591	L.02248
#3	L-.01497	.51050	-.00351	L.04021	.52728	.49044	L.01213
#4	L.02313	.51248	.00139	L.06642	.53494	.57498	L.03279

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0286	.05927	.00486	1.0014	.00067	2.0044	.49527
SDev	.0210	.03097	.01288	.0122	.00110	.0838	.00473
%RSD	1.0340	52.249	264.92	1.2155	165.83	4.1785	.95421

#1	2.0105	.07393	.00021	.99008	.00050	1.9699	.49155
#2	2.0448	.06229	.00438	1.0181	.00050	2.0043	.50140

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#3	2.0486	.01510	.02264	1.0023	-.00050	2.1198	.49154
#4	2.0105	.08576	-.00778	.99528	.00216	1.9235	.49658

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.52401
SDev	.00554
%RSD	1.0574

#1	.51627
#2	.52942
#3	.52493
#4	.52544

Errors	LC Pass
High	.60000
Low	.40000

Analysis Report

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Method: QUANMET Sample Name: DFGTM

663 792 Operator: EMF

Run Time: 07/01/00 17:02:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00146	.04126	-.01173	-.00266	.00028	.00003	.21442
SDev	.00210	.01344	.01002	.01652	.00033	.00011	.00371
%RSD	143.37	32.579	85.374	620.27	117.96	406.34	1.7309
#1	-.00296	.03032	-.01252	.01862	-.00017	.00004	.20933
#2	-.00146	.03211	.00250	-.01397	.00034	-.00011	.21472
#3	-.00293	.04302	-.01650	-.01736	.00063	.00015	.21544
#4	.00150	.05957	-.02041	.00205	.00034	.00002	.21820
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00091	-.00070	-.00312	.00091	.01743	-.25450	-.00050
SDev	.00137	.00239	.00174	.00045	.00239	.44261	.00089
%RSD	150.04	341.11	55.612	49.982	13.707	173.92	178.53
#1	.00242	-.00175	-.00461	.00068	.01541	-.58448	-.00174
#2	-.00035	.00245	-.00461	.00068	.01609	-.67075	-.00022
#3	-.00014	-.00035	-.00190	.00158	.01743	.23509	.00037
#4	.00172	-.00315	-.00136	.00068	.02078	.00216	-.00039
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03061	.00124	-.00490	9.9771	-.00178	-.01340	.02319
SDev	.00749	.00049	.00469	.0694	.00367	.02105	.02696
%RSD	24.478	39.884	95.792	.69608	206.14	157.09	116.26
#1	.02313	.00099	-.00857	10.076	-.00108	-.00390	-.00499
#2	.03401	.00099	-.00367	9.9281	-.00667	-.03436	.00523
#3	.03945	.00099	.00123	9.9290	.00222	.01149	.04625
#4	.02585	.00198	-.00857	9.9755	-.00160	-.02683	.04626
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00291	.57661	-.01463	.00230	-.00033	.01423	.00236
SDev	.01599	.03059	.02199	.00028	.00088	.03123	.00251
%RSD	550.34	5.3051	150.27	12.350	264.57	219.53	106.41
#1	.00957	.55008	-.03662	.00188	-.00116	.02581	-.00141
#2	-.02093	.60310	-.03048	.00241	-.00083	-.03191	.00361

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#3	.01339	.60310	.00429	.00241	-.00017	.03727	.00371
#4	.00959	.55015	.00428	.00252	.00083	.02573	.00353
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .00530
SDev .00109
%RSD 20.570

#1 .00644
#2 .00548
#3 .00382
#4 .00546

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFGTMP5

Operator: EMF

Run Time: 07/01/00 17:05:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 794

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00112	.01150	-.03785	-.01643	-.00040	.00001	.05816
SDev	.00329	.01470	.00570	.00452	.00021	.00006	.00665
%RSD	293.35	127.83	15.065	27.483	51.808	870.26	11.429

#1	-.00296	.00092	-.03117	-.01679	-.00038	.00004	.05814
#2	.00295	.03213	-.04277	-.02018	-.00017	.00004	.06105
#3	-.00447	.00100	-.04242	-.01879	-.00068	-.00008	.04898
#4	-.00000	.01194	-.03504	-.00999	-.00038	.00004	.06448

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00153	-.00035	-.00217	-.00090	.00335	-.12725	-.00115
SDev	.00217	.00114	.00205	.00136	.00226	.60982	.00128
%RSD	141.79	323.78	94.683	150.10	67.461	479.23	111.39

#1	-.00037	-.00035	-.00353	-.00023	.00268	-.23077	-.00118
#2	.00460	-.00036	-.00244	-.00023	.00603	.20920	.00008
#3	.00144	-.00175	-.00352	-.00294	.00067	-.93819	-.00290
#4	.00046	.00105	.00081	-.00022	.00402	.45076	-.00059

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00340	-.00049	-.00122	1.9911	-.00150	.00382	.01285
SDev	.02112	.00057	.00283	.0282	.00763	.01527	.01946
%RSD	620.97	115.59	231.03	1.4187	509.92	399.62	151.46

#1	-.00408	.00000	.00123	1.9750	-.00586	.02673	-.01545
#2	.02041	-.00000	-.00367	1.9800	.00528	-.00383	.01553
#3	-.02313	-.00099	-.00368	2.0333	-.01001	-.00384	.02559
#4	.02041	-.00099	.00123	1.9760	.00461	-.00377	.02574

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00001	.14264	-.00451	.00029	-.00050	.01728	-.00249
SDev	.02299	.00565	.01244	.00026	.00098	.03028	.00250
%RSD	260480.	3.9608	275.65	90.667	196.26	175.29	100.23

#1	-.02097	.13824	.00400	.00042	-.00116	-.00866	-.00121
#2	.03243	.14413	-.01620	.00042	.00050	.04894	-.00131
#3	-.00190	.13818	.00826	-.00010	-.00150	-.00860	-.00623
#4	-.00952	.15001	-.01412	.00042	.00017	.03742	-.00121

Elem	ZN
Units	ppm
Avge	.00430
SDev	.00141
%RSD	32.882

#1	.00282
#2	.00620
#3	.00383

#4: 000434

Analysis Report

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Method: QUANMET Sample Name: DFGTMS **663 796** Operator: EMF
 Run Time: 07/01/00 17:08:55
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04972	2.1369	2.0524	1.0140	2.0748	.05307	.19625
SDev	.00251	.0178	.0344	.0024	.0239	.00046	.00419
%RSD	5.0580	.83508	1.6770	.24040	1.1520	.86601	2.1329
#1	.04862	2.1508	2.0353	1.0154	2.1098	.05374	.19035
#2	.05010	2.1285	2.0960	1.0120	2.0576	.05272	.19974
#3	.04714	2.1157	2.0167	1.0120	2.0619	.05285	.19860
#4	.05303	2.1525	2.0618	1.0168	2.0698	.05299	.19631
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04964	.52844	.20615	.26464	1.1173	-.06255	1.0238
SDev	.00326	.00863	.00193	.00239	.0054	.47558	.0168
%RSD	6.5579	1.6333	.93744	.90166	.48583	760.37	1.6366
#1	.05069	.54065	.20506	.26805	1.1235	-.48958	1.0480
#2	.05036	.52810	.20778	.26442	1.1134	.46802	1.0100
#3	.05253	.52110	.20398	.26351	1.1121	.20920	1.0160
#4	.04497	.52391	.20778	.26260	1.1201	-.43782	1.0212
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04490	.52608	-.00596	10.180	.53982	.54635	.02525
SDev	.01692	.00204	.00490	.127	.01094	.04408	.02819
%RSD	37.686	.38770	82.237	1.2446	2.0275	8.0680	111.62
#1	.02041	.52831	-.00841	10.357	.52982	.49892	.04321
#2	.05306	.52633	.00139	10.080	.54476	.53678	.01240
#3	.05850	.52336	-.00841	10.098	.55288	.60537	-.00798
#4	.04762	.52633	-.00841	10.187	.53180	.54434	.05339
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0640	.62139	.00084	1.0474	-.00025	2.1134	.51490
SDev	.0640	.00003	.00637	.0110	.00050	.0576	.00249
%RSD	3.1031	.00512	758.98	1.0465	200.00	2.7261	.48424
#1	2.1059	.62140	.00042	1.0636	-.00083	2.1190	.51608
#2	2.0487	.62141	.00637	1.0397	.00017	2.0962	.51627

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#3	1.9801	.62140	-.00796	1.0416	-.00050	2.0501	.51608
#4	2.1212	.62134	.00453	1.0450	.00017	2.1884	.51116

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.53331
SDev	.00356
%RSD	.66799

#1	.53603
#2	.53445
#3	.52807
#4	.53471

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DFGTMD

Operator: EMF

Run Time: 07/01/00 17:12:02

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 798

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05153	2.1052	2.0302	.99789	2.0249	.05194	.22036
SDev	.00120	.0196	.0343	.00457	.0135	.00024	.00112
%RSD	2.3223	.93086	1.6879	.45787	.66478	.45357	.50863
#1	.05155	2.1027	2.0396	.99500	2.0372	.05196	.21873
#2	.05005	2.1249	2.0735	1.0018	2.0298	.05210	.22102
#3	.05298	2.0791	1.9946	.99299	2.0058	.05160	.22116
#4	.05153	2.1139	2.0131	1.0018	2.0268	.05210	.22054
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04707	.51834	.20439	.25943	1.1074	.06255	.99448
SDev	.00312	.00510	.00267	.00281	.0035	.30525	.00983
%RSD	6.6222	.98471	1.3076	1.0842	.31240	488.05	.98858
#1	.05093	.51273	.20235	.26169	1.1087	.03666	1.0056
#2	.04614	.52114	.20832	.25989	1.1114	.38175	.99243
#3	.04347	.51556	.20344	.25536	1.1034	-.34292	.98217
#4	.04774	.52393	.20344	.26079	1.1061	.17470	.99769
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04694	.51891	-.00106	10.019	.52940	.53462	.01737
SDev	.00978	.00128	.00283	.076	.01040	.02006	.01775
%RSD	20.835	.24625	267.06	.75390	1.9640	3.7517	102.15
#1	.04217	.51842	-.00351	10.065	.53691	.54401	.01228
#2	.06122	.52040	.00139	10.043	.53970	.50599	.00201
#3	.03945	.51743	-.00351	9.9069	.52169	.55179	.04299
#4	.04490	.51941	.00139	10.062	.51929	.53667	.01221
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0849	.62863	-.00175	1.0232	.00100	2.0128	.50637
SDev	.0878	.00739	.01941	.0061	.00064	.0971	.00402
%RSD	4.2095	1.1751	1111.9	.59531	63.828	4.8261	.79395
#1	2.1669	.62134	.02060	1.0282	.00050	1.9349	.51124
#2	2.0792	.62716	.00632	1.0258	.00050	1.9695	.50643

#3	1.9648	.62710	-.00977	1.0143	.00183	2.1541	.50140
#4	2.1287	.63893	-.02414	1.0243	.00116	1.9926	.50642

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .52363
SDev .00262
%RSD .50120

#1 .52703
#2 .52096
#3 .52233
#4 .52420

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-3

Operator: EMF

Run Time: 07/01/00 17:15:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP **663 800**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99841	50.155	5.0464	4.9734	4.9447	4.9778	50.482
SDev	.00280	.554	.0485	.0591	.0762	.0551	.181
%RSD	.28010	1.1043	.96147	1.1884	1.5403	1.1070	.35919
#1	.99924	50.471	5.0510	4.9804	4.9993	5.0096	50.319
#2	1.0007	50.049	5.0055	4.9594	4.9282	4.9701	50.622
#3	.99433	49.423	5.0160	4.9054	4.8438	4.9036	50.332
#4	.99939	50.678	5.1131	5.0483	5.0077	5.0281	50.655
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1122	4.9868	4.9561	4.9607	51.325	50.434	4.9551
SDev	.0227	.0254	.0236	.0712	.375	.787	.0883
%RSD	.44469	.50968	.47668	1.4359	.73151	1.5602	1.7816
#1	5.0820	4.9854	4.9546	5.0141	51.461	50.979	5.0250
#2	5.1340	4.9937	4.9681	4.9426	51.354	50.108	4.9336
#3	5.1085	4.9534	4.9237	4.8675	50.801	49.478	4.8390
#4	5.1244	5.0146	4.9779	5.0186	51.685	51.169	5.0226
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.552	4.9469	4.9581	50.775	5.0124	4.9933	5.0866
SDev	.577	.0296	.0382	.860	.0544	.0515	.0735
%RSD	1.1419	.59748	.77085	1.6946	1.0850	1.0307	1.4457
#1	50.813	4.9536	4.9532	51.358	5.0193	4.9778	5.1252
#2	50.502	4.9546	4.9581	50.631	5.0545	4.9937	5.1460
#3	49.773	4.9050	4.9139	49.616	4.9338	4.9393	4.9810
#4	51.120	4.9744	5.0071	51.493	5.0420	5.0625	5.0942
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9703	5.1246	5.0239	4.9642	4.9338	9.7554	4.9672
SDev	.1079	.0116	.0418	.0684	.0458	.1278	.0363
%RSD	2.1710	.22603	.83149	1.3769	.92852	1.3104	.73036
#1	4.9993	5.1262	5.0372	5.0120	4.9612	9.9038	4.9795
#2	5.0295	5.1321	5.0191	4.9489	4.9279	9.6974	4.9771

#3	4.8107	5.1078	4.9696	4.8739	4.8717	9.6113	4.9146
#4	5.0418	5.1323	5.0696	5.0220	4.9745	9.8090	4.9978
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem	ZN
Units	ppm
Avge	4.9660
SDev	.0235
%RSD	.47374

#1	4.9604
#2	4.9880
#3	4.9353
#4	4.9804

Errors	LC Pass
High	5.5000
Low	4.5000

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Method: QUANMET Sample Name: CCB3

Operator: EMF

Run Time: 07/01/00 17:18:18

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 802

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00074	.00676	-.04826	-.00969	.00018	.00022	.00655
SDev	.00191	.01341	.03759	.00754	.00085	.00007	.00432
%RSD	258.57	198.28	77.892	77.788	472.65	31.474	66.053
#1	-.00146	-.00470	-.08035	-.01200	.00144	.00028	.01140
#2	-.00296	-.00467	-.03491	.00060	-.00038	.00016	.00129
#3	.00147	.01545	-.07665	-.00999	-.00017	.00016	.00520
#4	-.00000	.02097	-.00110	-.01738	-.00017	.00029	.00830
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00024	.00140	-.00149	-.00022	.00268	.08627	-.00016
SDev	.00117	.00265	.00162	.00148	.00173	.49665	.00074
%RSD	487.30	189.31	108.83	658.18	64.650	575.70	457.36
#1	-.00123	.00524	.00027	.00159	.00201	.80447	-.00118
#2	-.00125	-.00034	-.00190	-.00023	.00067	.02804	-.00003
#3	.00053	-.00035	-.00081	-.00023	.00335	-.20489	-.00003
#4	.00099	.00104	-.00352	-.00203	.00470	-.28253	.00059
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00136	-.00024	.01470	.00418	-.00173	.02872	.01534
SDev	.01777	.00049	.00245	.00586	.00737	.02822	.01445
%RSD	1306.4	204.42	16.668	140.23	424.72	98.244	94.234
#1	.02041	-.00098	.01593	-.00136	.00917	.06513	-.00508
#2	-.00136	.00000	.01103	.00452	-.00516	.02678	.02550
#3	-.00136	.00001	.01593	.00136	-.00694	.02676	.01527
#4	-.02313	.00001	.01593	.01220	-.00400	-.00378	.02566
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00668	.04854	-.00603	.00016	-.00000	-.00292	.00028
SDev	.05185	.00564	.03045	.00021	.00079	.03053	.00248
%RSD	776.18	11.616	505.09	135.42	237e6	1043.9	882.68
#1	.07055	.05006	-.01426	.00042	-.00050	-.02027	.00400
#2	.02097	.04411	.03470	.00016	-.00083	.03747	-.00102

#3	.01334	.05588	-.00603	.00016	.00050	-.03173	-.00093
#4	-.05147	.04411	-.03852	-.00010	.00083	.00283	-.00093

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00187
SDev .00202
%RSD 108.25

#1 -.00093
#2 .00305
#3 .00174
#4 .00360

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DFJXJBT

Operator: EMF

Run Time: 07/01/00 17:23:51

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 804

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	.01457	-.03322	-.00128	-.00020	.00003	.04017
SDev	.00253	.00354	.03524	.01534	.00024	.00011	.00439
%RSD	669.95	24.310	106.08	1197.3	119.13	367.66	10.935
#1	.00298	.01919	.00261	.00601	.00013	.00002	.04340
#2	.00002	.01183	-.06159	-.02018	-.00017	.00002	.03806
#3	-.00296	.01176	-.00859	-.00617	-.00038	-.00009	.03501
#4	.00148	.01552	-.06532	.01521	-.00038	.00016	.04421
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00069	-.00245	-.00149	.00158	.00670	.24803	-.00131
SDev	.00084	.00434	.00179	.00128	.00173	.40693	.00071
%RSD	122.22	177.50	120.14	81.115	25.849	164.07	54.447
#1	.00095	-.00035	.00027	.00249	.00737	.35586	-.00200
#2	.00037	.00105	-.00244	.00158	.00603	.35586	-.00149
#3	-.00027	-.00873	-.00352	-.00023	.00469	-.33430	-.00143
#4	.00170	-.00175	-.00027	.00249	.00872	.61467	-.00031
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00408	-.00049	.00490	.03061	-.00080	.00758	.00767
SDev	.01405	.00057	.00245	.00777	.00445	.02028	.03171
%RSD	344.27	116.09	49.988	25.376	556.30	267.58	413.45
#1	.02041	.00000	.00123	.03931	-.00734	-.00380	.03583
#2	-.00136	-.00099	.00613	.03479	.00164	.03437	-.03587
#3	-.01224	.00000	.00613	.02576	.00023	-.01168	.02560
#4	.00952	-.00098	.00613	.02259	.00227	.01142	.00512
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00952	.01325	.00258	-.00010	-.00017	.05470	.00132
SDev	.00934	.03236	.02288	.00000	.00061	.06623	.00282
%RSD	98.192	244.14	886.71	.00000	365.15	121.08	212.95
#1	.00193	.04417	.02457	-.00010	.00017	-.03180	.00372
#2	-.00952	-.01466	-.02660	-.00010	-.00083	.12959	.00381

#3	.02096	.03823	.01639	-.00010	-.00050	.06055	-.00112
#4	-.00951	-.01472	-.00404	-.00010	.00050	.06045	-.00111

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.00488
SDev	.00133
%RSD	27.149

#1	.00516
#2	.00514
#3	.00304
#4	.00619

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DFJXJCT

Operator: EMF

Run Time: 07/01/00 17:26:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

663 806

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04357	1.9175	2.2677	.91659	1.8623	.04650	L.17306
SDev	.00221	.0428	.0452	.01825	.0519	.00086	.00641
%RSD	5.0753	2.2315	1.9927	1.9906	2.7894	1.8450	3.7058

#1	.04543	1.9468	2.2797	.90795	1.8800	.04694	L.17833
#2	.04100	1.9616	2.2909	.94394	1.9259	.04745	L.16373
#3	.04245	1.8827	2.2992	.90794	1.8365	.04606	L.17461
#4	.04540	1.8791	2.2010	.90652	1.8069	.04555	L.17556

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04471	.47686	.19139	.24469	1.0159	L.91231	.94420
SDev	.00124	.00416	.00278	.00773	.0100	.75559	.03929
%RSD	2.7734	.87215	1.4532	3.1569	.98365	82.822	4.1615

#1	.04326	.47511	.19424	.25080	1.0176	L1.4774	.95721
#2	.04538	.48206	.18772	.25171	1.0283	L-.18764	.99162
#3	.04603	.47232	.19261	.23994	1.0136	L1.3221	.92795
#4	.04416	.47793	.19098	.23633	1.0042	L1.0374	.90004

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.03741	.47662	.00138	S897.18	.47726	.49538	L.01413
SDev	.02323	.00407	.00400	1794.6	.00896	.03432	.01942
%RSD	62.103	.85360	290.52	200.03	1.8765	6.9288	137.46

#1	L.06122	.47786	.00628	S-.14414	.48665	.49726	L.04238
#2	L.00680	.48181	-.00352	S-.14414	.48267	.45151	L.00145
#3	L.03401	.47390	.00138	S3589.1	.46724	.53541	L.01142
#4	L.04762	.47291	.00138	S-.14414	.47249	.49733	L.00127

Errors	LC Low	LC Pass	NOCHECK	LC High	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.2086	.08395	-.00330	.94558	-.00033	1.8584	.47007
SDev	.0528	.00292	.01163	.02359	.00069	.0520	.00292
%RSD	2.3892	3.4739	352.41	2.4948	208.17	2.7958	.62053

#1	2.2277	.08545	.00853	.95303	-.00050	1.9016	.47202
#2	2.2734	.07958	-.00996	.97471	-.00116	1.7862	.47305

#3	2.1552	.08540	.00431	.93421	-.00017	1.8902	.46823
#4	2.1781	.08539	-.01608	.92036	.00050	1.8557	.46700
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.49811
SDev	.00536
%RSD	1.0761

#1	.49918
#2	.50524
#3	.49347
#4	.49455

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DFG9QBT

Operator: EMF

Run Time: 07/01/00 17:30:07

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 808

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00222	.01650	.13499	-.00916	.00226	.00003	.12857
SDev	.00284	.01126	.02632	.00767	.00034	.00010	.01177
%RSD	128.28	68.253	19.500	83.733	15.032	289.97	9.1558
#1	-.00149	.00821	.15399	-.01195	.00185	.00004	.11718
#2	-.00445	.00825	.12753	.00204	.00215	-.00009	.12467
#3	.00150	.03208	.15746	-.01137	.00266	.00015	.14499
#4	-.00444	.01744	.10097	-.01536	.00236	.00004	.12744
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00129	-.00174	-.00203	.00452	.01676	.29116	-.00029
SDev	.00249	.00604	.00400	.00201	.00190	1.0978	.00119
%RSD	192.62	346.10	196.40	44.470	11.321	377.04	413.03
#1	.00144	-.00734	-.00678	.00248	.01676	-.86917	-.00067
#2	-.00308	-.00453	-.00190	.00339	.01542	.01078	.00025
#3	.00016	.00664	.00298	.00702	.01944	1.7707	.00101
#4	-.00369	-.00174	-.00244	.00520	.01542	.25234	-.00174
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02245	-.00024	-.00122	S2691.6	-.00088	-.00769	.01281
SDev	.02992	.00050	.00490	1794.5	.00640	.05616	.00510
%RSD	133.29	203.65	400.84	66.670	725.34	730.13	39.770
#1	-.00680	.00000	-.00367	S3588.2	-.00517	-.06518	.01541
#2	.01224	-.00099	-.00367	S- .14414	-.00708	-.04216	.01531
#3	.06394	.00001	.00613	S3588.9	.00672	.05752	.01536
#4	.02041	.00000	-.00367	S3589.2	.00200	.01906	.00517
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02569	.07942	.01430	.00092	-.00017	.03731	-.00064
SDev	.03793	.00004	.01842	.00005	.00047	.06177	.00303
%RSD	147.62	.04869	128.84	5.8824	282.84	165.55	471.13
#1	-.03237	.07939	-.00603	.00084	.00017	.12960	-.00255
#2	-.04000	.07939	.02042	.00094	-.00083	.01430	-.00254

#3	.02865	.07947	.03668	.00094	.00017	.00260	.00382
#4	-.05906	.07941	.00613	.00094	-.00017	.00275	-.00131

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.00815
SDev	.00050
%RSD	6.1684

#1	.00776
#2	.00776
#3	.00827
#4	.00881

Errors	NOCHECK
High	
Low	

Method: QUANMET

Sample Name: ~~DEXIT~~ **DFAM3T**

Operator: EMF

Run Time: 07/01/00 17:33:14

Emf 7-300

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 810

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00177	1.7322	.12344	.00575	1.0717	.00034	435.69
SDev	.00305	.0264	.06103	.01748	.0107	.00007	2.85
%RSD	172.68	1.5235	49.446	304.10	.99729	21.630	.65505
#1	-.00435	1.7189	.06023	-.00835	1.0839	.00041	434.56
#2	-.00436	1.7043	.13218	.01943	1.0584	.00041	432.29
#3	.00156	1.7409	.20368	.02225	1.0695	.00028	437.10
#4	.00008	1.7647	.09765	-.01034	1.0751	.00028	438.79
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00184	.00052	.01749	.01609	.44373	1.3393	.00079
SDev	.00242	.00114	.00112	.00074	.00539	.2328	.00092
%RSD	131.84	218.76	6.3872	4.5875	1.2159	17.379	115.84
#1	.00345	.00051	.01763	.01518	.44306	1.1150	.00084
#2	-.00009	.00054	.01871	.01609	.43634	1.6499	-.00022
#3	-.00037	-.00087	.01763	.01699	.44776	1.3739	.00200
#4	.00435	.00191	.01600	.01609	.44774	1.2186	.00056
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.0180	.20824	-.00361	S-.14414	.00311	.05435	.03587
SDev	.0361	.00190	.00400	.00000	.00399	.03204	.00840
%RSD	.51472	.91032	110.89	.00000	128.44	58.965	23.413
#1	7.0296	.20774	-.00361	S-.14414	-.00249	.05628	.04611
#2	6.9643	.20576	-.00851	S-.14414	.00297	.06392	.03595
#3	7.0378	.20972	-.00361	S-.14414	.00598	.08679	.03590
#4	7.0405	.20972	.00129	S-.14414	.00597	.01039	.02554
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.03887	7.3220	.00741	3.1055	-.01148	.05132	.00366
SDev	.04981	.0118	.02626	.0274	.00272	.06825	.00007
%RSD	128.16	.16071	354.26	.88329	23.667	132.98	2.0533
#1	-.03887	7.3279	-.00170	3.1333	-.00948	.04556	.00366
#2	-.03889	7.3043	-.01597	3.0694	-.01414	.14937	.00357

663 811

#3	.02215	7.3279	.00232	3.1011	-.00881	.01095	.00366
#4	-.09987	7.3279	.04500	3.1181	-.01347	-.00060	.00375

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.09197
SDev	.00125
%RSD	1.3555

#1	.09174
#2	.09118
#3	.09380
#4	.09117

Errors	LC Pass
High	100.00
Low	-.02000

DFAM3TP5

Method: QUANMET Sample Name: ~~DEX5T~~ Operator: EMF

Run Time: 07/01/00 17:36:22

EUF 7-300

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 812

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00256	.35567	.01682	-.00906	.22795	.00012	90.024
SDev	.00143	.01038	.02139	.00166	.00242	.00015	.316
%RSD	55.712	2.9195	127.15	18.340	1.0610	127.49	.35051
#1	-.00145	.36028	.04133	-.00841	.22783	.00015	90.022
#2	-.00443	.34382	-.00759	-.01040	.22943	-.00009	89.786
#3	-.00145	.36753	.02616	-.00701	.22994	.00028	90.470
#4	-.00292	.35107	.00739	-.01041	.22458	.00015	89.816
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00037	-.00011	.00244	.00385	.09820	.46370	-.00029
SDev	.00253	.00134	.00133	.00052	.00160	.57253	.00043
%RSD	684.26	1194.5	54.425	13.545	1.6242	123.47	147.61
#1	-.00170	.00094	.00407	.00340	.09987	.39037	-.00031
#2	.00237	-.00047	.00081	.00340	.09920	-.31704	-.00079
#3	-.00193	-.00185	.00244	.00430	.09719	.93387	.00025
#4	.00273	.00093	.00244	.00430	.09652	.84760	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.5020	.04402	-.00121	282.59	.00220	.03421	.03596
SDev	.0227	.00057	.00283	3.23	.00224	.03637	.01452
%RSD	1.5121	1.2977	233.72	1.1424	101.75	106.32	40.377
#1	1.4761	.04353	-.00366	281.89	.00085	.02659	.03595
#2	1.5061	.04353	-.00366	285.49	-.00018	.01124	.01543
#3	1.5305	.04452	.00124	284.65	.00461	.08769	.04622
#4	1.4952	.04452	.00124	278.33	.00352	.01132	.04624
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00789	1.5062	.00274	.66094	-.00266	-.00943	.00244
SDev	.04206	.0294	.00717	.00584	.00033	.03124	.00250
%RSD	533.42	1.9538	261.79	.88298	12.500	331.37	102.15
#1	-.00927	1.4915	.00630	.65991	-.00283	-.05558	.00363
#2	.01361	1.4914	-.00600	.66541	-.00283	.00212	-.00130

#3	.06317	1.5503	.01041	.66536	-.00283	.01365	.00372
#4	-.03597	1.4915	.00024	.65309	-.00216	.00210	.00372
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02093
SDev .00190
%RSD 9.0735

#1 .02124
#2 .01827
#3 .02145
#4 .02277

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFAM3TS *au73w* Operator: EMF
 Run Time: 07/01/00 17:39:29
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP **663 814**
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.90027	1.6282	5.0286	-.01268	44.660	.00037	402.95
SDev	.00425	.0075	.1133	.00295	.543	.00012	2.02
%RSD	.47257	.46328	2.2532	23.246	1.2149	31.261	.50093
#1	.89916	1.6346	4.9331	-.01043	44.489	.00041	405.55
#2	.89472	1.6200	5.0920	-.01664	44.382	.00028	401.19
#3	.90362	1.6236	4.9332	-.01324	44.303	.00052	403.54
#4	.90359	1.6346	5.1562	-.01043	45.466	.00028	401.53
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.96583	.00598	4.4446	.01519	.40167	1.3286	.00110
SDev	.00946	.00188	.0096	.00195	.00373	.6706	.00044
%RSD	.97920	31.394	.21576	12.869	.92809	50.472	40.107
#1	.96959	.00816	4.4563	.01428	.40620	1.1754	.00093
#2	.96021	.00404	4.4329	.01337	.39748	.58879	.00065
#3	.95625	.00689	4.4432	.01790	.40016	2.2107	.00112
#4	.97727	.00485	4.4459	.01518	.40284	1.3393	.00169
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.5670	.19364	-.00239	S3589.7	.00565	4.5970	.02781
SDev	.0420	.00050	.00469	.3	.00768	.0297	.02710
%RSD	.63921	.25638	196.32	.00858	136.03	.64536	97.458
#1	6.5589	.19389	.00129	S3590.0	.01431	4.6086	.03034
#2	6.5289	.19290	-.00852	S3589.9	-.00215	4.5626	.04076
#3	6.5534	.19389	-.00362	S3589.4	.00974	4.6315	.05097
#4	6.6269	.19389	.00129	S3589.5	.00070	4.5855	-.01083
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0411	6.8600	.00024	2.9032	-.00890	-.04636	.00382
SDev	.0267	.0367	.02034	.0327	.00069	.08369	.00245
%RSD	2.5623	.53557	8534.6	1.1274	7.7067	180.51	63.998
#1	1.0440	6.8512	.00025	2.8943	-.00815	-.06947	.00269
#2	1.0058	6.8218	-.02818	2.8854	-.00881	.04593	.00245

#3	1.0440	6.8571	.01051	2.8815	-.00881	-.01179	.00749
#4	1.0707	6.9100	.01837	2.9517	-.00981	-.15011	.00267

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .08618
SDev .00186
%RSD 2.1617

#1 .08828
#2 .08462
#3 .08722
#4 .08460

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

07/01/00 05:45:42 PM

page 1

Method: QUANMET

Sample Name: DFAM3P5T

Operator: EMF

Run Time: 07/01/00 17:42:37

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 816

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.89472	1.6149	5.1214	-.00983	45.490	.00041	396.19
SDev	.00270	.0088	.1062	.00378	.360	.00000	1.01
%RSD	.30180	.54261	2.0742	38.463	.79162	.08711	.25577

#1	.89620	1.6272	5.0050	-.01043	45.565	.00041	396.98
#2	.89768	1.6145	5.0581	-.01323	45.773	.00041	395.59
#3	.89324	1.6070	5.2017	-.01124	44.965	.00041	397.12
#4	.89176	1.6108	5.2206	-.00444	45.658	.00041	395.08

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.96412	.00243	4.4472	.01518	.39865	1.1474	.00040
SDev	.00777	.00143	.0104	.00074	.00127	.2865	.00047
%RSD	.80604	58.934	.23350	4.8711	.31834	24.970	117.06

#1	.96247	.00065	4.4617	.01428	.39949	1.0633	.00008
#2	.97443	.00191	4.4405	.01518	.39949	.90799	.00017
#3	.96395	.00374	4.4476	.01609	.39882	1.5636	.00025
#4	.95563	.00341	4.4389	.01518	.39681	1.0547	.00110

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.5419	.19216	-.00117	S1794.8	.00173	4.5836	.01747
SDev	.0334	.00049	.00633	2072.6	.00337	.0289	.02276
%RSD	.51096	.25757	542.81	115.48	194.38	.62980	130.28

#1	6.5806	.19290	.00128	S-.14414	-.00332	4.5931	.03010
#2	6.5534	.19191	-.00852	S3589.5	.00330	4.5472	.00987
#3	6.5017	.19192	.00618	S3590.0	.00356	4.6161	-.01077
#4	6.5317	.19191	-.00362	S-.14414	.00338	4.5779	.04068

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0678	6.7909	-.00438	2.9152	-.00998	-.00884	.00262
SDev	.0641	.0324	.00937	.0204	.00064	.01450	.00014
%RSD	6.0066	.47651	213.82	.70029	6.3828	164.10	5.1328

#1	1.1278	6.8218	.00635	2.9179	-.00948	-.01171	.00270
#2	1.0554	6.8159	-.00187	2.9309	-.01081	-.02325	.00247
#3	.98294	6.7629	-.01621	2.8856	-.00948	.01132	.00276
#4	1.1050	6.7629	-.00580	2.9262	-.01015	-.01171	.00256

Elem	ZN
Units	ppm
Avge	.09981
SDev	.00156
%RSD	1.5619

#1	.09834
#2	.10195
#3	.09908

#418 .09986

Analysis Report

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Method: QUANMET Sample Name: ~~DEAM3ST~~ Operator: EMF
 Run Time: 07/01/00 17:45:45 ~~QAF730~~
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 818
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00478	.37962	.12338	.03575	.24230	.00019	553.61
SDev	.00270	.01390	.05384	.00171	.00271	.00006	2.31
%RSD	56.529	3.6615	43.637	4.7717	1.1190	33.327	.41775

#1	-.00330	.39840	.04762	.03660	.24281	.00015	552.88
#2	-.00628	.36912	.14621	.03660	.24534	.00016	552.21
#3	-.00774	.36906	.17258	.03661	.24230	.00015	552.31
#4	-.00182	.38192	.12712	.03319	.23876	.00028	557.05

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00302	.36429	-.00421	.01600	.91242	1.6909	.00022
SDev	.00271	.00396	.00185	.00157	.00149	.5150	.00102
%RSD	89.765	1.0866	43.888	9.8085	.16287	30.460	467.06

#1	.00617	.36148	-.00353	.01555	.91024	1.6931	.00008
#2	.00064	.36429	-.00570	.01555	.91359	1.2962	-.00059
#3	.00438	.36149	-.00570	.01465	.91292	1.3566	-.00031
#4	.00088	.36988	-.00190	.01827	.91292	2.4177	.00169

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	33.040	2.8720	-.00476	S-.14414	.02585	.02296	.03775
SDev	.191	.0040	.00469	.00000	.01067	.01911	.03244
%RSD	.57958	.13880	98.487	.00000	41.267	83.231	85.936

#1	33.096	2.8718	-.00844	S-.14414	.02605	.02859	.02748
#2	33.189	2.8777	-.00354	S-.14414	.03731	-.00194	-.00330
#3	33.115	2.8688	-.00844	S-.14414	.01159	.04395	.06842
#4	32.759	2.8698	.00136	S-.14414	.02846	.02123	.05838

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00908	3.3653	-.00617	.46695	-.02553	.01252	.00236
SDev	.00786	.0112	.02984	.00479	.00032	.04264	.00245
%RSD	86.588	.33427	483.76	1.0260	1.2475	340.45	103.74

#1	.01574	3.3742	-.00571	.46727	-.02545	.07597	.00352
#2	.01575	3.3741	.01856	.47199	-.02578	-.00472	-.00131

#3	.00431	3.3507	.01076	.46806	-.02578	-.01631	.00352
#4	.00050	3.3624	-.04827	.46046	-.02511	-.00484	.00372
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .08433
SDev .00156
%RSD 1.8473

#1 .08393
#2 .08232
#3 .08584
#4 .08523

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

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Method: QUANMET Sample Name: ~~DEAM3BT~~ *DEXJT* Operator: EMF
 Run Time: 07/01/00 17:48:52 *QuF-730*
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00550	.06970	.14291	.02122	.18340	.00015	H775.53
SDev	.00192	.00929	.03480	.00169	.00266	.00020	1.39
%RSD	34.807	13.332	24.352	7.9870	1.4487	131.78	.17883
#1	-.00624	.06739	.10041	.02207	.18082	.00015	H776.86
#2	-.00772	.05820	.13072	.02207	.18255	.00015	H776.30
#3	-.00479	.07300	.17983	.01868	.18711	-.00009	H773.70
#4	-.00326	.08022	.16070	.02206	.18314	.00039	H775.27
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	.03667	-.00339	.00501	.07894	3.1985	.00003
SDev	.00106	.00333	.00421	.00280	.00155	.9991	.00045
%RSD	337.68	9.0769	124.07	55.899	1.9615	31.236	1608.2
#1	.00002	.03457	-.00407	.00343	.07760	2.9008	-.00031
#2	-.00070	.03597	-.00136	.00524	.07760	3.3149	-.00031
#3	.00096	.03457	-.00895	.00252	.08028	2.0899	.00008
#4	-.00154	.04156	.00081	.00886	.08028	4.4882	.00065
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.193	1.8088	-.00244	S896.94	.01786	.02773	.02617
SDev	.245	.0068	.00469	1794.2	.00238	.03251	.03025
%RSD	.97069	.37439	192.41	200.03	13.359	117.22	115.59
#1	25.015	1.8036	-.00366	S-.14414	.01805	.01235	-.00467
#2	25.051	1.8046	.00124	S3588.2	.01983	.05063	.00564
#3	25.548	1.8185	-.00856	S-.14414	.01445	-.01053	.04669
#4	25.159	1.8086	.00124	S-.14414	.01910	.05849	.05701
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01260	1.3459	-.02257	.82258	-.04649	-.01976	.00364
SDev	.05423	.0290	.01842	.01167	.00057	.06753	.00411
%RSD	430.36	2.1521	81.615	1.4193	1.2221	341.77	112.82
#1	-.04365	1.3562	-.01001	.81383	-.04674	.03500	.00361
#2	.08219	1.3032	-.03640	.81715	-.04640	-.04570	.00371

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#3	.02500	1.3679	-.00366	.83973	-.04707	.03509	-.00141
#4	-.01313	1.3562	-.04023	.81962	-.04574	-.10343	.00864

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02160
SDev .00068
%RSD 3.1444

#1 .02118
#2 .02218
#3 .02218
#4 .02087

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-4

Operator: EMF

Run Time: 07/01/00 17:52:00

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 822

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99342	49.371	4.9788	4.8837	4.8308	4.9048	50.986
SDev	.00324	.448	.0288	.0672	.0590	.0449	.218
%RSD	.32568	.90696	.57802	1.3769	1.2212	.91508	.42691
#1	.99625	49.943	5.0101	4.9586	4.9091	4.9676	50.840
#2	.99132	48.869	4.9413	4.7951	4.7685	4.8620	50.860
#3	.98999	49.236	4.9756	4.8905	4.8105	4.8889	50.938
#4	.99610	49.437	4.9883	4.8904	4.8350	4.9008	51.306
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1339	4.9809	4.9623	4.8388	51.009	48.695	4.7696
SDev	.0148	.0214	.0201	.0588	.270	.918	.0747
%RSD	.28869	.42894	.40593	1.2143	.52955	1.8850	1.5664
#1	5.1194	5.0007	4.9698	4.9200	51.290	49.840	4.8752
#2	5.1545	4.9561	4.9427	4.7815	50.695	47.770	4.6996
#3	5.1295	4.9701	4.9497	4.8168	50.884	48.175	4.7465
#4	5.1322	4.9966	4.9871	4.8368	51.168	48.995	4.7570
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.704	4.9305	4.9494	49.139	5.0343	4.9955	5.0021
SDev	.395	.0212	.0370	.680	.0344	.0446	.0304
%RSD	.79429	.43029	.74759	1.3840	.68322	.89266	.60725
#1	50.195	4.9476	4.9679	50.025	5.0523	4.9938	5.0330
#2	49.245	4.9040	4.9237	48.389	5.0199	4.9474	5.0125
#3	49.599	4.9228	4.9139	48.948	4.9937	4.9857	4.9608
#4	49.776	4.9476	4.9923	49.196	5.0714	5.0551	5.0020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0820	4.9919	5.0150	4.8810	4.8796	9.7472	4.9443
SDev	.1160	.0531	.0399	.0529	.0376	.1416	.0314
%RSD	2.2834	1.0632	.79634	1.0833	.77038	1.4530	.63521
#1	5.1857	5.0380	5.0328	4.9505	4.9262	9.8823	4.9810
#2	5.1612	4.9429	4.9576	4.8244	4.8394	9.6586	4.9087

#3	4.9329	4.9491	5.0489	4.8631	4.8617	9.8524	4.9307
#4	5.0481	5.0377	5.0205	4.8859	4.8910	9.5956	4.9569
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9370
SDev .0144
%RSD .29137

#1 4.9391
#2 4.9251
#3 4.9272
#4 4.9565

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB4

Operator: EMF

Run Time: 07/01/00 17:55:08

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 824

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00220	.03469	-.02586	-.01178	.00314	.00323	.30297
SDev	.00192	.00488	.02963	.00214	.00034	.00032	.00743
%RSD	86.943	14.075	114.58	18.200	10.734	9.7647	2.4542
#1	.00003	.03930	-.00893	-.00994	.00316	.00335	.29900
#2	-.00443	.02820	-.06924	-.01392	.00337	.00362	.30305
#3	-.00293	.03741	-.02025	-.00994	.00266	.00297	.29647
#4	-.00148	.03385	-.00502	-.01334	.00337	.00298	.31335
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00416	.00243	.00014	.00249	.03420	-.08843	.00131
SDev	.00067	.00255	.00252	.00104	.00226	.56845	.00079
%RSD	16.092	105.09	1798.0	41.912	6.5995	642.84	59.979
#1	.00421	.00522	.00353	.00340	.03487	.75271	.00216
#2	.00486	-.00037	-.00081	.00339	.03688	-.28253	.00180
#3	.00432	.00103	.00027	.00159	.03151	-.49821	.00073
#4	.00325	.00383	-.00244	.00159	.03353	-.32567	.00056
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02585	.00323	.01838	.12155	-.00068	.02109	.01788
SDev	.01633	.00049	.00490	.01736	.00497	.03383	.02705
%RSD	63.158	15.298	26.661	14.285	736.11	160.42	151.32
#1	.03945	.00397	.01593	.09850	.00385	.04218	.01530
#2	.03945	.00298	.02573	.13149	.00063	-.00387	-.00527
#3	.01769	.00298	.01593	.11839	-.00777	.05735	.00503
#4	.00680	.00298	.01593	.13781	.00059	-.01132	.05644
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01534	.04709	-.00195	.00355	.00274	-.00037	.00159
SDev	.02256	.00761	.01619	.00047	.00032	.05012	.00279
%RSD	147.06	16.163	828.59	13.135	11.605	13719.	176.09
#1	-.00181	.05594	.02040	.00383	.00316	.04859	.00401
#2	.04014	.03823	-.00409	.00398	.00249	-.00900	-.00074

#3	-0.00564	.04418	-.01828	.00293	.00249	.02559	.00400
#4	.02869	.05000	-.00584	.00346	.00283	-.06664	-.00093

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge H.05289
SDev .00111
%RSD 2.1068

#1 H.05362
#2 H.05361
#3 H.05127
#4 H.05308

Errors LC High
High .02000
Low -.02000

Method: QUANMET Sample Name: DFK04B

Operator: EMF

Run Time: 07/01/00 17:58:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 826

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00222	.01467	-.00295	-.01112	-.00000	.00032	.07870
SDev	.00256	.01442	.01823	.00325	.00025	.00022	.00583
%RSD	115.30	98.294	618.35	29.230	994e6	67.636	7.4073
#1	-.00296	.00633	.01413	-.01536	-.00038	.00029	.07178
#2	-.00444	.01187	-.01238	-.00857	.00013	.00055	.08571
#3	-.00296	.00467	.01036	-.01197	.00013	.00042	.08022
#4	.00148	.03579	-.02391	-.00858	.00013	.00004	.07707
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00059	.00035	-.00217	.00317	.01307	.07117	-.00129
SDev	.00185	.00267	.00253	.00087	.00086	.23256	.00422
%RSD	314.39	768.79	116.49	27.351	6.6114	326.75	326.57
#1	.00080	-.00315	-.00298	.00249	.01273	-.16176	-.00481
#2	-.00111	-.00035	.00082	.00430	.01408	.23509	.00250
#3	-.00043	.00245	-.00515	.00249	.01341	-.09274	.00222
#4	.00309	.00244	-.00136	.00339	.01207	.30410	-.00509
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00612	.00000	.00245	.09082	-.00167	-.02101	.01285
SDev	.01027	.00000	.00469	.01163	.00530	.02819	.02283
%RSD	167.77	38.847	191.33	12.801	317.99	134.17	177.69
#1	-.00680	.00001	.00613	.07636	-.00407	-.01916	.03587
#2	.01769	.00001	.00613	.10212	-.00545	-.01915	-.01553
#3	.00952	.00000	-.00367	.09805	.00618	.01156	.02585
#4	.00408	.00000	.00123	.08676	-.00333	-.05729	.00519
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00194	.04852	-.00960	.00046	-.00000	.01428	-.00119
SDev	.03963	.00882	.02015	.00016	.00058	.08471	.00009
%RSD	2041.6	18.188	209.89	34.334	203e6	593.16	7.9332
#1	-.04000	.03823	.00424	.00042	-.00050	.00278	-.00112
#2	.05151	.05588	.01010	.00068	-.00017	-.10101	-.00111

#3	-.01712	.04411	-.02021	.00031	-.00017	.08343	-.00131
#4	.01338	.05588	-.03252	.00042	.00083	.07192	-.00121

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.01052
SDev	.00045
%RSD	4.2402

#1	.01117
#2	.01039
#3	.01036
#4	.01016

Errors	LC Pass
High	.02000
Low	-.02000

Analysis Report

07/01/00 06:04:29 PM

page 1

Method: QUANMET Sample Name: DFK04C

Operator: EMF

Run Time: 07/01/00 18:01:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 828

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04471	1.9263	1.9113	.91580	1.8939	.04770	49.513
SDev	.00351	.0272	.0204	.01894	.0315	.00052	.011
%RSD	7.8539	1.4135	1.0652	2.0681	1.6635	1.0932	.02252
#1	.04841	1.9442	1.9092	.90801	1.8940	.04783	49.504
#2	.04691	1.9460	1.9244	.90800	1.8867	.04759	49.529
#3	.04104	1.9274	1.9282	.94400	1.9355	.04833	49.510
#4	.04247	1.8874	1.8833	.90318	1.8593	.04707	49.508
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04657	.48405	.19235	.23973	1.0550	47.992	.93722
SDev	.00568	.00182	.00226	.00299	.0075	.593	.01961
%RSD	12.207	.37668	1.1757	1.2460	.71080	1.2355	2.0924
#1	.04692	.48474	.19506	.23905	1.0584	48.322	.93714
#2	.04009	.48337	.18963	.23995	1.0543	47.442	.93217
#3	.04539	.48191	.19180	.24357	1.0624	48.658	.96340
#4	.05388	.48616	.19289	.23634	1.0449	47.546	.91617
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.980	.47966	.95446	48.114	.48761	.53444	.50096
SDev	.562	.00236	.00849	.908	.01919	.02889	.01295
%RSD	1.1478	.49138	.88928	1.8873	3.9346	5.4057	2.5857
#1	48.908	.48114	.94711	48.046	.48481	.57459	.50351
#2	48.930	.47818	.95201	47.955	.50339	.52869	.51394
#3	49.724	.48214	.96672	49.326	.50065	.50568	.48300
#4	48.358	.47719	.95201	47.127	.46159	.52879	.50340
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9704	9.3077	1.9094	.96042	.92998	1.8378	.47433
SDev	.0582	.0506	.0234	.01452	.01036	.0905	.00483
%RSD	2.9543	.54317	1.2259	1.5117	1.1145	4.9243	1.0188
#1	2.0066	9.2989	1.9191	.96015	.93023	1.7398	.47542
#2	1.8846	9.2695	1.9212	.95768	.92857	1.8205	.47058

663 829

#3	2.0066	9.3814	1.9230	.97954	.94320	1.9587	.48072
#4	1.9837	9.2812	1.8744	.94432	.91792	1.8321	.47059

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.49005
SDev	.00317
%RSD	.64740

#1	.48554
#2	.49072
#3	.49099
#4	.49297

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DFGKP

Operator: EMF

Run Time: 07/01/00 18:04:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 830

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00086	2.0503	-.00756	.05077	.06579	.00018	19.452
SDev	.00191	.0135	.00656	.00451	.00086	.00012	.094
%RSD	221.81	.65920	86.708	8.8782	1.3146	67.208	.48565
#1	-.00012	2.0507	-.01419	.05403	.06617	.00028	19.435
#2	-.00307	2.0673	-.01056	.05066	.06667	.00002	19.331
#3	.00135	2.0343	.00111	.05395	.06465	.00028	19.556
#4	-.00160	2.0489	-.00661	.04443	.06566	.00015	19.485
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	.00506	.00624	.01049	6.6890	4.2380	.00145
SDev	.00135	.00255	.00247	.00114	.0223	.3104	.00081
%RSD	976.77	50.474	39.547	10.857	.33279	7.3245	56.199
#1	.00191	.00366	.00570	.01026	6.6937	4.1259	.00048
#2	.00005	.00645	.00352	.01026	6.7125	4.1949	.00180
#3	-.00139	.00786	.00949	.01207	6.6588	4.6780	.00236
#4	-.00001	.00226	.00624	.00935	6.6910	3.9533	.00115
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.4175	1.2696	.00223	94.750	-.00188	.05085	.02546
SDev	.0202	.0031	.00400	1.534	.01043	.01326	.00843
%RSD	.59046	.24665	179.74	1.6189	553.80	26.071	33.119
#1	3.3998	1.2686	.00713	94.670	.00221	.05463	.02549
#2	3.4461	1.2715	-.00267	96.584	-.00305	.03174	.01521
#3	3.4080	1.2656	.00222	92.836	-.01568	.06241	.02530
#4	3.4162	1.2725	.00223	94.908	.00898	.05461	.03586
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00526	8.0750	.00564	.11087	.09098	.00142	.00375
SDev	.03385	.0118	.01504	.00120	.00047	.05842	.00008
%RSD	643.98	.14572	266.80	1.0859	.51708	4110.4	2.1114
#1	-.01478	8.0809	-.00301	.11028	.09064	.02155	.00384
#2	-.04905	8.0809	.01932	.11237	.09164	-.01323	.00365

#3	.01945	8.0574	.01732	.10960	.09098	.06798	.00376
#4	.02335	8.0809	-.01109	.11122	.09064	-.07061	.00375
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .04749
SDev .00036
%RSD .75918

#1 .04768
#2 .04769
#3 .04695
#4 .04766

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFGKPP5

Operator: EMF

Run Time: 07/01/00 18:07:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 832

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00010	.42218	-.00503	-.00291	.01314	.00006	3.9676
SDev	.00558	.02158	.05603	.01282	.00045	.00012	.0338
%RSD	5803.5	5.1116	1113.0	439.83	3.4070	185.63	.85166

#1	-.00415	.39692	-.07007	-.01338	.01279	.00015	3.9336
#2	-.00417	.41155	-.02856	-.01335	.01300	-.00009	3.9439
#3	.00766	.43916	.05815	.01283	.01300	.00004	3.9919
#4	.00027	.44110	.02033	.00225	.01380	.00016	4.0011

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	.00136	-.00081	.00169	1.3721	.95544	-.00024
SDev	.00214	.00239	.00246	.00128	.0100	.50464	.00204
%RSD	1503.8	175.77	302.95	75.626	.72521	52.817	855.60

#1	-.00171	.00102	-.00027	.00169	1.3588	.90799	-.00267
#2	.00317	-.00179	-.00244	.00079	1.3729	.35586	-.00031
#3	-.00000	.00241	-.00298	.00079	1.3736	.96838	.00233
#4	-.00089	.00381	.00244	.00351	1.3830	1.5895	-.00031

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.68636	.25946	.00021	19.179	.00069	.00521	.01796
SDev	.02448	.00214	.00617	.243	.00451	.03440	.01759
%RSD	3.5661	.82383	3004.7	1.2676	652.40	660.31	97.978

#1	.67616	.25649	.00143	19.099	.00104	-.04259	-.00520
#2	.66800	.25946	.00633	19.392	.00221	.03380	.01535
#3	.67888	.26045	.00143	18.871	.00509	.00334	.03601
#4	.72241	.26143	-.00837	19.354	-.00557	.02630	.02567

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03507	1.6665	.00028	.02250	.01888	-.00695	-.00031
SDev	.02649	.0265	.01908	.00049	.00120	.04448	.00187
%RSD	75.538	1.5873	6908.2	2.1982	6.3330	639.90	611.15

#1	.03599	1.6268	.02458	.02212	.01780	-.03279	.00249
#2	.04747	1.6797	.00637	.02243	.01813	.02477	-.00111
#3	-.00210	1.6797	-.01388	.02223	.02046	-.05596	-.00121
#4	.05893	1.6797	-.01596	.02322	.01913	.03617	-.00139

Elem	ZN
Units	ppm
Avge	.01074
SDev	.00083
%RSD	7.7031

#1	.01004
#2	.01002
#3	.01156

#4 .01135

Method: QUANMET Sample Name: DFGKPS

Operator: EMF

Run Time: 07/01/00 18:10:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 834

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04523	4.3520	1.8567	.96263	1.8958	.04664	66.889
SDev	.00003	.0330	.0081	.01980	.0203	.00047	.510
%RSD	.07138	.75848	.43451	2.0571	1.0689	1.0187	.76207
#1	.04519	4.3096	1.8449	.93302	1.8682	.04595	66.148
#2	.04524	4.3424	1.8634	.97019	1.8953	.04670	66.961
#3	.04526	4.3755	1.8592	.97362	1.9039	.04695	67.190
#4	.04525	4.3807	1.8592	.97368	1.9159	.04696	67.256
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04224	.46820	.19343	.24137	7.5973	51.313	.91742
SDev	.00239	.00606	.00203	.00257	.0647	.573	.01225
%RSD	5.6676	1.2942	1.0501	1.0634	.85142	1.1167	1.3352
#1	.04201	.46230	.19289	.23774	7.5039	50.858	.90004
#2	.04185	.46925	.19344	.24318	7.6066	51.031	.91918
#3	.04545	.47622	.19615	.24319	7.6294	52.144	.92182
#4	.03965	.46504	.19126	.24137	7.6495	51.221	.92863
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.703	1.7126	.93217	141.79	.47613	.55389	.48796
SDev	.512	.0143	.01408	1.45	.02109	.00976	.02715
%RSD	1.0103	.83469	1.5109	1.0196	4.4302	1.7621	5.5637
#1	49.977	1.6923	.91378	139.85	.44532	.55569	.49293
#2	50.731	1.7131	.93339	141.76	.48623	.55580	.46231
#3	50.962	1.7210	.93340	142.24	.48058	.56369	.52394
#4	51.142	1.7240	.94810	143.31	.49238	.54037	.47268
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9085	18.070	1.8824	1.0369	1.0126	1.7831	.46528
SDev	.0865	.140	.0258	.0105	.0098	.1195	.00418
%RSD	4.5346	.77641	1.3711	1.0112	.96495	6.7011	.89924
#1	2.0274	17.859	1.8753	1.0225	.99875	1.7264	.46000
#2	1.8523	18.136	1.9117	1.0367	1.0134	1.6562	.46531

#3	1.9171	18.142	1.8917	1.0411	1.0174	1.9326	.47024
#4	1.8371	18.142	1.8507	1.0471	1.0210	1.8173	.46559
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .51108
SDev .00671
%RSD 1.3124

#1 .50210
#2 .51567
#3 .51671
#4 .50984

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

07/01/00 06:17:00 PM

page 1

Method: QUANMET Sample Name: DFGKPD

Operator: EMF

Run Time: 07/01/00 18:13:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 836

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04384	4.4862	1.9572	.97552	1.9491	.04787	68.641
SDev	.00118	.0579	.0268	.02652	.0320	.00068	.189
%RSD	2.6882	1.2915	1.3688	2.7186	1.6443	1.4287	.27550
#1	.04530	4.4799	1.9224	.95200	1.9464	.04784	68.415
#2	.04242	4.5695	1.9856	1.0081	1.9953	.04884	68.695
#3	.04382	4.4395	1.9530	.95596	1.9264	.04746	68.588
#4	.04383	4.4559	1.9679	.98599	1.9284	.04733	68.866
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04485	.47757	.19384	.24592	7.8416	51.741	.94574
SDev	.00213	.00392	.00271	.00548	.0536	.976	.02151
%RSD	4.7461	.82055	1.3965	2.2300	.68359	1.8857	2.2742
#1	.04173	.47758	.19181	.24411	7.8225	51.152	.94636
#2	.04589	.48311	.19234	.25407	7.9204	53.179	.97593
#3	.04531	.47480	.19344	.24229	7.8003	51.117	.93090
#4	.04645	.47479	.19777	.24320	7.8231	51.514	.92975
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	51.890	1.7683	.95303	146.65	.47682	.52535	.49810
SDev	.668	.0105	.01201	2.85	.01640	.01656	.02449
%RSD	1.2871	.59522	1.2602	1.9421	3.4396	3.1525	4.9170
#1	51.934	1.7616	.94323	146.56	.45380	.51008	.51349
#2	52.818	1.7834	.96774	150.71	.49260	.54838	.51365
#3	51.362	1.7606	.94322	144.66	.48144	.52526	.46211
#4	51.447	1.7675	.95793	144.69	.47941	.51766	.50316
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9940	18.564	1.9032	1.0662	1.0316	1.8701	.47307
SDev	.0271	.147	.0497	.0161	.0108	.0740	.00511
%RSD	1.3574	.79262	2.6120	1.5116	1.0483	3.9591	1.0810
#1	1.9672	18.512	1.8489	1.0650	1.0300	1.7925	.47042
#2	2.0285	18.783	1.8814	1.0894	1.0473	1.8261	.48074

#3	2.0015	18.471	1.9646	1.0545	1.0237	1.9541	.47042
#4	1.9787	18.489	1.9180	1.0560	1.0254	1.9078	.47071
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .52682
SDev .00569
%RSD 1.0805

#1 .52577
#2 .53508
#3 .52414
#4 .52228

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

07/01/00 06:20:08 PM

page 1

Method: QUANMET Sample Name: DFGL2

Operator: EMF

Run Time: 07/01/00 18:17:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 838

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00082	5.1887	.00369	-.00157	.02808	.00034	8.0205
SDev	.00210	.0276	.01618	.00257	.00034	.00007	.0272
%RSD	256.38	.53171	438.83	164.09	1.2079	19.793	.33953
#1	.00067	5.1824	.01409	-.00283	.02848	.00039	7.9997
#2	.00067	5.1969	-.02006	-.00400	.02819	.00039	8.0587
#3	-.00084	5.1548	.00686	.00194	.02798	.00028	8.0023
#4	-.00379	5.2208	.01385	-.00138	.02768	.00028	8.0215
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00025	.00283	.01125	.00997	3.0123	2.0273	.00523
SDev	.00210	.00463	.00288	.00234	.0154	.7118	.00300
%RSD	823.99	163.84	25.605	23.471	.50999	35.108	57.399
#1	.00227	.00911	.01437	.01268	3.0132	2.7369	.00781
#2	-.00129	.00213	.01275	.01087	3.0219	2.2538	.00781
#3	-.00252	.00214	.01004	.00906	2.9904	2.0726	.00228
#4	.00052	-.00207	.00787	.00725	3.0239	1.0460	.00301
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8632	.45389	.00045	6.7206	.00232	.03827	.00478
SDev	.0303	.00260	.00245	.0762	.00665	.03315	.02222
%RSD	1.6279	.57372	543.89	1.1335	286.14	86.627	464.65
#1	1.8815	.45166	-.00322	6.6978	-.00224	.08429	-.01577
#2	1.8843	.45562	.00168	6.7403	.01219	.03829	.03566
#3	1.8190	.45166	.00167	6.6314	.00016	.02299	.00475
#4	1.8679	.45661	.00168	6.8130	-.00081	.00752	-.00551
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01270	10.758	-.00008	.02960	.18511	.05785	.00619
SDev	.03990	.044	.00534	.00034	.00146	.03325	.00282
%RSD	314.10	.40700	7005.8	1.1654	.79011	57.484	45.604
#1	-.00922	10.770	-.00220	.02977	.18445	.02029	.00858
#2	.05181	10.787	.00617	.02946	.18678	.05486	.00868

#3	.04029	10.693	.00196	.02920	.18345	.10132	.00375
#4	-.03207	10.781	-.00623	.02998	.18578	.05492	.00374
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .05390
SDev .00115
%RSD 2.1262

#1 .05410
#2 .05329
#3 .05541
#4 .05278

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFGL6

Operator: EMF

Run Time: 07/01/00 18:20:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 840

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00061	5.9056	.00343	-.00213	.02851	.00030	6.0458
SDev	.00254	.0563	.04085	.00174	.00038	.00006	.0145
%RSD	417.44	.95382	1192.2	81.591	1.3378	19.914	.23995

#1	.00161	5.9432	-.04224	-.00293	.02890	.00028	6.0496
#2	.00158	5.8222	.04205	-.00314	.02819	.00028	6.0461
#3	-.00281	5.9212	.03346	.00047	.02878	.00039	6.0613
#4	-.00281	5.9358	-.01956	-.00292	.02819	.00027	6.0264

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00498	.00166	.00990	.00758	7.0887	2.4026	.00674
SDev	.00300	.00349	.00174	.00128	.0566	.4332	.00230
%RSD	60.207	210.14	17.555	16.922	.79914	18.031	34.062

#1	.00523	.00061	.00841	.00667	7.1152	1.8742	.00396
#2	.00834	.00201	.01112	.00757	7.0039	2.5040	.00925
#3	.00532	.00620	.01166	.00939	7.1219	2.9181	.00593
#4	.00104	-.00217	.00840	.00667	7.1139	2.3142	.00781

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.6203	.56852	-.00139	5.4441	.00459	.03303	.02271
SDev	.0247	.00269	.00245	.1075	.00678	.01336	.01944
%RSD	1.5268	.47365	176.50	1.9739	147.86	40.459	85.602

#1	1.6203	.57050	-.00261	5.4909	.00295	.02146	-.00552
#2	1.5931	.56454	-.00263	5.2840	.00153	.04458	.02525
#3	1.6530	.56951	.00229	5.4873	.01451	.04462	.03560
#4	1.6149	.56951	-.00261	5.5144	-.00065	.02145	.03551

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00724	10.478	-.00911	.02456	.24940	.03370	.00646
SDev	.03654	.116	.00938	.00040	.00239	.04300	.00257
%RSD	504.92	1.1048	102.98	1.6415	.95794	127.59	39.732

#1	.03591	10.546	-.01993	.02470	.25198	.02481	.00489
#2	-.00252	10.311	-.01165	.02396	.24632	-.02019	.00366

#3	.03592	10.564	.00265	.02479	.25031	.08231	.00869
#4	.04036	10.493	-.00752	.02479	.24898	.04787	.00858
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .03012
SDev .00028
%RSD .91678

#1 .02999
#2 .03054
#3 .02995
#4 .03002

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

07/01/00 06:26:23 PM

page 1

Method: QUANMET Sample Name: DFM2LB

Operator: EMF

Run Time: 07/01/00 18:23:18

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 842

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00148	-.00455	-.04438	-.01189	-.00040	-.00003	.20594
SDev	.00122	.00744	.05680	.00526	.00038	.00007	.00335
%RSD	82.461	163.46	127.96	44.193	94.354	211.78	1.6275
#1	-.00296	-.00279	-.10674	-.01739	-.00068	-.00009	.20690
#2	-.00148	-.01548	-.02726	-.00479	-.00068	-.00009	.20137
#3	.00002	.00094	-.06906	-.01199	-.00038	.00002	.20613
#4	-.00148	-.00087	.02552	-.01340	.00013	.00003	.20938
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00015	.00175	-.00109	.00113	.00318	.01078	-.00031
SDev	.00257	.00180	.00129	.00117	.00221	.69990	.00000
%RSD	1706.9	102.91	118.88	103.22	69.604	6490.4	.00000
#1	-.00044	-.00035	-.00190	.00068	.00268	-.11862	-.00031
#2	-.00355	.00106	-.00244	-.00022	.00335	-.86054	-.00031
#3	.00085	.00244	.00027	.00159	.00603	.20058	-.00031
#4	.00254	.00384	-.00027	.00249	.00067	.82172	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00544	-.00074	-.00122	.08416	-.00602	.01531	-.02312
SDev	.01610	.00049	.00633	.00598	.00365	.04222	.07698
%RSD	295.80	66.713	516.59	7.1010	60.668	275.78	332.94
#1	-.00408	-.00099	.00613	.08314	-.01015	-.00381	.01530
#2	-.00680	-.00099	-.00857	.08224	-.00455	-.03455	L-.13860
#3	.00408	.00000	-.00367	.09263	-.00763	.05743	.01545
#4	.02857	-.00099	.00123	.07862	-.00175	.04218	.01536
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00001	.05443	-.00773	.00012	-.00033	-.01446	.00028
SDev	.02519	.00295	.02051	.00025	.00043	.03587	.00231
%RSD	300500.	5.4271	265.25	217.02	129.10	248.01	819.50
#1	.00191	.04999	-.00399	-.00021	-.00083	.03744	-.00112
#2	.01717	.05587	-.01488	.00005	-.00050	-.02021	-.00140

#3	-.03621	.05594	-.03043	.00031	.00017	-.04334	.00362
#4	.01716	.05589	.01838	.00031	-.00017	-.03175	.00002

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.01911
SDev	.00157
%RSD	8.2360

#1	.01833
#2	.01831
#3	.01834
#4	H.02148

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DFM2LC

Operator: EMF

Run Time: 07/01/00 18:26:26

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 844

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04220	1.9269	1.9137	.92331	1.9145	.04840	49.606
SDev	.00074	.0159	.0656	.01869	.0114	.00022	.168
%RSD	1.7526	.82271	3.4274	2.0248	.59439	.45818	.33851
#1	.04256	1.9092	1.9205	.90716	1.9016	.04834	49.482
#2	.04257	1.9384	1.8749	.94116	1.9277	.04872	49.737
#3	.04109	1.9421	2.0034	.93775	1.9192	.04834	49.442
#4	.04257	1.9181	1.8561	.90717	1.9095	.04821	49.764
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04565	.48121	.23969	.24088	H1.3475	47.559	.94964
SDev	.00373	.00179	.00173	.00074	.0047	.454	.00711
%RSD	8.1657	.37269	.72404	.30705	.35109	.95511	.74907
#1	.04808	.47912	H.24119	.24088	H1.3413	47.925	.94527
#2	.04690	.48328	H.24118	.24179	H1.3527	47.977	.95884
#3	.04010	.48052	.23793	.23997	H1.3473	47.140	.95148
#4	.04751	.48191	.23847	.24088	H1.3487	47.192	.94296
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.281	.48346	.97533	48.647	.48548	.49228	.50804
SDev	.214	.00149	.01087	.271	.00605	.02283	.01774
%RSD	.43442	.30767	1.1141	.55788	1.2470	4.6383	3.4918
#1	49.052	.48222	.96186	48.375	.47880	.51327	.51313
#2	49.553	.48421	.98146	48.962	.48209	.49809	.52332
#3	49.332	.48222	.97166	48.778	.49178	.45977	.51330
#4	49.188	.48520	.98636	48.472	.48924	.49801	.48241
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9139	9.5710	1.9323	.97155	.95293	1.9040	.47606
SDev	.0288	.0769	.0239	.00506	.00371	.0925	.00021
%RSD	1.5039	.80366	1.2380	.52036	.38910	4.8560	.04387
#1	1.9463	9.4754	1.9517	.96617	.94985	1.9098	.47580
#2	1.9235	9.6637	1.9537	.97801	.95817	1.9673	.47618

#3	1.8777	9.5755	1.9171	.97266	.95285	1.9674	.47598
#4	1.9082	9.5696	1.9068	.96937	.95085	1.7714	.47627

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.50018
SDev	.00391
%RSD	.78169

#1	.49715
#2	.49705
#3	.50524
#4	.50130

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: CCV2-5

Operator: EMF

Run Time: 07/01/00 18:29:34

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 846

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99420	49.762	5.0133	4.9042	4.8777	4.9386	50.863
SDev	.00487	.372	.0827	.0441	.0529	.0459	.258
%RSD	.48973	.74682	1.6500	.90013	1.0838	.92920	.50744
#1	.99768	50.058	5.1304	4.9046	4.9212	4.9828	50.740
#2	.99016	50.059	4.9569	4.9589	4.9211	4.9680	50.690
#3	.98987	49.289	4.9530	4.8508	4.8140	4.8819	50.775
#4	.99910	49.641	5.0130	4.9026	4.8544	4.9217	51.246
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1373	4.9899	4.9685	4.8861	51.032	49.247	4.8248
SDev	.0125	.0226	.0193	.0491	.221	.255	.0852
%RSD	.24385	.45374	.38828	1.0058	.43216	.51756	1.7669
#1	5.1258	4.9812	4.9692	4.9308	51.156	49.202	4.9025
#2	5.1381	4.9881	4.9670	4.9218	51.113	49.616	4.8912
#3	5.1308	4.9688	4.9454	4.8268	50.702	49.133	4.7305
#4	5.1545	5.0217	4.9926	4.8648	51.155	49.038	4.7750
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.194	4.9317	4.9592	49.732	5.0630	5.0242	5.0074
SDev	.412	.0190	.0295	.679	.0220	.0397	.0195
%RSD	.82101	.38626	.59527	1.3657	.43410	.79012	.39013
#1	50.521	4.9387	4.9678	50.346	5.0309	4.9779	5.0225
#2	50.486	4.9337	4.9335	50.257	5.0761	5.0087	5.0231
#3	49.634	4.9049	4.9384	48.962	5.0668	5.0698	4.9820
#4	50.132	4.9496	4.9972	49.361	5.0781	5.0404	5.0021
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0191	5.0185	5.0094	4.9253	4.8891	9.7959	4.9528
SDev	.0867	.0386	.0252	.0479	.0321	.0775	.0266
%RSD	1.7273	.76842	.50355	.97230	.65595	.79087	.53766
#1	5.0023	5.0379	5.0063	4.9655	4.9143	9.6879	4.9761
#2	4.9717	5.0377	5.0206	4.9619	4.9109	9.8152	4.9545

#3	5.1460	4.9607	4.9758	4.8648	4.8447	9.8082	4.9151
#4	4.9565	5.0378	5.0348	4.9090	4.8863	9.8722	4.9656
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9619
SDev .0172
%RSD .34763

#1 4.9602
#2 4.9652
#3 4.9401
#4 4.9819

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB5

Operator: EMF

Run Time: 07/01/00 18:32:41

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 848

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00222	.00951	.00370	-.01317	.00048	.00090	.02579
SDev	.00192	.01549	.02068	.00085	.00048	.00023	.00412
%RSD	86.647	162.91	558.58	6.4519	98.973	25.926	15.977
#1	-.00148	.01546	-.00109	-.01197	.00084	.00106	.02809
#2	-.00298	.00627	.01799	-.01397	-.00017	.00056	.02017
#3	-.00444	-.01015	-.02354	-.01338	.00042	.00093	.02537
#4	.00002	.02645	.02144	-.01337	.00084	.00105	.02952
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00116	-.00070	-.00271	.00023	.00972	-.25234	-.00031
SDev	.00205	.00210	.00369	.00157	.00160	.66038	.00000
%RSD	176.29	300.73	136.24	693.13	16.436	261.70	.00000
#1	-.00294	-.00174	-.00407	.00068	.01073	-.37743	-.00031
#2	-.00015	-.00314	-.00732	-.00204	.00804	-1.1366	-.00031
#3	.00124	.00104	.00028	.00068	.00871	.22646	-.00031
#4	-.00279	.00105	.00027	.00158	.01140	.27822	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00544	.00075	.01348	.01694	-.00011	.02107	.05644
SDev	.01482	.00049	.00490	.00802	.00406	.04063	.08222
%RSD	272.34	65.860	36.358	47.329	3652.4	192.81	145.67
#1	-.00952	.00100	.01103	.02169	.00099	-.01129	H.17976
#2	-.02041	.00001	.02083	.00768	-.00086	-.01154	.01534
#3	-.00680	.00100	.01103	.01310	-.00517	.03446	.01527
#4	.01497	.00100	.01103	.02530	.00460	.07266	.01539
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02857	.04853	-.00584	.00103	.00058	.02009	-.00067
SDev	.03467	.00887	.01572	.00016	.00069	.05836	.00399
%RSD	121.33	18.277	269.34	15.288	117.80	290.50	597.37
#1	-.07433	.05589	-.02357	.00121	.00116	.03737	.00020
#2	.00193	.03817	-.01416	.00084	.00017	-.03172	-.00577

#3	-.03620	.04411	.01024	.00099	-.00017	-.02026	-.00102
#4	-.00569	.05594	.00414	.00110	.00116	.09496	.00391
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00515
SDev .00057
%RSD 11.121

#1 .00567
#2 .00543
#3 .00514
#4 .00435

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DFJTE

Operator: EMF

Run Time: 07/01/00 18:35:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 850

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00054	.82505	-.00116	.05154	.06984	.00012	19.389
SDev	.00296	.01182	.02229	.00115	.00104	.00007	.062
%RSD	552.06	1.4332	1914.9	2.2242	1.4948	55.196	.31999
#1	.00390	.83687	.01671	.05245	.06870	.00002	19.374
#2	-.00202	.81313	-.00201	.05261	.07123	.00016	19.308
#3	-.00200	.81681	-.03232	.05052	.06971	.00015	19.428
#4	-.00202	.83340	.01296	.05058	.06971	.00016	19.446
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00055	.00304	.00434	.00808	4.8776	4.8699	.00239
SDev	.00169	.00332	.00488	.00249	.0375	.5854	.00368
%RSD	304.52	109.41	112.45	30.808	.76889	12.021	153.89
#1	-.00165	-.00045	.00678	.00920	4.8280	4.8419	.00304
#2	.00078	.00094	-.00298	.00559	4.9124	4.2380	-.00031
#3	.00245	.00653	.00678	.01102	4.8702	5.6528	.00734
#4	.00064	.00513	.00678	.00650	4.8997	4.7470	-.00051
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.0624	1.1316	.00563	120.41	.00270	.02891	L-.06941
SDev	.0160	.0056	.00245	2.37	.00725	.02373	.10386
%RSD	.52313	.49522	43.483	1.9673	268.26	82.100	149.63
#1	3.0407	1.1237	.00685	117.72	.01157	.04040	.01534
#2	3.0788	1.1356	.00686	123.32	-.00381	.01725	L-.15926
#3	3.0624	1.1316	.00685	119.56	-.00258	.05565	L-.15930
#4	3.0679	1.1356	.00196	121.05	.00563	.00232	.02558
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01193	6.8498	-.00769	.11882	.04299	.00209	.00135
SDev	.01291	.0111	.01828	.00184	.00113	.05658	.00288
%RSD	108.14	.16219	237.78	1.5458	2.6332	2707.9	213.29
#1	-.01969	6.8513	.00693	.11652	.04341	-.04066	.00384
#2	.00722	6.8571	-.02640	.12076	.04208	-.01839	-.00110

#3	-.01958	6.8336	-.02031	.11829	.04208	-.01805	.00384
#4	-.01569	6.8571	.00902	.11971	.04441	.08546	-.00118

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.04196
SDev	.00167
%RSD	3.9839

#1	.04202
#2	.03966
#3	.04360
#4	.04257

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DFJTL

Operator: EMF

Run Time: 07/01/00 18:38:57

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 852

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00121	.37310	-.01655	.10277	.12076	.00009	85.361
SDev	.00141	.01010	.03359	.00267	.00078	.00007	.086
%RSD	116.16	2.7076	203.00	2.5949	.64367	78.759	.10087
#1	-.00158	.37492	.00326	.10398	.12056	.00002	85.293
#2	-.00010	.36206	.01470	.10597	.12005	.00015	85.427
#3	-.00012	.38602	-.02320	.10057	.12056	.00004	85.443
#4	-.00306	.36938	-.06095	.10057	.12187	.00015	85.280
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00201	.00480	.00692	.02964	.22597	10.042	.00000
SDev	.00140	.00176	.00120	.00074	.00198	.392	.00064
%RSD	69.616	36.639	17.386	2.4931	.87391	3.8989	35e6
#1	.00411	.00514	.00624	.02964	.22798	10.044	-.00059
#2	.00138	.00654	.00733	.03055	.22664	10.415	.00065
#3	.00127	.00515	.00570	.02874	.22597	9.5005	.00045
#4	.00129	.00235	.00841	.02964	.22328	10.208	-.00051
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8637	.85267	.00616	344.63	.00322	.04208	.13087
SDev	.0330	.00204	.00400	2.98	.00624	.02786	.09793
%RSD	.67752	.23892	64.962	.86469	193.89	66.201	74.828
#1	4.8474	.85044	.00616	342.88	.00243	.02668	.04617
#2	4.8419	.85143	.01106	342.46	.01227	.05753	.21049
#3	4.8528	.85440	.00126	344.22	-.00070	.01162	.22072
#4	4.9127	.85440	.00616	348.96	-.00112	.07249	.04611
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02061	12.429	.00720	.26110	.01755	.00241	.00259
SDev	.03211	.052	.01547	.00162	.00099	.04927	.00253
%RSD	155.79	.41796	214.88	.61904	5.6608	2040.5	97.397
#1	.02920	12.376	-.00590	.26034	.01713	-.06392	.00382
#2	.05970	12.393	.02740	.25992	.01780	.03984	.00392

663 853

#3	.01013	12.464	.01117	.26066	.01879	.03992	-.00120
#4	.01657	12.482	-.00387	.26348	.01647	-.00618	.00383

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.02996
SDev	.00060
%RSD	2.0046

#1	.03055
#2	.02920
#3	.03031
#4	.02979

Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report

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Method: QUANMET Sample Name: DFKQ3

Operator: EMF

Run Time: 07/01/00 18:42:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 854

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00089	.60228	-.00726	.05542	.08161	.00005	35.578
SDev	.00252	.00652	.02760	.01393	.00088	.00016	.070
%RSD	283.81	1.0829	380.28	25.133	1.0747	296.70	.19675
#1	.00022	.60784	-.03753	.05141	.08186	.00002	35.591
#2	-.00126	.60217	.00786	.04884	.08186	.00002	35.475
#3	-.00422	.59315	-.02231	.04545	.08237	-.00011	35.631
#4	.00170	.60594	.02296	.07599	.08035	.00028	35.613
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00136	.00028	.02143	.02180	1.1720	3.9598	.00077
SDev	.00177	.00370	.00172	.00187	.0075	.4554	.00037
%RSD	129.44	1343.0	8.0082	8.5618	.63909	11.500	47.551
#1	.00015	.00377	.02360	.02338	1.1671	4.1949	.00132
#2	.00313	-.00462	.02034	.02066	1.1758	3.7031	.00056
#3	-.00043	-.00042	.01980	.01976	1.1805	3.4702	.00056
#4	.00260	.00237	.02197	.02338	1.1645	4.4709	.00065
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.2329	.39115	-.00227	H427.83	.00165	.00329	.06660
SDev	.0765	.00169	.00469	6.08	.00555	.01545	.08960
%RSD	.82880	.43201	206.21	1.4219	335.99	469.83	134.54
#1	9.2363	.39091	-.00350	H425.78	.00289	-.00433	.01526
#2	9.2717	.39190	.00140	H431.21	-.00305	-.00456	.01514
#3	9.2989	.39289	-.00840	H434.04	-.00222	-.00442	.03579
#4	9.1247	.38893	.00140	H420.29	.00899	.02646	.20021
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01121	8.9605	-.00055	.20723	.01780	-.01281	.00369
SDev	.04205	.0532	.01396	.00251	.00061	.03825	.00009
%RSD	375.05	.59336	2547.3	1.2102	3.4126	298.60	2.4765
#1	.03549	8.9223	.00023	.20620	.01813	-.04161	.00367
#2	.00500	8.9870	.01447	.20819	.01746	-.04163	.00376

#3	-.002168	9.0223	.00236	.21018	.01713	-.00712	.00357
#4	-.006366	8.9105	-.01925	.20437	.01846	.03912	.00376

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .06685
SDev .00067
%RSD .99544

#1 .06760
#2 .06716
#3 .06608
#4 .06657

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DFKQ3P5

Operator: EMF

Run Time: 07/01/00 18:45:13

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 856

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00069	.12931	.00335	-.00119	.01679	.00009	7.3578
SDev	.00353	.01166	.04195	.00140	.00010	.00012	.0186
%RSD	515.17	9.0203	1252.1	117.73	.62112	135.37	.25281
#1	.00154	.13844	-.01754	.00066	.01684	.00015	7.3659
#2	-.00290	.12015	-.00982	-.00274	.01663	.00015	7.3521
#3	.00302	.14030	.06560	-.00134	.01684	.00015	7.3782
#4	-.00440	.11835	-.02484	-.00133	.01684	-.00009	7.3349

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00032	.00418	.00569	.00590	.24402	1.6305	.00172
SDev	.00134	.00310	.00304	.00171	.00173	.5091	.00406
%RSD	424.04	74.165	53.323	29.050	.70954	31.226	235.92
#1	.00212	.00522	.00787	.00703	.24469	1.9950	-.00031
#2	-.00110	.00523	.00841	.00703	.24201	1.9605	-.00031
#3	.00028	.00662	.00461	.00613	.24603	1.6672	.00781
#4	-.00004	-.00036	.00190	.00341	.24335	.89937	-.00031

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8917	.08090	-.00241	84.301	.00138	.02486	.02311
SDev	.0090	.00050	.00469	.518	.00382	.02179	.20484
%RSD	.47523	.61276	194.39	.61485	277.83	87.660	886.45
#1	1.8924	.08115	.00126	84.203	-.00374	.01892	-.14896
#2	1.8979	.08115	-.00364	84.402	.00329	.05715	-.15924
#3	1.8788	.08115	.00126	83.673	.00509	.01176	.19005
#4	1.8979	.08016	-.00854	84.927	.00086	.01161	.21059

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03019	1.8077	.00014	.04198	.00399	.02094	.00243
SDev	.03300	.0338	.01763	.00025	.00043	.05275	.00255
%RSD	109.30	1.8678	12612.	.59385	10.758	251.90	104.93
#1	.02924	1.8033	-.01897	.04182	.00383	.01227	.00373
#2	.06737	1.7798	.02369	.04182	.00416	.08147	.00364
#3	.03687	1.8563	-.00315	.04193	.00449	-.04539	.00373
#4	-.01270	1.7915	-.00102	.04235	.00349	.03542	-.00139

Elem	ZN
Units	ppm
Avge	.01584
SDev	.00180
%RSD	11.393
#1	.01541
#2	.01771
#3	.01670

#4 .01353
4.3 6.96

Analysis Report

07/01/00 06:51:26 PM

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Method: QUANMET Sample Name: DFKQ3S

Operator: EMF

Run Time: 07/01/00 18:48:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 858

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04147	2.5475	1.8826	.96215	1.8629	.04612	83.142
SDev	.00186	.0102	.0424	.00169	.0134	.00021	.278
%RSD	4.4814	.39935	2.2512	.17534	.71993	.45987	.33436

#1	.04405	2.5494	1.8392	.96302	1.8571	.04609	83.020
#2	.04112	2.5566	1.9373	.95962	1.8738	.04620	83.410
#3	.04112	2.5511	1.8920	.96301	1.8740	.04633	83.327
#4	.03961	2.5330	1.8620	.96296	1.8467	.04583	82.809

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04328	.46453	.20632	.24884	2.0910	50.477	.89548
SDev	.00204	.00333	.00190	.00114	.0127	.456	.00905
%RSD	4.7239	.71627	.92265	.45731	.60544	.90247	1.0110

#1	.04541	.45964	.20537	.24906	2.0920	50.798	.88731
#2	.04435	.46661	.20537	.24907	2.1027	49.996	.90307
#3	.04262	.46522	.20537	.24997	2.0960	50.927	.90355
#4	.04075	.46666	.20917	.24725	2.0732	50.185	.88798

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	55.427	.83641	.93012	H453.15	.47306	.51799	.49837
SDev	.272	.00379	.00849	3.61	.00305	.02881	.02443
%RSD	.49056	.45345	.91266	.79681	.64585	5.5610	4.9026

#1	55.313	.83542	.92277	H450.92	.47369	.55804	.53427
#2	55.659	.83938	.93747	H455.89	.47701	.51993	.48294
#3	55.640	.83938	.93747	H456.53	.47162	.49696	.48293
#4	55.095	.83146	.92277	H449.25	.46991	.49704	.49333

Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8902	18.044	1.8258	1.1076	.91335	1.8755	.45788
SDev	.0302	.047	.0322	.0078	.00527	.0669	.00300
%RSD	1.5989	.25900	1.7641	.70113	.57691	3.5649	.65627
#1	1.8682	18.000	1.8585	1.1043	.91127	1.9620	.45528
#2	1.8606	18.100	1.8399	1.1132	.91859	1.8926	.46049

#3	1.9102	18.065	1.8216	1.1148	.91659	1.8351	.46049
#4	1.9216	18.012	1.7831	1.0982	.90694	1.8122	.45528
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .54856
SDev .00194
%RSD .35408

#1 .55143
#2 .54725
#3 .54804
#4 .54750

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFKQ3D

Operator: EMF

Run Time: 07/01/00 18:51:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 860

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04409	2.5721	1.9182	.96305	1.8737	.04639	84.343
SDev	.00121	.0165	.0474	.00001	.0092	.00025	.340
%RSD	2.7395	.64285	2.4736	.00102	.49044	.53107	.40321
#1	.04558	2.5913	1.9105	.96305	1.8853	.04670	84.296
#2	.04262	2.5511	1.8768	.96304	1.8690	.04619	84.544
#3	.04408	2.5712	1.8994	.96306	1.8764	.04646	83.884
#4	.04410	2.5749	1.9862	.96305	1.8642	.04619	84.649
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04417	.46696	.20998	.25042	2.1180	50.440	.89734
SDev	.00296	.00488	.00419	.00188	.0033	.422	.01148
%RSD	6.7101	1.0458	1.9969	.75212	.15415	.83679	1.2788
#1	.04297	.46939	.21188	.25269	2.1228	50.738	.91072
#2	.04819	.47219	.20972	.24998	2.1161	50.582	.88731
#3	.04121	.46102	.20428	.25087	2.1161	49.815	.90307
#4	.04431	.46522	.21406	.24816	2.1168	50.625	.88826
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	55.912	.85002	.94115	H460.57	.47763	.50660	.52125
SDev	.196	.00219	.00469	3.04	.01719	.00976	.00990
%RSD	.35130	.25804	.49854	.66030	3.5993	1.9263	1.8986
#1	56.154	.85224	.94727	H463.90	.50053	.50475	.52398
#2	55.857	.84730	.94237	H458.89	.47991	.52016	.53409
#3	55.955	.84927	.93747	H462.25	.46951	.49687	.51355
#4	55.683	.85125	.93747	H457.25	.46056	.50464	.51336
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9226	18.322	1.9118	1.1162	.92308	1.8262	.46426
SDev	.0214	.042	.0163	.0051	.00280	.0590	.00252
%RSD	1.1142	.22914	.85010	.45582	.30364	3.2321	.54242
#1	1.8950	18.383	1.9092	1.1226	.92723	1.8002	.46561
#2	1.9446	18.289	1.9296	1.1135	.92158	1.9040	.46551

#3	1.9331	18.318	1.8909	1.1179	.92225	1.7658	.46048
#4	1.9179	18.300	1.9173	1.1110	.92125	1.8349	.46543
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .53864
SDev .00498
%RSD .92422

#1 .54269
#2 .54308
#3 .53332
#4 .53548

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFKQ3/2 NA

Operator: EMF

Run Time: 07/01/00 19:04:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 862

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00063	.31718	.01749	.03149	.04234	.00003	18.257
SDev	.00085	.00568	.02011	.00358	.00036	.00001	.128
%RSD	135.62	1.7922	114.95	11.381	.84434	26.544	.70043
#1	-.00138	.30895	.01855	.03135	.04216	.00004	18.105
#2	-.00136	.32173	-.00811	.03475	.04216	.00002	18.214
#3	.00012	.31811	.04107	.03333	.04216	.00002	18.406
#4	.00010	.31994	.01846	.02654	.04287	.00003	18.301
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00050	.00031	.00963	.01226	.60334	2.1718	.00566
SDev	.00279	.00434	.00174	.00136	.00337	.3061	.00399
%RSD	559.28	1381.9	18.032	11.096	.55906	14.094	70.418
#1	-.00054	-.00597	.00841	.01067	.59999	1.7276	-.00031
#2	-.00021	.00101	.00895	.01158	.60803	2.2452	.00781
#3	.00278	.00380	.01221	.01339	.60267	2.4263	.00781
#4	-.00403	.00242	.00895	.01339	.60267	2.2883	.00734
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.7556	.20164	.00009	216.70	.00577	.00741	.06160
SDev	.0328	.00095	.00617	1.61	.00220	.02977	.09245
%RSD	.69036	.47016	6834.4	.74195	38.094	401.97	150.09
#1	4.7195	.20089	-.00849	217.96	.00802	-.01958	.01542
#2	4.7930	.20090	.00132	218.00	.00632	.04966	.20027
#3	4.7385	.20189	.00132	214.63	.00597	-.00403	.01539
#4	4.7712	.20288	.00622	216.23	.00276	.00358	.01530
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00350	4.5332	-.00268	.10652	.00915	.04101	.00125
SDev	.03220	.0308	.00672	.00039	.00061	.02381	.00287
%RSD	921.07	.67844	250.43	.36901	6.6391	58.068	229.65
#1	.01111	4.5096	-.00391	.10672	.00881	.06704	-.00138
#2	-.01556	4.5038	-.00305	.10698	.00848	.02076	.00374

#3	.04544	4.5568	-.01002	.10619	.00981	.05538	.00374
#4	-.02701	4.5626	.00625	.10619	.00948	.02085	-.00109

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.03545
SDev	.00082
%RSD	2.3214

#1	.03583
#2	.03508
#3	.03639
#4	.03452

Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report

07/01/00 07:10:25 PM

page 1

Method: QUANMET Sample Name: DFKQ3P10 NA

Operator: EMF

Run Time: 07/01/00 19:07:19

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 864

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00034	.07193	-.00831	-.00800	.00851	.00003	3.7813
SDev	.00254	.00913	.02734	.00469	.00015	.00010	.0267
%RSD	742.88	12.697	328.95	58.637	1.7498	346.04	.70632
#1	-.00294	.07057	-.04322	-.01175	.00844	.00004	3.7819
#2	-.00146	.06511	.01352	-.01235	.00874	-.00009	3.7446
#3	.00300	.08519	-.01697	-.00355	.00844	.00015	3.7910
#4	.00004	.06683	.01342	-.00436	.00844	.00002	3.8078
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00107	-.00071	-.00014	.00204	.12637	.67938	-.00031
SDev	.00255	.00134	.00052	.00117	.00169	.43924	.00000
%RSD	238.02	188.30	382.33	57.157	1.3369	64.654	.00000
#1	.00276	-.00176	.00027	.00159	.12469	.39037	-.00031
#2	-.00270	-.00175	-.00081	.00069	.12603	.21783	-.00031
#3	.00248	-.00036	-.00027	.00340	.12872	1.0374	-.00031
#4	.00175	.00104	.00027	.00250	.12603	1.0719	-.00031
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98363	.04206	.00124	43.935	-.00208	-.02301	.01542
SDev	.01018	.00057	.00400	.460	.00579	.02827	.00001
%RSD	1.0350	1.3601	321.64	1.0480	278.96	122.85	.06747
#1	.98363	.04157	.00124	44.092	-.00824	.01137	.01542
#2	.98091	.04156	-.00366	44.516	-.00565	-.04979	.01542
#3	.97274	.04255	.00124	43.564	.00392	-.04212	.01542
#4	.99723	.04256	.00614	43.566	.00166	-.01149	.01544
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01587	.97961	-.01974	.02180	.00191	-.00972	.00125
SDev	.04494	.02959	.02414	.00041	.00069	.02823	.00290
%RSD	283.15	3.0204	122.29	1.8936	35.853	290.47	230.99
#1	-.05878	1.0090	-.04872	.02145	.00116	.00185	-.00121
#2	-.03971	.98546	-.02228	.02239	.00183	-.03275	-.00130
#3	-.00919	.98552	.01026	.02160	.00283	.02483	.00372
#4	.04418	.93845	-.01821	.02175	.00183	-.03280	.00381
Elem	ZN						
Units	ppm						
Avge	.00917						
SDev	.00110						
%RSD	11.997						
#1	.00909						
#2	.00885						
#3	.01069						

#4 .00806

Method: QUANMET Sample Name: DFKQ3S/2 NA

Operator: EMF

Run Time: 07/01/00 19:10:27

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 866

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02061	1.3103	.98003	.50761	.96913	.02409	42.516
SDev	.00121	.0091	.04460	.00858	.01348	.00019	.261
%RSD	5.8551	.69310	4.5510	1.6904	1.3910	.78796	.61454
#1	.01914	1.3226	.97706	.51297	.98888	.02437	42.355
#2	.02209	1.3098	.92048	.50955	.95850	.02399	42.886
#3	.02061	1.3008	.99616	.49496	.96508	.02399	42.510
#4	.02059	1.3080	1.0264	.51294	.96407	.02400	42.312
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02037	.23939	.10323	.12850	1.0878	25.314	.46422
SDev	.00535	.00180	.00482	.00128	.0087	.398	.01144
%RSD	26.282	.75316	4.6717	.99643	.79882	1.5724	2.4638
#1	.01730	.24008	.10011	.12940	1.0997	25.538	.47891
#2	.02369	.24148	.11042	.12940	1.0869	25.529	.45120
#3	.02596	.23728	.10119	.12850	1.0856	25.469	.46171
#4	.01452	.23871	.10119	.12669	1.0789	24.719	.46506
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	28.773	.43256	.47915	234.03	.24460	.27159	.25173
SDev	.239	.00162	.01167	4.09	.00461	.02885	.02423
%RSD	.83133	.37399	2.4345	1.7485	1.8861	10.621	9.6236
#1	29.132	.43454	.48651	239.88	.23832	.24677	.26971
#2	28.667	.43256	.48650	230.32	.24883	.30032	.24905
#3	28.653	.43255	.46200	233.00	.24711	.29251	.21846
#4	28.642	.43058	.48160	232.93	.24413	.24675	.26971
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98666	9.2944	.93420	.57633	.47243	.93294	.23845
SDev	.04851	.0534	.02800	.00674	.00343	.06131	.00244
%RSD	4.9162	.57427	2.9968	1.1689	.72577	6.5714	1.0249
#1	1.0458	9.3724	.89868	.58610	.47751	.94722	.23981
#2	.99238	9.2842	.96369	.57090	.47152	.84357	.23983

#3	.98093	9.2665	.94728	.57510	.47052	.95891	.23934
#4	.92753	9.2547	.92718	.57322	.47019	.98204	.23480
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .28332
SDev .00304
%RSD 1.0728

#1 .28527
#2 .28555
#3 .27897
#4 .28347

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

07/01/00 07:16:41 PM

page 1

Method: QUANMET Sample Name: DFKQ3D/2 NA

Operator: EMF

Run Time: 07/01/00 19:13:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 863

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02246	1.3171	.97899	.51018	.98162	.02441	43.240
SDev	.00143	.0040	.01558	.01063	.00299	.00006	.145
%RSD	6.3421	.29988	1.5919	2.0827	.30483	.23466	.33478
#1	.02211	1.3226	.97698	.49499	.98352	.02449	43.322
#2	.02059	1.3171	.97718	.51979	.98453	.02439	43.032
#3	.02357	1.3135	.96200	.51298	.97795	.02437	43.256
#4	.02357	1.3152	.99979	.51297	.98048	.02437	43.352
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02451	.24250	.10499	.13031	1.1044	26.077	.46617
SDev	.00287	.00417	.00473	.00074	.0041	.187	.00341
%RSD	11.713	1.7184	4.5062	.56772	.37424	.71594	.73083
#1	.02623	.24704	.10119	.13032	1.1091	26.021	.46649
#2	.02043	.23727	.10662	.12940	1.1044	25.900	.47012
#3	.02677	.24425	.10119	.13031	1.1051	26.047	.46629
#4	.02463	.24145	.11096	.13121	1.0990	26.340	.46180
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	29.133	.44122	.49018	239.81	.25450	.25829	.25423
SDev	.037	.00049	.00245	1.06	.00608	.04446	.05408
%RSD	.12703	.11200	.49982	.44093	2.3875	17.213	21.273
#1	29.132	.44147	.49141	239.99	.26218	.24700	.30059
#2	29.148	.44048	.49141	241.05	.25537	.20073	.19776
#3	29.083	.44147	.48651	238.48	.25295	.30045	.30043
#4	29.170	.44146	.49141	239.70	.24752	.28498	.21814
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0220	9.4710	.97131	.58416	.48033	.95584	.23959
SDev	.0396	.0101	.02674	.00207	.00088	.04147	.00353
%RSD	3.8704	.10654	2.7533	.35393	.18322	4.3386	1.4732
#1	1.0725	9.4842	.96390	.58448	.48050	.93555	.24360
#2	1.0115	9.4606	.93901	.58632	.48150	1.0164	.23500

663 869

#3	.97717	9.4665	1.0025	.58134	.47950	.94717	.23982
#4	1.0267	9.4724	.97978	.58448	.47983	.92420	.23993

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.27964
SDev	.00365
%RSD	1.3058

#1	.28389
#2	.27497
#3	.27972
#4	.27997

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-6

Operator: EMF

Run Time: 07/01/00 19:16:43

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP **663 870**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99491	49.355	5.0148	4.8587	4.7968	4.9002	51.503
SDev	.00331	.184	.0272	.0167	.0202	.0155	.084
%RSD	.33266	.37343	.54307	.34427	.42198	.31633	.16247
#1	.99295	49.091	5.0297	4.8510	4.7684	4.8771	51.465
#2	.99607	49.368	4.9852	4.8500	4.7967	4.9078	51.619
#3	.99162	49.474	4.9996	4.8837	4.8138	4.9056	51.424
#4	.99902	49.489	5.0448	4.8499	4.8084	4.9103	51.503
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1996	5.0066	4.9911	4.8151	50.954	48.430	4.6902
SDev	.0219	.0098	.0052	.0219	.109	.366	.0228
%RSD	.42040	.19514	.10438	.45441	.21442	.75611	.48653
#1	5.2243	4.9937	4.9866	4.7834	50.814	48.089	4.6630
#2	5.2117	5.0160	4.9963	4.8178	51.055	48.443	4.6820
#3	5.1826	5.0049	4.9866	4.8313	50.923	48.253	4.7159
#4	5.1799	5.0119	4.9947	4.8277	51.025	48.935	4.6998
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.921	4.9367	4.9470	48.972	5.0591	5.0460	5.0508
SDev	.195	.0113	.0062	.229	.0198	.0436	.0330
%RSD	.38982	.22899	.12495	.46738	.39188	.86372	.65328
#1	49.645	4.9228	4.9384	48.679	5.0502	5.0171	5.0019
#2	49.974	4.9495	4.9531	48.910	5.0858	5.1094	5.0742
#3	49.964	4.9337	4.9482	49.191	5.0395	5.0402	5.0635
#4	50.102	4.9406	4.9482	49.110	5.0609	5.0174	5.0637
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9150	4.9655	5.1053	4.8667	4.8559	9.7678	4.9508
SDev	.0802	.0156	.0329	.0186	.0146	.0752	.0107
%RSD	1.6320	.31408	.64437	.38177	.30045	.76944	.21650
#1	4.9175	4.9433	5.1346	4.8404	4.8341	9.7146	4.9349
#2	4.9906	4.9729	5.0738	4.8673	4.8634	9.8733	4.9549

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#3	4.8034	4.9671	5.1328	4.8813	4.8614	9.7133	4.9585
#4	4.9485	4.9788	5.0799	4.8780	4.8647	9.7699	4.9548
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9656
SDev .0070
%RSD .14109

#1 4.9593
#2 4.9723
#3 4.9597
#4 4.9710

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB6

Operator: EMF

Run Time: 07/01/00 19:19:51

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 872

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00370	-.00421	-.01129	-.00579	-.00038	.00007	.01142
SDev	.00148	.00787	.02620	.01021	.00024	.00006	.00402
%RSD	39.948	187.16	232.09	176.24	64.039	95.871	35.175
#1	-.00148	.00639	.01036	-.01259	-.00038	.00016	.01383
#2	-.00444	-.01022	-.04242	-.01000	-.00068	.00003	.00563
#3	-.00444	-.01017	-.02353	-.00998	-.00038	.00003	.01183
#4	-.00444	-.00283	.01043	.00941	-.00008	.00003	.01440
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00044	-.00139	-.00352	-.00068	.00184	-.08196	-.00031
SDev	.00202	.00209	.00147	.00117	.00176	.17853	.00000
%RSD	461.53	150.17	41.660	171.94	95.833	217.83	.00000
#1	-.00135	.00105	-.00244	.00068	.00335	.08843	-.00031
#2	.00237	-.00035	-.00569	-.00204	-.00067	-.15313	-.00031
#3	-.00230	-.00314	-.00298	-.00113	.00201	.03666	-.00031
#4	-.00046	-.00314	-.00298	-.00023	.00268	-.29979	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01633	-.00049	.00858	.01435	-.00258	.00761	.00510
SDev	.01144	.00057	.00490	.00831	.00480	.02606	.02513
%RSD	70.053	116.14	57.138	57.926	186.30	342.26	492.29
#1	-.01224	.00000	.00613	.01356	-.00099	-.01904	.03591
#2	-.01769	-.00098	.01593	.01220	.00308	-.00386	-.02565
#3	-.03129	-.00099	.00613	.00587	-.00415	.04197	.00511
#4	-.00408	.00000	.00613	.02576	-.00825	.01139	.00504
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01143	.05000	-.00963	-.00010	-.00083	.02017	-.00107
SDev	.01009	.00679	.01322	.00000	.00027	.07560	.00009
%RSD	88.222	13.587	137.22	.00000	32.660	374.77	8.5598
#1	-.02478	.05588	.00627	-.00010	-.00050	.02590	-.00112
#2	-.01335	.04411	-.02249	-.00010	-.00116	.10665	-.00093

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#3	-.00190	.05588	-.01828	-.00010	-.00083	.02594	-.00112
#4	-.00571	.04411	-.00404	-.00010	-.00083	-.07781	-.00112
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00206
SDev	.00137
%RSD	66.573

#1	.00381
#2	.00249
#3	.00096
#4	.00097

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DFAM3T

Operator: EMF

Run Time: 07/01/00 19:22:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00473	1.7276	.15373	.01369	1.0718	.00044	437.71
SDev	.00074	.0174	.08854	.01611	.0139	.00006	1.53
%RSD	15.550	1.0098	57.593	117.62	1.2987	14.028	.34963
#1	-.00438	1.7409	.22645	-.01033	1.0813	.00042	436.12
#2	-.00583	1.7298	.02991	.02343	1.0718	.00041	437.69
#3	-.00435	1.7372	.20750	.02224	1.0820	.00041	439.78
#4	-.00435	1.7023	.15108	.01943	1.0521	.00053	437.24
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00273	-.00053	.01980	.01722	.44188	1.6758	.00107
SDev	.00268	.00239	.00423	.00155	.00253	.6488	.00081
%RSD	98.257	452.90	21.340	8.9820	.57265	38.719	76.119
#1	-.00064	-.00367	.01438	.01518	.44372	1.1323	.00101
#2	.00510	.00052	.01980	.01790	.43970	2.4005	.00141
#3	.00180	-.00088	.02034	.01699	.44439	1.1237	-.00003
#4	.00467	.00192	.02469	.01880	.43970	2.0468	.00188
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.0568	.20849	.00007	S2690.7	.00515	.05621	.01786
SDev	.0505	.00169	.00469	1793.9	.00287	.04373	.03183
%RSD	.71584	.80954	7099.6	66.670	55.749	77.804	178.20
#1	7.0840	.20873	-.00361	S3587.2	.00660	.00263	.04615
#2	7.0949	.20774	.00129	S3587.7	.00652	.05626	.03585
#3	7.0650	.21071	-.00361	S-.14414	.00084	.05619	.01526
#4	6.9833	.20676	.00619	S3588.2	.00663	.10975	-.02582
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01600	7.3558	.01191	3.1184	-.01364	-.02069	.00250
SDev	.02767	.0581	.00461	.0354	.00019	.06340	.00252
%RSD	173.01	.78993	38.681	1.1362	1.4082	306.39	100.61
#1	-.05031	7.3925	.01459	3.1417	-.01347	-.03507	-.00127
#2	-.02363	7.3808	.01047	3.1203	-.01380	.02254	.00376

#3	.01452	7.3808	.01648	3.1439	-.01380	.03405	.00366
#4	-.00456	7.2690	.00611	3.0678	-.01347	-.10429	.00386
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .09339
SDev .00227
%RSD 2.4275

#1 .09247
#2 .09534
#3 .09513
#4 .09061

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFAM3P5T

Operator: EMF

Run Time: 07/01/00 19:26:07

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00294	.35479	.00932	-.00891	.22977	.00010	89.476
SDev	.00172	.00780	.03058	.00399	.00300	.00007	.188
%RSD	58.270	2.1974	328.13	44.730	1.3073	73.262	.21015

#1	-.00443	.34565	-.03027	-.00642	.22833	.00004	89.461
#2	-.00443	.36216	.00361	-.01381	.23319	.00016	89.325
#3	-.00147	.36032	.04142	-.01042	.23116	.00004	89.372
#4	-.00145	.35105	.02251	-.00501	.22640	.00015	89.745

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00212	-.00047	-.00136	.00295	.09451	.32567	-.00062
SDev	.00267	.00228	.00077	.00157	.00145	.52398	.00076
%RSD	125.87	488.11	56.612	53.185	1.5340	160.89	122.14

#1	.00001	-.00046	-.00190	.00249	.09384	.17470	-.00031
#2	-.00038	-.00326	-.00190	.00159	.09317	-.25665	-.00174
#3	.00458	.00232	-.00027	.00250	.09451	.38175	-.00011
#4	.00426	-.00047	-.00136	.00521	.09652	1.0029	-.00031

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.4918	.04353	-.00244	287.10	.00140	.00932	.00776
SDev	.0182	.00000	.00469	4.70	.00499	.02678	.01543
%RSD	1.2224	.00448	192.60	1.6385	355.53	287.44	198.81

#1	1.4734	.04353	-.00366	286.00	-.00320	-.00408	-.00515
#2	1.4788	.04352	-.00856	292.45	.00131	-.00416	-.00502
#3	1.5061	.04353	.00124	288.67	-.00086	-.00398	.01540
#4	1.5088	.04353	.00124	281.26	.00836	.04948	.02581

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00833	1.4914	-.00705	.66753	-.00291	-.00649	-.00005
SDev	.01260	.0000	.01596	.00822	.00069	.09145	.00251
%RSD	151.26	.00211	226.29	1.2309	23.561	1408.9	5047.6

#1	-.00547	1.4914	.01018	.66572	-.00349	.10593	-.00131
#2	-.00929	1.4914	-.02440	.67694	-.00349	-.03238	-.00140
#3	-.02454	1.4914	.00213	.67013	-.00216	-.11314	-.00121
#4	.00597	1.4915	-.01612	.65733	-.00249	.01364	.00371

Elem	ZN
Units	ppm
Avge	.02074
SDev	.00235
%RSD	11.355

#1	.01883
#2	.02068
#3	.01937

#4 .02407

Method: QUANMET Sample Name: DFAM3ST

Operator: EMF

Run Time: 07/01/00 19:29:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.91949	1.6626	5.0340	-.00457	45.794	.00041	410.12
SDev	.00279	.0159	.0799	.01526	.438	.00010	2.60
%RSD	.30387	.95483	1.5877	333.74	.95622	24.118	.63346
#1	.92132	1.6566	5.0805	-.01322	45.930	.00029	410.99
#2	.92134	1.6694	4.9177	.01797	46.190	.00041	406.36
#3	.91986	1.6804	5.0462	-.00841	45.887	.00054	410.76
#4	.91543	1.6437	5.0918	-.01462	45.169	.00041	412.35
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98288	.00362	4.5200	.01564	.40736	1.3113	.00100
SDev	.00221	.00092	.0215	.00117	.00200	.5012	.00097
%RSD	.22499	25.250	.47467	7.4689	.49122	38.224	96.611
#1	.98438	.00320	4.5262	.01428	.40686	.71820	-.00003
#2	.98084	.00308	4.4883	.01518	.40686	1.3221	.00065
#3	.98516	.00322	4.5306	.01699	.41021	1.9432	.00228
#4	.98112	.00499	4.5349	.01609	.40552	1.2617	.00112
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.7262	.19661	-.00116	S3588.1	.00208	4.7059	.02201
SDev	.0271	.00049	.00283	.7	.00279	.0469	.00996
%RSD	.40250	.25124	243.01	.01949	134.16	.99631	45.271
#1	6.7194	.19686	.00129	S3588.2	.00146	4.7614	.02965
#2	6.7602	.19686	-.00361	S3588.0	.00304	4.6467	.03004
#3	6.7303	.19686	-.00361	S3587.2	.00521	4.7078	.00906
#4	6.6949	.19587	.00129	S3589.0	-.00141	4.7079	.01929
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0077	6.9806	-.00436	2.9847	-.01081	.04009	.00153
SDev	.0514	.0343	.02144	.0241	.00027	.04848	.00242
%RSD	5.1004	.49124	492.13	.80755	2.5123	120.92	157.97
#1	.96771	7.0041	-.01398	2.9926	-.01048	.09201	-.00210
#2	.97152	6.9512	-.02212	3.0053	-.01081	.03433	.00266

#3	1.0783	7.0159	.02660	2.9912	-.01114	-.02335	.00274
#4	1.0135	6.9512	-.00793	2.9498	-.01081	.05738	.00284
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .08876
SDev .00166
%RSD 1.8687

#1 .08644
#2 .08909
#3 .09039
#4 .08910

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFAM3DT

Operator: EMF

Run Time: 07/01/00 19:32:23

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.89325	1.6002	4.9929	-.00664	44.470	.00041	403.59
SDev	.00436	.0062	.0861	.01600	.478	.00001	1.82
%RSD	.48776	.38889	1.7246	240.90	1.0741	1.6217	.45136

#1	.88733	1.5924	4.9297	-.01465	43.886	.00041	402.04
#2	.89768	1.6053	4.9145	.01736	45.017	.00041	405.76
#3	.89324	1.5979	5.0317	-.01464	44.341	.00041	402.12
#4	.89475	1.6052	5.0958	-.01463	44.635	.00040	404.43

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98044	.00535	4.4849	.01541	.39899	1.4342	.00119
SDev	.00706	.00138	.0253	.00087	.00373	.3396	.00062
%RSD	.72013	25.906	.56380	5.6250	.93410	23.681	52.031

#1	.97093	.00706	4.4595	.01609	.39614	1.3911	.00112
#2	.97997	.00367	4.5121	.01428	.40150	1.0029	.00045
#3	.98755	.00539	4.4677	.01518	.39547	1.5205	.00124
#4	.98331	.00525	4.5002	.01609	.40284	1.8225	.00197

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.4861	.19167	.00128	S3589.5	.00460	4.6238	.02488
SDev	.0467	.00095	.00400	.1	.00464	.0471	.02580
%RSD	.72042	.49376	311.40	.00223	100.69	1.0183	103.69

#1	6.4473	.19092	.00128	S3589.5	.00016	4.5856	.01995
#2	6.5453	.19290	-.00362	S3589.6	.00104	4.6926	-.00092
#3	6.4500	.19093	.00618	S3589.4	.00870	4.6085	.01981
#4	6.5017	.19191	.00129	S3589.6	.00851	4.6086	.06067

Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0373	6.7512	.00074	2.8674	-.01031	.00554	.00397
SDev	.0330	.0630	.04188	.0289	.00058	.07620	.00248
%RSD	3.1825	.93325	5676.9	1.0068	5.5873	1376.5	62.476

#1	1.0516	6.6688	-.01607	2.8318	-.01015	.04591	.00269
#2	1.0401	6.8218	-.05073	2.9001	-.01114	.09200	.00270

#3	.99056	6.7511	.03478	2.8600	-.01015	-.04630	.00280
#4	1.0668	6.7630	.03497	2.8778	-.00981	-.06946	.00770
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .09914
SDev .00140
%RSD 1.4090

#1 .09987
#2 .09910
#3 .09721
#4 .10040

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFM2LC RERUN FE Operator: EMF
 Run Time: 07/01/00 19:35:31
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04475	1.8854	1.8424	.90249	1.8389	.04733	50.102
SDev	.00147	.0227	.0280	.00652	.0211	.00036	.155
%RSD	3.2752	1.2059	1.5171	.72209	1.1491	.77090	.30977
#1	.04549	1.8670	1.8756	.89349	1.8199	.04707	49.962
#2	.04546	1.8654	1.8304	.90367	1.8215	.04696	50.003
#3	.04256	1.8981	1.8526	.90369	1.8539	.04757	50.306
#4	.04551	1.9109	1.8109	.90909	1.8602	.04770	50.135
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04426	.47988	.23807	.23432	H1.3019	45.973	.89790
SDev	.00095	.00179	.00121	.00238	.0062	.434	.01482
%RSD	2.1432	.37333	.50755	1.0153	.47625	.94504	1.6507
#1	.04466	.47781	.23848	.23454	H1.2997	45.872	.88421
#2	.04336	.48060	.23902	.23093	H1.2943	45.406	.88641
#3	.04363	.47917	.23848	.23545	H1.3051	46.234	.90715
#4	.04541	.48196	.23629	.23635	H1.3084	46.381	.91384
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.132	.47825	.96430	46.710	.49572	.50182	.49795
SDev	.409	.00292	.00938	.600	.01564	.00764	.03088
%RSD	.84941	.60956	.97314	1.2846	3.1552	1.5217	6.2022
#1	47.790	.47628	.96185	46.202	.47469	.49794	.48232
#2	47.773	.47528	.95205	46.195	.49292	.51328	.46205
#3	48.410	.48024	.97165	47.090	.50770	.49801	.52371
#4	48.554	.48122	.97165	47.352	.50756	.49807	.52373
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8900	9.4592	1.9333	.93901	.93206	1.8900	.47215
SDev	.0415	.0750	.0136	.01021	.00732	.1177	.00489
%RSD	2.1944	.79268	.70184	1.0868	.78542	6.2252	1.0366
#1	1.8318	9.3812	1.9536	.93011	.92524	1.7258	.47087
#2	1.8890	9.4282	1.9251	.93037	.92624	1.8873	.46576

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#3	1.9157	9.5578	1.9273	.94635	.93788	1.9909	.47598
#4	1.9234	9.4696	1.9273	.94923	.93888	1.9562	.47598

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.49285
SDev	.00192
%RSD	.38876

#1	.49368
#2	.49021
#3	.49468
#4	.49282

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: CCV2-7

Operator: EMF

Run Time: 07/01/00 19:38:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99177	48.872	4.9892	4.7929	4.7321	4.8479	51.804
SDev	.00471	.613	.0656	.0582	.0704	.0673	.184
%RSD	.47486	1.2547	1.3142	1.2153	1.4873	1.3889	.35524
#1	.99770	49.619	5.0242	4.8676	4.8139	4.9300	52.033
#2	.99291	49.047	5.0642	4.7964	4.7578	4.8704	51.582
#3	.98980	48.652	4.9357	4.7812	4.7078	4.8165	51.804
#4	.98666	48.171	4.9327	4.7263	4.6489	4.7747	51.799
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1871	5.0015	4.9888	4.7447	50.698	48.240	4.5871
SDev	.0149	.0213	.0228	.0789	.383	.651	.1039
%RSD	.28673	.42545	.45704	1.6621	.75558	1.3501	2.2641
#1	5.2054	5.0314	5.0224	4.8368	51.202	49.021	4.6992
#2	5.1724	4.9994	4.9828	4.7753	50.730	47.813	4.6428
#3	5.1926	4.9939	4.9774	4.7128	50.574	48.520	4.5396
#4	5.1781	4.9814	4.9725	4.6540	50.286	47.606	L4.4670
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.343	4.9240	4.9016	48.085	5.0546	5.0557	5.0099
SDev	.613	.0323	.0306	.876	.0466	.0622	.0225
%RSD	1.2424	.65497	.62499	1.8223	.92203	1.2301	.44910
#1	50.105	4.9684	4.9335	49.087	5.1234	5.1019	5.0025
#2	49.539	4.9227	4.9090	48.479	5.0307	5.0021	5.0226
#3	49.017	4.9128	4.8599	47.679	5.0419	5.1168	4.9819
#4	48.709	4.8920	4.9040	47.095	5.0222	5.0022	5.0327
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9296	4.9608	5.1067	4.8067	4.8165	9.7100	4.9253
SDev	.0599	.0178	.0370	.0661	.0502	.3149	.0415
%RSD	1.2160	.35898	.72433	1.3754	1.0423	3.2430	.84181
#1	4.9566	4.9792	5.1487	4.8846	4.8793	10.171	4.9804
#2	5.0011	4.9668	5.0737	4.8302	4.8301	9.6232	4.9307

#3	4.8749	4.9606	5.0776	4.7819	4.7945	9.4636	4.9063
#4	4.8856	4.9367	5.1267	4.7300	4.7622	9.5820	4.8838
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9644
SDev .0381
%RSD .76795

#1 5.0209
#2 4.9499
#3 4.9496
#4 4.9372

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB7

Operator: EMF

Run Time: 07/01/00 19:41:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00148	.02323	.00453	-.00959	-.00002	.00032	.03099
SDev	.00120	.00528	.01556	.00200	.00032	.00007	.00341
%RSD	80.855	22.721	343.73	20.880	1415.3	20.818	11.003
#1	.00002	.01725	.00263	-.00859	-.00017	.00028	.02800
#2	.00148	.02281	.00266	-.01259	-.00038	.00029	.03196
#3	.00295	.03012	.02528	-.00859	.00013	.00029	.03539
#4	.00148	.02277	-.01246	-.00858	.00034	.00042	.02862
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	-.00000	-.00013	.00090	.00486	.40116	-.00001
SDev	.00129	.00209	.00136	.00114	.00200	.43327	.00078
%RSD	1686.0	124120.	1034.6	125.71	41.197	108.00	5572.6
#1	-.00037	-.00175	-.00027	.00249	.00268	.75271	-.00070
#2	.00147	.00104	.00028	.00068	.00403	.51978	.00056
#3	.00070	.00244	.00136	.00068	.00537	.56291	.00076
#4	-.00150	-.00174	-.00189	-.00023	.00738	-.23077	-.00067
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01156	.00025	.01593	.02530	-.00138	.02677	.01791
SDev	.01890	.00049	.00400	.00495	.00632	.03122	.02115
%RSD	163.44	195.54	25.123	19.562	459.76	116.64	118.10
#1	.02857	.00000	.01103	.01988	-.00094	.05729	.00511
#2	.01224	.00001	.01593	.02259	-.00600	.00383	-.00519
#3	.02041	.00100	.02083	.03073	-.00598	.04979	.03577
#4	-.01497	.00001	.01593	.02801	.00741	-.00384	.03596
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03719	.06472	-.01873	.00047	.00091	.01148	.00031
SDev	.02612	.01017	.01613	.00011	.00074	.04648	.00240
%RSD	70.230	15.718	86.089	22.764	80.631	404.93	780.54
#1	.00573	.05594	-.01625	.00042	-.00017	.04895	.00391
#2	.06674	.07353	-.04070	.00042	.00116	.01437	-.00092

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#3	.04768	.07353	-.00187	.00042	.00150	.03740	-.00083
#4	.02862	.05588	-.01611	.00064	.00116	-.05482	-.00093

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00653
SDev	.00089
%RSD	13.652

#1	.00778
#2	.00569
#3	.00646
#4	.00619

Errors	LC Pass
High	.02000
Low	-.02000

Edm Faust
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Averages

COF300207- Redigestion.
6010B

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#	Sample Name	FE
1	STD1	.00009
2	STD5A	
3	STD5B	29.9771
4	ICV2-1 0014-148-7	26.073
5	ICB1	.00617
6	ICSA 0014-129-11	183.36
7	ICSAB 0014-104-1	180.89
8	DFM2RB	.00750
9	DFM2RC	1.0338
10	DS09C01CS	165.11
11	DS09C01CSP5	36.303
12	DS09C01CSS	204.41
13	DS09C01CSD	205.42
14	DS10C01CS	154.87
15	DS11C01CS	159.93
16	CCV2-1 0014-164-11	51.077
17	CCB1	.00366
18	DFM2GB	.00833
19	DFM2GC	1.0435
20	DEN7F	2.2470
21	DEN7K	3.8538
22	DEN7M	.18312
23	DEN7V	.30621
24	DEN81	.02465
25	DEN85	5.7934
26	DEN88	.02431
27	DEN88P5	.00432
28	CCV2-2	50.442
29	CCB2	.00400
30	DEN88S	.99772
31	DEN88D	.99456
32	DEN8H	.02281
33	DEN8L	.00483
34	DEN8P	.91570
35	DEN8W	.08071
36	DEN92	4.8655
37	DEN93	.14541
38	CCV2-3	51.172
39	CCB3	.00633
40	DFK4AB	.00650
41	DFK4AC	1.0348
42	DFCKL	235.13
43	DFCKN	242.43
44	DFCKP	145.05
45	DFCKPP5	31.363
46	DFCKPS	152.76
47	DFCKPD	173.10
48	DFCKR	206.27
49	DFCKT	193.41
50	CCV2-4	51.429
51	CCB4	.00467
52	DFCKV	237.97
53	DFCKW	269.44

#	Sample Name	FE
54	DFCMP	H456.16
55	DFCP9	201.27
56	DF9XA	84.598
57	DF9XC	55.021
58	DFCMP/2 FE	237.11
59	CCV2-5	51.073
60	CCB5	.00767
61	DFNEXBT	.01050
62	DFNEXCT	1.0031
63	DFM9XBT	.02151
64	DEH5MT	.26833
65	DEH5MP5T	.05853
66	DEH5MST	.26184
67	DEH5MDT	.27551
68	DFH6FT	.37527
69	DFH6JT	.68688
70	CCV2-6	50.696
71	CCB6	.00550
72	DFNERB	.00500
73	DFNERC	1.0189
74	DFJTE	4.8218
75	DFJTEP5	.99412
76	DFJTES	5.5432
77	DFJTED	5.8271
78	DFKQ3	1.2449
79	DFJTTL	.21155
80	CCV2-7	50.407
81	CCB7	.00367

QMF 7-300

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	J00703A	QUANMET	07/03/00	14:07		X	IR
2	STD5A	J00703A	QUANMET	07/03/00	14:10		X	IR
3	STD5B	J00703A	QUANMET	07/03/00	14:13		X	IR
4	ICV2-1 0014-148-7	J00703A	QUANMET	07/03/00	14:16	EMF	S	CONC
5	ICB1	J00703A	QUANMET	07/03/00	14:20	EMF	S	CONC
6	ICSA 0014-129-11	J00703A	QUANMET	07/03/00	14:23	EMF	Q	CONC
7	ICSAB 0014-104-1	J00703A	QUANMET	07/03/00	14:26	EMF	Q	CONC
8	DFM2RB	J00703A	QUANMET	07/03/00	14:30	EMF	S	CONC
9	DFM2RC	J00703A	QUANMET	07/03/00	14:33	EMF	S	CONC
10	DS09C01CS	J00703A	QUANMET	07/03/00	14:36	EMF	S	CONC
11	DS09C01CSP5	J00703A	QUANMET	07/03/00	14:39	EMF	S	CONC
12	DS09C01CSS	J00703A	QUANMET	07/03/00	14:43	EMF	S	CONC
13	DS09C01CSD	J00703A	QUANMET	07/03/00	14:46	EMF	S	CONC
14	DS10C01CS	J00703A	QUANMET	07/03/00	14:49	EMF	S	CONC
15	DS11C01CS	J00703A	QUANMET	07/03/00	14:52	EMF	S	CONC
16	CCV2-1 0014-164-11	J00703A	QUANMET	07/03/00	14:55	EMF	S	CONC
17	CCB1	J00703A	QUANMET	07/03/00	14:58	EMF	S	CONC
18	DFM2GB	J00703A	QUANMET	07/03/00	15:05	EMF	S	CONC
19	DFM2GC	J00703A	QUANMET	07/03/00	15:08	EMF	S	CONC
20	DEN7F	J00703A	QUANMET	07/03/00	15:11	EMF	S	CONC
21	DEN7K	J00703A	QUANMET	07/03/00	15:14	EMF	S	CONC
22	DEN7M	J00703A	QUANMET	07/03/00	15:18	EMF	S	CONC
23	DEN7V	J00703A	QUANMET	07/03/00	15:21	EMF	S	CONC
24	DEN81	J00703A	QUANMET	07/03/00	15:24	EMF	S	CONC
25	DEN85	J00703A	QUANMET	07/03/00	15:27	EMF	S	CONC
26	DEN88	J00703A	QUANMET	07/03/00	15:30	EMF	S	CONC
27	DEN88P5	J00703A	QUANMET	07/03/00	15:33	EMF	S	CONC
28	CCV2-2	J00703A	QUANMET	07/03/00	15:36	EMF	S	CONC
29	CCB2	J00703A	QUANMET	07/03/00	15:39	EMF	S	CONC
30	DEN88S	J00703A	QUANMET	07/03/00	15:43	EMF	S	CONC
31	DEN88D	J00703A	QUANMET	07/03/00	15:46	EMF	S	CONC
32	DEN8H	J00703A	QUANMET	07/03/00	15:49	EMF	S	CONC
33	DEN8L	J00703A	QUANMET	07/03/00	15:52	EMF	S	CONC
34	DEN8P	J00703A	QUANMET	07/03/00	15:55	EMF	S	CONC
35	DEN8W	J00703A	QUANMET	07/03/00	15:58	EMF	S	CONC
36	DEN92	J00703A	QUANMET	07/03/00	16:01	EMF	S	CONC
37	DEN93	J00703A	QUANMET	07/03/00	16:04	EMF	S	CONC
38	CCV2-3	J00703A	QUANMET	07/03/00	16:08	EMF	S	CONC
39	CCB3	J00703A	QUANMET	07/03/00	16:11	EMF	S	CONC
40	DFK4AB	J00703A	QUANMET	07/03/00	16:18	EMF	S	CONC
41	DFK4AC	J00703A	QUANMET	07/03/00	16:21	EMF	S	CONC
42	DFCKL	J00703A	QUANMET	07/03/00	16:24	EMF	S	CONC
43	DFCKN	J00703A	QUANMET	07/03/00	16:27	EMF	S	CONC
44	DFCKP	J00703A	QUANMET	07/03/00	16:30	EMF	S	CONC
45	DFCKPP5	J00703A	QUANMET	07/03/00	16:34	EMF	S	CONC
46	DFCKPS	J00703A	QUANMET	07/03/00	16:37	EMF	S	CONC
47	DFCKPD	J00703A	QUANMET	07/03/00	16:40	EMF	S	CONC
48	DFCKR	J00703A	QUANMET	07/03/00	16:43	EMF	S	CONC
49	DFCKT	J00703A	QUANMET	07/03/00	16:46	EMF	S	CONC
50	CCV2-4	J00703A	QUANMET	07/03/00	16:49	EMF	S	CONC
51	CCB4	J00703A	QUANMET	07/03/00	16:52	EMF	S	CONC
52	DFCKV	J00703A	QUANMET	07/03/00	16:55	EMF	S	CONC
53	DFCKW	J00703A	QUANMET	07/03/00	16:59	EMF	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	DFCMP	J00703A	QUANMET	07/03/00	17:02	EMF	S	CONC
55	DFCP9	J00703A	QUANMET	07/03/00	17:05	EMF	S	CONC
56	DF9XA	J00703A	QUANMET	07/03/00	17:08	EMF	S	CONC
57	DF9XC	J00703A	QUANMET	07/03/00	17:11	EMF	S	CONC
58	DFCMP/2 FE	J00703A	QUANMET	07/03/00	17:15	EMF	S	CONC
59	CCV2-5	J00703A	QUANMET	07/03/00	17:18	EMF	S	CONC
60	CCB5	J00703A	QUANMET	07/03/00	17:21	EMF	S	CONC
61	DFNEXBT	J00703A	QUANMET	07/03/00	17:27	EMF	S	CONC
62	DFNEXCT	J00703A	QUANMET	07/03/00	17:30	EMF	S	CONC
63	DFM9XBT	J00703A	QUANMET	07/03/00	17:33	EMF	S	CONC
64	DEH5MT	J00703A	QUANMET	07/03/00	17:36	EMF	S	CONC
65	DEH5MP5T	J00703A	QUANMET	07/03/00	17:40	EMF	S	CONC
66	DEH5MST	J00703A	QUANMET	07/03/00	17:43	EMF	S	CONC
67	DEH5MDT	J00703A	QUANMET	07/03/00	17:46	EMF	S	CONC
68	DFH6FT	J00703A	QUANMET	07/03/00	17:49	EMF	S	CONC
69	DFH6JT	J00703A	QUANMET	07/03/00	17:52	EMF	S	CONC
70	CCV2-6	J00703A	QUANMET	07/03/00	17:55	EMF	S	CONC
71	CCB6	J00703A	QUANMET	07/03/00	17:58	EMF	S	CONC
72	DFNERB	J00703A	QUANMET	07/03/00	18:04	EMF	S	CONC
73	DFNERC	J00703A	QUANMET	07/03/00	18:07	EMF	S	CONC
74	DFJTE	J00703A	QUANMET	07/03/00	18:10	EMF	S	CONC
75	DFJTEP5	J00703A	QUANMET	07/03/00	18:14	EMF	S	CONC
76	DFJTES	J00703A	QUANMET	07/03/00	18:17	EMF	S	CONC
77	DFJTED	J00703A	QUANMET	07/03/00	18:20	EMF	S	CONC
78	DFKQ3	J00703A	QUANMET	07/03/00	18:23	EMF	S	CONC
79	DFJTL	J00703A	QUANMET	07/03/00	18:26	EMF	S	CONC
80	CCV2-7	J00703A	QUANMET	07/03/00	18:29	EMF	S	CONC
81	CCB7	J00703A	QUANMET	07/03/00	18:32	EMF	S	CONC

Method: QUANMET Standard: STD1

Run Time: 07/03/00 14:07:25

Elem	AG	AL	AS	B	BA	BE	CA
Avge	-.00075	.00905	-.00075	.00025	-.00001	.00270	-.00074
SDev	.00041	.00201	.00106	.00050	.00010	.00020	.00129
%RSD	54.975	22.201	141.74	197.06	1106.9	7.4074	172.99
#1	-.00020	.01080	-.00100	.00008	-.00004	.00260	-.00088
#2	-.00080	.01040	-.00160	.00012	.00012	.00300	.00102
#3	-.00120	.00640	.00080	-.00016	.00000	.00260	-.00206
#4	-.00080	.00860	-.00120	.00098	-.00012	.00260	-.00106
Elem	CD	CO	CR	CU	FE	K	LI
Avge	.00019	.00030	.00025	.00025	.00010	-.02795	.00000
SDev	.00016	.00035	.00105	.00025	.00058	.01658	.00000
%RSD	83.385	115.47	420.16	100.66	577.35	59.314	.00000
#1	.00000	.00000	.00000	.00020	.00080	-.03400	.00000
#2	.00032	.00080	.00180	.00060	.00000	-.00320	.00000
#3	.00012	.00020	-.00040	.00020	-.00060	-.03680	.00000
#4	.00032	.00020	-.00040	.00000	.00020	-.03780	.00000
Elem	MG	MN	MO	NA	NI	PB	SB
Avge	.00095	-.00010	.00025	.05970	-.00073	.00070	-.00080
SDev	.00183	.00012	.00019	.00217	.00139	.00074	.00160
%RSD	192.47	115.47	76.594	3.6340	191.04	105.62	200.00
#1	.00040	.00000	.00040	.06220	-.00038	.00020	.00000
#2	.00360	-.00020	.00040	.06060	.00102	.00160	-.00320
#3	.00040	-.00020	.00000	.05720	-.00224	.00100	.00000
#4	-.00060	.00000	.00020	.05880	-.00133	.00000	.00000
Elem	SE	SI	SN	SR	TI	TL	V
Avge	-.00085	.00165	-.00055	.00007	.00200	-.00040	.00020
SDev	.00096	.00100	.00143	.00011	.00052	.00067	.00040
%RSD	112.64	60.505	259.48	167.04	25.820	168.33	200.00
#1	-.00220	.00220	-.00180	.00000	.00260	-.00080	.00000
#2	.00000	.00240	.00140	.00024	.00220	-.00080	.00080
#3	-.00080	.00020	-.00040	.00004	.00140	-.00060	.00000
#4	-.00040	.00180	-.00140	.00000	.00180	.00060	.00000
Elem	ZN						
Avge	.00010						
SDev	.00020						
%RSD	206.98						
#1	.00020						
#2	.00015						
#3	.00024						
#4	-.00020						

Method: QUANMET Standard: STD5A
Run Time: 07/03/00 14:10:36

0014-155-1

Elem	AG	AS	B	BA	BE	CD	CO
Avge	.26300	.54110	.58852	3.9168	15.658	.92266	1.4642
SDev	.00141	.00989	.00473	.0461	.140	.00337	.0048
%RSD	.53772	1.8279	.80372	1.1782	.89399	.36524	.32839

#1	.26120	.52740	.58652	3.8863	15.580	.92336	1.4578
#2	.26460	.54740	.59552	3.9847	15.867	.91913	1.4692
#3	.26280	.54040	.58692	3.8892	15.578	.92115	1.4638
#4	.26340	.54920	.58512	3.9073	15.607	.92700	1.4660

Elem	CR	CU	LI	MN	MO	NI	PB
Avge	3.7512	2.1840	3.9339	2.0374	.40985	1.7430	.25715
SDev	.0160	.0244	.0617	.0100	.00226	.0135	.00200
%RSD	.42639	1.1159	1.5681	.48971	.55119	.77531	.77873

#1	3.7304	2.1690	3.9059	2.0254	.40680	1.7322	.25440
#2	3.7674	2.2200	4.0262	2.0488	.41100	1.7482	.25760
#3	3.7478	2.1690	3.8980	2.0342	.40960	1.7319	.25740
#4	3.7590	2.1780	3.9054	2.0412	.41200	1.7598	.25920

Elem	SB	SE	SI	SN	SR	TI	TL
Avge	.19480	.51925	.33380	.98875	7.6090	6.0087	.35145
SDev	.00106	.00468	.00301	.00589	.0803	.0469	.00155
%RSD	.54327	.90187	.90074	.59580	1.0560	.78046	.44172

#1	.19380	.51580	.32980	.99540	7.5611	5.9750	.35020
#2	.19620	.52200	.33680	.98340	7.7276	6.0764	.35340
#3	.19500	.51480	.33520	.99200	7.5574	5.9794	.35020
#4	.19420	.52440	.33340	.98420	7.5902	6.0042	.35200

Elem	V	ZN
Avge	1.6109	1.5502
SDev	.0093	.0059
%RSD	.57902	.37869

#1	1.6010	1.5426
#2	1.6232	1.5563
#3	1.6076	1.5491
#4	1.6118	1.5527

Method: QUANMET Standard: STD5B

Run Time: 07/03/00 14:13:45

004-155-2

663

894

Elem	AL	CA	FE	K	MG	NA
Avge	10.861	25.071	29.977	2.2125	7.3444	44.363
SDev	.056	.063	.100	.0128	.0407	.385
%RSD	.51324	.25264	.33461	.58018	.55363	.86827
#1	10.901	25.021	29.984	2.2162	7.3728	44.731
#2	10.817	25.042	29.902	2.1940	7.3228	44.055
#3	10.917	25.163	30.116	2.2236	7.3838	44.658
#4	10.810	25.056	29.906	2.2164	7.2982	44.006

Method: QUANMET?

Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD5A	STD1	7.39839	.005549	07/03/00 02:13:45
AL	308.215	STD5B	STD1	9.21472	-.083393	07/03/00 02:13:45
AS	193.696	STD5A	STD1	18.7735	.014080	07/03/00 02:13:45
B	249.600	STD5A	STD1	17.0333	-.004308	07/03/00 02:13:45
BA	493.409	STD5A	STD1	2.55307	.000023	07/03/00 02:13:45
BE	313.042	STD5A	STD1	.640448	-.001729	07/03/00 02:13:45
CA	317.933	STD5B	STD1	3.98862	.002968	07/03/00 02:13:45
CD	228.802	STD5A	STD1	11.0028	-.002071	07/03/00 02:13:45
CO	228.616	STD5A	STD1	6.86369	-.002059	07/03/00 02:13:45
CR	267.716	STD5A	STD1	2.66676	-.000667	07/03/00 02:13:45
CU	324.754	STD5A	STD1	4.57511	-.001144	07/03/00 02:13:45
FE	259.940	STD5B	STD1	3.33589	-.000334	07/03/00 02:13:45
K	766.491	STD5B	STD1	44.6329	1.24749	07/03/00 02:13:45
LI	670.789	STD5A	STD1	2.54202	.000000	07/03/00 02:13:45
MG	279.079	STD5B	STD1	13.6176	-.012937	07/03/00 02:13:45
MN	257.610	STD5A	STD1	4.90636	.000491	07/03/00 02:13:45
MO	202.030	STD5A	STD1	24.4141	-.006104	07/03/00 02:13:45
NA	588.995	STD5B	STD1	2.25719	-.134754	07/03/00 02:13:45
NI	231.604	STD5A	STD1	5.73223	.004181	07/03/00 02:13:45
PB	220.353	STD5A	STD1	37.8468	-.026493	07/03/00 02:13:45
SB	206.838	STD5A	STD1	51.1840	.040947	07/03/00 02:13:45
SE	196.026	STD5A	STD1	19.2271	.016343	07/03/00 02:13:45
SI	288.158	STD5A	STD1	29.7227	-.049042	07/03/00 02:13:45
SN	189.989	STD5A	STD1	10.0976	.005554	07/03/00 02:13:45
SR	409.552	STD5A	STD1	1.31424	-.000089	07/03/00 02:13:45
TI	334.941	STD5A	STD1	1.66479	-.003330	07/03/00 02:13:45
TL	190.864	STD5A	STD1	57.1089	.022844	07/03/00 02:13:45
V	292.402	STD5A	STD1	6.07626	-.001215	07/03/00 02:13:45
ZN	213.856	STD5A	STD1	6.47341	-.000628	07/03/00 02:13:45

Ed M Faust
EMF 7-30

Method: QUANMET Sample Name: ICV2-1 0014-148-7 Operator: EMF

Run Time: 07/03/00 14:16:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP **663 896**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50824	25.294	1.0388	1.0030	1.0028	.97981	25.286
SDev	.00187	.251	.0433	.0206	.0140	.01169	.091
%RSD	.36880	.99131	4.1728	2.0584	1.4001	1.1928	.35879
#1	.50792	25.452	1.0899	.99301	1.0108	.98588	25.337
#2	.51080	25.171	.98736	.99275	.99521	.97566	25.386
#3	.50629	25.005	1.0528	.99239	.98734	.96555	25.221
#4	.50793	25.548	1.0252	1.0340	1.0180	.99215	25.198
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	27.500	1.1000	1.1000	1.1000	1.1000	27.500
Low	.45000	22.500	.90000	.90000	.90000	.90000	22.500
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0039	.99734	1.0120	.99671	26.073	25.115	1.0053
SDev	.0102	.00424	.0031	.01424	.171	.339	.0210
%RSD	1.0162	.42468	.30245	1.4284	.65511	1.3492	2.0929
#1	1.0165	1.0035	1.0162	1.0038	26.176	25.376	1.0129
#2	.99929	.99667	1.0124	.98824	26.038	25.215	.99644
#3	.99280	.99396	1.0103	.98182	25.848	25.251	.98161
#4	1.0070	.99525	1.0092	1.0130	26.231	24.617	1.0304
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	27.500	27.500	1.1000
Low	.90000	.90000	.90000	.90000	22.500	22.500	.90000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.336	1.0060	.98290	25.065	1.0042	1.0314	.93045
SDev	.266	.0048	.00835	.418	.0081	.0336	.01188
%RSD	1.0504	.47764	.84989	1.6681	.80677	3.2607	1.2768
#1	25.463	1.0087	.99390	25.281	1.0138	1.0561	.92021
#2	25.237	1.0087	.98412	24.785	1.0067	1.0107	.94068
#3	25.016	.99884	.97432	24.651	1.0015	1.0637	.94080
#4	25.626	1.0078	.97926	25.542	.99465	.99521	.92012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	27.500	1.1000	1.1000	27.500	1.1000	1.1000	1.1000
Low	22.500	.90000	.90000	22.500	.90000	.90000	.90000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0772	1.0099	.98670	.99694	.98772	4.9041	.99562
SDev	.0331	.0001	.02969	.01274	.00829	.2104	.00739
%RSD	3.0762	.00934	3.0086	1.2778	.83914	4.2904	.74272
#1	1.0697	1.0100	1.0028	1.0040	.99255	4.9401	1.0019
#2	H1.1194	1.0099	.98877	.98964	.98522	5.1472	.99200

#3	1.0804	1.0098	.94433	.98322	.97723	4.6352	.98695
#4	1.0391	1.0100	1.0109	1.0109	.99588	4.8939	1.0016

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	1.1000	5.5000	1.1000
Low	.90000	.90000	.90000	.90000	.90000	4.5000	.90000

Elem ZN
Units ppm
Avge .99960
SDev .00488
%RSD .48869

#1	1.0033
#2	.99632
#3	.99454
#4	1.0043

Errors	LC Pass
High	1.1000
Low	.90000

Method: QUANMET Sample Name: ICB1

Operator: EMF

Run Time: 07/03/00 14:20:02

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 898

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00150	.00826	-.00107	.00327	.00041	.00015	.09887
SDev	.00074	.00805	.03927	.00942	.00035	.00011	.00979
%RSD	49.379	97.369	3653.6	288.09	87.306	75.426	9.8973
#1	.00110	.00511	.02908	-.00630	.00023	.00007	.08654
#2	.00261	.01980	.02887	.00452	.00053	.00005	.09616
#3	.00115	.00125	-.00862	.01575	.00083	.00030	.10367
#4	.00113	.00688	-.05363	-.00089	.00002	.00018	.10911
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00326	-.00034	.00346	.00160	.00617	.37938	.00000
SDev	.00197	.00304	.00248	.00130	.00363	.75366	.00000
%RSD	60.637	907.50	71.512	80.983	58.809	198.66	.00000
#1	L-.00501	-.00479	.00093	-.00023	.00100	-.42178	.00000
#2	-.00458	.00207	.00360	.00252	.00634	.45302	.00000
#3	-.00068	.00069	.00680	.00252	.00834	1.3725	.00000
#4	-.00276	.00069	.00253	.00160	.00901	.11381	.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00749	.00147	-.00244	.00971	.00666	.00767	H.08194
SDev	.01580	.00000	.00614	.00363	.00466	.02516	.08189
%RSD	210.99	.20505	251.78	37.403	69.990	328.19	99.939
#1	-.01294	.00147	-.01099	.00971	.00616	-.01143	.04100
#2	.01157	.00147	-.00122	.01332	.01068	.01167	H.20477
#3	.02519	.00148	.00366	.00474	.00029	.04171	.04092
#4	.00613	.00147	-.00122	.01106	.00953	-.01128	.04106
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02597	.02085	.00644	.00014	.00017	.04846	.00361
SDev	.01586	.00297	.01800	.00015	.00043	.06878	.00409
%RSD	61.073	14.255	279.37	108.11	258.20	141.92	113.42
#1	.01250	.02227	.01584	-.00009	-.00033	.04573	-.00143
#2	.01251	.01639	.02670	.00022	.00067	.07985	.00363

#3	.04328	.02240	-.00435	.00022	.00000	-.04583	.00859
#4	.03559	.02234	-.01243	.00022	.00033	.11410	.00363
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .01453
SDev .00096
%RSD 6.5997

#1 .01382
#2 .01457
#3 .01387
#4 .01587

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET

Sample Name: ICESA 0014-129-11

Operator: EMF

Run Time: 07/03/00 14:23:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 900

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00051	489.45	-.08094	-.02591	.00186	.00004	476.96
SDev	.00125	3.36	.18258	.01252	.00025	.00011	1.84
%RSD	246.70	.68733	225.58	48.342	13.390	254.25	.38549
#1	-.00107	488.26	.16665	-.03234	.00206	.00004	476.42
#2	.00040	488.79	-.10791	-.03175	.00155	.00004	475.04
#3	.00073	494.28	-.27385	-.00713	.00176	-.00009	476.95
#4	.00198	486.49	-.10865	-.03242	.00206	.00017	479.44
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value		500.00					500.00
Range		20.000					20.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00582	.01137	.00146	-.00568	183.36	.30127	.00000
SDev	.00355	.00284	.00195	.00104	.63	.60310	.00000
%RSD	60.952	24.928	133.08	18.279	.34404	200.18	.00000
#1	-.00859	.01447	.00360	-.00480	182.93	.33698	.00000
#2	-.00062	.00896	-.00067	-.00663	182.92	.34590	.00000
#3	-.00726	.00898	.00040	-.00652	184.26	-.47534	.00000
#4	-.00680	.01309	.00253	-.00477	183.31	.99755	.00000
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK
Value					200.00		
Range					20.000		
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	487.77	.00915	.00545	.01569	-.00443	.09475	.04362
SDev	2.53	.00156	.00843	.00387	.00737	.03507	.01736
%RSD	.51786	17.011	154.78	24.685	166.40	37.015	39.797
#1	486.40	.00906	.00172	.01557	-.00754	.08806	.02068
#2	487.09	.00904	-.00316	.01557	.00602	.05734	.04122
#3	491.51	.00736	.01657	.02054	-.00517	.09156	.06134
#4	486.09	.01116	.00666	.01106	-.01104	.14204	.05123
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	500.00						
Range	20.000						
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03797	.05064	-.03506	.01347	-.02164	.42233	.00861
SDev	.07684	.00569	.04155	.00025	.00047	.10950	.00016
%RSD	202.36	11.237	118.53	1.8676	2.1757	25.929	1.8907
#1	.12531	.04618	-.08270	.01341	-.02164	.37241	.00855
#2	-.03624	.05807	-.03818	.01315	-.02231	.29264	.00844

663 901

#3	.07882	.05212	.01871	.01367	-.02131	.49577	.00883
#4	-.01599	.04618	-.03806	.01367	-.02131	.52848	.00864
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem ZN
Units ppm
Avge .00075
SDev .00130
%RSD 172.87

#1 .00012
#2 -.00076
#3 .00204
#4 .00161

Errors NOCHECK
Value
Range

Method: QUANMET Sample Name: ICSAB 0014-104-1 Operator: EMF
 Run Time: 07/03/00 14:26:19
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

663 902

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94279	483.42	.84899	.91073	.45719	.44618	469.21
SDev	.00456	1.09	.06155	.02564	.00156	.00165	2.81
%RSD	.48353	.22647	7.2497	2.8154	.34142	.36990	.59834
#1	.94172	484.74	.86160	.94890	.45951	.44845	468.59
#2	.93700	482.08	.92195	.89712	.45666	.44450	465.53
#3	.94766	483.27	.83954	.90220	.45645	.44589	470.90
#4	.94476	483.58	Q.77288	.89469	.45615	.44589	471.83
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	1.0000	.50000	.50000	500.00
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94160	.44578	.43669	.46553	180.89	9.2591	.99059
SDev	.00660	.00131	.00387	.00157	.64	.5837	.00714
%RSD	.70038	.29435	.88614	.33634	.35323	6.3040	.72091
#1	.94465	.44405	.43669	.46760	181.05	8.5762	1.0006
#2	.93206	.44546	.43136	.46476	179.96	9.0582	.99082
#3	.94272	.44680	.44043	.46578	181.15	9.4510	.98472
#4	.94698	.44679	.43828	.46397	181.41	9.9509	.98625
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	.50000	.50000	200.00	10.000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	480.65	.45215	.89009	9.8392	.88389	.95076	.97944
SDev	1.46	.00274	.02455	.0465	.01809	.03948	.05684
%RSD	.30460	.60585	2.7576	.47291	2.0463	4.1520	5.8038
#1	482.07	.45339	.89499	9.9048	.89362	.98194	.90004
#2	478.60	.44823	.89483	9.8398	.88563	.90070	.98222
#3	480.95	.45248	.91454	9.8041	.85794	.93765	1.0327
#4	481.00	.45449	.85599	9.8082	.89839	.98277	1.0028
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.50000	1.0000	10.000	1.0000	1.0000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0092	1.0490	.88701	.91901	.87285	9.2699	.45312
SDev	.0894	.0380	.06364	.00324	.00286	.1174	.00242
%RSD	8.8591	3.6270	7.1751	.35240	.32740	1.2662	.53468
#1	1.1201	1.0327	.93967	.92368	.87502	9.1826	.45443
#2	1.0096	1.0029	Q.79850	.91623	.86869	9.2852	.44955

663 903

#3	.90122	1.0803	.92618	.91833	.87335	9.1815	.45481
#4	1.0057	1.0803	.88368	.91780	.87435	9.4301	.45368

Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	10.000	.50000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem ZN
Units ppm
Avge .91843
SDev .00619
%RSD .67450

#1 .91509
#2 .91156
#3 .92503
#4 .92206

Errors QC Pass
Value 1.0000
Range 20.000

Method: QUANMET Sample Name: DFM2RB

Operator: EMF

Run Time: 07/03/00 14:30:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

663 904

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00148	.00001	-.02158	-.00088	.00008	-.00006	.06029
SDev	.00142	.00976	.02073	.00426	.00011	.00000	.00491
%RSD	95.471	100020.	96.083	482.87	140.00	.54654	8.1443
#1	-.00186	-.00412	-.03468	-.00629	.00002	-.00006	.05942
#2	-.00333	-.01148	.00292	-.00229	.00002	-.00006	.05440
#3	-.00037	.00508	-.01223	.00252	.00002	-.00006	.06632
#4	-.00037	.01056	-.04231	.00253	.00023	-.00006	.06101
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00004	-.00275	.00093	-.00046	.00751	-.11158	.00000
SDev	.00201	.00363	.00185	.00138	.00148	.38694	.00000
%RSD	5490.7	132.15	198.19	299.41	19.726	346.77	.00000
#1	-.00171	-.00617	-.00067	-.00115	.00701	-.48427	.00000
#2	.00229	-.00206	.00040	-.00115	.00567	-.06472	.00000
#3	.00118	.00206	.00360	.00160	.00901	.40839	.00000
#4	-.00161	-.00480	.00040	-.00115	.00834	-.30574	.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01566	.00098	-.00366	.01208	.00187	-.01332	-.00005
SDev	.01926	.00057	.00630	.00311	.00579	.03780	.08186
%RSD	122.98	57.890	172.19	25.787	309.18	283.74	159790.
#1	-.03745	.00049	-.01099	.01332	.00454	-.06445	.04092
#2	-.02111	.00049	-.00610	.00745	-.00167	.01871	L-.12285
#3	.00885	.00148	.00366	.01422	-.00403	.01146	.04078
#4	-.01294	.00147	-.00122	.01332	.00865	-.01901	.04094
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02982	.04605	.02928	-.00005	-.00008	.04279	-.00128
SDev	.03116	.00000	.01820	.00016	.00042	.05699	.00013
%RSD	104.48	.00347	62.158	314.29	503.32	133.19	9.7389
#1	.00098	.04605	.04816	-.00009	.00000	.04568	-.00143
#2	.07404	.04605	.00498	.00017	-.00067	.05708	-.00133

#3	.02406	.04606	.03604	-.00020	.00000	.10270	-.00114
#4	.02021	.04605	.02796	-.00009	.00033	-.03430	-.00124
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00467
SDev	.00106
%RSD	22.665

#1	.00583
#2	.00532
#3	.00379
#4	.00376

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DFM2RC

Operator: EMF

Run Time: 07/03/00 14:33:43

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 906

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04477	2.0086	1.9539	1.0323	1.9459	.04778	49.486
SDev	.00254	.0095	.0194	.0000	.0062	.00007	.343
%RSD	5.6650	.47515	.99357	.00061	.31736	.14670	.69311
#1	.04216	2.0023	1.9334	1.0324	1.9513	.04772	48.972
#2	.04811	2.0078	1.9445	1.0323	1.9397	.04771	49.653
#3	.04515	2.0224	1.9782	1.0324	1.9513	.04784	49.640
#4	.04367	2.0021	1.9596	1.0323	1.9416	.04784	49.678
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04319	.47504	.19149	.24300	1.0338	48.529	.98825
SDev	.00324	.00470	.00324	.00189	.0045	.457	.00756
%RSD	7.5085	.98847	1.6921	.77732	.43200	.94109	.76470
#1	.04691	.46885	.18763	.24276	1.0298	47.996	.99740
#2	L.03934	.47985	.19509	.24552	1.0358	49.103	.97913
#3	.04206	.47709	.19028	.24277	1.0391	48.585	.98971
#4	.04445	.47435	.19295	.24094	1.0305	48.433	.98675
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.479	.48680	.97183	49.370	.48725	.49113	.51696
SDev	.068	.00212	.00834	.195	.01506	.02717	.02212
%RSD	.13743	.43616	.85811	.39563	3.0913	5.5321	4.2793
#1	49.378	.48385	.96085	49.618	.46649	.48526	.49652
#2	49.517	.48778	.97061	49.175	.49158	.47801	.50674
#3	49.522	.48876	.98038	49.425	.50239	.47040	.54772
#4	49.498	.48680	.97550	49.262	.48855	.53086	.51687
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9322	2.3929	1.9444	.97534	.96383	1.9951	.48338
SDev	.0271	.0435	.0476	.00222	.00238	.0295	.00258
%RSD	1.4022	1.8195	2.4501	.22760	.24650	1.4811	.53336
#1	1.9725	2.3468	1.8747	.97733	.96059	2.0066	.47951
#2	1.9226	2.4301	1.9535	.97282	.96458	1.9608	.48458

#3	1.9149	2.4301	1.9718	.97707	.96625	1.9836	.48476
#4	1.9187	2.3647	1.9777	.97413	.96392	2.0294	.48467
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem ZN
Units ppm
Avge .49350
SDev .00117
%RSD .23660

#1 .49235
#2 .49327
#3 .49325
#4 .49513

Errors LC Pass
High .60000
Low .40000

Method: QUANMET Sample Name: DS09C01CS

Operator: EMF

Run Time: 07/03/00 14:36:50

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 908

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00129	99.882	.03006	.02320	.95123	.00780	134.61
SDev	.00206	.512	.04160	.00856	.00647	.00008	.45
%RSD	159.27	.51302	138.37	36.886	.68050	.99757	.33354
#1	.00296	99.350	.05593	.01257	.94454	.00773	134.40
#2	.00015	99.917	-.00573	.03184	.95066	.00786	134.23
#3	.00310	99.694	.07498	.02032	.94964	.00786	134.56
#4	-.00103	100.57	-.00492	.02808	.96007	.00772	135.25
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00020	.09374	.17888	.13133	165.11	11.859	.07837
SDev	.00065	.00361	.00157	.00089	.76	.197	.00061
%RSD	319.74	3.8492	.87838	.68086	.46053	1.6610	.78113
#1	-.00001	.09684	.17728	.13196	164.35	11.950	.07755
#2	.00070	.09408	.18102	.13109	164.99	12.040	.07826
#3	-.00062	.08860	.17888	.13017	164.94	11.584	.07889
#4	.00074	.09545	.17834	.13210	166.17	11.861	.07877
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	18.844	3.1868	.00760	2.9468	.18830	.21107	.03935
SDev	.063	.0120	.00462	.0145	.00651	.02961	.01741
%RSD	.33344	.37716	60.836	.49326	3.4544	14.031	44.227
#1	18.779	3.1761	.00871	2.9296	.17908	.18709	.06229
#2	18.812	3.1831	.01369	2.9504	.18905	.18649	.04189
#3	18.861	3.1841	.00391	2.9427	.19093	.24703	.03172
#4	18.924	3.2041	.00410	2.9644	.19416	.22367	.02152
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05720	5.1583	.01960	.47926	.51226	.07447	.34563
SDev	.07347	.0449	.01161	.00239	.00193	.04442	.00239
%RSD	128.45	.86967	59.233	.49838	.37714	59.647	.69032
#1	.00328	5.0914	.03320	.47730	.51076	.06511	.34444
#2	.12802	5.1746	.00899	.47868	.51176	.13851	.34454

#3	.11250	5.1806	.01095	.47831	.51142	.03632	.34435
#4	-.01501	5.1866	.02526	.48273	.51509	.05792	.34921
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.42146
SDev	.00616
%RSD	1.4619

#1	.41283
#2	.42226
#3	.42333
#4	.42740

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DS09C01CSP5

Operator: EMF

Run Time: 07/03/00 14:39:58

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 910

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00113	21.037	.00098	.00125	.19977	.00153	28.885
SDev	.00210	.088	.03450	.00036	.00109	.00001	.160
%RSD	185.66	.41964	3528.7	28.640	.54590	.49008	.55282

#1	.00105	20.920	.01168	.00072	.19877	.00154	28.657
#2	.00263	21.055	-.03494	.00135	.19949	.00153	28.973
#3	-.00181	21.134	-.01682	.00151	.20132	.00154	28.894
#4	.00264	21.038	.04399	.00143	.19949	.00153	29.015

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00337	.01895	.03769	.02671	36.303	2.0777	.01506
SDev	.00235	.00177	.00209	.00156	.188	.2212	.00034
%RSD	69.637	9.3512	5.5428	5.8558	.51822	10.646	2.2616

#1	-.00478	.01689	.03983	.02646	36.026	1.9527	.01516
#2	-.00035	.01826	.03716	.02740	36.353	2.4079	.01465
#3	-.00275	.01963	.03503	.02832	36.437	1.9973	.01546
#4	-.00563	.02101	.03876	.02466	36.397	1.9527	.01495

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.0008	.69079	-.00190	.61994	.03998	.02459	.06164
SDev	.0426	.00349	.00467	.00145	.00408	.01308	.02889
%RSD	1.0653	.50462	246.38	.23314	10.204	53.176	46.879

#1	3.9498	.68556	-.00072	.61870	.03745	.01329	.04111
#2	4.0151	.69252	-.00555	.62095	.04366	.04347	.06172
#3	4.0505	.69254	-.00554	.62140	.04325	.02070	.04125
#4	3.9879	.69253	.00422	.61870	.03559	.02089	.10247

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05911	1.0888	.00931	.10090	.10921	.04524	.07417
SDev	.01437	.0057	.01316	.00041	.00082	.03679	.00284
%RSD	24.303	.52572	141.33	.41014	.74680	81.321	3.8237

#1	.06896	1.0813	.00614	.10033	.10821	.00814	.07176
#2	.03906	1.0933	.00225	.10086	.10988	.09613	.07653
#3	.07004	1.0873	.00016	.10128	.10888	.03817	.07166
#4	.05840	1.0933	.02871	.10112	.10988	.03854	.07672

Elem	ZN
Units	ppm
Avge	.09242
SDev	.00283
%RSD	3.0637

#1	.08839
#2	.09429
#3	.09449

#4 .09250

00 000

Method: QUANMET Sample Name: DS09C01CSS

Operator: EMF

Run Time: 07/03/00 14:43:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 912

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04711	185.49	1.8735	.82795	2.9835	.05701	152.56
SDev	.00143	.95	.0512	.02016	.0219	.00021	.81
%RSD	3.0354	.51344	2.7304	2.4346	.73415	.37693	.52859

#1	.04587	185.78	1.9357	.80049	2.9993	.05721	151.49
#2	.04728	184.29	1.8766	.83819	2.9559	.05684	152.45
#3	.04906	185.32	1.8105	.82627	2.9761	.05681	153.36
#4	.04624	186.57	1.8712	.84685	3.0028	.05718	152.95

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04364	.58911	.46843	.37992	204.41	65.575	1.1236
SDev	.00151	.00338	.00317	.00240	.75	.220	.0148
%RSD	3.4638	.57342	.67671	.63179	.36667	.33592	1.3196

#1	.04527	.58636	.46416	.38079	203.88	65.742	1.1378
#2	.04453	.59051	.46790	.37712	203.69	65.278	1.1058
#3	.04273	.59324	.47109	.37904	204.79	65.537	1.1173
#4	.04204	.58634	.47056	.38274	205.27	65.742	1.1336

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	76.355	5.5147	.90459	52.049	.66387	.64452	.31806
SDev	.317	.0226	.00744	.472	.00688	.01622	.10619
%RSD	.41535	.41069	.82200	.90722	1.0367	2.5160	33.387

#1	76.469	5.4920	.89841	52.427	.65406	.63863	.25150
#2	75.960	5.4989	.89838	51.531	.66412	.62458	.27205
#3	76.281	5.5306	.90831	51.767	.66890	.65405	.27200
#4	76.711	5.5375	.91326	52.471	.66839	.66083	.47668

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9527	10.441	1.7857	1.4010	1.8165	1.9411	.91404
SDev	.0413	.032	.0104	.0102	.0089	.1026	.00642
%RSD	2.1125	.31035	.58043	.72857	.48757	5.2847	.70189

#1	1.9071	10.443	1.7777	1.4079	1.8156	1.9693	.91148
#2	1.9335	10.407	1.7758	1.3880	1.8060	1.8571	.90663

#3	2.0018	10.431	1.7941	1.3979	1.8170	2.0743	.91655
#4	1.9684	10.485	1.7951	1.4103	1.8276	1.8638	.92151
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .96186
SDev .00800
%RSD .83134

#1 .95159
#2 .96292
#3 .96184
#4 .97109

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DS09C01CSD

Operator: EMF

Run Time: 07/03/00 14:46:13

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 914

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04540	203.48	1.9014	.84017	2.8725	.05575	156.73
SDev	.00312	.95	.1042	.00270	.0219	.00039	1.01
%RSD	6.8767	.46596	5.4821	.32121	.76329	.69674	.64623
#1	.04345	203.97	1.7656	.83922	2.8896	.05594	155.51
#2	.04819	204.32	2.0166	.84288	2.8853	.05606	157.31
#3	.04204	203.46	1.8932	.84175	2.8738	.05581	156.31
#4	.04792	202.16	1.9302	.83683	2.8411	.05519	157.77
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04463	.53723	.48469	.37813	205.42	66.728	1.1140
SDev	.00298	.00396	.00386	.00249	.52	.458	.0198
%RSD	6.6675	.73650	.79633	.65963	.25375	.68670	1.7810
#1	.04905	.53137	.48122	.37900	205.00	66.947	1.1328
#2	.04373	.53961	.48656	.38002	206.18	67.268	1.1228
#3	.04287	.53826	.48176	.37903	205.27	66.313	1.1139
#4	.04285	.53966	.48923	.37445	205.22	66.385	1.0866
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	76.982	4.0047	.88277	51.288	.64552	.63768	.35090
SDev	.294	.0130	.00841	.514	.00704	.03630	.04130
%RSD	.38147	.32374	.95311	1.0016	1.0901	5.6917	11.770
#1	77.174	3.9896	.87416	51.704	.64145	.61088	.39458
#2	77.171	4.0204	.89387	51.515	.65491	.67866	.33300
#3	77.027	4.0005	.88397	51.392	.64673	.60362	.30226
#4	76.553	4.0084	.87908	50.542	.63901	.65755	.37376
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9755	10.449	1.7413	1.3896	1.8875	1.9369	.90636
SDev	.0513	.056	.0498	.0094	.0071	.1002	.00409
%RSD	2.5993	.53608	2.8612	.67982	.37460	5.1724	.45073
#1	1.9100	10.502	1.6713	1.3955	1.8875	1.8356	.90619
#2	2.0247	10.490	1.7439	1.3965	1.8962	1.8805	.91144

#3	2.0069	10.413	1.7638	1.3902	1.8872	1.9698	.90638
#4	1.9606	10.389	1.7864	1.3760	1.8789	2.0617	.90144
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .96393
SDev .00304
%RSD .31570

#1 .96027
#2 .96637
#3 .96258
#4 .96650

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DS10C01CS

Operator: EMF

Run Time: 07/03/00 14:49:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 916

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00236	98.961	.01037	.03697	.92932	.00838	107.00
SDev	.00122	.225	.06022	.00173	.00284	.00001	.54
%RSD	51.489	.22696	580.97	4.6940	.30550	.07082	.50126

#1	.00223	98.653	-.00530	.03554	.92646	.00839	106.68
#2	.00099	99.189	-.05958	.03728	.92994	.00838	107.46
#3	.00227	99.025	.08539	.03575	.93300	.00838	106.41
#4	.00395	98.977	.02096	.03930	.92790	.00838	107.44

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00232	.08348	.17688	.12959	154.87	11.227	.08398
SDev	.00102	.00235	.00315	.00087	.49	.398	.00053
%RSD	43.980	2.8130	1.7806	.66846	.31914	3.5485	.63525

#1	-.00373	.08589	.17355	.12932	154.39	10.763	.08353
#2	-.00130	.08314	.17728	.12848	155.29	11.138	.08353
#3	-.00206	.08039	.17568	.13024	154.50	11.281	.08454
#4	-.00219	.08451	.18101	.13031	155.30	11.727	.08434

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	21.006	2.2078	.00241	6.8523	.16501	.20055	.04169
SDev	.064	.0081	.00393	.0195	.01188	.01986	.00834
%RSD	.30265	.36904	163.33	.28486	7.2011	9.9025	20.005

#1	20.939	2.2018	.00722	6.8400	.17536	.18957	.04182
#2	21.070	2.2158	.00247	6.8576	.16754	.22681	.05190
#3	20.966	2.1998	.00235	6.8774	.14791	.18160	.04159
#4	21.051	2.2138	-.00241	6.8341	.16922	.20424	.03147

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07540	4.9339	.03033	.54015	.50010	.17481	.34279

#3	.07345	4.9012	.00703	.54119	.50044	.09300	.34309
#4	.18710	4.9606	.04349	.54020	.50110	.21033	.34423

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .42169
SDev .00504
%RSD 1.1962

#1 .42257
#2 .42154
#3 .41519
#4 .42746

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DS11C01CS

Operator: EMF

Run Time: 07/03/00 14:52:28

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 918

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00190	94.604	.10939	.07310	.70956	.00732	249.87
SDev	.00171	.418	.07139	.01069	.00381	.00001	.26
%RSD	89.962	.44208	65.264	14.620	.53725	.09004	.10486

#1	.00329	94.162	.19789	.06144	.70626	.00731	250.09
#2	.00035	94.341	.06872	.07959	.70626	.00731	249.52
#3	.00348	94.884	.03720	.08438	.71260	.00731	250.05
#4	.00050	95.030	.13373	.06699	.71311	.00733	249.81

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00023	.07737	.16717	.13548	159.93	10.754	.08020
SDev	.00336	.00304	.00243	.00118	.44	.429	.00243
%RSD	1486.8	3.9276	1.4506	.86807	.27413	3.9917	3.0291

#1	.00076	.08046	.16663	.13430	159.53	10.647	.08155
#2	.00309	.07634	.16930	.13522	159.58	11.388	.08134
#3	.00167	.07908	.16877	.13711	160.30	10.513	.08134
#4	-.00461	.07361	.16397	.13528	160.32	10.469	.07656

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.027	2.2758	.01171	3.6612	.16811	.38728	.05437
SDev	.077	.0057	.00734	.0282	.00777	.02623	.00983
%RSD	.38641	.25227	62.682	.77138	4.6193	6.7734	18.088

#1	19.956	2.2730	.00310	3.6402	.16903	.36503	.06215
#2	19.972	2.2691	.01776	3.6447	.17449	.41020	.05179
#3	20.057	2.2811	.01787	3.6578	.15696	.40979	.06198
#4	20.122	2.2801	.00810	3.7020	.17199	.36410	.04153

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05797	5.1043	.02420	.74053	.52349	.06325	.30912
SDev	.06504	.0075	.03290	.00385	.00142	.08734	.00272
%RSD	112.18	.14693	135.97	.51970	.27172	138.09	.87862

#1	-.00943	5.1148	.01002	.73698	.52308	.13308	.31028
#2	.04071	5.1029	.03423	.73741	.52175	.12109	.31057

#3	.05414	5.1029	-.01205	.74399	.52508	-.05765	.31057
#4	.14648	5.0969	.06460	.74372	.52408	.05647	.30505
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .51421
SDev .00360
%RSD .69945

#1 .51127
#2 .51307
#3 .51304
#4 .51945

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-1 0014-164-11 Operator: EMF

Run Time: 07/03/00 14:55:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 920

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0080	49.701	5.0643	4.9557	4.8627	4.8494	50.783
SDev	.0073	.401	.0784	.0533	.0456	.0429	.447
%RSD	.72075	.80712	1.5472	1.0758	.93672	.88521	.88096
#1	1.0034	49.520	5.0082	4.9022	4.8396	4.8246	50.632
#2	1.0049	49.456	5.0236	4.9272	4.8363	4.8278	50.652
#3	1.0189	50.301	5.1796	5.0240	4.9309	4.9136	51.434
#4	1.0049	49.527	5.0458	4.9693	4.8440	4.8315	50.413
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0853	4.9667	4.9625	4.8671	51.077	48.853	4.9060
SDev	.0370	.0492	.0420	.0418	.453	.614	.0296
%RSD	.72792	.98987	.84693	.85908	.88735	1.2564	.60341
#1	5.0746	4.9503	4.9443	4.8387	50.845	49.121	4.8844
#2	5.0643	4.9476	4.9533	4.8397	50.905	48.246	4.8851
#3	5.1402	5.0392	5.0237	4.9277	51.754	49.585	4.9475
#4	5.0621	4.9298	4.9288	4.8625	50.805	48.460	4.9072
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.793	4.9465	4.9246	49.189	4.9694	5.0713	5.0693
SDev	.397	.0444	.0559	.391	.0804	.0274	.0564
%RSD	.79725	.89669	1.1358	.79480	1.6177	.53963	1.1123
#1	49.585	4.9270	4.8941	48.925	4.9741	5.0425	5.0312
#2	49.585	4.9280	4.8843	48.949	4.9300	5.0803	5.0205
#3	50.388	5.0127	5.0065	49.760	5.0795	5.1050	5.1438
#4	49.615	4.9182	4.9136	49.120	4.8940	5.0572	5.0816
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0788	5.0178	5.0518	4.8569	4.8952	9.7771	4.9404
SDev	.1319	.0497	.0442	.0430	.0442	.0955	.0450
%RSD	2.5972	.98997	.87494	.88492	.90322	.97691	.91023
#1	4.9878	4.9833	5.0093	4.8350	4.8722	9.8111	4.9179
#2	5.0264	4.9953	5.0637	4.8315	4.8772	9.8790	4.9214

#3	5.2748	5.0915	5.1086	4.9212	4.9614	9.7665	5.0078
#4	5.0262	5.0011	5.0256	4.8401	4.8702	9.6517	4.9146
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9998
SDev .0363
%RSD .72641

#1 4.9788
#2 4.9843
#3 5.0542
#4 4.9820

Errors LC Pass
High 5.5000
Low 4.5000

Analysis Report

07/03/00 03:01:48 PM

page 1

Method: QUANMET Sample Name: CCB1

Operator: EMF

Run Time: 07/03/00 14:58:43

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 922

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00111	-.00751	-.00933	.00131	.00013	.00013	.08420
SDev	.00149	.00857	.02211	.00085	.00034	.00007	.00476
%RSD	134.62	114.06	236.99	64.821	267.93	55.431	5.6508
#1	-.00186	-.01527	-.03083	.00111	.00002	.00007	.08297
#2	.00113	-.00435	.02155	.00051	.00053	.00018	.08926
#3	-.00186	-.01356	-.01582	.00112	-.00028	.00020	.07819
#4	-.00185	.00314	-.01222	.00252	.00023	.00007	.08635
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00156	-.00240	-.00040	-.00046	.00367	-.39500	.00000
SDev	.00207	.00235	.00134	.00156	.00250	.59966	.00000
%RSD	133.37	97.920	338.56	340.55	68.063	151.81	.00000
#1	-.00136	-.00343	-.00066	-.00023	.00033	-.58246	.00000
#2	-.00451	.00070	.00147	.00160	.00367	.47088	.00000
#3	-.00062	-.00480	-.00066	-.00206	.00634	-.91274	.00000
#4	.00026	-.00206	-.00173	-.00115	.00434	-.55568	.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01294	.00074	.01221	.00666	.00523	-.01142	-.00264
SDev	.01649	.00049	.00732	.00481	.00850	.01066	.08701
%RSD	127.48	66.086	60.000	72.255	162.68	93.384	3298.8
#1	-.02383	.00049	.00366	.00655	-.00620	-.00405	L-.13316
#2	.01157	.00050	.01831	.00609	.01398	-.00371	.04088
#3	-.02111	.00050	.01831	.00113	.00481	-.01142	.04078
#4	-.01838	.00148	.00855	.01287	.00831	-.02650	.04094
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01155	-.02824	.02170	.00039	-.00025	.03996	-.00007
SDev	.03034	.00768	.02019	.00028	.00032	.07606	.00275
%RSD	262.76	27.215	93.032	70.032	127.66	190.33	4003.4
#1	.03942	-.03717	-.00314	.00017	-.00067	.03430	-.00115
#2	-.02979	-.02521	.04008	.00075	.00000	-.00007	.00400

#3	.02790	-.03124	.03604	.00048	-.00033	.14848	-.00208
#4	.00866	-.01933	.01382	.00017	.00000	-.02286	-.00105

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.01255
SDev	.00108
%RSD	8.5753

#1	.01157
#2	.01175
#3	.01383
#4	.01305

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DFM2GB

Operator: EMF

Run Time: 07/03/00 15:05:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 924

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00000	.00046	.02253	.00042	-.00008	-.00013	.02308
SDev	.00074	.00571	.01718	.00671	.00025	.00007	.00344
%RSD	24520.	1252.8	76.269	1589.2	332.07	59.496	14.924
#1	-.00037	.00505	.00279	.00974	-.00028	-.00006	.01939
#2	-.00037	-.00781	.03293	-.00628	.00023	-.00019	.02099
#3	-.00037	.00136	.01408	-.00089	-.00028	-.00006	.02667
#4	.00111	.00323	.04033	-.00088	.00002	-.00019	.02526
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00091	-.00274	-.00133	.00320	.00834	-.71413	.00000
SDev	.00142	.00263	.00165	.00137	.00197	.34119	.00000
%RSD	156.12	95.728	123.85	42.955	23.581	47.777	.00000
#1	-.00121	-.00343	-.00227	.00251	.00633	-.99308	.00000
#2	-.00247	-.00617	-.00280	.00160	.00967	-1.0109	.00000
#3	-.00093	-.00068	-.00120	.00435	.00700	-.51997	.00000
#4	.00097	-.00069	.00093	.00435	.01034	-.33252	.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00817	.00074	-.00244	.16173	.00231	-.03219	.04095
SDev	.00900	.00049	.00614	.00561	.00468	.00729	.00008
%RSD	110.13	66.607	251.78	3.4668	202.37	22.656	.19494
#1	-.01294	.00049	-.00122	.16771	.00609	-.04168	.04098
#2	-.01838	.00049	-.01098	.15417	-.00173	-.03418	.04101
#3	.00068	.00049	.00366	.16229	.00663	-.02646	.04098
#4	-.00204	.00147	-.00122	.16274	-.00174	-.02646	.04083
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01440	.02674	.01332	.00005	-.00033	-.01433	-.00096
SDev	.02570	.01319	.02202	.00028	.00072	.05545	.00064
%RSD	178.49	49.326	165.32	511.84	216.02	386.94	66.324
#1	-.00671	.02228	.01585	.00007	-.00133	-.06856	-.00124
#2	-.04900	.02227	-.01041	-.00009	.00000	-.04573	-.00143

#3	-.01440	.01633	.00575	-.00020	-.00033	.05705	-.00115
#4	-.01252	.04607	.04210	.00044	.00033	-.00009	-.00002

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00498
SDev	.00033
%RSD	6.6651

#1	.00451
#2	.00507
#3	.00504
#4	.00530

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DFM2GC

Operator: EMF

Run Time: 07/03/00 15:08:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 926

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04657	1.9229	1.9426	.95094	1.9339	.04777	L.04274
SDev	.00242	.0114	.0716	.01876	.0099	.00025	.00326
%RSD	5.1910	.59331	3.6880	1.9723	.51084	.51496	7.6380

#1	.04360	1.9170	2.0056	.96420	1.9487	.04813	L.03868
#2	.04952	1.9133	2.0018	.95540	1.9281	.04762	L.04196
#3	.04658	1.9391	1.8964	.92334	1.9296	.04761	L.04642
#4	.04658	1.9225	1.8665	.96082	1.9293	.04773	L.04389

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04795	.48382	.19654	.24689	1.0435	L.22763	.96032
SDev	.00163	.00206	.00201	.00230	.0060	.22949	.01028
%RSD	3.4041	.42639	1.0242	.93245	.57323	100.82	1.0702

#1	.04967	.48277	.19800	.25009	1.0351	L.39054	.97557
#2	.04661	.48279	.19481	.24461	1.0431	L-.10042	.95472
#3	.04651	.48691	.19854	.24644	1.0478	L.38161	.95371
#4	.04902	.48278	.19480	.24644	1.0478	L.23879	.95727

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.01021	.48771	-.00473	L.18893	.49879	.47950	L.09366
SDev	.01031	.00123	.00244	.00528	.00992	.01449	.08544
%RSD	100.96	.25316	51.650	2.7934	1.9896	3.0213	91.231

#1	L.01702	.48746	-.00595	L.18622	.51221	.46997	L.05790
#2	L-.00477	.48648	-.00106	L.19480	.49690	.47753	L.04754
#3	L.01702	.48942	-.00595	L.19164	.49779	.50057	L.22161
#4	L.01157	.48746	-.00595	L.18306	.48827	.46995	L.04757

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9476	.01941	.00114	.96870	.00050	1.9579	.47303
SDev	.0380	.03449	.01610	.00500	.00058	.0236	.00278
%RSD	1.9519	177.69	1414.0	.51625	115.47	1.2068	.58766

#1	1.8995	-.01331	.01410	.97606	-.00033	1.9837	.47058
#2	1.9649	.05208	.00799	.96502	.00100	1.9722	.47067

#3	1.9380	-.00731	.00477	.96739	.00067	1.9378	.47544
#4	1.9880	.04619	-.02230	.96634	.00067	1.9379	.47543
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000
Elem	ZN						
Units	ppm						
Avge	.48805						
SDev	.00335						
%RSD	.68631						
#1	.48695						
#2	.48443						
#3	.49244						
#4	.48836						
Errors	LC Pass						
High	.60000						
Low	.40000						

Method: QUANMET Sample Name: DEN7F

Operator: EMF

Run Time: 07/03/00 15:11:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 663 928

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00066	.01282	.03287	.17971	.03184	-.00003	94.088
SDev	.00257	.00852	.03369	.01873	.00011	.00006	.162
%RSD	388.41	66.419	102.50	10.424	.33019	177.34	.17241
#1	.00158	.02334	.07872	.16351	.03189	.00005	93.940
#2	-.00289	.00500	.00760	.16355	.03189	-.00006	94.014
#3	.00155	.01608	.00753	.19759	.03189	-.00006	94.082
#4	-.00289	.00688	.03763	.19419	.03168	-.00006	94.315
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00182	-.00138	-.00213	.00338	2.2470	4.2959	.00000
SDev	.00322	.00177	.00091	.00088	.0064	.3398	.00000
%RSD	177.07	128.81	42.732	25.948	.28529	7.9098	.00000
#1	.00153	.00067	-.00173	.00453	2.2414	4.2736	.00000
#2	.00011	-.00344	-.00226	.00269	2.2554	3.8273	.00000
#3	-.00338	-.00206	-.00333	.00269	2.2427	4.5950	.00000
#4	L-.00552	-.00068	-.00120	.00361	2.2487	4.4878	.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	16.558	.43903	.00644	95.857	.00220	-.01565	.05628
SDev	.055	.00049	.00488	.542	.00700	.00433	.01317
%RSD	.33371	.11202	75.817	.56544	317.94	27.655	23.402
#1	16.489	.43879	.01376	95.236	-.00624	-.01936	.07153
#2	16.622	.43977	.00400	96.559	.00758	-.01192	.05121
#3	16.549	.43878	.00400	95.824	-.00085	-.01188	.06145
#4	16.571	.43879	.00400	95.810	.00831	-.01943	.04094
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	2.0598	.01131	.48318	-.00541	-.00073	.00012
SDev	.03328	.0327	.01909	.00192	.00032	.04696	.00252
%RSD	21893.	1.5868	168.73	.39715	5.8919	6422.9	2101.3
#1	.01840	2.0435	.01239	.48063	-.00499	.05925	.00391
#2	-.03155	2.0434	.01432	.48525	-.00533	.00207	-.00114

#3	.02389	2.0434	-.01391	.48315	-.00566	-.05493	-.00114
#4	.03765	2.1088	.03245	.48367	-.00566	-.00931	-.00114
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02198
SDev .00164
%RSD 7.4558

#1 .02430
#2 .02188
#3 .02115
#4 .02058

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DEN7K

Operator: EMF

Run Time: 07/03/00 15:14:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

663 930

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00081	.35869	-.00567	.30964	.02461	.00217	72.473
SDev	.00186	.00380	.00711	.00072	.00035	.00007	.242
%RSD	228.99	1.0602	125.48	.23112	1.4382	3.2467	.33421
#1	.00045	.35773	-.01599	.30856	.02423	.00223	72.361
#2	-.00103	.35419	-.00474	.31003	.02474	.00223	72.751
#3	.00042	.36333	-.00094	.30999	.02444	.00212	72.200
#4	.00341	.35953	-.00099	.30997	.02504	.00210	72.580
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00288	.05251	.00053	.00447	3.8538	3.8563	.01030
SDev	.00190	.00325	.00423	.00115	.0164	.6058	.00049
%RSD	66.241	6.1814	795.05	25.763	.42557	15.708	4.7280
#1	L-.00554	.05286	.00627	.00562	3.8433	4.4789	.00966
#2	-.00293	.05697	-.00067	.00471	3.8780	3.4702	.01017
#3	-.00171	.05010	-.00387	.00287	3.8499	3.2203	.01068
#4	-.00132	.05010	.00040	.00470	3.8439	4.2557	.01068
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.585	.59060	.00058	398.93	.02663	.00983	.04906
SDev	.139	.00314	.00467	4.13	.00347	.04015	.01942
%RSD	.48734	.53249	810.82	1.0352	13.023	408.61	39.585
#1	28.505	.58937	.00424	397.42	.02773	.01927	.02082
#2	28.742	.59527	-.00552	H402.78	.03104	-.04871	.05173
#3	28.658	.58937	-.00064	H401.71	.02410	.04194	.06185
#4	28.437	.58839	.00424	393.80	.02363	.02681	.06183
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02265	10.925	.01057	.46030	-.00400	.06590	.00244
SDev	.03213	.045	.01259	.00353	.00000	.05208	.00245
%RSD	141.86	.40956	119.12	.76717	.00000	79.035	100.45
#1	.02647	10.859	.02659	.45938	-.00400	.11168	.00374
#2	-.02343	10.960	.00655	.46381	-.00400	-.00290	.00354

#3	.03802	10.936	.01265	.46223	-.00400	.05456	-.00124
#4	.04954	10.942	-.00351	.45577	-.00400	.10026	.00373

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.20921
SDev	.00224
%RSD	1.0719

#1	.20864
#2	.21251
#3	.20757
#4	.20812

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DEN7M

Operator: EMF

Run Time: 07/03/00 15:18:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00263	.02690	.01836	.10644	.04213	.00000	68.336
SDev	.00191	.01236	.04832	.00114	.00040	.00008	.250
%RSD	72.719	45.930	263.17	1.0735	.95111	2237.8	.36563

#1	-0.00338	.02551	-.02760	.10644	.04261	.00007	68.326
#2	-0.00188	.03107	.04365	.10785	.04180	-.00006	68.659
#3	-0.00041	.04026	.07363	.10505	.04180	.00007	68.049
#4	-0.00485	.01077	-.01624	.10644	.04231	-.00006	68.310

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00356	.00789	-.00187	.00231	.18313	1.7094	.00064
SDev	.00238	.00173	.00176	.00115	.00261	.1569	.00037
%RSD	66.963	21.978	94.409	49.897	1.4262	9.1781	57.811

#1	-0.00043	.00616	.00040	.00071	.17979	1.7027	.00021
#2	-0.00381	.00754	-.00387	.00254	.18246	1.5153	.00063
#3	-0.00375	.00755	-.00227	.00345	.18579	1.7206	.00111
#4	L-0.00623	.01030	-.00173	.00254	.18446	1.8991	.00060

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.010	.38201	-.00608	210.22	.00858	-.00930	.00275
SDev	.070	.00168	.00399	2.36	.00755	.02918	.10489
%RSD	.49865	.43892	65.616	1.1211	87.950	313.64	3809.7

#1	13.945	.38127	-.00608	208.99	.00310	.01126	L-.15340
#2	13.975	.38225	-.01096	208.38	.00387	-.02628	.05136
#3	14.016	.38029	-.00608	209.88	.01945	-.04140	.07192
#4	14.106	.38422	-.00119	213.63	.00791	.01921	.04112

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02067	5.6755	-.01458	.40491	-.00375	-.00550	-.00134
SDev	.02918	.0357	.01321	.00331	.00032	.01142	.00095
%RSD	141.20	.62844	90.623	.81837	8.5105	207.56	71.288

#1	-.02164	5.6577	-.03147	.40244	-.00366	.00026	-.00255
#2	-.04470	5.6577	-.00628	.40318	-.00333	-.02263	-.00022

#3	-.03700	5.6577	-.00214	.40428	-.00400	.00017	-.00134
#4	.02067	5.7290	-.01844	.40975	-.00400	.00019	-.00124

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02933
SDev .00061
%RSD 2.0826

#1 .02857
#2 .02911
#3 .02981
#4 .02985

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DEN7V

Operator: EMF

Run Time: 07/03/00 15:21:09

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00072	.07697	-.00570	.10529	.03636	.00003	92.938
SDev	.00329	.01828	.05208	.00000	.00064	.00006	.260
%RSD	458.64	23.757	913.65	.00164	1.7671	208.10	.27964
#1	-.00184	.06225	-.00178	.10529	.03700	-.00006	92.622
#2	.00411	.10272	.06539	.10529	.03547	.00005	92.965
#3	-.00329	.06585	-.05447	.10529	.03649	.00005	93.256
#4	-.00184	.07704	-.03194	.10529	.03649	.00007	92.909
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00096	.00205	-.00093	.00460	.30622	2.9435	.00032
SDev	.00283	.00112	.00141	.00137	.00115	.5671	.00039
%RSD	295.83	54.986	150.96	29.823	.37712	19.268	120.66
#1	-.00294	.00206	-.00227	.00346	.30588	2.3276	.00009
#2	.00382	.00066	-.00067	.00620	.30589	3.1935	.00021
#3	.00115	.00342	.00093	.00529	.30788	3.6041	.00090
#4	.00180	.00204	-.00173	.00346	.30522	2.6490	.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.9134	.27754	-.00117	97.040	.00358	-.01893	.04356
SDev	.0820	.00147	.00399	2.029	.00958	.01057	.14634
%RSD	1.3868	.53049	339.34	2.0912	267.75	55.833	335.94
#1	5.9788	.27828	-.00117	99.138	-.00598	-.02649	.04093
#2	5.7936	.27533	-.00117	94.264	.01683	-.02631	.22534
#3	5.9461	.27828	.00371	97.468	.00088	-.00398	L-.13304
#4	5.9352	.27827	-.00606	97.291	.00258	-.01893	.04101
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01042	4.5951	.00583	.49213	-.00458	.01551	.00119
SDev	.01970	.0297	.01531	.00773	.00113	.10323	.00286
%RSD	189.09	.64543	262.49	1.5708	24.752	665.61	240.52
#1	.01715	4.6115	-.00024	.49982	-.00566	.16973	-.00124
#2	-.01746	4.5521	.02485	.48142	-.00300	-.04733	.00362

#3	.02869	4.6175	-.01115	.49430	-.00499	-.02451	.00372
#4	.01330	4.5996	.00986	.49298	-.00466	-.03586	-.00134

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.01335
SDev	.00118
%RSD	8.8543

#1	.01229
#2	.01504
#3	.01304
#4	.01302

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DEN81

Operator: EMF

Run Time: 07/03/00 15:24:17

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00191	.01061	.01299	.10390	.03133	-.00007	126.49
SDev	.00210	.00779	.02132	.00170	.00034	.00010	.36
%RSD	109.73	73.430	164.06	1.6377	1.0744	148.85	.28295
#1	-.00042	.01065	-.00112	.10475	.03168	.00005	126.49
#2	-.00193	.01612	-.00859	.10476	.03138	-.00006	126.41
#3	-.00042	.01608	.03639	.10135	.03087	-.00007	126.10
#4	-.00487	-.00042	.02528	.10475	.03138	-.00020	126.97
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00041	-.00035	-.00254	.00458	.02466	2.2450	-.00076
SDev	.00213	.00260	.00381	.00137	.00116	.7777	.00224
%RSD	523.17	746.72	150.13	30.037	4.6930	34.639	293.93
#1	.00146	.00342	.00146	.00618	.02499	3.2113	.00090
#2	.00281	-.00207	-.00760	.00343	.02499	1.4796	-.00009
#3	-.00066	-.00069	-.00120	.00526	.02566	2.5151	.00021
#4	-.00197	-.00206	-.00280	.00343	.02299	1.7742	-.00407
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	18.880	.38393	-.00488	89.151	.00821	-.00564	.04619
SDev	.091	.00232	.00468	.714	.00533	.03783	.03070
%RSD	.47945	.60360	95.818	.80060	64.934	670.87	66.457
#1	18.798	.38221	-.00610	88.561	.00972	.04930	.01033
#2	18.910	.38417	-.00122	89.636	.00091	-.02647	.07174
#3	18.817	.38221	-.00122	88.519	.01365	-.01129	.07179
#4	18.994	.38711	-.01098	89.889	.00858	-.03408	.03092
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01147	3.6084	.00681	.67224	-.00757	.00761	.00203
SDev	.00577	.0334	.01730	.00442	.00057	.02187	.00228
%RSD	50.305	.92656	253.95	.65764	7.5069	287.54	112.46
#1	-.01435	3.6366	.02583	.66943	-.00699	.02469	.00353
#2	-.00666	3.5712	-.00216	.67521	-.00766	.02478	-.00125

#3	-.00666	3.6366	.01602	.66759	-.00733	-.02098	.00362
#4	-.01821	3.5890	-.01244	.67674	-.00832	.00194	.00221
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02909
SDev .00137
%RSD 4.7171

#1 .02933
#2 .02912
#3 .03062
#4 .02729

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DEN85

Operator: EMF

Run Time: 07/03/00 15:27:25

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00161	.01422	.01633	.38576	.02349	.00002	246.63
SDev	.00280	.01630	.06652	.02514	.00021	.00006	.33
%RSD	173.81	114.63	407.38	6.5158	.89438	324.66	.13487
#1	.00246	.03638	.07435	.38578	.02351	.00005	246.93
#2	-.00346	.00495	.04080	.40525	.02372	.00005	246.68
#3	-.00344	.01603	.02941	.35026	.02351	.00004	246.76
#4	-.00199	-.00049	-.07926	.40175	.02321	-.00007	246.16
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00002	-.00033	.00093	.00550	5.7934	23.082	.04041
SDev	.00428	.00205	.00209	.00088	.0202	.231	.00094
%RSD	24210.	617.20	224.42	15.916	.34919	1.0010	2.3382
#1	.00300	.00206	.00306	.00481	5.8047	23.010	.04133
#2	L-.00544	-.00203	-.00173	.00481	5.8161	22.823	.03960
#3	-.00130	-.00204	.00039	.00572	5.7780	23.376	.03960
#4	.00381	.00069	.00200	.00664	5.7747	23.118	.04112
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	84.454	.28059	-.00035	H406.75	.00881	.01002	.05128
SDev	.637	.00218	.00399	5.00	.00786	.02229	.00832
%RSD	.75419	.77762	1125.7	1.2298	89.243	222.47	16.219
#1	84.729	.28182	-.00035	H408.24	.01243	-.01265	.04109
#2	85.222	.28281	.00453	H413.16	.00184	.02511	.05116
#3	83.871	.27985	-.00524	H402.20	.01816	-.00516	.05142
#4	83.994	.27789	-.00036	H403.42	.00279	.03278	.06146
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01719	H23.130	.00745	1.6213	-.01415	.13304	.00486
SDev	.04055	.138	.01355	.0153	.00058	.08611	.00237
%RSD	235.92	.59730	181.84	.94539	4.0754	64.726	48.749
#1	.03933	H23.248	-.00320	1.6280	-.01332	.09009	.00365
#2	.05474	H23.248	.02714	1.6397	-.01432	.21565	.00373

#3	.01234	H23.046	.00089	1.6076	-.01465	.03324	.00841
#4	-.03766	H22.980	.00497	1.6097	-.01432	.19318	.00364

Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.01637
SDev	.00092
%RSD	5.5911

#1	.01635
#2	.01692
#3	.01711
#4	.01508

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DEN88

Operator: EMF

Run Time: 07/03/00 15:30:32

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00055	.01473	.02349	.27095	.03337	-.00025	163.77
SDev	.00122	.01128	.03833	.00810	.00011	.00012	.91
%RSD	220.11	76.631	163.14	2.9896	.31503	48.643	.55439
#1	-.00206	.00933	-.01674	.26586	.03342	-.00042	162.51
#2	.00092	.02586	.05440	.27946	.03342	-.00018	163.76
#3	-.00053	.02216	.05808	.27605	.03321	-.00019	164.58
#4	-.00055	.00155	-.00176	.26243	.03342	-.00018	164.24
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00194	1.2108	-.00008	.00751	.02432	10.373	.00268
SDev	.00258	.0075	.00300	.00252	.00094	.610	.00108
%RSD	133.08	.61742	3732.0	33.608	3.8809	5.8841	40.146
#1	-.00163	1.2005	-.00315	.00453	.02432	9.5224	.00144
#2	L-.00547	1.2156	.00059	.00637	.02499	10.370	.00284
#3	.00072	1.2169	.00378	.00912	.02499	10.924	.00404
#4	-.00136	1.2101	-.00154	.01003	.02299	10.674	.00242
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.085	2.0521	4.3835	390.69	.01119	.02183	.02308
SDev	.065	.0052	.0222	2.69	.00321	.01089	.03069
%RSD	.13336	.25437	.50638	.68857	28.683	49.897	132.97
#1	49.182	2.0459	4.3591	394.53	.00994	.00645	.05140
#2	49.038	2.0499	4.3835	389.44	.00730	.02954	.03074
#3	49.057	2.0577	4.3787	388.38	.01445	.02958	.03077
#4	49.065	2.0548	4.4128	390.42	.01308	.02176	-.02058
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00583	7.2637	.00722	.97940	-.00949	.02717	.04427
SDev	.03939	.0393	.02425	.00353	.00058	.05774	.00419
%RSD	675.39	.54088	336.05	.36014	6.0774	212.50	9.4684
#1	.00103	7.2087	-.02446	.98432	-.01032	-.02129	.03924
#2	.00872	7.2622	.00573	.97749	-.00899	-.02142	.04336

#3	.05486	7.2920	.03401	.97633	-.00932	.09279	.04935
#4	-.04128	7.2919	.01357	.97948	-.00932	.05861	.04514
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.01989
SDev	.00147
%RSD	7.3688

#1	.01937
#2	.01809
#3	.02067
#4	.02142

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DEN88P5

Operator: EMF

Run Time: 07/03/00 15:33:40

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00041	.00595	.00729	.05310	.00687	-.00012	34.052
SDev	.00122	.00918	.03242	.00279	.00000	.00006	.190
%RSD	298.99	154.19	444.68	5.2575	.00000	49.501	.55848

#1	-.00190	.01343	-.01620	.04968	.00687	-.00021	34.266
#2	-.00040	.01147	.02504	.05310	.00687	-.00010	33.885
#3	-.00042	-.00694	-.02354	.05309	.00687	-.00008	33.900
#4	.00109	.00584	.04386	.05652	.00687	-.00010	34.160

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00186	.25671	-.00013	.00092	.00433	1.8456	-.00031
SDev	.00309	.00455	.00069	.00129	.00261	.3175	.00030
%RSD	165.57	1.7737	518.18	140.18	60.366	17.205	98.330

#1	.00020	.26288	-.00093	-.00090	.00566	1.5153	-.00021
#2	-.00598	.25603	-.00040	.00092	.00366	2.1759	-.00072
#3	-.00246	.25603	.00014	.00183	.00099	1.6403	-.00030
#4	.00078	.25190	.00067	.00183	.00700	2.0509	.00000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.160	.43305	.93506	78.244	.00291	.00142	.05193
SDev	.102	.00247	.00244	1.127	.00549	.01887	.01329
%RSD	1.0024	.57042	.26110	1.4408	188.96	1328.4	25.583

#1	10.293	.43649	.93628	79.594	-.00524	-.01925	.03652
#2	10.050	.43060	.93140	77.207	.00468	.02602	.06738
#3	10.173	.43256	.93628	78.746	.00663	-.00426	.05707
#4	10.124	.43256	.93628	77.430	.00555	.00317	.04676

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01347	1.4771	.00732	.20354	-.00216	.04028	.00956
SDev	.02744	.0057	.01907	.00260	.00033	.02721	.00278
%RSD	203.69	.38312	260.59	1.2794	15.385	67.541	29.093

#1	.01636	1.4786	.00775	.20707	-.00233	.00028	.00715
#2	.05096	1.4727	-.01432	.20107	-.00233	.05740	.01192
#3	-.00288	1.4845	.00381	.20380	-.00233	.05747	.00715
#4	-.01056	1.4727	.03203	.20223	-.00166	.04599	.01201

Elem	ZN
Units	ppm
Avge	.00559
SDev	.00075
%RSD	13.443

#1	.00536
#2	.00481
#3	.00661

#4 .00557

Method: QUANMET Sample Name: CCV2-2

Operator: EMF

Run Time: 07/03/00 15:36:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99131	48.985	4.9441	4.8512	4.7761	4.7896	50.297
SDev	.00169	.159	.0382	.0057	.0272	.0237	.213
%RSD	.17073	.32468	.77293	.11736	.56902	.49415	.42314
#1	.98987	49.218	4.9778	4.8567	4.8166	4.8250	50.024
#2	.99277	48.858	4.9622	4.8449	4.7619	4.7779	50.233
#3	.98982	48.930	4.9465	4.8553	4.7662	4.7796	50.465
#4	.99279	48.932	4.8901	4.8479	4.7596	4.7759	50.468
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0582	4.9055	4.9015	4.7879	50.442	47.967	4.8118
SDev	.0205	.0030	.0091	.0286	.050	.140	.0565
%RSD	.40614	.06146	.18482	.59633	.09937	.29124	1.1751
#1	5.0641	4.9038	4.8899	4.8304	50.445	48.121	4.8962
#2	5.0282	4.9026	4.8990	4.7710	50.370	48.032	4.7862
#3	5.0746	4.9065	4.9070	4.7783	50.470	47.800	4.7896
#4	5.0661	4.9093	4.9102	4.7719	50.482	47.916	4.7754
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.129	4.8818	4.8818	48.145	4.9122	5.0019	4.9925
SDev	.119	.0083	.0217	.388	.0173	.0341	.0243
%RSD	.24213	.17008	.44362	.80566	.35253	.68264	.48759
#1	49.307	4.8749	4.8891	48.727	4.8943	4.9733	5.0104
#2	49.068	4.8749	4.8696	47.956	4.9144	4.9811	5.0106
#3	49.068	4.8857	4.8598	47.952	4.9351	5.0038	4.9901
#4	49.073	4.8916	4.9087	47.945	4.9049	5.0493	4.9590
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0291	4.9636	4.9925	4.7817	4.8214	9.5529	4.8845
SDev	.0069	.0177	.0477	.0254	.0113	.1160	.0053
%RSD	.13808	.35744	.95578	.53084	.23456	1.2146	.10756
#1	5.0214	4.9592	4.9607	4.8196	4.8372	9.5756	4.8922
#2	5.0366	4.9591	4.9608	4.7669	4.8109	9.5079	4.8834

#3	5.0330	4.9472	5.0617	4.7726	4.8209	9.7011	4.8807
#4	5.0253	4.9888	4.9868	4.7678	4.8166	9.4269	4.8817

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9377
SDev .0133
%RSD .26851

#1	4.9223
#2	4.9336
#3	4.9539
#4	4.9410

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB2

Run Time: 07/03/00 15:39:55

Operator: EMF

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00037	.00125	.00656	.00046	.00013	.00022	.06079
SDev	.00320	.01667	.01748	.00094	.00034	.00006	.00497
%RSD	867.16	1336.8	266.61	204.76	267.93	26.401	8.1781

#1	-.00481	-.01714	-.01580	.00111	.00002	.00019	.05398
#2	-.00037	.02148	.02518	-.00089	.00023	.00019	.06134
#3	.00111	.00682	.01404	.00051	-.00028	.00019	.06195
#4	.00260	-.00617	.00281	.00112	.00053	.00031	.06589

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00238	-.00137	.00107	-.00023	.00400	-.25441	-.00105
SDev	.00252	.00137	.00244	.00075	.00330	.25189	.00094
%RSD	105.96	100.53	227.70	325.33	82.303	99.010	89.655

#1	-.00061	-.00205	.00360	-.00023	-.00034	-.38607	-.00185
#2	-.00016	-.00206	-.00173	-.00115	.00434	-.39500	-.00051
#3	-.00313	.00069	-.00013	-.00023	.00434	-.35929	-.00182
#4	L-.00560	-.00205	.00254	.00069	.00767	.12274	.00000

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01498	.00099	.01343	.01196	.00902	-.02458	.04091
SDev	.00716	.00057	.00399	.00861	.00676	.01891	.01184
%RSD	47.817	57.557	29.692	71.995	74.932	76.899	28.953

#1	-.02111	.00049	.00854	.00068	.00696	-.03406	.03065
#2	-.01566	.00148	.01831	.01151	.00036	-.03407	.05106
#3	-.01838	.00050	.01343	.01422	.01479	-.03398	.05126
#4	-.00477	.00148	.01343	.02144	.01397	.00377	.03065

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00193	-.02378	.01382	.00036	.00000	.04281	-.00004
SDev	.03747	.01017	.02075	.00013	.00112	.05925	.00183
%RSD	1938.3	42.764	150.10	35.031	270e6	138.41	4318.6

#1	-.04903	-.03717	.01580	.00037	-.00166	.06856	-.00104
#2	.00097	-.01933	.00983	.00044	.00067	-.00001	-.00086

663 947

#3	.01635	-.02528	-.01036	.00017	.00033	-.01146	-.00096
#4	.03944	-.01334	.04003	.00044	.00067	.11414	.00269

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00787
SDev	.00174
%RSD	22.106

#1	.00658
#2	.00714
#3	.01044
#4	.00733

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DEN88S

Operator: EMF

Run Time: 07/03/00 15:43:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04148	1.9242	1.9027	1.2019	1.8916	.04610	162.86
SDev	.00142	.0126	.0311	.0170	.0198	.00042	.38
%RSD	3.4280	.65369	1.6343	1.4177	1.0480	.92299	.23201
#1	.04036	1.9246	1.8624	1.2275	1.9052	.04640	162.40
#2	.04186	1.9339	1.9374	1.1934	1.8957	.04613	162.71
#3	.04334	1.9063	1.9001	1.1934	1.8625	.04549	163.16
#4	.04038	1.9320	1.9111	1.1934	1.9030	.04638	163.18
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04461	1.6713	.18367	.24271	.99773	9.5180	.98097
SDev	.00148	.0036	.00223	.00241	.00446	.1873	.01724
%RSD	3.3221	.21576	1.2154	.99280	.44672	1.9680	1.7579
#1	.04356	1.6689	.18060	.24294	.99973	9.3260	.99477
#2	.04314	1.6744	.18380	.24386	.99973	9.4332	.98475
#3	.04612	1.6675	.18593	.23927	.99106	9.7634	.95586
#4	.04563	1.6744	.18433	.24477	1.0004	9.5492	.98852
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.052	2.5086	4.3776	392.26	.47493	.47599	.02683
SDev	.367	.0068	.0140	5.02	.00348	.02657	.01452
%RSD	.74717	.27190	.32039	1.2808	.73196	5.5823	54.119
#1	49.266	2.5084	4.3886	395.83	.47747	.45699	.01660
#2	49.136	2.5083	4.3739	393.13	.46993	.44958	.02680
#3	48.512	2.5005	4.3593	384.92	.47708	.50242	.04737
#4	49.294	2.5172	4.3886	395.15	.47525	.49498	.01654
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0455	7.2632	-.00066	1.9137	-.01016	1.8403	.50055
SDev	.0194	.0360	.01510	.0180	.00058	.0962	.00231
%RSD	.94610	.49554	2294.4	.93806	5.6789	5.2257	.46040
#1	2.0494	7.2750	-.02241	1.9263	-.01065	1.8717	.49711
#2	2.0647	7.2810	.00591	1.9174	-.01032	1.8145	.50169

#3	2.0493	7.2097	.01206	1.8874	-.00932	1.7233	.50141
#4	2.0186	7.2870	.00182	1.9238	-.01032	1.9516	.50197
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .49770
SDev .00552
%RSD 1.1093

#1 .49263
#2 .49343
#3 .50097
#4 .50377

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DEN88D

Operator: EMF

Run Time: 07/03/00 15:46:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04443	1.9119	1.9611	1.2011	1.8561	.04556	162.25
SDev	.00188	.0288	.0472	.0153	.0278	.00051	.47
%RSD	4.2215	1.5061	2.4075	1.2763	1.5003	1.1118	.29208
#1	.04181	1.8936	1.9754	1.1934	1.8380	.04526	161.89
#2	.04627	1.8937	1.8928	1.1934	1.8317	.04512	162.09
#3	.04482	1.9061	2.0014	1.1934	1.8615	.04562	162.06
#4	.04482	1.9541	1.9747	1.2241	1.8931	.04626	162.94
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04148	1.6583	.18286	.23812	.99456	9.7010	.95532
SDev	.00282	.0100	.00186	.00312	.01023	.1056	.01921
%RSD	6.8044	.60198	1.0199	1.3110	1.0282	1.0888	2.0104
#1	.04390	1.6483	.18379	.23560	.98505	9.6206	.94554
#2	.04229	1.6593	.18379	.23561	.98906	9.6028	.93573
#3	.04234	1.6538	.18006	.23926	.99573	9.7634	.96011
#4	.03740	1.6716	.18380	.24202	1.0084	9.8170	.97991
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.531	2.4882	4.3520	385.37	.48040	.48511	.02951
SDev	.536	.0153	.0257	6.69	.01115	.01994	.02928
%RSD	1.1038	.61515	.59018	1.7368	2.3220	4.1100	99.207
#1	48.177	2.4779	4.3300	380.89	.47573	.49431	.02696
#2	48.133	2.4779	4.3300	379.90	.48030	.50214	-.00369
#3	48.523	2.4868	4.3690	386.16	.49582	.45660	.02709
#4	49.291	2.5103	4.3788	394.52	.46974	.48739	.06768
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9936	7.2200	.00490	1.8813	-.00891	1.8403	.49731
SDev	.0244	.0598	.02316	.0254	.00032	.1572	.00526
%RSD	1.2245	.82776	472.46	1.3510	3.5792	8.5412	1.0585
#1	1.9801	7.1917	.00792	1.8654	-.00932	1.6206	.49112
#2	2.0301	7.1680	.02393	1.8592	-.00866	1.9289	.49476

#3	1.9840	7.2156	-.02843	1.8850	-.00866	1.9745	.50159
#4	1.9802	7.3048	.01619	1.9157	-.00899	1.8373	.50178
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .49197
SDev .00484
%RSD .98316

#1 .48586
#2 .49135
#3 .49314
#4 .49755

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DEN8H

Operator: EMF

Run Time: 07/03/00 15:49:18

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00202	.01274	.00565	.26381	.03250	-.00035	161.51
SDev	.00121	.01271	.03648	.00551	.00044	.00012	.57
%RSD	59.884	99.724	645.58	2.0904	1.3549	33.498	.35021
#1	-.00351	-.00508	.04339	.25566	.03270	-.00043	160.78
#2	-.00201	.01875	.02809	.26787	.03189	-.00032	161.38
#3	-.00201	.01313	-.01317	.26586	.03249	-.00019	162.02
#4	-.00055	.02416	-.03571	.26586	.03291	-.00044	161.89
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00300	1.1964	-.00143	.00498	.02282	9.7679	.00249
SDev	.00318	.0059	.00176	.00053	.00114	.2485	.00089
%RSD	106.12	.49532	123.09	10.636	4.9982	2.5441	35.961
#1	-.00456	1.1881	-.00371	.00451	.02298	9.4956	.00153
#2	L-.00525	1.1964	.00056	.00544	.02165	10.004	.00284
#3	-.00387	1.1991	-.00103	.00544	.02232	9.9509	.00356
#4	.00170	1.2018	-.00156	.00453	.02432	9.6206	.00203
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.329	2.0187	4.3213	385.29	.01521	.00254	.04648
SDev	.283	.0088	.0209	3.38	.00769	.01313	.01769
%RSD	.58659	.43579	.48272	.87821	50.578	515.86	38.058
#1	48.033	2.0067	4.2957	381.89	.01087	.00608	.02098
#2	48.329	2.0184	4.3152	386.00	.01405	-.01637	.05157
#3	48.242	2.0224	4.3298	383.59	.02640	.01399	.06191
#4	48.711	2.0273	4.3445	389.70	.00953	.00648	.05147
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01544	7.1553	.00379	.96588	-.00941	.04138	.04580
SDev	.03473	.0755	.01675	.00705	.00057	.06008	.00286
%RSD	224.92	1.0550	441.93	.72953	6.0454	145.18	6.2552
#1	.02025	7.1136	-.00037	.95850	-.00999	.09279	.04287
#2	.01640	7.1256	.02603	.96686	-.00932	.00140	.04812

#3	.05486	7.1137	.00386	.96303	-.00966	.09276	.04840
#4	-.02974	7.2682	-.01437	.97512	-.00866	-.02144	.04382
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02159
SDev .00174
%RSD 8.0651

#1 .01992
#2 .02122
#3 .02118
#4 .02404

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DEN8L

Operator: EMF

Run Time: 07/03/00 15:52:25

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00074	.00953	-.00666	.01980	.00018	-.00006	.03741
SDev	.00143	.00716	.03129	.01101	.00011	.00011	.00158
%RSD	192.39	75.149	470.00	55.601	58.333	162.18	4.2227
#1	.00111	.01972	.02895	.01615	.00023	.00007	.03525
#2	-.00037	.00675	.00277	.01274	.00023	-.00019	.03816
#3	-.00037	.00312	-.04601	.03618	.00023	-.00006	.03732
#4	.00261	.00851	-.01234	.01414	.00002	-.00007	.03891
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00246	-.00205	.00094	.00366	.00484	.04686	-.00016
SDev	.00135	.00112	.00144	.00046	.00184	.17454	.00031
%RSD	54.795	54.404	153.98	12.503	37.971	372.44	200.00
#1	-.00331	-.00205	.00200	.00343	.00701	-.10935	.00000
#2	-.00081	-.00069	-.00119	.00343	.00567	.06918	.00000
#3	-.00377	-.00342	.00147	.00343	.00300	-.05579	-.00063
#4	-.00194	-.00206	.00147	.00434	.00367	.28342	.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00068	.00148	.01343	.28249	.00303	.01133	.03062
SDev	.01101	.00000	.00564	.00300	.00142	.02621	.01446
%RSD	1616.6	.12831	41.987	1.0631	46.957	231.29	47.234
#1	.01430	.00148	.00855	.28192	.00142	-.01141	.01014
#2	-.01021	.00148	.01831	.28599	.00312	-.01132	.04079
#3	.00068	.00148	.00855	.27876	.00487	.03401	.03069
#4	-.00749	.00148	.01831	.28328	.00272	.03406	.04084
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00578	.10849	.01276	.00010	.00050	.01711	.00026
SDev	.03812	.00345	.01766	.00020	.00043	.02720	.00250
%RSD	659.32	3.1801	138.34	193.73	86.066	159.01	955.20
#1	-.02209	.10550	.01368	.00022	.00033	-.00004	-.00105
#2	.00867	.10550	.03604	.00022	.00067	-.01146	-.00086

#3	-.02210	.11145	-.00642	.00017	.00000	.03428	-.00105
#4	.05865	.11151	.00776	-.00020	.00100	.04565	.00400
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .00437
SDev .00081
%RSD 18.617

#1 .00399
#2 .00345
#3 .00474
#4 .00530

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DEN8P

Operator: EMF

Run Time: 07/03/00 15:55:33

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00020	.05806	.01629	.32765	.01269	-.00003	19.368
SDev	.00074	.00743	.03115	.00305	.00014	.00006	.068
%RSD	373.03	12.803	191.23	.93228	1.1164	223.40	.35289
#1	-.00017	.06223	.03504	.32328	.01249	-.00006	19.364
#2	-.00017	.05493	.02007	.32790	.01279	.00007	19.460
#3	-.00017	.04923	.03889	.32931	.01279	-.00006	19.297
#4	.00131	.06584	-.02883	.33011	.01270	-.00006	19.349
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00365	-.00137	-.00080	.00488	.91570	1.4349	.00013
SDev	.00141	.00327	.00240	.00118	.00439	.3098	.00064
%RSD	38.611	238.58	300.07	24.282	.47968	21.591	499.64
#1	-.00463	.00069	.00200	.00533	.91036	1.5153	.00030
#2	-.00225	.00206	-.00067	.00625	.92104	1.8366	-.00081
#3	L-.00508	-.00343	-.00387	.00350	.91637	1.2386	.00060
#4	-.00264	-.00480	-.00067	.00442	.91503	1.1493	.00042
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.2526	.06895	-.00108	125.34	.00803	-.01537	.04869
SDev	.0275	.00057	.00399	.79	.00135	.01807	.02693
%RSD	.84568	.82029	367.84	.63167	16.764	117.59	55.310
#1	3.2444	.06944	-.00108	124.44	.00857	.00358	.02052
#2	3.2934	.06944	-.00597	126.02	.00602	-.00394	.03079
#3	3.2362	.06846	.00380	126.00	.00880	-.02674	.07176
#4	3.2362	.06846	-.00108	124.91	.00873	-.03436	.07171
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01299	5.0053	.00293	.10732	.00000	-.00334	-.00124
SDev	.04027	.0267	.01141	.00065	.00027	.03296	.00007
%RSD	310.06	.53444	389.91	.61008	77e6	987.98	6.0216
#1	.04950	4.9919	.00986	.10675	-.00033	-.04327	-.00123
#2	.04569	5.0454	.00789	.10796	.00000	-.00913	-.00133

#3	-.02739	4.9919	-.01413	.10780	.00033	.03665	-.00115
#4	-.01585	4.9919	.00808	.10675	.00000	.00241	-.00124
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .00705
SDev .00103
%RSD 14.562

#1 .00699
#2 .00852
#3 .00647
#4 .00623

Errors LC Pass
High 100.00
Low -.02000

663 958

Method: QUANMET Sample Name: DEN8W

Operator: EMF

Run Time: 07/03/00 15:58:41

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00003	.06076	-.00344	.06228	.01596	.00003	107.96
SDev	.00143	.01418	.02228	.00289	.00034	.00006	.43
%RSD	4593.1	23.341	647.02	4.6472	2.1435	225.07	.39875
#1	-.00184	.04743	.00987	.05917	.01555	-.00006	107.34
#2	-.00033	.05474	-.02407	.06539	.01636	.00005	108.27
#3	.00115	.08050	-.02052	.06398	.01585	.00005	108.00
#4	.00115	.06037	.02095	.06057	.01606	.00005	108.25
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00181	-.00171	.00053	.00527	.08071	3.8317	.00124
SDev	.00284	.00206	.00140	.00129	.00128	.3717	.00041
%RSD	157.21	120.64	263.78	24.585	1.5836	9.7000	33.302
#1	.00221	-.00344	.00200	.00343	.07904	3.3274	.00072
#2	-.00182	-.00343	.00146	.00618	.08171	4.1754	.00153
#3	-.00404	-.00068	-.00067	.00618	.08038	4.0326	.00111
#4	-.00359	.00070	-.00067	.00527	.08171	3.7916	.00161
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.9021	.00248	.00001	5.9328	.00430	-.00572	.04608
SDev	.0184	.00000	.00614	.0401	.00712	.02345	.02711
%RSD	.47166	.06905	50904.	.67662	165.37	410.17	58.823
#1	3.8762	.00247	-.00121	5.9818	.00027	-.01905	.01021
#2	3.9198	.00248	-.00121	5.9389	.00036	-.00385	.06143
#3	3.9062	.00248	.00856	5.9263	.01494	.02650	.07170
#4	3.9062	.00247	-.00609	5.8843	.00164	-.02648	.04099
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04059	2.9634	.01287	.49138	-.00516	.01345	.00243
SDev	.03939	.0365	.01246	.00327	.00088	.04791	.00245
%RSD	97.036	1.2303	96.781	.66598	17.069	356.09	100.63
#1	.05885	2.9351	.00362	.49508	-.00599	.04492	-.00123
#2	-.01805	2.9887	.00184	.49208	-.00566	.03344	.00363

663 959

#3	.06655	3.0005	.02813	.49119	-.00400	-.05795	.00381
#4	.05501	2.9292	.01790	.48715	-.00499	.03340	.00353
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.00341
SDev	.00112
%RSD	32.982

#1	.00269
#2	.00506
#3	.00319
#4	.00270

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DEN92

Operator: EMF

Run Time: 07/03/00 16:01:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00254	.02021	.00146	.06095	.02719	-.00007	131.31
SDev	.00305	.00664	.01720	.00116	.00034	.00010	.66
%RSD	119.85	32.878	1178.1	1.9004	1.2579	143.26	.50565
#1	-.00218	.02158	.02684	.06086	.02678	.00005	130.37
#2	.00078	.02346	-.00701	.06096	.02760	-.00007	131.70
#3	-.00217	.02529	-.01080	.05957	.02730	-.00020	131.33
#4	-.00660	.01051	-.00319	.06240	.02709	-.00007	131.85
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00202	-.00171	-.00174	.00428	4.8655	5.3582	.00182
SDev	.00181	.00206	.00087	.00053	.0287	.2978	.00124
%RSD	89.615	120.07	50.236	12.358	.59022	5.5580	68.186
#1	-.00001	.00068	-.00173	.00473	4.8240	5.2109	.00102
#2	-.00442	-.00068	-.00067	.00474	4.8727	5.6572	.00284
#3	-.00179	-.00343	-.00280	.00382	4.8754	5.0145	.00051
#4	-.00188	-.00343	-.00174	.00382	4.8900	5.5501	.00293
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.6928	.09855	-.00049	13.851	.00035	.00260	.03069
SDev	.0612	.00057	.00398	.107	.00561	.02549	.01190
%RSD	.70407	.57677	807.84	.77428	1598.7	980.04	38.763
#1	8.6124	.09805	.00438	13.711	-.00585	-.00488	.04090
#2	8.6887	.09904	-.00049	13.824	-.00161	.03289	.02042
#3	8.7105	.09904	-.00537	13.915	.00750	-.02772	.04109
#4	8.7595	.09806	-.00049	13.952	.00136	.01011	.02036
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02436	5.2461	.02482	.62700	-.00683	-.00115	.00333
SDev	.03257	.0438	.03260	.00467	.00100	.04942	.00061
%RSD	133.75	.83455	131.35	.74470	14.634	4283.6	18.359
#1	.00598	5.1822	.00466	.62085	-.00633	-.07214	.00373
#2	.03687	5.2713	.02881	.62611	-.00566	.04160	.00242

#3	-.00927	5.2535	-.00340	.62952	-.00766	.00733	.00354
#4	.06384	5.2773	-.06921	.63152	-.00766	.01859	.00363
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02703
SDev .00144
%RSD 5.3273

#1 .02633
#2 .02737
#3 .02888
#4 .02554

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DEN93

Operator: EMF

Run Time: 07/03/00 16:04:57

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00071	.03588	-.00897	.05454	.05009	-.00004	130.81
SDev	.00186	.01906	.03523	.00367	.00024	.00006	.37
%RSD	263.30	53.138	392.57	6.7226	.48218	153.77	.28097
#1	-.00034	.03631	.00979	.05189	.05027	-.00007	131.32
#2	-.00034	.02714	.00987	.05989	.05006	.00005	130.46
#3	-.00330	.01790	.00619	.05388	.05027	-.00007	130.79
#4	.00114	.06215	-.06175	.05249	.04976	-.00007	130.67
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00023	-.00104	-.00214	.00413	.14542	7.4247	-.00033
SDev	.00319	.00172	.00133	.00088	.00200	.4050	.00051
%RSD	1386.1	164.99	62.437	21.247	1.3768	5.4542	154.81
#1	-.00310	-.00344	-.00174	.00344	.14709	7.2194	.00000
#2	-.00127	-.00070	-.00067	.00436	.14308	7.8889	.00021
#3	.00097	.00067	-.00227	.00527	.14442	7.6121	-.00072
#4	.00432	-.00071	-.00387	.00344	.14709	6.9784	-.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.068	.10160	.00002	29.735	.00051	-.02842	.04099
SDev	.043	.00000	.00244	.085	.00387	.03111	.03239
%RSD	.32952	.00092	11226.	.28528	763.83	109.49	79.015
#1	13.084	.10160	-.00120	29.781	-.00059	-.02660	.03080
#2	13.046	.10160	-.00120	29.615	.00421	-.06433	.06143
#3	13.120	.10160	.00368	29.807	-.00445	.01133	.00000
#4	13.022	.10160	-.00120	29.737	.00286	-.03406	.07174
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01384	1.5991	-.00076	.64276	-.00716	.02190	.00364
SDev	.01105	.0331	.02265	.00188	.00033	.05516	.00005
%RSD	79.797	2.0670	2961.5	.29286	4.6512	251.90	1.2922
#1	.00135	1.6333	-.02656	.64519	-.00733	-.00095	.00362
#2	.01287	1.5679	.02811	.64078	-.00733	-.02377	.00362

#3	.01288	1.6214	-.00651	.64314	-.00733	.01047	.00371
#4	.02827	1.5739	.00190	.64194	-.00666	.10183	.00361
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.01125
SDev	.00138
%RSD	12.269

#1	.01048
#2	.01229
#3	.01254
#4	.00971

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-3

Operator: EMF

Run Time: 07/03/00 16:08:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0033	50.101	5.0418	4.9838	4.9181	4.9187	50.487
SDev	.0023	.133	.0649	.0383	.0191	.0068	.148
%RSD	.22940	.26603	1.2868	.76833	.38877	.13828	.29366
#1	1.0022	50.111	4.9760	4.9656	4.9240	4.9226	50.409
#2	1.0022	49.942	5.1053	4.9626	4.8942	4.9113	50.579
#3	1.0021	50.086	5.0892	5.0412	4.9144	4.9149	50.320
#4	1.0068	50.267	4.9968	4.9659	4.9399	4.9261	50.640
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0569	4.9623	4.9528	4.9415	51.172	49.902	4.9960
SDev	.0225	.0108	.0065	.0153	.141	.283	.0229
%RSD	.44427	.21844	.13141	.30879	.27478	.56803	.45756
#1	5.0733	4.9530	4.9501	4.9458	51.177	49.638	5.0126
#2	5.0782	4.9571	4.9480	4.9211	51.116	50.004	4.9630
#3	5.0316	4.9613	4.9507	4.9413	51.032	50.254	4.9984
#4	5.0445	4.9777	4.9624	4.9578	51.363	49.710	5.0099
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.201	4.9369	4.9295	49.773	5.0006	5.0065	5.0621
SDev	.130	.0091	.0487	.153	.0187	.0505	.0574
%RSD	.25988	.18381	.98886	.30770	.37331	1.0095	1.1341
#1	50.252	4.9310	4.9527	49.830	5.0285	4.9439	5.1031
#2	50.094	4.9369	4.8941	49.546	4.9908	5.0349	5.1136
#3	50.094	4.9300	4.8843	49.828	4.9927	4.9894	4.9906
#4	50.361	4.9498	4.9869	49.886	4.9902	5.0579	5.0411
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1050	5.0538	4.9744	4.9130	4.9217	9.7845	4.9624
SDev	.1174	.0462	.0522	.0166	.0145	.1142	.0117
%RSD	2.3002	.91392	1.0486	.33757	.29511	1.1670	.23494
#1	5.0925	5.1088	4.9933	4.9186	4.9211	9.6702	4.9640
#2	4.9847	4.9957	4.8985	4.8930	4.9115	9.8879	4.9556

663 965

#3	5.0768	5.0551	4.9888	4.9082	4.9118	9.8773	4.9518
#4	5.2661	5.0555	5.0172	4.9322	4.9424	9.7024	4.9781

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9935
SDev .0072
%RSD .14401

#1	4.9878
#2	4.9940
#3	4.9887
#4	5.0035

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB3

Operator: EMF

Run Time: 07/03/00 16:11:13

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00037	.00353	.02157	.00217	.00051	.00042	.01171
SDev	.00121	.00547	.01184	.00134	.00021	.00016	.00283
%RSD	323.84	155.14	54.877	61.780	41.141	38.485	24.209
#1	-.00185	.00493	.01405	.00111	.00023	.00019	.01001
#2	.00111	.01038	.03653	.00392	.00053	.00045	.01005
#3	-.00037	.00125	.02534	.00253	.00074	.00058	.01085
#4	-.00037	-.00245	.01035	.00113	.00053	.00045	.01592
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00288	-.00308	-.00013	.00023	.00634	-.32805	.00049
SDev	.00121	.00206	.00151	.00118	.00237	.16076	.00062
%RSD	41.953	66.857	1172.6	522.21	37.472	49.005	126.50
#1	-.00224	-.00205	.00094	.00160	.00300	-.10935	.00030
#2	-.00469	-.00205	-.00226	.00068	.00634	-.45749	.00108
#3	-.00237	-.00205	.00094	-.00023	.00834	-.43963	-.00030
#4	-.00222	-.00617	-.00013	-.00115	.00767	-.30574	.00090
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01566	.00074	.01465	.01287	-.00126	-.02085	.03825
SDev	.00802	.00049	.00614	.00188	.00771	.01675	.00512
%RSD	51.199	65.940	41.940	14.608	609.51	80.330	13.395
#1	-.02655	.00050	.01343	.01512	-.00882	-.02651	.03056
#2	-.00749	.00050	.02319	.01061	.00764	-.04164	.04085
#3	-.01566	.00050	.01343	.01332	-.00646	-.01136	.04076
#4	-.01294	.00148	.00855	.01241	.00258	-.00390	.04081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02405	.01188	.01381	.00070	.00025	.06850	-.00093
SDev	.03511	.02493	.02081	.00016	.00032	.07404	.00012
%RSD	145.98	209.87	150.70	22.397	127.66	108.09	12.490
#1	-.02595	-.02528	-.01248	.00070	.00000	.10279	-.00095
#2	.03943	.02228	.01786	.00048	.00000	.04565	-.00077

#3	.02790	.02228	.01180	.00085	.00067	-.02290	-.00095
#4	.05482	.02822	.03806	.00075	.00033	.14847	-.00105
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00264
SDev .00031
%RSD 11.571

#1 .00274
#2 .00292
#3 .00221
#4 .00271

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DFK4AB

Operator: EMF

Run Time: 07/03/00 16:18:26

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00038	.00324	.00562	-.00003	.00018	-.00003	.02303
SDev	.00121	.00620	.01542	.00406	.00011	.00006	.00477
%RSD	322.03	191.49	274.38	11891.	58.333	223.13	20.707
#1	-.00038	-.00597	-.00463	-.00289	.00002	-.00006	.02094
#2	-.00038	.00691	-.00849	-.00228	.00023	-.00006	.01883
#3	.00110	.00509	.01030	-.00089	.00023	.00007	.02981
#4	-.00185	.00693	.02530	.00593	.00023	-.00006	.02254
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00117	-.00171	.00107	.00229	.00650	-.16514	-.00089
SDev	.00195	.00206	.00153	.00088	.00084	.62189	.00087
%RSD	166.56	120.14	143.60	38.356	12.912	376.58	97.590
#1	.00147	-.00069	-.00120	.00252	.00567	-.64495	-.00051
#2	-.00199	-.00480	.00147	.00160	.00634	-.34144	-.00102
#3	-.00309	-.00068	.00200	.00343	.00634	.74760	.00000
#4	-.00106	-.00068	.00200	.00160	.00767	-.42178	-.00203
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01157	.00172	-.00244	.02494	.00351	-.00946	.03835
SDev	.00786	.00049	.00244	.00646	.00537	.03934	.02266
%RSD	67.924	28.567	100.04	25.909	153.18	415.90	59.080
#1	-.01021	.00147	-.00122	.01738	-.00053	-.02647	.03064
#2	-.01294	.00147	-.00610	.02912	.00816	-.05689	.01027
#3	-.00204	.00245	-.00122	.03137	.00812	.02654	.05121
#4	-.02111	.00147	-.00122	.02189	-.00173	.01898	H.06130
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00675	.04605	.02643	.00005	-.00008	.05422	-.00126
SDev	.03722	.00000	.01150	.00011	.00017	.05776	.00005
%RSD	551.63	.00130	43.507	199.83	200.00	106.54	3.7081
#1	.04328	.04605	.03397	.00007	-.00033	.12560	-.00124
#2	-.04517	.04605	.01974	.00007	.00000	-.01143	-.00133

#3	.01251	.04605	.01387	-.00009	.00000	.06849	-.00123
#4	.01636	.04605	.03815	.00017	.00000	.03421	-.00123

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00679
SDev .00095
%RSD 14.005

#1	.00560
#2	.00657
#3	.00785
#4	.00713

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DFK4AC

Operator: EMF

Run Time: 07/03/00 16:21:34

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04547	1.9362	1.9302	.95093	1.9683	.04853	L.17223
SDev	.00186	.0119	.0161	.01875	.0138	.00018	.00098
%RSD	4.0814	.61326	.83574	1.9720	.70354	.36630	.57022

#1	.04359	1.9260	1.9229	.92334	1.9605	.04839	L.17110
#2	.04803	1.9280	1.9304	.96079	1.9539	.04839	L.17312
#3	.04512	1.9519	1.9526	.95539	1.9850	.04875	L.17171
#4	.04512	1.9389	1.9151	.96422	1.9735	.04862	L.17298

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04078	.47798	.19387	.24460	1.0348	L-.37045	.97841
SDev	.00085	.00619	.00321	.00198	.0048	.08697	.00686
%RSD	2.0871	1.2946	1.6554	.80823	.46043	23.476	.70163

#1	.04082	.46906	.18947	.24459	1.0298	L-.49319	.98125
#2	.04170	.48142	.19374	.24186	1.0318	L-.29681	.96920
#3	L.03964	.48278	.19533	.24643	1.0378	L-.36822	.98535
#4	.04095	.47867	.19693	.24552	1.0398	L-.32359	.97784

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.01089	.48697	-.00717	L.03826	.49584	.46413	L.04245
SDev	.01742	.00345	.00244	.00124	.00588	.01570	.01967
%RSD	159.92	.70800	34.060	3.2493	1.1853	3.3823	46.348

#1	L-.03200	.48353	-.01083	L.03770	.48786	.44684	L.02698
#2	L.00340	.48451	-.00595	L.03950	.50135	.47748	L.04759
#3	L-.01838	.49040	-.00595	L.03905	.49887	.45482	L.06814
#4	L.00340	.48942	-.00595	L.03679	.49527	.47737	L.02709

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9783	.05214	.00898	.98663	.00025	1.8923	.47541
SDev	.0282	.00007	.01774	.00646	.00042	.0465	.00565
%RSD	1.4246	.13819	197.58	.65472	167.77	2.4598	1.1875

#1	1.9610	.05207	.02809	.98378	.00033	1.8239	.47047
#2	1.9495	.05208	.01809	.97974	.00033	1.9266	.47057

#3	1.9918	.05220	-.01211	.99483	-.00033	1.9151	.48030
#4	2.0110	.05220	.00184	.98815	.00067	1.9037	.48030

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.48657
SDev	.00499
%RSD	1.0261

#1	.48264
#2	.48390
#3	.48599
#4	.49377

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DFCKL

Operator: EMF

Run Time: 07/03/00 16:24:42

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00352	105.44	.08421	.26670	1.0142	.00719	18.897
SDev	.00169	.42	.08292	.00153	.0043	.00012	.084
%RSD	47.902	.39715	98.462	.57205	.42206	1.6971	.44479
#1	.00100	105.03	.08343	.26530	1.0098	.00710	18.792
#2	.00454	105.92	.06958	.26857	1.0188	.00709	18.989
#3	.00417	105.16	-.00881	.26562	1.0114	.00722	18.873
#4	.00438	105.66	.19264	.26732	1.0168	.00735	18.933
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00811	.09190	.14270	.47297	235.13	12.466	.11494
SDev	.00242	.00130	.00190	.00283	1.06	.286	.00202
%RSD	29.846	1.4179	1.3323	.59789	.45044	2.2947	1.7606
#1	.00477	.09089	.14003	.46967	233.86	12.040	.11469
#2	.01034	.09361	.14431	.47536	236.29	12.647	.11783
#3	.00933	.09087	.14270	.47157	234.75	12.566	.11316
#4	.00801	.09224	.14377	.47530	235.64	12.611	.11409
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.005	3.4186	.04249	1.7056	.15611	.16062	.06370
SDev	.080	.0163	.01098	.0110	.01411	.01886	.01945
%RSD	.57228	.47773	25.856	.64701	9.0406	11.744	30.530
#1	13.904	3.3991	.02887	1.7021	.15574	.15923	.05097
#2	14.079	3.4381	.05364	1.7103	.17605	.18095	.09200
#3	13.978	3.4141	.03877	1.6922	.14839	.16651	.05087
#4	14.059	3.4232	.04866	1.7179	.14428	.13577	.06097
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07537	3.9244	.04321	.14111	.76414	.07336	.19919
SDev	.06064	.0049	.01531	.00081	.00346	.07092	.00022
%RSD	80.463	.12371	35.419	.57406	.45282	96.672	.10837
#1	.05566	3.9244	.05959	.14018	.75981	.16069	.19892
#2	.13898	3.9244	.02588	.14202	.76780	.10151	.19941

#3	.00034	3.9185	.03551	.14075	.76314	.01447	.19912
#4	.10650	3.9304	.05187	.14149	.76581	.01678	.19931
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.78566
SDev	.00634
%RSD	.80652

#1	.78553
#2	.79167
#3	.77693
#4	.78849

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DFCKN

Operator: EMF

Run Time: 07/03/00 16:27:50

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02327	86.902	.12210	.24327	.77098	.00745	47.917
SDev	.00215	.227	.01325	.00730	.00347	.00010	.250
%RSD	9.2523	.26155	10.854	2.9994	.45040	1.3306	.52120
#1	.02305	86.586	.13236	.24223	.76856	.00746	47.766
#2	.02182	86.968	.13180	.23787	.77315	.00757	47.834
#3	.02184	87.127	.10410	.25387	.77468	.00733	47.777
#4	.02638	86.928	.12016	.23912	.76753	.00746	48.289
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07818	.12893	.48115	5.2795	242.43	10.460	.09551
SDev	.00422	.00283	.00462	.0223	.68	.194	.00095
%RSD	5.3935	2.1935	.96007	.42269	.28172	1.8541	.99258
#1	.08119	.12653	.48035	5.2623	241.49	10.549	.09426
#2	.08216	.13064	.48195	5.2880	242.47	10.674	.09657
#3	.07327	.12654	.47555	5.3072	242.65	10.228	.09567
#4	.07611	.13203	.48675	5.2606	243.12	10.388	.09555
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.180	6.0772	.16321	1.4211	.27323	.58766	.05120
SDev	.054	.0176	.00462	.0111	.00611	.04139	.02270
%RSD	.35656	.28967	2.8291	.78006	2.2353	7.0427	44.331
#1	15.127	6.0551	.16673	1.4146	.26478	.63150	.02812
#2	15.239	6.0750	.16687	1.4177	.27928	.58575	.03842
#3	15.212	6.0809	.15714	1.4376	.27376	.53254	.05899
#4	15.141	6.0977	.16209	1.4146	.27512	.60085	.07929
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07729	3.5174	.05413	.22470	.76572	.13256	.20827
SDev	.06339	.0301	.02241	.00072	.00191	.12934	.00248
%RSD	82.019	.85594	41.409	.32213	.24948	97.572	1.1908
#1	.15269	3.5084	.03265	.22424	.76314	.07361	.20712
#2	.09757	3.5025	.07124	.22503	.76547	.26922	.21199

663 975

#3	.05576	3.4965	.03703	.22556	.76747	-.01814	.20692
#4	.00315	3.5619	.07559	.22398	.76680	.20553	.20704
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 2.7159
SDev .0035
%RSD .12823

#1 2.7109
#2 2.7182
#3 2.7183
#4 2.7164

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFCKP

Operator: EMF

Run Time: 07/03/00 16:30:57

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01465	57.634	.04082	.85621	.96720	.00476	123.50
SDev	.00084	.122	.03139	.02637	.00156	.00007	.61
%RSD	5.7594	.21167	76.905	3.0804	.16174	1.4805	.49794
#1	.01339	57.484	.04841	.81869	.96637	.00471	122.77
#2	.01500	57.629	.05035	.85986	.96730	.00482	123.20
#3	.01515	57.782	-.00422	.87993	.96935	.00469	123.98
#4	.01506	57.639	.06874	.86636	.96577	.00482	124.03
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09033	.07383	.30425	4.7128	145.05	8.2705	.06374
SDev	.00417	.00304	.00160	.0164	.47	.3520	.00044
%RSD	4.6199	4.1146	.52571	.34897	.32235	4.2561	.69317
#1	.08775	.07007	.30346	4.7109	144.47	8.0495	.06340
#2	.09306	.07280	.30559	4.7201	144.94	8.2549	.06331
#3	.09462	.07691	.30239	4.7293	145.59	8.0049	.06412
#4	.08589	.07556	.30559	4.6909	145.20	8.7726	.06412
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.897	3.3602	.64425	1.3154	.22464	.38678	.05656
SDev	.069	.0112	.00462	.0092	.00365	.01999	.00830
%RSD	.34582	.33456	.71756	.69908	1.6241	5.1679	14.682
#1	19.841	3.3451	.65027	1.3130	.22527	.37555	.05656
#2	19.912	3.3599	.64057	1.3117	.21974	.36787	.06667
#3	19.989	3.3719	.64067	1.3288	.22500	.39043	.05666
#4	19.847	3.3639	.64549	1.3080	.22857	.41327	.04633
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04760	3.3619	.05725	.88079	.79494	.06726	.13700
SDev	.03178	.0114	.02901	.00176	.00183	.01951	.00235
%RSD	66.767	.33906	50.676	.19920	.23068	29.003	1.7186
#1	.03551	3.3529	.03443	.88040	.79311	.04462	.13347
#2	.02904	3.3649	.09514	.88093	.79577	.07410	.13815

663 977

#3	.03075	3.3530	.03463	.88303	.79710	.09028	.13815
#4	.09509	3.3768	.06481	.87878	.79377	.06003	.13825
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 3.3305
SDev .0240
%RSD .72205

#1 3.2991
#2 3.3247
#3 3.3519
#4 3.3465

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFCKPP5

Operator: EMF

Run Time: 07/03/00 16:34:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00268	11.986	.02506	.16997	.19964	.00101	26.226
SDev	.00121	.021	.04374	.01328	.00085	.00000	.059
%RSD	45.061	.17527	174.55	7.8157	.42660	.01324	.22513

#1	.00121	11.994	-.03042	.16337	.19979	.00101	26.265
#2	.00418	11.983	.05601	.16339	.19979	.00101	26.277
#3	.00268	12.009	.01084	.18990	.20051	.00101	26.147
#4	.00268	11.959	.06382	.16322	.19847	.00101	26.217

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01809	.01502	.06442	.96993	31.363	1.5778	.01249
SDev	.00297	.00206	.00540	.00304	.045	.1252	.00069
%RSD	16.416	13.714	8.3886	.31313	.14313	7.9343	5.5124

#1	.01921	.01262	.06816	.97313	31.392	1.6403	.01199
#2	.02099	.01673	.06709	.97039	31.410	1.6492	.01322
#3	.01399	.01675	.05642	.97039	31.332	1.3903	.01181
#4	.01817	.01399	.06603	.96581	31.318	1.6313	.01292

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.1888	.71805	.13653	.27605	.04982	.07657	.04251
SDev	.0105	.00169	.00244	.00543	.01376	.02870	.01748
%RSD	.25112	.23493	1.7850	1.9669	27.614	37.481	41.130

#1	4.1813	.71879	.13531	.27244	.03482	.03487	.05006
#2	4.2003	.71978	.13531	.28373	.04405	.09550	.01937
#3	4.1949	.71779	.13530	.27605	.06705	.08038	.04022
#4	4.1786	.71583	.14018	.27199	.05337	.09551	.06038

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03745	.70779	.00959	.18228	.16673	.02251	.03072
SDev	.03081	.00297	.02047	.00076	.00032	.08783	.00005
%RSD	82.291	.41991	213.36	.41987	.19120	390.12	.16380

#1	.02214	.70630	-.00905	.18267	.16648	-.05772	.03070
#2	.00296	.71225	.02918	.18267	.16715	.13624	.03070
#3	.07197	.70630	-.00708	.18267	.16648	-.03429	.03068
#4	.05271	.70631	.02532	.18114	.16681	.04582	.03079

Elem	ZN
Units	ppm
Avge	.71639
SDev	.00261
%RSD	.36387

#1	.71575
#2	.71551
#3	.71414

#4 .72015

Method: QUANMET Sample Name: DFCKPS

Operator: EMF

Run Time: 07/03/00 16:37:13

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06751	104.31	1.9592	1.8746	2.9126	.05139	169.93
SDev	.00366	.58	.0810	.0254	.0187	.00024	.63
%RSD	5.4161	.56011	4.1353	1.3563	.64309	.46626	.37128
#1	.06210	103.56	1.8791	1.8365	2.8881	.05124	169.23
#2	.06975	104.39	2.0476	1.8868	2.9205	.05135	169.76
#3	.06973	104.31	2.0070	1.8887	2.9096	.05122	170.00
#4	.06847	104.98	1.9029	1.8864	2.9321	.05173	170.75
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.14426	.53823	.52251	5.0787	152.76	63.274	1.0742
SDev	.00583	.00130	.00409	.0358	.73	.508	.0073
%RSD	4.0377	.24165	.78368	.70469	.47849	.80250	.68099
#1	.15041	.53653	.52851	5.0340	151.85	62.850	1.0680
#2	.13754	.53790	.52158	5.0927	152.80	63.082	1.0765
#3	.14150	.53927	.51944	5.0698	152.73	63.153	1.0688
#4	.14761	.53923	.52051	5.1184	153.64	64.010	1.0836
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	70.570	3.6876	1.5853	49.524	.71091	.88655	.39690
SDev	.331	.0158	.0129	.353	.01640	.03772	.01739
%RSD	.46897	.42968	.81140	.71235	2.3074	4.2542	4.3811
#1	70.191	3.6685	1.5791	49.085	.73154	.91179	.39958
#2	70.605	3.6864	1.6037	49.677	.69237	.85056	.41972
#3	70.493	3.6883	1.5744	49.427	.71407	.85819	.38937
#4	70.992	3.7072	1.5843	49.908	.70564	.92567	.37894
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0339	6.3274	1.8985	1.8410	1.9400	1.7868	.65630
SDev	.0619	.0089	.0204	.0098	.0086	.0719	.00251
%RSD	3.0432	.14143	1.0756	.53014	.44326	4.0237	.38308
#1	2.1007	6.3140	1.9236	1.8280	1.9292	1.7904	.65254
#2	1.9532	6.3319	1.8774	1.8445	1.9411	1.8834	.65787

#3	2.0261	6.3319	1.8873	1.8403	1.9395	1.7128	.65730
#4	2.0554	6.3319	1.9056	1.8512	1.9501	1.7607	.65749
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 3.9954
SDev .0177
%RSD .44204

#1 3.9832
#2 3.9825
#3 3.9955
#4 4.0203

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFCKPD

Operator: EMF

Run Time: 07/03/00 16:40:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07383	100.13	1.9506	2.0591	2.9857	.05168	175.84
SDev	.00074	.61	.0564	.0329	.0237	.00032	.18
%RSD	.99714	.60693	2.8927	1.5995	.79512	.61182	.10020
#1	.07446	99.930	1.9059	2.0237	2.9792	.05162	175.61
#2	.07308	99.869	1.9058	2.0762	2.9745	.05162	176.03
#3	.07447	99.690	1.9678	2.0404	2.9684	.05137	175.83
#4	.07331	101.03	2.0230	2.0959	3.0207	.05212	175.89
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18042	.54884	.56484	5.9089	173.10	63.296	1.0841
SDev	.00611	.00298	.00199	.0513	.61	.415	.0114
%RSD	3.3838	.54207	.35301	.86745	.34988	.65595	1.0489
#1	.18208	.55159	.56217	5.8849	172.65	62.993	1.0832
#2	.18829	.54471	.56697	5.8867	173.09	63.626	1.0764
#3	.17659	.55024	.56537	5.8785	172.69	62.886	1.0762
#4	.17472	.54881	.56484	5.9856	173.96	63.680	1.1004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	71.712	3.6985	1.7922	50.332	.73600	.91663	.33933
SDev	.412	.0131	.0120	.467	.01361	.02209	.02566
%RSD	.57477	.35534	.67032	.92755	1.8487	2.4104	7.5630
#1	71.515	3.6903	1.7922	50.135	.72558	.88665	.33671
#2	71.575	3.6983	1.7776	50.169	.75210	.93943	.36767
#3	71.433	3.6883	1.7922	50.000	.72390	.91704	.34689
#4	72.324	3.7171	1.8070	51.024	.74243	.92340	.30603
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9567	4.5856	1.9356	1.8884	1.8786	1.9565	.65339
SDev	.0846	.0413	.0060	.0135	.0095	.1257	.00246
%RSD	4.3233	.90084	.31038	.71715	.50553	6.4222	.37627
#1	1.9094	4.5247	1.9315	1.8849	1.8762	1.9867	.65187
#2	1.9490	4.6079	1.9398	1.8821	1.8746	1.9138	.65281

#3	1.8903	4.5960	1.9417	1.8782	1.8712	2.1120	.65187
#4	2.0782	4.6139	1.9295	1.9082	1.8925	1.8135	.65702
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 5.2764
SDev .0107
%RSD .20286

#1 5.2740
#2 5.2731
#3 5.2668
#4 5.2917

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFCKR

Operator: EMF

Run Time: 07/03/00 16:43:28

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03542	66.370	.05228	1.3244	1.2613	.00525	131.24
SDev	.00144	.437	.03989	.0041	.0107	.00006	.70
%RSD	4.0542	.65860	76.299	.31098	.84554	1.0944	.53336
#1	.03533	66.436	.06722	1.3254	1.2645	.00523	130.78
#2	.03732	66.937	-.00698	1.3280	1.2740	.00534	132.27
#3	.03384	66.204	.06916	1.3184	1.2581	.00523	130.82
#4	.03520	65.901	.07972	1.3257	1.2487	.00523	131.09
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.14341	.10227	.79887	8.8708	206.27	10.765	.08699
SDev	.00238	.00361	.00283	.0733	1.18	.167	.00077
%RSD	1.6596	3.5261	.35471	.82642	.57159	1.5518	.89137
#1	.14143	.09712	.79900	8.8975	205.90	10.772	.08661
#2	.14198	.10534	.80220	8.9508	207.99	10.719	.08801
#3	.14673	.10260	.79527	8.8582	205.84	10.986	.08712
#4	.14350	.10400	.79901	8.7767	205.33	10.585	.08622
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.810	5.0636	.95003	2.2363	.57615	.76724	.06414
SDev	.175	.0291	.00492	.0184	.01052	.02952	.03245
%RSD	.70504	.57556	.51809	.82368	1.8259	3.8478	50.594
#1	24.782	5.0505	.94266	2.2303	.58588	.74257	.08476
#2	25.041	5.1070	.95273	2.2637	.58392	.80256	.09485
#3	24.801	5.0524	.95241	2.2258	.56393	.78064	.02309
#4	24.616	5.0444	.95234	2.2254	.57089	.74318	.05386
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05988	2.5257	.13330	.87212	.86278	.16089	.18035
SDev	.06456	.0171	.01619	.00685	.00484	.07773	.00247
%RSD	107.82	.67724	12.147	.78607	.56135	48.312	1.3702
#1	.07815	2.5153	.11465	.87442	.86170	.17318	.17899
#2	.07981	2.5511	.15344	.87994	.86936	.26605	.18405

#3	-.03353	2.5153	.13656	.87048	.86236	.10526	.17917
#4	.11509	2.5213	.12855	.86364	.85770	.09907	.17918
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 5.4645
SDev .0376
%RSD .68745

#1 5.4254
#2 5.5148
#3 5.4516
#4 5.4661

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFCKT

Operator: EMF

Run Time: 07/03/00 16:46:36

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02636	80.755	.03335	.26260	.88058	.00873	158.06
SDev	.00201	.316	.02340	.00196	.00543	.00007	.56
%RSD	7.6114	.39097	70.182	.74453	.61605	.76063	.35151
#1	.02775	80.748	.03857	.26011	.88182	.00876	157.27
#2	.02783	80.495	.04017	.26420	.87539	.00863	158.36
#3	.02353	81.201	-.00003	.26198	.88765	.00876	158.11
#4	.02631	80.575	.05468	.26413	.87744	.00877	158.51
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10627	.12115	.88877	6.2510	193.41	12.752	.10096
SDev	.00300	.00177	.00536	.0353	.41	.256	.00063
%RSD	2.8193	1.4617	.60267	.56540	.21001	2.0073	.62156
#1	.10665	.12047	.88304	6.2713	193.00	12.602	.10177
#2	.10574	.12185	.89157	6.2283	193.35	13.031	.10084
#3	.10270	.11909	.89477	6.2897	193.97	12.477	.10096
#4	.10998	.12321	.88571	6.2146	193.32	12.897	.10025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	29.229	5.8898	.20104	1.8253	.47593	1.1349	.03871
SDev	.095	.0118	.00484	.0139	.00576	.0337	.02937
%RSD	.32358	.20014	2.4084	.76080	1.2099	2.9664	75.882
#1	29.270	5.8754	.20830	1.8367	.48009	1.1463	-.00476
#2	29.156	5.8883	.19859	1.8222	.48167	1.1768	.04644
#3	29.344	5.9041	.19868	1.8353	.47135	1.1156	.05655
#4	29.148	5.8912	.19859	1.8069	.47061	1.1011	.05660
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10483	2.4398	.05893	.47821	1.0341	.07818	.19765
SDev	.04989	.0122	.00421	.00242	.0031	.04011	.00247
%RSD	47.590	.50161	7.1393	.50625	.30361	51.300	1.2484
#1	.05953	2.4502	.06269	.47877	1.0338	.10520	.19900
#2	.17583	2.4264	.05897	.47641	1.0305	.05589	.19883

#3	.09669	2.4324	.05305	.48140	1.0382	.11818	.19883
#4	.08729	2.4501	.06102	.47625	1.0338	.03346	.19395
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 4.1868
SDev .0141
%RSD .33664

#1 4.1661
#2 4.1896
#3 4.1945
#4 4.1969

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-4

Operator: EMF

Run Time: 07/03/00 16:49:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0114	50.449	5.0613	5.0150	4.9575	4.9773	51.146
SDev	.0056	.105	.1208	.0011	.0076	.0109	.216
%RSD	.55573	.20835	2.3865	.02214	.15420	.21806	.42223
#1	1.0130	50.533	5.1701	5.0144	4.9642	4.9904	51.323
#2	1.0174	50.548	4.9711	5.0138	4.9611	4.9820	51.295
#3	1.0114	50.363	5.1606	5.0156	4.9581	4.9696	51.113
#4	1.0039	50.354	4.9433	5.0162	4.9467	4.9673	50.854
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1230	5.0135	5.0176	4.9777	51.429	49.926	5.0074
SDev	.0077	.0181	.0085	.0046	.111	.320	.0093
%RSD	.15082	.36132	.16963	.09328	.21530	.64007	.18629
#1	5.1246	5.0214	5.0184	4.9834	51.508	50.129	5.0183
#2	5.1322	5.0324	5.0274	4.9761	51.524	50.245	4.9965
#3	5.1217	5.0104	5.0179	4.9788	51.399	49.781	5.0039
#4	5.1135	4.9899	5.0067	4.9724	51.285	49.549	5.0109
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.693	4.9748	4.9686	50.177	5.0575	5.1005	5.1286
SDev	.056	.0133	.0047	.035	.0490	.0496	.0195
%RSD	.10984	.26648	.09429	.06909	.96906	.97273	.38042
#1	50.751	4.9841	4.9723	50.227	5.1010	5.1423	5.1543
#2	50.707	4.9851	4.9674	50.171	5.0925	5.0442	5.1136
#3	50.699	4.9733	4.9723	50.154	5.0406	5.1421	5.1132
#4	50.617	4.9566	4.9625	50.154	4.9958	5.0735	5.1331
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1240	5.0723	5.0610	4.9648	4.9542	9.8012	5.0155
SDev	.0922	.0114	.0908	.0091	.0112	.1067	.0133
%RSD	1.8003	.22462	1.7935	.18305	.22541	1.0885	.26556
#1	5.0973	5.0739	5.1833	4.9738	4.9644	9.7689	5.0265
#2	5.2511	5.0798	5.0377	4.9696	4.9618	9.7801	5.0240

#3	5.1162	5.0797	4.9650	4.9629	4.9504	9.9529	5.0144
#4	5.0313	5.0557	5.0580	4.9529	4.9401	9.7030	4.9972

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 5.0272
SDev .0115
%RSD .22882

#1 5.0164
#2 5.0399
#3 5.0339
#4 5.0187

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB4

Operator: EMF

Run Time: 07/03/00 16:52:52

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00038	.01281	.01119	.00587	.00005	.00023	.02049
SDev	.00296	.00891	.03481	.00762	.00013	.00005	.00254
%RSD	782.51	69.609	311.13	129.64	242.44	23.649	12.407
#1	-.00183	.00129	.02902	.00451	.00002	.00031	.02010
#2	-.00187	.01786	-.01978	.00391	.00023	.00020	.01709
#3	.00407	.02148	.05146	.01656	-.00007	.00019	.02193
#4	-.00188	.01059	-.01595	-.00149	.00002	.00021	.02286
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00266	-.00171	-.00053	-.00069	.00467	-.35037	-.00086
SDev	.00162	.00304	.00181	.00053	.00177	.48104	.00063
%RSD	61.162	177.92	342.72	77.197	37.832	137.30	72.926
#1	-.00109	.00206	.00200	-.00023	.00367	.32805	-.00105
#2	-.00276	-.00068	-.00066	-.00023	.00300	-.40393	.00000
#3	-.00487	-.00479	-.00120	-.00115	.00701	-.79670	-.00150
#4	-.00191	-.00343	-.00226	-.00115	.00500	-.52890	-.00090
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02247	.00074	.01099	.00508	.00561	-.03786	.03325
SDev	.01268	.00049	.00630	.00688	.00592	.03365	.00515
%RSD	56.421	66.038	57.373	135.46	105.51	88.871	15.480
#1	-.00477	.00049	.00855	.01422	.01310	-.00367	.04097
#2	-.02655	.00050	.01831	.00429	.00676	-.01891	.03068
#3	-.02383	.00050	.01343	-.00248	.00359	-.04931	.03071
#4	-.03472	.00147	.00366	.00429	-.00100	-.07954	.03064
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03270	.02078	-.00085	.00033	.00025	.03425	-.00192
SDev	.03976	.00301	.02116	.00009	.00057	.05967	.00437
%RSD	121.59	14.472	2476.1	26.896	227.71	174.23	228.04
#1	.04712	.02234	.02392	.00022	.00000	.09130	.00381
#2	.06250	.02223	-.01046	.00044	-.00033	-.01141	-.00451

#3	-.02594	.02228	-.02460	.00033	.00100	.07993	-.00096
#4	.04712	.01627	.00772	.00033	.00033	-.02282	-.00601
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00237
SDev .00124
%RSD 52.366

#1 .00399
#2 .00139
#3 .00271
#4 .00141

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DFCKV

Operator: EMF

Run Time: 07/03/00 16:55:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00492	48.830	.08717	.06244	.57997	.00686	17.190
SDev	.00030	.236	.05547	.00909	.00214	.00012	.110
%RSD	6.1655	.48240	63.642	14.561	.36877	1.7671	.63899
#1	.00457	48.615	.13384	.06500	.57870	.00683	17.043
#2	.00479	48.670	.13605	.06679	.57798	.00696	17.171
#3	.00506	48.910	.04640	.06894	.58044	.00670	17.260
#4	.00526	49.127	.03238	.04902	.58278	.00694	17.287
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00129	.09217	.10715	.11566	237.97	5.6505	.07921
SDev	.00202	.00426	.00349	.00145	1.25	.2931	.00167
%RSD	155.96	4.6243	3.2606	1.2525	.52552	5.1875	2.1118
#1	-.00413	.08600	.10541	.11485	236.51	5.3894	.08051
#2	-.00097	.09560	.10595	.11493	237.45	5.6126	.07788
#3	-.00071	.09422	.10488	.11502	238.57	5.5322	.07767
#4	.00063	.09284	.11235	.11783	239.36	6.0678	.08081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.566	1.2085	.01972	.81936	.14866	.08071	.04874
SDev	.077	.0072	.00581	.00528	.00579	.01106	.00981
%RSD	.61591	.59329	29.468	.64489	3.8967	13.701	20.119
#1	12.488	1.2010	.01461	.82049	.14002	.07154	.04098
#2	12.551	1.2042	.01476	.81327	.15115	.07155	.04114
#3	12.553	1.2124	.02469	.81778	.15102	.09382	.05131
#4	12.673	1.2165	.02481	.82591	.15244	.08591	.06154
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08572	2.9187	.03131	.12472	.55579	.05513	.10780
SDev	.02347	.0319	.01160	.00048	.00211	.03802	.00193
%RSD	27.378	1.0914	37.033	.38269	.38007	68.961	1.7924
#1	.09340	2.9068	.04464	.12441	.55371	.00743	.10743
#2	.08050	2.9008	.02866	.12430	.55504	.10045	.10622

#3	.05653	2.9008	.03497	.12483	.55571	.05468	.10694
#4	.11245	2.9662	.01698	.12535	.55870	.05797	.11060
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .36114
SDev .00179
%RSD .49635

#1 .35985
#2 .36124
#3 .35984
#4 .36365

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFCKW

Run Time: 07/03/00 16:59:07

Operator: EMF

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01062	61.034	.03761	.11585	1.1709	.00677	69.620
SDev	.00240	.341	.05368	.01526	.0106	.00006	.275
%RSD	22.619	.55884	142.71	13.169	.90813	.88632	.39541
#1	.01404	60.563	.05501	.10259	1.1574	.00679	69.777
#2	.00998	61.004	.02329	.13088	1.1686	.00679	69.860
#3	.00843	61.313	-.02769	.12710	1.1824	.00668	69.239
#4	.01002	61.254	.09984	.10282	1.1752	.00681	69.604
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02979	.12198	.91136	.42382	269.44	8.2571	.09052
SDev	.00217	.00456	.00442	.00307	.84	.6457	.00200
%RSD	7.2984	3.7351	.48480	.72499	.30992	7.8204	2.2077
#1	.03218	.12541	.91616	.42029	268.22	8.9690	.08813
#2	.03091	.12541	.91136	.42225	269.80	8.6387	.09068
#3	.02872	.11579	.90550	.42588	269.60	7.7282	.09301
#4	.02733	.12129	.91243	.42685	270.11	7.6925	.09026
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	15.278	7.9691	.32838	6.7987	.77201	.98116	.06405
SDev	.070	.0198	.00479	.0953	.01221	.01081	.03503
%RSD	.45900	.24906	1.4595	1.4021	1.5815	1.1020	54.698
#1	15.176	7.9444	.32209	6.6716	.76601	.98945	.09992
#2	15.310	7.9851	.33209	6.7885	.76320	.96598	.01781
#3	15.293	7.9615	.32718	6.8955	.79000	.98834	.05915
#4	15.334	7.9852	.33214	6.8391	.76883	.98087	.07933
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09171	3.0085	.11609	.34123	.56412	.14458	.16491
SDev	.03104	.0084	.03207	.00273	.00221	.05402	.00279
%RSD	33.840	.27990	27.625	.80024	.39263	37.361	1.6886
#1	.05006	3.0205	.08524	.33765	.56104	.08269	.16723
#2	.12345	3.0026	.15987	.34081	.56403	.16938	.16742

663 995

#3	.10370	3.0026	.10146	.34407	.56536	.20568	.16245
#4	.08965	3.0085	.11780	.34239	.56603	.12059	.16256
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 1.4215
SDev .0086
%RSD .60458

#1 1.4147
#2 1.4179
#3 1.4196
#4 1.4341

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFCMP

Operator: EMF

Run Time: 07/03/00 17:02:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01370	71.706	.10806	.37845	.98008	.00944	35.189
SDev	.00057	.255	.03666	.00443	.00532	.00010	.048
%RSD	4.1994	.35553	33.922	1.1714	.54233	1.0575	.13515
#1	.01384	71.529	.08251	.37241	.97568	.00944	35.156
#2	.01404	71.655	.08795	.38285	.97977	.00945	35.186
#3	.01407	71.561	.09983	.37832	.97722	.00931	35.257
#4	.01285	72.080	.16197	.38022	.98764	.00955	35.156
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.22589	.26553	4.7382	.99133	H456.16	9.7880	.12006
SDev	.00656	.00179	.0031	.00469	.81	.1795	.00119
%RSD	2.9044	.67252	.06502	.47338	.17734	1.8336	.99442
#1	.23474	.26345	4.7376	.98713	H455.18	9.9777	.11834
#2	.21894	.26623	4.7387	.99270	H456.13	9.5938	.12070
#3	.22438	.26759	4.7419	.98813	H456.17	9.6831	.12019
#4	.22551	.26484	4.7344	.99736	H457.16	9.8973	.12100
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	16.250	5.6017	.59556	2.3824	2.3516	2.2177	.08445
SDev	.061	.0117	.01164	.0121	.0049	.0251	.02935
%RSD	.37236	.20905	1.9549	.50996	.20853	1.1316	34.754
#1	16.206	5.5881	.57954	2.3734	2.3490	2.1934	.08204
#2	16.222	5.6041	.59433	2.3834	2.3567	2.2461	.08179
#3	16.233	5.5983	.60410	2.3734	2.3546	2.2311	.12276
#4	16.339	5.6162	.60425	2.3992	2.3461	2.2001	.05122
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10588	2.4141	.20227	.32579	.67133	.29132	.28216
SDev	.00222	.0268	.04904	.00143	.00063	.10185	.00405
%RSD	2.0960	1.1082	24.245	.43944	.09389	34.963	1.4351
#1	.10811	2.3740	.16471	.32434	.67124	.35278	.28185
#2	.10292	2.4274	.26385	.32566	.67091	.40018	.27728

663 997

#3	.10687	2.4275	.21962	.32539	.67091	.22834	.28233
#4	.10563	2.4275	.16090	.32776	.67224	.18396	.28718

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 2.7837
SDev .0046
%RSD .16565

#1	2.7794
#2	2.7849
#3	2.7896
#4	2.7808

Errors	LC Pass
High	100.00
Low	-.02000

663 998

Method: QUANMET Sample Name: DFCP9

Operator: EMF

Run Time: 07/03/00 17:05:23

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00733	76.375	.01160	.06179	1.2490	.00634	23.369
SDev	.00181	.422	.05773	.00152	.0102	.00006	.108
%RSD	24.773	.55278	497.70	2.4583	.81321	.95133	.46293
#1	.00914	76.406	.00781	.06244	1.2523	.00643	23.287
#2	.00482	76.771	.09434	.06213	1.2582	.00631	23.289
#3	.00745	75.783	-.03123	.05958	1.2345	.00632	23.385
#4	.00790	76.539	-.02452	.06302	1.2509	.00631	23.516
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08925	.09291	.22122	.41239	201.27	7.0944	.10395
SDev	.00064	.00176	.00232	.00349	.77	.4234	.00128
%RSD	.71221	1.8956	1.0483	.84700	.38421	5.9684	1.2351
#1	.08979	.09222	.22082	.41489	201.06	7.3622	.10551
#2	.08978	.09496	.21816	.41494	201.63	6.5142	.10330
#3	.08853	.09087	.22349	.40751	200.30	7.4515	.10258
#4	.08891	.09360	.22242	.41223	202.10	7.0498	.10440
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.715	2.6646	1.2838	1.2055	.18230	1.0739	.04167
SDev	.081	.0083	.0090	.0157	.01549	.0097	.03867
%RSD	.59009	.31294	.70071	1.2985	8.4991	.90645	92.796
#1	13.760	2.6626	1.2740	1.2196	.16146	1.0777	.03389
#2	13.757	2.6647	1.2936	1.2173	.19894	1.0622	-.00693
#3	13.594	2.6555	1.2787	1.1871	.18468	1.0707	.08526
#4	13.749	2.6756	1.2888	1.1979	.18413	1.0850	.05446
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08902	3.1765	.09183	.15895	.59009	.11467	.39710
SDev	.03970	.0156	.03055	.00107	.00340	.05813	.00263
%RSD	44.593	.49197	33.262	.67510	.57612	50.690	.66238
#1	.03462	3.1780	.08419	.15947	.58900	.08258	.39934
#2	.08996	3.1542	.13458	.15974	.59400	.11095	.39729

663 999

#3	.12876	3.1839	.06208	.15737	.58601	.06757	.39337
#4	.10273	3.1899	.08649	.15921	.59133	.19758	.39842
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 1.3977
SDev .0066
%RSD .47287

#1 1.3950
#2 1.3933
#3 1.3950
#4 1.4076

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DF9XA

Operator: EMF

Run Time: 07/03/00 17:08:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00474	49.424	.09723	.02985	.61352	.00534	21.060
SDev	.00194	.198	.01832	.00067	.00326	.00007	.104
%RSD	41.018	.39998	18.843	2.2425	.53085	1.4058	.49458
#1	.00242	49.260	.08872	.02906	.61189	.00528	20.923
#2	.00404	49.555	.11946	.03012	.61750	.00527	21.034
#3	.00692	49.249	.07721	.02960	.61006	.00541	21.144
#4	.00557	49.630	.10355	.03061	.61465	.00541	21.138
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00162	.03493	.08871	.03974	84.598	12.609	.05876
SDev	.00274	.00239	.00447	.00087	.347	.114	.00106
%RSD	168.55	6.8552	5.0379	2.1837	.40979	.90179	1.7987
#1	-.00044	.03564	.08511	.03948	84.188	12.656	.05874
#2	L-.00556	.03561	.08458	.04044	84.742	12.593	.05975
#3	-.00120	.03701	.09258	.04042	84.468	12.727	.05730
#4	.00070	.03148	.09258	.03863	84.992	12.459	.05924
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.295	1.7379	.00288	1.3728	.05497	.07386	.05455
SDev	.097	.0068	.00467	.0126	.00815	.02173	.01536
%RSD	.43516	.39188	161.82	.91624	14.823	29.416	28.158
#1	22.265	1.7282	.00649	1.3622	.05538	.09108	.03666
#2	22.369	1.7401	.00657	1.3821	.04407	.04539	.06727
#3	22.170	1.7391	-.00324	1.3618	.06376	.06839	.06745
#4	22.374	1.7441	.00172	1.3852	.05667	.09056	.04683
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05369	3.3770	.03297	.18811	2.7907	.09711	.15973
SDev	.05465	.0000	.00624	.00100	.0123	.02030	.00065
%RSD	101.79	.00025	18.911	.53296	.44113	20.901	.40909
#1	.12663	3.3770	.03790	.18771	2.7795	.07558	.15949
#2	.02042	3.3771	.02393	.18898	2.8015	.09276	.16071

#3	.00432	3.3770	.03608	.18687	2.7805	.09559	.15932
#4	.06338	3.3770	.03398	.18887	2.8012	.12451	.15941
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.34189
SDev	.00301
%RSD	.87925

#1	.34183
#2	.34418
#3	.33766
#4	.34389

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DF9XC

Operator: EMF

Run Time: 07/03/00 17:11:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00151	40.583	.04274	.03002	.41056	.00398	14.704
SDev	.00183	.193	.01699	.00413	.00332	.00012	.020
%RSD	121.45	.47662	39.744	13.745	.80987	3.0835	.13845
#1	.00111	40.420	.06110	.03572	.40905	.00408	14.707
#2	.00405	40.413	.04245	.02881	.40671	.00395	14.708
#3	.00120	40.782	.02019	.02965	.41416	.00408	14.726
#4	-.00032	40.715	.04722	.02591	.41233	.00382	14.677
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00250	.02747	.06022	.03828	55.021	11.120	.04865
SDev	.00051	.00207	.00553	.00115	.199	.356	.00079
%RSD	20.190	7.5488	9.1870	2.9933	.36153	3.2049	1.6220
#1	-.00244	.02988	.06169	.03988	54.890	11.558	.04896
#2	-.00315	.02853	.06275	.03804	54.833	10.808	.04878
#3	-.00251	.02574	.06436	.03807	55.268	11.263	.04935
#4	-.00191	.02575	.05209	.03714	55.095	10.852	.04752
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.042	.95729	-.00520	1.6405	.04034	.06145	.03750
SDev	.096	.00208	.00283	.0215	.00906	.01324	.00009
%RSD	.56159	.21679	54.407	1.3091	22.461	21.551	.22730
#1	16.976	.95554	-.00278	1.6110	.05107	.05786	.03761
#2	16.955	.95553	-.00767	1.6516	.04277	.08055	.03748
#3	17.162	.95957	-.00272	1.6602	.03819	.05744	.03741
#4	17.077	.95854	-.00763	1.6394	.02935	.04995	.03749
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02287	3.4786	.03861	.15826	2.1713	-.01245	.08144
SDev	.02320	.0075	.01674	.00110	.0100	.06837	.00006
%RSD	101.45	.21505	43.359	.69173	.46146	549.13	.07572
#1	.00714	3.4771	.02648	.15774	2.1672	.05455	.08149
#2	.00315	3.4771	.06285	.15706	2.1599	.00946	.08140

#3	.02736	3.4890	.03659	.15958	2.1832	-.00640	.08150
#4	.05383	3.4712	.02851	.15864	2.1749	-.10742	.08138
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .28668
SDev .00368
%RSD 1.2843

#1 .28122
#2 .28872
#3 .28771
#4 .28905

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFCMP/2 FE Operator: EMF
 Run Time: 07/03/00 17:15:34
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01048	36.418	.03630	.21476	.49575	.00478	17.902
SDev	.00208	.080	.05860	.01261	.00229	.00006	.085
%RSD	19.849	.21967	161.41	5.8703	.46122	1.1497	.47302
#1	.01343	36.333	-.00145	.19876	.49322	.00480	18.012
#2	.01044	36.368	-.00533	.22931	.49445	.00482	17.901
#3	.00908	36.501	.12066	.21749	.49730	.00480	17.888
#4	.00896	36.469	.03133	.21349	.49802	.00470	17.806
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11354	.13378	2.4232	.50154	237.11	4.5459	.05957
SDev	.00708	.00261	.0063	.00347	.19	.3038	.00045
%RSD	6.2352	1.9471	.25826	.69192	.07996	6.6832	.76134
#1	.11212	.13550	2.4309	.49650	237.02	4.7556	.05984
#2	.12264	.13410	2.4186	.50198	236.97	4.8092	.05933
#3	.10546	.13552	2.4256	.50385	237.39	4.4700	.06005
#4	.11392	.13000	2.4176	.50382	237.08	4.1486	.05906
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.3033	2.8510	.30279	1.2153	1.2067	1.1339	.05868
SDev	.0441	.0023	.00893	.0064	.0182	.0196	.02427
%RSD	.53126	.08069	2.9504	.52578	1.5086	1.7262	41.361
#1	8.2693	2.8530	.30766	1.2123	1.2195	1.1567	.09203
#2	8.2693	2.8490	.29789	1.2164	1.2175	1.1112	.06135
#3	8.3619	2.8531	.31260	1.2087	1.2096	1.1262	.04078
#4	8.3128	2.8490	.29302	1.2236	1.1801	1.1413	.04058
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03060	1.2011	.09458	.16548	.34028	.10690	.14219
SDev	.03707	.0084	.02065	.00065	.00119	.06477	.00431
%RSD	121.18	.69678	21.831	.39187	.34824	60.590	3.0338
#1	.04478	1.1952	.08008	.16473	.34028	.13636	.14565
#2	.02924	1.1952	.12032	.16537	.33862	.14841	.14057

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#3	-.01963	1.2012	.07587	.16552	.34095	.13258	.14573
#4	.06799	1.2129	.10206	.16631	.34128	.01027	.13683
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	1.4114
SDev	.0080
%RSD	.56599

#1	1.4178
#2	1.4067
#3	1.4186
#4	1.4026

Errors	LC Pass
High	100.00
Low	-.02000

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Method: QUANMET Sample Name: CCV2-5

Operator: EMF

Run Time: 07/03/00 17:18:42

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0079	50.366	5.0731	5.0168	4.9548	4.9636	50.768
SDev	.0029	.201	.1364	.0376	.0328	.0249	.291
%RSD	.28282	.39828	2.6889	.74877	.66111	.50222	.57390
#1	1.0083	50.139	5.1858	4.9799	4.9157	4.9333	51.109
#2	1.0097	50.264	5.0572	5.0013	4.9400	4.9601	50.763
#3	1.0099	50.575	5.1629	5.0179	4.9841	4.9939	50.804
#4	1.0038	50.488	4.8865	5.0681	4.9795	4.9670	50.398
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1171	4.9748	4.9837	4.9923	51.073	49.614	5.0379
SDev	.0391	.0209	.0194	.0377	.116	.183	.0692
%RSD	.76332	.42030	.38950	.75504	.22775	.36825	1.3738
#1	5.1563	4.9830	5.0072	4.9422	51.032	49.755	4.9493
#2	5.0835	4.9694	4.9731	4.9843	51.008	49.558	5.0182
#3	5.1452	4.9980	4.9912	5.0218	51.247	49.763	5.0802
#4	5.0836	4.9488	4.9635	5.0208	51.006	49.380	5.1038
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.669	4.9433	4.9405	50.355	5.0256	5.0617	5.1004
SDev	.233	.0125	.0248	.509	.0259	.0310	.0461
%RSD	.45916	.25305	.50099	1.0109	.51492	.61244	.90379
#1	50.427	4.9477	4.9185	49.727	5.0089	5.0431	5.1027
#2	50.519	4.9369	4.9234	50.154	5.0330	5.0653	5.0623
#3	50.911	4.9585	4.9723	50.749	5.0589	5.1039	5.1645
#4	50.819	4.9300	4.9478	50.788	5.0018	5.0344	5.0720
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0778	5.0750	5.0644	4.9695	4.9350	9.8252	4.9924
SDev	.0602	.0259	.0342	.0243	.0163	.1026	.0120
%RSD	1.1847	.50959	.67561	.48902	.32944	1.0447	.23971
#1	4.9922	5.0497	5.1104	4.9424	4.9171	9.8656	4.9915
#2	5.1113	5.1091	5.0355	4.9560	4.9281	9.8887	4.9866

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#3	5.0812	5.0796	5.0702	4.9936	4.9551	9.8746	5.0095
#4	5.1267	5.0614	5.0415	4.9861	4.9398	9.6719	4.9822
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 5.0010
SDev .0101
%RSD .20142

#1 4.9971
#2 4.9980
#3 5.0157
#4 4.9931

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB5

Operator: EMF

Run Time: 07/03/00 17:21:50

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	.01000	.02615	.00788	.00044	.00044	.02926
SDev	.00191	.00852	.00880	.01099	.00037	.00015	.00236
%RSD	496.97	85.249	33.641	139.46	83.971	34.402	8.0697
#1	.00261	.01046	.03270	.00593	.00023	.00031	.03244
#2	-.00037	.00684	.01403	.00052	.00074	.00058	.02967
#3	-.00183	.00124	.02526	.02396	.00002	.00057	.02742
#4	.00113	.02145	.03260	.00112	.00074	.00031	.02751
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00214	.00035	.00187	.00046	.00768	-.02008	-.00013
SDev	.00092	.00131	.00091	.00137	.00109	.27222	.00027
%RSD	42.972	378.73	48.702	299.24	14.187	1355.4	200.00
#1	-.00335	-.00068	.00307	.00252	.00634	.37268	-.00054
#2	-.00133	-.00068	.00147	-.00023	.00901	-.18969	.00000
#3	-.00235	.00206	.00094	-.00023	.00768	-.21647	.00000
#4	-.00153	.00069	.00200	-.00023	.00768	-.04686	.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00681	.00148	.01221	.00971	.00452	-.00751	.04089
SDev	.00900	.00000	.00468	.00456	.00240	.02930	.01667
%RSD	132.16	.10087	38.293	46.974	53.026	390.04	40.774
#1	.00340	.00148	.00855	.01603	.00771	.03409	.04095
#2	-.00749	.00148	.00855	.00519	.00331	-.01892	.02043
#3	-.01838	.00148	.01343	.00925	.00218	-.01124	.04093
#4	-.00477	.00148	.01831	.00835	.00488	-.03397	H.06127
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01348	.00449	.00877	.00049	.00100	.00847	.00267
SDev	.02577	.02871	.02183	.00019	.00027	.03538	.00248
%RSD	191.21	639.08	248.92	38.653	27.217	417.49	92.859
#1	-.01056	.02829	.00170	.00033	.00100	.01134	.00382
#2	.03175	.01039	.00363	.00059	.00067	.05704	-.00105

#3	-.00671	-.03710	-.01041	.00070	.00100	-.01154	.00391
#4	.03944	.01640	.04017	.00033	.00133	-.02295	.00400
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00376
SDev .00127
%RSD 33.837

#1 .00476
#2 .00377
#3 .00456
#4 .00196

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DFNEXBT

Operator: EMF

Run Time: 07/03/00 17:27:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00074	.01248	.00646	.00483	.00033	.00003	.07393
SDev	.00252	.01528	.01818	.00981	.00025	.00012	.00419
%RSD	341.13	122.41	281.21	203.11	75.469	367.56	5.6632
#1	.00406	.02170	.02143	.00253	.00023	-.00006	.07711
#2	-.00185	-.00965	.01417	.01917	.00002	-.00006	.06777
#3	.00111	.02353	-.01989	-.00289	.00053	.00020	.07565
#4	-.00036	.01436	.01016	.00052	.00053	.00006	.07519
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00182	-.00103	.00067	.00252	.01051	.12720	-.00031
SDev	.00174	.00206	.00207	.00000	.00064	.20388	.00058
%RSD	95.315	200.94	310.78	.07376	6.0729	160.28	188.91
#1	-.00361	-.00205	.00307	.00252	.01034	.13167	.00000
#2	.00035	-.00343	-.00013	.00251	.01100	-.06472	-.00102
#3	-.00275	.00069	.00147	.00252	.01101	.40839	.00030
#4	-.00128	.00069	-.00174	.00252	.00967	.03347	-.00051
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00885	.00098	-.00610	.07550	.00204	-.01890	.04606
SDev	.00903	.00057	.00399	.00488	.00519	.03554	.01956
%RSD	102.05	57.670	65.338	6.4651	253.86	188.03	42.470
#1	-.01021	.00049	-.00610	.08058	.00866	-.06433	.06146
#2	-.01838	.00049	-.00610	.06975	.00197	-.02653	.04094
#3	.00340	.00147	-.00122	.07832	-.00402	.01901	.06132
#4	-.01021	.00147	-.01098	.07336	.00156	-.00375	.02053
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01733	.02080	.02092	-.00014	.00017	.04274	-.00042
SDev	.02206	.00298	.00420	.00006	.00088	.05054	.00176
%RSD	127.28	14.327	20.067	43.691	529.15	118.26	418.05
#1	.02791	.02228	.01594	-.00009	.00100	.07987	-.00133
#2	.00099	.01633	.01989	-.00009	-.00100	-.01150	-.00133

Analysis Report

07/03/00 05:30:41 PM

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#3	-.00286	.02228	.02603	-.00020	.00067	.09127	-.00124
#4	.04329	.02232	.02181	-.00020	.00000	.01131	.00221

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.00718
SDev	.00097
%RSD	13.457

#1	.00709
#2	.00788
#3	.00584
#4	.00789

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DFNEXCT

Operator: EMF

Run Time: 07/03/00 17:30:43

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04653	1.9399	2.1932	.95053	1.8570	.04622	L.18988
SDev	.00211	.0044	.0766	.01866	.0068	.00017	.00425
%RSD	4.5238	.22575	3.4933	1.9633	.36548	.37918	2.2360

#1	.04504	1.9427	2.1144	.92327	1.8549	.04609	L.18635
#2	.04505	1.9371	2.1407	.96075	1.8508	.04609	L.18781
#3	.04652	1.9446	2.2608	.96416	1.8554	.04622	L.18940
#4	.04951	1.9354	2.2570	.95394	1.8667	.04647	L.19597

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04181	.47392	.19147	.24345	1.0031	L.15175	.96361
SDev	.00126	.00566	.00118	.00241	.0069	.17498	.00358
%RSD	3.0134	1.1937	.61652	.98912	.68487	115.31	.37173

#1	.04311	.47323	.19054	.24368	.99977	L.06025	.96890
#2	.04240	.46774	.19108	.24459	.99776	L.02455	.96097
#3	.04018	.47324	.19107	.24002	1.0018	L.40839	.96223
#4	.04155	.48146	.19320	.24552	1.0131	L.11381	.96232

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	L.02724	.47420	-.00595	S-.13475	.47715	.46022	L.03199
SDev	.00813	.00283	.00399	.00000	.00665	.01148	.01325
%RSD	29.861	.59747	66.950	.00000	1.3939	2.4943	41.428

#1	L.01702	.47371	-.00595	S-.13475	.47126	.45450	L.01661
#2	L.03064	.47077	-.00107	S-.13475	.47262	.44682	L.03696
#3	L.03609	.47469	-.00595	S-.13475	.48577	.46966	L.02691
#4	L.02519	.47764	-.01083	S-.13475	.47896	.46991	L.04747

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1647	.05203	.01801	.94200	.00025	1.8584	.46692
SDev	.0166	.00003	.02180	.00315	.00032	.0899	.00237
%RSD	.76803	.05814	121.06	.33460	127.66	4.8361	.50765
#1	2.1416	.05201	.00582	.94219	.00033	1.9498	.46570
#2	2.1647	.05201	.04025	.93899	.00000	1.7557	.46580

#3	2.1724	.05201	.03212	.94052	.00000	1.8128	.46570
#4	2.1801	.05207	-.00615	.94630	.00067	1.9154	.47048

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.49982
SDev	.00241
%RSD	.48238

#1	.49745
#2	.49897
#3	.49971
#4	.50315

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DFM9XBT

Run Time: 07/03/00 17:33:51

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Operator: EMF

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00110	.01941	.15005	.01462	.00107	.00001	.22509
SDev	.00121	.00747	.04633	.00167	.00024	.00016	.00486
%RSD	109.72	38.495	30.876	11.390	22.494	2422.2	2.1578
#1	.00111	.02353	.15657	.01417	.00125	.00020	.22929
#2	-.00037	.00875	.11914	.01677	.00074	-.00006	.22122
#3	.00259	.01989	.11153	.01478	.00104	.00007	.22929
#4	.00108	.02546	.21296	.01276	.00125	-.00018	.22056
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00343	-.00033	.00160	.00389	.02152	-.04463	-.00033
SDev	.00110	.00132	.00153	.00118	.00416	.56848	.00057
%RSD	32.234	393.11	95.691	30.398	19.346	1273.7	172.01
#1	-.00291	.00069	.00360	.00526	.02035	.67619	.00000
#2	-.00212	-.00205	.00040	.00252	.01901	-.63602	-.00081
#3	-.00422	.00070	.00200	.00435	.02769	.10489	.00030
#4	-.00445	-.00067	.00040	.00343	.01901	-.32359	-.00081
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03200	.00221	-.00366	S895.83	.00593	-.02079	.03841
SDev	.01380	.00049	.00282	1791.9	.00553	.01679	.02415
%RSD	43.117	22.167	77.039	200.03	93.236	80.738	62.885
#1	.03609	.00246	-.00122	S-.13475	.01101	-.02644	.04100
#2	.01157	.00148	-.00122	S-.13475	-.00051	-.03403	.07162
#3	.04153	.00246	-.00610	S3583.7	.00318	.00381	.02044
#4	.03881	.00246	-.00610	S-.13475	.01006	-.02650	.02058
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03274	.03118	.01230	.00121	-.00008	.04264	-.00250
SDev	.03626	.05283	.01592	.00042	.00032	.05225	.00246
%RSD	110.74	169.45	129.39	34.842	382.97	122.53	98.636
#1	.07408	.09956	.00979	.00180	.00033	-.02304	-.00123
#2	-.01052	-.01339	.00993	.00096	-.00033	.03410	-.00124

663 1015

#3	.02026	-.00745	.03393	.00123	.00000	.05684	-.00133
#4	.04716	.04599	-.00444	.00085	-.00033	.10266	-.00619

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.01335
SDev	.00039
%RSD	2.9225

#1	.01377
#2	.01360
#3	.01304
#4	.01300

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DEH5MT Operator: EMF
 Run Time: 07/03/00 17:36:59
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00106	.52525	.15499	.08904	1.3836	.00038	278.13
SDev	.00308	.00631	.02281	.00171	.0213	.00007	1.58
%RSD	289.74	1.2009	14.719	1.9160	1.5390	18.624	.56645
#1	-.00034	.53406	.16343	.08819	1.3845	.00032	278.14
#2	-.00180	.52474	.12963	.09160	1.3962	.00031	276.77
#3	-.00476	.51923	.14469	.08819	1.4005	.00044	277.28
#4	.00264	.52298	.18221	.08818	1.3534	.00044	280.34
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00192	-.00102	.00013	.01192	.26834	1.2676	.00140
SDev	.00271	.00306	.00182	.00115	.00138	.5122	.00076
%RSD	141.15	299.20	1398.9	9.6809	.51268	40.411	54.040
#1	-.00388	.00001	.00093	.01169	.26984	1.0600	.00245
#2	-.00223	-.00411	-.00227	.01168	.26717	.95291	.00090
#3	.00200	-.00276	-.00014	.01077	.26917	1.0243	.00081
#4	-.00357	.00277	.00200	.01352	.26717	2.0330	.00144
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	23.357	.14088	-.00606	S-.13475	.02098	-.00224	.04371
SDev	.133	.00000	.00000	.00000	.01000	.02085	.02427
%RSD	.57000	.00026	.00339	.00000	47.649	928.87	55.523
#1	23.374	.14088	-.00606	S-.13475	.03294	.01862	.06175
#2	23.401	.14088	-.00606	S-.13475	.01594	-.02691	.06158
#3	23.483	.14088	-.00606	S-.13475	.01019	.01091	.01030
#4	23.170	.14088	-.00606	S-.13475	.02484	-.01160	.04122
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00314	4.7794	.01847	.74104	-.00982	.03514	.00231
SDev	.04714	.0156	.01560	.00991	.00079	.07126	.00243
%RSD	1501.9	.32715	84.497	1.3366	8.0694	202.82	105.01
#1	-.05216	4.7779	.00593	.74182	-.00932	.03228	-.00133
#2	-.03294	4.7720	.02411	.74566	-.01065	.11226	.00352

663 1017

#3	.04782	4.8017	.03800	.74971	-.01032	-.05910	.00353
#4	.02474	4.7661	.00583	.72699	-.00899	.05510	.00353
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.04997
SDev	.00135
%RSD	2.6961

#1	.05096
#2	.04868
#3	.05129
#4	.04895

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DEH5MP5T

Operator: EMF

Run Time: 07/03/00 17:40:07

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00074	.11524	.07694	.00943	.29013	.00007	58.510
SDev	.00142	.01059	.04063	.00001	.00303	.00000	.034
%RSD	191.19	9.1853	52.816	.07615	1.0452	.34313	.05811
#1	.00111	.12502	.03180	.00943	.28834	.00007	58.549
#2	.00259	.12297	.06561	.00944	.28702	.00007	58.470
#3	-.00037	.11016	.08073	.00943	.29375	.00007	58.524
#4	-.00037	.10280	.12960	.00943	.29140	.00007	58.499

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00283	-.00048	.00067	.00229	.05854	.29011	.00000
SDev	.00200	.00378	.00352	.00088	.00084	.34135	.00122
%RSD	70.461	788.97	529.10	38.344	1.4361	117.66	.00000
#1	-.00111	.00329	.00466	.00252	.05971	.72975	-.00150
#2	-.00243	-.00494	-.00173	.00160	.05837	.14952	.00000
#3	-.00208	-.00220	-.00280	.00160	.05837	-.07364	.00000
#4	-.00571	.00193	.00253	.00344	.05770	.35483	.00150

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9173	.03068	-.00487	281.91	.00710	-.02653	.04610
SDev	.0294	.00049	.00467	3.45	.00755	.00009	.01319
%RSD	.59888	1.5967	95.912	1.2241	106.35	.34323	28.600
#1	4.9112	.03092	-.01098	279.50	.01189	-.02643	.04105
#2	4.8867	.03092	-.00121	278.83	.00879	-.02664	.06145
#3	4.9575	.03092	-.00609	286.29	-.00402	-.02657	.05114
#4	4.9139	.02994	-.00121	283.02	.01175	-.02647	.03078

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00881	.97935	.01992	.15583	-.00191	.03670	-.00131
SDev	.03496	.00686	.00334	.00134	.00057	.04000	.00009
%RSD	396.99	.70089	16.744	.86272	29.701	108.99	6.6822
#1	-.02964	.97340	.01990	.15533	-.00166	.02239	-.00142
#2	.00112	.98529	.01999	.15428	-.00133	.07957	-.00124
#3	.00881	.98529	.02399	.15743	-.00200	.05671	-.00134
#4	.05495	.97340	.01582	.15627	-.00266	-.01186	-.00123

Elem	ZN
Units	ppm
Avge	.01290
SDev	.00085
%RSD	6.5865
#1	.01378
#2	.01174
#3	.01307

#4 .01301

Method: QUANMET Sample Name: DEH5MST

Operator: EMF

Run Time: 07/03/00 17:43:14

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94033	.50731	5.1508	.07795	46.688	.00035	262.11
SDev	.00505	.00686	.0561	.01824	.247	.00006	.73
%RSD	.53674	1.3519	1.0897	23.397	.52804	17.088	.27849
#1	.94515	.51567	5.1122	.05070	47.022	.00031	262.18
#2	.93329	.50083	5.2326	.08818	46.563	.00033	261.27
#3	.94219	.50266	5.1423	.08476	46.454	.00044	261.95
#4	.94068	.51008	5.1161	.08817	46.711	.00033	263.04
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99137	.00091	4.6011	.00940	.26184	1.2698	.00102
SDev	.01075	.00225	.0140	.00218	.00225	.2741	.00063
%RSD	1.0847	247.86	.30330	23.177	.85814	21.588	62.345
#1	1.0049	.00311	4.6059	.00803	.26518	.95291	.00194
#2	.97892	-.00208	4.5819	.00803	.26050	1.2564	.00051
#3	.98875	.00206	4.6016	.01260	.26051	1.6224	.00081
#4	.99292	.00055	4.6150	.00894	.26117	1.2475	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	21.789	.13254	-.00362	S3585.2	.01587	4.7110	.05963
SDev	.098	.00057	.00488	.4	.00462	.0497	.01322
%RSD	.45025	.42700	134.77	.01002	29.086	1.0544	22.175
#1	21.909	.13302	-.01095	S3584.7	.01136	4.7755	.07495
#2	21.696	.13205	-.00118	S3585.5	.01251	4.6845	.06479
#3	21.723	.13205	-.00118	S3585.3	.01904	4.6619	.05454
#4	21.830	.13303	-.00118	S3585.2	.02059	4.7224	.04422
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0428	4.4791	.00944	.68551	-.00774	.05229	.00053
SDev	.0540	.0661	.01866	.00383	.00074	.07310	.00276
%RSD	5.1829	1.4760	197.56	.55818	9.5370	139.82	523.50
#1	.97455	4.5757	.01406	.69072	-.00733	-.00203	.00283
#2	1.1053	4.4271	.03219	.68314	-.00866	.15799	-.00189

663 1021

#3	1.0553	4.4628	.00386	.68220	-.00699	.00944	.00301
#4	1.0361	4.4508	-.01234	.68599	-.00799	.04375	-.00183
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.04954
SDev	.00192
%RSD	3.8786

#1	.04665
#2	.05051
#3	.05049
#4	.05048

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DEH5MDT

Operator: EMF

Run Time: 07/03/00 17:46:22

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.93996	.51418	5.1582	.08906	47.032	.00035	268.83
SDev	.00191	.00507	.0236	.00326	.248	.00012	1.29
%RSD	.20318	.98680	.45839	3.6580	.52810	34.076	.47855
#1	.94219	.51926	5.1685	.08480	47.235	.00031	268.00
#2	.94069	.50822	5.1762	.09162	47.252	.00020	267.49
#3	.93775	.51184	5.1235	.09160	46.764	.00044	269.68
#4	.93921	.51742	5.1648	.08821	46.878	.00045	270.16
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98172	-.00370	4.5570	.00986	.27551	1.0109	.00046
SDev	.00954	.00236	.0162	.00269	.00234	.5864	.00038
%RSD	.97159	63.745	.35558	27.351	.85005	58.008	82.490
#1	.97083	-.00377	4.5440	.01169	.27718	.93506	.00021
#2	.99053	-.00658	4.5419	.00711	.27384	.43517	.00030
#3	.97666	-.00080	4.5702	.01260	.27318	1.8277	.00102
#4	.98886	-.00364	4.5718	.00803	.27785	.84579	.00030
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	22.620	.13622	-.00728	S2687.6	.01321	4.6484	.05229
SDev	.064	.00049	.00467	1791.8	.01026	.0130	.00975
%RSD	.28431	.36087	64.188	66.670	77.684	.27875	18.647
#1	22.674	.13597	-.01094	S3583.8	.01021	4.6314	.05495
#2	22.644	.13597	-.01095	S3584.0	.00258	4.6464	.04463
#3	22.527	.13696	-.00118	S3582.7	.02713	4.6542	.04462
#4	22.636	.13597	-.00606	S-.13475	.01291	4.6617	.06496
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1053	4.5950	.00942	.71662	-.00907	.05220	.00067
SDev	.0151	.0331	.00445	.00310	.00032	.06348	.00255
%RSD	1.3625	.71983	47.229	.43230	3.5135	121.61	378.56
#1	1.0899	4.6173	.01196	.71942	-.00932	.03218	.00270
#2	1.1092	4.5459	.01392	.71911	-.00899	-.02484	-.00216

663 1023

#3	1.0976	4.6054	.00786	.71332	-.00866	.07789	.00294
#4	1.1246	4.6113	.00392	.71464	-.00932	.12357	-.00079

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .04800
SDev .00150
%RSD 3.1145

#1 .04847
#2 .04849
#3 .04582
#4 .04922

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFH6FT

Operator: EMF

Run Time: 07/03/00 17:49:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	.97681	.25167	.09846	1.2444	.00047	192.88
SDev	.00370	.01699	.06366	.00454	.0111	.00012	.90
%RSD	553.07	1.7396	25.294	4.6132	.89076	24.690	.46748
#1	.00415	1.0003	.19701	.10002	1.2457	.00057	193.76
#2	-.00029	.97449	.33615	.09179	1.2334	.00057	192.75
#3	-.00473	.95973	.26493	.10201	1.2592	.00044	191.68
#4	-.00180	.97272	.20858	.10001	1.2393	.00032	193.33
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00253	.00179	.01466	.01147	.37527	.79223	.00316
SDev	.00255	.00131	.00347	.00088	.00374	.49326	.00135
%RSD	100.56	73.532	23.636	7.6385	.99609	62.261	42.633
#1	.00106	.00280	.01320	.01078	.38062	.50658	.00440
#2	-.00491	.00145	.01960	.01261	.37394	1.5242	.00386
#3	-.00282	.00007	.01426	.01078	.37193	.64941	.00132
#4	-.00346	.00282	.01160	.01170	.37461	.48873	.00305
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.117	.15390	-.00605	S-.13475	.02173	-.03652	.04106
SDev	.112	.00123	.00000	.00000	.00651	.03465	.02205
%RSD	.65199	.80276	.00925	.00000	29.947	94.874	53.687
#1	17.202	.15562	-.00605	S-.13475	.01554	-.01944	.07170
#2	17.001	.15366	-.00605	S-.13475	.02234	-.01193	.04106
#3	17.221	.15267	-.00605	S-.13475	.01849	-.08767	.03076
#4	17.042	.15366	-.00605	S-.13475	.03056	-.02706	.02074
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00676	5.5983	.00836	.66924	-.00391	.05407	.00234
SDev	.02460	.0367	.02094	.00422	.00110	.03358	.00244
%RSD	364.02	.65481	250.60	.63119	28.119	62.114	103.92
#1	.00965	5.5924	.02415	.66989	-.00266	.09970	.00356
#2	.02117	5.5745	-.00427	.66474	-.00366	.05408	.00357

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#3	.02501	5.6518	.02800	.67473	-.00533	.04268	.00356
#4	-.02882	5.5745	-.01446	.66759	-.00400	.01983	-.00131
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .05765
SDev .00047
%RSD .81600

#1 .05827
#2 .05718
#3 .05773
#4 .05744

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFH6JT

Operator: EMF

Run Time: 07/03/00 17:52:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00131	1.0371	.18226	.09105	.94407	.00057	87.813
SDev	.00187	.0052	.05862	.00244	.00755	.00001	.641
%RSD	142.16	.50164	32.164	2.6739	.79954	1.8384	.73041
#1	-.00319	1.0371	.20394	.09380	.95382	.00058	86.889
#2	-.00166	1.0408	.24128	.08900	.94484	.00055	88.164
#3	.00128	1.0408	.18129	.08900	.93565	.00057	88.316
#4	-.00168	1.0297	.10254	.09240	.94198	.00057	87.884
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00364	-.00186	.00306	.00875	.68689	1.0779	.00516
SDev	.00120	.00177	.00087	.00293	.00283	.2699	.00021
%RSD	32.909	95.564	28.340	33.495	.41214	25.037	4.0855
#1	-.00434	-.00117	.00200	.00440	.68422	.68511	.00538
#2	-.00384	.00021	.00413	.01081	.69022	1.3010	.00517
#3	-.00189	-.00392	.00306	.00989	.68823	1.1582	.00520
#4	-.00450	-.00254	.00306	.00989	.68489	1.1672	.00487
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	16.278	.08309	-.00478	S1791.4	.01317	.03707	.04618
SDev	.070	.00000	.00244	2068.7	.00619	.00974	.02128
%RSD	.42925	.00074	51.069	115.48	46.964	26.278	46.070
#1	16.306	.08309	-.00112	S-.13475	.00643	.02574	.05121
#2	16.364	.08309	-.00600	S3583.0	.01182	.03333	.04104
#3	16.211	.08309	-.00600	S-.13475	.01305	.04840	.07180
#4	16.233	.08309	-.00600	S3582.9	.02139	.04080	.02068
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01623	5.5374	-.00171	.51439	.00891	.00479	.00356
SDev	.01313	.0184	.01310	.00361	.00079	.04060	.00393
%RSD	80.890	.33306	768.09	.70204	8.8333	848.17	110.47
#1	.01815	5.5269	-.00017	.51874	.00832	-.02942	-.00123
#2	.00278	5.5627	.01594	.51548	.00832	.05039	.00840

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#3	.01047	5.5389	-.01421	.51022	.00999	.02763	.00354
#4	.03353	5.5210	-.00839	.51311	.00899	-.02945	.00354
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.04356
SDev	.00102
%RSD	2.3456

#1	.04404
#2	.04274
#3	.04477
#4	.04269

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-6

Operator: EMF

Run Time: 07/03/00 17:55:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99834	49.599	5.0383	4.9346	4.8549	4.8939	50.689
SDev	.00201	.259	.0648	.0415	.0381	.0339	.110
%RSD	.20096	.52191	1.2869	.84082	.78431	.69331	.21622
#1	.99759	49.776	4.9834	4.9511	4.8758	4.9266	50.533
#2	.99922	49.853	4.9822	4.9850	4.8944	4.9150	50.751
#3	1.0006	49.464	5.1059	4.9082	4.8407	4.8827	50.777
#4	.99596	49.304	5.0816	4.8940	4.8086	4.8513	50.695
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0656	4.9401	4.9567	4.8927	50.696	48.491	4.8978
SDev	.0200	.0097	.0124	.0409	.158	.200	.0645
%RSD	.39423	.19686	.25110	.83522	.31089	.41286	1.3171
#1	5.0432	4.9421	4.9411	4.9229	50.727	48.219	4.9597
#2	5.0802	4.9461	4.9709	4.9275	50.862	48.692	4.9448
#3	5.0846	4.9462	4.9603	4.8799	50.712	48.487	4.8589
#4	5.0546	4.9258	4.9544	4.8405	50.482	48.567	4.8276
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.849	4.9032	4.8977	49.042	5.0082	5.0309	5.0264
SDev	.285	.0162	.0128	.368	.0329	.0179	.0462
%RSD	.57131	.33021	.26208	.74957	.65696	.35569	.92003
#1	50.081	4.9005	4.8794	49.342	5.0395	5.0195	5.0628
#2	50.064	4.9231	4.8990	49.353	5.0224	5.0270	4.9599
#3	49.770	4.9054	4.9087	48.864	5.0083	5.0198	5.0518
#4	49.479	4.8837	4.9038	48.609	4.9627	5.0572	5.0311
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1566	4.9882	4.9915	4.8944	4.8773	9.7609	4.9463
SDev	.0809	.0076	.0494	.0363	.0249	.1667	.0179
%RSD	1.5695	.15270	.98895	.74266	.51006	1.7076	.36129
#1	5.1913	4.9955	4.9528	4.9162	4.8912	9.5493	4.9420
#2	5.2455	4.9899	5.0048	4.9295	4.9012	9.9476	4.9667

#3	5.0567	4.9897	5.0558	4.8837	4.8725	9.7321	4.9523
#4	5.1330	4.9775	4.9527	4.8481	4.8445	9.8147	4.9242
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem	ZN
Units	ppm
Avge	4.9449
SDev	.0145
%RSD	.29298

#1	4.9280
#2	4.9633
#3	4.9428
#4	4.9456

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB6

1601 088 Operator: EMF

Run Time: 07/03/00 17:58:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00000	.00956	.02150	.00101	.00051	.00032	.02744
SDev	.00186	.00714	.03149	.00224	.00021	.00010	.00330
%RSD	48714.	74.691	146.50	220.65	41.141	31.092	12.025
#1	.00259	.01790	.05525	.00051	.00023	.00032	.02732
#2	-.00185	.00127	-.01220	-.00149	.00053	.00019	.02333
#3	-.00035	.01224	.04019	.00392	.00074	.00044	.03140
#4	-.00037	.00682	.00275	.00111	.00053	.00032	.02770
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00277	-.00034	.00174	.00092	.00551	.20308	-.00034
SDev	.00388	.00234	.00166	.00156	.00252	.43457	.00183
%RSD	140.13	695.10	95.492	171.00	45.788	213.99	531.81
#1	-.00179	-.00068	-.00013	.00069	.00634	.16737	.00030
#2	L-.00635	-.00341	.00094	-.00115	.00233	-.39500	-.00296
#3	.00227	.00068	.00360	.00160	.00834	.46195	.00000
#4	L-.00520	.00207	.00254	.00252	.00500	.57800	.00129
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00068	.00123	.01221	.03442	.00601	-.00752	.05112
SDev	.00472	.00049	.00468	.00901	.00433	.02510	.02211
%RSD	692.82	39.807	38.297	26.172	72.053	333.92	43.256
#1	-.00204	.00148	.00855	.03137	-.00037	-.00372	H.07152
#2	-.00477	.00148	.00855	.02325	.00778	-.02652	.05119
#3	.00613	.00148	.01831	.04356	.00925	.02653	.02037
#4	-.00204	.00050	.01343	.03950	.00738	-.02636	H.06138
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03366	.00595	.01690	.00068	.00033	.00852	.00054
SDev	.03345	.03044	.01748	.00013	.00077	.07247	.00239
%RSD	99.364	511.54	103.45	19.318	230.94	851.04	440.20
#1	-.01440	-.01339	.03416	.00075	.00100	-.08000	-.00105
#2	.04711	.02228	-.00430	.00048	-.00033	.03428	-.00105

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#3	.03944	-.02521	.02786	.00075	.00100	-.01153	.00401
#4	.06250	.04013	.00988	.00075	-.00033	.09131	.00026
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00342
SDev .00057
%RSD 16.603

#1 .00272
#2 .00399
#3 .00324
#4 .00375

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DFNERB

Run Time: 07/03/00 18:04:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Operator: EMF

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00112	.00048	-.01875	-.00139	.00013	-.00009	.03562
SDev	.00258	.00859	.02404	.00277	.00027	.00007	.00482
%RSD	229.98	1794.9	128.27	199.76	214.36	73.042	13.538
#1	-.00038	-.00052	-.04973	.00253	-.00007	-.00019	.03483
#2	-.00484	-.00779	-.00828	-.00370	.00002	-.00005	.02934
#3	.00110	.01250	-.02355	-.00149	.00053	-.00006	.04070
#4	-.00037	-.00228	.00659	-.00289	.00002	-.00006	.03760
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00000	-.00377	-.00133	.00457	.00500	-.27226	-.00073
SDev	.00085	.00361	.00147	.00137	.00225	.60444	.00050
%RSD	72707.	95.674	110.06	30.079	44.950	222.01	68.014
#1	.00065	-.00892	-.00280	.00342	.00567	-.81455	.00000
#2	.00021	-.00343	-.00226	.00343	.00233	-.73421	-.00105
#3	.00039	-.00069	.00040	.00618	.00767	.43517	-.00084
#4	-.00124	-.00206	-.00067	.00526	.00434	.02455	-.00105
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01021	.00049	-.00488	.14367	.00335	-.01709	.03585
SDev	.01406	.00000	.00244	.00971	.00650	.01297	.02134
%RSD	137.71	.09907	50.002	6.7606	193.85	75.906	59.538
#1	-.02655	.00049	-.00610	.13837	.00203	-.01916	.01021
#2	-.00477	.00049	-.00122	.13475	-.00531	-.03410	.04087
#3	.00613	.00049	-.00610	.14469	.00859	-.00373	H.06151
#4	-.01566	.00049	-.00610	.15687	.00811	-.01137	.03080
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02020	.04158	.01178	.00007	-.00050	.01142	-.00222
SDev	.04462	.00572	.01098	.00034	.00079	.04849	.00265
%RSD	220.89	13.747	93.159	518.00	158.70	424.62	119.17
#1	-.02979	.04605	.02782	-.00035	.00000	.02287	-.00134
#2	.00866	.03410	.00979	-.00004	-.00166	.02289	-.00610

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#3	.02405	.04605	.00382	.00022	.00000	-.05717	-.00133
#4	.07788	.04013	.00570	.00044	-.00033	.05708	-.00012

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00586
SDev	.00088
%RSD	14.942

#1	.00711
#2	.00582
#3	.00525
#4	.00526

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DFNERC

Run Time: 07/03/00 18:07:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Operator: EMF

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04508	1.8967	1.9006	.93861	1.8888	.04758	L.04495
SDev	.00318	.0159	.0232	.01770	.0079	.00007	.00387
%RSD	7.0529	.83620	1.2183	1.8857	.41763	.14823	8.6172
#1	.04801	1.9041	1.9344	.95395	1.8782	.04763	L.04633
#2	.04655	1.8931	1.8819	.92328	1.8937	.04762	L.04863
#3	.04066	1.8764	1.8932	.95393	1.8876	.04761	L.03952
#4	.04510	1.9133	1.8929	.92329	1.8958	.04748	L.04534
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04307	.48591	.19707	.24140	1.0189	L.03347	.92251
SDev	.00184	.00234	.00176	.00191	.0020	.40318	.00293
%RSD	4.2755	.48164	.89367	.78961	.19577	1204.4	.31729
#1	.04076	.48283	.19481	.23911	1.0184	L-.19862	.91881
#2	.04319	.48694	.19907	.24369	1.0198	L.62263	.92335
#3	.04306	.48832	.19694	.24095	1.0164	L-.25218	.92204
#4	.04526	.48556	.19747	.24186	1.0211	L-.03794	.92583
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.01157	.48623	-.00473	L.15304	.50832	.47193	L.02974
SDev	.00786	.00094	.00244	.00547	.01567	.01128	.03590
%RSD	67.924	.19320	51.605	3.5765	3.0830	2.3911	120.70
#1	L-.01021	.48549	-.00595	L.16003	.48704	.48507	L.01675
#2	L-.00204	.48647	-.00595	L.14965	.51492	.46255	L.06816
#3	L-.01294	.48549	-.00107	L.14785	.50753	.46249	L-.01378
#4	L-.02111	.48745	-.00595	L.15462	.52381	.47761	L.04782
Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9821	-.01924	.01245	.95673	-.00017	1.8925	.47212
SDev	.0373	.00838	.00669	.00309	.00079	.0840	.00416
%RSD	1.8841	43.561	53.761	.32278	476.10	4.4367	.88179
#1	1.9725	-.01336	.00784	.95233	.00000	1.9611	.46693
#2	2.0033	-.01926	.02020	.95828	.00033	1.9610	.47058

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#3	2.0186	-.03108	.01578	.95697	-.00133	1.7896	.47553
#4	1.9340	-.01325	.00597	.95933	.00033	1.8582	.47544

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.49055
SDev	.00469
%RSD	.95652

#1	.49613
#2	.49032
#3	.48467
#4	.49109

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DFJTE

Operator: EMF

Run Time: 07/03/00 18:10:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00056	.85146	.00896	.06437	.06871	.00006	19.322
SDev	.00210	.01431	.04896	.00139	.00054	.00011	.096
%RSD	376.26	1.6803	546.55	2.1556	.77987	173.81	.49908
#1	.00205	.85097	.01267	.06504	.06835	-.00007	19.332
#2	.00055	.85100	.07659	.06505	.06814	.00007	19.358
#3	-.00241	.83443	-.03219	.06229	.06917	.00020	19.187
#4	.00204	.86945	-.02123	.06509	.06917	.00006	19.412
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00145	.00093	.00827	.00405	4.8218	4.6061	-.00012
SDev	.00114	.00131	.00080	.00241	.0131	.3603	.00028
%RSD	78.810	141.73	9.6708	59.436	.27213	7.8233	230.03
#1	-.00204	.00195	.00893	.00199	4.8095	4.3361	-.00039
#2	-.00277	-.00079	.00893	.00748	4.8115	4.9431	.00000
#3	-.00063	.00058	.00733	.00290	4.8335	4.2557	-.00030
#4	-.00037	.00195	.00787	.00382	4.8329	4.8895	.00021
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.9918	1.1149	-.00050	115.18	.00515	.02113	.04853
SDev	.0138	.0020	.00000	1.40	.00480	.02510	.01539
%RSD	.46045	.18168	.39271	1.2174	93.234	118.76	31.711
#1	2.9748	1.1127	-.00050	114.42	.00703	-.01291	.04087
#2	2.9965	1.1146	-.00050	113.91	.00461	.01732	.06131
#3	3.0074	1.1146	-.00050	117.10	.01014	.04007	.06138
#4	2.9884	1.1176	-.00050	115.31	-.00120	.04005	.03055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01367	7.0131	.00351	.11492	.04470	-.04066	.00031
SDev	.02197	.0476	.00473	.00097	.00123	.03421	.00230
%RSD	160.74	.67807	135.06	.84053	2.7453	84.120	741.09
#1	.00210	6.9893	.00649	.11411	.04628	.00225	.00365
#2	.04056	6.9893	.00053	.11416	.04462	-.03197	-.00121

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#3	-.00938	6.9893	-.00148	.11611	.04328	-.07789	-.00121
#4	.02139	7.0844	.00847	.11532	.04462	-.05504	.00001

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.03788
SDev	.00154
%RSD	4.0781

#1	.03849
#2	.03662
#3	.03662
#4	.03978

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DFJTEPS

Operator: EMF

Run Time: 07/03/00 18:14:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00019	.17464	.04622	.01193	.01406	-.00003	3.9502
SDev	.00253	.00976	.03016	.00082	.00038	.00012	.0164
%RSD	1341.2	5.5872	65.255	6.8408	2.7266	387.37	.41543
#1	-.00019	.17275	.04907	.01124	.01402	-.00006	3.9387
#2	.00279	.18019	.07523	.01122	.01462	.00006	3.9732
#3	.00129	.18385	.05649	.01263	.01381	.00007	3.9509
#4	-.00314	.16174	.00410	.01265	.01381	-.00019	3.9381
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00182	-.00208	.00213	.00099	.99413	.80116	-.00165
SDev	.00150	.00476	.00118	.00174	.00246	.48702	.00167
%RSD	82.337	229.06	55.422	174.91	.24749	60.790	100.86
#1	-.00221	-.00345	.00040	-.00015	.99445	.64941	-.00305
#2	-.00376	.00479	.00253	.00352	.99380	1.5242	-.00021
#3	-.00048	-.00346	.00307	.00076	.99113	.47980	-.00021
#4	-.00082	-.00620	.00253	-.00015	.99712	.55122	-.00314
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.60190	.23014	-.00473	23.441	.00403	-.00603	.03325
SDev	.01465	.00049	.00467	.274	.00846	.02869	.00978
%RSD	2.4332	.21361	98.746	1.1710	210.10	475.70	29.410
#1	.58624	.23039	-.00107	23.603	-.00322	-.02688	.04086
#2	.62164	.23039	-.00107	23.111	.01188	.03389	.03071
#3	.59985	.22941	-.00596	23.331	.01081	-.00417	.04095
#4	.59985	.23039	-.01084	23.721	-.00336	-.02697	.02047
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00166	1.3925	.02000	.02319	.00941	.05673	-.00039
SDev	.01734	.0178	.02686	.00008	.00215	.05621	.00187
%RSD	1045.7	1.2812	134.30	.33339	22.827	99.093	478.74
#1	-.01949	1.4014	.01398	.02315	.00733	-.00893	-.00124
#2	.00358	1.4015	.04826	.02315	.01032	.12804	.00241
#3	.02280	1.4014	.03214	.02330	.01199	.05963	-.00132
#4	-.00026	1.3657	-.01439	.02315	.00799	.04817	-.00142
Elem	ZN						
Units	ppm						
Avge	.01102						
SDev	.00144						
%RSD	13.091						
#1	.01169						
#2	.01241						
#3	.00905						

#4 .01093

Method: QUANMET Sample Name: DFJTES

Run Time: 07/03/00 18:17:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Operator: EMF

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04519	2.5767	1.9132	.99621	1.9480	.04765	19.020
SDev	.00193	.0453	.0582	.02339	.0316	.00071	.167
%RSD	4.2734	1.7574	3.0415	2.3480	1.6228	1.4967	.87724
#1	.04293	2.5213	1.8340	.98637	1.9078	.04686	18.977
#2	.04590	2.5582	1.9126	.96840	1.9383	.04725	18.819
#3	.04745	2.6155	1.9719	1.0094	1.9685	.04837	19.217
#4	.04448	2.6118	1.9344	1.0206	1.9775	.04812	19.067
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04293	.48068	.19640	.24245	5.5432	4.1397	.94257
SDev	.00190	.01308	.00314	.00355	.0667	.3371	.01835
%RSD	4.4239	2.7205	1.5980	1.4641	1.2035	8.1428	1.9467
#1	.04329	.47315	.19641	.23855	5.4746	4.5682	.91752
#2	.04019	.46628	.19321	.24037	5.4987	4.0504	.94174
#3	.04456	.49370	.20067	.24498	5.6114	4.1843	.95069
#4	.04367	.48958	.19533	.24589	5.5881	3.7559	.96035
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.9264	1.5846	-.00527	114.88	.50665	.47979	.05525
SDev	.0324	.0164	.00398	2.02	.01443	.01446	.01746
%RSD	1.1074	1.0341	75.454	1.7616	2.8484	3.0132	31.596
#1	2.8849	1.5691	-.00040	112.12	.48760	.49856	.05760
#2	2.9312	1.5721	-.00528	114.65	.52253	.46805	.04756
#3	2.9639	1.6015	-.00526	116.13	.50669	.46878	.07835
#4	2.9257	1.5956	-.01015	116.63	.50978	.48376	.03748
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9142	6.5851	.00825	1.0674	.03471	1.8663	.47059
SDev	.0156	.0851	.03016	.0163	.00199	.0780	.00556
%RSD	.81321	1.2922	365.44	1.5259	5.7220	4.1799	1.1821
#1	1.8958	6.5494	-.00942	1.0470	.03363	1.8984	.46582
#2	1.9228	6.5197	.05315	1.0618	.03429	1.7726	.46572

Analysis Report

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03.00 0.00

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#3	1.9077	6.7100	-.00931	1.0791	.03762	1.8398	.47546
#4	1.9307	6.5614	-.00141	1.0819	.03330	1.9543	.47535
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .51807
SDev .00668
%RSD 1.2898

#1 .51092
#2 .51392
#3 .52465
#4 .52280

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFJTED

Operator: EMF

Run Time: 07/03/00 18:20:19

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04752	2.8002	1.9841	1.0192	1.9783	.04856	19.237
SDev	.00321	.0156	.0637	.0065	.0158	.00032	.106
%RSD	6.7534	.55548	3.2093	.63610	.79749	.66918	.54954
#1	.04752	2.7850	1.9439	1.0098	1.9563	.04810	19.273
#2	.04306	2.7887	1.9364	1.0235	1.9908	.04863	19.079
#3	.05048	2.8126	1.9812	1.0235	1.9775	.04862	19.299
#4	.04901	2.8146	2.0750	1.0201	1.9887	.04887	19.297
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04760	.49299	.20533	.24728	5.8271	4.7846	.95214
SDev	.00164	.00677	.00273	.00118	.0226	.6448	.01311
%RSD	3.4490	1.3743	1.3305	.47797	.38828	13.476	1.3773
#1	.04580	.49644	.20814	.24591	5.8003	5.5501	.93624
#2	.04971	.48543	.20174	.24682	5.8223	3.9790	.96740
#3	.04703	.48956	.20653	.24865	5.8310	4.7289	.94859
#4	.04785	.50053	.20493	.24775	5.8550	4.8806	.95634
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.9897	1.6048	-.00157	115.33	.51858	.49504	.03740
SDev	.0283	.0050	.00467	1.20	.00520	.02814	.01177
%RSD	.94523	.30961	297.67	1.0393	1.0034	5.6843	31.461
#1	3.0102	1.6006	.00453	113.70	.51766	.49892	.02711
#2	2.9502	1.6006	-.00523	116.45	.51376	.46079	.04761
#3	2.9884	1.6075	-.00523	115.22	.51693	.49117	.04756
#4	3.0102	1.6104	-.00035	115.96	.52596	.52928	.02731
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9871	7.0177	.01526	1.0824	.04370	1.9518	.47949
SDev	.0310	.0644	.02123	.0076	.00164	.1008	.00276
%RSD	1.5625	.91834	139.13	.70553	3.7519	5.1666	.57579
#1	1.9697	6.9360	.02077	1.0718	.04229	1.9406	.48174
#2	1.9852	7.0370	.00875	1.0883	.04229	2.0433	.47546

#3	1.9621	7.0905	.04105	1.0819	.04495	1.8147	.48033
#4	2.0314	7.0073	-.00953	1.0876	.04528	2.0086	.48042
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .53459
SDev .00392
%RSD .73408

#1 .53208
#2 .53206
#3 .53389
#4 .54033

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFKQ3

C-1000 FOR

Operator: EMF

Run Time: 07/03/00 18:23:26

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00134	.68048	.04366	.09166	.08645	.00005	37.120
SDev	.00121	.01191	.04113	.00342	.00031	.00000	.033
%RSD	90.017	1.7506	94.217	3.7278	.35488	.23908	.08953
#1	.00282	.69246	.10082	.08807	.08653	.00005	37.155
#2	.00134	.68881	.00698	.09427	.08674	.00005	37.133
#3	.00134	.67211	.02214	.09488	.08653	.00005	37.076
#4	-.00014	.66854	.04470	.08943	.08602	.00005	37.117
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00089	.00129	.02307	.02252	1.2449	3.9165	.00145
SDev	.00138	.00469	.00127	.00046	.0055	.2934	.00157
%RSD	155.43	362.50	5.5066	2.0482	.44514	7.4902	108.25
#1	.00125	.00060	.02387	.02275	1.2507	4.2915	.00021
#2	.00231	.00335	.02173	.02275	1.2460	3.8094	.00000
#3	-.00100	-.00488	.02227	.02183	1.2454	3.5952	.00305
#4	.00100	.00610	.02440	.02275	1.2373	3.9701	.00254
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.5337	.40806	.00019	H434.66	.00978	-.00440	.03569
SDev	.0360	.00080	.00244	1.73	.00146	.02620	.01323
%RSD	.37710	.19633	1311.1	.39912	14.944	596.01	37.065
#1	9.5875	.40806	-.00103	H436.82	.00784	.03343	.04081
#2	9.5194	.40904	-.00103	H435.04	.01019	-.02708	.02030
#3	9.5139	.40708	-.00103	H434.13	.01135	-.01211	.05105
#4	9.5139	.40806	.00385	H432.67	.00972	-.01183	.03060
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00809	9.5128	.00942	.21335	.02073	.05794	.00369
SDev	.03454	.0499	.02212	.00081	.00088	.02950	.00005
%RSD	427.08	.52407	234.88	.38039	4.2248	50.920	1.3245
#1	-.02651	9.5455	-.00218	.21443	.02198	.06931	.00367
#2	.01194	9.5336	.04014	.21337	.02064	.02365	.00367

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#3	.05423	9.5336	.00999	.21311	.02031	.09224	.00367
#4	-.00731	9.4385	-.01030	.21248	.01998	.04656	.00377
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem . ZN
Units ppm
Avge .06727
SDev .00082
%RSD 1.2212

#1 .06798
#2 .06645
#3 .06668
#4 .06798

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DFJTL

Operator: EMF

Run Time: 07/03/00 18:26:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00137	.37140	.01361	.11552	.11656	.00006	85.352
SDev	.00140	.01227	.04293	.00372	.00130	.00001	.280
%RSD	102.06	3.3035	315.33	3.2185	1.1180	21.502	.32836
#1	.00246	.37373	.01084	.11873	.11839	.00007	85.750
#2	.00099	.36826	.03717	.11873	.11635	.00007	85.315
#3	.00249	.38657	.05196	.11272	.11533	.00005	85.099
#4	-.00045	.35704	-.04551	.11192	.11614	.00004	85.244
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00187	.00404	.00880	.02656	.21155	9.4086	.00072
SDev	.00270	.00080	.00091	.00088	.00115	.2452	.00066
%RSD	144.41	19.802	10.341	3.3017	.54482	2.6057	92.233
#1	.00094	.00334	.00840	.02633	.21189	9.2368	.00033
#2	L-.00556	.00473	.00787	.02724	.21255	9.3082	.00114
#3	-.00133	.00335	.01000	.02541	.20989	9.3171	.00000
#4	-.00153	.00472	.00893	.02724	.21189	9.7724	.00141
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.7307	.84027	-.00241	326.57	.00887	-.02276	.07933
SDev	.0423	.00503	.00244	3.39	.00338	.01310	.01743
%RSD	.89358	.59837	101.31	1.0387	38.108	57.555	21.969
#1	4.7750	.84738	-.00119	330.88	.00618	-.04167	.10228
#2	4.7287	.83855	-.00607	327.31	.01231	-.01897	.07173
#3	4.6742	.83560	-.00119	322.89	.01123	-.01143	.08189
#4	4.7450	.83953	-.00119	325.20	.00576	-.01897	.06144
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03132	12.470	.00893	.25080	.01706	.01963	.00240
SDev	.02138	.063	.01382	.00242	.00096	.06492	.00468
%RSD	68.260	.50258	154.76	.96279	5.6044	330.66	194.88
#1	.01690	12.553	.02620	.25385	.01731	-.00885	-.00122
#2	.00921	12.476	-.00221	.25122	.01631	.04819	-.00132

#3	.04766	12.446	.01399	.24807	.01831	-.05462	.00364
#4	.05151	12.405	-.00226	.25006	.01631	.09382	.00850
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.02328
SDev	.00084
%RSD	3.6226

#1	.02274
#2	.02248
#3	.02434
#4	.02354

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-7

Operator: EMF

Run Time: 07/03/00 18:29:42

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99516	49.135	4.9960	4.8584	4.7890	4.8259	50.824
SDev	.00471	.065	.0293	.0096	.0099	.0019	.327
%RSD	.47324	.13179	.58577	.19677	.20775	.03952	.64311
#1	.98989	49.118	5.0011	4.8549	4.7974	4.8258	50.561
#2	.99284	49.093	4.9564	4.8486	4.7831	4.8253	50.527
#3	1.0005	49.231	4.9993	4.8713	4.7974	4.8240	51.160
#4	.99743	49.098	5.0270	4.8589	4.7780	4.8286	51.048
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0913	4.9284	4.9465	4.8156	50.407	47.936	4.7864
SDev	.0499	.0178	.0212	.0076	.178	.305	.0305
%RSD	.98069	.36094	.42923	.15794	.35343	.63704	.63694
#1	5.0987	4.9133	4.9352	4.8249	50.276	48.067	4.8208
#2	5.0222	4.9177	4.9229	4.8185	50.235	47.478	4.8016
#3	5.1416	4.9530	4.9693	4.8085	50.598	48.103	4.7701
#4	5.1025	4.9298	4.9587	4.8103	50.518	48.094	4.7531
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.380	4.8795	4.8574	48.294	5.0085	5.0498	4.9803
SDev	.095	.0172	.0241	.113	.0342	.0470	.0278
%RSD	.19251	.35195	.49641	.23372	.68364	.93075	.55751
#1	49.340	4.8640	4.8452	48.366	4.9930	5.0494	4.9700
#2	49.280	4.8660	4.8305	48.413	4.9699	4.9889	4.9598
#3	49.503	4.8985	4.8843	48.205	5.0483	5.1033	4.9702
#4	49.397	4.8896	4.8696	48.190	5.0228	5.0574	5.0213
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9934	4.9685	5.0929	4.8308	4.8306	9.6099	4.9151
SDev	.0725	.0221	.0225	.0094	.0110	.0863	.0151
%RSD	1.4515	.44563	.44205	.19389	.22801	.89759	.30633
#1	4.9940	4.9594	5.0999	4.8390	4.8276	9.5086	4.9036
#2	4.9708	4.9415	5.1019	4.8225	4.8169	9.7146	4.9021

#3	5.0910	4.9835	5.1100	4.8387	4.8426	9.5849	4.9336
#4	4.9178	4.9893	5.0598	4.8228	4.8356	9.6316	4.9211
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9470
SDev .0123
%RSD .24802

#1 4.9444
#2 4.9311
#3 4.9533
#4 4.9593

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB7

Operator: EMF

Run Time: 07/03/00 18:32:50

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00037	.00408	-.01973	.00272	.00018	.00026	.01065
SDev	.00121	.01323	.03913	.00440	.00034	.00007	.00155
%RSD	322.41	323.89	198.35	162.12	186.77	28.486	14.590
#1	-.00186	-.00415	-.04970	.00932	.00053	.00020	.00865
#2	.00110	.02157	-.04240	.00052	.00023	.00020	.01160
#3	-.00037	.00682	.03657	.00051	-.00028	.00032	.01024
#4	-.00037	-.00790	-.02339	.00051	.00023	.00032	.01212
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00099	-.00171	-.00066	-.00092	.00367	-.29904	.00051
SDev	.00228	.00235	.00115	.00046	.00144	.28809	.00185
%RSD	230.77	137.01	173.54	49.726	39.266	96.339	364.48
#1	-.00022	.00069	-.00173	-.00114	.00167	-.28788	.00254
#2	.00187	-.00481	-.00120	-.00023	.00367	-.61817	.00000
#3	-.00249	-.00205	.00094	-.00115	.00500	-.36822	.00129
#4	-.00311	-.00068	-.00066	-.00114	.00434	.07811	-.00179
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02315	.00074	.00610	.01422	.00068	.00190	.04345
SDev	.00561	.00049	.00282	.00620	.00505	.00951	.00512
%RSD	24.254	66.293	46.187	43.605	745.45	500.56	11.778
#1	-.02383	.00049	.00366	.01016	.00103	.00386	.04087
#2	-.02928	.00147	.00366	.02099	-.00517	.01128	.05113
#3	-.02383	.00049	.00855	.00790	-.00025	-.01136	.04086
#4	-.01566	.00049	.00855	.01783	.00710	.00382	.04095
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04135	.00593	.00828	.00025	.00017	.08280	-.00110
SDev	.01017	.03984	.02021	.00026	.00043	.04789	.00006
%RSD	24.604	671.78	243.99	105.28	258.20	57.843	5.1252
#1	.04327	-.02528	.03604	.00017	.00000	.07994	-.00115
#2	.03558	.04606	-.01239	-.00009	.00067	.06855	-.00115

#3	.03174	.03417	.00575	.00044	-.00033	.14846	-.00105
#4	.05481	-.03122	.00372	.00048	.00033	.03424	-.00105

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00221
SDev .00163
%RSD 74.048

#1 .00196
#2 .00456
#3 .00143
#4 .00087

Errors LC Pass
High .02000
Low -.02000

#	Sample Name	AG	AS	CD	CR	PB	SB
1	STD1	-.00082	-.01062	.00241	-.00038		
2	STD6	11.1126	6.53084	17.9008			
3	STD7				14.7882		
4	ICV3-1 0014-146-5	.49586	.25323	.24492	.99586	.24768	.25110
5	ICB1	.00048	.00153	.00004	.00063	.00078	.00254
6	ICSA 0014-129-11	.00042	.00173	-.00366	.00284	-.00406	.00215
7	ICSAB 0014-136-3	1.0889	1.0130	.91788	.49972	.96807	1.0308
8	DFGH2B	.00007	.00207	.00014	.00040	.00081	.00204
9	DFGH2C	.05133	2.1351	.05070	.20806	.51322	.51787
10	DETV5	.00044	.00632	-.00010	.00070	-.00006	-.00001
11	DETVR	-.00004	.00694	-.00014	.00039	.00043	.00100
12	DETVRP5	.00024	.00280	-.00009	.00025	.00034	.00120
13	DETVRS	.04996	2.0549	.04763	.19962	.49256	.50200
14	DETVRD	.05065	2.0765	.04802	.20082	.49886	.51177
15	DETVW	-.00032	.00261	.00003	.00045	.01008	.00046
16	CCV3-1 0014-155-3	1.0331	.51725	.49884	2.0425	.51176	.51830
17	CCB1	.00062	.00155	.00001	.00062	.00058	.00083
18	DETX2	.00045	.00107	-.00008	.00094	.00492	.00128
19	DETX5	.00059	.00514	-.00007	.00080	.47948	.00005
20	DETXL	.00045	.00076	.00005	.00080	.00542	.00245
21	DETXT	.00031	.00118	.00002	.00059	.00149	.00084
22	DEV06	.00020	.00062	.00005	.00052	.00423	.00011
23	DEV09	.00011	.00173	-.00007	.00031	.17299	.00092
24	DEV0D	.00012	.00210	-.00005	.00100	.00136	.00098
25	DEV0J	.00017	.00160	-.00010	.00050	.00146	-.00010
26	DF83W	.00009	.00590	-.00006	.00099	.00133	.00118
27	DF84H	.00041	.00936	-.00024	.00070	.00136	.00168
28	CCV3-2	1.0258	.51630	.49803	2.0295	.51001	.51963
29	CCB2	.00051	.00048	.00021	.00071	.00110	.00188
30	DF84J	.00028	.00136	-.00002	.00107	.00169	.00282
31	CCV3-3	1.0261	.51394	.49342	.0209	.50847	.51733
32	CCB3	.00029	.00104	.00011	.00098	.00001	-.00049
33	DFK04B	.00046	.00145	-.00006	.00040	.00088	.00097
34	DFK04C	.04940	2.0366	.04919	.20291	.50536	.49806
35	DFGKP	.00043	.00663	.00011	.00911	.03099	.00299
36	DFGKPP5	.00060	.00275	.00003	.00188	.00604	.00152
37	DFGKPS	.04689	1.9209	.04613	.19928	.50721	.47607
38	DFGKPD	.04830	1.9918	.04764	.20561	.51875	.48613
39	DFGL2	.00052	.00327	-.00017	.01300	.00815	.00111
40	DFGL6	.00039	.00320	.00141	.01286	.00703	.00157
41	DFM2LB	.00016	.00014	-.00008	.00010	.00160	.00064
42	DFM2LC	.04737	2.0001	.04837	<u>H.24639</u>	.49525	.49725
43	CCV3-4	1.0155	.51130	.49228	2.0056	.50413	.50970
44	CCB4	.00014	.00153	-.00005	.00066	.00060	.00113
45	DFJTE	.00056	.00413	.00008	.00319	.01054	.00098
46	DFJTL	.00051	.00443	.00005	.01061	.00260	.01939
47	DFKQ3	.00134	.01390	.00028	.02508	.00474	.01007
48	DFKQ3P5	.00017	.00285	.00008	.00539	.00113	.00237
49	DFKQ3S	.04879	2.0491	.04825	.22434	.50561	.51142
50	DFKQ3D	.04861	2.0444	.04792	.22266	.50241	.51262
51	CCV3-5	1.0227	.51478	.49665	2.0220	.50812	.51516
52	CCB5	.00044	.00122	-.00003	.00088	.00130	-.00024
53	DFGGHB	.00016	.00016	-.00005	.00045	.00069	.00113

VOID: is out of 20% control units in LCB. All samples will be re-analyzed for C3.

#	Sample Name	AG	AS	CD	CR	PB	SB
54	DFGGHC	.05047	2.0349	.04944	.20284	.50534	.50261
55	DF790	.00137	.00232	.00004	.00216	.00129	.00136
56	DF790P5	.00144	.00277	-.00012	.00142	.00004	.00097
57	DF790S	.05461	2.1334	.04794	.20343	.52191	.51879
58	DF790D	.05424	2.1738	.04948	.20733	.53319	.52925
59	DF795	.00065	.00427	.00000	.00107	.00132	.00101
60	DF797	.00190	.00313	.00009	.00217	.00115	.00484
61	DFGG7B	-.00010	.00149	.00003	.00088	.00159	.00116
62	DFGG7C	.04721	2.0845	.05445	.21267	.54097	L.00174
63	CCV3-6	1.0022	.53011	.53291	2.1048	.54023	.51242
64	CCB6	.00017	.00176	-.00007	.00051	.00107	.00106
65	DF25M	.01862	.02176	.05488	.41306	H9.1313	-.00032
66	DF25M/2 PB	.00944	.00996	.02797	.21022	4.7192	.00094
67	DF7P0	.00004	.02887	-.00018	.02090	.00568	.00338
68	DF7P0P5	.00043	.00615	.00004	.00473	.00205	.00059
69	DF7P0S	.04384	1.8810	.04817	.20489	.46619	.00347
70	DF7P0D	.04334	1.8750	.04804	.20585	.46595	.00297
71	DF7P7	.00038	.01072	-.00023	.05038	.00177	.00409
72	DFF06	.00077	.02930	.30850	.02989	.47133	.00933
73	DFM2LC RERUN CR	.04587	2.0292	.05064	H.25435	.51585	.49534
74	CCV3-7	1.0036	.52068	.51976	2.0761	.52917	.51559
75	CCB7	.00017	.00138	.00005	.00054	.00016	.00170

#	Sample Name	SE	TL	ZN
1	STD1		-.04117	.0012
2	STD6		4.86411	
3	STD7			3.65987
4	ICV3-1 0014-146-5	.25612	.50459	1.0155
5	ICB1	-.00072	-.00239	.00141
6	ICSA 0014-129-11	-.00011	.00216	-.00214
7	ICSAB 0014-136-3	1.0249	1.0196	1.0311
8	DFGH2B	-.00133	.00404	.00210
9	DFGH2C	2.1842	2.1422	.54275
10	DETV5	.00196	.00436	.01633
11	DETVR	-.00130	-.00137	.01764
12	DETVRP5	-.00060	.00146	.00296
13	DETVRS	2.1072	2.0586	.53379
14	DETVRD	2.1431	2.0762	.53708
15	DETVW	.00134	.00607	.12355
16	CCV3-1 0014-155-3	.52840	1.0338	2.0546
17	CCB1	.00036	.00255	.00183
18	DETX2	.00133	.00309	.01173
19	DETX5	-.00045	.00341	.21200
20	DETXL	.00201	.00312	.02557
21	DETXT	.00134	-.00014	.02429
22	DEV06	.00053	.00044	.36195
23	DEV09	-.00105	.00127	.05544
24	DEV0D	.00025	.00004	.01924
25	DEV0J	-.00041	.00331	.02147
26	DF83W	.00043	.00170	.00315
27	DF84H	-.00052	.00309	.01011
28	CCV3-2	.52530	1.0305	2.0499

Rerun for
verification.
ENF-7300

#	Sample Name	SE	TL	ZN
29	CCB2	.00105	.00215	.00235
30	DF84J	.00000	.00399	.01467
31	CCV3-3	.52987	1.0250	2.0396
32	CCB3	-.00002	.00317	.00213
33	DFK04B	-.00044	-.00280	.01004
34	DFK04C	2.0515	2.0620	.52734
35	DFGKP	.00165	-.00039	.05017
36	DFGKPP5	.00244	-.00018	.01099
37	DFGKPS	1.9478	1.9598	.53265
38	DFGKPD	2.0047	2.0338	.55337
39	DFGL2	.00177	.00104	.05765
40	DFGL6	.00139	.00138	.02950
41	DFM2LB	.00061	-.00096	.00831
42	DFM2LC	2.0137	2.0341	.52519
43	CCV3-4	.52314	1.0233	2.0202
44	CCB4	.00071	.00242	.00120
45	DFJTE	.00282	-.00180	.04370
46	DFJTL	.00055	.00151	.03081
47	DFKQ3	.00095	-.00061	.07121
48	DFKQ3P5	.00107	.00227	.01484
49	DFKQ3S	2.0694	2.1018	.60511
50	DFKQ3D	2.0644	2.0907	.58520
51	CCV3-5	.52915	1.0320	2.0384
52	CCB5	.00078	.00258	.00248
53	DFGGHB	.00107	.00045	.00179
54	DFGGHC	2.0605	2.0713	.51689
55	DF790	.00099	-.00018	.01375
56	DF790P5	-.00168	-.00024	.00333
57	DF790S	2.1368	2.1464	.54411
58	DF790D	2.1808	2.1940	.55511
59	DF795	.00158	.00080	.03111
60	DF797	-.00174	-.00173	.01601
61	DFGG7B	.00157	-.00150	.00381
62	DFGG7C	2.0616	2.0992	.52591
63	CCV3-6	.54003	1.0676	2.0763
64	CCB6	.00124	.00164	.00441
65	DF25M	.00806	.00953	H46.911
66	DF25M/2 PB	.00341	.00520	H39.491
67	DF7P0	.02068	.00250	.17984
68	DF7P0P5	.00469	-.00159	.04152
69	DF7P0S	1.8750	1.6655	.65963
70	DF7P0D	1.8770	1.6713	.82628
71	DF7P7	.01098	.00421	.02851
72	DFF06	.00872	.00459	H10.533
73	DFM2LC RERUN CR	2.0533	2.0803	.52691
74	CCV3-7	.53767	1.0520	2.0382
75	CCB7	.00073	.00125	.00181

Buf 7-300

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	T00701A	METTRA	07/01/00	15:20		X	IR
2	STD6	T00701A	METTRA	07/01/00	15:24		X	IR
3	STD7	T00701A	METTRA	07/01/00	15:28		X	IR
4	ICV3-1 0014-146-5	T00701A	METTRA	07/01/00	15:32	EMF	S	CONC
5	ICB1	T00701A	METTRA	07/01/00	15:36	EMF	S	CONC
6	ICSA 0014-129-11	T00701A	METTRA	07/01/00	15:40	EMF	Q	CONC
7	ICSAB 0014-136-3	T00701A	METTRA	07/01/00	15:44	EMF	Q	CONC
8	DFGH2B	T00701A	METTRA	07/01/00	15:48	EMF	S	CONC
9	DFGH2C	T00701A	METTRA	07/01/00	15:53	EMF	S	CONC
10	DETV5	T00701A	METTRA	07/01/00	15:57	EMF	S	CONC
11	DETVR	T00701A	METTRA	07/01/00	16:01	EMF	S	CONC
12	DETVRP5	T00701A	METTRA	07/01/00	16:05	EMF	S	CONC
13	DETVRS	T00701A	METTRA	07/01/00	16:09	EMF	S	CONC
14	DETVRD	T00701A	METTRA	07/01/00	16:13	EMF	S	CONC
15	DETVW	T00701A	METTRA	07/01/00	16:17	EMF	S	CONC
16	CCV3-1 0014-155-3	T00701A	METTRA	07/01/00	16:22	EMF	S	CONC
17	CCB1	T00701A	METTRA	07/01/00	16:26	EMF	S	CONC
18	DETX2	T00701A	METTRA	07/01/00	16:30	EMF	S	CONC
19	DETX5	T00701A	METTRA	07/01/00	16:34	EMF	S	CONC
20	DETXL	T00701A	METTRA	07/01/00	16:38	EMF	S	CONC
21	DETXT	T00701A	METTRA	07/01/00	16:42	EMF	S	CONC
22	DEV06	T00701A	METTRA	07/01/00	16:46	EMF	S	CONC
23	DEV09	T00701A	METTRA	07/01/00	16:51	EMF	S	CONC
24	DEV0D	T00701A	METTRA	07/01/00	16:55	EMF	S	CONC
25	DEV0J	T00701A	METTRA	07/01/00	16:59	EMF	S	CONC
26	DF83W	T00701A	METTRA	07/01/00	17:03	EMF	S	CONC
27	DF84H	T00701A	METTRA	07/01/00	17:10	EMF	S	CONC
28	CCV3-2	T00701A	METTRA	07/01/00	17:14	EMF	S	CONC
29	CCB2	T00701A	METTRA	07/01/00	17:18	EMF	S	CONC
30	DF84J	T00701A	METTRA	07/01/00	17:22	EMF	S	CONC
31	CCV3-3	T00701A	METTRA	07/01/00	17:26	EMF	S	CONC
32	CCB3	T00701A	METTRA	07/01/00	17:30	EMF	S	CONC
33	DFK04B	T00701A	METTRA	07/01/00	17:35	EMF	S	CONC
34	DFK04C	T00701A	METTRA	07/01/00	17:39	EMF	S	CONC
35	DFGKP	T00701A	METTRA	07/01/00	17:43	EMF	S	CONC
36	DFGKPP5	T00701A	METTRA	07/01/00	17:47	EMF	S	CONC
37	DFGKPS	T00701A	METTRA	07/01/00	17:51	EMF	S	CONC
38	DFGKPD	T00701A	METTRA	07/01/00	17:55	EMF	S	CONC
39	DFGL2	T00701A	METTRA	07/01/00	18:00	EMF	S	CONC
40	DFGL6	T00701A	METTRA	07/01/00	18:04	EMF	S	CONC
41	DFM2LB	T00701A	METTRA	07/01/00	18:08	EMF	S	CONC
42	DFM2LC	T00701A	METTRA	07/01/00	18:12	EMF	S	CONC
43	CCV3-4	T00701A	METTRA	07/01/00	18:16	EMF	S	CONC
44	CCB4	T00701A	METTRA	07/01/00	18:20	EMF	S	CONC
45	DFJTE	T00701A	METTRA	07/01/00	18:24	EMF	S	CONC
46	DFJTL	T00701A	METTRA	07/01/00	18:29	EMF	S	CONC
47	DFKQ3	T00701A	METTRA	07/01/00	18:33	EMF	S	CONC
48	DFKQ3P5	T00701A	METTRA	07/01/00	18:37	EMF	S	CONC
49	DFKQ3S	T00701A	METTRA	07/01/00	18:41	EMF	S	CONC
50	DFKQ3D	T00701A	METTRA	07/01/00	18:45	EMF	S	CONC
51	CCV3-5	T00701A	METTRA	07/01/00	18:49	EMF	S	CONC
52	CCB5	T00701A	METTRA	07/01/00	18:54	EMF	S	CONC
53	DFGGHB	T00701A	METTRA	07/01/00	19:05	EMF	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	DFGGHC	T00701A	METTRA	07/01/00	19:09	EMF	S	CONC
55	DF790	T00701A	METTRA	07/01/00	19:14	EMF	S	CONC
56	DF790P5	T00701A	METTRA	07/01/00	19:18	EMF	S	CONC
57	DF790S	T00701A	METTRA	07/01/00	19:22	EMF	S	CONC
58	DF790D	T00701A	METTRA	07/01/00	19:26	EMF	S	CONC
59	DF795	T00701A	METTRA	07/01/00	19:30	EMF	S	CONC
60	DF797	T00701A	METTRA	07/01/00	19:34	EMF	S	CONC
61	DFGG7B	T00701A	METTRA	07/01/00	19:39	EMF	S	CONC
62	DFGG7C	T00701A	METTRA	07/01/00	19:43	EMF	S	CONC
63	CCV3-6	T00701A	METTRA	07/01/00	19:47	EMF	S	CONC
64	CCB6	T00701A	METTRA	07/01/00	19:51	EMF	S	CONC
65	DF25M	T00701A	METTRA	07/01/00	19:55	EMF	S	CONC
66	DF25M/2 PB	T00701A	METTRA	07/01/00	20:01	EMF	S	CONC
67	DF7P0	T00701A	METTRA	07/01/00	20:05	EMF	S	CONC
68	DF7P0P5	T00701A	METTRA	07/01/00	20:10	EMF	S	CONC
69	DF7P0S	T00701A	METTRA	07/01/00	20:14	EMF	S	CONC
70	DF7P0D	T00701A	METTRA	07/01/00	20:18	EMF	S	CONC
71	DF7P7	T00701A	METTRA	07/01/00	20:22	EMF	S	CONC
72	DFF06	T00701A	METTRA	07/01/00	20:26	EMF	S	CONC
73	DFM2LC RERUN CR	T00701A	METTRA	07/01/00	20:30	EMF	S	CONC
74	CCV3-7	T00701A	METTRA	07/01/00	20:34	EMF	S	CONC
75	CCB7	T00701A	METTRA	07/01/00	20:39	EMF	S	CONC

Method: METTRA Standard: STD1
Run Time: 07/01/00 15:20:12

Elem	AG	AL	AS	BA	BE	CA	CD
Avge	-.00083	.03851	-.01063	.00051	-.06089	.00504	.00241
SDev	.00150	.00686	.00870	.00015	.00051	.00015	.00499
%RSD	181.36	17.803	81.822	29.676	.83460	3.0782	207.00
#1	-.00189	.04336	-.01678	.00040	-.06125	.00493	-.00112
#2	.00023	.03366	-.00448	.00061	-.06053	.00515	.00594
Elem	CO	CR	CU	FE	MG	MN	MO
Avge	-.00088	-.00038	.02042	-.00073	-.00081	.00154	.00087
SDev	.00046	.00111	.00130	.00022	.00009	.00006	.00010
%RSD	52.071	289.01	6.3689	29.676	11.546	4.1206	10.874
#1	-.00120	.00040	.01950	-.00057	-.00075	.00149	.00080
#2	-.00056	-.00117	.02134	-.00088	-.00088	.00158	.00094
Elem	NI	PB/1	PB/2	SB/1	SB/2	SE/1	SE/2
Avge	.00099	.01387	-.00903	-.05076	.00120	-.11320	.08150
SDev	.00059	.00082	.00611	.04089	.00228	.00634	.00860
%RSD	59.434	5.9312	67.730	80.547	189.71	5.6046	10.552
#1	.00057	.01445	-.00470	-.02185	.00281	-.11769	.07542
#2	.00141	.01329	-.01335	-.07968	-.00041	-.10871	.08758
Elem	TL	V	ZN				
Avge	-.04118	.00009	.00120				
SDev	.00260	.00012	.00004				
%RSD	6.3078	141.42	3.6599				
#1	-.04301	.00000	.00123				
#2	-.03934	.00018	.00117				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17259	--	--	--	--	--	--
SDev	250.7757	--	--	--	--	--	--
%RSD	1.453037	--	--	--	--	--	--
#1	17436	--	--	--	--	--	--
#2	17081	--	--	--	--	--	--

Method: METTRA Standard: STD6
Run Time: 07/01/00 15:24:25

004-087-8

Elem	AG	AS	CD	PB/1	PB/2	SB/1	SB/2
Avge	11.113	6.5308	17.901	7.1939	9.1265	10.069	6.9178
SDev	.015	.0069	.054	.0102	.0589	.127	.0216
%RSD	.13333	.10641	.30265	.14203	.64512	1.2628	.31254

#1	11.123	6.5358	17.939	7.2011	9.1682	10.159	6.9331
#2	11.102	6.5259	17.862	7.1866	9.0849	9.9795	6.9025

Elem	SE/1	SE/2	TL
Avge	5.8622	5.5558	4.8641
SDev	.0173	.0642	.0227
%RSD	.29550	1.1561	.46705

#1	5.8500	5.6012	4.8802
#2	5.8745	5.5103	4.8481

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17309	--	--	--	--	--	--
SDev	17.60585	--	--	--	--	--	--
%RSD	.1017141	--	--	--	--	--	--

#1	17297	--	--	--	--	--	--
#2	17322	--	--	--	--	--	--

Method: METTRA Standard: STD7
Run Time: 07/01/00 15:28:35

004-0879

663 1060

Elem	AL	BA	BE	CA	CO	CR	CU
Avge	7.2109	12.659	13.962	5.8826	3.8784	14.788	3.1927
SDev	.0158	.031	.003	.0084	.0021	.013	.0031
%RSD	.21856	.24641	.01816	.14240	.05443	.08854	.09694
#1	7.2220	12.681	13.964	5.8885	3.8799	14.797	3.1949
#2	7.1997	12.637	13.961	5.8767	3.8769	14.779	3.1905
Elem	FE	MG	MN	MO	NI	V	ZN
Avge	4.7813	15.820	12.000	2.6915	3.0816	.94874	3.6599
SDev	.0034	.020	.018	.0096	.0020	.00223	.0019
%RSD	.07079	.12468	.14608	.35832	.06336	.23537	.05285
#1	4.7837	15.834	12.013	2.6847	3.0802	.95032	3.6612
#2	4.7789	15.806	11.988	2.6983	3.0830	.94716	3.6585
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17175	--	--	--	--	--	--
SDev	18.45521	--	--	--	--	--	--
%RSD	.1074549	--	--	--	--	--	--
#1	17188	--	--	--	--	--	--
#2	17162	--	--	--	--	--	--

Method: METTRAO

Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD6	STD1	.179962	.000149	07/01/00 03:28:35
AL	308.215	STD7	STD1	6.98962	-.269173	07/01/00 03:28:35
AS	189.042	STD6	STD1	.152871	.001625	07/01/00 03:28:35
BA	493.409	STD7	STD1	.316002	-.000161	07/01/00 03:28:35
BE	313.042	STD7	STD1	.282872	.017225	07/01/00 03:28:35
CA	317.933	STD7	STD1	17.0139	-.085785	07/01/00 03:28:35
CD	226.502	STD6	STD1	.055871	-.000135	07/01/00 03:28:35
CO	228.616	STD7	STD1	1.03113	.000908	07/01/00 03:28:35
CR	267.716	STD7	STD1	.270345	.000104	07/01/00 03:28:35
CU	324.753	STD7	STD1	1.26092	-.025747	07/01/00 03:28:35
FE	271.441	STD7	STD1	10.5302	.007643	07/01/00 03:28:35
MG	279.078	STD7	STD1	6.32070	.005132	07/01/00 03:28:35
MN	257.610	STD7	STD1	.333366	-.000512	07/01/00 03:28:35
MO	202.030	STD7	STD1	1.48664	-.001293	07/01/00 03:28:35
NI	231.604	STD7	STD1	1.29757	-.001284	07/01/00 03:28:35
PB/1	220.351	STD6	STD1	.139276	-.001932	07/01/00 03:28:35
PB/2	220.352	STD6	STD1	.109462	.000988	07/01/00 03:28:35
PB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SB/1	206.831	STD6	STD1	.098812	.005016	07/01/00 03:28:35
SB/2	206.832	STD6	STD1	.144579	-.000174	07/01/00 03:28:35
SB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SE/1	196.021	STD6	STD1	.167353	.018944	07/01/00 03:28:35
SE/2	196.022	STD6	STD1	.182673	-.014888	07/01/00 03:28:35
SE	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
TL	190.864	STD6	STD1	.407723	.016789	07/01/00 03:28:35
V	292.402	STD7	STD1	4.19810	-.000369	07/01/00 03:28:35
ZN	213.856	STD7	STD1	1.10002	-.001322	07/01/00 03:28:35

Analysis Report

Edmund Faust
EMF 7-1-00

07/01/00 15:36:21 PM

663 1062

page 1

Method: METTRA Sample Name: ICV3-1 0014-146-5 Operator: EMF
 Run Time: 07/01/00 15:32:16
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49587	11.726	.25323	.98398	.98759	25.051	.24492
SDev	.00715	.187	.00411	.03106	.04990	1.149	.00520
%RSD	1.4418	1.5951	1.6228	3.1571	5.0526	4.5882	2.1217
#1	.50092	11.858	.25614	1.0059	1.0229	25.864	.24860
#2	.49081	11.594	.25033	.96202	.95231	24.239	.24125
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	13.750	.27500	1.1000	1.1000	27.500	.27500
Low	.45000	11.250	.22500	.90000	.90000	22.500	.22500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99156	.99586	.95798	12.330	24.112	.97016	1.0018
SDev	.00764	.01051	.02480	.309	.880	.01836	.0018
%RSD	.77101	1.0554	2.5885	2.5074	3.6509	1.8929	.17945
#1	.99697	1.0033	.97551	12.549	24.734	.98314	1.0031
#2	.98616	.98843	.94045	12.111	23.489	.95717	1.0005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	13.750	27.500	1.1000	1.1000
Low	.90000	.90000	.90000	11.250	22.500	.90000	.90000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0214	.25049	.24628	.24768	.25594	.24869	.25111
SDev	.0581	.00022	.00673	.00456	.01082	.00054	.00396
%RSD	5.6918	.08981	2.7313	1.8417	4.2271	.21703	1.5781
#1	1.0625	.25065	.25103	.25091	.26360	.24907	.25391
#2	.98027	.25034	.24152	.24446	.24829	.24831	.24830
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	1.1000			.27500			.27500
Low	.90000			.22500			.22500
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.25771	.25533	.25613	.50460	.99714	1.0155	
SDev	.00214	.01221	.00885	.02223	.04294	.0335	
%RSD	.82889	4.7805	3.4565	4.4050	4.3067	3.2999	
#1	.25922	.26397	.26238	.52032	1.0275	1.0392	
#2	.25620	.24670	.24987	.48888	.96677	.99178	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.27500	.55000	1.1000	1.1000	
Low			.22500	.45000	.90000	.90000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17656	--	--	--	--	--	--
SDev	2.298097	--	--	--	--	--	--
%RSD	.0130163	--	--	--	--	--	--
#1	17654	--	--	--	--	--	--
#2	17657	--	--	--	--	--	--

Method: METTRA Sample Name: ICB1 663 1064 Operator: EMF
 Run Time: 07/01/00 15:36:25
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00048	-.02128	.00153	.00058	.00085	.02115	.00004
SDev	.00005	.00153	.00106	.00034	.00039	.00937	.00013
%RSD	9.3581	7.1966	69.011	58.264	45.505	44.288	308.48
#1	.00045	-.02237	.00079	.00034	.00058	.01453	-.00005
#2	.00051	-.02020	.00228	.00082	.00112	.02777	.00014
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	.00064	.00170	.00546	.01375	.00060	.00495
SDev	.00040	.00056	.00047	.00728	.01116	.00045	.00029
%RSD	70.852	86.932	27.509	133.17	81.131	75.768	5.7875
#1	.00028	.00025	.00137	.00032	.00586	.00028	.00515
#2	.00085	.00103	.00203	.01061	.02164	.00092	.00475
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00090	.00095	.00071	.00079	.00047	.00358	.00254
SDev	.00011	.00080	.00165	.00083	.00189	.00123	.00019
%RSD	12.588	84.630	233.93	105.89	403.78	34.402	7.5294
#1	.00082	.00152	-.00046	.00020	.00180	.00271	.00241
#2	.00098	.00038	.00187	.00138	-.00087	.00444	.00268
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00471	-.00344	-.00073	-.00239	.00110	.00141	
SDev	.00266	.00084	.00145	.00510	.00207	.00055	
%RSD	56.458	24.394	198.51	213.48	189.01	38.704	
#1	.00659	-.00285	.00029	-.00600	-.00037	.00103	
#2	.00283	-.00404	-.00175	.00122	.00256	.00180	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17265	--	--	--	--	--	--
SDev	49.78059	--	--	--	--	--	--
%RSD	.2883316	--	--	--	--	--	--
#1	17300	--	--	--	--	--	--
#2	17230	--	--	--	--	--	--

Method: METTRA Sample Name: ICSA 0014-129-1170 Operator: EMF
 Run Time: 07/01/00 15:40:35
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1066
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	525.13	.00173	.00185	-.00046	491.40	-.00366
SDev	.00009	3.07	.00197	.00006	.00018	5.37	.00004
%RSD	20.441	.58554	113.86	3.1499	39.159	1.0936	.97287
#1	.00049	527.31	.00313	.00189	-.00058	495.20	-.00369
#2	.00037	522.96	.00034	.00181	-.00033	487.60	-.00364
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value		500.00				500.00	
Range		20.000				20.000	
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00285	.00261	202.62	523.49	.00830	-.00124
SDev	.00005	.00022	.00008	1.64	5.51	.00018	.00083
%RSD	23.353	7.7975	3.0459	.81017	1.0533	2.1347	66.989
#1	.00018	.00301	.00256	203.78	527.39	.00842	-.00065
#2	.00025	.00269	.00267	201.45	519.59	.00817	-.00183
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value				200.00	500.00		
Range				20.000	20.000		
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00216	.05004	-.03108	-.00407	.00915	-.00133	.00216
SDev	.00053	.00431	.00456	.00161	.00687	.00472	.00086
%RSD	24.693	8.6071	14.681	39.560	75.107	354.65	40.035
#1	.00254	.04699	-.02785	-.00293	.01401	-.00467	.00155
#2	.00178	.05308	-.03431	-.00521	.00429	.00201	.00277
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.00110	.00038	-.00011	.00217	.00768	-.00214	
SDev	.00824	.00823	.00274	.00297	.00003	.00007	
%RSD	747.84	2169.2	2409.4	137.20	.36888	3.0551	
#1	-.00693	.00620	.00183	.00427	.00770	-.00219	
#2	.00473	-.00544	-.00205	.00006	.00766	-.00209	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	
Value							
Range							

663 1067

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16405	--	--	--	--	--	--
SDev	142.5524	--	--	--	--	--	--
%RSD	.8689680	--	--	--	--	--	--
#1	16304	--	--	--	--	--	--
#2	16506	--	--	--	--	--	--

Method: METTRA

Sample Name: ICSAB 0014-136²³

Operator: EMF

Run Time: 07/01/00 15:44:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1068

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0889	521.39	1.0130	.52264	.48586	489.90	.91788
SDev	.0000	.26	.0022	.00106	.00154	1.52	.00096
%RSD	.00020	.04908	.21650	.20325	.31802	.31032	.10434
#1	1.0889	521.21	1.0114	.52340	.48695	490.98	.91721
#2	1.0889	521.57	1.0145	.52189	.48476	488.83	.91856
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	.50000	.50000	500.00	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48662	.49972	.54067	202.57	514.43	.50077	.98003
SDev	.00057	.00068	.00034	.17	.89	.00022	.00467
%RSD	.11715	.13704	.06198	.08425	.17357	.04366	.47632
#1	.48622	.49924	.54043	202.45	515.06	.50093	.97673
#2	.48703	.50021	.54091	202.69	513.80	.50062	.98333
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	.50000	.50000	200.00	500.00	.50000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97406	1.0483	.92802	.96807	1.0350	1.0288	1.0308
SDev	.00227	.0022	.00013	.00066	.0022	.0036	.0031
%RSD	.23280	.21243	.01347	.06799	.21251	.34512	.30078
#1	.97567	1.0467	.92811	.96761	1.0334	1.0263	1.0286
#2	.97246	1.0499	.92793	.96854	1.0365	1.0313	1.0330
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	1.0000			1.0000			1.0000
Range	20.000			20.000			20.000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.0077	1.0335	1.0249	1.0196	.51006	1.0311	
SDev	.0004	.0030	.0021	.0039	.00123	.0005	
%RSD	.04457	.28833	.20852	.38289	.24052	.04613	
#1	1.0074	1.0314	1.0234	1.0169	.51093	1.0314	
#2	1.0080	1.0356	1.0264	1.0224	.50919	1.0307	
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	
Value			1.0000	1.0000	.50000	1.0000	
Range			20.000	20.000	20.000	20.000	

663 1069

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16460	--	--	--	--	--	--
SDev	86.86917	--	--	--	--	--	--
%RSD	.5277584	--	--	--	--	--	--
#1	16521	--	--	--	--	--	--
#2	16399	--	--	--	--	--	--

Analysis Report

07/01/00 03:52:59 PM

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Method: METTRA Sample Name: DFGH2B

Operator: EMF

Run Time: 07/01/00 15:48:53

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1070

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.07085	.00207	.00036	.00057	.15450	.00014
SDev	.00040	.05339	.00111	.00006	.00005	.06633	.00003
%RSD	546.48	75.364	53.423	17.957	7.8808	42.932	19.910
#1	-.00021	.03309	.00129	.00032	.00060	.10760	.00012
#2	.00035	.10860	.00285	.00041	.00054	.20140	.00017
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00041	.00264	.05025	.10632	.00009	.00243
SDev	.00035	.00038	.00047	.02551	.06131	.00020	.00047
%RSD	489.72	94.161	17.962	50.757	57.667	235.67	19.330
#1	-.00018	.00014	.00231	.03222	.06296	-.00006	.00276
#2	.00032	.00068	.00298	.06829	.14967	.00023	.00210
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00121	-.00151	.00197	.00081	.00440	.00087	.00205
SDev	.00010	.00103	.00093	.00028	.00162	.00025	.00071
%RSD	8.6005	68.188	47.064	34.035	36.766	28.540	34.424
#1	-.00114	-.00223	.00263	.00101	.00554	.00105	.00255
#2	-.00128	-.00078	.00132	.00062	.00325	.00070	.00155
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00701	-.00550	-.00133	.00405	.00120	.00211	
SDev	.00159	.00179	.00172	.00108	.00221	.00047	
%RSD	22.698	32.477	129.19	26.773	183.37	22.339	
#1	.00814	-.00424	-.00012	.00328	-.00036	.00177	
#2	.00589	-.00676	-.00255	.00481	.00277	.00244	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1071

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17566	--	--	--	--	--	--
SDev	42.49684	--	--	--	--	--	--
%RSD	.2419260	--	--	--	--	--	--
#1	17596	--	--	--	--	--	--
#2	17536	--	--	--	--	--	--

Analysis Report

07/01/00 03:57:08 PM

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Method: METTRA Sample Name: DFGH2C

Operator: EMF

Run Time: 07/01/00 15:53:02

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1072

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05133	2.1540	2.1351	2.0569	.05221	52.199	.05071
SDev	.00024	.0351	.0024	.0013	.00049	.215	.00004
%RSD	.46762	1.6298	.11030	.06123	.94255	.41235	.08042
#1	.05116	2.1292	2.1367	2.0578	.05256	52.351	.05074
#2	.05150	2.1788	2.1334	2.0560	.05186	52.047	.05068
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52183	.20806	.25762	.97494	51.054	.51247	1.0350
SDev	.00020	.00049	.00119	.01628	.108	.00002	.0098
%RSD	.03794	.23770	.46299	1.6702	.21117	.00475	.95132
#1	.52169	.20771	.25677	.96343	51.130	.51245	1.0281
#2	.52197	.20841	.25846	.98646	50.977	.51249	1.0420
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52205	.51921	.51024	.51323	.51638	.51862	.51787
SDev	.00253	.00041	.00621	.00428	.00342	.00269	.00294
%RSD	.48462	.07965	1.2175	.83421	.66305	.51932	.56704
#1	.52384	.51892	.50585	.51020	.51396	.51671	.51580
#2	.52026	.51950	.51463	.51625	.51880	.52052	.51995
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	2.1953	2.1787	2.1842	2.1422	.51418	.54276	
SDev	.0113	.0381	.0292	.0006	.00284	.00038	
%RSD	.51453	1.7501	1.3366	.02662	.55237	.07080	
#1	2.1873	2.1518	2.1636	2.1426	.51619	.54303	
#2	2.2032	2.2057	2.2049	2.1418	.51217	.54249	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

663 1073

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17067	--	--	--	--	--	--
SDev	19.40953	--	--	--	--	--	--
%RSD	.1137236	--	--	--	--	--	--
#1	17054	--	--	--	--	--	--
#2	17081	--	--	--	--	--	--

Method: METTRA Sample Name: DETV5

Operator: EMF

Run Time: 07/01/00 15:57:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1074

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00045	.00268	.00632	.09488	.00023	125.46	-.00010
SDev	.00036	.01297	.00026	.00095	.00016	1.19	.00016
%RSD	81.375	484.51	4.1123	1.0040	67.912	.94518	154.96
#1	.00019	-.00649	.00651	.09421	.00034	124.62	-.00021
#2	.00071	.01185	.00614	.09555	.00012	126.30	.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00106	.00071	.00550	-.05188	27.087	.02647	.00420
SDev	.00063	.00031	.00084	.00881	.301	.00037	.00015
%RSD	59.691	43.390	15.331	16.988	1.1109	1.4009	3.6549
#1	.00061	.00049	.00490	-.05811	26.874	.02621	.00431
#2	.00151	.00093	.00609	-.04565	27.300	.02674	.00409
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00464	.00248	-.00134	-.00007	-.00134	.00064	-.00002
SDev	.00147	.00116	.00164	.00071	.00237	.00003	.00077
%RSD	31.724	46.954	122.46	1039.1	177.45	5.0296	4546.9
#1	.00360	.00330	-.00250	-.00057	-.00301	.00066	-.00056
#2	.00569	.00165	-.00018	.00043	.00034	.00062	.00053
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01077	-.00243	.00197	.00436	.00410	.01633	
SDev	.00103	.00141	.00128	.00032	.00059	.00044	
%RSD	9.6033	57.944	65.104	7.3552	14.390	2.6736	
#1	.01004	-.00342	.00106	.00459	.00368	.01602	
#2	.01151	-.00143	.00288	.00413	.00452	.01664	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1075

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17327	--	--	--	--	--	--
SDev	281.8166	--	--	--	--	--	--
%RSD	1.626415	--	--	--	--	--	--
#1	17527	--	--	--	--	--	--
#2	17128	--	--	--	--	--	--

Method: METTRA Sample Name: DETVR

Operator: EMF

Run Time: 07/01/00 16:01:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1076

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	-.00283	.00694	.09060	.00057	122.50	-.00014
SDev	.00014	.00183	.00109	.00068	.00004	.91	.00015
%RSD	328.76	64.620	15.721	.74525	6.8985	.74471	105.37
#1	.00006	-.00154	.00772	.09107	.00054	123.14	-.00025
#2	-.00014	-.00413	.00617	.09012	.00059	121.85	-.00004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.00039	.00431	-.05950	26.457	.02072	.00156
SDev	.00033	.00002	.00030	.00222	.166	.00010	.00047
%RSD	48.682	5.6251	6.9509	3.7340	.62804	.49971	30.127
#1	.00091	.00041	.00410	-.06108	26.575	.02079	.00123
#2	.00044	.00038	.00452	-.05793	26.340	.02064	.00189
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00373	-.00107	.00119	.00044	.00248	.00026	.00100
SDev	.00006	.00099	.00074	.00017	.00131	.00003	.00046
%RSD	1.6273	92.463	62.444	38.065	52.764	11.722	45.552
#1	.00378	-.00177	.00172	.00056	.00340	.00029	.00132
#2	.00369	-.00037	.00067	.00032	.00155	.00024	.00068
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00590	-.00491	-.00131	-.00137	.00257	.01764	
SDev	.00010	.00009	.00003	.00099	.00151	.00117	
%RSD	1.7517	1.8247	1.9342	72.533	58.762	6.6527	
#1	.00583	-.00484	-.00129	-.00207	.00364	.01681	
#2	.00597	-.00497	-.00133	-.00067	.00150	.01847	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1077

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17723	--	--	--	--	--	--
SDev	30.90001	--	--	--	--	--	--
%RSD	.1743542	--	--	--	--	--	--
#1	17701	--	--	--	--	--	--
#2	17744	--	--	--	--	--	--

Method: METTRA Sample Name: DETVRP5

Operator: EMF

Run Time: 07/01/00 16:05:28

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00025	-.00621	.00281	.01815	.00037	24.693	-.00009
SDev	.00001	.00591	.00023	.00030	.00011	.139	.00008
%RSD	2.6873	95.131	8.2028	1.6264	29.361	.56335	82.455
#1	.00025	-.00203	.00297	.01794	.00044	24.594	-.00015
#2	.00024	-.01039	.00264	.01836	.00029	24.791	-.00004
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	.00025	.00087	-.01564	5.2453	.00452	.00099
SDev	.00045	.00006	.00022	.00146	.0363	.00006	.00106
%RSD	1470.0	21.957	25.515	9.3353	.69160	1.3053	107.40
#1	-.00035	.00021	.00071	-.01461	5.2196	.00448	.00174
#2	.00029	.00029	.00102	-.01668	5.2709	.00456	.00024
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00082	.00132	-.00013	.00035	-.00138	.00249	.00120
SDev	.00088	.00174	.00036	.00082	.00436	.00061	.00186
%RSD	106.67	132.31	271.98	235.00	315.63	24.492	154.41
#1	.00144	.00008	-.00039	-.00023	.00170	.00292	.00252
#2	.00020	.00255	.00012	.00093	-.00446	.00206	-.00011
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00536	-.00359	-.00061	.00147	-.00037	.00297	
SDev	.00142	.00431	.00335	.00010	.00000	.00008	
%RSD	26.529	120.11	551.43	6.7068	.13629	2.5568	
#1	.00436	-.00664	-.00298	.00140	-.00037	.00291	
#2	.00637	-.00054	.00176	.00153	-.00037	.00302	

663 1079

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17555	--	--	--	--	--	--
SDev	112.1469	--	--	--	--	--	--
%RSD	.6388332	--	--	--	--	--	--
#1	17634	--	--	--	--	--	--
#2	17476	--	--	--	--	--	--

Analysis Report

07/01/00 04:13:42 PM

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Method: METTRA Sample Name: DETVRS

Operator: EMF

Run Time: 07/01/00 16:09:37

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1080

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04996	2.0863	2.0549	2.0678	.05007	.176.33	.04763
SDev	.00015	.0125	.0102	.0109	.00028	1.18	.00035
%RSD	.29467	.60047	.49741	.52557	.54920	.66729	.72725
#1	.05007	2.0952	2.0621	2.0755	.05026	177.16	.04788
#2	.04986	2.0775	2.0477	2.0601	.04987	175.50	.04739
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49356	.19963	.25263	.91857	77.470	.51129	.99155
SDev	.00045	.00126	.00124	.00926	.442	.00246	.00136
%RSD	.09057	.63338	.49026	1.0078	.57021	.48153	.13749
#1	.49388	.20052	.25350	.91202	77.783	.51303	.99059
#2	.49324	.19873	.25175	.92511	77.158	.50955	.99251
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49729	.49570	.49100	.49257	.50680	.49961	.50201
SDev	.00421	.00513	.00147	.00269	.00108	.00241	.00196
%RSD	.84579	1.0351	.29929	.54587	.21277	.48139	.39109
#1	.50026	.49933	.49204	.49447	.50757	.50131	.50340
#2	.49432	.49208	.48996	.49067	.50604	.49791	.50062
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0865	2.1176	2.1072	2.0586	.49352	.53380	
SDev	.0187	.0099	.0129	.0169	.00421	.00208	
%RSD	.89681	.46945	.61036	.81884	.85320	.38922	
#1	2.0997	2.1246	2.1163	2.0705	.49649	.53526	
#2	2.0732	2.1105	2.0981	2.0467	.49054	.53233	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1081

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17488	--	--	--	--	--	--
SDev	7.071068	--	--	--	--	--	--
%RSD	.0404346	--	--	--	--	--	--
#1	17493	--	--	--	--	--	--
#2	17483	--	--	--	--	--	--

Method: METTRA Sample Name: DETVRD

Operator: EMF

Run Time: 07/01/00 16:13:45

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1082

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05065	2.1107	2.0765	2.0828	.05055	177.79	.04803
SDev	.00053	.0126	.0071	.0091	.00004	.67	.00062
%RSD	1.0423	.59908	.34110	.43796	.07686	.37826	1.2822
#1	.05028	2.1017	2.0715	2.0764	.05057	177.32	.04759
#2	.05102	2.1196	2.0815	2.0893	.05052	178.27	.04846
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49874	.20082	.25591	.89316	78.256	.52701	1.0017
SDev	.00354	.00136	.00076	.01968	.327	.00267	.0117
%RSD	.71048	.67716	.29860	2.2030	.41724	.50688	1.1730
#1	.49624	.19986	.25537	.87925	78.025	.52512	.99336
#2	.50125	.20178	.25645	.90707	78.487	.52890	1.0100
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50109	.50901	.49380	.49886	.51088	.51223	.51178
SDev	.00069	.00496	.00468	.00477	.00472	.00513	.00499
%RSD	.13748	.97395	.94743	.95644	.92344	1.0010	.97524
#1	.50060	.50550	.49049	.49549	.50755	.50860	.50825
#2	.50158	.51251	.49711	.50224	.51422	.51585	.51531
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.1415	2.1438	2.1431	2.0762	.49735	.53708	
SDev	.0171	.0216	.0201	.0095	.00109	.00267	
%RSD	.79639	1.0090	.93827	.45532	.21918	.49645	
#1	2.1295	2.1285	2.1288	2.0695	.49658	.53520	
#2	2.1536	2.1591	2.1573	2.0829	.49812	.53897	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1083

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17306	--	--	--	--	--	--
SDev	67.52869	--	--	--	--	--	--
%RSD	.3901961	--	--	--	--	--	--
#1	17354	--	--	--	--	--	--
#2	17259	--	--	--	--	--	--

Analysis Report

07/01/00 04:21:59 PM

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Method: METTRA Sample Name: DETVW

Operator: EMF

Run Time: 07/01/00 16:17:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1084

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00032	.00158	.00261	.00123	.00064	.11703	.00003
SDev	.00024	.00325	.00063	.00030	.00002	.02711	.00012
%RSD	73.897	205.34	24.218	24.728	3.2410	23.161	337.31
#1	-.00049	.00388	.00217	.00101	.00065	.09787	-.00005
#2	-.00015	-.00071	.00306	.00144	.00063	.13620	.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00045	.41258	.00468	.03349	.00039	.00396
SDev	.00051	.00007	.00388	.00331	.01095	.00017	.00084
%RSD	365.79	14.442	.94107	70.671	32.711	42.894	21.208
#1	-.00022	.00050	.41532	.00234	.02574	.00028	.00456
#2	.00050	.00041	.40983	.00702	.04123	.00051	.00337
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00993	.00831	.01097	.01009	.00088	.00026	.00047
SDev	.00034	.00122	.00057	.00002	.00109	.00171	.00078
%RSD	3.4248	14.694	5.2351	.23395	123.60	656.73	166.37
#1	.01017	.00918	.01057	.01010	.00011	.00147	.00102
#2	.00969	.00745	.01138	.01007	.00165	-.00095	-.00008
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00940	-.00267	.00135	.00608	.00010	.12355	
SDev	.00331	.00058	.00072	.00427	.00000	.00083	
%RSD	35.267	21.570	53.419	70.212	.16159	.67165	
#1	.00705	-.00227	.00084	.00306	.00010	.12414	
#2	.01174	-.00308	.00185	.00910	.00010	.12297	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1085

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17823	--	--	--	--	--	--
SDev	50.06371	--	--	--	--	--	--
%RSD	.2808978	--	--	--	--	--	--
#1	17787	--	--	--	--	--	--
#2	17858	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-1 0014-155-3 Operator: EMF

Run Time: 07/01/00 16:22:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1086

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0331	24.342	.51726	2.0036	2.0549	51.199	.49885
SDev	.0003	.034	.00128	.0038	.0032	.124	.00072
%RSD	.03024	.13902	.24743	.18924	.15660	.24224	.14541
#1	1.0334	24.366	.51816	2.0063	2.0572	51.286	.49833
#2	1.0329	24.318	.51635	2.0010	2.0526	51.111	.49936
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0454	2.0425	1.9836	25.548	50.388	2.0157	2.0479
SDev	.0008	.0016	.0027	.004	.068	.0007	.0137
%RSD	.04067	.07865	.13541	.01747	.13459	.03489	.66806
#1	2.0448	2.0413	1.9855	25.545	50.436	2.0162	2.0383
#2	2.0460	2.0436	1.9817	25.551	50.340	2.0152	2.0576
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0416	.51922	.50804	.51176	.52794	.51350	.51831
SDev	.0042	.00010	.00481	.00317	.00489	.00179	.00282
%RSD	.20714	.01904	.94586	.61987	.92559	.34922	.54471
#1	2.0446	.51915	.51144	.51401	.53139	.51477	.52030
#2	2.0386	.51929	.50464	.50952	.52448	.51223	.51631
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.52675	.52923	.52840	1.0338	2.0364	2.0546	
SDev	.00253	.00800	.00449	.0016	.0055	.0015	
%RSD	.47984	1.5108	.84999	.15723	.27058	.07308	
#1	.52496	.53488	.53158	1.0349	2.0403	2.0556	
#2	.52854	.52357	.52523	1.0326	2.0325	2.0535	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

663 1087

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17270	--	--	--	--	--	--
SDev	20.39975	--	--	--	--	--	--
%RSD	.1181220	--	--	--	--	--	--
#1	17284	--	--	--	--	--	--
#2	17256	--	--	--	--	--	--

Analysis Report

07/01/00 04:30:17 PM

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Method: METTRA Sample Name: CCB1

Operator: EMF

Run Time: 07/01/00 16:26:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1088

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00063	.01166	.00155	.00057	.00076	.03380	.00001
SDev	.00041	.00682	.00045	.00026	.00013	.00846	.00021
%RSD	64.744	58.493	28.957	45.612	17.333	25.034	2008.5
#1	.00034	.00684	.00123	.00039	.00085	.02782	-.00014
#2	.00092	.01648	.00187	.00076	.00066	.03978	.00016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.00063	.00009	.00639	.01594	.00043	.00618
SDev	.00010	.00003	.00052	.00425	.00275	.00017	.00135
%RSD	55.885	5.3701	566.19	66.579	17.250	38.680	21.869
#1	.00024	.00065	-.00028	.00940	.01400	.00031	.00713
#2	.00011	.00060	.00046	.00338	.01789	.00055	.00522
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00033	.00070	.00058	.00104	.00073	.00083
SDev	.00013	.00236	.00067	.00123	.00106	.00144	.00132
%RSD	162.01	711.51	94.881	212.42	102.37	196.95	157.80
#1	.00017	-.00134	.00023	-.00029	.00179	.00175	.00176
#2	-.00001	.00200	.00118	.00145	.00029	-.00029	-.00010
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00452	-.00171	.00036	.00256	.00071	.00184	
SDev	.00215	.00027	.00090	.00537	.00053	.00042	
%RSD	47.584	15.992	248.54	209.81	73.736	22.607	
#1	.00300	-.00191	-.00027	-.00124	.00034	.00155	
#2	.00604	-.00152	.00100	.00635	.00108	.00213	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17583	--	--	--	--	--	--
SDev	338.6682	--	--	--	--	--	--
%RSD	1.926125	--	--	--	--	--	--
#1	17822	--	--	--	--	--	--
#2	17343	--	--	--	--	--	--

Method: METTRA Sample Name: DETX2

Operator: EMF

Run Time: 07/01/00 16:30:21

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.02018	.00107	.00097	.00047	.10298	-.00008
SDev	.00015	.00367	.00052	.00012	.00016	.00130	.00008
%RSD	33.906	18.191	48.367	12.236	33.666	1.2597	96.749
#1	.00056	.02278	.00144	.00105	.00036	.10206	-.00014
#2	.00034	.01758	.00071	.00089	.00058	.10390	-.00003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.00095	.10245	.00551	.01607	.00031	.00153
SDev	.00016	.00006	.00086	.00552	.00122	.00001	.00043
%RSD	42.853	6.4963	.84360	100.14	7.6212	3.2494	27.955
#1	.00050	.00090	.10306	.00161	.01520	.00030	.00184
#2	.00027	.00099	.10184	.00941	.01694	.00032	.00123
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.00452	.00513	.00493	.00044	.00170	.00128
SDev	.00105	.00078	.00119	.00053	.00046	.00073	.00064
%RSD	309.38	17.228	23.206	10.850	103.50	42.622	49.595
#1	.00108	.00507	.00429	.00455	.00076	.00222	.00173
#2	-.00040	.00397	.00597	.00531	.00012	.00119	.00083
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.01257	-.00427	.00134	.00309	.00035	.01174	
SDev	.00072	.00011	.00032	.00664	.00000	.00011	
%RSD	5.7089	2.6583	23.485	214.55	.26368	.90811	
#1	.01206	-.00435	.00112	.00779	.00035	.01166	
#2	.01307	-.00419	.00156	-.00160	.00035	.01181	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17621	--	--	--	--	--	--
SDev	70.10992	--	--	--	--	--	--
%RSD	.3978832	--	--	--	--	--	--
#1	17571	--	--	--	--	--	--
#2	17670	--	--	--	--	--	--

Method: METTRA Sample Name: DETX5

Operator: EMF

Run Time: 07/01/00 16:34:30

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.04839	.00515	.00777	.00032	27.609	-.00008
SDev	.00042	.00001	.00077	.00001	.00023	.057	.00010
%RSD	69.869	.02943	14.940	.08797	74.550	.20533	126.05
#1	.00030	.04838	.00569	.00777	.00048	27.649	-.00015
#2	.00089	.04840	.00460	.00776	.00015	27.569	-.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.00081	.36373	1.2111	9.1962	.05350	.00105
SDev	.00023	.00001	.00025	.0045	.0103	.00020	.00056
%RSD	32.287	.70071	.06966	.37549	.11192	.37396	53.245
#1	.00088	.00081	.36355	1.2143	9.2034	.05336	.00065
#2	.00055	.00080	.36391	1.2079	9.1889	.05364	.00144
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.48602	.47623	.47949	.00119	-.00051	.00006
SDev	.00027	.00598	.00881	.00787	.00609	.00047	.00234
%RSD	96.374	1.2300	1.8508	1.6413	512.37	91.122	4203.3
#1	-.00047	.48179	.47000	.47392	.00550	-.00018	.00171
#2	-.00009	.49025	.48246	.48505	-.00312	-.00084	-.00160
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00599	-.00368	-.00046	.00342	.00090	.21201	
SDev	.00156	.00448	.00247	.00069	.00017	.00018	
%RSD	26.015	121.87	538.68	20.341	19.465	.08356	
#1	.00489	-.00051	.00129	.00292	.00077	.21213	
#2	.00709	-.00685	-.00221	.00391	.00102	.21188	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1093

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17474	--	--	--	--	--	--
SDev	125.8291	--	--	--	--	--	--
%RSD	.7200881	--	--	--	--	--	--
#1	17563	--	--	--	--	--	--
#2	17385	--	--	--	--	--	--

Method: METTRA

Sample Name: DETXL

Operator: EMF

Run Time: 07/01/00 16:38:40

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00046	.02025	.00077	.01596	.00049	8.6946	.00006
SDev	.00026	.00172	.00211	.00007	.00007	.0204	.00001
%RSD	57.479	8.5078	274.64	.44331	14.411	.23519	10.741
#1	.00064	.02146	.00226	.01591	.00054	8.6802	.00006
#2	.00027	.01903	-.00072	.01601	.00044	8.7091	.00006
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	.00080	.19135	-.02105	5.8194	.01950	.00117
SDev	.00021	.00009	.00071	.01559	.0143	.00003	.00054
%RSD	164.38	11.190	.36901	74.064	.24501	.16347	46.633
#1	.00027	.00074	.19085	-.01002	5.8094	.01948	.00078
#2	-.00002	.00087	.19185	-.03207	5.8295	.01952	.00155
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00108	.00547	.00539	.00542	.00153	.00291	.00245
SDev	.00004	.00210	.00013	.00078	.00061	.00084	.00036
%RSD	3.5593	38.305	2.4012	14.477	39.886	28.909	14.611
#1	.00111	.00399	.00530	.00487	.00196	.00231	.00220
#2	.00105	.00696	.00548	.00598	.00110	.00350	.00270
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00985	-.00190	.00201	.00312	.00268	.02557	
SDev	.00419	.00171	.00026	.00024	.00001	.00009	
%RSD	42.501	89.701	12.733	7.6052	.43041	.34441	
#1	.00689	-.00070	.00183	.00329	.00267	.02563	
#2	.01281	-.00311	.00219	.00296	.00269	.02551	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1095

663 1095

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17843	--	--	--	--	--	--
SDev	99.10129	--	--	--	--	--	--
%RSD	.5554203	--	--	--	--	--	--
#1	17913	--	--	--	--	--	--
#2	17772	--	--	--	--	--	--

Method: METTRA

Sample Name: DETXT

Operator: EMF

Run Time: 07/01/00 16:42:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.02344	.00119	.02356	.00043	24.122	.00003
SDev	.00004	.00094	.00073	.00024	.00014	.135	.00015
%RSD	13.593	4.0197	61.338	1.0374	31.510	.55940	560.39
#1	.00028	.02410	.00067	.02373	.00033	24.218	.00013
#2	.00034	.02277	.00170	.02338	.00053	24.027	-.00008
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00059	.07443	-.05911	27.116	.00036	.00076
SDev	.00037	.00011	.00030	.00653	.137	.00001	.00019
%RSD	245.13	18.555	.39704	11.052	.50654	2.6616	24.555
#1	-.00011	.00067	.07463	-.06373	27.213	.00035	.00089
#2	.00042	.00051	.07422	-.05449	27.018	.00037	.00063
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.00019	.00214	.00149	.00126	.00064	.00085
SDev	.00144	.00070	.00007	.00019	.00278	.00087	.00034
%RSD	448.73	360.99	3.1939	12.636	221.08	135.97	40.368
#1	-.00070	.00069	.00209	.00162	-.00071	.00126	.00061
#2	.00134	-.00030	.00219	.00136	.00322	.00002	.00109
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00701	-.00149	.00134	-.00015	.00127	.02430	
SDev	.00272	.00453	.00211	.00240	.00034	.00007	
%RSD	38.834	304.24	157.49	1599.7	26.772	.29017	
#1	.00509	.00171	.00284	.00154	.00151	.02435	
#2	.00894	-.00469	-.00015	-.00184	.00103	.02425	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1097

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17758	--	--	--	--	--	--
SDev	74.63567	--	--	--	--	--	--
%RSD	.4202950	--	--	--	--	--	--
#1	17705	--	--	--	--	--	--
#2	17811	--	--	--	--	--	--

Method: METTRA Sample Name: DEV06

Operator: EMF

Run Time: 07/01/00 16:46:58

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACE ICP **663 1098**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.02526	.00062	.00034	.00037	4.0537	.00006
SDev	.00004	.00606	.00091	.00001	.00014	.0041	.00004
%RSD	21.646	23.973	146.22	2.8577	39.362	.10097	76.396
#1	.00017	.02955	.00127	.00034	.00047	4.0566	.00009
#2	.00023	.02098	-.00002	.00033	.00026	4.0508	.00003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00052	.02095	.18239	3.4017	.00366	.00055
SDev	.00025	.00010	.00017	.01321	.0004	.00000	.00046
%RSD	93.289	18.101	.83264	7.2446	.01166	.05522	84.523
#1	.00045	.00059	.02082	.19173	3.4020	.00366	.00087
#2	.00009	.00046	.02107	.17305	3.4014	.00365	.00022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00110	.00276	.00498	.00424	.00153	-.00060	.00011
SDev	.00057	.00279	.00036	.00068	.00151	.00124	.00032
%RSD	51.478	101.18	7.3289	16.164	98.633	207.87	293.06
#1	-.00070	.00078	.00524	.00375	.00259	-.00147	-.00012
#2	-.00150	.00473	.00472	.00472	.00046	.00028	.00034
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00751	-.00294	.00054	.00044	-.00030	.36195	
SDev	.00318	.00152	.00005	.00198	.00000	.00052	
%RSD	42.429	51.664	8.6873	445.76	1.5128	.14415	
#1	.00525	-.00187	.00050	-.00096	-.00030	.36158	
#2	.00976	-.00402	.00057	.00185	-.00031	.36232	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1099

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17756	--	--	--	--	--	--
SDev	104.5096	--	--	--	--	--	--
%RSD	.5885972	--	--	--	--	--	--
#1	17830	--	--	--	--	--	--
#2	17682	--	--	--	--	--	--

663 1100

Method: METTRA Sample Name: DEV09

Operator: EMF

Run Time: 07/01/00 16:51:07

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.03119	.00174	.02657	.00025	23.262	-.00007
SDev	.00063	.00171	.00035	.00003	.00003	.008	.00008
%RSD	560.63	5.4808	20.296	.10038	13.911	.03469	115.33
#1	.00056	.03240	.00149	.02655	.00027	23.256	-.00001
#2	-.00033	.02998	.00199	.02658	.00023	23.268	-.00013
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.00032	1.3801	.36624	9.2216	.03021	.00044
SDev	.00025	.00026	.0051	.00300	.0143	.00015	.00007
%RSD	108.46	81.465	.36689	.81825	.15555	.50751	15.483
#1	-.00005	.00050	1.3765	.36836	9.2115	.03010	.00039
#2	-.00041	.00013	1.3837	.36412	9.2317	.03032	.00048
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00136	.17197	.17351	.17299	.00312	-.00017	.00093
SDev	.00165	.00324	.00357	.00130	.00174	.00080	.00111
%RSD	121.38	1.8809	2.0576	.75384	55.745	474.62	120.40
#1	.00253	.17425	.17098	.17207	.00189	-.00074	.00014
#2	.00019	.16968	.17603	.17392	.00435	.00040	.00171
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00648	-.00482	-.00106	.00127	.00047	.05545	
SDev	.00112	.00291	.00157	.00100	.00034	.00013	
%RSD	17.350	60.328	147.87	78.602	70.748	.24235	
#1	.00727	-.00688	-.00217	.00198	.00071	.05535	
#2	.00568	-.00277	.00005	.00057	.00024	.05554	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1101

07/01/00 04:55:13 PM

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17626	--	--	--	--	--	--
SDev	80.29253	--	--	--	--	--	--
%RSD	.4555275	--	--	--	--	--	--
#1	17683	--	--	--	--	--	--
#2	17570	--	--	--	--	--	--

Method: METTRA Sample Name: DEV0D

Operator: EMF

Run Time: 07/01/00 16:55:16

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00012	.03431	.00211	.02110	.00013	40.961	-.00005
SDev	.00027	.00583	.00092	.00016	.00003	.178	.00006
%RSD	216.29	16.997	43.869	.74174	20.576	.43562	113.76

#1	-.00007	.03844	.00276	.02121	.00015	41.087	-.00010
#2	.00031	.03019	.00145	.02099	.00011	40.835	-.00001

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00034	.00101	.06700	-.00940	7.2051	.00034	-.00011
SDev	.00056	.00030	.00014	.00606	.0211	.00003	.00072
%RSD	166.58	29.554	.21287	64.482	.29281	8.6127	682.03

#1	-.00006	.00080	.06710	-.00511	7.2200	.00032	-.00062
#2	.00073	.00122	.06690	-.01368	7.1901	.00036	.00040

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00138	.00117	.00146	.00136	-.00050	.00172	.00098
SDev	.00074	.00206	.00143	.00027	.00012	.00028	.00022
%RSD	53.685	175.98	97.811	19.478	23.432	16.181	22.940

#1	.00086	-.00029	.00247	.00155	-.00059	.00153	.00082
#2	.00190	.00263	.00045	.00118	-.00042	.00192	.00114

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00891	-.00406	.00026	.00004	.00071	.01925
SDev	.00120	.00102	.00028	.00139	.00051	.00045
%RSD	13.498	25.127	108.85	3440.4	72.120	2.3284

#1	.00806	-.00334	.00046	-.00094	.00035	.01957
#2	.00976	-.00478	.00006	.00102	.00107	.01893

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17548	--	--	--	--	--	--
SDev	54.72896	--	--	--	--	--	--
%RSD	.3118744	--	--	--	--	--	--
#1	17587	--	--	--	--	--	--
#2	17510	--	--	--	--	--	--

Method: METTRA Sample Name: DEV0J

Operator: EMF

Run Time: 07/01/00 16:59:26

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00017	.03433	.00160	.01268	.00010	56.231	-.00011
SDev	.00015	.00001	.00200	.00006	.00002	.011	.00027
%RSD	87.182	.03152	124.97	.45179	20.981	.02014	254.16

#1	.00007	.03434	.00019	.01264	.00012	56.223	-.00030
#2	.00028	.03432	.00302	.01272	.00009	56.239	.00008

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00020	.00051	.03940	-.01085	7.2423	.00171	-.00011
SDev	.00010	.00024	.00041	.00213	.0018	.00003	.00048
%RSD	53.199	47.476	1.0319	19.640	.02526	1.5707	454.78

#1	-.00012	.00067	.03911	-.01236	7.2436	.00173	-.00044
#2	-.00027	.00034	.03969	-.00935	7.2410	.00169	.00023

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00179	.00074	.00183	.00147	.00114	-.00072	-.00010
SDev	.00016	.00058	.00052	.00015	.00007	.00001	.00002
%RSD	8.7752	77.899	28.289	10.369	5.8292	.82942	17.826

#1	.00168	.00115	.00146	.00136	.00119	-.00073	-.00009
#2	.00190	.00033	.00219	.00157	.00109	-.00072	-.00011

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00873	-.00498	-.00042	.00332	.00023	.02147
SDev	.00054	.00029	.00037	.00117	.00017	.00007
%RSD	6.1890	5.7559	88.664	35.195	75.139	.31532

#1	.00911	-.00478	-.00016	.00249	.00011	.02152
#2	.00834	-.00519	-.00068	.00414	.00035	.02142

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17525	--	--	--	--	--	--

Method: METTRA Sample Name: DF83W

Operator: EMF

Run Time: 07/01/00 17:03:34

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.03855	.00591	.18955	.00037	86.865	-.00007
SDev	.00041	.00398	.00024	.00020	.00005	.051	.00001
%RSD	434.77	10.328	4.0443	.10440	14.274	.05910	14.824

#1	.00038	.04137	.00574	.18941	.00033	86.829	-.00008
#2	-.00019	.03573	.00607	.18969	.00040	86.901	-.00006

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00079	.00099	.01901	-.05314	25.827	.09362	.00084
SDev	.00033	.00003	.00011	.00413	.021	.00025	.00018
%RSD	41.365	3.2309	.59275	7.7717	.08086	.26882	21.115

#1	.00102	.00097	.01909	-.05022	25.812	.09344	.00071
#2	.00056	.00102	.01893	-.05606	25.841	.09380	.00096

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00568	.00209	.00095	.00133	-.00031	.00193	.00118
SDev	.00046	.00053	.00040	.00009	.00026	.00084	.00047
%RSD	8.1321	25.339	41.563	6.5578	84.301	43.445	39.875

#1	.00535	.00247	.00067	.00127	-.00013	.00134	.00085
#2	.00600	.00172	.00123	.00139	-.00050	.00253	.00152

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01046	-.00456	.00044	.00171	.00173	.00315
SDev	.00238	.00116	.00002	.00373	.00033	.00002
%RSD	22.789	25.343	5.0954	218.22	19.104	.60278

#1	.01215	-.00538	.00046	-.00093	.00150	.00314
#2	.00877	-.00375	.00042	.00435	.00197	.00317

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17805	--	--	--	--	--	--
SDev	4.984274	--	--	--	--	--	--
%RSD	.0279936	--	--	--	--	--	--
#1	17802	--	--	--	--	--	--
#2	17809	--	--	--	--	--	--

Method: METTRA Sample Name: DF84H

Operator: EMF

Run Time: 07/01/00 17:10:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00041	.09785	.00936	.00062	.00003	.16635	-.00025
SDev	.00024	.07715	.00103	.00005	.00055	.00064	.00004
%RSD	58.740	78.841	11.025	7.8642	1744.8	.38327	17.170
#1	.00058	.15241	.01009	.00065	-.00036	.16590	-.00022
#2	.00024	.04330	.00863	.00058	.00042	.16680	-.00027
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00070	.00789	.00855	.06218	.00011	.00106
SDev	.00028	.00007	.00072	.00041	.00356	.00001	.00003
%RSD	154.41	10.410	9.1898	4.8253	5.7260	7.7099	3.0309
#1	.00038	.00075	.00738	.00884	.06470	.00012	.00108
#2	-.00002	.00065	.00841	.00826	.05966	.00010	.00104
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.00117	.00147	.00137	.00214	.00146	.00168
SDev	.00024	.00060	.00044	.00050	.00064	.00038	.00047
%RSD	64.647	51.706	30.078	36.235	29.688	26.286	27.726
#1	.00020	.00074	.00116	.00102	.00169	.00119	.00135
#2	.00053	.00160	.00178	.00172	.00259	.00173	.00201
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.01002	-.00579	-.00053	.00310	-.00061	.01011	
SDev	.00077	.00238	.00133	.00102	.00034	.00044	
%RSD	7.7076	41.110	252.11	32.843	55.984	4.3841	
#1	.00947	-.00411	.00041	.00238	-.00085	.01042	
#2	.01056	-.00748	-.00147	.00382	-.00037	.00980	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1109

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17679	--	--	--	--	--	--
SDev	241.5833	--	--	--	--	--	--
%RSD	1.366489	--	--	--	--	--	--
#1	17508	--	--	--	--	--	--
#2	17850	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-2

Operator: EMF

Run Time: 07/01/00 17:14:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0258	24.094	.51630	1.9999	2.0933	51.907	.49803
SDev	.0046	.089	.00261	.0055	.0091	.208	.00347
%RSD	.45265	.36802	.50553	.27507	.43290	.40060	.69637
#1	1.0225	24.031	.51446	1.9960	2.0869	51.760	.49558
#2	1.0291	24.157	.51815	2.0038	2.0997	52.054	.50048
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0298	2.0295	1.9793	25.510	51.139	2.0159	2.0293
SDev	.0113	.0116	.0049	.118	.229	.0089	.0242
%RSD	.55564	.56962	.24892	.46214	.44795	.44224	1.1906
#1	2.0218	2.0213	1.9758	25.427	50.977	2.0096	2.0122
#2	2.0377	2.0376	1.9828	25.594	51.301	2.0222	2.0464
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0594	.51597	.50705	.51002	.53048	.51422	.51963
SDev	.0031	.00171	.00005	.00060	.00045	.00283	.00204
%RSD	.15068	.33128	.00976	.11807	.08407	.55050	.39194
#1	2.0572	.51476	.50701	.50959	.53016	.51222	.51819
#2	2.0616	.51718	.50708	.51044	.53079	.51622	.52107
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51728	.52932	.52531	1.0305	2.0495	2.0499	
SDev	.00381	.00177	.00245	.0038	.0070	.0089	
%RSD	.73725	.33407	.46629	.37102	.33928	.43537	
#1	.51458	.52807	.52358	1.0278	2.0446	2.0436	
#2	.51998	.53057	.52704	1.0332	2.0544	2.0562	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17429	--	--	--	--	--	--
SDev	115.7542	--	--	--	--	--	--
%RSD	.6641300	--	--	--	--	--	--
#1	17511	--	--	--	--	--	--
#2	17348	--	--	--	--	--	--

Method: METTRA Sample Name: CCB2

Operator: EMF

Run Time: 07/01/00 17:18:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00052	.05574	.00049	.00075	.00084	.04421	.00022
SDev	.00006	.00094	.00015	.00058	.00067	.01878	.00003
%RSD	11.099	1.6861	31.460	77.903	79.063	42.486	11.762
#1	.00056	.05640	.00038	.00034	.00037	.03093	.00020
#2	.00048	.05508	.00060	.00116	.00132	.05749	.00023
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.00072	-.00109	.00280	.01599	.00069	.00581
SDev	.00021	.00065	.00052	.00088	.01229	.00060	.00053
%RSD	72.047	90.087	47.930	31.401	76.869	86.246	9.1365
#1	.00014	.00026	-.00146	.00342	.00730	.00027	.00619
#2	.00044	.00117	-.00072	.00218	.02468	.00111	.00543
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.00071	.00131	.00111	.00348	.00108	.00188
SDev	.00042	.00102	.00012	.00042	.00362	.00012	.00113
%RSD	52.409	144.18	9.5140	38.130	104.07	11.198	59.818
#1	.00109	-.00001	.00122	.00081	.00604	.00100	.00268
#2	.00050	.00143	.00140	.00141	.00092	.00117	.00109
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00440	-.00061	.00105	.00215	.00011	.00236	
SDev	.00223	.00071	.00122	.00112	.00068	.00072	
%RSD	50.724	115.78	115.40	52.273	600.11	30.535	
#1	.00597	-.00011	.00191	.00295	-.00037	.00185	
#2	.00282	-.00112	.00019	.00136	.00059	.00287	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17475	--	--	--	--	--	--
SDev	25.98617	--	--	--	--	--	--
%RSD	.1487042	--	--	--	--	--	--
#1	17493	--	--	--	--	--	--
#2	17457	--	--	--	--	--	--

Method: METTRA Sample Name: DF84J

Operator: EMF

Run Time: 07/01/00 17:22:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00028	.05831	.00136	.00075	.00061	.43406	-.00002
SDev	.00018	.00066	.00039	.00004	.00001	.00298	.00006
%RSD	62.316	1.1250	28.913	5.8503	1.4540	.68700	265.53

#1	.00041	.05785	.00164	.00072	.00061	.43195	-.00006
#2	.00016	.05878	.00108	.00078	.00060	.43617	.00002

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-.5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00068	.00107	.02813	.02709	.06100	.00035	.00096
SDev	.00025	.00023	.00027	.00318	.00215	.00014	.00046
%RSD	36.589	21.352	.96466	11.735	3.5222	39.642	47.624

#1	.00085	.00124	.02832	.02934	.05948	.00025	.00128
#2	.00050	.00091	.02794	.02484	.06252	.00045	.00064

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00061	.00081	.00213	.00169	.00339	.00254	.00283
SDev	.00053	.00085	.00016	.00039	.00066	.00037	.00046
%RSD	86.317	105.23	7.5744	23.065	19.356	14.411	16.388

#1	.00024	.00141	.00225	.00197	.00293	.00228	.00250
#2	.00099	.00021	.00202	.00142	.00386	.00280	.00315

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00986	-.00491	.00001	.00399	-.00001	.01467
SDev	.00064	.00025	.00005	.00193	.00050	.00000
%RSD	6.5085	5.0975	663.98	48.366	6563.2	.00993

#1	.01031	-.00509	.00004	.00536	.00034	.01467
#2	.00940	-.00473	-.00003	.00263	-.00036	.01467

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17821	--	--	--	--	--	--
SDev	125.3706	--	--	--	--	--	--
%RSD	.7034932	--	--	--	--	--	--
#1	17910	--	--	--	--	--	--
#2	17732	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-3

Operator: EMF

Run Time: 07/01/00 17:26:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0261	24.071	.51394	2.0037	2.0876	51.773	.49343
SDev	.0030	.062	.00100	.0036	.0001	.019	.00093
%RSD	.29688	.25848	.19544	.18009	.00553	.03578	.18826
#1	1.0240	24.027	.51323	2.0011	2.0875	51.786	.49277
#2	1.0283	24.115	.51465	2.0062	2.0877	51.760	.49409
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0170	2.0209	1.9836	25.411	51.059	2.0089	2.0236
SDev	.0054	.0061	.0030	.079	.066	.0045	.0207
%RSD	.27003	.30300	.15019	.31043	.12872	.22588	1.0212
#1	2.0131	2.0166	1.9815	25.355	51.012	2.0057	2.0090
#2	2.0208	2.0252	1.9857	25.467	51.105	2.0121	2.0382
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0496	.51323	.50610	.50848	.53387	.50908	.51733
SDev	.0032	.00156	.00055	.00088	.00117	.00218	.00184
%RSD	.15628	.30326	.10760	.17337	.21886	.42848	.35645
#1	2.0519	.51213	.50572	.50785	.53304	.50753	.51603
#2	2.0473	.51433	.50649	.50910	.53469	.51062	.51864
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.51862	.53549	.52987	1.0250	2.0464	2.0396	
SDev	.00205	.00094	.00131	.0043	.0002	.0033	
%RSD	.39563	.17636	.24782	.41475	.01108	.16104	
#1	.51717	.53482	.52894	1.0280	2.0466	2.0373	
#2	.52007	.53615	.53080	1.0220	2.0463	2.0420	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17345	--	--	--	--	--	--
SDev	79.40726	--	--	--	--	--	--
%RSD	.4578120	--	--	--	--	--	--
#1	17401	--	--	--	--	--	--
#2	17289	--	--	--	--	--	--

Method: METTRA Sample Name: CCB3

Run Time: 07/01/00 17:30:56

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Operator: EMF

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00030	.06654	.00104	.00093	.00092	.03192	.00012
SDev	.00027	.00400	.00211	.00071	.00091	.02005	.00017
%RSD	90.334	6.0112	202.36	75.617	99.164	62.814	143.55
#1	.00011	.06371	.00254	.00043	.00028	.01774	-.00000
#2	.00049	.06936	-.00045	.00143	.00157	.04610	.00023
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00078	.00099	-.00077	.00329	.02136	.00083	.00653
SDev	.00088	.00069	.00065	.00853	.01933	.00070	.00112
%RSD	112.43	70.123	85.265	259.51	90.481	84.141	17.131
#1	.00016	.00050	-.00123	-.00274	.00770	.00034	.00732
#2	.00141	.00148	-.00030	.00932	.03503	.00133	.00574
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00004	-.00142	.00073	.00001	.00094	-.00121	-.00050
SDev	.00304	.00014	.00079	.00057	.00033	.00088	.00070
%RSD	7364.3	9.6635	107.94	4182.8	34.929	72.933	140.91
#1	-.00211	-.00151	.00017	-.00039	.00117	-.00059	-.00000
#2	.00219	-.00132	.00128	.00042	.00071	-.00184	-.00099
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00185	-.00096	-.00003	.00318	.00095	.00213	
SDev	.00220	.00008	.00068	.00023	.00118	.00082	
%RSD	118.97	8.2216	2718.7	7.1394	124.06	38.254	
#1	.00029	-.00090	-.00051	.00302	.00012	.00156	
#2	.00340	-.00102	.00046	.00334	.00179	.00271	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1119

STL 660

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17400	--	--	--	--	--	--
SDev	204.1771	--	--	--	--	--	--
%RSD	1.173440	--	--	--	--	--	--
#1	17256	--	--	--	--	--	--
#2	17544	--	--	--	--	--	--

663 1120

Method: METTRA Sample Name: DFK04B

Operator: EMF

Run Time: 07/01/00 17:35:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	.07758	.00146	.00027	.00004	.08294	-.00007
SDev	.00006	.00111	.00041	.00009	.00008	.00043	.00003
%RSD	13.153	1.4360	28.178	32.611	191.72	.51746	42.454
#1	.00042	.07680	.00117	.00020	-.00002	.08324	-.00005
#2	.00051	.07837	.00175	.00033	.00010	.08263	-.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	.00040	.00237	.02296	.00899	.00045	.00168
SDev	.00011	.00053	.00011	.00163	.00287	.00009	.00029
%RSD	18.109	132.16	4.6132	7.1166	31.965	19.249	17.125
#1	-.00055	.00003	.00229	.02412	.00696	.00039	.00188
#2	-.00071	.00078	.00245	.02181	.01102	.00052	.00148
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00109	.00361	-.00047	.00089	-.00103	.00198	.00097
SDev	.00081	.00100	.00088	.00092	.00022	.00194	.00137
%RSD	74.559	27.790	185.03	103.73	21.386	98.430	140.82
#1	.00051	.00290	-.00109	.00024	-.00088	.00335	.00194
#2	.00166	.00432	.00015	.00153	-.00119	.00060	.00000
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00229	-.00181	-.00044	-.00280	.00013	.01004	
SDev	.00004	.00113	.00077	.00314	.00069	.00005	
%RSD	1.7743	62.637	173.61	111.92	538.61	.50935	
#1	.00232	-.00101	.00010	-.00058	-.00036	.01008	
#2	.00226	-.00261	-.00099	-.00502	.00062	.01000	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1121

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17243	--	--	--	--	--	--
SDev	98.74774	--	--	--	--	--	--
%RSD	.5726672	--	--	--	--	--	--
#1	17313	--	--	--	--	--	--
#2	17174	--	--	--	--	--	--

Analysis Report

663 1122

07/01/00 05:43:20 PM

page 1

Method: METTRA Sample Name: DFK04C

Operator: EMF

Run Time: 07/01/00 17:39:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04941	2.0992	2.0366	1.9990	.05175	52.195	.04920
SDev	.00089	.0026	.0010	.0051	.00013	.060	.00012
%RSD	1.8044	.12192	.04905	.25530	.24662	.11542	.23480
#1	.04877	2.0974	2.0359	2.0026	.05184	52.238	.04912
#2	.05004	2.1010	2.0373	1.9954	.05166	52.153	.04928
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50302	.20291	.25226	.98104	51.318	.50138	1.0073
SDev	.00116	.00059	.00020	.01485	.003	.00019	.0060
%RSD	.23116	.28835	.07889	1.5142	.00633	.03871	.60062
#1	.50220	.20250	.25212	.97053	51.316	.50124	1.0031
#2	.50384	.20333	.25240	.99154	51.321	.50151	1.0116
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51465	.51194	.50208	.50536	.50262	.49579	.49807
SDev	.00093	.00163	.00094	.00117	.00228	.00200	.00210
%RSD	.18048	.31757	.18756	.23141	.45338	.40427	.42077
#1	.51399	.51079	.50141	.50453	.50423	.49721	.49955
#2	.51531	.51309	.50274	.50619	.50101	.49437	.49658
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0061	2.0741	2.0515	2.0620	.50643	.52734	
SDev	.0018	.0111	.0068	.0036	.00090	.00008	
%RSD	.08920	.53530	.33193	.17255	.17812	.01550	
#1	2.0049	2.0820	2.0563	2.0595	.50706	.52729	
#2	2.0074	2.0663	2.0467	2.0645	.50579	.52740	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

663 1123

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17225	--	--	--	--	--	--
SDev	4.313075	--	--	--	--	--	--
%RSD	.0250396	--	--	--	--	--	--
#1	17228	--	--	--	--	--	--
#2	17222	--	--	--	--	--	--

Method: METTRA Sample Name: DFGKP

Operator: EMF

Run Time: 07/01/00 17:43:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00043	2.1378	.00663	.06809	.00053	20.140	.00012
SDev	.00005	.0681	.00014	.00192	.00036	.607	.00003
%RSD	11.855	3.1833	2.0597	2.8188	66.776	3.0150	25.301
#1	.00040	2.1860	.00673	.06944	.00028	20.569	.00014
#2	.00047	2.0897	.00654	.06673	.00079	19.710	.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00422	.00911	.00866	6.6665	3.4669	1.2962	.00539
SDev	.00009	.00019	.00057	.1772	.0961	.0357	.00151
%RSD	2.2044	2.1369	6.5343	2.6581	2.7714	2.7513	27.972
#1	.00416	.00925	.00906	6.7918	3.5349	1.3214	.00646
#2	.00429	.00897	.00826	6.5412	3.3990	1.2710	.00433
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00410	.03348	.02975	.03099	.00097	.00400	.00300
SDev	.00056	.00358	.00034	.00097	.00095	.00031	.00011
%RSD	13.607	10.676	1.1371	3.1127	97.617	7.6791	3.7320
#1	.00370	.03601	.02951	.03168	.00165	.00379	.00307
#2	.00449	.03095	.02999	.03031	.00030	.00422	.00292
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00654	-.00078	.00166	-.00039	.00576	.05017	
SDev	.00013	.00132	.00084	.00225	.00048	.00155	
%RSD	2.0402	169.77	50.458	576.02	8.3205	3.0853	
#1	.00644	.00016	.00225	.00120	.00609	.05127	
#2	.00663	-.00171	.00107	-.00198	.00542	.04908	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1125

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17715	--	--	--	--	--	--
SDev	381.9440	--	--	--	--	--	--
%RSD	2.156039	--	--	--	--	--	--
#1	17445	--	--	--	--	--	--
#2	17985	--	--	--	--	--	--

Method: METTRA Sample Name: DFGKPP5

Run Time: 07/01/00 17:47:34

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Operator: EMF

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00060	.46261	.00275	.01393	.00032	4.0439	.00004
SDev	.00009	.00066	.00026	.00025	.00002	.0010	.00005
%RSD	15.609	.14239	9.3912	1.8170	4.7579	.02571	132.44

#1	.00054	.46215	.00294	.01375	.00033	4.0447	.00007
#2	.00067	.46308	.00257	.01411	.00031	4.0432	.00000

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00110	.00189	.00008	1.3330	.69269	.25993	.00136
SDev	.00010	.00016	.00005	.0001	.00720	.00002	.00018
%RSD	9.3900	8.6877	59.353	.00427	1.0396	.00832	13.319

#1	.00117	.00177	.00005	1.3330	.68759	.25992	.00123
#2	.00102	.00200	.00012	1.3329	.69778	.25995	.00149

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	.00538	.00639	.00605	.00285	.00086	.00152
SDev	.00047	.00029	.00053	.00026	.00140	.00092	.00108
%RSD	209.01	5.3708	8.2490	4.2180	48.951	107.27	70.893

#1	.00055	.00558	.00601	.00587	.00187	.00021	.00076
#2	-.00011	.00517	.00676	.00623	.00384	.00151	.00229

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00417	.00158	.00244	-.00019	.00129	.01100
SDev	.00111	.00075	.00087	.00281	.00000	.00019
%RSD	26.680	47.604	35.719	1490.8	.08195	1.7241

#1	.00496	.00212	.00306	-.00217	.00128	.01086
#2	.00338	.00105	.00183	.00180	.00129	.01113

663 1127

OSTE 349

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17660	--	--	--	--	--	--
SDev	15.94581	--	--	--	--	--	--
%RSD	.0902940	--	--	--	--	--	--
#1	17671	--	--	--	--	--	--
#2	17649	--	--	--	--	--	--

Method: METTRA Sample Name: DFGKPS

Operator: EMF

Run Time: 07/01/00 17:51:43

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04689	4.5868	1.9209	1.9317	.04899	68.373	.04614
SDev	.00021	.0218	.0063	.0047	.00022	.241	.00027
%RSD	.45516	.47488	.32776	.24235	.44096	.35176	.57551
#1	.04674	4.5714	1.9165	1.9284	.04884	68.203	.04595
#2	.04704	4.6023	1.9254	1.9350	.04914	68.543	.04633
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47602	.19928	.24651	7.5561	51.599	1.7419	.95017
SDev	.00228	.00097	.00032	.0411	.192	.0060	.00608
%RSD	.47943	.48652	.12813	.54373	.37262	.34649	.63958
#1	.47441	.19860	.24628	7.5271	51.463	1.7377	.94587
#2	.47763	.19997	.24673	7.5852	51.735	1.7462	.95446
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48494	.51260	.50452	.50722	.48605	.47109	.47607
SDev	.00097	.00260	.00319	.00299	.00355	.00232	.00273
%RSD	.19901	.50763	.63257	.59053	.73090	.49304	.57390
#1	.48426	.51444	.50678	.50933	.48856	.47273	.47800
#2	.48562	.51076	.50227	.50510	.48354	.46945	.47414
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9039	1.9697	1.9478	1.9598	.47903	.53265	
SDev	.0001	.0169	.0113	.0064	.00116	.00104	
%RSD	.00556	.85872	.58102	.32821	.24158	.19551	
#1	1.9040	1.9817	1.9558	1.9552	.47821	.53191	
#2	1.9038	1.9577	1.9398	1.9643	.47985	.53339	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1129

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17748	--	--	--	--	--	--
SDev	23.86485	--	--	--	--	--	--
%RSD	.1344682	--	--	--	--	--	--
#1	17764	--	--	--	--	--	--
#2	17731	--	--	--	--	--	--

Method: METTRA

Sample Name: DFGKPD

Operator: EMF

Run Time: 07/01/00 17:55:52

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04831	4.7925	1.9918	2.0016	.05073	70.888	.04764
SDev	.00025	.0049	.0065	.0002	.00002	.029	.00023
%RSD	.51043	.10229	.32776	.01053	.04755	.04049	.48547
#1	.04848	4.7891	1.9872	2.0015	.05075	70.908	.04748
#2	.04813	4.7960	1.9964	2.0018	.05072	70.867	.04781
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49317	.20562	.25521	7.8800	53.332	1.8158	.98096
SDev	.00101	.00038	.00052	.0083	.012	.0031	.00437
%RSD	.20502	.18288	.20241	.10552	.02159	.17192	.44513
#1	.49246	.20535	.25485	7.8859	53.324	1.8136	.97788
#2	.49389	.20588	.25558	7.8742	53.340	1.8180	.98405
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50056	.52737	.51445	.51876	.49103	.48369	.48614
SDev	.00102	.00018	.00158	.00111	.00114	.00266	.00216
%RSD	.20295	.03516	.30625	.21448	.23213	.55084	.44364
#1	.49984	.52724	.51334	.51797	.49184	.48557	.48766
#2	.50128	.52750	.51557	.51954	.49023	.48181	.48461
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.9636	2.0252	2.0047	2.0338	.49631	.55338	
SDev	.0029	.0013	.0001	.0029	.00070	.00052	
%RSD	.14956	.06497	.00500	.14311	.14155	.09475	
#1	1.9616	2.0261	2.0046	2.0359	.49681	.55301	
#2	1.9657	2.0243	2.0048	2.0317	.49581	.55375	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1131

0.41 500

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17696	--	--	--	--	--	--
SDev	23.01550	--	--	--	--	--	--
%RSD	.1300617	--	--	--	--	--	--
#1	17712	--	--	--	--	--	--
#2	17680	--	--	--	--	--	--

Method: METTRA Sample Name: DFGL2

Run Time: 07/01/00 18:00:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

0811 828
Operator: EMF

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00053	4.9703	.00327	.02877	.00044	8.2936	-.00018
SDev	.00003	.0175	.00102	.00010	.00004	.0216	.00004
%RSD	5.4284	.35167	31.098	.33113	9.6493	.26051	19.716
#1	.00055	4.9827	.00255	.02871	.00041	8.3089	-.00015
#2	.00051	4.9579	.00400	.02884	.00047	8.2783	-.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00188	.01300	.00717	2.9798	1.8703	.46095	.00308
SDev	.00000	.00062	.00023	.0060	.0003	.00018	.00042
%RSD	.04481	4.7866	3.2384	.20062	.01814	.03888	13.523
#1	.00188	.01344	.00701	2.9755	1.8701	.46107	.00338
#2	.00188	.01256	.00734	2.9840	1.8706	.46082	.00279
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00272	.00885	.00780	.00815	.00274	.00030	.00111
SDev	.00021	.00097	.00064	.00011	.00309	.00187	.00228
%RSD	7.5797	10.980	8.2421	1.2950	112.62	629.07	204.97
#1	.00287	.00953	.00735	.00808	.00056	-.00103	-.00050
#2	.00257	.00816	.00826	.00823	.00493	.00162	.00272
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00101	.00215	.00177	.00104	.00763	.05766	
SDev	.00093	.00016	.00020	.00097	.00001	.00019	
%RSD	92.534	7.5958	11.395	93.396	.10638	.33436	
#1	.00167	.00204	.00192	.00173	.00762	.05779	
#2	.00035	.00227	.00163	.00035	.00763	.05752	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

07/01/00 06:04:07 PM

page 2

663 1133**2611 500**

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17505	--	--	--	--	--	--
SDev	15.16689	--	--	--	--	--	--
%RSD	.0866455	--	--	--	--	--	--
#1	17515	--	--	--	--	--	--
#2	17494	--	--	--	--	--	--

Method: METTRA Sample Name: DFGL6

Operator: EMF

Run Time: 07/01/00 18:04:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	5.6068	.00320	.02894	.00062	6.1930	.00141
SDev	.00022	.0079	.00247	.00007	.00001	.0009	.00007
%RSD	54.831	.14042	77.230	.25457	1.1022	.01419	5.1717
#1	.00024	5.6012	.00145	.02888	.00063	6.1923	.00136
#2	.00055	5.6124	.00495	.02899	.00062	6.1936	.00146
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00247	.01287	.00439	6.9298	1.6193	.57082	.00169
SDev	.00060	.00030	.00027	.0237	.0050	.00065	.00006
%RSD	24.176	2.3436	6.2431	.34263	.31188	.11343	3.3470
#1	.00205	.01266	.00420	6.9130	1.6157	.57037	.00165
#2	.00289	.01308	.00459	6.9466	1.6229	.57128	.00173
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00371	.00927	.00591	.00703	.00110	.00181	.00157
SDev	.00083	.00010	.00005	.00007	.00039	.00012	.00005
%RSD	22.273	1.1174	.88724	.98830	35.562	6.6312	3.2282
#1	.00313	.00934	.00595	.00708	.00083	.00189	.00154
#2	.00429	.00920	.00588	.00698	.00138	.00172	.00161
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00610	-.00096	.00139	.00139	.00894	.02950	
SDev	.00082	.00355	.00209	.00138	.00000	.00020	
%RSD	13.397	369.25	150.51	99.601	.02000	.69587	
#1	.00668	-.00347	-.00009	.00236	.00894	.02936	
#2	.00552	.00155	.00287	.00041	.00894	.02965	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1135

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17676	--	--	--	--	--	--
SDev	16.68745	--	--	--	--	--	--
%RSD	.0944084	--	--	--	--	--	--
#1	17664	--	--	--	--	--	--
#2	17688	--	--	--	--	--	--

663 1136

Method: METTRA

Sample Name: DFM2LB

Operator: EMF

Run Time: 07/01/00 18:08:19

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00017	.07786	.00015	.00021	.00032	.09231	-.00008
SDev	.00022	.00680	.00091	.00002	.00006	.00047	.00016
%RSD	127.55	8.7357	609.36	9.4785	18.050	.51253	202.67
#1	.00002	.08267	.00079	.00022	.00028	.09264	-.00020
#2	.00032	.07305	-.00049	.00020	.00036	.09198	.00004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00026	.00010	-.00067	.00827	.00567	.00010	.00026
SDev	.00046	.00011	.00002	.00426	.00177	.00002	.00029
%RSD	175.88	104.09	2.4150	51.488	31.219	14.815	111.65
#1	-.00058	.00003	-.00066	.01128	.00441	.00011	.00006
#2	.00006	.00018	-.00068	.00526	.00692	.00009	.00047
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00062	.00293	.00095	.00161	-.00077	.00136	.00065
SDev	.00094	.00033	.00064	.00054	.00024	.00134	.00097
%RSD	150.51	11.327	67.915	33.566	30.627	98.821	150.39
#1	.00004	.00317	.00140	.00199	-.00094	.00041	-.00004
#2	-.00128	.00270	.00049	.00123	-.00061	.00230	.00133
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00367	-.00091	.00061	-.00097	.00047	.00831	
SDev	.00030	.00028	.00029	.00385	.00016	.00000	
%RSD	8.0322	31.053	46.804	398.22	35.298	.01474	
#1	.00346	-.00111	.00041	-.00369	.00035	.00831	
#2	.00388	-.00071	.00082	.00175	.00058	.00831	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1137

663 1137

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17674	--	--	--	--	--	--
SDev	46.95079	--	--	--	--	--	--
%RSD	.2656541	--	--	--	--	--	--
#1	17640	--	--	--	--	--	--
#2	17707	--	--	--	--	--	--

Method: METTRA Sample Name: DFM2LC

Operator: EMF

Run Time: 07/01/00 18:12:28

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

663 1138

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04738	2.0680	2.0001	1.9600	.05156	51.379	.04837
SDev	.00012	.0012	.0060	.0031	.00007	.178	.00003
%RSD	.25139	.05704	.30023	.16034	.12919	.34562	.07250
#1	.04746	2.0688	2.0043	1.9622	.05161	51.505	.04840
#2	.04730	2.0672	1.9958	1.9578	.05151	51.254	.04835
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49544	H.24639	.24690	H1.2259	50.526	.49361	1.0115
SDev	.00110	.00047	.00038	.0240	.105	.00054	.0029
%RSD	.22249	.18884	.15553	1.9550	.20749	.10882	.28415
#1	.49622	H.24606	.24717	H1.2089	50.600	.49399	1.0095
#2	.49466	H.24672	.24663	H1.2428	50.452	.49323	1.0135
Errors	LC Pass	LC High	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50390	.50001	.49288	.49526	.50682	.49247	.49725
SDev	.00247	.00362	.00006	.00117	.00228	.00341	.00151
%RSD	.49046	.72313	.01177	.23530	.44946	.69132	.30413
#1	.50565	.50257	.49284	.49608	.50521	.49488	.49832
#2	.50215	.49746	.49292	.49443	.50843	.49007	.49618
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9693	2.0359	2.0137	2.0341	.49890	.52520	
SDev	.0077	.0105	.0096	.0062	.00159	.00047	
%RSD	.39294	.51392	.47452	.30667	.31801	.08856	
#1	1.9748	2.0433	2.0205	2.0297	.50002	.52552	
#2	1.9639	2.0285	2.0069	2.0385	.49778	.52487	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

663 1139

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17623	--	--	--	--	--	--
SDev	44.44138	--	--	--	--	--	--
%RSD	.2521844	--	--	--	--	--	--
#1	17591	--	--	--	--	--	--
#2	17654	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-4

PIT Operator: EMF

Run Time: 07/01/00 18:16:37

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1140

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0155	23.832	.51130	1.9769	2.0820	51.674	.49229
SDev	.0013	.024	.00167	.0005	.0007	.003	.00030
%RSD	.13056	.10037	.32718	.02678	.03389	.00608	.06148
#1	1.0145	23.815	.51012	1.9773	2.0825	51.676	.49207
#2	1.0164	23.849	.51248	1.9765	2.0815	51.671	.49250
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0008	2.0056	1.9592	25.335	51.067	1.9916	2.0076
SDev	.0044	.0031	.0004	.037	.056	.0033	.0142
%RSD	.22042	.15223	.02140	.14600	.10912	.16439	.70497
#1	1.9977	2.0034	1.9589	25.309	51.028	1.9893	1.9976
#2	2.0040	2.0077	1.9595	25.361	51.107	1.9939	2.0176
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0325	.50854	.50194	.50414	.52800	.50058	.50971
SDev	.0068	.00483	.00172	.00046	.00224	.00324	.00142
%RSD	.33324	.95071	.34330	.09137	.42322	.64704	.27786
#1	2.0373	.50512	.50316	.50381	.52958	.49829	.50871
#2	2.0277	.51196	.50072	.50446	.52642	.50287	.51071
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51528	.52706	.52314	1.0233	2.0270	2.0202	
SDev	.00308	.00186	.00021	.0043	.0016	.0002	
%RSD	.59839	.35313	.04103	.41894	.08071	.01226	
#1	.51310	.52838	.52329	1.0203	2.0281	2.0204	
#2	.51746	.52575	.52299	1.0264	2.0258	2.0200	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

663 1141

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17671	--	--	--	--	--	--
SDev	28.21384	--	--	--	--	--	--
%RSD	.1596595	--	--	--	--	--	--
#1	17691	--	--	--	--	--	--
#2	17651	--	--	--	--	--	--

Analysis Report

07/01/00 06:24:52 PM

page 1

Method: METTRA Sample Name: CCB4

Operator: EMF

Run Time: 07/01/00 18:20:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACE ICP 663 1142

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	.09506	.00153	.00069	.00059	.01729	-.00005
SDev	.00030	.00101	.00124	.00024	.00022	.00821	.00008
%RSD	204.77	1.0652	80.769	34.058	38.110	47.510	158.51
#1	-.00007	.09434	.00066	.00053	.00043	.01148	-.00011
#2	.00037	.09577	.00241	.00086	.00074	.02309	.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00041	.00066	-.00213	-.00052	.01597	.00056	.00661
SDev	.00004	.00046	.00012	.00552	.00613	.00023	.00169
%RSD	10.198	69.171	5.5708	1070.1	38.368	40.507	25.498
#1	.00044	.00034	-.00221	.00339	.01164	.00040	.00780
#2	.00038	.00099	-.00204	-.00442	.02030	.00073	.00542
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00036	.00040	.00071	.00061	.00201	.00070	.00113
SDev	.00131	.00299	.00137	.00008	.00224	.00270	.00106
%RSD	367.46	756.13	192.12	13.430	111.34	387.18	93.118
#1	-.00128	.00251	-.00026	.00067	.00043	.00261	.00188
#2	.00057	-.00172	.00168	.00055	.00359	-.00121	.00039
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00314	-.00049	.00072	.00243	.00059	.00121	
SDev	.00146	.00070	.00002	.00078	.00000	.00024	
%RSD	46.582	142.56	2.6291	32.195	.38712	19.695	
#1	.00417	-.00099	.00073	.00187	.00059	.00104	
#2	.00210	.00000	.00070	.00298	.00059	.00138	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1143

IntStd:	1	2	3	4	5	6	7
Mode:	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17497	--	--	--	--	--	--
SDev	6.540738	--	--	--	--	--	--
%RSD	.0373816	--	--	--	--	--	--
#1	17493	--	--	--	--	--	--
#2	17502	--	--	--	--	--	--

Method: METTRA Sample Name: DFJTE

Operator: EMF

Run Time: 07/01/00 18:24:56

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACE ICP 663 1144

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	.94247	.00413	.07210	.00044	20.247	.00009
SDev	.00054	.01192	.00011	.00026	.00014	.038	.00005
%RSD	96.321	1.2646	2.5756	.35570	31.730	.18654	62.800
#1	.00095	.95090	.00406	.07228	.00034	20.274	.00005
#2	.00018	.93404	.00421	.07192	.00054	20.221	.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00291	.00820	.00568	4.9012	3.1459	1.1604	.00335
SDev	.00015	.00043	.00029	.0241	.0043	.0001	.00002
%RSD	5.2230	5.2578	5.1313	.49186	.13739	.00612	.50423
#1	.00302	.00850	.00588	4.9183	3.1490	1.1604	.00336
#2	.00280	.00789	.00547	4.8842	3.1429	1.1605	.00333
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00347	.01143	.01010	.01054	.00122	.00086	.00098
SDev	.00017	.00470	.00127	.00072	.00320	.00164	.00003
%RSD	5.0054	41.169	12.565	6.8264	262.27	190.06	2.6247
#1	.00359	.01475	.00921	.01105	-.00104	.00202	.00100
#2	.00334	.00810	.01100	.01003	.00348	-.00030	.00096
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00549	.00149	.00282	-.00180	.00408	.04371	
SDev	.00307	.00135	.00192	.00169	.00153	.00001	
%RSD	55.852	90.681	68.118	93.635	37.561	.01779	
#1	.00766	.00245	.00418	-.00061	.00517	.04371	
#2	.00332	.00053	.00146	-.00299	.00300	.04370	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1145

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17625	--	--	--	--	--	--
SDev	64.09950	--	--	--	--	--	--
%RSD	.3636836	--	--	--	--	--	--
#1	17580	--	--	--	--	--	--
#2	17670	--	--	--	--	--	--

Method: METTRA Sample Name: DFJTL

Operator: EMF

Run Time: 07/01/00 18:29:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1146

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00052	.50542	.00444	.13104	-.00012	93.130	.00006
SDev	.00031	.00081	.00028	.00022	.00000	.016	.00010
%RSD	60.499	.15934	6.1840	.17108	.72209	.01668	169.84
#1	.00030	.50599	.00463	.13120	-.00012	93.141	.00013
#2	.00074	.50485	.00425	.13088	-.00012	93.119	-.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00499	.01061	.02930	.21834	5.2487	.92395	.00531
SDev	.00016	.00025	.00002	.00613	.0049	.00104	.00060
%RSD	3.1784	2.3344	.08064	2.8062	.09268	.11309	11.282
#1	.00488	.01044	.02928	.21401	5.2453	.92321	.00573
#2	.00510	.01079	.02932	.22268	5.2522	.92469	.00489
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00695	.00652	.00065	.00260	.01760	.02030	.01940
SDev	.00046	.00076	.00012	.00018	.00153	.00002	.00052
%RSD	6.6703	11.597	17.729	6.7405	8.6997	.09582	2.6948
#1	.00727	.00599	.00073	.00248	.01868	.02031	.01977
#2	.00662	.00706	.00057	.00273	.01652	.02029	.01903
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00400	-.00117	.00055	.00151	.00253	.03081	
SDev	.00051	.00102	.00051	.00427	.00053	.00017	
%RSD	12.634	86.899	92.182	282.55	20.918	.56450	
#1	.00435	-.00189	.00019	.00453	.00216	.03093	
#2	.00364	-.00045	.00091	-.00151	.00290	.03069	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1147

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17111	--	--	--	--	--	--
SDev	39.73885	--	--	--	--	--	--
%RSD	.2322442	--	--	--	--	--	--
#1	17139	--	--	--	--	--	--
#2	17083	--	--	--	--	--	--

Method: METTRA Sample Name: DFKQ3

Operator: EMF

Run Time: 07/01/00 18:33:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1148

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00135	.77763	.01390	.08805	-.00008	38.070	.00029
SDev	.00026	.00722	.00006	.00005	.00003	.102	.00006
%RSD	18.977	.92800	.40898	.05956	38.118	.26823	19.976
#1	.00117	.78274	.01394	.08808	-.00010	37.998	.00025
#2	.00153	.77253	.01386	.08801	-.00006	38.142	.00033
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00178	.02609	.02280	1.2123	9.9141	.41469	.00333
SDev	.00027	.00004	.00003	.0062	.0291	.00080	.00072
%RSD	15.269	.16639	.14942	.51252	.29345	.19307	21.685
#1	.00159	.02606	.02277	1.2079	9.8935	.41413	.00282
#2	.00198	.02612	.02282	1.2166	9.9346	.41526	.00385
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00732	.00928	.00249	.00475	.00850	.01086	.01008
SDev	.00126	.00329	.00071	.00062	.00127	.00032	.00021
%RSD	17.242	35.466	28.419	13.132	14.916	2.9642	2.0599
#1	.00643	.01160	.00199	.00519	.00761	.01109	.00993
#2	.00821	.00695	.00299	.00431	.00940	.01063	.01022
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00720	-.00216	.00096	-.00062	.00453	.07122	
SDev	.00033	.00109	.00062	.00044	.00051	.00018	
%RSD	4.5999	50.464	64.296	72.189	11.289	.25715	
#1	.00696	-.00139	.00139	-.00030	.00417	.07135	
#2	.00743	-.00293	.00052	-.00093	.00489	.07109	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1149

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17345	--	--	--	--	--	--
SDev	15.37957	--	--	--	--	--	--
%RSD	.0886693	--	--	--	--	--	--
#1	17334	--	--	--	--	--	--
#2	17356	--	--	--	--	--	--

Method: METTRA Sample Name: DFKQ3P5

Operator: EMF

Run Time: 07/01/00 18:37:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1150

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00018	.22467	.00286	.01749	.00018	7.5678	.00008
SDev	.00043	.00360	.00004	.00011	.00004	.0174	.00000
%RSD	244.80	1.6019	1.3386	.63512	22.908	.23036	4.3816

#1	-.00013	.22722	.00283	.01742	.00020	7.5801	.00008
#2	.00048	.22213	.00288	.01757	.00015	7.5555	.00008

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00029	.00540	.00153	.23825	1.9571	.08271	.00135
SDev	.00012	.00013	.00011	.00623	.0056	.00002	.00025
%RSD	42.842	2.3263	7.0947	2.6138	.28597	.02124	18.481

#1	.00020	.00531	.00145	.23385	1.9610	.08272	.00117
#2	.00038	.00549	.00160	.24265	1.9531	.08270	.00152

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00106	.00063	.00139	.00114	.00245	.00233	.00237
SDev	.00090	.00203	.00033	.00090	.00014	.00084	.00061
%RSD	85.075	321.28	23.899	78.971	5.7370	36.024	25.610

#1	.00042	.00207	.00162	.00177	.00235	.00174	.00194
#2	.00169	-.00080	.00115	.00050	.00255	.00293	.00280

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00612	-.00144	.00108	.00228	-.00029	.01485
SDev	.00088	.00015	.00039	.00071	.00000	.00060
%RSD	14.427	10.164	36.291	30.978	.76167	4.0478

#1	.00549	-.00154	.00080	.00278	-.00029	.01442
#2	.00674	-.00133	.00136	.00178	-.00028	.01527

663 1151

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17465	--	--	--	--	--	--
SDev	52.96119	--	--	--	--	--	--
%RSD	.3032436	--	--	--	--	--	--
#1	17502	--	--	--	--	--	--
#2	17427	--	--	--	--	--	--

Method: METTRA Sample Name: DFKQ3S

Operator: EMF

Run Time: 07/01/00 18:41:33

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP **663 1152**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04879	3.0699	2.0491	2.0537	.05153	89.272	.04826
SDev	.00051	.0225	.0106	.0143	.00026	.577	.00027
%RSD	1.0530	.73286	.51731	.69520	.49730	.64661	.55733
#1	.04916	3.0858	2.0566	2.0638	.05172	89.680	.04845
#2	.04843	3.0540	2.0416	2.0436	.05135	88.864	.04807
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50265	.22435	.28344	2.1426	61.571	.90609	1.0031
SDev	.00209	.00108	.00215	.0188	.335	.00501	.0018
%RSD	.41648	.48288	.75765	.87684	.54476	.55259	.17702
#1	.50413	.22511	.28496	2.1559	61.809	.90963	1.0044
#2	.50117	.22358	.28192	2.1294	61.334	.90255	1.0019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51627	.51920	.49883	.50561	.51702	.50863	.51143
SDev	.00506	.00199	.00443	.00362	.00529	.00212	.00318
%RSD	.98028	.38259	.88833	.71539	1.0226	.41757	.62126
#1	.51985	.52060	.50197	.50817	.52076	.51013	.51367
#2	.51269	.51779	.49570	.50306	.51328	.50713	.50918
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V__	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0281	2.0900	2.0694	2.1018	.50629	.60512	
SDev	.0019	.0166	.0117	.0025	.00457	.00397	
%RSD	.09605	.79237	.56512	.11925	.90342	.65678	
#1	2.0294	2.1017	2.0776	2.1036	.50952	.60793	
#2	2.0267	2.0783	2.0611	2.1000	.50306	.60231	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17194	--	--	--	--	--	--
SDev	84.81829	--	--	--	--	--	--
%RSD	.4932995	--	--	--	--	--	--
#1	17134	--	--	--	--	--	--
#2	17254	--	--	--	--	--	--

Method: METTRA Sample Name: DFKQ3D

Operator: EMF

Run Time: 07/01/00 18:45:42

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1154

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04861	3.0520	2.0444	2.0459	.05150	88.980	.04793
SDev	.00022	.0009	.0004	.0037	.00016	.085	.00006
%RSD	.45901	.03006	.01895	.17877	.31682	.09513	.12394
#1	.04877	3.0526	2.0441	2.0484	.05139	88.920	.04797
#2	.04846	3.0513	2.0447	2.0433	.05162	89.040	.04788
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50036	.22267	.28239	2.1563	61.243	.90608	1.0021
SDev	.00141	.00030	.00066	.0207	.078	.00076	.0057
%RSD	.28223	.13266	.23262	.95937	.12671	.08446	.56695
#1	.49936	.22288	.28285	2.1417	61.188	.90554	.99806
#2	.50135	.22246	.28193	2.1710	61.298	.90663	1.0061
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51551	.51331	.49697	.50241	.51858	.50965	.51263
SDev	.00081	.00524	.00188	.00300	.00215	.00217	.00216
%RSD	.15760	1.0216	.37802	.59698	.41383	.42670	.42237
#1	.51608	.51702	.49830	.50453	.52010	.51119	.51416
#2	.51493	.50960	.49564	.50029	.51706	.50812	.51110
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0237	2.0847	2.0644	2.0907	.50364	.58520	
SDev	.0047	.0168	.0097	.0048	.00128	.00021	
%RSD	.23193	.80767	.46831	.22847	.25451	.03613	
#1	2.0204	2.0966	2.0712	2.0873	.50454	.58535	
#2	2.0270	2.0728	2.0576	2.0941	.50273	.58505	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17360	--	--	--	--	--	--
SDev	32.66778	--	--	--	--	--	--
%RSD	.1881822	--	--	--	--	--	--
#1	17337	--	--	--	--	--	--
#2	17383	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-5

Operator: EMF

Run Time: 07/01/00 18:49:52

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

663 1156

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0227	23.932	.51478	1.9868	2.1092	52.260	.49666
SDev	.0042	.104	.00332	.0112	.0163	.405	.00407
%RSD	.40582	.43523	.64501	.56121	.77168	.77505	.81914
#1	1.0256	24.006	.51713	1.9947	2.1207	52.547	.49953
#2	1.0197	23.859	.51243	1.9790	2.0977	51.974	.49378
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0170	2.0220	1.9722	25.536	51.702	2.0066	2.0267
SDev	.0102	.0102	.0080	.131	.327	.0105	.0037
%RSD	.50336	.50287	.40414	.51427	.63332	.52397	.18505
#1	2.0242	2.0292	1.9779	25.629	51.934	2.0140	2.0240
#2	2.0099	2.0148	1.9666	25.443	51.471	1.9991	2.0293
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0571	.50818	.50809	.50812	.53443	.50554	.51516
SDev	.0190	.00276	.00364	.00335	.00893	.00267	.00120
%RSD	.92539	.54375	.71595	.65860	1.6712	.52749	.23207
#1	2.0706	.51013	.51067	.51049	.54074	.50366	.51601
#2	2.0436	.50622	.50552	.50576	.52811	.50743	.51432
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.51697	.53524	.52916	1.0320	2.0405	2.0384	
SDev	.00296	.00490	.00425	.0094	.0129	.0138	
%RSD	.57263	.91523	.80376	.91367	.63429	.67543	
#1	.51906	.53870	.53216	1.0386	2.0497	2.0481	
#2	.51488	.53177	.52615	1.0253	2.0314	2.0287	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

663 1157

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17501	--	--	--	--	--	--
SDev	20.50610	--	--	--	--	--	--
%RSD	.1171697	--	--	--	--	--	--
#1	17487	--	--	--	--	--	--
#2	17516	--	--	--	--	--	--

Analysis Report

07/01/00 06:58:07 PM

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Method: METTRA Sample Name: CCB5

Operator: EMF

Run Time: 07/01/00 18:54:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP **663 1158**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.11990	.00123	.00065	.00063	.07095	-.00004
SDev	.00031	.00282	.00061	.00017	.00025	.01353	.00003
%RSD	68.352	2.3495	50.110	26.427	38.717	19.069	69.220
#1	.00066	.11790	.00166	.00053	.00046	.06138	-.00002
#2	.00023	.12189	.00079	.00077	.00081	.08052	-.00006
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00089	-.00331	.00733	.01652	.00062	.00611
SDev	.00006	.00023	.00027	.00043	.00228	.00012	.00218
%RSD	63.616	26.087	8.2193	5.8671	13.825	19.211	35.629
#1	.00014	.00105	-.00350	.00703	.01491	.00054	.00765
#2	.00005	.00072	-.00312	.00763	.01814	.00071	.00457
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.00339	.00026	.00130	.00030	-.00052	-.00025
SDev	.00005	.00098	.00136	.00123	.00418	.00349	.00094
%RSD	7.2312	28.798	512.52	94.189	1410.9	674.79	380.23
#1	.00065	.00270	-.00069	.00044	-.00266	.00195	.00042
#2	.00072	.00408	.00122	.00217	.00325	-.00299	-.00091
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00521	-.00142	.00078	.00259	.00107	.00248	
SDev	.00008	.00066	.00041	.00351	.00034	.00044	
%RSD	1.5498	46.316	52.693	135.58	31.412	17.690	
#1	.00526	-.00189	.00049	.00507	.00084	.00217	
#2	.00515	-.00096	.00108	.00011	.00131	.00279	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1150

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17476	--	--	--	--	--	--
SDev	26.65875	--	--	--	--	--	--
%RSD	.1525476	--	--	--	--	--	--
#1	17457	--	--	--	--	--	--
#2	17495	--	--	--	--	--	--

Analysis Report

07/01/00 07:09:53 PM

page 1

Method: METTRA Sample Name: DFGGHB

Operator: EMF

Run Time: 07/01/00 19:05:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1169

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.13394	.00017	.00015	.00030	.06298	-.00006
SDev	.00024	.00176	.00085	.00001	.00003	.00144	.00005
%RSD	144.83	1.3140	504.79	9.8153	9.2414	2.2854	88.777

#1	-.00000	.13270	.00077	.00014	.00032	.06196	-.00002
#2	.00033	.13519	-.00043	.00016	.00028	.06400	-.00010

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00049	.00045	-.00321	.00681	.00279	.00055	.00070
SDev	.00051	.00049	.00029	.00886	.00075	.00006	.00017
%RSD	105.38	108.82	9.0905	130.00	26.918	10.716	24.344

#1	-.00085	.00010	-.00342	.00055	.00226	.00051	.00082
#2	-.00012	.00080	-.00301	.01307	.00332	.00059	.00058

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.00214	-.00003	.00069	-.00021	.00180	.00113
SDev	.00058	.00044	.00067	.00030	.00005	.00096	.00062
%RSD	424.46	20.621	2198.2	43.703	24.769	53.314	55.119

#1	-.00055	.00245	-.00051	.00048	-.00025	.00248	.00157
#2	.00027	.00183	.00045	.00091	-.00018	.00112	.00069

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00370	-.00023	.00108	.00045	-.00025	.00180
SDev	.00349	.00240	.00044	.00200	.00017	.00021
%RSD	94.533	1041.8	40.707	442.53	70.159	11.775

#1	.00617	-.00193	.00077	.00187	-.00037	.00165
#2	.00123	.00147	.00139	-.00096	-.00012	.00194

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			.00500	.01000	.05000	.02000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17556	--	--	--	--	--	--
SDev	88.98911	--	--	--	--	--	--
%RSD	.5068908	--	--	--	--	--	--
#1	17619	--	--	--	--	--	--
#2	17493	--	--	--	--	--	--

Method: METTRA Sample Name: DFGGHC

Operator: EMF

Run Time: 07/01/00 19:09:57

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1162

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05047	2.1351	2.0349	1.9841	.05263	52.232	.04944
SDev	.00084	.0041	.0033	.0029	.00004	.023	.00040
%RSD	1.6629	.19260	.16222	.14470	.08224	.04497	.81483
#1	.05107	2.1322	2.0326	1.9821	.05266	52.249	.04973
#2	.04988	2.1380	2.0372	1.9862	.05260	52.215	.04916
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50095	.20284	.24741	.94037	51.591	.50046	1.0129
SDev	.00006	.00045	.00009	.00035	.035	.00088	.0049
%RSD	.01118	.22288	.03708	.03693	.06710	.17563	.48090
#1	.50092	.20252	.24734	.94013	51.566	.49984	1.0094
#2	.50099	.20316	.24747	.94062	51.615	.50108	1.0163
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51350	.50951	.50327	.50535	.51242	.49772	.50261
SDev	.00272	.00132	.00067	.00089	.00273	.00222	.00239
%RSD	.52941	.25940	.13366	.17588	.53241	.44680	.47586
#1	.51542	.51044	.50375	.50598	.51435	.49929	.50431
#2	.51157	.50857	.50280	.50472	.51049	.49615	.50092
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	2.0108	2.0853	2.0605	2.0713	.50633	.51690	
SDev	.0001	.0083	.0056	.0067	.00015	.00089	
%RSD	.00382	.40043	.27155	.32473	.03035	.17210	
#1	2.0109	2.0912	2.0645	2.0760	.50644	.51627	
#2	2.0108	2.0794	2.0566	2.0665	.50622	.51753	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17394	--	--	--	--	--	--
SDev	17.00647	--	--	--	--	--	--
%RSD	.0977747	--	--	--	--	--	--
#1	17382	--	--	--	--	--	--
#2	17406	--	--	--	--	--	--

Analysis Report

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Method: METTRA Sample Name: DF790

Operator: EMF

Run Time: 07/01/00 19:14:06

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1164

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00137	.27891	.00232	.01359	.00147	241.84	.00004
SDev	.00045	.01243	.00105	.00024	.00028	1.39	.00006
%RSD	32.469	4.4581	45.119	1.7914	19.460	.57277	137.99
#1	.00169	.28770	.00306	.01376	.00126	240.86	.00008
#2	.00106	.27012	.00158	.01342	.00167	242.82	.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00216	.00156	.14399	H772.97	.04530	.01074
SDev	.00027	.00053	.00114	.01351	5.23	.00008	.00135
%RSD	7239.5	24.688	73.353	9.3845	.67674	.16849	12.539
#1	-.00019	.00254	.00237	.15355	H769.27	.04524	.01170
#2	.00019	.00178	.00075	.13444	H776.67	.04535	.00979
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00131	.01886	-.00747	.00130	-.01182	.00795	.00136
SDev	.00157	.00150	.00107	.00121	.00180	.00285	.00250
%RSD	119.92	7.9371	14.273	93.400	15.237	35.843	183.22
#1	.00242	.01780	-.00823	.00044	-.01309	.00593	-.00040
#2	.00020	.01992	-.00672	.00215	-.01055	.00996	.00313
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.02460	-.01079	.00100	-.00018	.01186	.01375	
SDev	.00446	.00054	.00184	.00187	.00116	.00002	
%RSD	18.131	4.9771	185.21	1031.9	9.7720	.10995	
#1	.02776	-.01041	.00230	.00114	.01268	.01376	
#2	.02145	-.01117	-.00031	-.00151	.01104	.01374	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Model	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16556	--	--	--	--	--	--
SDev	106.2083	--	--	--	--	--	--
%RSD	.6415150	--	--	--	--	--	--
#1	16481	--	--	--	--	--	--
#2	16631	--	--	--	--	--	--

Method: METTRA Sample Name: DF790P5

Operator: EMF

Run Time: 07/01/00 19:18:16

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1166

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00145	.13361	.00277	.00281	.00188	50.872	-.00012
SDev	.00103	.00543	.00078	.00002	.00015	.148	.00019
%RSD	71.182	4.0614	28.151	.57400	7.9484	.29147	150.87

#1	.00218	.13745	.00332	.00282	.00178	50.768	.00001
#2	.00072	.12978	.00222	.00280	.00199	50.977	-.00026

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00058	.00143	-.00459	-.14763	156.46	.00952	.00296
SDev	.00043	.00049	.00018	.00988	.59	.00003	.00065
%RSD	73.644	34.135	3.9345	6.6922	.37450	.32461	21.817

#1	.00088	.00177	-.00446	-.14064	156.05	.00954	.00250
#2	.00028	.00108	-.00471	-.15461	156.88	.00950	.00342

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00092	.00995	-.00490	.00005	-.00828	.00559	.00097
SDev	.00056	.00242	.00072	.00032	.00356	.00308	.00087
%RSD	61.388	24.270	14.764	688.71	43.054	55.103	89.208

#1	.00052	.00825	-.00439	-.00018	-.00576	.00341	.00036
#2	.00131	.01166	-.00541	.00027	-.01080	.00777	.00159

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01808	-.01156	-.00169	-.00024	.00669	.00334
SDev	.00312	.00197	.00028	.00399	.00049	.00013
%RSD	17.233	17.075	16.515	1644.6	7.3545	3.9619

#1	.01588	-.01017	-.00149	-.00307	.00704	.00324
#2	.02029	-.01296	-.00189	.00258	.00635	.00343

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17996	--	--	--	--	--	--
SDev	15.06193	--	--	--	--	--	--
%RSD	.0836969	--	--	--	--	--	--
#1	18006	--	--	--	--	--	--
#2	17985	--	--	--	--	--	--

Analysis Report

07/01/00 07:26:31 PM

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Method: METTRA Sample Name: DF790S

Operator: EMF

Run Time: 07/01/00 19:22:25

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACE ICP 663 1168

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05462	2.6443	2.1334	1.8142	.05383	304.33	.04794
SDev	.00100	.0250	.0048	.0117	.00036	1.62	.00057
%RSD	1.8250	.94537	.22693	.64558	.66644	.53114	1.1852
#1	.05532	2.6620	2.1299	1.8224	.05357	303.19	.04754
#2	.05391	2.6267	2.1368	1.8059	.05408	305.47	.04835
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50668	.20343	.25161	1.2954	H856.11	.55952	1.0001
SDev	.00352	.00018	.00256	.0076	5.43	.00131	.0073
%RSD	.69462	.08695	1.0192	.58469	.63435	.23396	.72846
#1	.50419	.20331	.25342	1.3008	H852.27	.55860	.99497
#2	.50917	.20356	.24980	1.2901	H859.95	.56045	1.0053
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52054	.55749	.50416	.52191	.51695	.51972	.51880
SDev	.00361	.00540	.00120	.00100	.00470	.00037	.00181
%RSD	.69410	.96859	.23728	.19165	.91009	.07153	.34978
#1	.51798	.55367	.50500	.52121	.52028	.51998	.52008
#2	.52309	.56130	.50331	.52262	.51362	.51945	.51751
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0912	2.1596	2.1368	2.1464	.52252	.54412	
SDev	.0102	.0136	.0057	.0110	.00027	.00041	
%RSD	.48598	.62849	.26531	.51363	.05175	.07588	
#1	2.0840	2.1692	2.1408	2.1386	.52271	.54441	
#2	2.0984	2.1500	2.1328	2.1542	.52233	.54383	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16911	--	--	--	--	--	--
SDev	71.17057	--	--	--	--	--	--
%RSD	.4208543	--	--	--	--	--	--
#1	16861	--	--	--	--	--	--
#2	16961	--	--	--	--	--	--

Analysis Report

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Method: METTRA Sample Name: DF790D

Operator: EMF

Run Time: 07/01/00 19:26:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1170

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05424	2.6980	2.1738	1.8321	.05508	309.46	.04948
SDev	.00080	.0800	.0566	.0388	.00128	9.21	.00137
%RSD	1.4717	2.9635	2.6058	2.1162	2.3148	2.9765	2.7749
#1	.05368	2.6414	2.1338	1.8047	.05417	302.95	.04851
#2	.05481	2.7545	2.2139	1.8595	.05598	315.97	.05045
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51816	.20734	.25382	1.3646	H869.42	.56994	1.0226
SDev	.01637	.00549	.00642	.1057	27.32	.01620	.0304
%RSD	3.1596	2.6500	2.5303	7.7423	3.1428	2.8418	2.9690
#1	.50658	.20345	.24928	1.2899	H850.09	.55849	1.0012
#2	.52974	.21122	.25836	1.4394	H888.74	.58140	1.0441
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.53025	.55740	.52112	.53320	.53781	.52498	.52925
SDev	.01270	.00089	.02302	.01565	.02054	.00538	.01043
%RSD	2.3948	.16010	4.4176	2.9355	3.8188	1.0248	1.9703
#1	.52127	.55677	.50484	.52213	.52329	.52118	.52188
#2	.53923	.55803	.53740	.54427	.55233	.52879	.53663
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.1285	2.2070	2.1808	2.1940	.53047	.55512	
SDev	.0303	.0602	.0502	.0565	.01486	.01507	
%RSD	1.4229	2.7280	2.3038	2.5764	2.8008	2.7141	
#1	2.1071	2.1644	2.1453	2.1540	.51997	.54446	
#2	2.1499	2.2495	2.2163	2.2339	.54098	.56577	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1171

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16739	--	--	--	--	--	--
SDev	366.9884	--	--	--	--	--	--
%RSD	2.192474	--	--	--	--	--	--
#1	16998	--	--	--	--	--	--
#2	16479	--	--	--	--	--	--

Analysis Report

07/01/00 07:34:50 PM

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Method: METTRA Sample Name: DF795

Operator: EMF

Run Time: 07/01/00 19:30:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

663 1172

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00065	.26949	.00427	.01418	.00263	260.32	.00000
SDev	.00047	.01003	.00191	.00011	.00012	.11	.00005
%RSD	71.743	3.7205	44.790	.74984	4.3628	.04054	2069.2
#1	.00099	.27658	.00563	.01425	.00255	260.40	.00004
#2	.00032	.26240	.00292	.01410	.00271	260.25	-.00003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00078	.00108	.00183	.19537	H830.03	.04885	.00998
SDev	.00048	.00020	.00075	.02692	.45	.00010	.00105
%RSD	61.460	18.487	40.630	13.778	.05461	.21051	10.555
#1	.00113	.00122	.00236	.21440	H829.71	.04878	.01072
#2	.00044	.00094	.00131	.17634	H830.35	.04893	.00924
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00129	.00663	-.00133	.00132	-.00219	.00262	.00101
SDev	.00012	.00018	.00243	.00156	.00114	.00274	.00220
%RSD	9.2900	2.6681	183.04	118.03	51.782	104.64	217.29
#1	.00138	.00650	.00039	.00242	-.00300	.00068	-.00054
#2	.00121	.00675	-.00304	.00022	-.00139	.00455	.00257
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.01754	-.00638	.00158	.00080	.00967	.03111	
SDev	.00121	.00344	.00270	.00315	.00156	.00007	
%RSD	6.9160	53.957	170.49	392.79	16.142	.23419	
#1	.01840	-.00395	.00349	.00303	.00857	.03106	
#2	.01668	-.00882	-.00033	-.00143	.01078	.03116	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1173

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16619	--	--	--	--	--	--
SDev	.60.88162	--	--	--	--	--	--
%RSD	.3663308	--	--	--	--	--	--
#1	16576	--	--	--	--	--	--
#2	16662	--	--	--	--	--	--

Analysis Report

07/01/00 07:38:59 PM

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Method: METTRA Sample Name: DF797

Operator: EMF

Run Time: 07/01/00 19:34:53

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACE ICP 663 1174

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00190	.22701	.00313	.01375	.00233	260.23	.00010
SDev	.00033	.00141	.00001	.00006	.00015	2.11	.00001
%RSD	17.186	.62284	.22889	.45430	6.6054	.81133	6.1390
#1	.00167	.22801	.00314	.01380	.00222	258.74	.00009
#2	.00213	.22601	.00313	.01371	.00244	261.73	.00010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00081	.00217	-.00082	.13833	H830.67	.04835	.00925
SDev	.00044	.00076	.00049	.00920	7.52	.00027	.00057
%RSD	54.530	34.883	60.004	6.6481	.90586	.56441	6.1255
#1	.00050	.00164	-.00047	.14483	H825.35	.04816	.00965
#2	.00113	.00271	-.00117	.13183	H835.99	.04854	.00885
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00188	.01496	-.00574	.00116	-.00736	.01094	.00485
SDev	.00145	.00358	.00109	.00192	.00113	.00337	.00187
%RSD	77.534	23.944	18.969	165.78	15.408	30.825	38.624
#1	.00085	.01243	-.00650	-.00020	-.00656	.00856	.00352
#2	.00291	.01750	-.00497	.00251	-.00816	.01333	.00617
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.02067	-.01294	-.00175	-.00173	.01016	.01601	
SDev	.00078	.00337	.00251	.00032	.00254	.00032	
%RSD	3.7956	26.072	143.57	18.370	24.964	1.9842	
#1	.02122	-.01056	.00003	-.00151	.00836	.01579	
#2	.02011	-.01533	-.00353	-.00196	.01195	.01624	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Model	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16429	--	--	--	--	--	--
SDev	14.56612	--	--	--	--	--	--
%RSD	.0886632	--	--	--	--	--	--
#1	16439	--	--	--	--	--	--
#2	16418	--	--	--	--	--	--

Analysis Report

07/01/00 07:43:08 PM

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Method: METTRA Sample Name: DFGG7B

Operator: EMF

Run Time: 07/01/00 19:39:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1176

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00010	.10988	.00150	.00024	.00204	.12733	.00003
SDev	.00017	.00185	.00030	.00013	.00005	.00463	.00002
%RSD	166.07	1.6875	20.121	52.970	2.5547	3.6353	58.187
#1	.00002	.10856	.00171	.00015	.00208	.12405	.00002
#2	-.00023	.11119	.00128	.00033	.00200	.13060	.00005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00038	.00089	-.00627	.01480	.05325	.00085	.00071
SDev	.00014	.00005	.00040	.00419	.01092	.00000	.00001
%RSD	36.733	5.8207	6.4276	28.328	20.514	.43089	.75960
#1	-.00048	.00092	-.00656	.01183	.04553	.00085	.00071
#2	-.00028	.00085	-.00599	.01776	.06098	.00086	.00071
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	-.00039	.00259	.00160	.00422	-.00036	.00116
SDev	.00016	.00294	.00025	.00115	.00267	.00072	.00137
%RSD	1910.7	750.80	9.7464	71.902	63.373	197.65	117.70
#1	-.00012	.00169	.00277	.00241	.00233	-.00087	.00020
#2	.00010	-.00247	.00241	.00078	.00611	.00014	.00213
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00473	.00000	.00158	-.00150	-.00036	.00382	
SDev	.00329	.00122	.00028	.00508	.00000	.00008	
%RSD	69.498	24881.	17.953	337.89	.40270	2.0457	
#1	.00706	-.00086	.00178	-.00510	-.00036	.00376	
#2	.00241	.00087	.00138	.00209	-.00036	.00387	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1177

IntStd	1.00	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17804	--	--	--	--	--	--
SDev	47.97692	--	--	--	--	--	--
%RSD	.2694746	--	--	--	--	--	--
#1	17838	--	--	--	--	--	--
#2	17770	--	--	--	--	--	--

Analysis Report

07/01/00 07:47:18 PM

page 1

Method: METTRA Sample Name: DFGG7C

Operator: EMF

Run Time: 07/01/00 19:43:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP **663 1178**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04722	1.8823	2.0845	1.8495	.05666	L.06431	.05445
SDev	.00037	.0006	.0006	.0032	.00012	.00156	.00010
%RSD	.79046	.03231	.02865	.17393	.20797	2.4249	.19036
#1	.04696	1.8819	2.0850	1.8472	.05674	L.06321	.05438
#2	.04748	1.8828	2.0841	1.8518	.05658	L.06541	.05453
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.54140	.21268	.22601	1.0783	L.02207	.51651	L.00045
SDev	.00000	.00025	.00076	.0088	.00202	.00043	.00058
%RSD	.00079	.11870	.33651	.81489	9.1549	.08289	129.99
#1	.54139	.21250	.22547	1.0846	L.02064	.51621	L.00086
#2	.54140	.21285	.22655	1.0721	L.02350	.51681	L.00004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.55570	.53441	.54425	.54097	.00305	.00109	L.00174
SDev	.00145	.00353	.00047	.00149	.00213	.00068	.00116
%RSD	.26149	.66141	.08574	.27511	69.966	61.788	66.543
#1	.55673	.53191	.54392	.53992	.00455	.00157	L.00257
#2	.55467	.53691	.54458	.54203	.00154	.00062	L.00092
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0253	2.0797	2.0616	2.0992	.50783	.52591	
SDev	.0071	.0099	.0090	.0007	.00122	.00010	
%RSD	.35004	.47698	.43545	.03212	.24121	.01846	
#1	2.0203	2.0727	2.0552	2.0997	.50696	.52584	
#2	2.0303	2.0867	2.0679	2.0987	.50870	.52598	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

663 1179

IntStd.	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17910	--	--	--	--	--	--
SDev	25.77349	--	--	--	--	--	--
%RSD	.1439042	--	--	--	--	--	--
#1	17928	--	--	--	--	--	--
#2	17892	--	--	--	--	--	--

Analysis Report

07/01/00 07:51:27 PM

page 1

Method: METTRA Sample Name: CCV3-6

Operator: EMF

Run Time: 07/01/00 19:47:22

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

663 1180

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0022	23.587	.53012	1.9056	H2.2079	H55.620	.53292
SDev	.0094	.209	.00470	.0189	.0255	.629	.00584
%RSD	.93571	.88766	.88562	.98967	1.1539	1.1318	1.0953
#1	1.0088	23.735	.53344	1.9189	H2.2259	H56.066	.53705
#2	.99555	23.439	.52680	1.8923	2.1899	H55.175	.52879
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC High	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1059	2.1048	1.8861	26.461	54.858	2.0655	2.0841
SDev	.0198	.0207	.0190	.236	.568	.0205	.0066
%RSD	.94119	.98305	1.0061	.89121	1.0348	.99062	.31738
#1	2.1199	2.1195	1.8995	26.628	H55.260	2.0799	2.0888
#2	2.0919	2.0902	1.8726	26.294	54.457	2.0510	2.0794
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1603	.54294	.53889	.54024	.53368	.50181	.51243
SDev	.0347	.00568	.00580	.00576	.00637	.00382	.00467
%RSD	1.6071	1.0465	1.0758	1.0660	1.1936	.76149	.91136
#1	2.1849	.54696	.54298	.54431	.53819	.50452	.51573
#2	2.1358	.53893	.53479	.53616	.52918	.49911	.50913
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.53078	.54466	.54004	1.0676	2.0716	2.0763	
SDev	.00512	.01041	.00865	.0101	.0240	.0233	
%RSD	.96489	1.9115	1.6017	.94727	1.1565	1.1216	
#1	.53440	.55202	.54615	1.0748	2.0886	2.0928	
#2	.52716	.53730	.53392	1.0605	2.0547	2.0599	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

663 1181

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17928	--	--	--	--	--	--
SDev	116.8494	--	--	--	--	--	--
%RSD	.6517858	--	--	--	--	--	--
#1	17845	--	--	--	--	--	--
#2	18010	--	--	--	--	--	--

Analysis Report

07/01/00 07:55:37 PM

page 1

Method: METTRA Sample Name: CCB6

Operator: EMF

Run Time: 07/01/00 19:51:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1182

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.11878	.00177	.00046	.00231	.07276	-.00007
SDev	.00063	.00090	.00038	.00017	.00020	.09271	.00008
%RSD	353.61	.75453	21.256	37.505	8.7054	127.43	112.67
#1	-.00027	.11815	.00203	.00034	.00217	.00720	-.00013
#2	.00063	.11942	.00150	.00058	.00245	.13831	-.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.00052	-.00624	.00791	.01663	.00047	.00633
SDev	.00095	.00058	.00012	.01511	.01083	.00027	.00128
%RSD	449.55	112.30	1.9916	191.02	65.142	57.654	20.284
#1	-.00046	.00011	-.00633	-.00277	.00897	.00028	.00724
#2	.00088	.00093	-.00615	.01859	.02429	.00066	.00543
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	.00015	.00153	.00107	.00192	.00063	.00106
SDev	.00132	.00033	.00103	.00058	.00297	.00005	.00096
%RSD	264.67	219.53	67.435	53.963	154.60	7.1016	90.136
#1	-.00143	.00039	.00080	.00066	.00402	.00060	.00174
#2	.00043	-.00008	.00226	.00148	-.00018	.00067	.00039
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00746	-.00185	.00125	.00165	.00021	.00441	
SDev	.00104	.00040	.00008	.00022	.00082	.00449	
%RSD	13.910	21.715	6.1875	13.475	387.40	101.81	
#1	.00673	-.00157	.00119	.00180	-.00037	.00124	
#2	.00820	-.00214	.00130	.00149	.00079	.00758	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18130	--	--	--	--	--	--
SDev	21.63719	--	--	--	--	--	--
%RSD	.1193444	--	--	--	--	--	--
#1	18115	--	--	--	--	--	--
#2	18145	--	--	--	--	--	--

Analysis Report

07/01/00 07:59:46 PM

page 1

Method: METTRA Sample Name: DF25M

Operator: EMF

Run Time: 07/01/00 19:55:41

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

663 1184

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01862	29.109	.02177	4.3646	.00274	H853.71	.05488
SDev	.00011	.126	.00140	.0271	.00011	6.59	.00011
%RSD	.60008	.43181	6.4489	.62087	4.0030	.77225	.19513
#1	.01870	29.198	.02077	4.3838	.00266	H858.37	.05496
#2	.01854	29.020	.02276	4.3454	.00281	H849.05	.05480
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.6892	.41307	2.1556	133.65	69.472	2.8946	1.3366
SDev	.0088	.00121	.0127	.72	.414	.0163	.0032
%RSD	.51836	.29280	.59144	.54076	.59614	.56340	.23625
#1	1.6954	.41392	2.1646	134.16	69.765	2.9062	1.3388
#2	1.6831	.41221	2.1465	133.14	69.179	2.8831	1.3344
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.72381	9.2809	9.0566	H9.1313	-.01090	.00495	-.00033
SDev	.00349	.0791	.0751	.0764	.00186	.00059	.00023
%RSD	.48225	.85195	.82886	.83668	17.102	11.986	68.517
#1	.72627	9.3368	9.1097	H9.1853	-.00958	.00453	-.00017
#2	.72134	9.2250	9.0036	H9.0773	-.01222	.00537	-.00049
Errors	LC Pass	NOCHECK	NOCHECK	LC High	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01579	.00421	.00807	.00954	.05598	H46.911	
SDev	.00064	.00220	.00168	.00400	.00049	.412	
%RSD	4.0255	52.301	20.837	41.998	.87090	.87867	
#1	.01624	.00577	.00926	.01237	.05632	H47.202	
#2	.01534	.00265	.00688	.00670	.05563	H46.619	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1185

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17565	--	--	--	--	--	--
SDev	120.0314	--	--	--	--	--	--
%RSD	.6833641	--	--	--	--	--	--
#1	17480	--	--	--	--	--	--
#2	17650	--	--	--	--	--	--

Analysis Report

07/01/00 08:05:49 PM

page 1

Method: METTRA Sample Name: DF25M/2 PB

Operator: EMF

Run Time: 07/01/00 20:01:43

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP **663 1186**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00945	14.267	.00996	2.2235	.00185	440.96	.02798
SDev	.00115	.030	.00001	.0103	.00001	4.47	.00065
%RSD	12.190	.21183	.06682	.46286	.55522	1.0132	2.3233
#1	.00863	14.245	.00996	2.2308	.00186	444.12	.02752
#2	.01026	14.288	.00997	2.2162	.00184	437.80	.02844
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.85942	.21023	1.0726	67.503	34.981	1.4535	.67812
SDev	.00815	.00218	.0012	.314	.065	.0102	.01131
%RSD	.94796	1.0352	.11204	.46473	.18564	.70291	1.6676
#1	.85366	.20869	1.0735	67.281	35.027	1.4463	.67013
#2	.86518	.21177	1.0718	67.725	34.936	1.4608	.68612
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.37750	4.7111	4.7233	4.7192	-.00337	.00310	.00095
SDev	.01130	.0474	.0353	.0078	.00224	.00061	.00034
%RSD	2.9936	1.0063	.74752	.16449	66.629	19.658	35.766
#1	.38549	4.6776	4.7482	4.7247	-.00178	.00267	.00119
#2	.36951	4.7446	4.6983	4.7137	-.00495	.00354	.00071
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01016	.00004	.00341	.00520	.03082	H39.491	
SDev	.00137	.00078	.00006	.00166	.00014	.517	
%RSD	13.487	1736.5	1.8115	31.834	.46320	1.3080	
#1	.00919	.00059	.00346	.00637	.03072	H39.856	
#2	.01113	-.00050	.00337	.00403	.03092	H39.125	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17635	--	--	--	--	--	--
SDev	76.89786	--	--	--	--	--	--
%RSD	.4360605	--	--	--	--	--	--
#1	17689	--	--	--	--	--	--
#2	17580	--	--	--	--	--	--

Analysis Report

07/01/00 08:09:58 PM

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Method: METTRA Sample Name: DF7P0

Operator: EMF

Run Time: 07/01/00 20:05:53

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1188

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00004	3.5261	.02887	.16337	.00556	7.1758	-.00018
SDev	.00062	.0238	.00051	.00096	.00004	.0420	.00020
%RSD	1507.7	.67382	1.7593	.58983	.69213	.58561	110.87
#1	.00048	3.5093	.02851	.16269	.00559	7.1461	-.00032
#2	-.00040	3.5429	.02923	.16405	.00554	7.2056	-.00004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00986	.02091	.04783	4.4002	2.2403	.04544	.00495
SDev	.00004	.00039	.00080	.0149	.0135	.00029	.00118
%RSD	.38538	1.8473	1.6788	.33812	.60457	.63379	23.871
#1	.00989	.02118	.04726	4.3897	2.2307	.04524	.00579
#2	.00984	.02063	.04840	4.4107	2.2499	.04564	.00411
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05893	.00563	.00571	.00569	.00602	.00207	.00338
SDev	.00024	.00079	.00101	.00041	.00081	.00035	.00003
%RSD	.41134	14.018	17.693	7.2362	13.391	17.029	1.0001
#1	.05876	.00507	.00643	.00598	.00545	.00232	.00336
#2	.05910	.00619	.00500	.00540	.00659	.00182	.00341
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.02613	.01797	.02069	.00251	.03507	.17984	
SDev	.00223	.00142	.00169	.00049	.00009	.00344	
%RSD	8.5330	7.9224	8.1793	19.346	.24435	1.9148	
#1	.02456	.01696	.01949	.00285	.03501	.17741	
#2	.02771	.01897	.02188	.00217	.03513	.18228	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18449	--	--	--	--	--	--
SDev	43.80609	--	--	--	--	--	--
%RSD	.2374465	--	--	--	--	--	--
#1	18480	--	--	--	--	--	--
#2	18418	--	--	--	--	--	--

Method: METTRA Sample Name: DF7P0P5

Operator: EMF

Run Time: 07/01/00 20:10:02

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

663 1190

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00043	.80432	.00616	.03297	.00246	1.4635	.00004
SDev	.00017	.00313	.00055	.00002	.00003	.0015	.00003
%RSD	38.333	.38925	8.9602	.06028	1.1387	.10236	79.136
#1	.00032	.80653	.00577	.03298	.00244	1.4625	.00006
#2	.00055	.80211	.00655	.03295	.00248	1.4646	.00002
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00172	.00473	.00403	.88286	.45756	.00955	.00151
SDev	.00032	.00043	.00018	.01527	.00369	.00009	.00051
%RSD	18.522	9.1496	4.5782	1.7301	.80695	.92971	34.076
#1	.00195	.00504	.00390	.87206	.46017	.00961	.00114
#2	.00150	.00443	.00416	.89366	.45495	.00949	.00187
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01228	.00386	.00115	.00205	-.00045	.00112	.00060
SDev	.00003	.00032	.00018	.00001	.00268	.00023	.00104
%RSD	.27886	8.2643	15.303	.55486	595.11	20.369	174.08
#1	.01225	.00409	.00103	.00205	-.00234	.00096	-.00014
#2	.01230	.00363	.00128	.00206	.00144	.00129	.00134
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01153	.00128	.00469	-.00160	.00727	.04153	
SDev	.00114	.00154	.00065	.00137	.00000	.00054	
%RSD	9.8778	120.84	13.853	85.950	.04281	1.3068	
#1	.01073	.00237	.00515	-.00257	.00727	.04114	
#2	.01234	.00019	.00423	-.00063	.00727	.04191	

IntStd	1	2	3	4	5	6	7
Model	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18323	--	--	--	--	--	--
SDev	21.10824	--	--	--	--	--	--
%RSD	.1152038	--	--	--	--	--	--
#1	18308	--	--	--	--	--	--
#2	18337	--	--	--	--	--	--

Analysis Report

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Method: METTRA Sample Name: DF7P0S

Operator: EMF

Run Time: 07/01/00 20:14:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1192

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04385	5.3898	1.8810	1.8944	.05658	7.5597	.04817
SDev	.00044	.0016	.0030	.0019	.00000	.0033	.00017
%RSD	.99998	.02982	.16099	.10065	.00665	.04417	.35863
#1	.04354	5.3886	1.8789	1.8958	.05657	7.5573	.04829
#2	.04416	5.3909	1.8832	1.8931	.05658	7.5620	.04805
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48000	.20490	.28546	4.8824	2.1560	.51362	.00447
SDev	.00129	.00082	.00022	.0009	.0009	.00059	.00051
%RSD	.26877	.39881	.07812	.01748	.04325	.11401	11.491
#1	.47909	.20432	.28530	4.8830	2.1553	.51321	.00410
#2	.48091	.20548	.28562	4.8818	2.1566	.51403	.00483
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53579	.46559	.46649	.46619	.00491	.00275	.00347
SDev	.00115	.00220	.00089	.00133	.00164	.00032	.00034
%RSD	.21384	.47245	.19032	.28415	33.392	11.459	9.6800
#1	.53498	.46403	.46587	.46526	.00608	.00253	.00371
#2	.53660	.46714	.46712	.46713	.00375	.00298	.00323
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.8568	1.8842	1.8750	1.6655	.48006	.65964	
SDev	.0001	.0109	.0072	.0039	.00005	.00057	
%RSD	.00470	.57601	.38452	.23270	.00949	.08695	
#1	1.8569	1.8765	1.8699	1.6627	.48003	.66004	
#2	1.8567	1.8918	1.8801	1.6682	.48009	.65923	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18459	--	--	--	--	--	--
SDev	1.767767	--	--	--	--	--	--
%RSD	.0095765	--	--	--	--	--	--
#1	18461	--	--	--	--	--	--
#2	18458	--	--	--	--	--	--

Method: METTRA Sample Name: DF7P0D

Operator: EMF

Run Time: 07/01/00 20:18:21

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACE ICP 663 1194

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04335	4.6708	1.8750	1.8155	.05546	5.9503	.04805
SDev	.00023	.0144	.0091	.0052	.00015	.0214	.00014
%RSD	.53785	.30904	.48722	.28885	.27585	.35902	.28501
#1	.04318	4.6606	1.8686	1.8118	.05535	5.9352	.04795
#2	.04351	4.6810	1.8815	1.8192	.05557	5.9654	.04814
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48286	.20586	.57330	4.7707	1.4945	.51343	.00392
SDev	.00189	.00093	.00349	.0198	.0050	.00256	.00011
%RSD	.39059	.45318	.60958	.41421	.33402	.49843	2.7929
#1	.48152	.20520	.57083	4.7567	1.4910	.51162	.00385
#2	.48419	.20652	.57577	4.7846	1.4980	.51524	.00400
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53746	.46607	.46590	.46596	.00367	.00263	.00297
SDev	.00077	.00393	.00344	.00360	.00043	.00228	.00138
%RSD	.14288	.84247	.73846	.77310	11.687	86.930	46.433
#1	.53692	.46329	.46347	.46341	.00397	.00101	.00200
#2	.53801	.46884	.46834	.46850	.00336	.00424	.00395
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.8580	1.8865	1.8770	1.6713	.47874	.82629	
SDev	.0186	.0271	.0243	.0076	.00319	.00375	
%RSD	1.0021	1.4374	1.2939	.45526	.66580	.45342	
#1	1.8448	1.8673	1.8598	1.6660	.47648	.82364	
#2	1.8711	1.9057	1.8942	1.6767	.48099	.82894	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18387	--	--	--	--	--	--
SDev	184.6612	--	--	--	--	--	--
%RSD	1.004318	--	--	--	--	--	--
#1	18517	--	--	--	--	--	--
#2	18256	--	--	--	--	--	--

Method: METTRA Sample Name: DF7P7

Operator: EMF

Run Time: 07/01/00 20:22:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACE ICP 663 1196

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	4.3799	.01073	.32635	.00793	4.7216	-.00024
SDev	.00081	.0259	.00058	.00245	.00014	.0409	.00023
%RSD	211.38	.59204	5.3867	.75177	1.7952	.86638	97.858
#1	-.00019	4.3982	.01114	.32809	.00803	4.7505	-.00041
#2	.00096	4.3616	.01032	.32462	.00782	4.6926	-.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02544	.05038	H30.958	5.0322	.34202	.03367	.05113
SDev	.00034	.00043	.207	.0278	.00438	.00009	.00041
%RSD	1.3468	.85480	.66880	.55241	1.2796	.26967	.80591
#1	.02519	.05008	H31.105	5.0518	.33893	.03374	.05084
#2	.02568	.05069	H30.812	5.0125	.34512	.03361	.05142
Errors	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10052	.00205	.00163	.00177	.00689	.00270	.00410
SDev	.00059	.00033	.00038	.00014	.00255	.00123	.00003
%RSD	.58871	16.344	23.202	7.9857	37.029	45.550	.66988
#1	.10094	.00181	.00190	.00187	.00869	.00183	.00412
#2	.10011	.00228	.00137	.00167	.00508	.00357	.00408
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.01856	.00720	.01098	.00422	.13483	.02852	
SDev	.00356	.00194	.00248	.00110	.00022	.00053	
%RSD	19.200	26.917	22.575	26.001	.16306	1.8600	
#1	.02108	.00857	.01274	.00499	.13499	.02889	
#2	.01604	.00583	.00923	.00344	.13468	.02814	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1197

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19128	--	--	--	--	--	--
SDev	30.12247	--	--	--	--	--	--
%RSD	.1574825	--	--	--	--	--	--
#1	19106	--	--	--	--	--	--
#2	19149	--	--	--	--	--	--

Analysis Report

07/01/00 08:30:46 PM

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Method: METTRA Sample Name: DFF06

Operator: EMF

Run Time: 07/01/00 20:26:40

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1198

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00077	4.0183	.02930	.18911	.00381	7.6810	.30850
SDev	.00007	.0461	.00005	.00144	.00016	.0507	.00270
%RSD	9.1738	1.1462	.18339	.76205	4.0922	.65969	.87497
#1	.00082	3.9858	.02934	.18809	.00393	7.6451	.30659
#2	.00072	4.0509	.02926	.19013	.00370	7.7168	.31041
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01987	.02990	H18.461	6.9807	3.7955	.08685	.00790
SDev	.00021	.00002	.160	.0621	.0298	.00085	.00001
%RSD	1.0471	.06712	.86540	.89027	.78548	.98015	.08537
#1	.01972	.02988	H18.348	6.9367	3.7744	.08624	.00789
#2	.02001	.02991	H18.574	7.0246	3.8165	.08745	.00790
Errors	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07936	.46613	.47394	.47134	.01026	.00887	.00933
SDev	.00046	.00492	.00378	.00416	.00078	.00044	.00003
%RSD	.57297	1.0560	.79734	.88254	7.6176	4.9608	.35647
#1	.07904	.46265	.47127	.46840	.01081	.00856	.00931
#2	.07968	.46961	.47661	.47428	.00971	.00918	.00936
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01596	.00511	.00873	.00460	.06251	H10.533	
SDev	.00274	.00356	.00146	.00046	.00044	.079	
%RSD	17.187	69.714	16.770	9.9679	.69759	.74828	
#1	.01790	.00259	.00769	.00427	.06220	H10.478	
#2	.01402	.00763	.00976	.00492	.06282	H10.589	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1199

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18684	--	--	--	--	--	--
SDev	128.0927	--	--	--	--	--	--
%RSD	.6855695	--	--	--	--	--	--
#1	18775	--	--	--	--	--	--
#2	18594	--	--	--	--	--	--

Analysis Report

07/01/00 08:34:56 PM

page 1

Method: METTRA Sample Name: DFM2LC RERUN CR Operator: EMF
 Run Time: 07/01/00 20:30:50
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

663 1200

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04587	2.0722	2.0292	1.9000	.05482	53.832	.05065
SDev	.00020	.0005	.0021	.0054	.00025	.162	.00005
%RSD	.43558	.02191	.10544	.28564	.46089	.30051	.09803
#1	.04573	2.0718	2.0307	1.9038	.05499	53.946	.05061
#2	.04601	2.0725	2.0277	1.8962	.05464	53.717	.05068
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50816	H.25436	.23862	H1.2541	53.017	.50387	1.0306
SDev	.00028	.00020	.00165	.0021	.065	.00043	.0041
%RSD	.05553	.07830	.69005	.16912	.12171	.08450	.40110
#1	.50796	H.25450	.23979	H1.2526	53.063	.50417	1.0276
#2	.50836	H.25422	.23746	H1.2556	52.972	.50357	1.0335
Errors	LC Pass	LC High	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52120	.51675	.51540	.51585	.50526	.49039	.49534
SDev	.00253	.00221	.00039	.00048	.00121	.00344	.00189
%RSD	.48584	.42801	.07571	.09233	.23893	.70213	.38249
#1	.52299	.51518	.51568	.51551	.50611	.48795	.49400
#2	.51941	.51831	.51513	.51619	.50441	.49282	.49668
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0150	2.0724	2.0533	2.0803	.50231	.52692	
SDev	.0057	.0006	.0015	.0035	.00159	.00134	
%RSD	.28475	.02809	.07414	.16591	.31690	.25365	
#1	2.0109	2.0728	2.0522	2.0779	.50343	.52786	
#2	2.0190	2.0720	2.0544	2.0828	.50118	.52597	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18172	--	--	--	--	--	--
SDev	1.484648	--	--	--	--	--	--
%RSD	.0081700	--	--	--	--	--	--
#1	18173	--	--	--	--	--	--
#2	18171	--	--	--	--	--	--

Analysis Report

07/01/00 08:39:05 PM

page 1

Method: METTRA Sample Name: CCV3-7

Operator: EMF

Run Time: 07/01/00 20:34:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

663 1202

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0036	23.570	.52069	1.9278	2.1730	54.431	.51976
SDev	.0021	.038	.00037	.0060	.0102	.253	.00157
%RSD	.20970	.15933	.07044	.31304	.46808	.46420	.30146
#1	1.0051	23.596	.52043	1.9321	2.1801	54.610	.52087
#2	1.0021	23.543	.52095	1.9235	2.1658	54.253	.51866
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0721	2.0761	1.9095	26.203	53.906	2.0480	2.0648
SDev	.0031	.0021	.0056	.052	.149	.0051	.0072
%RSD	.15102	.09888	.29397	.19743	.27727	.24914	.34980
#1	2.0743	2.0775	1.9135	26.240	54.012	2.0516	2.0597
#2	2.0699	2.0746	1.9056	26.167	53.800	2.0444	2.0699
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1090	.53228	.52762	.52917	.53407	.50637	.51559
SDev	.0151	.00184	.00261	.00235	.00444	.00296	.00345
%RSD	.71681	.34473	.49477	.44451	.83117	.58452	.66960
#1	2.1197	.53358	.52946	.53083	.53721	.50846	.51803
#2	2.0984	.53098	.52577	.52751	.53093	.50427	.51315
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.53277	.54012	.53767	1.0520	2.0525	2.0382	
SDev	.00076	.00504	.00361	.0060	.0097	.0055	
%RSD	.14291	.93223	.67179	.57278	.47494	.26861	
#1	.53330	.54368	.54023	1.0477	2.0594	2.0421	
#2	.53223	.53656	.53512	1.0562	2.0456	2.0343	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18082	--	--	--	--	--	--
SDev	.3880801	--	--	--	--	--	--
%RSD	.0021462	--	--	--	--	--	--
#1	18082	--	--	--	--	--	--
#2	18082	--	--	--	--	--	--

Analysis Report

07/01/00 08:43:15 PM

page 1

Method: METTRA Sample Name: CCB7

Operator: EMF

Run Time: 07/01/00 20:39:09

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP 663 1204

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00017	.13516	.00139	.00045	.00173	.00461	.00006
SDev	.00102	.00840	.00026	.00016	.00003	.00376	.00009
%RSD	594.19	6.2121	18.415	36.828	1.9409	81.484	161.27
#1	.00089	.14109	.00157	.00056	.00176	.00727	.00012
#2	-.00055	.12922	.00121	.00033	.00171	.00195	-.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	.00054	-.00467	.00560	.01077	.00033	.00641
SDev	.00063	.00071	.00044	.00615	.00450	.00015	.00319
%RSD	419.43	129.64	9.4972	109.84	41.802	44.591	49.848
#1	.00059	.00104	-.00435	.00994	.01395	.00044	.00866
#2	-.00029	.00005	-.00498	.00125	.00758	.00023	.00415
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00016	.00229	-.00089	.00017	.00149	.00181	.00170
SDev	.00077	.00199	.00084	.00011	.00274	.00107	.00020
%RSD	473.22	86.942	93.815	62.744	184.06	59.147	11.727
#1	.00038	.00370	-.00148	.00024	-.00045	.00256	.00156
#2	-.00071	.00088	-.00030	.00009	.00343	.00105	.00184
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00620	-.00199	.00074	.00125	.00022	.00181	
SDev	.00133	.00168	.00068	.00328	.00050	.00025	
%RSD	21.435	84.169	92.013	261.91	229.16	13.666	
#1	.00526	-.00081	.00121	.00357	.00057	.00199	
#2	.00714	-.00318	.00026	-.00107	-.00014	.00164	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17976	--	--	--	--	--	--
SDev	81.95395	--	--	--	--	--	--
%RSD	.4559089	--	--	--	--	--	--
#1	17918	--	--	--	--	--	--
#2	18034	--	--	--	--	--	--

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868

663 1206

#	Sample Name	CR
1	STD1	-.00022
2	STD6	
3	STD7	15.0677
4	ICV3-1 0014-146-5	1.0259
5	ICB1	.00066
6	ICSA 0014-129-11	.00305
7	ICSAB 0014-136-3	.50863
8	DFM2RB	.00029
9	DFM2RC	.20686
10	DS09C01CS	.18404
11	DS09C01CSP5	.04050
12	DS09C01CSS	.49833
13	DS09C01CSD	.50889
14	DS10C01CS	.18264
15	DS11C01CS	.17891
16	CCV3-1 0014-155-3	2.0577
17	CCB1	.00022
18	DS09C01CSA1 CR=0.37	.52652
19	DS09C01CSA2 SB=0.02	.18271
20	DS10C01CS RERUN SE	.18136
21	CCV3-2	2.0214
22	CCB2	.00038
23	DFGH2B	.00051
24	DFGH2C	.20322
25	DETV5	.00042
26	DETVR	.00102
27	DETVRP5	.00038
28	DETVRS	.20132
29	DETVRD	.20218
30	DETVW	.00066
31	DETX2	.00092
32	DETX5	.00085
33	CCV3-3	2.0480
34	CCB3	.00036
35	DETXL	.00069
36	DETXT	.00024
37	DEV06	.00057
38	DEV09	.00064
39	DEV0D	.00078
40	DEV0J	.00046
41	DF83W	.00067
42	DF84H	.00030
43	DF84J	.00038
44	CCV3-4	2.0561
45	CCB4	.00050
46	DFK4AB	.00080
47	DFK4AC	.20793
48	DFCKL	.13918
49	DFCKN	.48081
50	DFCKP	.31804
51	DFCKPP5	.06691
52	DFCKPS	.54544
53	DFCKPD	.59256

Sample Name

CR

663 1207

54	DFCKR	.79633
55	DFCKT	.89100
56	CCV3-5	2.0268
57	CCB5	.00044
58	DFCKV	.10637
59	DFCKW	.89001
60	DFCMP	4.4828
61	DFCP9	.21475
62	DFGJQ	.77115
63	DFCMP/2 TL	2.3307
64	CCV3-6	2.0392
65	CCB6	.00044
66	DFNERB	-.00004
67	DFNERC	.20294
68	DFJTE	.00816
69	DFJTEP5	.00234
70	DFJTES	.20626
71	DFJTED	.20977
72	DFKQ3	.02672
73	DFJTL	.01011
74	CCV3-7	2.0627
75	CCB7	.00054
76	DFK1JB	.00076
77	DFK1JC	.20512
78	DFH5M	.18089
79	DFH5MP5	.04063
80	DFH5MS	.35304
81	DFH5MD	.36021
82	DFH6F	.20041
83	DFH6J	.15126
84	CCV3-8	2.0505
85	CCB8	.00037

663 1208

2MF7-300

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	T00703A	METTRA	07/03/00	14:06		X	IR
2	STD6	T00703A	METTRA	07/03/00	14:11		X	IR
3	STD7	T00703A	METTRA	07/03/00	14:15		X	IR
4	ICV3-1 0014-146-5	T00703A	METTRA	07/03/00	14:19	EMF	S	CONC
5	ICB1	T00703A	METTRA	07/03/00	14:23	EMF	S	CONC
6	ICSA 0014-129-11	T00703A	METTRA	07/03/00	14:27	EMF	Q	CONC
7	ICSAB 0014-136-3	T00703A	METTRA	07/03/00	14:31	EMF	Q	CONC
8	DFM2RB	T00703A	METTRA	07/03/00	14:36	EMF	S	CONC
9	DFM2RC	T00703A	METTRA	07/03/00	14:40	EMF	S	CONC
10	DS09C01CS	T00703A	METTRA	07/03/00	14:44	EMF	S	CONC
11	DS09C01CSP5	T00703A	METTRA	07/03/00	14:48	EMF	S	CONC
12	DS09C01CSS	T00703A	METTRA	07/03/00	14:52	EMF	S	CONC
13	DS09C01CSD	T00703A	METTRA	07/03/00	14:56	EMF	S	CONC
14	DS10C01CS	T00703A	METTRA	07/03/00	15:00	EMF	S	CONC
15	DS11C01CS	T00703A	METTRA	07/03/00	15:05	EMF	S	CONC
16	CCV3-1 0014-155-3	T00703A	METTRA	07/03/00	15:09	EMF	S	CONC
17	CCB1	T00703A	METTRA	07/03/00	15:13	EMF	S	CONC
18	DS09C01CSA1 CR=0.37	T00703A	METTRA	07/03/00	15:31	EMF	S	CONC
19	DS09C01CSA2 SB=0.02	T00703A	METTRA	07/03/00	15:36	EMF	S	CONC
20	DS10C01CS RERUN SE	T00703A	METTRA	07/03/00	15:40	EMF	S	CONC
21	CCV3-2	T00703A	METTRA	07/03/00	15:44	EMF	S	CONC
22	CCB2	T00703A	METTRA	07/03/00	15:48	EMF	S	CONC
23	DFGH2B	T00703A	METTRA	07/03/00	15:55	EMF	S	CONC
24	DFGH2C	T00703A	METTRA	07/03/00	15:59	EMF	S	CONC
25	DETV5	T00703A	METTRA	07/03/00	16:04	EMF	S	CONC
26	DETVR	T00703A	METTRA	07/03/00	16:08	EMF	S	CONC
27	DETVRP5	T00703A	METTRA	07/03/00	16:12	EMF	S	CONC
28	DETVRS	T00703A	METTRA	07/03/00	16:16	EMF	S	CONC
29	DETVRD	T00703A	METTRA	07/03/00	16:20	EMF	S	CONC
30	DETVW	T00703A	METTRA	07/03/00	16:24	EMF	S	CONC
31	DETX2	T00703A	METTRA	07/03/00	16:28	EMF	S	CONC
32	DETX5	T00703A	METTRA	07/03/00	16:33	EMF	S	CONC
33	CCV3-3	T00703A	METTRA	07/03/00	16:37	EMF	S	CONC
34	CCB3	T00703A	METTRA	07/03/00	16:41	EMF	S	CONC
35	DETXL	T00703A	METTRA	07/03/00	16:45	EMF	S	CONC
36	DETXT	T00703A	METTRA	07/03/00	16:49	EMF	S	CONC
37	DEV06	T00703A	METTRA	07/03/00	16:53	EMF	S	CONC
38	DEV09	T00703A	METTRA	07/03/00	16:58	EMF	S	CONC
39	DEV0D	T00703A	METTRA	07/03/00	17:02	EMF	S	CONC
40	DEV0J	T00703A	METTRA	07/03/00	17:06	EMF	S	CONC
41	DF83W	T00703A	METTRA	07/03/00	17:10	EMF	S	CONC
42	DF84H	T00703A	METTRA	07/03/00	17:14	EMF	S	CONC
43	DF84J	T00703A	METTRA	07/03/00	17:18	EMF	S	CONC
44	CCV3-4	T00703A	METTRA	07/03/00	17:22	EMF	S	CONC
45	CCB4	T00703A	METTRA	07/03/00	17:27	EMF	S	CONC
46	DFK4AB	T00703A	METTRA	07/03/00	17:34	EMF	S	CONC
47	DFK4AC	T00703A	METTRA	07/03/00	17:39	EMF	S	CONC
48	DFCKL	T00703A	METTRA	07/03/00	17:43	EMF	S	CONC
49	DFCKN	T00703A	METTRA	07/03/00	17:47	EMF	S	CONC
50	DFCKP	T00703A	METTRA	07/03/00	17:51	EMF	S	CONC
51	DFCKPP5	T00703A	METTRA	07/03/00	17:55	EMF	S	CONC
52	DFCKPS	T00703A	METTRA	07/03/00	17:59	EMF	S	CONC
53	DFCKPD	T00703A	METTRA	07/03/00	18:04	EMF	S	CONC

663

1209

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	DFCKR	T00703A	METTRA	07/03/00	18:08	EMF	S	CONC
55	DFCKT	T00703A	METTRA	07/03/00	18:12	EMF	S	CONC
56	CCV3-5	T00703A	METTRA	07/03/00	18:16	EMF	S	CONC
57	CCB5	T00703A	METTRA	07/03/00	18:20	EMF	S	CONC
58	DFCKV	T00703A	METTRA	07/03/00	18:24	EMF	S	CONC
59	DFCKW	T00703A	METTRA	07/03/00	18:28	EMF	S	CONC
60	DFCMP	T00703A	METTRA	07/03/00	18:33	EMF	S	CONC
61	DFCP9	T00703A	METTRA	07/03/00	18:37	EMF	S	CONC
62	DFGJQ	T00703A	METTRA	07/03/00	18:41	EMF	S	CONC
63	DFCMP/2 TL	T00703A	METTRA	07/03/00	18:47	EMF	S	CONC
64	CCV3-6	T00703A	METTRA	07/03/00	18:51	EMF	S	CONC
65	CCB6	T00703A	METTRA	07/03/00	18:55	EMF	S	CONC
66	DFNERB	T00703A	METTRA	07/03/00	18:59	EMF	S	CONC
67	DFNERC	T00703A	METTRA	07/03/00	19:03	EMF	S	CONC
68	DFJTE	T00703A	METTRA	07/03/00	19:08	EMF	S	CONC
69	DFJTEP5	T00703A	METTRA	07/03/00	19:12	EMF	S	CONC
70	DFJTES	T00703A	METTRA	07/03/00	19:16	EMF	S	CONC
71	DFJTED	T00703A	METTRA	07/03/00	19:20	EMF	S	CONC
72	DFKQ3	T00703A	METTRA	07/03/00	19:24	EMF	S	CONC
73	DFJTL	T00703A	METTRA	07/03/00	19:28	EMF	S	CONC
74	CCV3-7	T00703A	METTRA	07/03/00	19:32	EMF	S	CONC
75	CCB7	T00703A	METTRA	07/03/00	19:37	EMF	S	CONC
76	DFK1JB	T00703A	METTRA	07/03/00	19:43	EMF	S	CONC
77	DFK1JC	T00703A	METTRA	07/03/00	19:47	EMF	S	CONC
78	DFH5M	T00703A	METTRA	07/03/00	19:51	EMF	S	CONC
79	DFH5MP5	T00703A	METTRA	07/03/00	19:55	EMF	S	CONC
80	DFH5MS	T00703A	METTRA	07/03/00	19:59	EMF	S	CONC
81	DFH5MD	T00703A	METTRA	07/03/00	20:03	EMF	S	CONC
82	DFH6F	T00703A	METTRA	07/03/00	20:08	EMF	S	CONC
83	DFH6J	T00703A	METTRA	07/03/00	20:12	EMF	S	CONC
84	CCV3-8	T00703A	METTRA	07/03/00	20:16	EMF	S	CONC
85	CCB8	T00703A	METTRA	07/03/00	20:20	EMF	S	CONC

Method: METTRA Standard: STD1
Run Time: 07/03/00 14:06:33

663 1210

Elem	AG	AL	AS	BA	BE	CA	CD
Avge	-.00268	.07358	-.00205	.00040	-.06211	.00413	.00414
SDev	.00412	.01139	.00347	.00023	.00049	.00024	.00210
%RSD	153.85	15.482	169.59	58.222	.79492	5.7421	50.785
#1	-.00559	.08163	.00041	.00023	-.06176	.00396	.00265
#2	.00024	.06552	-.00450	.00056	-.06246	.00430	.00562
Elem	CO	CR	CU	FE	MG	MN	MO
Avge	-.00167	-.00023	.01478	-.00202	-.00102	.00076	.00097
SDev	.00019	.00248	.00187	.00085	.00020	.00001	.00030
%RSD	11.682	1102.5	12.636	42.379	19.489	.72824	30.693
#1	-.00181	-.00198	.01346	-.00262	-.00117	.00076	.00076
#2	-.00153	.00153	.01610	-.00141	-.00088	.00077	.00118
Elem	NI	PB/1	PB/2	SB/1	SB/2	SE/1	SE/2
Avge	.00015	.02430	-.00039	-.02488	-.00421	-.09941	.07433
SDev	.00004	.02308	.00327	.00436	.00670	.01746	.00236
%RSD	27.584	94.967	834.04	17.541	159.03	17.560	3.1797
#1	.00017	.00798	.00192	-.02179	.00052	-.11175	.07266
#2	.00012	.04062	-.00271	-.02796	-.00895	-.08707	.07600
Elem	TL	V	ZN				
Avge	-.03788	-.00003	-.00025				
SDev	.00395	.00012	.00002				
%RSD	10.424	430.18	9.0444				
#1	-.04067	-.00012	-.00023				
#2	-.03509	.00006	-.00026				

IntStd 1 2 3 4 5 6 7
Mode Counts NOTUSED NOTUSED NOTUSED NOTUSED NOTUSED NOTUSED
Elem Y -- -- -- -- -- --
Wavlen 371.030 -- -- -- -- -- --
Avge 17075 -- -- -- -- -- --
SDev 124.3444 -- -- -- -- -- --
%RSD .7282412 -- -- -- -- -- --

#1 17163 -- -- -- -- -- --
#2 16987 -- -- -- -- -- --

Method: METTRA Standard: STD6
 Run Time: 07/03/00 14:11:33

0014-087-8

663 1212

Elem	AG	AS	CD	PB/1	PB/2	SB/1	SB/2
Avge	11.453	6.7443	18.691	7.3634	9.5520	10.731	7.1668
SDev	.013	.0872	.204	.0349	.2181	.332	.0114
%RSD	.10937	1.2937	1.0902	.47338	2.2830	3.0969	.15944

#1	11.444	6.8060	18.835	7.3880	9.7062	10.966	7.1749
#2	11.462	6.6826	18.547	7.3387	9.3978	10.496	7.1587

Elem	SE/1	SE/2	TL
Avge	6.2262	5.9756	5.0928
SDev	.0401	.1504	.1541
%RSD	.64356	2.5165	3.0257

#1	6.1979	6.0819	5.2018
#2	6.2545	5.8693	4.9838

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16862	--	--	--	--	--	--
SDev	4.489852	--	--	--	--	--	--
%RSD	.0266263	--	--	--	--	--	--
#1	16866	--	--	--	--	--	--
#2	16859	--	--	--	--	--	--

Method: METTRA
Run Time: 07/03/00 14:15:44

Standard: STD7

0014-087-9

Elem	AL	BA	BE	CA	CO	CR	CU
Avge	7.2633	13.050	15.080	6.2195	3.9345	15.068	3.3264
SDev	.0215	.025	.010	.0129	.0056	.018	.0013
%RSD	.29670	.19328	.06572	.20809	.14308	.12229	.03990

#1	7.2785	13.068	15.087	6.2286	3.9385	15.081	3.3273
#2	7.2480	13.032	15.073	6.2103	3.9305	15.055	3.3254

Elem	FE	MG	MN	MO	NI	V	ZN
Avge	5.0011	17.134	12.456	2.7868	3.1669	.96280	3.7432
SDev	.0057	.040	.023	.0082	.0079	.00212	.0037
%RSD	.11469	.23077	.18746	.29513	.25009	.21997	.09772

#1	5.0052	17.162	12.472	2.7810	3.1725	.96430	3.7458
#2	4.9971	17.106	12.439	2.7926	3.1613	.96130	3.7406

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16757	--	--	--	--	--	--
SDev	45.39570	--	--	--	--	--	--
%RSD	.2709010	--	--	--	--	--	--

#1	16789	--	--	--	--	--	--
#2	16725	--	--	--	--	--	--

Method: METTRA

Slope = Conc(SIR)/IR

663 1214

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD6	STD1	.174583	.000468	07/03/00 02:15:44
AL	308.215	STD7	STD1	6.97274	-.513030	07/03/00 02:15:44
AS	189.042	STD6	STD1	.148228	.000304	07/03/00 02:15:44
BA	493.409	STD7	STD1	.306530	-.000121	07/03/00 02:15:44
BE	313.042	STD7	STD1	.261970	.016271	07/03/00 02:15:44
CA	317.933	STD7	STD1	16.0892	-.066445	07/03/00 02:15:44
CD	226.502	STD6	STD1	.053513	-.000221	07/03/00 02:15:44
CO	228.616	STD7	STD1	1.01622	.001695	07/03/00 02:15:44
CR	267.716	STD7	STD1	.265333	.000060	07/03/00 02:15:44
CU	324.753	STD7	STD1	1.20788	-.017853	07/03/00 02:15:44
FE	271.441	STD7	STD1	10.0648	.020305	07/03/00 02:15:44
MG	279.078	STD7	STD1	5.83612	.005977	07/03/00 02:15:44
MN	257.610	STD7	STD1	.321153	-.000245	07/03/00 02:15:44
MO	202.030	STD7	STD1	1.43584	-.001389	07/03/00 02:15:44
NI	231.604	STD7	STD1	1.26230	-.000185	07/03/00 02:15:44
PB/1	220.351	STD6	STD1	.136257	-.003311	07/03/00 02:15:44
PB/2	220.352	STD6	STD1	.104686	.000041	07/03/00 02:15:44
PB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SB/1	206.831	STD6	STD1	.092976	.002313	07/03/00 02:15:44
SB/2	206.832	STD6	STD1	.139450	.000587	07/03/00 02:15:44
SB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SE/1	196.021	STD6	STD1	.158088	.015716	07/03/00 02:15:44
SE/2	196.022	STD6	STD1	.169455	-.012595	07/03/00 02:15:44
SE	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
TL	190.864	STD6	STD1	.389812	.014765	07/03/00 02:15:44
V	292.402	STD7	STD1	4.13629	.000119	07/03/00 02:15:44
ZN	213.856	STD7	STD1	1.07510	.000268	07/03/00 02:15:44

Analysis Report

ESAM Faust
EMF 7-300

07/03/00 02:23:31 PM

page 1

Method: METTRA⁹⁰ Sample Name: ICV3-1 0014-146-5

Operator: EMF

Run Time: 07/03/00 14:19:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

663 1215

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50490	11.985	.25399	.99604	1.0065	25.566	.24892
SDev	.00999	.226	.00130	.01368	.0042	.092	.00258
%RSD	1.9789	1.8842	.51036	1.3731	.41524	.35900	1.0363
#1	.49784	11.826	.25308	.98637	1.0094	25.631	.24710
#2	.51197	12.145	.25491	1.0057	1.0035	25.501	.25075
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	13.750	.27500	1.1000	1.1000	27.500	.27500
Low	.45000	11.250	.22500	.90000	.90000	22.500	.22500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0251	1.0259	.97487	12.604	24.556	.99319	1.0323
SDev	.0219	.0214	.01413	.235	.244	.01859	.0280
%RSD	2.1389	2.0905	1.4492	1.8657	.99373	1.8721	2.7150
#1	1.0096	1.0108	.96488	12.438	24.384	.98004	1.0125
#2	1.0406	1.0411	.98486	12.770	24.729	1.0063	1.0521
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	13.750	27.500	1.1000	1.1000
Low	.90000	.90000	.90000	11.250	22.500	.90000	.90000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0450	.25369	.24966	.25100	.25510	.25305	.25373
SDev	.0225	.00492	.00139	.00071	.00082	.00736	.00464
%RSD	2.1505	1.9394	.55690	.28331	.32267	2.9090	1.8271
#1	1.0609	.25021	.25064	.25050	.25568	.24785	.25046
#2	1.0291	.25717	.24867	.25150	.25452	.25826	.25701
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	1.1000			.27500			.27500
Low	.90000			.22500			.22500
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.25690	.25655	.25667	.50411	1.0187	1.0437	
SDev	.00433	.00157	.00249	.00727	.0056	.0005	
%RSD	1.6841	.61209	.96942	1.4421	.55228	.04519	
#1	.25384	.25544	.25491	.50925	1.0227	1.0441	
#2	.25996	.25766	.25843	.49897	1.0147	1.0434	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.27500	.55000	1.1000	1.1000	
Low			.22500	.45000	.90000	.90000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16823	--	--	--	--	--	--
SDev	366.7412	--	--	--	--	--	--
%RSD	2.180041	--	--	--	--	--	--
#1	17082	--	--	--	--	--	--
#2	16563	--	--	--	--	--	--

Method: METTRA Sample Name: ICB1

Operator: EMF

Run Time: 07/03/00 14:23:34

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00072	-.04199	-.00053	.00049	.00030	.10552	-.00008
SDev	.00014	.00624	.00030	.00022	.00007	.00886	.00001
%RSD	19.072	14.861	56.774	44.584	22.704	8.3998	10.437
#1	.00082	-.03757	-.00031	.00034	.00025	.09925	-.00008
#2	.00062	-.04640	-.00074	.00065	.00035	.11179	-.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00123	.00066	.00258	.02016	.01442	.00051	.00471
SDev	.00040	.00001	.00115	.00760	.00126	.00014	.00033
%RSD	32.555	1.2578	44.703	37.700	8.7204	26.760	7.0255
#1	.00095	.00067	.00177	.02553	.01353	.00042	.00495
#2	.00151	.00066	.00340	.01478	.01531	.00061	.00448
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00108	-.00110	-.00056	-.00074	-.00380	.00251	.00041
SDev	.00022	.00240	.00058	.00041	.00256	.00251	.00082
%RSD	20.023	217.57	103.92	55.408	67.431	100.14	202.37
#1	.00093	.00059	-.00097	-.00045	-.00562	.00428	.00098
#2	.00124	-.00280	-.00015	-.00103	-.00199	.00073	-.00017
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00055	-.00193	-.00111	-.00143	.00330	.01867	
SDev	.00188	.00177	.00180	.00447	.00001	.00085	
%RSD	342.67	91.349	162.78	312.55	.36854	4.5470	
#1	-.00078	-.00318	-.00238	.00173	.00329	.01807	
#2	.00187	-.00068	.00017	-.00459	.00331	.01927	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16937	--	--	--	--	--	--
SDev	79.05509	--	--	--	--	--	--
%RSD	.4667666	--	--	--	--	--	--
#1	16993	--	--	--	--	--	--
#2	16881	--	--	--	--	--	--

Method: METTRA Sample Name: ICSA 0014-129-11 Operator: EMF

Run Time: 07/03/00 14:27:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACE ICP **663 1219**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00067	525.52	.00156	.00190	-.00071	493.87	-.00341
SDev	.00028	1.72	.00078	.00013	.00003	.41	.00029
%RSD	41.033	.32803	50.020	6.7597	3.8567	.08397	8.3742

#1	.00087	524.30	.00101	.00199	-.00073	494.16	-.00361
#2	.00048	526.74	.00211	.00181	-.00069	493.58	-.00320

Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value		500.00				500.00	
Range		20.000				20.000	

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00117	.00306	.00279	203.43	525.46	.00860	.00026
SDev	.00016	.00015	.00027	.61	.49	.00001	.00069
%RSD	13.339	4.9620	9.5346	.30125	.09359	.16366	262.89

#1	.00128	.00317	.00260	202.99	525.11	.00859	-.00023
#2	.00106	.00295	.00297	203.86	525.80	.00861	.00076

Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value				200.00	500.00		
Range				20.000	20.000		

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00194	.05634	-.03620	-.00539	-.00265	.00331	.00133
SDev	.00233	.00577	.00197	.00060	.00009	.00055	.00039
%RSD	120.44	10.245	5.4551	11.232	3.4298	16.461	29.696

#1	.00359	.06042	-.03760	-.00496	-.00259	.00370	.00161
#2	.00029	.05226	-.03481	-.00581	-.00272	.00293	.00105

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00350	.00023	.00132	-.00549	.00807	-.00124
SDev	.00513	.00306	.00033	.00410	.00088	.00010
%RSD	146.68	1347.1	25.251	74.647	10.886	7.9182

#1	.00713	-.00194	.00108	-.00259	.00869	-.00131
#2	-.00013	.00239	.00155	-.00839	.00744	-.00117

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value						
Range						

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y 81.4	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16065	--	--	--	--	--	--
SDev	.1063422	--	--	--	--	--	--
%RSD	.0006620	--	--	--	--	--	--
#1	16065	--	--	--	--	--	--
#2	16065	--	--	--	--	--	--

Method: METTRA Sample Name: ICSAB 0014-136-3 Operator: EMF
 Run Time: 07/03/00 14:31:53
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACE ICP
 Mode: CONC Corr. Factor: 1

663 1221

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1019	529.72	1.0114	.53059	.49258	498.02	.92077
SDev	.0021	.93	.0005	.00130	.00208	2.73	.00295
%RSD	.19116	.17559	.05120	.24552	.42191	.54725	.32045
#1	1.1034	530.38	1.0118	.53151	.49405	499.95	.92286
#2	1.1005	529.07	1.0111	.52966	.49111	496.09	.91869
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	.50000	.50000	500.00	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49474	.50863	.54789	206.21	522.41	.50927	.99276
SDev	.00215	.00174	.00184	.51	1.74	.00133	.00121
%RSD	.43481	.34292	.33511	.24823	.33245	.26162	.12159
#1	.49626	.50986	.54918	206.57	523.64	.51021	.99191
#2	.49322	.50740	.54659	205.84	521.18	.50833	.99361
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	.50000	.50000	200.00	500.00	.50000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99762	1.0577	.92009	.96590	1.0156	1.0392	1.0314
SDev	.00587	.0046	.00265	.00024	.0091	.0098	.0035
%RSD	.58810	.43499	.28820	.02450	.89141	.94028	.33964
#1	1.0018	1.0609	.91821	.96573	1.0092	1.0461	1.0338
#2	.99348	1.0544	.92196	.96607	1.0220	1.0323	1.0289
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	1.0000			1.0000			1.0000
Range	20.000			20.000			20.000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.0241	1.0146	1.0178	1.0094	.52157	1.0497	
SDev	.0063	.0008	.0016	.0060	.00364	.0034	
%RSD	.61759	.07631	.15619	.59648	.69771	.31977	
#1	1.0286	1.0141	1.0189	1.0137	.52415	1.0521	
#2	1.0196	1.0152	1.0166	1.0052	.51900	1.0474	
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	
Value			1.0000	1.0000	.50000	1.0000	
Range			20.000	20.000	20.000	20.000	

663 1222

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15921	--	--	--	--	--	--
SDev	18.45590	--	--	--	--	--	--
%RSD	.1159210	--	--	--	--	--	--
#1	15908	--	--	--	--	--	--
#2	15934	--	--	--	--	--	--

Method: METTRA 603 Sample Name: DFM2RB

Operator: EMF

Run Time: 07/03/00 14:36:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00043	-.00409	-.00151	.00032	-.00017	.10913	-.00012
SDev	.00026	.02527	.00036	.00001	.00005	.02229	.00006
%RSD	60.327	618.08	23.570	2.2807	28.031	20.430	49.466
#1	.00061	.01378	-.00126	.00031	-.00014	.12490	-.00008
#2	.00025	-.02196	-.00176	.00032	-.00021	.09337	-.00017
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00023	.00029	.00259	.03575	.04246	.00038	.00353
SDev	.00026	.00044	.00008	.02007	.02327	.00004	.00048
%RSD	114.27	150.46	3.2379	56.141	54.804	10.433	13.606
#1	-.00004	-.00002	.00253	.04995	.05891	.00041	.00387
#2	-.00042	.00060	.00265	.02156	.02600	.00035	.00319
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00042	.00201	.00024	.00083	-.00050	.00199	.00116
SDev	.00086	.00086	.00027	.00011	.00021	.00008	.00002
%RSD	203.42	42.698	111.43	12.686	42.324	3.8103	1.6747
#1	.00103	.00140	.00043	.00076	-.00065	.00205	.00115
#2	-.00018	.00261	.00005	.00090	-.00035	.00194	.00118
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00323	.00046	-.00077	-.00568	.00013	.00311	
SDev	.00014	.00054	.00041	.00141	.00001	.00003	
%RSD	4.2583	116.59	52.970	24.800	5.3200	1.1177	
#1	-.00333	.00008	-.00105	-.00668	.00014	.00313	
#2	-.00314	.00085	-.00048	-.00469	.00013	.00308	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

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663 1224

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16630	--	--	--	--	--	--
SDev	26.51650	--	--	--	--	--	--
%RSD	.1594465	--	--	--	--	--	--
#1	16649	--	--	--	--	--	--
#2	16612	--	--	--	--	--	--

Analysis Report

663 1225

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Method: METTRA

Sample Name: DFM2RC

Operator: EMF

Run Time: 07/03/00 14:40:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04936	2.1225	2.0135	2.0222	.05094	51.385	.04900
SDev	.00003	.0090	.0061	.0033	.00009	.153	.00028
%RSD	.06720	.42481	.30298	.16135	.16891	.29822	.57425
#1	.04933	2.1289	2.0178	2.0245	.05100	51.493	.04881
#2	.04938	2.1161	2.0092	2.0199	.05088	51.277	.04920
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51568	.20686	.25576	.96080	50.019	.50455	1.0417
SDev	.00049	.00009	.00033	.00942	.078	.00037	.0028
%RSD	.09452	.04129	.12962	.98006	.15687	.07399	.27261
#1	.51603	.20680	.25600	.96746	50.075	.50481	1.0396
#2	.51534	.20692	.25553	.95414	49.964	.50429	1.0437
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51859	.51320	.49390	.50032	.48752	.50425	.49868
SDev	.00402	.00241	.00168	.00032	.00110	.00125	.00047
%RSD	.77569	.47001	.33934	.06288	.22623	.24779	.09347
#1	.52143	.51149	.49508	.50055	.48830	.50336	.49835
#2	.51574	.51490	.49271	.50010	.48674	.50513	.49901
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0217	1.9967	2.0050	2.0274	.50622	.53042	
SDev	.0088	.0083	.0026	.0038	.00137	.00109	
%RSD	.43311	.41683	.13145	.18558	.27078	.20612	
#1	2.0155	2.0025	2.0069	2.0301	.50719	.53120	
#2	2.0279	1.9908	2.0031	2.0248	.50525	.52965	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

Analysis Report

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663 1226

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16978	--	--	--	--	--	--
SDev	11.20737	--	--	--	--	--	--
%RSD	.0660106	--	--	--	--	--	--
#1	16970	--	--	--	--	--	--
#2	16986	--	--	--	--	--	--

Method: METTRA Sample Name: DS09C01CS Operator: EMF
 Run Time: 07/03/00 14:44:20
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	97.221	.05427	.94385	.00924	131.47	-.00169
SDev	.00029	.968	.00016	.00864	.00001	1.00	.00010
%RSD	260.77	.99521	.30301	.91534	.05661	.76140	6.0919
#1	-.00010	96.537	.05415	.93774	.00924	130.77	-.00177
#2	.00032	97.906	.05438	.94996	.00924	132.18	-.00162
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09238	.18405	.13963	163.63	17.929	3.2004	.00611
SDev	.00066	.00163	.00131	1.45	.138	.0279	.00057
%RSD	.71461	.88852	.94197	.88479	.76962	.87084	9.3742
#1	.09191	.18289	.13870	162.61	17.831	3.1807	.00651
#2	.09285	.18520	.14056	164.66	18.027	3.2202	.00570
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18920	.22114	.19670	.20484	.00070	.00767	.00535
SDev	.00100	.00138	.00247	.00211	.00018	.00050	.00027
%RSD	.52628	.62520	1.2579	1.0304	26.179	6.5291	5.1068
#1	.18850	.22016	.19495	.20335	.00057	.00802	.00554
#2	.18990	.22212	.19845	.20633	.00083	.00732	.00516
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00267	.00793	.00618	-.00521	.35624	.43233	
SDev	.00184	.00262	.00236	.00236	.00386	.00374	
%RSD	68.985	32.967	38.140	45.285	1.0826	.86544	
#1	.00137	.00609	.00451	-.00354	.35351	.42968	
#2	.00397	.00978	.00785	-.00688	.35897	.43498	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1228

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17902	--	--	--	--	--	--
SDev	122.3999	--	--	--	--	--	--
%RSD	.6837086	--	--	--	--	--	--
#1	17989	--	--	--	--	--	--
#2	17816	--	--	--	--	--	--

Method: METTRA Sample Name: DS09C01CSP5 Operator: EMF
 Run Time: 07/03/00 14:48:29
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00053	19.953	.01183	.20047	.00199	28.552	-.00049
SDev	.00022	.241	.00076	.00279	.00006	.426	.00010
%RSD	41.833	1.2065	6.4674	1.3890	2.9809	1.4932	21.140
#1	.00038	20.123	.01129	.20244	.00195	28.854	-.00057
#2	.00069	19.783	.01237	.19850	.00203	28.251	-.00042
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02099	.04051	.03025	35.307	3.8378	.68314	.00142
SDev	.00013	.00027	.00074	.420	.0501	.00865	.00016
%RSD	.61177	.66461	2.4603	1.1891	1.3051	1.2657	11.213
#1	.02108	.04070	.03077	35.604	3.8732	.68925	.00131
#2	.02089	.04032	.02972	35.010	3.8024	.67702	.00153
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04174	.04754	.04196	.04382	-.00159	.00432	.00235
SDev	.00054	.00005	.00102	.00070	.00286	.00065	.00052
%RSD	1.2929	.09634	2.4410	1.5938	180.37	14.997	22.219
#1	.04213	.04751	.04123	.04332	-.00361	.00477	.00198
#2	.04136	.04758	.04268	.04431	.00044	.00386	.00272
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00297	.00144	.00195	-.00212	.07550	.09454	
SDev	.00137	.00069	.00092	.00017	.00091	.00078	
%RSD	45.977	47.845	46.897	7.8499	1.2025	.82534	
#1	.00201	.00095	.00130	-.00224	.07614	.09510	
#2	.00394	.00193	.00260	-.00200	.07486	.09399	

Analysis Report

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	1	2	3	4	5	6	7
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17122	--	--	--	--	--	--
SDev	113.9505	--	--	--	--	--	--
%RSD	.6655377	--	--	--	--	--	--
#1	17041	--	--	--	--	--	--
#2	17202	--	--	--	--	--	--

663 1230

Method: METTRA Sample Name: DS09C01CSS Operator: EMF
 Run Time: 07/03/00 14:52:37
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04775	190.75	1.9298	3.0394	.05895	154.08	.04306
SDev	.00026	.44	.0060	.0011	.00001	.10	.00030
%RSD	.54364	.23325	.31254	.03611	.02155	.06218	.70493
#1	.04794	190.43	1.9341	3.0386	.05894	154.14	.04284
#2	.04757	191.06	1.9256	3.0402	.05896	154.01	.04327
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.61870	.49834	.40666	211.39	75.995	5.7997	.93196
SDev	.00047	.00030	.00097	.14	.038	.0043	.00215
%RSD	.07526	.06005	.23879	.06754	.04976	.07447	.23022
#1	.61837	.49812	.40598	211.29	75.968	5.7967	.93044
#2	.61903	.49855	.40735	211.49	76.022	5.8028	.93347
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.71315	.68645	.62074	.64262	.25339	.26862	.26354
SDev	.00287	.00305	.00174	.00014	.00174	.00155	.00046
%RSD	.40232	.44489	.28013	.02223	.68790	.57822	.17285
#1	.71518	.68861	.61951	.64252	.25215	.26971	.26387
#2	.71113	.68429	.62197	.64272	.25462	.26752	.26322
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.8861	1.8657	1.8725	1.9058	.95533	1.0115	
SDev	.0042	.0004	.0011	.0035	.00107	.0016	
%RSD	.22124	.02175	.05976	.18620	.11223	.16181	
#1	1.8831	1.8659	1.8717	1.9083	.95609	1.0126	
#2	1.8890	1.8654	1.8733	1.9033	.95458	1.0103	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

	1	2	3	4	5	6	
IntStd	1	2	3	4	5	6	
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17514	--	--	--	--	--	--
SDev	10.88834	--	--	--	--	--	--
%RSD	.0621706	--	--	--	--	--	--
#1	17521	--	--	--	--	--	--
#2	17506	--	--	--	--	--	--

663 1232

Method: METTRA Sample Name: DS09C01CSD

Operator: EMF

Run Time: 07/03/00 14:56:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04655	206.52	1.8644	2.8968	.05738	156.76	.04096
SDev	.00027	1.13	.0061	.0122	.00025	.41	.00024
%RSD	.57915	.54613	.32600	.42189	.44053	.25865	.57583
#1	.04636	205.72	1.8601	2.8882	.05720	156.47	.04079
#2	.04674	207.32	1.8687	2.9055	.05756	157.05	.04112
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.55835	.50889	.40090	210.72	75.912	4.1317	.90666
SDev	.00080	.00157	.00093	.64	.245	.0140	.00353
%RSD	.14365	.30911	.23203	.30392	.32284	.33817	.38915
#1	.55778	.50778	.40025	210.26	75.738	4.1218	.90416
#2	.55892	.51001	.40156	211.17	76.085	4.1416	.90915
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.68135	.67069	.60390	.62614	.26805	.28317	.27814
SDev	.00149	.00329	.00441	.00404	.00114	.00066	.00082
%RSD	.21901	.49071	.72969	.64445	.42448	.23371	.29494
#1	.68240	.67302	.60702	.62899	.26725	.28270	.27756
#2	.68029	.66836	.60078	.62329	.26886	.28364	.27872
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.8288	1.8029	1.8116	1.8557	.94114	1.0031	
SDev	.0051	.0143	.0112	.0036	.00413	.0007	
%RSD	.27993	.79147	.61951	.19322	.43888	.06749	
#1	1.8325	1.8130	1.8195	1.8582	.93822	1.0026	
#2	1.8252	1.7929	1.8036	1.8531	.94406	1.0036	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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663 1234

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17602	--	--	--	--	--	--
SDev	79.19596	--	--	--	--	--	--
%RSD	.4499208	--	--	--	--	--	--
#1	17546	--	--	--	--	--	--
#2	17658	--	--	--	--	--	--

Method: METTRA

Sample Name: DS10C01CS

Operator: EMF

Run Time: 07/03/00 15:00:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	96.380	.05261	.91912	.00973	105.00	-.00180
SDev	.00006	.010	.00035	.00033	.00013	.12	.00012
%RSD	405.82	.01037	.65784	.03544	1.2917	.11291	6.7725
#1	.00003	96.373	.05286	.91935	.00964	105.09	-.00188
#2	-.00006	96.387	.05237	.91889	.00982	104.92	-.00171
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07807	.18265	.13859	153.70	20.068	2.1986	.00619
SDev	.00001	.00053	.00051	.14	.030	.0008	.00123
%RSD	.01834	.29316	.37044	.09141	.14942	.03859	19.802
#1	.07808	.18302	.13895	153.80	20.090	2.1992	.00706
#2	.07806	.18227	.13822	153.60	20.047	2.1980	.00532
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17771	.23551	.20820	.21729	.00103	.00458	.00340
SDev	.00107	.00130	.00020	.00030	.00120	.00264	.00216
%RSD	.60011	.55293	.09809	.13688	115.80	57.740	63.612
#1	.17696	.23644	.20805	.21750	.00188	.00645	.00492
#2	.17847	.23459	.20834	.21708	.00019	.00271	.00187
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00245	.01053	.00784	-.00048	.35430	.43464	
SDev	.00213	.00741	.00423	.00238	.00014	.00083	
%RSD	87.049	70.356	53.985	499.40	.03975	.19087	
#1	.00094	.01577	.01083	-.00216	.35440	.43523	
#2	.00395	.00529	.00485	.00121	.35420	.43405	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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663 1236

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17907	--	--	--	--	--	--
SDev	83.33226	--	--	--	--	--	--
%RSD	.4653555	--	--	--	--	--	--
#1	17848	--	--	--	--	--	--
#2	17966	--	--	--	--	--	--

Method: METTRA Sample Name: DS11C01CS Operator: EMF
 Run Time: 07/03/00 15:05:03
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00029	94.459	.05807	.72151	.00869	245.42	-.00136
SDev	.00029	.119	.00084	.00043	.00006	.46	.00006
%RSD	100.96	.12613	1.4461	.05983	.67479	.18856	4.6891
#1	.00008	94.374	.05867	.72182	.00865	245.75	-.00140
#2	.00050	94.543	.05748	.72121	.00873	245.10	-.00131
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07417	.17891	.14874	162.64	19.338	2.3183	.00692
SDev	.00006	.00051	.00058	.07	.030	.0005	.00005
%RSD	.07830	.28744	.38902	.04438	.15428	.02011	.68933
#1	.07413	.17928	.14833	162.69	19.360	2.3186	.00689
#2	.07421	.17855	.14915	162.59	19.317	2.3179	.00695
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18124	.40402	.37422	.38415	.00012	.00394	.00267
SDev	.00019	.00140	.00070	.00000	.00113	.00040	.00011
%RSD	.10660	.34577	.18721	.00054	916.65	10.073	4.1764
#1	.18110	.40303	.37472	.38415	.00092	.00366	.00275
#2	.18137	.40501	.37373	.38415	-.00068	.00422	.00259
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00057	.00995	.00683	-.00320	.32452	.53478	
SDev	.00241	.00024	.00064	.00373	.00067	.00141	
%RSD	420.32	2.4583	9.3749	116.33	.20501	.26328	
#1	.00228	.00978	.00728	-.00584	.32499	.53577	
#2	-.00113	.01012	.00637	-.00057	.32405	.53378	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17713	--	--	--	--	--	--
SDev	20.50610	--	--	--	--	--	--
%RSD	.1157712	--	--	--	--	--	--

#1	17698	--	--	--	--	--	--
#2	17727	--	--	--	--	--	--

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Method: METTRA Sample Name: CCV3-1 0014-155-3 Operator: EMF
 Run Time: 07/03/00 15:09:12
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0310	24.461	.50541	2.0052	2.0354	50.976	.49431
SDev	.0053	.093	.00263	.0083	.0122	.310	.00226
%RSD	.51181	.37827	.51997	.41575	.59950	.60838	.45790
#1	1.0347	24.526	.50727	2.0111	2.0440	51.195	.49591
#2	1.0273	24.395	.50355	1.9993	2.0268	50.757	.49271
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0594	2.0577	1.9762	25.574	49.951	2.0062	2.0504
SDev	.0105	.0113	.0078	.131	.285	.0103	.0009
%RSD	.51033	.55051	.39666	.51119	.57095	.51491	.04512
#1	2.0668	2.0657	1.9817	25.667	50.153	2.0135	2.0510
#2	2.0520	2.0497	1.9706	25.482	49.750	1.9989	2.0497
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0605	.51239	.49660	.50186	.50438	.50914	.50756
SDev	.0155	.00452	.00575	.00534	.00636	.00528	.00564
%RSD	.75352	.88289	1.1589	1.0651	1.2606	1.0372	1.1111
#1	2.0715	.51559	.50067	.50564	.50888	.51287	.51154
#2	2.0495	.50919	.49253	.49808	.49988	.50541	.50357
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51877	.51331	.51513	1.0047	2.0373	2.0640	
SDev	.00091	.00693	.00432	.0108	.0124	.0115	
%RSD	.17504	1.3496	.83829	1.0761	.60736	.55687	
#1	.51813	.51821	.51818	1.0124	2.0460	2.0722	
#2	.51941	.50841	.51207	.99710	2.0285	2.0559	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

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663 1240

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17065	--	--	--	--	--	--
SDev	87.85802	--	--	--	--	--	--
%RSD	.5148516	--	--	--	--	--	--
#1	17003	--	--	--	--	--	--
#2	17127	--	--	--	--	--	--

Method: METTRA Sample Name: CCB1

Operator: EMF

Run Time: 07/03/00 15:13:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00076	-.02758	-.00043	.00053	.00077	.05360	.00011
SDev	.00014	.00056	.00147	.00015	.00013	.00554	.00011
%RSD	18.692	2.0149	339.14	27.468	16.301	10.331	99.129

#1	.00086	-.02797	.00061	.00043	.00068	.04968	.00018
#2	.00066	-.02718	-.00147	.00063	.00086	.05751	.00003

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00087	.00022	.00129	.03101	.01492	.00068	.00637
SDev	.00038	.00032	.00025	.01199	.00070	.00011	.00180
%RSD	43.097	141.43	19.624	38.679	4.6621	15.664	28.284

#1	.00114	.00045	.00147	.02253	.01541	.00061	.00765
#2	.00061	-.00000	.00111	.03949	.01443	.00076	.00510

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00139	.00093	.00002	.00032	-.00253	.00254	.00085
SDev	.00036	.00120	.00019	.00027	.00009	.00038	.00028
%RSD	25.848	128.60	1024.3	85.180	3.3940	15.057	33.222

#1	.00164	.00008	.00015	.00013	-.00259	.00227	.00065
#2	.00113	.00177	-.00011	.00052	-.00247	.00281	.00106

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00351	-.00075	.00067	.00003	.00061	.00578
SDev	.00028	.00116	.00068	.00008	.00001	.00017
%RSD	7.9530	154.71	101.57	242.11	.86729	2.8836

#1	.00371	-.00157	.00019	.00009	.00060	.00566
#2	.00332	.00007	.00115	-.00002	.00061	.00589

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			.00500	.01000	.05000	.02000
Low			-.00500	-.01000	-.05000	-.02000

663 1242

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17290	--	--	--	--	--	--
SDev	39.38530	--	--	--	--	--	--
%RSD	.2277858	--	--	--	--	--	--
#1	17318	--	--	--	--	--	--
#2	17263	--	--	--	--	--	--

Method: METTRA Sample Name: DS09C01CSA1 CR=0.37 Operator: EMF
 Run Time: 07/03/00 15:31:53
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07150	94.208	.39152	1.2563	.35123	127.75	.32559
SDev	.00007	.288	.00347	.0010	.00010	.11	.00056
%RSD	.10490	.30594	.88698	.07799	.02767	.08882	.17129
#1	.07144	94.004	.38906	1.2556	.35116	127.67	.32519
#2	.07155	94.412	.39397	1.2570	.35130	127.83	.32598
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.44160	.52652	.48920	158.70	17.442	3.4438	.35026
SDev	.00163	.00204	.00075	.36	.039	.0065	.00072
%RSD	.37029	.38786	.15311	.22564	.22557	.18848	.20693
#1	.44045	.52508	.48867	158.45	17.415	3.4392	.34975
#2	.44276	.52797	.48973	158.96	17.470	3.4484	.35077
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.53592	.56194	.52336	.53621	.33623	.34952	.34509
SDev	.00068	.00096	.00565	.00345	.00224	.00227	.00226
%RSD	.12732	.17122	1.0796	.64307	.66511	.64916	.65434
#1	.53640	.56262	.51936	.53377	.33465	.34792	.34350
#2	.53544	.56126	.52735	.53864	.33781	.35112	.34669
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.34866	.34898	.34888	.68196	.69268	.77051	
SDev	.00196	.00245	.00098	.00332	.00083	.00135	
%RSD	.56201	.70250	.28168	.48636	.11959	.17486	
#1	.35005	.34725	.34818	.67961	.69209	.76956	
#2	.34728	.35072	.34957	.68430	.69326	.77146	

NOTE: Analytical spike prepared by adding 0.37ml of 10 ppm Cr (0014-155-1, Exp: 9-27-00) to a final volume of 10 ml of sample DS09C01CSA1 using pipette J20176. euf 7-300

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663 1244

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17707	--	--	--	--	--	--
SDev	12.58705	--	--	--	--	--	--
%RSD	.0710866	--	--	--	--	--	--
#1	17698	--	--	--	--	--	--
#2	17716	--	--	--	--	--	--

Method: METTRA Sample Name: DS09C01CSA2 SB=0.02 Operator: EMF
 Run Time: 07/03/00 15:36:02
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03884	96.149	.07255	.93155	.00921	131.19	.01621
SDev	.00014	.200	.00024	.00251	.00006	.58	.00006
%RSD	.36174	.20825	.33155	.27002	.71069	.44363	.34091
#1	.03894	96.291	.07238	.93333	.00916	131.60	.01625
#2	.03874	96.008	.07272	.92977	.00926	130.78	.01617
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09117	.18271	.13763	161.93	17.802	3.1543	.00472
SDev	.00066	.00049	.00009	.48	.077	.0097	.00059
%RSD	.72561	.26986	.06674	.29459	.43448	.30870	12.560
#1	.09164	.18306	.13757	162.27	17.856	3.1612	.00514
#2	.09070	.18236	.13770	161.60	17.747	3.1475	.00430
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18841	.23806	.21116	.22011	.01848	.02327	.02167
SDev	.00076	.00425	.00188	.00016	.00216	.00105	.00002
%RSD	.40267	1.7859	.88871	.07453	11.687	4.4943	.10069
#1	.18894	.24106	.20983	.22023	.01695	.02401	.02166
#2	.18787	.23505	.21248	.22000	.02001	.02253	.02169
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01735	.02903	.02514	.03271	.35513	.44942	
SDev	.00416	.00170	.00252	.00013	.00071	.00300	
%RSD	23.978	5.8726	10.033	.39183	.20049	.66727	
#1	.02029	.03024	.02692	.03280	.35563	.45154	
#2	.01441	.02783	.02336	.03262	.35463	.44730	

NOTE: Analytical spike prepared by adding
 0.20ml of 1 PPM SB (0014-087-8, Exp: 8-12-00) to a
 final volume of 10 ml of sample DS09C01CSA2 using
 pipette J20176. Euf 7-300

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17863	--	--	--	--	--	--
SDev	71.84177	--	--	--	--	--	--
%RSD	.4021719	--	--	--	--	--	--
#1	17813	--	--	--	--	--	--
#2	17914	--	--	--	--	--	--

Method: METTRA Sample Name: DS10C01CS RERUN SE Operator: EMF
 Run Time: 07/03/00 15:40:12
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	95.684	.05076	.91513	.00975	104.70	-.00187
SDev	.00033	.582	.00154	.00441	.00004	.63	.00015
%RSD	301.51	.60795	3.0301	.48212	.38256	.59704	8.2330
#1	-.00012	95.273	.05185	.91201	.00977	104.26	-.00176
#2	.00034	96.096	.04967	.91825	.00972	105.14	-.00197
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07754	.18136	.13735	152.57	20.017	2.1866	.00285
SDev	.00029	.00117	.00136	.80	.116	.0125	.00025
%RSD	.37021	.64623	.98753	.52452	.58026	.57329	8.7348
#1	.07734	.18053	.13639	152.00	19.935	2.1777	.00267
#2	.07774	.18219	.13831	153.13	20.100	2.1955	.00303
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17771	.23619	.20897	.21803	.00204	.00472	.00383
SDev	.00061	.00009	.00249	.00163	.00178	.00014	.00069
%RSD	.34147	.03820	1.1917	.74803	87.146	2.9407	17.913
#1	.17728	.23626	.20721	.21688	.00078	.00462	.00334
#2	.17814	.23613	.21073	.21919	.00330	.00482	.00431
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00215	.00682	.00384	-.00697	.35219	.43250	
SDev	.00115	.00214	.00104	.00297	.00286	.00260	
%RSD	53.702	31.337	27.164	42.539	.81227	.60101	
#1	-.00297	.00834	.00457	-.00488	.35017	.43066	
#2	-.00133	.00531	.00310	-.00907	.35422	.43434	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17954	--	--	--	--	--	--
SDev	96.37782	--	--	--	--	--	--
%RSD	.5367907	--	--	--	--	--	--
#1	18023	--	--	--	--	--	--
#2	17886	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-2
 Run Time: 07/03/00 15:44:21
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Operator: EMF

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0132	23.968	.49810	1.9740	2.0096	50.271	.48535
SDev	.0060	.126	.00195	.0102	.0138	.343	.00330
%RSD	.59108	.52731	.39185	.51707	.68595	.68268	.68056
#1	1.0174	24.057	.49948	1.9812	2.0194	50.514	.48768
#2	1.0089	23.879	.49672	1.9668	1.9999	50.028	.48301
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0230	2.0214	1.9417	25.069	49.186	1.9724	2.0125
SDev	.0143	.0114	.0106	.120	.297	.0108	.0038
%RSD	.70558	.56587	.54830	.47889	.60339	.54847	.19014
#1	2.0331	2.0295	1.9492	25.153	49.396	1.9800	2.0152
#2	2.0129	2.0133	1.9342	24.984	48.976	1.9647	2.0098
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0341	.50214	.49123	.49486	.50046	.50267	.50194
SDev	.0129	.00152	.00737	.00542	.00261	.00061	.00128
%RSD	.63207	.30288	1.4998	1.0953	.52164	.12179	.25454
#1	2.0432	.50322	.49644	.49870	.50231	.50310	.50284
#2	2.0250	.50107	.48602	.49103	.49862	.50224	.50103
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51417	.50471	.50786	.99576	2.0117	2.0289	
SDev	.00047	.00486	.00340	.00781	.0138	.0125	
%RSD	.09219	.96267	.66920	.78389	.68376	.61712	
#1	.51451	.50815	.51027	1.0013	2.0214	2.0378	
#2	.51384	.50128	.50546	.99024	2.0020	2.0201	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17283	--	--	--	--	--	--
SDev	70.14444	--	--	--	--	--	--
%RSD	.4058604	--	--	--	--	--	--
#1	17233	--	--	--	--	--	--
#2	17332	--	--	--	--	--	--

Method: METTRA Sample Name: CCB2

Operator: EMF

Run Time: 07/03/00 15:48:30

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00048	-.01215	.00005	.00040	.00066	.03736	-.00010
SDev	.00015	.00355	.00111	.00000	.00011	.00351	.00007
%RSD	31.212	29.188	2198.0	.57114	17.021	9.4004	70.306
#1	.00038	-.01465	-.00074	.00041	.00058	.03488	-.00005
#2	.00059	-.00964	.00084	.00040	.00073	.03984	-.00014
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00139	.00039	.00072	.02106	.01056	.00059	.00579
SDev	.00015	.00013	.00033	.00040	.00070	.00012	.00121
%RSD	10.452	33.492	45.836	1.9210	6.6273	19.652	20.925
#1	.00149	.00029	.00095	.02134	.01006	.00050	.00665
#2	.00128	.00048	.00049	.02077	.01105	.00067	.00493
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00062	-.00086	-.00028	-.00047	-.00112	.00375	.00213
SDev	.00032	.00166	.00043	.00084	.00243	.00039	.00107
%RSD	50.464	193.78	156.98	179.37	216.51	10.464	50.353
#1	.00085	.00032	.00003	.00013	.00060	.00403	.00289
#2	.00040	-.00204	-.00058	-.00107	-.00284	.00347	.00137
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00078	-.00056	-.00011	-.00003	.00109	.00397	
SDev	.00064	.00241	.00139	.00099	.00000	.00001	
%RSD	82.921	433.08	1240.5	3254.9	.40108	.18460	
#1	.00032	.00115	.00087	.00067	.00109	.00396	
#2	.00123	-.00226	-.00110	-.00073	.00109	.00397	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17203	--	--	--	--	--	--
SDev	75.55409	--	--	--	--	--	--
%RSD	.4391932	--	--	--	--	--	--
#1	17150	--	--	--	--	--	--
#2	17256	--	--	--	--	--	--

Method: METTRA Sample Name: DFGH2B

Operator: EMF

Run Time: 07/03/00 15:55:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00042	-.01975	-.00159	.00024	.00043	.04692	-.00013
SDev	.00016	.00081	.00015	.00005	.00006	.00032	.00013
%RSD	38.598	4.1230	9.2882	21.213	14.259	.68766	100.92
#1	.00031	-.01917	-.00148	.00020	.00047	.04715	-.00004
#2	.00054	-.02032	-.00169	.00028	.00039	.04669	-.00023
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00098	.00052	.00269	.00487	.00547	.00037	.00076
SDev	.00031	.00002	.00031	.00539	.00024	.00002	.00001
%RSD	31.419	3.9266	11.445	110.69	4.3092	6.6680	.82877
#1	.00076	.00053	.00291	.00868	.00531	.00038	.00075
#2	.00120	.00050	.00248	.00106	.00564	.00035	.00076
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00058	-.00313	.00086	-.00047	.00020	.00052	.00042
SDev	.00057	.00049	.00136	.00074	.00171	.00313	.00152
%RSD	97.924	15.730	157.85	158.21	835.81	599.67	364.64
#1	.00018	-.00278	-.00010	-.00099	-.00101	.00274	.00149
#2	.00098	-.00347	.00182	.00006	.00141	-.00169	-.00066
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00563	-.00260	.00014	.00456	.00024	.00333	
SDev	.00180	.00088	.00001	.00231	.00051	.00005	
%RSD	32.022	33.866	8.7371	50.727	211.65	1.5272	
#1	.00436	-.00198	.00013	.00620	.00060	.00329	
#2	.00690	-.00323	.00015	.00292	-.00012	.00336	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

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663 1254

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17386	--	--	--	--	--	--
SDev	50.87716	--	--	--	--	--	--
%RSD	.2926334	--	--	--	--	--	--
#1	17422	--	--	--	--	--	--
#2	17350	--	--	--	--	--	--

Method: METTRA Sample Name: DFGH2C

Operator: EMF

Run Time: 07/03/00 15:59:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05014	2.0338	2.0278	1.9774	.05135	50.870	.04867
SDev	.00008	.0012	.0027	.0007	.00003	.030	.00017
%RSD	.16723	.05871	.13215	.03521	.05856	.05826	.34125
#1	.05008	2.0346	2.0297	1.9779	.05137	50.849	.04855
#2	.05020	2.0329	2.0260	1.9769	.05133	50.891	.04879
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50765	.20323	.24667	.92819	49.583	.49510	1.0002
SDev	.00060	.00022	.00023	.02269	.025	.00019	.0062
%RSD	.11737	.10729	.09314	2.4449	.04968	.03854	.61586
#1	.50722	.20307	.24683	.91214	49.566	.49497	.99581
#2	.50807	.20338	.24651	.94423	49.600	.49524	1.0045
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51369	.50062	.49713	.49830	.49742	.50078	.49966
SDev	.00136	.00041	.00057	.00052	.00124	.00302	.00243
%RSD	.26510	.08171	.11446	.10350	.24869	.60254	.48523
#1	.51466	.50034	.49673	.49793	.49830	.50291	.50138
#2	.51273	.50091	.49754	.49866	.49655	.49865	.49795
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.1352	2.1161	2.1224	2.0287	.50147	.52864	
SDev	.0012	.0059	.0035	.0048	.00040	.00004	
%RSD	.05467	.27731	.16609	.23890	.07882	.00694	
#1	2.1343	2.1202	2.1249	2.0321	.50175	.52861	
#2	2.1360	2.1119	2.1199	2.0253	.50119	.52866	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

663 1256

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17390	--	--	--	--	--	--
SDev	26.87006	--	--	--	--	--	--
%RSD	.1545104	--	--	--	--	--	--
#1	17409	--	--	--	--	--	--
#2	17371	--	--	--	--	--	--

Method: METTRA Sample Name: DETV5

Operator: EMF

Run Time: 07/03/00 16:04:04

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	-.01459	.00621	.09300	.00046	124.77	-.00024
SDev	.00009	.00148	.00147	.00028	.00007	.06	.00010
%RSD	30.925	10.172	23.695	.30003	15.888	.05134	39.591
#1	.00034	-.01354	.00517	.09280	.00051	124.82	-.00018
#2	.00022	-.01564	.00725	.09319	.00040	124.73	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00183	.00043	.00572	-.05165	26.758	.02618	.00357
SDev	.00019	.00017	.00018	.00587	.005	.00000	.00116
%RSD	10.198	40.384	3.2066	11.361	.01725	.00388	32.537
#1	.00170	.00055	.00559	-.04750	26.754	.02618	.00439
#2	.00196	.00031	.00585	-.05579	26.761	.02618	.00275
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00396	-.00307	.00033	-.00080	.00100	.00195	.00164
SDev	.00011	.00161	.00009	.00047	.00063	.00091	.00040
%RSD	2.7584	52.430	28.785	58.862	62.798	46.733	24.390
#1	.00388	-.00421	.00039	-.00114	.00145	.00131	.00135
#2	.00404	-.00193	.00026	-.00047	.00056	.00260	.00192
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00623	-.00150	.00107	.00163	.00224	.01774	
SDev	.00229	.00104	.00007	.00160	.00067	.00011	
%RSD	36.673	69.328	6.1161	97.928	29.962	.64483	
#1	.00785	-.00224	.00112	.00050	.00272	.01766	
#2	.00462	-.00077	.00103	.00276	.00177	.01782	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1258

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17371	--	--	--	--	--	--
SDev	26.44607	--	--	--	--	--	--
%RSD	.1522396	--	--	--	--	--	--
#1	17390	--	--	--	--	--	--
#2	17353	--	--	--	--	--	--

36

Method: METTRA Sample Name: DETVR

Operator: EMF

Run Time: 07/03/00 16:08:13

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.00216	.00549	.09342	.00004	127.85	-.00017
SDev	.00021	.00326	.00107	.00047	.00004	.81	.00007
%RSD	46.480	150.49	19.523	.50260	109.33	.63508	41.662

#1	.00030	.00447	.00473	.09375	.00007	128.43	-.00022
#2	.00060	-.00014	.00624	.09308	.00001	127.28	-.00012

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00126	.00103	.00601	-.04803	27.417	.02166	.00156
SDev	.00027	.00016	.00017	.00065	.141	.00007	.00048
%RSD	21.662	15.240	2.9102	1.3537	.51416	.33921	30.908

#1	.00107	.00092	.00614	-.04757	27.517	.02171	.00122
#2	.00146	.00114	.00589	-.04849	27.317	.02161	.00191

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00493	-.00008	.00047	.00029	-.00113	.00329	.00182
SDev	.00030	.00188	.00005	.00066	.00203	.00007	.00063
%RSD	6.1536	2269.7	11.292	231.66	180.36	2.1855	34.560

#1	.00515	-.00141	.00043	-.00018	-.00257	.00334	.00138
#2	.00472	.00125	.00051	.00075	.00031	.00324	.00227

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00623	-.00179	.00088	-.00029	.00217	.01955
SDev	.00042	.00038	.00011	.00614	.00018	.00005
%RSD	6.7549	21.003	12.430	2100.0	8.1175	.23924

#1	.00653	-.00205	.00081	.00405	.00204	.01959
#2	.00594	-.00152	.00096	-.00463	.00229	.01952

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

663 1260**663 1260**

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17017	--	--	--	--	--	--
SDev	36.23922	--	--	--	--	--	--
%RSD	.2129593	--	--	--	--	--	--
#1	17043	--	--	--	--	--	--
#2	16991	--	--	--	--	--	--

663 1261

Method: METTRA Sample Name: DETVRP5

Operator: EMF

Run Time: 07/03/00 16:12:22

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00028	-.00988	.00071	.01800	.00028	24.986	-.00021
SDev	.00024	.00503	.00020	.00009	.00004	.064	.00005
%RSD	84.287	50.971	28.442	.52450	13.648	.25737	24.988

#1	.00011	-.00632	.00057	.01807	.00025	25.031	-.00017
#2	.00045	-.01344	.00085	.01793	.00030	24.941	-.00025

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00086	.00038	.00190	-.00358	5.2684	.00437	.00094
SDev	.00035	.00030	.00011	.01201	.0107	.00005	.00047
%RSD	41.357	79.439	5.5802	335.74	.20351	1.2417	50.064

#1	.00111	.00060	.00198	-.01207	5.2760	.00441	.00128
#2	.00061	.00017	.00183	.00491	5.2608	.00434	.00061

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00161	-.00211	-.00094	-.00133	-.00229	.00324	.00140
SDev	.00088	.00164	.00191	.00073	.00144	.00097	.00113
%RSD	54.725	77.636	202.40	54.761	63.111	29.915	80.612

#1	.00223	-.00327	.00041	-.00082	-.00331	.00255	.00060
#2	.00099	-.00095	-.00230	-.00185	-.00127	.00392	.00219

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00441	-.00082	.00092	-.00182	.00324	.00459
SDev	.00084	.00127	.00056	.00071	.00000	.00000
%RSD	19.082	153.64	61.429	39.204	.09535	.02063

#1	.00381	.00007	.00132	-.00131	.00323	.00459
#2	.00500	-.00172	.00052	-.00232	.00324	.00459

663 1262

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17244	--	--	--	--	--	--
SDev	6.116750	--	--	--	--	--	--
%RSD	.0354725	--	--	--	--	--	--
#1	17239	--	--	--	--	--	--
#2	17248	--	--	--	--	--	--

Method: METTRA Sample Name: DETVRS

Operator: EMF

Run Time: 07/03/00 16:16:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05038	2.0889	2.0308	2.0749	.05076	178.23	.04754
SDev	.00021	.0080	.0056	.0062	.00008	.37	.00051
%RSD	.41573	.38417	.27528	.29882	.15082	.20579	1.0680
#1	.05023	2.0832	2.0268	2.0705	.05081	177.98	.04718
#2	.05053	2.0946	2.0347	2.0792	.05071	178.49	.04790
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49781	.20132	.25345	.89552	77.818	.51324	.99306
SDev	.00118	.00120	.00113	.00205	.250	.00197	.01082
%RSD	.23739	.59870	.44493	.22906	.32170	.38418	1.0895
#1	.49697	.20047	.25265	.89697	77.641	.51184	.98541
#2	.49865	.20218	.25424	.89407	77.995	.51463	1.0007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50994	.49749	.48879	.49169	.49835	.50366	.50189
SDev	.00109	.00890	.00402	.00564	.00240	.00745	.00577
%RSD	.21354	1.7891	.82199	1.1479	.48157	1.4793	1.1494
#1	.51071	.49120	.48595	.48770	.49665	.49839	.49781
#2	.50917	.50378	.49163	.49568	.50005	.50892	.50597
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.1079	2.0925	2.0976	2.0133	.50168	.53881	
SDev	.0283	.0175	.0211	.0085	.00181	.00179	
%RSD	1.3411	.83542	1.0046	.42354	.36106	.33212	
#1	2.0879	2.0801	2.0827	2.0072	.50040	.53754	
#2	2.1279	2.1049	2.1125	2.0193	.50296	.54007	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17148	--	--	--	--	--	--
SDev	143.6835	--	--	--	--	--	--
%RSD	.8379027	--	--	--	--	--	--
#1	17250	--	--	--	--	--	--
#2	17046	--	--	--	--	--	--

Method: METTRA Sample Name: DETVRD

Operator: EMF

Run Time: 07/03/00 16:20:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05066	2.1020	2.0394	2.0835	.05100	178.80	.04762
SDev	.00085	.0328	.0213	.0200	.00038	1.77	.00095
%RSD	1.6759	1.5590	1.0436	.95861	.74140	.99225	1.9945
#1	.05006	2.0788	2.0244	2.0693	.05073	177.54	.04695
#2	.05126	2.1252	2.0545	2.0976	.05127	180.05	.04829
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50153	.20219	.25566	.91906	78.127	.52630	.99839
SDev	.00533	.00298	.00263	.01488	.831	.00572	.01722
%RSD	1.0624	1.4760	1.0266	1.6188	1.0631	1.0876	1.7250
#1	.49777	.20008	.25380	.90854	77.540	.52225	.98621
#2	.50530	.20430	.25752	.92958	78.714	.53035	1.0106
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51415	.49766	.49001	.49256	.49976	.50213	.50134
SDev	.00637	.00610	.00333	.00425	.00349	.00360	.00357
%RSD	1.2391	1.2260	.67966	.86346	.69841	.71778	.71135
#1	.50965	.49334	.48766	.48955	.49730	.49958	.49882
#2	.51866	.50197	.49237	.49556	.50223	.50468	.50386
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.1165	2.1116	2.1132	2.0253	.50411	.54272	
SDev	.0209	.0213	.0211	.0220	.00445	.00515	
%RSD	.98700	1.0066	1.0000	1.0838	.88250	.94945	
#1	2.1017	2.0965	2.0982	2.0098	.50096	.53908	
#2	2.1312	2.1266	2.1281	2.0408	.50725	.54637	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1266

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17095	--	--	--	--	--	--
SDev	203.0819	--	--	--	--	--	--
%RSD	1.187971	--	--	--	--	--	--
#1	17238	--	--	--	--	--	--
#2	16951	--	--	--	--	--	--

Method: METTRA Sample Name: DETVW

Operator: EMF

Run Time: 07/03/00 16:24:48

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00040	-.00559	.00171	.00111	.00031	.10082	-.00005
SDev	.00024	.00404	.00054	.00020	.00000	.01458	.00002
%RSD	60.958	72.311	31.616	18.235	.95121	14.462	43.403
#1	.00023	-.00273	.00210	.00097	.00031	.09051	-.00007
#2	.00057	-.00845	.00133	.00125	.00031	.11113	-.00004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00099	.00066	.41658	.01878	.02782	.00062	.00320
SDev	.00042	.00012	.00118	.00372	.00802	.00003	.00054
%RSD	41.916	17.595	.28318	19.802	28.824	4.5960	16.861
#1	.00070	.00058	.41575	.02141	.02215	.00065	.00358
#2	.00129	.00075	.41742	.01615	.03349	.00060	.00282
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01203	.00928	.00902	.00911	.00057	.00196	.00150
SDev	.00079	.00150	.00006	.00054	.00023	.00037	.00032
%RSD	6.5411	16.189	.68828	5.9469	40.080	18.952	21.642
#1	.01147	.00822	.00898	.00872	.00041	.00169	.00127
#2	.01259	.01034	.00907	.00949	.00073	.00222	.00172
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00815	-.00082	.00217	.00359	.00048	.12794
SDev	.00115	.00146	.00136	.00283	.00017	.00006
%RSD	14.183	177.54	62.569	78.757	35.335	.04564
#1	.00733	-.00185	.00121	.00559	.00060	.12790
#2	.00896	.00021	.00312	.00159	.00036	.12798
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

663 1268**663 1268**

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17360	--	--	--	--	--	--
SDev	51.15890	--	--	--	--	--	--
%RSD	.2946878	--	--	--	--	--	--
#1	17324	--	--	--	--	--	--
#2	17397	--	--	--	--	--	--

663 1269

Method: METTRA Sample Name: DETX2

Operator: EMF

Run Time: 07/03/00 16:28:57

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00060	-.00646	-.00004	.00094	.00044	.11575	-.00010
SDev	.00047	.00387	.00211	.00014	.00008	.00690	.00011
%RSD	78.059	59.941	5113.8	14.839	18.865	5.9658	108.98
#1	.00092	-.00920	-.00153	.00084	.00050	.11087	-.00019
#2	.00027	-.00372	.00145	.00104	.00038	.12063	-.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00099	.00093	.10187	.02174	.01600	.00043	.00141
SDev	.00047	.00020	.00095	.01747	.00293	.00010	.00061
%RSD	47.261	21.751	.92944	80.362	18.280	22.795	43.169
#1	.00066	.00078	.10120	.00939	.01393	.00036	.00098
#2	.00132	.00107	.10254	.03410	.01807	.00049	.00183
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00068	.00297	.00344	.00329	-.00144	.00078	.00004
SDev	.00042	.00256	.00029	.00105	.00047	.00016	.00005
%RSD	60.914	85.977	8.5444	31.878	32.245	21.067	125.51
#1	.00039	.00478	.00365	.00403	-.00177	.00089	.00000
#2	.00098	.00117	.00323	.00255	-.00112	.00066	.00007
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00740	-.00416	-.00031	.00173	.00025	.01362	
SDev	.00161	.00000	.00054	.00174	.00017	.00010	
%RSD	21.775	.11667	172.88	100.24	70.949	.72578	
#1	.00854	-.00416	.00007	.00050	.00012	.01355	
#2	.00626	-.00417	-.00069	.00296	.00037	.01369	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1270

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17488	--	--	--	--	--	--
SDev	163.2698	--	--	--	--	--	--
%RSD	.9336161	--	--	--	--	--	--
#1	17603.	--	--	--	--	--	--
#2	17372	--	--	--	--	--	--

Method: METTRA Sample Name: DETX5

Operator: EMF

Run Time: 07/03/00 16:33:06

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00124	.01133	.00299	.00756	.00063	26.700	-.00014
SDev	.00041	.02068	.00146	.00035	.00062	1.137	.00017
%RSD	32.677	182.50	48.851	4.5760	98.233	4.2569	116.62

#1	.00096	-.00329	.00402	.00731	.00108	25.896	-.00026
#2	.00153	.02596	.00196	.00780	.00019	27.504	-.00002

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00104	.00086	.35086	1.1846	8.8114	.05196	.00003
SDev	.00022	.00070	.01653	.0712	.3822	.00227	.00011
%RSD	20.842	81.247	4.7101	6.0108	4.3375	4.3596	395.04

#1	.00089	.00037	.33917	1.1343	8.5412	.05036	-.00005
#2	.00119	.00135	.36254	1.2350	9.0817	.05356	.00011

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00066	.46332	.46601	.46512	.00010	.00224	.00153
SDev	.00037	.01474	.01676	.01609	.00281	.00114	.00018
%RSD	55.691	3.1808	3.5964	3.4586	2916.3	50.832	11.613

#1	.00092	.45290	.45416	.45374	-.00189	.00304	.00140
#2	.00040	.47374	.47787	.47649	.00209	.00143	.00165

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00586	-.00427	-.00090	-.00015	.00136	.20789
SDev	.00100	.00055	.00004	.00222	.00055	.00903
%RSD	17.054	12.919	3.9316	1439.4	40.605	4.3431

#1	.00657	-.00466	-.00092	.00141	.00097	.20150
#2	.00515	-.00388	-.00087	-.00172	.00175	.21427

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17752	--	--	--	--	--	--
SDev	700.6724	--	--	--	--	--	--
%RSD	3.947072	--	--	--	--	--	--
#1	18247	--	--	--	--	--	--
#2	17256	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-3

Operator: EMF

Run Time: 07/03/00 16:37:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0256	24.263	.50758	1.9994	2.0445	51.144	.49234
SDev	.0003	.026	.00044	.0024	.0022	.105	.00042
%RSD	.03380	.10781	.08724	.12112	.10819	.20490	.08466
#1	1.0258	24.244	.50727	2.0011	2.0461	51.218	.49264
#2	1.0253	24.281	.50790	1.9977	2.0429	51.070	.49205
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0465	2.0480	1.9683	25.280	49.957	2.0048	2.0348
SDev	.0019	.0022	.0004	.015	.020	.0010	.0138
%RSD	.09393	.10559	.02129	.05942	.03993	.04855	.67764
#1	2.0452	2.0465	1.9686	25.270	49.971	2.0041	2.0251
#2	2.0479	2.0496	1.9680	25.291	49.943	2.0055	2.0446
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0701	.50756	.49639	.50011	.50607	.50546	.50567
SDev	.0119	.00107	.00135	.00126	.00225	.00212	.00217
%RSD	.57412	.21003	.27226	.25123	.44507	.42005	.42839
#1	2.0785	.50831	.49735	.50100	.50766	.50697	.50720
#2	2.0617	.50680	.49543	.49922	.50448	.50396	.50413
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.51774	.51440	.51551	1.0031	2.0490	2.0548	
SDev	.00129	.00021	.00057	.0008	.0022	.0003	
%RSD	.24839	.04007	.10973	.08303	.10684	.01661	
#1	.51683	.51425	.51511	1.0026	2.0506	2.0546	
#2	.51865	.51454	.51591	1.0037	2.0475	2.0551	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

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07/03/00 04:41:21 PM
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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17085	--	--	--	--	--	--
SDev	17.46637	--	--	--	--	--	--
%RSD	.1022325	--	--	--	--	--	--
#1	17097	--	--	--	--	--	--
#2	17073	--	--	--	--	--	--

Method: METTRA Sample Name: CCB3

Operator: EMF

Run Time: 07/03/00 16:41:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00069	-.00443	-.00010	.00038	.00048	.05113	-.00011
SDev	.00022	.00159	.00055	.00007	.00003	.00268	.00003
%RSD	32.312	35.852	563.41	17.448	6.1988	5.2374	27.415

#1	.00084	-.00331	.00029	.00033	.00050	.04923	-.00013
#2	.00053	-.00555	-.00049	.00043	.00045	.05302	-.00009

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00121	.00037	.00084	.01432	.01260	.00040	.00542
SDev	.00027	.00026	.00009	.00503	.00020	.00004	.00120
%RSD	22.272	70.517	10.147	35.119	1.5978	10.845	22.163

#1	.00102	.00055	.00078	.01788	.01275	.00037	.00627
#2	.00140	.00019	.00090	.01076	.01246	.00043	.00457

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00063	-.00022	.00018	.00005	-.00182	.00170	.00053
SDev	.00032	.00152	.00283	.00239	.00327	.00035	.00086
%RSD	50.636	696.01	1571.7	5074.9	180.11	20.473	162.48

#1	.00040	-.00130	-.00182	-.00164	-.00413	.00194	-.00008
#2	.00085	.00086	.00218	.00174	.00050	.00145	.00113

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.00072	-.00048	.00135	.00073	.00745
SDev	.00147	.00104	.00118	.00066	.00017	.00011
%RSD	8430.5	143.44	247.81	48.740	23.216	1.4474

#1	-.00102	-.00146	-.00131	.00089	.00084	.00737
#2	.00106	.00001	.00036	.00182	.00061	.00752

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			.00500	.01000	.05000	.02000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17176	--	--	--	--	--	--
SDev	100.8677	--	--	--	--	--	--
%RSD	.5872756	--	--	--	--	--	--
#1	17247	--	--	--	--	--	--
#2	17104	--	--	--	--	--	--

Method: METTRA Sample Name: DETXL

Operator: EMF

Run Time: 07/03/00 16:45:34

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00061	.00506	.00024	.01615	.00042	8.7264	-.00019
SDev	.00008	.00708	.00158	.00003	.00012	.0331	.00028
%RSD	13.001	139.85	657.46	.17496	29.154	.37891	148.49

#1	.00067	.01007	-.00088	.01617	.00034	8.7497	.00001
#2	.00056	.00006	.00136	.01613	.00051	8.7030	-.00039

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00152	.00069	.19265	-.00826	5.7867	.01982	.00126
SDev	.00012	.00040	.00064	.00463	.0160	.00005	.00021
%RSD	8.0774	57.387	.32973	56.029	.27603	.26536	16.503

#1	.00161	.00097	.19310	-.00499	5.7980	.01985	.00112
#2	.00143	.00041	.19220	-.01154	5.7755	.01978	.00141

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00218	.00408	.00566	.00514	.00010	-.00066	-.00041
SDev	.00065	.00092	.00021	.00017	.00162	.00034	.00076
%RSD	29.638	22.474	3.6299	3.2683	1621.5	50.916	187.34

#1	.00173	.00343	.00581	.00502	.00124	-.00042	.00013
#2	.00264	.00472	.00552	.00525	-.00104	-.00090	-.00095

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00465	-.00326	-.00062	.00106	.00012	.02781
SDev	.00061	.00092	.00082	.00014	.00000	.00021
%RSD	13.176	28.172	130.61	12.807	1.3892	.74388

#1	.00421	-.00390	-.00120	.00096	.00012	.02796
#2	.00508	-.00261	-.00005	.00115	.00012	.02767

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17315	--	--	--	--	--	--
SDev	169.9169	--	--	--	--	--	--
%RSD	.9813308	--	--	--	--	--	--
#1	17195	--	--	--	--	--	--
#2	17435	--	--	--	--	--	--

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Method: METTRA Sample Name: DETXT

Operator: EMF

Run Time: 07/03/00 16:49:43

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	-.00127	-.00092	.02356	.00051	24.073	-.00027
SDev	.00007	.00483	.00168	.00005	.00006	.024	.00014
%RSD	33.472	381.32	182.80	.22147	11.421	.09782	51.726
#1	.00016	.00215	-.00211	.02360	.00055	24.056	-.00017
#2	.00026	-.00468	.00027	.02352	.00047	24.089	-.00037
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	.00024	.07527	-.05004	26.807	.00064	.00034
SDev	.00018	.00043	.00040	.01095	.026	.00000	.00034
%RSD	15.423	177.62	.53817	21.880	.09807	.60159	101.23
#1	.00106	.00055	.07499	-.04230	26.789	.00064	.00058
#2	.00132	-.00006	.07556	-.05778	26.826	.00064	.00010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	-.00214	.00154	.00032	.00214	.00055	.00108
SDev	.00056	.00169	.00132	.00144	.00056	.00161	.00126
%RSD	156.75	79.095	85.453	456.58	26.143	292.92	116.70
#1	.00075	-.00094	.00247	.00133	.00175	-.00059	.00019
#2	-.00004	-.00333	.00061	-.00070	.00254	.00169	.00197
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00601	-.00217	.00055	.00091	.00176	.02624	
SDev	.00042	.00240	.00174	.00213	.00000	.00010	
%RSD	6.9923	110.54	315.21	233.37	.19268	.36254	
#1	.00631	-.00047	.00178	-.00059	.00176	.02618	
#2	.00571	-.00387	-.00068	.00242	.00176	.02631	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17459	--	--	--	--	--	--
SDev	75.94354	--	--	--	--	--	--
%RSD	.4349934	--	--	--	--	--	--
#1	17512	--	--	--	--	--	--
#2	17405	--	--	--	--	--	--

Method: METTRA Sample Name: DEV06

Operator: EMF

Run Time: 07/03/00 16:53:53

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00052	.00878	.00001	.00048	.00020	4.0998	-.00016
SDev	.00010	.00477	.00097	.00004	.00019	.0393	.00014
%RSD	19.240	54.352	6849.6	8.9993	97.219	.95803	92.508
#1	.00059	.00541	.00070	.00051	.00033	4.0720	-.00026
#2	.00045	.01216	-.00067	.00045	.00006	4.1275	-.00005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00105	.00057	.02319	.19577	3.4194	.00401	.00040
SDev	.00005	.00027	.00014	.01354	.0360	.00006	.00051
%RSD	4.6784	46.411	.61712	6.9177	1.0538	1.5301	128.17
#1	.00108	.00076	.02309	.18620	3.3939	.00397	.00076
#2	.00101	.00039	.02330	.20535	3.4449	.00405	.00004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00051	.00073	.00424	.00307	-.00112	.00222	.00111
SDev	.00015	.00002	.00052	.00034	.00082	.00049	.00060
%RSD	28.880	2.6327	12.248	11.074	73.064	22.329	54.344
#1	.00061	.00074	.00387	.00283	-.00169	.00187	.00068
#2	.00041	.00071	.00461	.00331	-.00054	.00257	.00153
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00386	-.00236	-.00029	.00254	.00019	.36995	
SDev	.00181	.00087	.00118	.00146	.00001	.00368	
%RSD	46.992	36.689	405.04	57.572	2.5204	.99470	
#1	.00514	-.00175	.00054	.00358	.00018	.36735	
#2	.00258	-.00298	-.00113	.00151	.00019	.37255	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17252	--	--	--	--	--	--
SDev	195.4087	--	--	--	--	--	--
%RSD	1.132694	--	--	--	--	--	--
#1	17390	--	--	--	--	--	--
#2	17114	--	--	--	--	--	--

Method: METTRA Sample Name: DEV09

Operator: EMF

Run Time: 07/03/00 16:58:02

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00063	.00361	-.00070	.02625	.00040	22.958	-.00027
SDev	.00017	.01203	.00106	.00013	.00000	.017	.00016
%RSD	27.167	333.56	151.26	.49251	.10742	.07195	56.411

#1	.00051	.01212	-.00146	.02634	.00040	22.970	-.00038
#2	.00075	-.00490	.00005	.02616	.00040	22.947	-.00017

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00105	.00064	1.3585	.36923	9.0229	.03014	.00035
SDev	.00012	.00009	.0015	.00558	.0021	.00007	.00011
%RSD	11.664	13.324	.10760	1.5112	.02305	.24041	32.829

#1	.00097	.00070	1.3596	.36529	9.0243	.03009	.00043
#2	.00114	.00058	1.3575	.37318	9.0214	.03019	.00027

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00141	.16834	.17102	.17013	-.00128	.00210	.00098
SDev	.00041	.00229	.00186	.00048	.00160	.00062	.00095
%RSD	29.277	1.3579	1.0860	.28068	125.74	29.568	97.037

#1	.00112	.16673	.17233	.17046	-.00014	.00254	.00165
#2	.00171	.16996	.16970	.16979	-.00241	.00166	.00031

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00317	-.00201	-.00029	-.00234	.00108	.05702
SDev	.00088	.00013	.00021	.00039	.00016	.00046
%RSD	27.843	6.4318	72.860	16.892	15.237	.80686

#1	.00255	-.00192	-.00043	-.00261	.00120	.05735
#2	.00379	-.00210	-.00014	-.00206	.00096	.05670

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	.17382	--	--	--	--	--	--
SDev	33.97703	--	--	--	--	--	--
%RSD	.1954722	--	--	--	--	--	--
#1	17406	--	--	--	--	--	--
#2	17358	--	--	--	--	--	--

Method: METTRA Sample Name: DEV0D

Operator: EMF

Run Time: 07/03/00 17:02:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00042	-.00158	.00052	.02076	.00048	40.048	-.00024
SDev	.00050	.00551	.00210	.00002	.00014	.214	.00003
%RSD	118.40	349.60	405.11	.08545	28.965	.53421	12.159
#1	.00007	.00232	.00201	.02075	.00058	40.199	-.00022
#2	.00078	-.00547	-.00097	.02077	.00039	39.896	-.00026
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00075	.00078	.06651	-.00293	6.9992	.00063	.00009
SDev	.00031	.00072	.00056	.00649	.0107	.00004	.00012
%RSD	40.973	92.088	.83958	221.50	.15288	6.2433	133.06
#1	.00097	.00027	.06611	.00166	7.0068	.00060	.00001
#2	.00053	.00129	.06690	-.00752	6.9916	.00065	.00017
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00111	-.00221	.00017	-.00063	-.00027	.00177	.00109
SDev	.00122	.00086	.00168	.00083	.00029	.00159	.00097
%RSD	109.86	38.952	1003.8	132.74	106.85	90.074	88.695
#1	.00025	-.00282	.00135	-.00004	-.00007	.00064	.00041
#2	.00198	-.00160	-.00102	-.00121	-.00047	.00289	.00177
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00584	-.00157	.00089	-.00004	.00118	.02107	
SDev	.00148	.00296	.00148	.00107	.00016	.00006	
%RSD	25.438	188.16	165.76	2453.6	13.972	.30730	
#1	.00479	.00052	.00194	.00072	.00106	.02112	
#2	.00689	-.00367	-.00015	-.00080	.00130	.02102	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17504	--	--	--	--	--	--
SDev	4.491233	--	--	--	--	--	--
%RSD	.0256583	--	--	--	--	--	--
#1	17507	--	--	--	--	--	--
#2	17501	--	--	--	--	--	--

Analysis Report

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Method: METTRA Sample Name: DEV0J

Operator: EMF

Run Time: 07/03/00 17:06:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00036	.00499	.00022	.01247	.00041	54.958	-.00024
SDev	.00033	.00181	.00042	.00008	.00009	.083	.00002
%RSD	91.778	36.205	187.92	.62465	21.505	.15044	9.7136
#1	.00013	.00372	-.00007	.01241	.00047	54.899	-.00026
#2	.00060	.00627	.00052	.01252	.00034	55.016	-.00022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00100	.00046	.03953	.00529	7.0147	.00198	-.00007
SDev	.00078	.00007	.00072	.00680	.0320	.00005	.00023
%RSD	78.493	15.780	1.8208	128.71	.45688	2.6569	334.56
#1	.00044	.00052	.03902	.00048	6.9921	.00202	.00009
#2	.00155	.00041	.04004	.01010	7.0374	.00195	-.00023
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00243	-.00216	.00099	-.00006	-.00125	.00065	.00001
SDev	.00040	.00093	.00125	.00052	.00014	.00230	.00149
%RSD	16.277	42.956	125.22	948.75	11.251	356.43	11465.
#1	.00271	-.00150	.00011	-.00042	-.00135	.00227	.00106
#2	.00215	-.00281	.00187	.00031	-.00115	-.00098	-.00104
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00740	-.00366	.00002	.00086	.00131	.02371	
SDev	.00162	.00072	.00102	.00043	.00035	.00005	
%RSD	21.841	19.634	4534.9	49.868	26.351	.19779	
#1	.00855	-.00315	.00074	.00117	.00107	.02367	
#2	.00626	-.00417	-.00070	.00056	.00156	.02374	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17376	--	--	--	--	--	--
SDev	98.88861	--	--	--	--	--	--
%RSD	.5690964	--	--	--	--	--	--
#1	17446	--	--	--	--	--	--
#2	17306	--	--	--	--	--	--

Method: METTRA Sample Name: DF83W

Operator: EMF

Run Time: 07/03/00 17:10:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00003	.00911	.00622	.19109	.00023	86.605	-.00027
SDev	.00022	.01070	.00068	.00074	.00003	.438	.00007
%RSD	690.45	117.44	10.973	.38858	12.535	.50573	27.495
#1	-.00012	.01668	.00574	.19161	.00021	86.915	-.00022
#2	.00018	.00155	.00670	.19056	.00025	86.295	-.00032
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00149	.00068	.02097	-.03921	25.611	.09453	.00045
SDev	.00075	.00019	.00009	.00303	.114	.00032	.00012
%RSD	50.355	28.659	.41536	7.7338	.44375	.33908	27.913
#1	.00202	.00054	.02103	-.03707	25.691	.09476	.00053
#2	.00096	.00081	.02091	-.04136	25.531	.09430	.00036
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00605	-.00270	.00091	-.00029	.00052	.00301	.00218
SDev	.00033	.00071	.00077	.00027	.00147	.00294	.00245
%RSD	5.5134	26.428	83.916	94.006	281.13	97.678	112.31
#1	.00628	-.00321	.00145	-.00010	-.00052	.00093	.00045
#2	.00581	-.00220	.00037	-.00048	.00156	.00509	.00391
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00784	.00007	.00265	-.00310	.00155	.00533	
SDev	.00280	.00164	.00016	.00330	.00069	.00006	
%RSD	35.733	2503.7	6.0625	106.31	44.286	1.1279	
#1	.00586	.00122	.00277	-.00544	.00203	.00538	
#2	.00982	-.00109	.00254	-.00077	.00106	.00529	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17220	--	--	--	--	--	--
SDev	60.63441	--	--	--	--	--	--
%RSD	.3521259	--	--	--	--	--	--
#1	17177	--	--	--	--	--	--
#2	17262	--	--	--	--	--	--

Method: METTRA Sample Name: DF84H

Operator: EMF

Run Time: 07/03/00 17:14:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00015	.00592	.00821	.00113	.00038	.17951	-.00022
SDev	.00029	.00691	.00087	.00005	.00002	.00912	.00008
%RSD	194.09	116.75	10.549	4.6648	6.1808	5.0812	35.412
#1	-.00006	.01080	.00882	.00109	.00040	.17306	-.00027
#2	.00036	.00103	.00760	.00116	.00036	.18596	-.00016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00082	.00030	.01072	.01272	.06495	.00037	.00059
SDev	.00021	.00032	.00024	.00082	.00577	.00017	.00093
%RSD	25.616	106.53	2.2191	6.4480	8.8867	44.889	156.55
#1	.00067	.00007	.01055	.01330	.06087	.00026	-.00006
#2	.00097	.00053	.01088	.01214	.06903	.00049	.00125
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00127	-.00205	.00025	-.00052	-.00147	.00183	.00073
SDev	.00062	.00151	.00106	.00020	.00133	.00098	.00110
%RSD	48.862	73.869	433.27	39.271	90.630	53.650	150.16
#1	.00171	-.00312	.00100	-.00038	-.00241	.00113	-.00005
#2	.00083	-.00098	-.00051	-.00066	-.00053	.00252	.00150
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00449	-.00266	-.00028	.00065	.00012	.01117	
SDev	.00040	.00143	.00082	.00155	.00067	.00004	
%RSD	8.8966	53.909	294.20	238.28	548.66	.33406	
#1	.00477	-.00367	-.00086	.00174	-.00035	.01114	
#2	.00421	-.00165	.00030	-.00044	.00060	.01120	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17366	--	--	--	--	--	--
SDev	49.78059	--	--	--	--	--	--
%RSD	.2866472	--	--	--	--	--	--
#1	17331	--	--	--	--	--	--
#2	17402	--	--	--	--	--	--

Method: METTRA Sample Name: DF84J

Operator: EMF

Run Time: 07/03/00 17:18:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	.00957	.00026	.00057	.00045	.43140	-.00026
SDev	.00016	.00701	.00010	.00001	.00003	.00291	.00001
%RSD	230.85	73.306	37.658	2.0965	6.0855	.67436	2.0423

#1	.00018	.01452	.00019	.00058	.00043	.42934	-.00026
#2	-.00004	.00461	.00033	.00056	.00047	.43345	-.00027

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00087	.00039	.03004	.04360	.05647	.00029	.00087
SDev	.00010	.00031	.00003	.00040	.00003	.00003	.00017
%RSD	11.832	80.597	.09657	.91160	.05416	8.8890	19.825

#1	.00079	.00061	.03002	.04388	.05645	.00031	.00100
#2	.00094	.00017	.03006	.04332	.05650	.00027	.00075

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00054	-.00217	.00146	.00025	.00029	-.00056	-.00028
SDev	.00082	.00310	.00032	.00082	.00061	.00049	.00012
%RSD	151.73	143.09	21.759	324.94	215.41	87.343	43.904

#1	.00112	.00003	.00123	.00083	.00072	-.00091	-.00037
#2	-.00004	-.00436	.00168	-.00033	-.00015	-.00022	-.00019

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00497	-.00347	-.00066	-.00169	-.00010	.01608
SDev	.00132	.00134	.00134	.00110	.00067	.00010
%RSD	26.557	38.762	202.80	65.217	652.79	.59431

#1	.00404	-.00442	-.00160	-.00091	.00037	.01614
#2	.00590	-.00252	.00029	-.00246	-.00058	.01601

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17452	--	--	--	--	--	--
SDev	10.57069	--	--	--	--	--	--
%RSD	.0605712	--	--	--	--	--	--
#1	17459	--	--	--	--	--	--
#2	17444	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-4

Operator: EMF

Run Time: 07/03/00 17:22:56

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0267	24.294	.50563	2.0000	2.0570	51.411	.49412
SDev	.0021	.054	.00183	.0039	.0108	.261	.00235
%RSD	.20330	.22258	.36159	.19357	.52481	.50683	.47623
#1	1.0281	24.333	.50692	2.0027	2.0646	51.595	.49579
#2	1.0252	24.256	.50433	1.9973	2.0494	51.227	.49246
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0531	2.0561	1.9691	25.376	50.293	2.0149	2.0429
SDev	.0080	.0066	.0069	.079	.198	.0067	.0028
%RSD	.38783	.32313	.35007	.31306	.39413	.33223	.13731
#1	2.0588	2.0608	1.9739	25.432	50.433	2.0196	2.0410
#2	2.0475	2.0514	1.9642	25.320	50.153	2.0101	2.0449
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0796	.50919	.49766	.50150	.51231	.50675	.50860
SDev	.0136	.00305	.00568	.00481	.00373	.00278	.00310
%RSD	.65627	.59974	1.1416	.95841	.72797	.54842	.60865
#1	2.0893	.51135	.50167	.50490	.51495	.50872	.51079
#2	2.0700	.50704	.49364	.49810	.50967	.50479	.50642
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.51769	.51475	.51573	1.0064	2.0539	2.0601	
SDev	.00245	.00655	.00355	.0094	.0096	.0096	
%RSD	.47352	1.2720	.68854	.93741	.46696	.46569	
#1	.51595	.51938	.51824	1.0131	2.0606	2.0668	
#2	.51942	.51012	.51322	.99971	2.0471	2.0533	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17071	--	--	--	--	--	--
SDev	66.96246	--	--	--	--	--	--
%RSD	.3922528	--	--	--	--	--	--
#1	17024	--	--	--	--	--	--
#2	17119	--	--	--	--	--	--

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Method: METTRA Sample Name: CCB4

Operator: EMF

Run Time: 07/03/00 17:27:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00059	.00735	-.00015	.00038	.00065	.04712	-.00004
SDev	.00040	.01122	.00083	.00012	.00043	.00311	.00012
%RSD	67.476	152.60	563.72	31.690	66.712	6.6080	291.84

#1	.00087	.01529	-.00074	.00029	.00034	.04491	.00004
#2	.00031	-.00058	.00044	.00046	.00096	.04932	-.00013

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00123	.00051	.00057	.00818	.01038	.00043	.00600
SDev	.00049	.00003	.00005	.00301	.00090	.00015	.00098
%RSD	39.386	5.5148	8.2564	36.804	8.6750	35.049	16.388

#1	.00089	.00053	.00060	.00605	.00974	.00032	.00670
#2	.00158	.00049	.00054	.01031	.01102	.00053	.00531

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00040	.00028	-.00163	-.00099	-.00158	.00182	.00069
SDev	.00082	.00011	.00032	.00018	.00144	.00190	.00079
%RSD	206.91	39.384	19.990	18.156	91.621	104.69	114.66

#1	-.00018	.00036	-.00186	-.00112	-.00260	.00316	.00125
#2	.00098	.00020	-.00140	-.00086	-.00056	.00047	.00013

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00242	-.00257	-.00091	.00183	.00084	.00712
SDev	.00222	.00187	.00051	.00040	.00001	.00016
%RSD	91.863	72.670	55.662	21.667	1.0152	2.2717

#1	.00399	-.00389	-.00127	.00155	.00085	.00724
#2	.00085	-.00125	-.00055	.00211	.00084	.00701

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			.00500	.01000	.05000	.02000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17211	--	--	--	--	--	--
SDev	229.4202	--	--	--	--	--	--
%RSD	1.332992	--	--	--	--	--	--
#1	17049	--	--	--	--	--	--
#2	17373	--	--	--	--	--	--

Method: METTRA Sample Name: DFK4AB

Operator: EMF

Run Time: 07/03/00 17:34:56

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	.01432	-.00114	.00032	.00023	.02538	-.00020
SDev	.00010	.00937	.00108	.00003	.00004	.00100	.00006
%RSD	24.918	65.449	94.797	9.3101	17.978	3.9497	29.486
#1	.00045	.02095	-.00038	.00035	.00026	.02609	-.00024
#2	.00031	.00769	-.00190	.00030	.00020	.02467	-.00016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00065	.00081	.00276	.02231	.00683	.00070	.00140
SDev	.00009	.00048	.00008	.00459	.00461	.00005	.00013
%RSD	13.621	59.725	2.7380	20.566	67.527	7.1388	9.2697
#1	.00071	.00115	.00270	.02555	.01009	.00074	.00131
#2	.00059	.00047	.00281	.01907	.00357	.00066	.00149
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00308	.00124	-.00094	-.00022	-.00165	.00138	.00037
SDev	.00043	.00018	.00057	.00032	.00170	.00102	.00012
%RSD	14.007	14.311	60.526	148.61	102.94	74.088	31.153
#1	.00278	.00136	-.00134	-.00044	-.00285	.00210	.00045
#2	.00339	.00111	-.00054	.00001	-.00045	.00066	.00029
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00236	.00336	.00145	-.00409	.00049	.00602	
SDev	.00410	.00207	.00275	.00173	.00052	.00005	
%RSD	173.58	61.661	189.06	42.297	105.17	.78588	
#1	.00054	.00483	.00340	-.00532	.00086	.00606	
#2	-.00527	.00190	-.00049	-.00287	.00013	.00599	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16996	--	--	--	--	--	--
SDev	62.26130	--	--	--	--	--	--
%RSD	.3663340	--	--	--	--	--	--
#1	17040	--	--	--	--	--	--
#2	16952	--	--	--	--	--	--

Method: METTRA Sample Name: DFK4AC

Operator: EMF

Run Time: 07/03/00 17:39:06

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04776	1.8471	1.9912	1.9485	.05137	L.18799	.05018
SDev	.00033	.0129	.0077	.0073	.00025	.00067	.00015
%RSD	.68991	.69603	.38707	.37279	.47888	.35428	.30825
#1	.04753	1.8562	1.9967	1.9536	.05154	L.18846	.05029
#2	.04800	1.8380	1.9858	1.9433	.05119	L.18751	.05007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52493	.20794	.24506	1.0398	L.01099	.50306	L.00044
SDev	.00229	.00059	.00064	.0000	.00170	.00125	.00067
%RSD	.43522	.28327	.26018	.00456	15.453	.24851	151.36
#1	.52654	.20835	.24551	1.0399	L.00979	.50395	L.00091
#2	.52331	.20752	.24460	1.0398	L.01219	.50218	L-.00003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.53154	.50420	.50016	.50150	-.00204	.00327	L.00150
SDev	.00176	.00013	.00045	.00026	.00233	.00092	.00139
%RSD	.33158	.02628	.09017	.05118	114.25	28.294	93.020
#1	.53279	.50430	.49984	.50132	-.00039	.00392	L.00248
#2	.53029	.50411	.50048	.50169	-.00369	.00261	L.00051
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9715	1.9790	1.9765	1.9665	.50343	.52855	
SDev	.0048	.0043	.0044	.0080	.00270	.00291	
%RSD	.24346	.21537	.22470	.40818	.53677	.55099	
#1	1.9681	1.9759	1.9733	1.9721	.50534	.53061	
#2	1.9748	1.9820	1.9796	1.9608	.50152	.52649	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

663 1302

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page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16884	--	--	--	--	--	--
SDev	44.19418	--	--	--	--	--	--
%RSD	.2617503	--	--	--	--	--	--
#1	16853	--	--	--	--	--	--
#2	16915	--	--	--	--	--	--

663 1303

Method: METTRA Sample Name: DFCKL

Operator: EMF

Run Time: 07/03/00 17:43:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00054	96.815	.06902	.94560	.00865	18.093	.00657
SDev	.00004	.045	.00100	.00149	.00001	.055	.00017
%RSD	7.3445	.04650	1.4551	.15747	.12970	.30642	2.5447
#1	.00057	96.783	.06831	.94666	.00866	18.132	.00645
#2	.00051	96.847	.06973	.94455	.00865	18.054	.00668
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08258	.13918	.45803	221.19	12.907	3.2626	.03763
SDev	.00023	.00025	.00050	.01	.018	.0011	.00003
%RSD	.28263	.18149	.11014	.00655	.13734	.03469	.07570
#1	.08242	.13936	.45839	221.18	12.919	3.2634	.03761
#2	.08275	.13900	.45767	221.20	12.894	3.2618	.03765
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.15855	.16602	.14339	.15093	.00197	.00421	.00346
SDev	.00282	.00203	.00163	.00041	.00012	.00055	.00040
%RSD	1.7784	1.2259	1.1390	.27276	6.2054	12.952	11.673
#1	.16054	.16746	.14224	.15064	.00206	.00459	.00375
#2	.15655	.16458	.14454	.15122	.00188	.00382	.00318
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00533	.01174	.00960	-.00380	.20023	.77057
SDev	.00119	.00116	.00117	.00203	.00054	.00180
%RSD	22.263	9.8700	12.160	53.472	.26770	.23402
#1	.00617	.01256	.01043	-.00523	.20061	.77184
#2	.00449	.01092	.00878	-.00236	.19985	.76929
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

663 1304

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18547	--	--	--	--	--	--
SDev	13.54137	--	--	--	--	--	--
%RSD	.0730106	--	--	--	--	--	--
#1	18557	--	--	--	--	--	--
#2	18538	--	--	--	--	--	--

Method: METTRA Sample Name: DFCKN

Operator: EMF

Run Time: 07/03/00 17:47:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02012	81.824	.08540	.74162	.00873	46.607	.07009
SDev	.00035	.051	.00050	.00068	.00012	.124	.00004
%RSD	1.7607	.06184	.58864	.09118	1.4177	.26640	.05732
#1	.02037	81.788	.08575	.74210	.00865	46.695	.07012
#2	.01987	81.859	.08504	.74114	.00882	46.519	.07006
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11735	.48081	5.1515	234.93	14.290	6.0446	.15810
SDev	.00031	.00072	.0087	.10	.020	.0050	.00145
%RSD	.26184	.14971	.16972	.04340	.13895	.08193	.91426
#1	.11757	.48132	5.1577	235.01	14.304	6.0481	.15708
#2	.11714	.48030	5.1453	234.86	14.276	6.0411	.15912
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.27897	.59725	.57465	.58218	.00456	.00407	.00424
SDev	.00280	.00505	.00127	.00253	.00086	.00059	.00068
%RSD	1.0051	.84542	.22175	.43481	18.851	14.486	16.051
#1	.28095	.60082	.57555	.58397	.00517	.00449	.00472
#2	.27699	.59368	.57375	.58039	.00396	.00366	.00376
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00804	.01765	.01445	-.00783	.21006	2.7033	
SDev	.00081	.00057	.00065	.00214	.00109	.0100	
%RSD	10.053	3.2464	4.5072	27.273	.52060	.36953	
#1	.00861	.01805	.01491	-.00934	.20928	2.7104	
#2	.00746	.01724	.01399	-.00632	.21083	2.6963	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1306

07/03/00 05:51:30 PM
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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18190	--	--	--	--	--	--
SDev	45.22031	--	--	--	--	--	--
%RSD	.2486002	--	--	--	--	--	--
#1	18158	--	--	--	--	--	--
#2	18222	--	--	--	--	--	--

Method: METTRA Sample Name: DFCKP

Operator: EMF

Run Time: 07/03/00 17:51:34

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01372	56.186	.03924	.95909	.00572	124.01	.08640
SDev	.00028	.257	.00062	.00624	.00008	.88	.00062
%RSD	2.0511	.45704	1.5734	.65094	1.3461	.71051	.71309
#1	.01352	56.368	.03880	.96351	.00566	124.63	.08684
#2	.01392	56.005	.03968	.95468	.00577	123.38	.08597
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06998	.31804	4.7280	145.77	19.357	3.4388	.66427
SDev	.00002	.00115	.0327	.67	.116	.0168	.00114
%RSD	.02628	.36310	.69239	.45881	.59831	.48776	.17170
#1	.06997	.31886	4.7511	146.24	19.439	3.4506	.66508
#2	.07000	.31723	4.7048	145.29	19.275	3.4269	.66346
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23159	.41138	.39183	.39834	.00299	.00551	.00467
SDev	.00273	.00529	.00160	.00070	.00177	.00246	.00105
%RSD	1.1775	1.2860	.40719	.17512	59.300	44.612	22.476
#1	.23352	.41513	.39070	.39883	.00173	.00725	.00541
#2	.22966	.40764	.39296	.39785	.00424	.00377	.00393
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00709	.01345	.01133	-.00507	.13997	3.4070	
SDev	.00160	.00194	.00076	.00031	.00052	.0268	
%RSD	22.627	14.435	6.7134	6.0362	.36910	.78801	
#1	.00822	.01208	.01079	-.00486	.14033	3.4260	
#2	.00596	.01482	.01187	-.00529	.13960	3.3881	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1308**6661 600**

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17530	--	--	--	--	--	--
SDev	121.5519	--	--	--	--	--	--
%RSD	.6933859	--	--	--	--	--	--
#1	17444	--	--	--	--	--	--
#2	17616	--	--	--	--	--	--

0.0

Method: METTRA Sample Name: DFCKPP5

Operator: EMF

Run Time: 07/03/00 17:55:43

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00272	11.157	.00811	.19756	.00159	26.055	.01845
SDev	.00006	.026	.00050	.00022	.00006	.007	.00003
%RSD	2.0799	.23267	6.1765	.11275	3.4972	.02625	.17652

#1	.00268	11.138	.00776	.19741	.00155	26.059	.01843
#2	.00276	11.175	.00847	.19772	.00163	26.050	.01848

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01572	.06691	.94047	30.437	4.0093	.71126	.14096
SDev	.00045	.00041	.00021	.054	.0059	.00079	.00002
%RSD	2.8851	.61632	.02272	.17886	.14646	.11141	.01378

#1	.01540	.06662	.94032	30.398	4.0052	.71070	.14098
#2	.01604	.06720	.94062	30.475	4.0135	.71182	.14095

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04931	.08607	.08257	.08374	.00106	.00245	.00199
SDev	.00005	.00080	.00152	.00075	.00215	.00095	.00135
%RSD	.09119	.93127	1.8456	.89516	201.88	38.727	67.805

#1	.04928	.08550	.08365	.08427	.00258	.00312	.00294
#2	.04934	.08664	.08149	.08321	-.00045	.00178	.00103

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00300	.00377	.00351	-.00170	.03005	.73484
SDev	.00348	.00007	.00111	.00317	.00002	.00149
%RSD	115.94	1.9579	31.582	186.84	.05450	.20242

#1	.00054	.00382	.00273	-.00393	.03004	.73589
#2	.00546	.00372	.00430	.00054	.03006	.73378

663 1310

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17359	--	--	--	--	--	--
SDev	2.368532	--	--	--	--	--	--
%RSD	.0136445	--	--	--	--	--	--
#1	17357	--	--	--	--	--	--
#2	17361	--	--	--	--	--	--

Method: METTRA Sample Name: DFCKPS

0132 000

Operator: EMF

Run Time: 07/03/00 17:59:53

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06867	106.19	1.9139	2.9358	.05369	169.39	.13682
SDev	.00024	.43	.0011	.0093	.00004	.44	.00020
%RSD	.35096	.40920	.05589	.31709	.07053	.25947	.14640
#1	.06850	105.88	1.9131	2.9293	.05366	169.08	.13668
#2	.06884	106.50	1.9147	2.9424	.05372	169.70	.13696
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.55119	.54544	5.1740	155.33	69.764	3.7981	1.6193
SDev	.00242	.00181	.0201	.56	.252	.0151	.0090
%RSD	.43986	.33261	.38823	.35908	.36129	.39849	.55774
#1	.54947	.54416	5.1598	154.94	69.586	3.7874	1.6129
#2	.55290	.54673	5.1882	155.73	69.942	3.8088	1.6257
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.73072	.90505	.85749	.87333	.32338	.32751	.32614
SDev	.00105	.00115	.00654	.00475	.00470	.00126	.00241
%RSD	.14381	.12690	.76287	.54340	1.4543	.38452	.73775
#1	.72998	.90424	.85286	.86997	.32005	.32662	.32443
#2	.73147	.90586	.86211	.87668	.32670	.32840	.32784
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.8839	1.8885	1.8869	1.8674	.67167	4.0266	
SDev	.0073	.0203	.0160	.0020	.00019	.0100	
%RSD	.38849	1.0749	.84667	.10879	.02869	.24792	
#1	1.8787	1.8741	1.8756	1.8660	.67181	4.0195	
#2	1.8891	1.9028	1.8982	1.8689	.67153	4.0337	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1312

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17411	--	--	--	--	--	--
SDev	50.66448	--	--	--	--	--	--
%RSD	.2909899	--	--	--	--	--	--
#1	17447	--	--	--	--	--	--
#2	17375	--	--	--	--	--	--

Method: METTRA Sample Name: DFCKPD

Operator: EMF

Run Time: 07/03/00 18:04:02

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07537	103.18	1.9541	3.0368	.05439	176.24	.17703
SDev	.00215	3.16	.0548	.0841	.00089	4.35	.00481
%RSD	2.8518	3.0637	2.8044	2.7686	1.6329	2.4659	2.7152
#1	.07385	100.94	1.9154	2.9773	.05377	173.17	.17363
#2	.07689	105.41	1.9929	3.0962	.05502	179.32	.18043
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.56307	.59256	6.0526	177.91	71.387	3.8320	1.8317
SDev	.01485	.01586	.1664	4.97	1.926	.1064	.0578
%RSD	2.6381	2.6757	2.7490	2.7931	2.6974	2.7767	3.1578
#1	.55256	.58135	5.9350	174.40	70.025	3.7567	1.7908
#2	.57357	.60377	6.1703	181.43	72.748	3.9072	1.8726
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.76718	.93683	.89930	.91180	.30082	.29841	.29921
SDev	.01468	.01471	.02614	.02234	.01075	.00256	.00529
%RSD	1.9134	1.5699	2.9071	2.4496	3.5743	.85839	1.7676
#1	.75680	.92643	.88081	.89600	.29322	.29660	.29547
#2	.77756	.94723	.91778	.92759	.30842	.30022	.30295
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9252	1.9455	1.9388	1.9057	.67834	H5.2770	
SDev	.0353	.0518	.0463	.0509	.01701	.1304	
%RSD	1.8311	2.6635	2.3883	2.6699	2.5084	2.4718	
#1	1.9003	1.9089	1.9060	1.8697	.66631	H5.1848	
#2	1.9502	1.9822	1.9715	1.9417	.69037	H5.3692	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1314

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17262	--	--	--	--	--	--
SDev	356.9121	--	--	--	--	--	--
%RSD	2.067638	--	--	--	--	--	--
#1	17514	--	--	--	--	--	--
#2	17009	--	--	--	--	--	--

Method: METTRA Sample Name: DFCKR

Operator: EMF

Run Time: 07/03/00 18:08:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03129	62.701	.05040	1.2185	.00652	125.24	.13085
SDev	.00053	.087	.00014	.0018	.00002	.30	.00004
%RSD	1.7105	.13954	.27913	.14918	.28217	.23583	.03337
#1	.03167	62.639	.05050	1.2172	.00653	125.45	.13088
#2	.03091	62.763	.05030	1.2198	.00650	125.03	.13082
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09204	.79633	8.5939	200.62	23.286	5.0084	.93233
SDev	.00025	.00000	.0088	.17	.014	.0036	.00270
%RSD	.27381	.00024	.10213	.08354	.05980	.07178	.28943
#1	.09221	.79634	8.5876	200.50	23.295	5.0058	.93042
#2	.09186	.79633	8.6001	200.74	23.276	5.0109	.93424
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.57934	.74489	.71683	.72617	.00869	.00889	.00882
SDev	.00446	.00534	.00270	.00003	.00079	.00257	.00145
%RSD	.76916	.71688	.37731	.00355	9.0406	28.919	16.469
#1	.58249	.74866	.71492	.72615	.00814	.01071	.00985
#2	.57619	.74111	.71874	.72619	.00925	.00707	.00780
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01615	.02028	.01890	-.00123	.17889	H5.2206	
SDev	.00125	.00225	.00192	.00100	.00028	.0085	
%RSD	7.7070	11.110	10.142	80.944	.15427	.16235	
#1	.01703	.02187	.02026	-.00053	.17909	H5.2266	
#2	.01527	.01869	.01755	-.00194	.17870	H5.2146	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1316

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17900	--	--	--	--	--	--
SDev	25.63262	--	--	--	--	--	--
%RSD	.1432020	--	--	--	--	--	--
#1	17918	--	--	--	--	--	--
#2	17882	--	--	--	--	--	--

Method: METTRA Sample Name: DFCKT

Operator: EMF

Run Time: 07/03/00 18:12:21

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02507	76.578	.05537	.84877	.01005	152.33	.09726
SDev	.00064	.000	.00080	.00251	.00003	.42	.00026
%RSD	2.5656	.00027	1.4364	.29566	.34142	.27562	.26986
#1	.02462	76.578	.05481	.85055	.01003	152.63	.09744
#2	.02553	76.578	.05594	.84700	.01008	152.03	.09707
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11742	.89100	6.1481	189.61	27.571	5.9133	.19540
SDev	.00061	.00013	.0184	.19	.038	.0059	.00011
%RSD	.51717	.01463	.29963	.10055	.13862	.09968	.05702
#1	.11699	.89109	6.1611	189.74	27.598	5.9175	.19532
#2	.11785	.89091	6.1351	189.47	27.544	5.9091	.19548
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49055	1.1130	1.0754	1.0879	.00961	.00990	.00980
SDev	.00399	.0033	.0018	.0023	.00097	.00032	.00011
%RSD	.81314	.29318	.16474	.20850	10.041	3.1826	1.1325
#1	.49337	1.1153	1.0766	1.0895	.01029	.00968	.00988
#2	.48773	1.1107	1.0741	1.0863	.00893	.01013	.00973
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00965	.01762	.01497	-.00258	.19892	4.0900	
SDev	.00056	.00096	.00083	.00269	.00129	.0168	
%RSD	5.8481	5.4481	5.5340	104.31	.64635	.40959	
#1	.01005	.01830	.01555	-.00068	.19983	4.1019	
#2	.00925	.01694	.01438	-.00448	.19801	4.0782	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1318

07/03/00 06:16:26 PM

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18171	--	--	--	--	--	--
SDev	56.78123	--	--	--	--	--	--
%RSD	.3124801	--	--	--	--	--	--
#1	18131	--	--	--	--	--	--
#2	18211	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-5

Operator: EMF

Run Time: 07/03/00 18:16:30

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0133	23.817	.50219	1.9574	2.0293	50.700	.48686
SDev	.0003	.017	.00163	.0014	.0009	.089	.00015
%RSD	.03274	.07141	.32381	.07116	.04438	.17613	.02998
#1	1.0130	23.804	.50104	1.9564	2.0300	50.763	.48676
#2	1.0135	23.829	.50334	1.9584	2.0287	50.637	.48697
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0241	2.0268	1.9403	25.069	49.636	1.9739	2.0131
SDev	.0012	.0038	.0017	.009	.015	.0033	.0173
%RSD	.06110	.18895	.08726	.03542	.03085	.16849	.85921
#1	2.0233	2.0241	1.9391	25.062	49.625	1.9716	2.0009
#2	2.0250	2.0295	1.9415	25.075	49.647	1.9763	2.0253
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0415	.50203	.49491	.49728	.50824	.49927	.50226
SDev	.0069	.00320	.00145	.00203	.00194	.00180	.00185
%RSD	.33928	.63657	.29385	.40907	.38136	.36092	.36781
#1	2.0464	.49977	.49388	.49584	.50687	.49800	.50095
#2	2.0366	.50429	.49594	.49872	.50961	.50055	.50357
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51153	.51331	.51271	.99283	2.0196	2.0217	
SDev	.00062	.00201	.00113	.00581	.0046	.0025	
%RSD	.12165	.39176	.22119	.58554	.22789	.12270	
#1	.51197	.51188	.51191	.99694	2.0228	2.0235	
#2	.51109	.51473	.51351	.98872	2.0163	2.0200	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17314	--	--	--	--	--	--
SDev	28.70826	--	--	--	--	--	--
%RSD	.1658119	--	--	--	--	--	--
#1	17334	--	--	--	--	--	--
#2	17293	--	--	--	--	--	--

Method: METTRA Sample Name: CCB5

Operator: EMF

Run Time: 07/03/00 18:20:40

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00066	.02909	.00135	.00049	.00068	.03942	-.00004
SDev	.00072	.00335	.00063	.00010	.00009	.00174	.00006
%RSD	108.65	11.518	46.542	20.900	13.220	4.4036	151.62
#1	.00015	.03146	.00090	.00042	.00074	.03819	-.00009
#2	.00117	.02672	.00179	.00057	.00062	.04065	.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00112	.00044	.00084	.04131	.01346	.00082	.00647
SDev	.00031	.00036	.00074	.00254	.00099	.00000	.00056
%RSD	27.839	82.028	88.629	6.1451	7.3592	.50385	8.6674
#1	.00090	.00019	.00031	.03951	.01276	.00082	.00687
#2	.00134	.00070	.00137	.04310	.01416	.00082	.00607
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00004	-.00022	.00015	.00003	-.00141	-.00063	-.00089
SDev	.00031	.00134	.00134	.00134	.00063	.00234	.00177
%RSD	840.87	601.76	870.37	4622.5	45.025	370.15	198.82
#1	-.00018	-.00117	-.00080	-.00092	-.00186	-.00228	-.00214
#2	.00026	.00072	.00111	.00098	-.00096	.00102	.00036
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00369	.00066	.00167	.00043	.00086	.00496	
SDev	.00436	.00166	.00256	.00248	.00034	.00015	
%RSD	118.21	250.87	153.22	578.42	40.181	3.0111	
#1	.00677	.00183	.00348	.00218	.00061	.00485	
#2	.00061	-.00051	-.00014	-.00133	.00110	.00506	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17174	--	--	--	--	--	--
SDev	66.68072	--	--	--	--	--	--
%RSD	.3882644	--	--	--	--	--	--
#1	17221	--	--	--	--	--	--
#2	17127	--	--	--	--	--	--

Method: METTRA Sample Name: DFCKV

Operator: EMF

Run Time: 07/03/00 18:24:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00030	44.995	.06605	.54468	.00830	16.833	-.00389
SDev	.00010	.052	.00011	.00000	.00006	.039	.00025
%RSD	33.928	.11523	.16216	.00009	.72184	.23236	6.4237
#1	.00037	44.958	.06597	.54468	.00826	16.861	-.00406
#2	.00023	45.032	.06612	.54468	.00834	16.805	-.00371
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08035	.10637	.11796	227.66	11.698	1.1612	.01127
SDev	.00021	.00034	.00040	.10	.007	.0003	.00072
%RSD	.26160	.32301	.33694	.04274	.06315	.02491	6.4150
#1	.08020	.10661	.11768	227.59	11.703	1.1610	.01178
#2	.08050	.10613	.11825	227.73	11.693	1.1614	.01076
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.15314	.09988	.08616	.09073	-.00007	.00422	.00279
SDev	.00130	.00277	.00085	.00036	.00060	.00004	.00023
%RSD	.84801	2.7705	.98293	.39298	895.86	1.0388	8.1923
#1	.15406	.10184	.08557	.09098	-.00049	.00419	.00263
#2	.15222	.09792	.08676	.09048	.00036	.00425	.00295
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00159	.00967	.00698	-.00837	.11301	.35685	
SDev	.00059	.00222	.00168	.00127	.00004	.00059	
%RSD	37.127	22.926	24.005	15.159	.03489	.16555	
#1	.00201	.01123	.00816	-.00927	.11298	.35726	
#2	.00117	.00810	.00579	-.00747	.11304	.35643	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18205	--	--	--	--	--	--
SDev	2.969296	--	--	--	--	--	--
%RSD	.0163105	--	--	--	--	--	--
#1	18207	--	--	--	--	--	--
#2	18203	--	--	--	--	--	--

Method: METTRA Sample Name: DFCKW

Operator: EMF

Run Time: 07/03/00 18:28:58

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00725	56.934	.08124	1.1099	.00805	66.174	.02663
SDev	.00023	.008	.00089	.0016	.00002	.324	.00041
%RSD	3.2462	.01374	1.0944	.14719	.26257	.48899	1.5362
#1	.00742	56.929	.08061	1.1111	.00806	66.402	.02634
#2	.00708	56.940	.08187	1.1088	.00803	65.945	.02692
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10767	.89002	.41897	259.06	14.232	7.8925	.31660
SDev	.00003	.00034	.00021	.04	.031	.0044	.00086
%RSD	.02382	.03850	.05035	.01578	.22099	.05596	.27301
#1	.10765	.89026	.41882	259.03	14.255	7.8956	.31598
#2	.10768	.88977	.41912	259.09	14.210	7.8894	.31721
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.76464	.96854	.94446	.95248	.00772	.00884	.00847
SDev	.00331	.00265	.00051	.00123	.00066	.00298	.00220
%RSD	.43351	.27404	.05424	.12867	8.5001	33.664	26.019
#1	.76698	.97042	.94483	.95335	.00726	.00673	.00691
#2	.76230	.96667	.94410	.95162	.00819	.01094	.01002
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01385	.02079	.01848	-.00468	.16528	1.4009	
SDev	.00362	.00019	.00133	.00226	.00205	.0042	
%RSD	26.138	.89303	7.1938	48.265	1.2407	.29797	
#1	.01641	.02093	.01942	-.00627	.16673	1.4039	
#2	.01129	.02066	.01754	-.00308	.16383	1.3980	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18132	--	--	--	--	--	--
SDev	7.778174	--	--	--	--	--	--
%RSD	.0428981	--	--	--	--	--	--
#1	18137	--	--	--	--	--	--
#2	18126	--	--	--	--	--	--

Method: METTRA Sample Name: DFCMP

Operator: EMF

Run Time: 07/03/00 18:33:08

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01059	65.604	.13416	.90931	.01085	32.645	.19599
SDev	.00009	.287	.00155	.00469	.00009	.254	.00147
%RSD	.86247	.43676	1.1546	.51580	.81992	.77849	.75150
#1	.01065	65.806	.13526	.91263	.01091	32.825	.19703
#2	.01052	65.401	.13307	.90600	.01078	32.465	.19494
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23051	4.4828	.95746	434.63	14.736	5.3142	.55883
SDev	.00180	.0231	.00540	2.39	.097	.0278	.00362
%RSD	.78262	.51507	.56375	.54926	.65790	.52269	.64739
#1	.23179	4.4991	.96128	436.32	14.805	5.3338	.56139
#2	.22924	4.4665	.95365	432.95	14.668	5.2945	.55627
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.2719	2.1207	2.0516	2.0746	.03007	.02273	.02518
SDev	.0275	.0123	.0034	.0018	.00396	.00175	.00015
%RSD	1.2103	.57875	.16402	.08882	13.164	7.7139	.58966
#1	2.2914	2.1294	2.0492	2.0759	.02727	.02397	.02507
#2	2.2525	2.1121	2.0540	2.0733	.03287	.02149	.02528
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.03946	.04555	.04352	L-.01273	.27091	2.6240	
SDev	.00102	.00079	.00087	.00238	.00389	.0219	
%RSD	2.5946	1.7296	1.9908	18.691	1.4369	.83449	
#1	.04019	.04611	.04414	L-.01105	.27366	2.6395	
#2	.03874	.04499	.04291	L-.01442	.26816	2.6086	
Errors	NOCHECK	NOCHECK	LC Pass	LC Low	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18452	--	--	--	--	--	--
SDev	81.10460	--	--	--	--	--	--
%RSD	.4395317	--	--	--	--	--	--
#1	18395	--	--	--	--	--	--
#2	18510	--	--	--	--	--	--

Method: METTRA Sample Name: DFCP9

Operator: EMF

Run Time: 07/03/00 18:37:17

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00511	70.454	.10635	1.1804	.00828	22.229	.07938
SDev	.00021	.158	.00008	.0008	.00009	.012	.00035
%RSD	4.0912	.22394	.07769	.07158	1.0681	.05213	.44575
#1	.00496	70.343	.10629	1.1798	.00834	22.237	.07913
#2	.00526	70.566	.10641	1.1810	.00822	22.221	.07963
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07941	.21475	.40517	191.40	12.812	2.5453	1.2395
SDev	.00054	.00009	.00089	.33	.015	.0049	.0059
%RSD	.67815	.04097	.22047	.17373	.11394	.19432	.47691
#1	.07903	.21482	.40454	191.17	12.801	2.5418	1.2353
#2	.07979	.21469	.40580	191.64	12.822	2.5488	1.2437
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17768	1.0503	1.0125	1.0251	.00001	.00396	.00265
SDev	.00051	.0009	.0022	.0017	.00156	.00017	.00063
%RSD	.28886	.08144	.21668	.17053	12500.	4.2807	23.941
#1	.17732	1.0497	1.0109	1.0238	.00112	.00408	.00310
#2	.17804	1.0509	1.0140	1.0263	-.00109	.00384	.00220
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01438	.01915	.01756	-.00219	.38349	1.3777	
SDev	.00130	.00353	.00192	.00038	.00055	.0005	
%RSD	9.0332	18.429	10.942	17.352	.14326	.03847	
#1	.01529	.01665	.01620	-.00192	.38311	1.3773	
#2	.01346	.02164	.01892	-.00246	.38388	1.3781	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18287	--	--	--	--	--	--
SDev	52.74989	--	--	--	--	--	--
%RSD	.2884525	--	--	--	--	--	--
#1	18324	--	--	--	--	--	--
#2	18250	--	--	--	--	--	--

Method: METTRA Sample Name: DFGJQ

Operator: EMF

Run Time: 07/03/00 18:41:26

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00090	3.3620	.00283	.12268	.00270	1.5969	-.00036
SDev	.00056	.0050	.00033	.00001	.00006	.0005	.00011
%RSD	61.782	.14875	11.514	.00620	2.4067	.03076	31.803
#1	.00130	3.3655	.00306	.12268	.00266	1.5965	-.00044
#2	.00051	3.3585	.00260	.12269	.00275	1.5972	-.00028
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02124	.77115	.15506	13.363	.45069	.04591	.14182
SDev	.00025	.00101	.00006	.016	.00072	.00012	.00075
%RSD	1.1947	.13137	.04165	.11905	.16061	.26737	.53177
#1	.02106	.77043	.15502	13.351	.45120	.04600	.14129
#2	.02142	.77187	.15511	13.374	.45017	.04583	.14235
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.2428	.00564	.00157	.00293	.00350	.00446	.00414
SDev	.0076	.00314	.00222	.00044	.00026	.00116	.00086
%RSD	.33682	55.638	141.30	14.992	7.3814	26.025	20.785
#1	2.2481	.00786	.00000	.00262	.00368	.00529	.00475
#2	2.2374	.00342	.00315	.00324	.00331	.00364	.00353
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00506	.00802	.00704	-.00236	.00880	.04095	
SDev	.00067	.00022	.00037	.00076	.00085	.00004	
%RSD	13.205	2.7825	5.2797	32.121	9.6585	.10701	
#1	.00554	.00818	.00730	-.00290	.00940	.04098	
#2	.00459	.00786	.00677	-.00182	.00819	.04092	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17015	--	--	--	--	--	--
SDev	18.70380	--	--	--	--	--	--
%RSD	.1099281	--	--	--	--	--	--
#1	17028	--	--	--	--	--	--
#2	17001	--	--	--	--	--	--

Method: METTRA Sample Name: DFCMP/2 TL Operator: EMF
 Run Time: 07/03/00 18:47:13
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00541	33.094	.07111	.46944	.00608	17.152	.10196
SDev	.00021	.290	.00064	.00215	.00030	.197	.00136
%RSD	3.9798	.87710	.90320	.45746	4.9497	1.1459	1.3334
#1	.00557	32.889	.07157	.46792	.00630	17.291	.10100
#2	.00526	33.300	.07066	.47096	.00587	17.013	.10292
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.12027	2.3307	.48322	224.59	7.6293	2.7146	.28977
SDev	.00063	.0111	.00268	1.05	.0079	.0132	.00392
%RSD	.52079	.47546	.55486	.46911	.10412	.48622	1.3532
#1	.11982	2.3229	.48132	223.85	7.6237	2.7052	.28699
#2	.12071	2.3385	.48511	225.34	7.6349	2.7239	.29254
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2083	1.0952	1.0846	1.0881	.01659	.01349	.01452
SDev	.0298	.0034	.0164	.0098	.00037	.00254	.00182
%RSD	2.4682	.30870	1.5111	.90121	2.2548	18.832	12.527
#1	1.2294	1.0928	1.0962	1.0951	.01632	.01170	.01324
#2	1.1872	1.0976	1.0730	1.0812	.01685	.01529	.01581
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01886	.02505	.02299	-.00592	.14237	1.3921	
SDev	.00424	.00158	.00246	.00009	.00191	.0167	
%RSD	22.456	6.2957	10.711	1.4937	1.3437	1.1965	
#1	.01587	.02393	.02125	-.00586	.14372	1.4039	
#2	.02186	.02616	.02473	-.00599	.14101	1.3804	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17949	--	--	--	--	--	--
SDev	91.78163	--	--	--	--	--	--
%RSD	.5113482	--	--	--	--	--	--
#1	18014	--	--	--	--	--	--
#2	17884	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-6

Operator: EMF

Run Time: 07/03/00 18:51:23

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0180	23.880	.50416	1.9624	2.0415	50.916	.48957
SDev	.0078	.171	.00491	.0151	.0221	.527	.00509
%RSD	.76766	.71490	.97456	.76753	1.0810	1.0347	1.0401
#1	1.0236	24.000	.50764	1.9731	2.0571	51.288	.49317
#2	1.0125	23.759	.50069	1.9518	2.0259	50.543	.48597
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0345	2.0392	1.9464	25.194	49.938	1.9836	2.0282
SDev	.0164	.0166	.0162	.205	.450	.0151	.0063
%RSD	.80855	.81580	.83015	.81227	.90113	.76177	.31300
#1	2.0462	2.0510	1.9578	25.339	50.256	1.9943	2.0327
#2	2.0229	2.0275	1.9350	25.049	49.620	1.9729	2.0237
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0500	.50601	.49684	.49989	.51129	.50627	.50794
SDev	.0295	.00265	.00439	.00381	.00856	.00297	.00483
%RSD	1.4390	.52418	.88277	.76190	1.6733	.58709	.95116
#1	2.0709	.50789	.49994	.50258	.51734	.50837	.51136
#2	2.0292	.50413	.49374	.49720	.50524	.50417	.50453
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51539	.51570	.51560	.99912	2.0268	2.0328	
SDev	.00477	.00753	.00661	.01251	.0207	.0221	
%RSD	.92513	1.4604	1.2822	1.2519	1.0190	1.0850	
#1	.51876	.52103	.52027	1.0080	2.0414	2.0484	
#2	.51202	.51038	.51092	.99027	2.0122	2.0172	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17108	--	--	--	--	--	--
SDev	102.0347	--	--	--	--	--	--
%RSD	.5964080	--	--	--	--	--	--
#1	17036	--	--	--	--	--	--
#2	17180	--	--	--	--	--	--

Method: METTRA Sample Name: CCB6

Operator: EMF

Run Time: 07/03/00 18:55:32

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00066	.03885	-.00011	.00034	.00073	.01693	-.00010
SDev	.00025	.00463	.00031	.00006	.00003	.00021	.00001
%RSD	38.418	11.912	284.70	18.752	3.9157	1.2295	10.469
#1	.00048	.04213	-.00033	.00030	.00071	.01679	-.00011
#2	.00083	.03558	.00011	.00039	.00075	.01708	-.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00107	.00044	-.00046	.03164	.01175	.00064	.00588
SDev	.00021	.00053	.00022	.00626	.00049	.00010	.00270
%RSD	19.625	121.44	47.017	19.786	4.2111	14.721	45.930
#1	.00122	.00006	-.00062	.02722	.01140	.00058	.00779
#2	.00092	.00082	-.00031	.03607	.01211	.00071	.00397
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00088	-.00076	.00026	-.00008	.00025	.00119	.00088
SDev	.00078	.00121	.00035	.00017	.00101	.00058	.00072
%RSD	88.594	159.07	132.15	218.98	408.60	48.629	82.579
#1	.00033	-.00162	.00051	-.00020	.00096	.00160	.00139
#2	.00144	.00010	.00002	.00004	-.00047	.00078	.00036
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00167	-.00023	.00040	.00098	.00085	.00254	
SDev	.00068	.00066	.00021	.00308	.00034	.00013	
%RSD	40.804	288.55	52.517	313.09	40.386	5.2713	
#1	.00119	.00024	.00055	.00317	.00061	.00245	
#2	.00215	-.00069	.00025	-.00120	.00110	.00264	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

663 1338

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17174	--	--	--	--	--	--
SDev	42.88630	--	--	--	--	--	--
%RSD	.2497204	--	--	--	--	--	--
#1	17204	--	--	--	--	--	--
#2	17143	--	--	--	--	--	--

Method: METTRA Sample Name: DFNERB

PEP 688

Operator: EMF

Run Time: 07/03/00 18:59:42

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00005	.03639	-.00064	.00023	.00055	.05363	-.00011
SDev	.00046	.00776	.00054	.00007	.00004	.00145	.00010
%RSD	909.23	21.333	84.704	30.174	7.0917	2.7086	83.317
#1	-.00027	.04188	-.00026	.00018	.00052	.05260	-.00005
#2	.00038	.03090	-.00103	.00028	.00058	.05466	-.00018
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00078	-.00004	.00416	.01994	.00921	.00044	.00150
SDev	.00029	.00049	.00057	.00371	.00361	.00007	.00006
%RSD	37.871	1229.6	13.738	18.599	39.217	15.245	3.7466
#1	.00099	-.00039	.00375	.02256	.00666	.00039	.00154
#2	.00057	.00031	.00456	.01732	.01177	.00049	.00146
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00033	-.00152	.00045	-.00020	.00039	.00167	.00124
SDev	.00073	.00040	.00032	.00008	.00011	.00271	.00185
%RSD	219.92	26.276	71.670	41.002	28.174	162.57	148.54
#1	-.00018	-.00180	.00068	-.00014	.00031	-.00025	-.00006
#2	.00085	-.00124	.00022	-.00026	.00047	.00358	.00255
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00017	.00003	-.00004	-.00187	.00025	.00580	
SDev	.00097	.00215	.00111	.00333	.00017	.00007	
%RSD	569.98	7526.1	2927.7	178.01	68.598	1.1982	
#1	.00052	-.00149	-.00082	-.00422	.00013	.00575	
#2	-.00086	.00155	.00075	.00048	.00037	.00584	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17151	--	--	--	--	--	--
SDev	17.99532	--	--	--	--	--	--
%RSD	.1049218	--	--	--	--	--	--
#1	17164	--	--	--	--	--	--
#2	17138	--	--	--	--	--	--

Method: METTRA Sample Name: DFNERC

Operator: EMF

Run Time: 07/03/00 19:03:51

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04720	1.8250	1.9664	1.8973	.05084	L.04618	.04931
SDev	.00013	.0291	.0224	.0223	.00047	.00068	.00022
%RSD	.27737	1.5962	1.1404	1.1758	.91847	1.4769	.45442
#1	.04729	1.8456	1.9823	1.9130	.05117	L.04570	.04947
#2	.04711	1.8044	1.9506	1.8815	.05051	L.04666	.04915
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51421	.20295	.23967	1.0154	L.01552	.48951	L.00108
SDev	.00501	.00193	.00295	.0096	.00198	.00473	.00019
%RSD	.97457	.95064	1.2289	.94949	12.765	.96563	17.724
#1	.51775	.20431	.24176	1.0222	L.01692	.49285	L.00122
#2	.51066	.20159	.23759	1.0086	L.01412	.48617	L.00095
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51854	.49268	.48960	.49062	-.00141	.00381	L.00207
SDev	.00875	.00057	.00742	.00475	.00044	.00134	.00104
%RSD	1.6880	.11661	1.5148	.96924	31.414	35.064	50.102
#1	.52473	.49228	.49484	.49399	-.00172	.00287	L.00134
#2	.51235	.49309	.48435	.48726	-.00110	.00476	L.00281
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9874	1.9805	1.9828	1.9412	.49344	.51469	
SDev	.0032	.0267	.0189	.0207	.00658	.00598	
%RSD	.16016	1.3481	.95163	1.0665	1.3338	1.1619	
#1	1.9897	1.9994	1.9962	1.9558	.49810	.51892	
#2	1.9852	1.9617	1.9695	1.9265	.48879	.51047	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17143	--	--	--	--	--	--
SDev	98.21741	--	--	--	--	--	--
%RSD	.5729452	--	--	--	--	--	--
#1	17073	--	--	--	--	--	--
#2	17212	--	--	--	--	--	--

Method: METTRA Sample Name: DFJTE

Operator: EMF

Run Time: 07/03/00 19:08:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00025	.92123	.00244	.07169	.00058	19.797	.00006
SDev	.00012	.01422	.00170	.00004	.00008	.038	.00018
%RSD	49.258	1.5437	69.487	.05259	13.458	.19044	308.51
#1	.00034	.93128	.00364	.07171	.00053	19.824	.00019
#2	.00016	.91117	.00124	.07166	.00064	19.770	-.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00297	.00816	.00624	4.8698	3.0553	1.1488	.00204
SDev	.00017	.00003	.00052	.0001	.0015	.0002	.00106
%RSD	5.6143	.33528	8.2576	.00248	.04756	.01540	52.031
#1	.00309	.00818	.00587	4.8697	3.0564	1.1487	.00280
#2	.00285	.00814	.00660	4.8698	3.0543	1.1489	.00129
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00313	.01070	.00908	.00962	.00047	.00167	.00127
SDev	.00000	.00228	.00057	.00038	.00150	.00186	.00174
%RSD	.07133	21.259	6.2794	3.9198	321.89	111.30	137.16
#1	.00313	.00909	.00949	.00936	.00153	.00298	.00250
#2	.00313	.01231	.00868	.00989	-.00060	.00035	.00004
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00119	.00106	.00110	.00088	.00544	.03940	
SDev	.00238	.00291	.00115	.00151	.00034	.00010	
%RSD	200.30	274.57	104.26	170.95	6.3210	.24010	
#1	.00287	-.00100	.00029	.00195	.00519	.03933	
#2	-.00049	.00312	.00191	-.00018	.00568	.03947	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17147	--	--	--	--	--	--
SDev	12.12716	--	--	--	--	--	--
%RSD	.0707229	--	--	--	--	--	--
#1	17156	--	--	--	--	--	--
#2	17139	--	--	--	--	--	--

Method: METTRA Sample Name: DFJTEP5

Operator: EMF

Run Time: 07/03/00 19:12:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00121	.20508	.00012	.01443	.00057	3.9695	.00005
SDev	.00092	.00040	.00070	.00005	.00013	.0170	.00012
%RSD	76.136	.19758	599.35	.33321	22.697	.42789	254.36
#1	.00186	.20537	.00061	.01446	.00066	3.9816	.00013
#2	.00056	.20480	-.00038	.01439	.00048	3.9575	-.00004

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00184	.00234	.00103	.98431	.61282	.23019	.00116
SDev	.00021	.00095	.00009	.00893	.01137	.00006	.00052
%RSD	11.305	40.456	8.6762	.90715	1.8562	.02374	44.620
#1	.00199	.00301	.00109	.97800	.62087	.23015	.00152
#2	.00170	.00167	.00097	.99063	.60478	.23023	.00079

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00187	.00384	-.00008	.00122	-.00427	.00283	.00047
SDev	.00040	.00596	.00202	.00064	.00251	.00338	.00142
%RSD	21.564	155.11	2437.2	52.322	58.883	119.42	303.17
#1	.00216	.00806	-.00151	.00168	-.00605	.00523	.00147
#2	.00159	-.00037	.00134	.00077	-.00249	.00044	-.00054

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00367	-.00235	-.00035	.00331	.00191	.01173
SDev	.00317	.00341	.00122	.00112	.00067	.00009
%RSD	86.604	144.81	347.93	33.702	35.136	.76835
#1	.00591	-.00476	-.00121	.00252	.00238	.01167
#2	.00142	.00006	.00051	.00410	.00143	.01179

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17175	--	--	--	--	--	--
SDev	99.66753	--	--	--	--	--	--
%RSD	.5802949	--	--	--	--	--	--
#1	17246	--	--	--	--	--	--
#2	17105	--	--	--	--	--	--

Method: METTRA Sample Name: DFJTES

Operator: EMF

Run Time: 07/03/00 19:16:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04734	2.6986	1.9623	1.9810	.05068	19.383	.04846
SDev	.00039	.0201	.0131	.0177	.00042	.144	.00034
%RSD	.81633	.74418	.66759	.89333	.83664	.74104	.69874
#1	.04707	2.7128	1.9716	1.9935	.05098	19.484	.04870
#2	.04762	2.6844	1.9530	1.9685	.05038	19.281	.04823
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50910	.20626	.25201	5.5444	2.9636	1.6118	.00144
SDev	.00258	.00092	.00220	.0091	.0145	.0092	.00047
%RSD	.50573	.44680	.87231	.16495	.48972	.56899	32.799
#1	.51092	.20691	.25356	5.5508	2.9739	1.6183	.00111
#2	.50728	.20561	.25045	5.5379	2.9534	1.6053	.00178
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51794	.50353	.49875	.50034	.00132	.00472	.00359
SDev	.00354	.00009	.00281	.00184	.00204	.00170	.00181
%RSD	.68425	.01768	.56333	.36863	154.87	35.958	50.517
#1	.52045	.50359	.49676	.49903	-.00013	.00352	.00231
#2	.51544	.50346	.50073	.50164	.00276	.00592	.00487
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9778	1.9828	1.9811	1.9902	.49371	.55451	
SDev	.0008	.0052	.0032	.0084	.00336	.00351	
%RSD	.04037	.25984	.16004	.42459	.68114	.63242	
#1	1.9784	1.9791	1.9789	1.9962	.49609	.55699	
#2	1.9773	1.9864	1.9834	1.9843	.49134	.55203	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17238	--	--	--	--	--	--
SDev	13.08147	--	--	--	--	--	--
%RSD	.0758874	--	--	--	--	--	--
#1	17247	--	--	--	--	--	--
#2	17229	--	--	--	--	--	--

Method: METTRA Sample Name: DFJTED

Operator: EMF

Run Time: 07/03/00 19:20:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04807	2.9112	1.9772	2.0051	.05103	19.352	.04864
SDev	.00026	.0095	.0082	.0025	.00020	.129	.00024
%RSD	.53954	.32540	.41394	.12332	.39295	.66874	.49627
#1	.04826	2.9179	1.9830	2.0069	.05117	19.443	.04881
#2	.04789	2.9045	1.9714	2.0034	.05089	19.260	.04847
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51420	.20977	.25583	5.7836	2.9924	1.6183	.00205
SDev	.00177	.00086	.00064	.0185	.0127	.0045	.00002
%RSD	.34397	.41066	.25128	.32015	.42509	.28026	1.0669
#1	.51545	.21038	.25629	5.7967	3.0014	1.6215	.00206
#2	.51294	.20916	.25538	5.7705	2.9834	1.6151	.00203
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52264	.50989	.50282	.50517	-.00230	.00286	.00114
SDev	.00515	.00284	.00342	.00323	.00214	.00080	.00124
%RSD	.98463	.55707	.67981	.63855	.92.737	27.835	109.02
#1	.52628	.51190	.50524	.50745	-.00079	.00342	.00202
#2	.51901	.50788	.50040	.50289	-.00381	.00229	.00026
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0080	2.0099	2.0093	2.0096	.49808	.55990	
SDev	.0108	.0263	.0212	.0077	.00060	.00348	
%RSD	.53683	1.3110	1.0534	.38388	.11988	.62241	
#1	2.0157	2.0286	2.0243	2.0151	.49766	.56237	
#2	2.0004	1.9913	1.9943	2.0042	.49851	.55744	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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07/03/00

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17131	--	--	--	--	--	--
SDev	108.8945	--	--	--	--	--	--
%RSD	.6356683	--	--	--	--	--	--
#1	17054	--	--	--	--	--	--
#2	17208	--	--	--	--	--	--

Method: METTRA Sample Name: DFKQ3

Operator: EMF

Run Time: 07/03/00 19:24:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00147	.80198	.01132	.09039	.00012	38.089	.00037
SDev	.00047	.01187	.00027	.00036	.00002	.120	.00001
%RSD	31.969	1.4800	2.3688	.39820	16.140	.31520	3.3651
#1	.00114	.81038	.01151	.09064	.00011	38.174	.00038
#2	.00180	.79359	.01113	.09013	.00014	38.004	.00036
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00310	.02673	.02460	1.2619	9.8596	.42083	.00293
SDev	.00012	.00031	.00003	.0086	.0183	.00044	.00011
%RSD	3.9651	1.1634	.12227	.67934	.18595	.10371	3.6697
#1	.00302	.02651	.02458	1.2679	9.8725	.42114	.00285
#2	.00319	.02695	.02462	1.2558	9.8466	.42052	.00300
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00781	.00587	.00457	.00501	.00694	.01191	.01026
SDev	.00014	.00051	.00065	.00060	.00319	.00093	.00044
%RSD	1.7291	8.6285	14.185	12.014	45.880	7.8139	4.2893
#1	.00772	.00551	.00411	.00458	.00920	.01125	.01057
#2	.00791	.00623	.00503	.00543	.00469	.01257	.00995
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00333	.00117	.00189	.00231	.00531	.07072	
SDev	.00099	.00338	.00258	.00004	.00053	.00040	
%RSD	29.639	288.82	136.80	1.7486	10.042	.56884	
#1	.00402	.00356	.00371	.00228	.00569	.07101	
#2	.00263	-.00122	.00006	.00233	.00494	.07044	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16971	--	--	--	--	--	--
SDev	48.33047	--	--	--	--	--	--
%RSD	.2847772	--	--	--	--	--	--
#1	16937	--	--	--	--	--	--
#2	17006	--	--	--	--	--	--

Method: METTRA Sample Name: DFJTL

Operator: EMF

Run Time: 07/03/00 19:28:48

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00103	.43900	.00330	.12476	.00027	88.242	.00009
SDev	.00042	.00035	.00020	.00030	.00006	.112	.00008
%RSD	40.553	.07940	6.0160	.24194	22.981	.12730	90.709
#1	.00073	.43924	.00344	.12455	.00032	88.163	.00003
#2	.00132	.43875	.00316	.12498	.00023	88.322	.00014
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00601	.01011	.02828	.22168	4.9470	.88483	.00333
SDev	.00016	.00044	.00037	.01048	.0192	.00387	.00003
%RSD	2.7063	4.3359	1.3006	4.7281	.38842	.43688	.89841
#1	.00612	.00980	.02802	.21427	4.9334	.88210	.00331
#2	.00589	.01042	.02854	.22909	4.9606	.88757	.00335
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00775	.00412	.00254	.00307	.01449	.02051	.01850
SDev	.00026	.00023	.00075	.00042	.00153	.00114	.00127
%RSD	3.4104	5.6907	29.534	13.772	10.562	5.5731	6.8739
#1	.00794	.00395	.00307	.00336	.01341	.01970	.01760
#2	.00756	.00428	.00201	.00277	.01557	.02132	.01940
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00148	.00168	.00161	-.00060	.00336	.02368	
SDev	.00047	.00034	.00007	.00171	.00071	.00013	
%RSD	32.022	20.043	4.1022	285.28	21.174	.53385	
#1	.00115	.00191	.00166	.00061	.00285	.02359	
#2	.00182	.00144	.00157	-.00181	.00386	.02377	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17027	--	--	--	--	--	--
SDev	107.9747	--	--	--	--	--	--
%RSD	.6341546	--	--	--	--	--	--
#1	17103	--	--	--	--	--	--
#2	16950	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-7

Operator: EMF

Run Time: 07/03/00 19:32:58

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0312	24.183	.51093	1.9835	2.0703	51.599	.49547
SDev	.0013	.050	.00163	.0044	.0078	.253	.00090
%RSD	.12634	.20490	.31915	.22094	.37625	.49032	.18273
#1	1.0303	24.148	.51209	1.9866	2.0758	51.777	.49611
#2	1.0321	24.218	.50978	1.9804	2.0648	51.420	.49483
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0546	2.0627	1.9702	25.367	50.610	2.0086	2.0532
SDev	.0012	.0003	.0007	.034	.062	.0001	.0142
%RSD	.05809	.01561	.03368	.13423	.12237	.00253	.68942
#1	2.0537	2.0625	1.9697	25.343	50.654	2.0086	2.0432
#2	2.0554	2.0629	1.9706	25.392	50.566	2.0087	2.0632
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0791	.51035	.50432	.50632	.52039	.50686	.51137
SDev	.0157	.00550	.00010	.00190	.00391	.00596	.00267
%RSD	.75432	1.0773	.01955	.37459	.75054	1.1756	.52289
#1	2.0902	.50646	.50425	.50498	.52315	.50265	.50948
#2	2.0680	.51424	.50439	.50767	.51763	.51108	.51326
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51836	.52054	.51981	1.0134	2.0518	2.0615	
SDev	.00642	.00142	.00309	.0052	.0098	.0043	
%RSD	1.2391	.27279	.59367	.51684	.47826	.21085	
#1	.51381	.51953	.51763	1.0097	2.0588	2.0646	
#2	.52290	.52154	.52199	1.0171	2.0449	2.0585	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16947	--	--	--	--	--	--
SDev	124.6635	--	--	--	--	--	--
%RSD	.7356079	--	--	--	--	--	--
#1	17035	--	--	--	--	--	--
#2	16859	--	--	--	--	--	--

Method: METTRA Sample Name: CCB7

Operator: EMF

Run Time: 07/03/00 19:37:07

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00042	.05382	-.00002	.00036	.00085	.01282	-.00006
SDev	.00046	.01080	.00015	.00004	.00005	.00197	.00016
%RSD	110.54	20.068	698.82	10.458	5.4970	15.330	255.40
#1	.00009	.06146	-.00013	.00033	.00088	.01143	-.00017
#2	.00074	.04618	.00008	.00039	.00081	.01421	.00005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00094	.00055	-.00099	.01934	.00972	.00050	.00531
SDev	.00031	.00014	.00049	.00874	.00144	.00013	.00142
%RSD	33.453	26.002	49.997	45.218	14.841	26.202	26.802
#1	.00072	.00065	-.00133	.02552	.00870	.00041	.00631
#2	.00116	.00045	-.00064	.01315	.01074	.00060	.00430
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00029	-.00141	-.00007	-.00052	-.00083	.00277	.00157
SDev	.00016	.00290	.00096	.00033	.00089	.00109	.00043
%RSD	53.061	205.31	1384.3	63.119	108.08	39.315	27.238
#1	.00018	-.00347	.00061	-.00075	-.00146	.00354	.00187
#2	.00040	.00064	-.00075	-.00029	-.00020	.00200	.00127
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00129	-.00035	.00020	.00081	.00109	.00150	
SDev	.00075	.00047	.00006	.00077	.00034	.00011	
%RSD	57.990	134.55	32.943	95.611	30.965	7.3798	
#1	.00181	-.00068	.00015	.00026	.00085	.00142	
#2	.00076	-.00002	.00024	.00136	.00133	.00158	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17151	--	--	--	--	--	--
SDev	5.232866	--	--	--	--	--	--
%RSD	.0305105	--	--	--	--	--	--
#1	17147	--	--	--	--	--	--
#2	17155	--	--	--	--	--	--

Method: METTRA Sample Name: DFK1JB

Operator: EMF

Run Time: 07/03/00 19:43:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00055	.09683	-.00084	.00045	.00031	.23789	-.00008
SDev	.00024	.01006	.00042	.00013	.00001	.01800	.00002
%RSD	44.366	10.388	50.289	29.760	1.9689	7.5666	21.735
#1	.00037	.10394	-.00054	.00054	.00031	.22516	-.00007
#2	.00072	.08972	-.00115	.00035	.00031	.25062	-.00010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00059	.00076	-.00040	.05344	.01291	.00101	.00168
SDev	.00006	.00005	.00055	.01068	.00003	.00002	.00047
%RSD	10.094	7.0070	135.05	19.993	.19594	2.2066	28.050
#1	.00055	.00080	-.00079	.04589	.01289	.00103	.00201
#2	.00064	.00072	-.00002	.06099	.01293	.00100	.00135
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00102	.00097	.00037	.00057	-.00117	.00379	.00214
SDev	.00064	.00119	.00095	.00024	.00227	.00139	.00017
%RSD	63.021	122.26	253.64	41.335	193.94	36.798	8.1314
#1	.00056	.00013	.00104	.00074	.00044	.00281	.00202
#2	.00147	.00181	-.00030	.00040	-.00278	.00478	.00226
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00105	.00303	.00167	-.00124	.00087	.01469	
SDev	.00055	.00094	.00045	.00080	.00034	.00131	
%RSD	52.384	31.106	26.658	64.237	39.003	8.9357	
#1	-.00144	.00370	.00199	-.00068	.00112	.01376	
#2	-.00066	.00236	.00136	-.00180	.00063	.01562	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16840	--	--	--	--	--	--
SDev	61.44786	--	--	--	--	--	--
%RSD	.3648966	--	--	--	--	--	--
#1	16883	--	--	--	--	--	--
#2	16796	--	--	--	--	--	--

Method: METTRA Sample Name: DFK1JC

Operator: EMF

Run Time: 07/03/00 19:47:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04866	2.1454	1.9826	1.9561	.05137	51.297	.04855
SDev	.00006	.0067	.0013	.0015	.00001	.060	.00032
%RSD	.13251	.31342	.06560	.07854	.01501	.11639	.65789
#1	.04871	2.1407	1.9817	1.9550	.05137	51.255	.04833
#2	.04862	2.1502	1.9835	1.9572	.05136	51.339	.04878
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50796	.20513	.24837	.92368	50.033	.49618	1.0214
SDev	.00158	.00141	.00010	.00730	.124	.00130	.0061
%RSD	.31048	.68531	.04141	.78990	.24815	.26115	.59571
#1	.50685	.20413	.24830	.91853	49.945	.49527	1.0171
#2	.50908	.20612	.24844	.92884	50.120	.49710	1.0257
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51846	.50681	.49494	.49890	.49376	.49687	.49584
SDev	.00196	.00258	.00579	.00472	.00466	.00715	.00632
%RSD	.37887	.50976	1.1705	.94696	.94273	1.4392	1.2746
#1	.51984	.50499	.49085	.49556	.49047	.49181	.49137
#2	.51707	.50864	.49904	.50224	.49706	.50193	.50031
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0041	2.0225	2.0163	2.0201	.50567	.51970	
SDev	.0141	.0124	.0130	.0073	.00165	.00023	
%RSD	.70353	.61552	.64465	.35972	.32660	.04530	
#1	1.9941	2.0136	2.0071	2.0252	.50450	.51987	
#2	2.0140	2.0313	2.0255	2.0149	.50684	.51954	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16820	--	--	--	--	--	--
SDev	72.26714	--	--	--	--	--	--
%RSD	.4296449	--	--	--	--	--	--
#1	16871	--	--	--	--	--	--
#2	16769	--	--	--	--	--	--

Method: METTRA Sample Name: DFH5M

Operator: EMF

Run Time: 07/03/00 19:51:25

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	95.014	.08727	1.3966	.00748	54.333	-.00276
SDev	.00019	.422	.00082	.0083	.00001	.472	.00038
%RSD	283.94	.44364	.94080	.59229	.06194	.86911	13.956
#1	.00021	95.312	.08785	1.4025	.00748	54.667	-.00303
#2	-.00007	94.716	.08669	1.3908	.00748	53.999	-.00249
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07997	.18090	.19430	180.33	20.351	5.9437	.00796
SDev	.00079	.00116	.00119	1.22	.148	.0404	.00063
%RSD	.98249	.63949	.61231	.67790	.72726	.67991	7.9276
#1	.08053	.18171	.19514	181.19	20.456	5.9722	.00841
#2	.07941	.18008	.19345	179.47	20.247	5.9151	.00751
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18147	.34549	.32568	.33228	.00975	.00620	.00738
SDev	.00307	.00620	.00356	.00444	.00016	.00261	.00180
%RSD	1.6913	1.7961	1.0944	1.3374	1.6432	42.137	24.334
#1	.18364	.34988	.32820	.33542	.00986	.00805	.00865
#2	.17930	.34111	.32316	.32914	.00964	.00435	.00611
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00940	.00367	.00558	.00856	.23188	.66266	
SDev	.00483	.00144	.00065	.00218	.00144	.00572	
%RSD	51.365	39.264	11.570	25.522	.62245	.86365	
#1	.01281	.00265	.00604	.00701	.23290	.66671	
#2	.00598	.00469	.00512	.01010	.23086	.65861	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19432	--	--	--	--	--	--
SDev	117.0262	--	--	--	--	--	--
%RSD	.6022188	--	--	--	--	--	--
#1	19350	--	--	--	--	--	--
#2	19515	--	--	--	--	--	--

Method: METTRA Sample Name: DFH5MP5

Operator: EMF

Run Time: 07/03/00 19:55:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00073	19.816	.01909	.30439	.00205	11.952	-.00075
SDev	.00026	.076	.00013	.00084	.00002	.010	.00014
%RSD	35.568	.38369	.65858	.27735	.98547	.08081	18.213
#1	.00055	19.762	.01900	.30379	.00206	11.959	-.00085
#2	.00091	19.870	.01918	.30499	.00203	11.945	-.00065

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01854	.04064	.04012	39.609	4.4133	1.2748	.00196
SDev	.00051	.00018	.00058	.073	.0073	.0038	.00023
%RSD	2.7476	.45401	1.4346	.18471	.16637	.30174	11.601
#1	.01818	.04051	.03971	39.558	4.4081	1.2721	.00212
#2	.01890	.04077	.04053	39.661	4.4184	1.2776	.00180

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04109	.07478	.07130	.07246	-.00099	.00159	.00073
SDev	.00056	.00040	.00069	.00033	.00201	.00047	.00098
%RSD	1.3672	.52854	.96347	.45073	203.72	29.426	134.14
#1	.04149	.07450	.07179	.07269	.00043	.00192	.00143
#2	.04069	.07506	.07082	.07223	-.00241	.00126	.00004

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00340	.00255	.00283	.00237	.05192	.14668
SDev	.00376	.00141	.00031	.00056	.00043	.00036
%RSD	110.79	55.247	11.081	23.761	.82854	.24517
#1	.00606	.00155	.00305	.00277	.05223	.14643
#2	.00074	.00355	.00261	.00197	.05162	.14694

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17591	--	--	--	--	--	--
SDev	19.94124	--	--	--	--	--	--
%RSD	.1133624	--	--	--	--	--	--
#1	17605	--	--	--	--	--	--
#2	17577	--	--	--	--	--	--

Method: METTRA Sample Name: DFH5MS

Operator: EMF

Run Time: 07/03/00 19:59:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04426	85.512	1.8588	2.9817	.05288	66.110	.04178
SDev	.00037	1.052	.0314	.0415	.00076	.932	.00065
%RSD	.83224	1.2300	1.6903	1.3932	1.4287	1.4103	1.5531
#1	.04400	86.256	1.8810	3.0111	.05341	66.769	.04224
#2	.04452	84.768	1.8366	2.9523	.05234	65.451	.04132
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52468	.35304	.42026	170.83	19.276	5.5359	.00777
SDev	.00550	.00362	.00549	1.93	.240	.0654	.00026
%RSD	1.0491	1.0252	1.3058	1.1317	1.2454	1.1812	3.4142
#1	.52857	.35560	.42414	172.20	19.446	5.5821	.00795
#2	.52079	.35049	.41638	169.46	19.106	5.4896	.00758
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.62617	.76156	.72787	.73909	.00667	.00668	.00668
SDev	.00935	.00047	.00213	.00127	.00299	.00108	.00171
%RSD	1.4935	.06191	.29301	.17123	44.816	16.150	25.682
#1	.63279	.76122	.72938	.73998	.00878	.00745	.00789
#2	.61956	.76189	.72636	.73819	.00456	.00592	.00547
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.7820	1.8066	1.7984	1.7831	.66248	1.1050	
SDev	.0079	.0110	.0100	.0234	.01080	.0164	
%RSD	.44207	.61080	.55513	1.3138	1.6298	1.4843	
#1	1.7876	1.8144	1.8055	1.7997	.67011	1.1166	
#2	1.7765	1.7988	1.7914	1.7666	.65484	1.0934	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18506	--	--	--	--	--	--
SDev	92.41830	--	--	--	--	--	--
%RSD	.4993883	--	--	--	--	--	--
#1	18441	--	--	--	--	--	--
#2	18572	--	--	--	--	--	--

J

Method: METTRA Sample Name: DFH5MD

Operator: EMF

Run Time: 07/03/00 20:03:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04317	108.03	1.8334	3.0791	.05237	55.850	.04073
SDev	.00007	.08	.0061	.0070	.00024	.201	.00010
%RSD	.16772	.07586	.33195	.22777	.46342	.35911	.25256
#1	.04312	108.09	1.8378	3.0841	.05255	55.992	.04066
#2	.04322	107.98	1.8291	3.0742	.05220	55.709	.04081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52314	.36021	.41533	180.16	21.717	5.7597	.00675
SDev	.00061	.00034	.00009	.13	.045	.0068	.00072
%RSD	.11762	.09579	.02232	.07326	.20805	.11805	10.611
#1	.52358	.36046	.41540	180.25	21.749	5.7645	.00726
#2	.52271	.35997	.41527	180.06	21.685	5.7549	.00625
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.63023	.74352	.70502	.71784	.00625	.00543	.00570
SDev	.00397	.00269	.00221	.00237	.00010	.00090	.00063
%RSD	.63004	.36190	.31303	.32989	1.5434	16.555	11.075
#1	.63304	.74162	.70346	.71617	.00632	.00607	.00615
#2	.62743	.74543	.70658	.71951	.00618	.00480	.00526
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.7740	1.7881	1.7834	1.7533	.69927	1.0781	
SDev	.0015	.0088	.0064	.0003	.00278	.0031	
%RSD	.08432	.49288	.35754	.01961	.39770	.28595	
#1	1.7730	1.7818	1.7789	1.7536	.70124	1.0802	
#2	1.7751	1.7943	1.7879	1.7531	.69730	1.0759	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	19038	--	--	--	--	--	--
SDev	69.86270	--	--	--	--	--	--
%RSD	.3669597	--	--	--	--	--	--
#1	19088	--	--	--	--	--	--
#2	18989	--	--	--	--	--	--

Method: METTRA Sample Name: DFH6F

Operator: EMF

Run Time: 07/03/00 20:08:04

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00098	108.42	.07835	1.3901	.00714	104.76	-.00188
SDev	.00013	.09	.00036	.0020	.00005	.25	.00004
%RSD	13.494	.07922	.46536	.14681	.63031	.24256	2.2206
#1	.00088	108.48	.07810	1.3915	.00717	104.94	-.00191
#2	.00107	108.36	.07861	1.3886	.00711	104.59	-.00185
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06925	.20042	.22475	178.69	23.433	5.0611	.00699
SDev	.00012	.00048	.00011	.16	.026	.0027	.00055
%RSD	.17341	.23727	.04998	.08926	.11089	.05259	7.9187
#1	.06917	.20008	.22482	178.80	23.452	5.0630	.00660
#2	.06934	.20075	.22467	178.57	23.415	5.0592	.00738
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17643	.33047	.29870	.30928	.00798	.00528	.00618
SDev	.00084	.00165	.00063	.00013	.00228	.00099	.00010
%RSD	.47307	.49942	.21205	.04110	28.528	18.763	1.5830
#1	.17584	.32930	.29915	.30919	.00959	.00458	.00625
#2	.17702	.33163	.29825	.30937	.00637	.00598	.00611
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00361	.00764	.00630	.00359	.28232	.67989	
SDev	.00338	.00035	.00136	.00008	.00060	.00079	
%RSD	93.599	4.6332	21.621	2.2621	.21100	.11617	
#1	.00122	.00739	.00533	.00353	.28274	.68045	
#2	.00600	.00789	.00726	.00365	.28190	.67933	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18855	--	--	--	--	--	--
SDev	33.51714	--	--	--	--	--	--
%RSD	.1777607	--	--	--	--	--	--
#1	18879	--	--	--	--	--	--
#2	18832	--	--	--	--	--	--

Method: METTRA Sample Name: DFH6J

Operator: EMF

Run Time: 07/03/00 20:12:13

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00061	109.47	.07981	1.2457	.00694	79.818	-.00222
SDev	.00012	.09	.00243	.0001	.00010	.016	.00004
%RSD	19.419	.08012	3.0422	.00542	1.4079	.01955	1.6765
#1	.00052	109.41	.07809	1.2457	.00701	79.829	-.00224
#2	.00069	109.53	.08152	1.2457	.00687	79.807	-.00219
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07209	.15126	.14638	169.47	23.980	4.7625	.00517
SDev	.00070	.00045	.00028	.30	.010	.0089	.00061
%RSD	.96934	.29977	.18901	.17772	.04144	.18655	11.814
#1	.07160	.15094	.14618	169.26	23.973	4.7563	.00473
#2	.07258	.15158	.14658	169.69	23.987	4.7688	.00560
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.16881	.17368	.14626	.15539	.00792	.00215	.00407
SDev	.00012	.00200	.00009	.00072	.00131	.00195	.00174
%RSD	.06882	1.1509	.06001	.46604	16.565	90.752	42.700
#1	.16873	.17509	.14633	.15591	.00699	.00077	.00284
#2	.16890	.17227	.14620	.15488	.00885	.00353	.00530
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00248	.00247	.00247	.00362	.29512	.48729	
SDev	.00121	.00015	.00030	.00078	.00101	.00070	
%RSD	48.826	6.0880	12.243	21.473	.34315	.14334	
#1	.00162	.00258	.00226	.00307	.29441	.48779	
#2	.00334	.00236	.00269	.00417	.29584	.48680	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18951	--	--	--	--	--	--
SDev	60.52806	--	--	--	--	--	--
%RSD	.3193891	--	--	--	--	--	--
#1	18994	--	--	--	--	--	--
#2	18908	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-8

Operator: EMF

Run Time: 07/03/00 20:16:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0239	23.942	.50732	1.9648	2.0631	51.360	.49346
SDev	.0030	.060	.00159	.0060	.0079	.232	.00076
%RSD	.29022	.24915	.31319	.30696	.38066	.45232	.15434
#1	1.0260	23.984	.50844	1.9691	2.0686	51.525	.49400
#2	1.0218	23.900	.50620	1.9606	2.0575	51.196	.49292
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0430	2.0505	1.9582	25.304	50.339	1.9923	2.0415
SDev	.0037	.0037	.0051	.036	.161	.0038	.0064
%RSD	.17957	.18084	.26157	.14347	.31893	.19305	.31338
#1	2.0456	2.0531	1.9619	25.330	50.452	1.9950	2.0369
#2	2.0404	2.0479	1.9546	25.278	50.225	1.9896	2.0460
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0743	.50838	.50034	.50302	.51489	.50578	.50881
SDev	.0169	.00110	.00143	.00132	.00323	.00119	.00187
%RSD	.81555	.21645	.28601	.26260	.62722	.23539	.36743
#1	2.0862	.50761	.49933	.50208	.51260	.50493	.50749
#2	2.0623	.50916	.50135	.50395	.51717	.50662	.51013
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51804	.51985	.51925	1.0116	2.0434	2.0497	
SDev	.00284	.00325	.00311	.0066	.0116	.0083	
%RSD	.54752	.62441	.59887	.65142	.56827	.40539	
#1	.51603	.51756	.51705	1.0163	2.0516	2.0556	
#2	.52004	.52215	.52145	1.0070	2.0351	2.0439	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17069	--	--	--	--	--	--
SDev	45.00762	--	--	--	--	--	--
%RSD	.2636747	--	--	--	--	--	--
#1	17101	--	--	--	--	--	--
#2	17038	--	--	--	--	--	--

Method: METTRA Sample Name: CCB8

Operator: EMF

Run Time: 07/03/00 20:20:33

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.05899	.00077	.00051	.00102	.10381	-.00027
SDev	.00020	.00283	.00119	.00013	.00031	.00936	.00006
%RSD	64.754	4.8027	154.95	25.715	29.971	9.0147	21.206
#1	.00017	.05699	.00161	.00042	.00124	.09719	-.00023
#2	.00046	.06100	-.00007	.00060	.00081	.11043	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00101	.00037	-.00190	.02718	.01156	.00080	.00532
SDev	.00063	.00052	.00096	.00090	.00368	.00009	.00308
%RSD	61.962	140.71	50.705	3.3276	31.831	10.808	57.889
#1	.00057	.00000	-.00258	.02654	.00896	.00074	.00750
#2	.00146	.00074	-.00122	.02782	.01417	.00086	.00314
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00129	-.00160	-.00063	-.00234	.00326	.00140
SDev	.00017	.00059	.00040	.00046	.00184	.00096	.00125
%RSD	29.277	45.777	25.064	73.092	78.543	29.463	89.625
#1	.00046	.00087	-.00188	-.00096	-.00104	.00394	.00228
#2	.00070	.00171	-.00131	-.00031	-.00364	.00258	.00051
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00085	-.00186	-.00096	-.00003	.00061	.01000	
SDev	.00280	.00340	.00320	.00261	.00035	.00098	
%RSD	328.24	182.90	334.90	8674.1	57.007	9.8551	
#1	.00283	.00055	.00131	.00181	.00036	.00930	
#2	-.00113	-.00426	-.00322	-.00187	.00085	.01070	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17351	--	--	--	--	--	--
SDev	352.2814	--	--	--	--	--	--
%RSD	2.030370	--	--	--	--	--	--
#1	17600	--	--	--	--	--	--
#2	17102	--	--	--	--	--	--

663 1379

Metals Preparation Log

STL
Submitted To Your Success

STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

Method: 3010 A		Matrix: Water		Start Time: 0915		SDG: _____		Balance# _____		Reagents: 3pa 1 Conc. HNO ₃ 1623N35058 Mallinckrodt, Smelting HCl 1014-150-2	
Analyst: <i>Wanda Mance</i>		Date: 7-1-00		Lot Number: C0F300116		Lab Lot No. (Book, page, line) 99101-177-14, 0014-084-1, 0014-010-1					
Revised By: _____		Date: 7-1-00		Lot Number: _____		Lab Lot No. (Book, page, line) _____					
Sample ID	Init Wt/Vol g/mL	Final Vol mL	Comments	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1. DEFJTE	50ml	50ml	SL 7.1-00								
2. DEFJTE											
3. DEFJTE											
4. DEFJTE			+0.5 ml MS-A, MS-BIREV, MS-CREV								
5. DEFJTE			+0.5 ml MS-A, MS-BIREV, MS-CREV								
6. DEFJTE			+0.5 ml MS-A, MS-BIREV, MS-CREV								
7. DEFJTE			+0.5 ml MS-A, MS-BIREV, MS-CREV								
8. DEFJTE											
9. DEFJTE											
10. DEFJTE											
11. DEFJTE											
12. DEFJTE											
13. DEFJTE											
14. DEFJTE											
15. DEFJTE			SL 7.1-00								
16. DEFJTE											
17. DEFJTE											
18. DEFJTE											
19. DEFJTE											
20. DEFJTE											
21. DEFJTE											
22. DEFJTE											
23. DEFJTE											
24. DEFJTE											

Digestate(s) Received				Digestate(s) Relinquished				Hot plate		Correction		Color	
Digestate(s)	Date	Time	Analyst	Location	Date	Time	Analyst	Location	#9	Temp	Factor	Clarity	Color
All Above	7-1-00	1435	<i>Wanda Mance</i>	Metals Lab	7-1-00	1440	<i>Wanda Mance</i>	Met-1 CS		95°C	-0.8%		R=Red BL=Blue BR=Brown BLK=Black Y=Yellow O=Orange
All Above	7-1-00	1630	<i>Wanda Mance</i>	Metals Lab	7-1-00	1635	<i>Wanda Mance</i>	Met-1 CS					V=Violet P=Pink W=White GY=Gray GN=Green C=Colorless

663 1380

Metals Preparation

Log

Redigestion Fe i Cr



STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

Method: 3010A		Matrix: Water		Start Time: 0830		SDG:		Balance#		Reprints: 3		K 23.4	
Analyst: <i>William K. Lawrence</i>		Date: 7-3-00		Lot Number: C0F300116		Lab Lot No. (book, page, line): 0014-084-1		3 ml conc HNO ₃		603M350X58 Mallinckrodt		5 ml 1:1 HCl	
Reviewed By: <i>William K. Lawrence</i>		Date: 7-3-00		C0F300116		MS		MS-BIREV		6014-150-2		6014-150-2	
Sample ID	Init Wt/Vol g/mL	Final Vol mL	Comments	Color		Clarity		Texture		Artifacts	Artifact Codes		
				Pre	Post	Pre	Post	Pre	Post				
1. DEJTE	50 ml	50 ml	50 ml MS-BIREV								S=Stones		
2. DEJTE 3			+0.5 ml MS-BIREV								O=Organic (plant mat)		
3. DEJTE D			+0.5 ml MS-BIREV								W=Free H ₂ O		
4. DEJTE 5			SK 7-3-00								G=Glass		
5. DEJTE TL											M=Metal Fgms		
6. DEJTE B											R=Rubber/Plastic		
7. DEJTE 6			+0.5 ml MS-BIREV								C=Cloth		
8. DEJTE 7											P=Paper		
9. DEJTE 8											I=Insects		
10. DEJTE 9													
11. DEJTE 10													
12. DEJTE 11													
13. DEJTE 12													
14. DEJTE 13													
15. DEJTE 14													
16. DEJTE 15													
17. DEJTE 16													
18. DEJTE 17													
19. DEJTE 18													
20. DEJTE 19													
21. DEJTE 20													
22. DEJTE 21													
23. DEJTE 22													
24. DEJTE 23													

Digestate(s)	Date	Time	Revised		Relinquished		Hot plate	Correction	Color
			Analyst	Location	Analyst	Location			
ALL ABOVE	7-3-00	16:30	<i>William K. Lawrence</i>	Metals Prep 7-3-00	<i>William K. Lawrence</i>	Metals Prep 7-3-00	95°C	-0.8°C	R=Red BL=Blue BR=Brown BLK=Black Y=Yellow O=Orange
ALL ABOVE	7-3-00	16:30	<i>William K. Lawrence</i>	Metals Prep 7-3-00	<i>William K. Lawrence</i>	Metals Prep 7-3-00	95°C	-0.8°C	V=Violet P=Pink W=White GY=Gray GN=Green C=Colorless

REQUESTED BY: KRANCES

METHOD: QD Inductively Coupled Plasma (6010B)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX DESCRIPTION</u>	<u>QTY RCVD</u>	<u>QTY REQD</u>
2B	DFJTE	___	247051	378644	I-05-QO	COF300116	001		WATER	0	1
2B	DFJTL	___	247052	378644	I-05-QO	COF300116	002		WATER	0	1
2D CLP1	DFKQ3	___	247050	399411	I-05-QO	COF300207	001		WATER	0	13

RELINQUISHED BYRECEIVED BYDATE/TIME*Mikhail Tverdokh**Suzanne Krance**7-1-00 0915**Suzanne Krance**Mikhail Tverdokh**7-1-00 1005*

***** END OF REPORT *****

REQUESTED BY: KRANCES

663 13821 888

METHOD: QO Inductively Coupled Plasma (6010B)

STORAGE LOCATION	WORK ORDER #	PICKED	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	
		CNTR#								RCVD	REQD
2B	DFJTE	— — —	247460	378644	I-05-QO	COF300116	001		WATER	0	1
2B	DFJTL	— — —	247461	378644	I-05-QO	COF300116	002		WATER	0	1
2D CLP1	DFKQ3	— — —	247462	399411	I-05-QO	COF300207	001		WATER	0	13

RELINQUISHED BY

RECEIVED BY

DATE/TIME

Amber D. Hall

Suzanne France

7.3.00 0830

Suzanne France

Amber D. Hall

7.3.00 1030

***** END OF REPORT *****

663 1383 600

STL-Pittsburgh Atomic Absorption Data for Mercury

Instrument: PS200HG

Analyst Name: Michael R. W. H.

Date of Analysis: 7-1-00

File ID: 0701 HGA

Matrix: WATER

Lot Number/SDG

Method

<u>COF 300207</u>	<u>7470A</u>
<u>COF 300116</u>	
<u>COF 200220</u>	
<u>COF 170174</u>	
<u>COF 210209</u>	
<u>COF 200229</u>	
<u>COF 220237</u>	
<u>COF 230297</u>	
<u>COF 240133</u>	

Michael T. Worsch 7-1-00

663 1384

0800 0.00

Folder: 0701HGA

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11:45:17 01 Jul 2000

Protocol: HGMET

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 1 Rep: 1				Seq: 0	11:45:17 01 Jul 2000 HG			
Hg	.000	ppb	16167					
*** Standard: 2 Rep: 1				Seq: 1	11:47:16 01 Jul 2000 HG			
Hg	.200	ppb	41439	0014-162-11				
*** Standard: 3 Rep: 1				Seq: 2	11:49:20 01 Jul 2000 HG			
Hg	.500	ppb	88102	0014-164-1				
*** Standard: 4 Rep: 1				Seq: 3	11:51:27 01 Jul 2000 HG			
Hg	1.00	ppb	160932	0014-164-2				
*** Standard: 5 Rep: 1				Seq: 4	11:53:30 01 Jul 2000 HG			
Hg	5.00	ppb	789191	0014-164-3				
*** Standard: 6 Rep: 1				Seq: 5	11:55:24 01 Jul 2000 HG			
Hg	10.0	ppb	1540020	0014-164-4				

663 1385

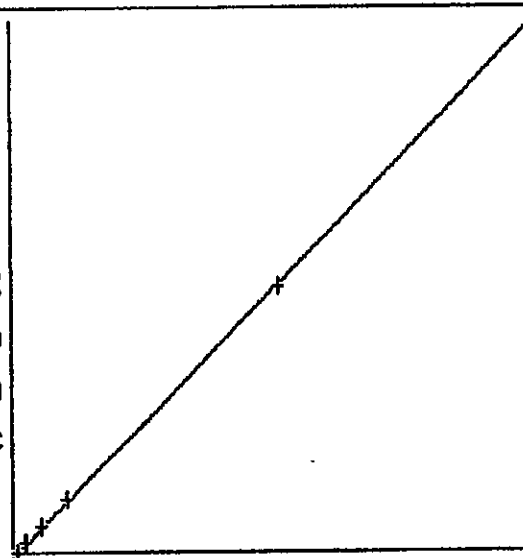
PAGE 030

Michael W. Wersch 7-1-00

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
 RunFold: 0701HGA Seq: 6 Batch:
 Prnt: R/T On Pump: On
 Rev: 4.2 11:57:02 01 Jul 2000 Xmit: Off Gas: 0.30 LPM
 State: Idle User: MTW A/S: On

CALIBRATION: Line proto: HGMET

	Hg	Accepted
	Conc.	Calc. Dev. ->linear
S1	.000	.021 .021 Quadratic
S2	.200	.186 -.014 Wtdlinear
S3	.500	.490 -.010 C
S4	1.00	.966 -.034 Accept o
S5	5.00	5.07 .068 n
S6	10.0	9.97 -.030 c
A	.0000000	r .999954
B	6.52877e-6	C -0.40094e-2



Relative Absorbance

	Mean	SD	%RSD
S1	16167	0	16167
S2	41439	0	41439
S3	80102	0	80102
S4	160932	0	160932
S5	789191	0	789191
S6	1540020	0	1540020

New cal coefficients stored

663 1386

Michael W. Wenzel 7-1-00
-022 800Folder: 0701HGA
Protocol: HGMET

Page 1084

11:59:23 01 Jul 2000

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: ICV5-1			0014-164-5	Seq: 6		11:59:23 01 Jul 2000	HG	
Hg	2.58	ppb	408570					
*** Sample ID: ICB1				Seq: 7		12:01:11 01 Jul 2000	HG	
Hg	-.027	ppb	8836					
*** Sample ID: CCV5-1			0014-164-6	Seq: 8		12:03:03 01 Jul 2000	HG	
Hg	4.93	ppb	768501					
*** Sample ID: CCB1				Seq: 9		12:05:12 01 Jul 2000	HG	
Hg	-.045	ppb	6030					
*** Sample ID: DFM19B				Seq: 10		12:07:34 01 Jul 2000	HG	
Hg	-.020	ppb	9978					
*** Sample ID: DFM19C			0014-164-7	Seq: 11		12:09:52 01 Jul 2000	HG	
Hg	2.53	ppb	400363					
*** Sample ID: DFKQ3				Seq: 12		12:12:06 01 Jul 2000	HG	
Hg	.088	ppb	26397					
*** Sample ID: DFKQ3S				Seq: 13		12:14:50 01 Jul 2000	HG	
Hg	1.12	ppb	184411					Sp. Rec - 103.2%
*** Sample ID: DFKQ3D				Seq: 14		12:16:48 01 Jul 2000	HG	mtw 7-1-00
Hg	1.11	ppb	182322					Sp. Rec - 102.2%
*** Sample ID: DF19W				Seq: 15		12:18:53 01 Jul 2000	HG	
Hg	.001	ppb	13069					
*** Sample ID: DFJTE				Seq: 16		12:20:48 01 Jul 2000	HG	
Hg	.646	ppb	111883					
*** Sample ID: DFJTL				Seq: 17		12:22:37 01 Jul 2000	HG	
Hg	4.06	ppb	635237					

663 1387

0817 60"

Folder: 0701HGA
Protocol: HGMET

Page 1085

12:24:25 01 Jul 2000

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DFM11BF				Seq: 18	12:24:25 01 Jul 2000	HG		
Hg	-.019	ppb	10121					
*** Sample ID: DFM11CF				Seq: 19	12:26:27 01 Jul 2000	HG		
Hg	2.55	ppb	403322					
*** Sample ID: CCV5-2				Seq: 20	12:28:49 01 Jul 2000	HG		
Hg	5.13	ppb	798920					
*** Sample ID: CCB2				Seq: 21	12:30:58 01 Jul 2000	HG		
Hg	-.030	ppb	8347					
*** Sample ID: DEWFLF				Seq: 22	12:34:08 01 Jul 2000	HG		
Hg	-.030	ppb	8412					
*** Sample ID: DEWFNF				Seq: 23	12:35:58 01 Jul 2000	HG		
Hg	-.005	ppb	12255					
*** Sample ID: DEWFRF				Seq: 24	12:38:00 01 Jul 2000	HG		
Hg	-.006	ppb	12091					
*** Sample ID: DF1D3F				Seq: 25	12:40:03 01 Jul 2000	HG		
Hg	-.053	ppb	4813					
*** Sample ID: DF1D6F				Seq: 26	12:41:53 01 Jul 2000	HG		
Hg	-.021	ppb	9715					
*** Sample ID: DF1D9F				Seq: 27	12:44:24 01 Jul 2000	HG		
Hg	-.027	ppb	8870					
*** Sample ID: DF1DCF				Seq: 28	12:47:35 01 Jul 2000	HG		
Hg	-.017	ppb	10461					
*** Sample ID: DF1DDF				Seq: 29	12:50:08 01 Jul 2000	HG		
Hg	-.016	ppb	10470					

66351388A

Folder: 0701HGA

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12:52:51 01 Jul 2000

Protocol: HGMET

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DF1DGF				Seq: 30		12:52:51 01 Jul 2000	HG	
Hg	-.012	ppb	11209					
*** Sample ID: DF33WF				Seq: 31		12:54:40 01 Jul 2000	HG	
Hg	-.021	ppb	9827					
*** Sample ID: CCV5-3				Seq: 32		12:56:33 01 Jul 2000	HG	
Hg	5.10	ppb	794019					
*** Sample ID: CCB3				Seq: 33		12:58:23 01 Jul 2000	HG	
Hg	-.006	ppb	12030					
*** Sample ID: DF341F				Seq: 34		13:00:26 01 Jul 2000	HG	
Hg	-.036	ppb	7417					
*** Sample ID: DF342F				Seq: 35		13:02:15 01 Jul 2000	HG	
Hg	-.051	ppb	5154					
*** Sample ID: DF343F				Seq: 36		13:05:05 01 Jul 2000	HG	
Hg	-.014	ppb	10779					
*** Sample ID: DF5M4F				Seq: 37		13:08:15 01 Jul 2000	HG	
Hg	-.017	ppb	10366					
*** Sample ID: DF5M9F				Seq: 38		13:10:15 01 Jul 2000	HG	
Hg	-.003	ppb	12553					
*** Sample ID: DF5MFF				Seq: 39		13:12:07 01 Jul 2000	HG	
Hg	-.027	ppb	8903					
*** Sample ID: DF5MFSF				Seq: 40		13:14:12 01 Jul 2000	HG	
Hg	.989	ppb	164529					Sp. Rec - 98.9%
*** Sample ID: DF5MFDF				Seq: 41		13:17:27 01 Jul 2000	HG	MTW 7-1-00
Hg	1.01	ppb	168346					Sp. Rec - 101%

663813890

Folder: 0701HGA
Protocol: HGMET

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13:19:20 01 Jul 2000

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DF5N7F				Seq: 42		13:19:20 01 Jul 2000 HG		
Hg	-.024	ppb	9377					
*** Sample ID: DF5NJF				Seq: 43		13:21:16 01 Jul 2000 HG		
Hg	-.017	ppb	10355					
*** Sample ID: CCV5-4				Seq: 44		13:23:08 01 Jul 2000 HG		
Hg	5.05	ppb	787142					
*** Sample ID: CCB4				Seq: 45		13:24:59 01 Jul 2000 HG		
Hg	-.013	ppb	11027					
*** Sample ID: DFM1CB				Seq: 46		13:26:52 01 Jul 2000 HG		
Hg	-.026	ppb	9007					
*** Sample ID: DFM1CC				Seq: 47		13:30:40 01 Jul 2000 HG		
Hg	2.49	ppb	394749					
*** Sample ID: DF8MG				Seq: 48		13:32:37 01 Jul 2000 HG		
Hg	-.045	ppb	6040					
*** Sample ID: DF8MGS				Seq: 49		13:34:49 01 Jul 2000 HG		
Hg	.744	ppb	126986					Sp. Rec - 74.4%
*** Sample ID: DF8MGD				Seq: 50		13:37:02 01 Jul 2000 HG		mtw 7-1-00
Hg	.754	ppb	128415					Sp. Rec - 75.4%
*** Sample ID: DF8N6				Seq: 51		13:40:06 01 Jul 2000 HG		
Hg	-.006	ppb	12057					
*** Sample ID: DF8NB				Seq: 52		13:42:11 01 Jul 2000 HG		
Hg	.058	ppb	21805					
*** Sample ID: DF8N9				Seq: 53		13:44:09 01 Jul 2000 HG		
Hg	-.038	ppb	7221					

663, 1390

13:46:02 01 Jul 2000

Folder: 0701HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DF8NC				Seq: 54		13:46:02 01 Jul 2000	HG	
Hg	.005	ppb	13780					
*** Sample ID: DF8NG				Seq: 55		13:48:19 01 Jul 2000	HG	
Hg	.001	ppb	13175					
*** Sample ID: CCV5-5				Seq: 56		13:50:15 01 Jul 2000	HG	
Hg	4.95	ppb	770411					
*** Sample ID: CCB5				Seq: 57		13:52:20 01 Jul 2000	HG	
Hg	-.004	ppb	12350					
*** Sample ID: DF8NJ				Seq: 58		13:54:14 01 Jul 2000	HG	
Hg	-.019	ppb	10125					
*** Sample ID: DF8NM				Seq: 59		13:56:27 01 Jul 2000	HG	
Hg	-.033	ppb	7943					
*** Sample ID: DF8NQ				Seq: 60		13:58:39 01 Jul 2000	HG	
Hg	-.029	ppb	8484					
*** Sample ID: DF8NT				Seq: 61		14:00:36 01 Jul 2000	HG	
Hg	.008	ppb	14227					
*** Sample ID: DF8PD				Seq: 62		14:02:32 01 Jul 2000	HG	
Hg	.005	ppb	13815					
*** Sample ID: DF8PK				Seq: 63		14:04:30 01 Jul 2000	HG	
Hg	-.018	ppb	10250					
*** Sample ID: DF97K				Seq: 64		14:06:23 01 Jul 2000	HG	
Hg	-.024	ppb	9324					
*** Sample ID: DF97N				Seq: 65		14:08:38 01 Jul 2000	HG	
Hg	.017	ppb	15571					

663 1391

14:10:37 01 Jul 2000

Folder: 0701HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DF97P				Seq: 66		14:10:37 01 Jul 2000	HG	
Hg	-.027	ppb	8810					
*** Sample ID: DF97T				Seq: 67		14:13:24 01 Jul 2000	HG	
Hg	-.037	ppb	7389					
*** Sample ID: CCV5-6				Seq: 68		14:16:03 01 Jul 2000	HG	
Hg	4.93	ppb	767989					
*** Sample ID: CCB6				Seq: 69		14:17:58 01 Jul 2000	HG	
Hg	.008	ppb	14234					
*** Sample ID: DF97X				Seq: 70		14:20:33 01 Jul 2000	HG	
Hg	-.043	ppb	6393					
*** Sample ID: DF980				Seq: 71		14:22:41 01 Jul 2000	HG	
Hg	-.014	ppb	10807					
*** Sample ID: CCV5-7				Seq: 72		14:24:37 01 Jul 2000	HG	
Hg	4.90	ppb	763262					
*** Sample ID: CCB7				Seq: 73		14:26:38 01 Jul 2000	HG	
Hg	-.026	ppb	8984					

END OF ANALYSIS

MTW 7-1-00

66311392

Michael T. W. 7-1-00

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
 RunFold: 0701HGA Seq: 0 Batch:
 Prnt: R/T On Pump: S/B
 Rev: 4.2 10:38:48 01 Jul 2000 Xmit: Off Gas: LPM
 State: Idle User: MTW A/S: On

AUTOSAMPLER: Rack Edit rack: RACK1 Range 1-44 Clear seq Undo exit
 cup ID Extended id Weight Volume Macro check macros
 1 ICV5-1 1.0000 1.0000
 2 ICB1 1.0000 1.0000
 3 CCV5-1 1.0000 1.0000
 4 CCB1 1.0000 1.0000
 5 DFM19B 1.0000 1.0000
 6 DFM19C 1.0000 1.0000
 7 DFKQ3 1.0000 1.0000
 8 DFKQ3S 1.0000 1.0000
 9 DFKQ3D 1.0000 1.0000
 10 DF19W 1.0000 1.0000
 11 DFJTE 1.0000 1.0000
 12 DFJTL 1.0000 1.0000
 13 DFM11BF 1.0000 1.0000
 14 DFM11CF 1.0000 1.0000
 15 CCV5-2 1.0000 1.0000

PgDn

Full column mode Ins to switch

For help on <hotkey> press Shift <hotkey>

663 1393

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
RunFold: 0701HGA Seq: 0 Batch:
Prnt: R/T On Pump: S/B
Rev: 4.2 10:38:51 01 Jul 2000 Xmit: Off Gas: LPM
State: Idle User: MTW A/S: On

AUTOSAMPLER:		Rack Edit	rack: RACK1	Range	1-44	Clear seq	Undo exit	PgUp
cup ID	Extended id	Weight	Volume	Macro	checkK	macros		
31	DF343F	1.0000	1.0000					
32	DF5M4F	1.0000	1.0000					
33	DF5M9F	1.0000	1.0000					
34	DF5MFF	1.0000	1.0000					
35	DF5MFSF	1.0000	1.0000					
36	DF5MDF	1.0000	1.0000					
37	DF5N7F	1.0000	1.0000					
38	DF5NJF	1.0000	1.0000					
39	CCV5-4	1.0000	1.0000					
40	CCB4	1.0000	1.0000					
41	DFM1CB	1.0000	1.0000					
42	DFM1CC	1.0000	1.0000					
43	DF8MG	1.0000	1.0000					
44	DF8MGS	1.0000	1.0000					

PgDn

Full column mode Ins to switch

00000000
663 1394

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0701HGA	Seq: 0	Batch:	
	Prnt: R/T On	Pump: S/B	
	Rev: 4.2	10:38:56 01 Jul 2000	Xmit: Off Gas: LPM
State: Idle		User: MTW	A/S: On

AUTOSAMPLER:	Rack Edit	rack: RACK2	Range 1-44	Clear seQ	Undo eXit	PgUp
cup ID	Extended id	Weight	Volume	Macro	check macros	
16 DF97N		1.0000	1.0000			
17 DF97P		1.0000	1.0000			
18 DF97T		1.0000	1.0000			
19 CCV5-6		1.0000	1.0000			
20 CCB6		1.0000	1.0000			
21 DF97X		1.0000	1.0000			
22 DF980		1.0000	1.0000			
23 CCV5-7		1.0000	1.0000			
24 CCB7		1.0000	1.0000			
25		1.0000	1.0000			
26		1.0000	1.0000			
27		1.0000	1.0000			
28		1.0000	1.0000			
29		1.0000	1.0000			
30		1.0000	1.0000			

PgDn

Full column mode Ins to switch

Hg Digestion Log

QUA-4168

Serial Number **044** Log Book Number **96-MI-579** Start Time **10:30 10.45**

Sample ID	Date Rec'd	Prep Date	Prepared By	Wt/Vol	Sample Type	Run Date	Comments
1. DE1D9E	6-21-00	6-28-00	MTW	100ml	water	7-1-00	N/A
2. DE1DCE	↓						
3. DE1DDF	6-20-00						
4. DE1DGF							
5. DE33WF							
6. DE34IF							
7. DE342E	↓						
8. DE343F							
9. DE5M4E	6-28-00						
10. DE5M9F							
11. DE5MFF							
12. DE5M6E							time 0014-162-9
13. DE5MFD							time 0014-162-9
14. DE5N7F	↓						N/A
15. DE5N3E							
16. DE6M1C	N/A						0014-164-9
17. DE6M1C	↓						N/A
18. DE6M6S	6-23-00						time 0014-162-9
19. DE6M6S							time 0014-162-9
20. DE6M6D							N/A
21. DE6M6G							
22. DE6M6B							
23. DE6M6C							
24. DE6M6C							
25. DE6M6G	↓						
Reagents		Vol (mL)			Ref. Number		Method
HNO3		2.5ml			0014-162-9		14700 Autoclave 150psi, 120°
H2SO4		5.0ml			0014-162-9		SnCl2 = 0014-135-5
KMNO4		15.0ml			0014-162-9		NGL. N/A. 0014-134-2
K2S2O4		8.0ml			0014-162-9		time 0014-162-9
Extract(s)			Extract(s) Received				Extract(s) Relinquished
(Record line number from above)	Date	Time	Analyst	Location	Date	Time	Analyst
			MTW				

Hg Digestion Log

Quanterra Incorporated
450 William Pitt Way
Pittsburgh, Pennsylvania 15238
412/826-5477 FAX: 412/826-5571



QUA-4169

Serial Number 045 Log Book Number 96-MT-579 Start Time 10:30 10:45

Sample ID	Date Rec'd	Prep Date	Prepared By	WVVol	Sample Type	Run Date	Comments
1. DE8UT	6-23-00	7-1-00	MTW	100ml	water	7-1-00	4HA
2. DE8UM							
3. DE8UQ							
4. DE8UT							
5. DE8PD							
6. DE8PK							
7. DE97K	6-24-00						
8. DE97N							
9. DE97P							
10. DE97T							
11. DE97K							
12. DE980							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
21.							
22.							
23.							
24.							
25.							
Reagents		Vol (mL)		Ref. Number		Method	
HNO3	2.5ml			06114-162-8		7470A A-Talene 150SE 120°C	
H2SO4	5.0ml			06114-162-8		500L ~ 0014-135-5	
KMNO4	15.0ml			06114-162-8		0014-134-2	
K2S2O4	8.0ml			06114-162-8		0014-134-2	
Extract(s)			Extract(s) Received			Extract(s) Relinquished	
(Record line number from above)	Date	Time	Analyst	Location	Date	Time	Analyst
			MTW 7-1-00				

PSR024 7/01/00 5:59:23 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

663 13988000
PAGE 001

REQUESTED BY: MESOLOSH

METHOD: 08 Mercury (7470A, Cold Vapor) - Liquid

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
2D CLP1	DFKQ3	_____	246996	399411	I-19-08	COF300207	001		WATER	0	13 1
2B	DFJTE	_____	COF300116	-001					WATER		
2B	DFJTL	_____	COF300116	-002					WATER		

RELINQUISHED BY

RECEIVED BY

DATE/TIME

E. L. Munk

Michael T. Munk

7-1-00 (08:03)

Michael T. Munk

E. L. Munk

7-1-00 (09:15)

***** END OF REPORT *****

663 1399 506

GENERAL CHEMISTRY DATA

UXB INTERNATIONAL

663 1400

Client Sample ID: DF/S1/0181/IDW/001

General Chemistry

Lot-Sample #....: C0F300207-001

Work Order #....: DFKQ3

Matrix.....: WATER

Date Sampled....: 06/29/00

Date Received...: 06/30/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	7.5		No Units	SW846 9040	07/01/00	0183123
		Dilution Factor: 1	MS Run #.....: 0183020			
Cyanide, Total	ND	10.0	ug/L	SW846 9012A	07/06-07/07/00	0188125
		Dilution Factor: 1	MS Run #.....: 0188024			
Flashpoint	>200		deg F	SW846 1010	07/05/00	0187219
		Dilution Factor: 1	MS Run #.....: 0187083			
Total Sulfide	ND	1.0	mg/L	MCAWW 376.1	07/03/00	0185144
		Dilution Factor: 1	MS Run #.....: 0185038			

663 1401

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C0F300207

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	Work Order #: DFQ6J101 10.0	ug/L	MB Lot-Sample #: C0G060000-125 SW846 9012A	07/06-07/07/00	0188125
		Dilution Factor: 1				
Total Sulfide	ND	Work Order #: DFNGK101 1.0	mg/L	MB Lot-Sample #: C0G030000-144 MCAWW 376.1	07/03/00	0185144
		Dilution Factor: 1				

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

663 1402

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C0F300207

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	101	Work Order #: DFM5V101 (85 - 115) Dilution Factor: 1	LCS Lot-Sample#: C0G010000-123 SW846 9040	07/01/00	0183123
Cyanide, Total	106	Work Order #: DFQ6J102 (85 - 145) Dilution Factor: 1	LCS Lot-Sample#: C0G060000-125 SW846 9012A	07/06-07/07/00	0188125
Flashpoint	100	Work Order #: DFP7P101 (85 - 115) Dilution Factor: 1	LCS Lot-Sample#: C0G050000-219 SW846 1010	07/05/00	0187219
Total Sulfide	92	Work Order #: DFNGK102 (75 - 125) Dilution Factor: 1	LCS Lot-Sample#: C0G030000-144 MCAWW 376.1	07/03/00	0185144

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

663 1403

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C0F300207

Matrix.....: WATER

Date Sampled...: 06/28/00

Date Received...: 06/29/00

PARAMETER	PERCENT RECOVERY	RPD	PREPARATION-	PREP
	RECOVERY LIMITS	RPD LIMITS	ANALYSIS DATE	BATCH #
Cyanide, Total		WO#: DFKQ312N-MS/DFKQ312P-MSD	MS Lot-Sample #:	C0F300207-001
	NC (75 - 125)		SW846 9012A	07/06-07/07/00 0188125
	NC (75 - 125)	(0-20)	SW846 9012A	07/06-07/07/00 0188125
		Dilution Factor: 1		
		MS Run #.....: 0188024		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

663 1404

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C0F300207

Matrix.....: WATER

Date Sampled...: 06/28/00

Date Received...: 06/29/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Sulfide	88	Work Order #...: DFHAP16Q (75 - 125)	MCAWW 376.1	MS Lot-Sample #: C0F290209-003 07/03/00	0185144
Dilution Factor: 1					
MS Run #.....: 0185038					

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

663 1405

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: C0F300207

Work Order #....: DFKQ3-SMP
DFKQ3-DUP

Matrix.....: WATER

Date Sampled....: 06/29/00

Date Received...: 06/30/00

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Flashpoint	>200	>200	deg F	0.0	(0-20)	SD Lot-Sample #: C0F300207-001 SW846 1010	07/05/00	0187219
Dilution Factor: 1								
Prep Date.....: 0187083 Analysis Date...: Prep Batch #....:								
pH	7.5	7.5	No Units	0.40	(0-20)	SD Lot-Sample #: C0F300207-001 SW846 9040	07/01/00	0183123
Dilution Factor: 1								
Prep Date.....: 0183020 Analysis Date...: Prep Batch #....:								

... Cyanide

663 1406

COF290139 } Total
COF300151 } Water 0187156

COF280176 }
COF280181 } Free
COF280200 } Water 0187152
COF300232 }

COF200102 } Total
COF200102 } Water 0188124

COF300207 } Total
COF300207 } Water 0188125

COF140278 } Total
COF190178 } Water 0188126

COF280186 }
COF290200 } Free
COF300257 } Solid 0188128

Run Results Report

Results: C:\FLOW_4\070700B.RST

Results completed: 16:13 July 07, 2000.

663 1407

Operator: P. JOHNSON

P. Johnson 7 700

CYANIDE					
Time	Cup	Name	Height	Calc.	Flags
----- User request: Start Data Collect -----					
13:15	0	CARRYOVER	497	0.001431	
13:16	0	CARRYOVER	66	0.000209	
		Mean & RSD:	281	0.000820	NoRSD
13:17	0	READ BASELIN	0	0.000022	BL
13:18	301	0.500 PPM ST	167403	0.474954	
13:19	301	0.500 PPM ST	171678	0.487082	
13:21	301	0.500 PPM ST	171329	0.486091	
		Mean & RSD:	170137	0.482709	1.4%
13:22	302	0.400 PPM ST	140370	0.398260	
13:23	302	0.400 PPM ST	141062	0.400222	
13:24	302	0.400 PPM ST	140764	0.399378	
		Mean & RSD:	140732	0.399287	.247%
13:25	303	0.300 ppm ST	104564	0.296677	
13:26	303	0.300 ppm ST	106107	0.301053	
13:28	303	0.300 ppm ST	106367	0.301792	
		Mean & RSD:	105680	0.299841	.922%
13:29	304	0.200 PPM ST	70836	0.200988	
13:30	304	0.200 PPM ST	70683	0.200554	
13:31	304	0.200 PPM ST	71837	0.203828	
		Mean & RSD:	71119	0.201790	.881%
13:32	305	0.100 PPM ST	35676	0.101237	
13:33	305	0.100 PPM ST	35383	0.100407	
13:35	305	0.100 PPM ST	35490	0.100708	
		Mean & RSD:	35516	0.100784	.417%
13:36	306	0.050 PPM ST	17632	0.050045	
13:37	306	0.050 PPM ST	17500	0.049670	
13:38	306	0.050 PPM ST	17613	0.049990	
		Mean & RSD:	17581	0.049902	.406%
13:39	307	0.010 PPM ST	4121	0.011714	
13:40	307	0.010 PPM ST	4066	0.011557	
13:42	307	0.010 PPM ST	3792	0.010781	OL
		Mean & RSD:	4093	0.011635	4.3%
13:43	0	0.000 PPM ST	-69	-0.000174	LO
13:44	0	0.000 PPM ST	5	0.000036	OL
13:45	0	0.000 PPM ST	-42	-0.000096	LO
		Mean & RSD:	-55	-0.000135	67.7%
13:46	0	BLANK	-63	-0.000157	LO
13:47	2	CCV 7210602	36647	0.103991	1047.
13:49	0	CCB	-27	-0.000053	LO
13:50	0	BASELINE	0	0.000022	BL
13:51	101	.05 7210514	17816	0.050566	1017.
13:52	102	.40 7210515	133078	0.377572	947.
13:53	0	BLANK	4	0.000032	

Page #1

Run Results Report

Run Results Report
 Results: C:\FLOW_4\070700B.RST
 Results completed: 16:13 July 07, 2000.
 Operator: P.JOHNSON

663 1408

P. Johnson 7.7.00

CYANIDE

Time	Cup	Name	Height	Calc.	Flags
13:54	2	CCV 7210602	36844	0.104551	1059.
13:56	0	CCB	-30	-0.000063	LO
13:57	0	BASELINE	0	0.000022	BL
13:58	143	DFGK7118	1897	0.005403	
13:59	144	DFGKA118	2047	0.005831	
14:00	145	DFGKD118	1890	0.005383	
14:01	146	DFGKF118	848	0.002428	
14:03	147	DFK60118	1074	0.003069	
14:04	148	DFK6R118	845	0.002418	
14:05	149	DFK6V118	775	0.002221	
14:06	150	DFK6X118	1071	0.003062	
14:07	0	BLANK	24	0.000090	
14:08	2	CCV 7210602	37029	0.105076	1059.
14:10	0	CCB	-36	-0.000079	LO
14:11	0	BASELINE	0	0.000022	BL
14:12	151	DFP0R101B	1054	0.003014	
14:13	152	DFP0R102C	58064	0.164752	1039.
14:14	153	DFEM2123	1969	0.005608	
14:15	154	DFENA123	1466	0.004182	
14:17	155	DFEND123	1323	0.003774	
14:18	156	DFENE10X	1405	0.004008	
14:19	157	DFENR10X	11381	0.032311	
14:20	158	DFEQ210X	7344	0.020857	
14:21	0	BLANK	-27	-0.000054	LO
14:22	2	CCV 7210602	36715	0.104183	1049.
14:24	0	CCB	2	0.000027	
14:25	0	BASELINE	0	0.000022	BL
14:26	159	DFEQ910X	2564	0.007295	
14:27	160	DFEQC10X	3158	0.008981	
14:28	161	DFEQJ10X	19693	0.055893	
14:29	162	DFEQR10X	1109	0.003167	
14:31	163	DFER310X	58434	0.165803	
14:32	164	DFERC10X	79341	0.225116	
14:33	165	DFERR12T	374	0.001083	
14:34	166	DFERR12US	35965	0.102057	1029.
14:35	0	BLANK	-2	0.000017	
14:36	2	CCV 7210602	36863	0.104603	1059.
14:38	0	CCB	-14	-0.000016	LO
14:39	0	BASELINE	0	0.000022	BL
14:40	167	DFERR12VD	35852	0.101735	1029. 0.49.29
14:41	168	DFEW310X	1914	0.005452	
14:42	169	DFL6E122	4082	0.011603	
14:43	170	DFL6N122	2379	0.006771	
14:45	0	BLANK	-5	0.000007	

Page #2
 Run Results Report

Run Results Report

663 1409

Results: C:\FLOW 4\070700B.RST

Results completed: 16:13 July 07, 2000.

Operator: P.JOHNSON

P. Johnson 7.7.00

CYANIDE

Time	Cup	Name	Height	Calc.	Flags
14:46	2	CCV 7210602	37151	0.105421	1059.
14:47	0	CCB	1	0.000024	
14:48	0	BASELINE	0	0.000022	BL
14:49	171	DFQ6H101B	1486	0.004237	
14:50	172	DFQ6H102C	72982	0.207077	
14:52	173	DF07F101	100509	0.285171	
14:53	174	DF07F103X	100642	0.285548	0.19.213
14:54	175	DF07F102S	137617	0.390449	1059.
14:55	0	BLANK	69	0.000218	
14:56	2	CCV 7210602	37824	0.107332	1079.
14:57	0	CCB	28	0.000102	
14:59	0	BASELINE	0	0.000022	BL
15:00	176	DFQ6J101B	944	0.002700	
15:01	177	DFQ6J102C	59627	0.169187	1069.
15:02	178	DFKQ310W	349	0.001012	
15:03	179	DFKQ312NS	874	0.002501	07.
15:04	180	DFKQ312PD	1001	0.002862	07. 0.07.213
15:06	0	BLANK	-29	-0.000061	LO
15:07	2	CCV 7210602	36854	0.104579	1059.
15:08	0	CCB	-27	-0.000054	LO
15:09	0	BASELINE	0	0.000022	BL
15:10	181	DFQ6K101B	965	0.002761	
15:11	182	DFQ6K102C	58691	0.166531	1049.
15:13	183	DFD8C10R	1072	0.003063	
15:14	184	DEV66101	1244	0.003550	
15:15	185	DEV66112S	28679	0.081386	817.
15:16	186	DEV66113D	40353	0.114507	1159. 33.89.213
15:17	187	DEV68101	2466	0.007019	
15:18	188	DEV6G101	2014	0.005735	
15:20	0	BLANK	-4	0.000010	
15:21	2	CCV 7210602	36938	0.104818	1059.
15:22	0	CCB	-10	-0.000006	LO
15:23	0	BASELINE	0	0.000022	BL
15:24	189	DFGP810R	1485	0.004236	
15:25	190	DEXXP101	1808	0.005151	
15:27	201	DEXXQ101	1276	0.003642	
15:28	202	DEXXR101	1341	0.003827	
15:29	0	BLANK	-9	-0.000004	LO
15:30	2	CCV 7210602	37318	0.105895	1069.
15:31	0	CCB	-9	-0.000004	LO
15:32	0	BASELINE	0	0.000022	BL
15:34	203	DFQ6L101B	1137	0.162457	mg/Kg
15:35	204	DFQ6L102C	59479	8.438402	mg/Kg 1059.
15:36	205	DFEPN112	1493	0.212878	mg/Kg

Page #3

Run Results Report

Run Results Report
Results: C:\FLOW 4\070700B.RST
Results completed: 16:13 July 07, 2000.
Operator: P.JOHNSON

663 1410

P. Johnson 7-7-00

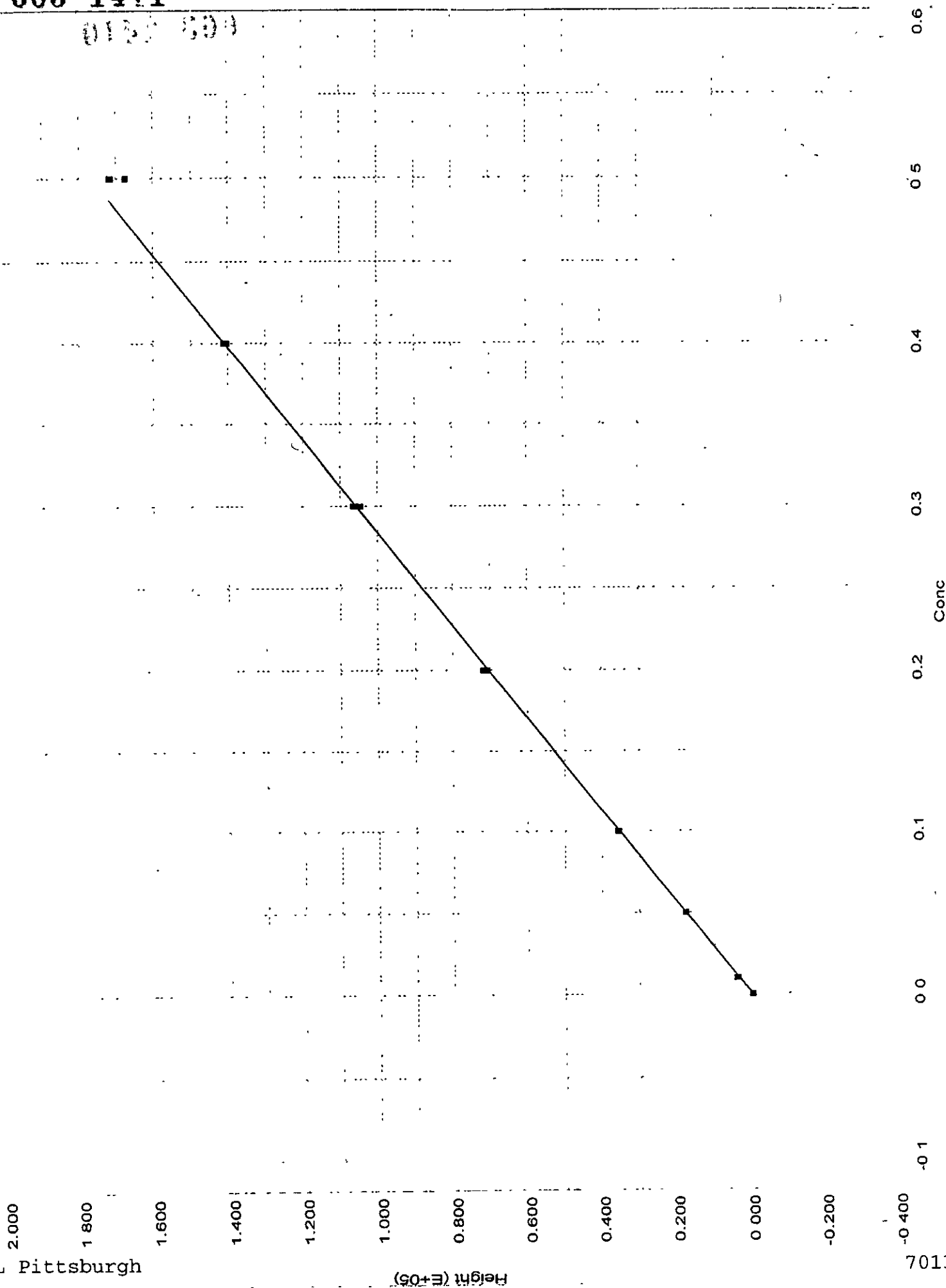
CYANIDE

Time	Cup	Name	Height	Calc.	Flags
15:37	206	DFEPN115S	35772	5.075490	<i>mg/kg 1029.</i>
15:38	207	DFEPN116D	36221	5.139124	<i>mg/kg 1037. 1.34.RD</i>
15:39	208	DFEPT112	1724	0.245664	
15:41	209	DFEQ0112	1485	0.211813	
15:42	210	DFH7N112	1478	0.210780	<i>mg/kg</i>
15:43	0	BLANK	-36	-0.000079	<i>LO</i>
15:44	2	CCV 7210602	37642	0.106814	<i>1027.</i>
15:45	0	CCB	-2	0.000017	
15:46	0	BASELINE	0	0.000022	BL
15:48	211	DFH84112	1667	0.237637	<i>mg/kg</i>
15:49	212	DFH86132	1750	0.249399	
15:50	213	DFL74112	3281	0.466547	
15:51	214	DFL7C112	2034	0.289652	<i>mg/kg</i>
15:52	0	BLANK	3	0.000031	
15:53	2	CCV 7210602	38049	0.107970	<i>1087.</i>
15:55	0	CCB	9	0.000049	
15:56	0	BASELINE	0	0.000022	BL
16:02	172	DFQ6H102C	59226	0.168048	<i>1057.</i>
16:03	0	BLANK	-14	-0.000019	LO
16:04	2	CCV 7210602	38355	0.108837	<i>1097.</i>
16:06	0	CCB	-4	0.000012	
16:07	0	BASELINE	0	0.000022	BL

663 1411

0135 539

CYANIDE: Calibration, Peak 5-145



663 1412

Cyanide Distillation Worksheet



STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

COF270198
COF280136
COF290139
COF300139
Total 0187150

Distilled by:		Reagent / Std Book ID:		Date:		Sample Description (CLP Samples Only)	
P. Johnson		7.500		7.10.00		7.10.00	
Sample ID	Initial	Distillation		Before Distillation	After Distillation	Expiration Date	
		Final					
1. FLOP101019	Some	Some				N/A	
2. FLOP101019						N/A	
3. FLOP101019							
4. FLOP101019							
5. FLOP101019							
6. FLOP101019							
7. FLOP101019							
8. FLOP101019							
9. FLOP101019							
10. FLOP101019							
11. FLOP101019							
12. FLOP101019							
13. FLOP101019							
14. FLOP101019							
15. FLOP101019							
16. FLOP101019							
17. FLOP101019							
18. FLOP101019							
19. FLOP101019							
20. FLOP101019							
21. FLOP101019							
22. FLOP101019							
23. FLOP101019							
24. FLOP101019							
25. FLOP101019							
26. FLOP101019							

Distillate(s)	Date	Distillate(s) Received		Location	Date	Distillate(s) Relinquished		Location
		Time	Analyst			Time	Analyst	
1.24	7.5.00	1.05.5	P. Johnson	1003	7.5.00	1.10	P. Johnson	1003
1.24	7.5.00	1.07.2	P. Johnson	1003	7.5.00	1.12.5	P. Johnson	1003

Comments: 1.24.11.05.04 To 50.00.00
Reviewed by: P. Johnson Date: 7.5.00

663 1413

Cyanide Distillation
Worksheet

60F280174
60F280181
60F280200
60F300157

From 0187152



STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

Distilled by: <u>P. Johnson</u>		Reagent (Std Book ID): <u>342.192</u>		Sample Description (CLP Samples Only)			
Date: <u>1245</u>		Date: <u>7-5-00</u>		Before Distillation			
Initial		Final		After Distillation		Expiration Date	
1. <u>FELO101</u>	<u>30ml</u>	<u>30ml</u>	<u>30ml</u>				<u>NA</u>
2. <u>FELO102</u>							<u>NA</u>
3. <u>FELO103</u>							
4. <u>FELO104</u>							
5. <u>FELO105</u>							
6. <u>FELO106</u>							
7. <u>FELO107</u>							
8. <u>FELO108</u>							
9. <u>FELO109</u>							
10. <u>FELO110</u>							
11. <u>FELO111</u>							
12. <u>FELO112</u>							
13. <u>FELO113</u>							
14. <u>FELO114</u>							
15. <u>FELO115</u>							
16. <u>FELO116</u>							
17. <u>FELO117</u>							
18. <u>FELO118</u>							
19. <u>FELO119</u>							
20. <u>FELO120</u>							
21. <u>FELO121</u>							
22.							
23.							
24.							
25.							
26.							

Distillate(s)	Distillate(s) Received		Distillate(s) Relinquished	
	Date	Analyst	Date	Analyst
1. <u>FELO101</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
2. <u>FELO102</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
3. <u>FELO103</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
4. <u>FELO104</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
5. <u>FELO105</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
6. <u>FELO106</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
7. <u>FELO107</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
8. <u>FELO108</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
9. <u>FELO109</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
10. <u>FELO110</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
11. <u>FELO111</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
12. <u>FELO112</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
13. <u>FELO113</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
14. <u>FELO114</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
15. <u>FELO115</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
16. <u>FELO116</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
17. <u>FELO117</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
18. <u>FELO118</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
19. <u>FELO119</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
20. <u>FELO120</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
21. <u>FELO121</u>	<u>7-5-00</u>	<u>P. Johnson</u>	<u>7-5-00</u>	<u>P. Johnson</u>
22.				
23.				
24.				
25.				
26.				

Comments:	
<u>1. FELO101 - 11/11/00 - 7-5-00 - 07</u>	
<u>2. FELO102 - 11/11/00 - 7-5-00 - 07</u>	
<u>3. FELO103 - 11/11/00 - 7-5-00 - 07</u>	
<u>4. FELO104 - 11/11/00 - 7-5-00 - 07</u>	
<u>5. FELO105 - 11/11/00 - 7-5-00 - 07</u>	
<u>6. FELO106 - 11/11/00 - 7-5-00 - 07</u>	
<u>7. FELO107 - 11/11/00 - 7-5-00 - 07</u>	
<u>8. FELO108 - 11/11/00 - 7-5-00 - 07</u>	
<u>9. FELO109 - 11/11/00 - 7-5-00 - 07</u>	
<u>10. FELO110 - 11/11/00 - 7-5-00 - 07</u>	
<u>11. FELO111 - 11/11/00 - 7-5-00 - 07</u>	
<u>12. FELO112 - 11/11/00 - 7-5-00 - 07</u>	
<u>13. FELO113 - 11/11/00 - 7-5-00 - 07</u>	
<u>14. FELO114 - 11/11/00 - 7-5-00 - 07</u>	
<u>15. FELO115 - 11/11/00 - 7-5-00 - 07</u>	
<u>16. FELO116 - 11/11/00 - 7-5-00 - 07</u>	
<u>17. FELO117 - 11/11/00 - 7-5-00 - 07</u>	
<u>18. FELO118 - 11/11/00 - 7-5-00 - 07</u>	
<u>19. FELO119 - 11/11/00 - 7-5-00 - 07</u>	
<u>20. FELO120 - 11/11/00 - 7-5-00 - 07</u>	
<u>21. FELO121 - 11/11/00 - 7-5-00 - 07</u>	
<u>22. FELO122 - 11/11/00 - 7-5-00 - 07</u>	
<u>23. FELO123 - 11/11/00 - 7-5-00 - 07</u>	
<u>24. FELO124 - 11/11/00 - 7-5-00 - 07</u>	
<u>25. FELO125 - 11/11/00 - 7-5-00 - 07</u>	
<u>26. FELO126 - 11/11/00 - 7-5-00 - 07</u>	

663 1414

Cyanide Distillation
Worksheet

COF200102 0188124

COF300207 Total 0188125

COF1401738

STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

Sample ID	Initial	Final	Distillation		Before Distillation	After Distillation	Expiration Date
			Date	Time			
1. EQH1010							HA
2. EQH1011							HA
3. EQH1012							7-10-00
4. EQH1013							7-10-00
5. EQH1014							HA
6. EQH1015							HA
7. EQH1016							7-11-00
8. EQH1017							HA
9. EQH1018							7-11-00
10. EQH1019							HA
11. EQH1020							7-11-00
12. EQH1021							HA
13. EQH1022							7-11-00
14. EQH1023							HA
15. EQH1024							7-11-00
16. EQH1025							HA
17. EQH1026							7-11-00
18. EQH1027							HA
19. EQH1028							7-11-00
20. EQH1029							HA
21. EQH1030							7-11-00
22. EQH1031							HA
23. EQH1032							7-11-00
24. EQH1033							HA
25. EQH1034							7-11-00
26. EQH1035							HA

Comments: 1. EQH1035 is the same as 1. EQH1034. To sample of 1. EQH1034.

Reviewed by: [Signature]

663 1415

Cyanide Distillation Worksheet

၂၀၁၆ ခုနှစ်၊ ဇူလိုင်လ ၁ ရက်နေ့

**STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380**

[illegible]

Method:

FLASHPOINT
(CLOSED CUP)

Quanterra
Incorporated

T: *[Signature]*

0187219

7-5-a

12:00

P-xy/ENE

COF 360207-001

-001 DVP

810F

 $\gt 200^\circ\text{F}$ $\gt 200^\circ F$

G. Ahnfeldt

Date _____

7-5-07

Quanterra Environmental Services
pH LOG SHEET

Page _____ of _____

Lot No.	Batch No.	SDG No.
COF300207	0183123	
2	2	2

Includes attachment(s) _____
Analyst: PETER GROVE
Date: 7-1-00
Start Time: 10:30

pH Meter Calibration

Reading	Buffer	Manf. Lot No.	Rec'd	Expire
7.02	7.0	LAB CHEM 9291-13	2-29-00	11-12-01
4.00	4.0	9167-08	5-9-00	6-25-01
10.04	10.0	0010-07	2-29-00	1-11-01

LCS ID No.: 342-155-10
Range = $\pm .05$ pH units EXP: 1-28-02

Relative Percent Difference = 0.4%

$$\frac{\frac{|X_1 - X_2|}{\frac{X_1 + X_2}{2}}}{2} \times 100$$

X₁ =Original Result
X₂ = Duplicate

Sample ID	pH Reading
LCS	7.04
CoF300207-001	7.50
↓ -001 DUP	7.53
LCS	7.05
<i>(Handwritten: RPD 7.409)</i> <i>(Handwritten: LCS 7.100)</i>	

Quanterra Environmental Services
SULFIDE LOG SHEET

663 1418

Diss. → COF290164 > 0185146
Sulfide COG010145 > 0185145

Lot No. COF290139 Batch No. 0185144 SDG No. LRI
COF290164 COF290209 COF300151 COF300207 COF300352
 Stock Std. ID No.: 0071-006-05 True Value 200 ppm
 Prep 6-27-00 Exp 7-4-00

LCS 5 mL of 200 ppm (ID No.: 0071-006-05) = 200 ppm
 Range +/- 25%

Calculations:

$$\text{Sulfide mg/L} = \frac{[(20 \text{ mL of Iodine} \times N \text{ Iodine}) - (\text{mL Na}_2\text{S}_2\text{O}_3 \times N \text{ Na}_2\text{S}_2\text{O}_3)]}{\text{mL Sample}} \times 16,000$$

Iodine Standardization ID No.: 0071-006-09
.0234 N Iodine = $\frac{(19.5 \text{ mL Na}_2\text{S}_2\text{O}_3)(0.0240 \text{ N of Na}_2\text{S}_2\text{O}_3)}{20.0 \text{ mL of Iodine Solution}}$

NOTE: (*) NOT Enough Sample.
 TO DMSD. Vacuum

Sodium Thiosulfate Standardization

ID No. 0071-006-10

Titration	mLs	Normality
1	<u>10.4</u>	<u>0.0240 N</u>
2	<u>10.4</u>	<u>0.0240 N</u>
Avg.		<u>N</u>

COF290209-003 - ND
 Relative Percent Difference = $\frac{|X_1 - X_2|}{\frac{X_1 + X_2}{2}} \times 100$
 COG010145-009 = 0% / 6.7-00
 LCS/450 = 0%
 X₁ = Original Result
 X₂ = Duplicate

$$\frac{(10 \text{ mL of KH(IO}_3)_2)(0.025 \text{ N KH(IO}_3)_2)}{\text{mL of Na}_2\text{S}_2\text{O}_3}$$

Concentration of Sample in Spike:

$$\text{Orig. Smp. Conc.} \left(\frac{\text{Vol. of Smp. in Spike}}{\text{Orig. Smp. Vol.}} \right) = \text{ND}$$

Sample ID: COF290209-003

MS Percent Recovery:

$$100 \times \left(\frac{\text{Observed Conc. of MS} - \text{Conc. of Smp. in Spike}}{\text{True Spike Conc.}} \right) = 88.3\%$$

Sample ID: COF290209-003

Eric L. Wesolowski

7-3-00

663 1419

Quanterra Environmental Services SULFIDE LOG SHEET

Lot No. _____ Batch No. _____ SDG No. _____

Includes attachment(s) _____

Analyst: _____

Date: _____

Start Time: _____

Stock Std. ID No.: _____ True Value
Prep _____

Exp _____

LCS _____ mL of _____ ppm (ID No.: _____) = _____ ppm

Calculations:

Sulfide mg / L = $\frac{[(20 \text{ mL of Iodine} \times N \text{ Iodine}) - (2 \text{ mL Na}_2\text{S}_2\text{O}_3 \times N \text{ Na}_2\text{S}_2\text{O}_3)]}{\text{mL Sample}} \times 16,000$

Iodine Standardization ID No.: _____
N Iodine = $\frac{(\text{mL Na}_2\text{S}_2\text{O}_3)(N \text{ of Na}_2\text{S}_2\text{O}_3)}{20.0 \text{ mL of Iodine Solution}}$

Sodium Thiosulfate Standardization

ID No. _____

Titration mLs Normality

1

2

Avg. = _____ N

Relative Percent Difference =

$$\frac{|X_1 - X_2|}{\frac{X_1 + X_2}{2}} \times 100$$

X₁ = Original Result

X₂ = Duplicate

$\frac{(10 \text{ mL of KH(IO}_3)_2) (0.025N \text{ KH(IO}_3)_2)}{\text{mL of Na}_2\text{S}_2\text{O}_3}$

Concentration of Sample in Spike:

MS Percent Recovery:

Orig. Smp. Conc. $\frac{\left(\frac{\text{Vol. of Smp. in Spike}}{\text{Orig. Smp. Vol.}} \right)}{200} = \text{ND}$

Sample ID: C06010145-009

100 x $\frac{\left(\frac{\text{Observed Conc. of MS} - \text{Conc. of Smp. in Spike}}{\text{True Spike Conc.}} \right)}{5.0} = 84.5\%$

Sample ID: C06010145-009

663 1420

~~Observed Conc. of MSD~~ ~~Conc. of Smp. in Spike~~

~~100 x $\frac{\text{Observed Conc. of MSD}}{\text{True Spike Conc.}}$~~

~~7-5-50~~

(*) NOTE: NOT ENOUGH VOLUME TO DO MSD.

Sample ID	Sample mL	N = <u>.0234</u> mL of Iodine	mL of N = <u>.0240</u> Na ₂ S ₂ O ₃	Conc.	LDL
MB	200 ml	20 ml	20.1	ND	1.0
LCS			17.1	4.600	92.2%
COF290139-001			6.0	25.92	1.0
↓ -002			19.4	ND	
↓ -003			19.9	ND	
↓ -004			18.2	2.496	
↓ -005			11.3	15.744	
↓ -006			18.1	2.688	
COF290164-001			20.0	ND	
COF290209-001			19.5	ND	
↓ -002			19.3	ND	
Ⓚ ↓ -003			19.9	ND	
Ⓚ ↓ -003 ms			17.2	4.416	88.3%
COF300151-001			18.7	1.536	1.0
↓ -002			20.0	ND	
↓ -003			19.2	ND	
↓ -004			19.4	ND	
COF300207-001			19.2	ND	
COF300252-001			20.1	ND	
↓ -002			20.0	ND	
MB			20.0	ND	
LCS			17.3	4.224	84.5%
COG010145-001			18.0	2.88	1.0
↓ -002			18.4	2.112	
↓ -003			19.9	ND	
↓ -004			20.0	ND	
↓ -007			20.2	ND	
↓ -008			19.9	ND	
↓ -009			20.0	ND	
↓ -009 ms			17.3	4.224	84.5%
↓ -009 ms			17.3	4.224	84.5%

Quanterra Environmental Services
SULFIDE LOG SHEET

MSD Percent Recovery:

$$100 \times \left(\frac{\text{Observed Conc. of MSO} - \text{Conc. of Smp. in Spike}}{\text{True Spike Conc.}} \right) = \frac{4.224 - \text{ND}}{5.0} = 84.5\%$$

Sample ID: C06-010145-009

Sample ID	Sample mL	N = $\frac{0.0234}{\text{mL of Iodine}}$	mL of $\text{Na}_2\text{S}_2\text{O}_3$ N = $\frac{0.0240}{\text{mL of Iodine}}$	Conc.	LDL
COG010145-010	200ml	20ml	20.0	ND	1.0
-011			20.0	ND	
-012			19.5	ND	
-013			19.8	ND	
-014			19.6	ND	
-015			20.1	ND	
-016			20.2	ND	
MB			19.9	ND	
LCS			17.0	4.8	96%
COF290164-001			20.2	ND	1.0
LCSD			17.2	4.416	88.3%

PSR024 7/06/00 5:35:10 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

663 1422 000

PAGE 001

REQUESTED BY: JOHNSONP

METHOD: QP Cyanide, Total

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
2D CLP1	DFKQ3-1-0W	_____	248175	399411	I-06-QP	COF300207	001		WATER	13	1

RELINQUISHED BY

Dr. L. W. Smith
P. Johnson

RECEIVED BY

P. Johnson
Dr. D. W. Smith

DATE/TIME

7.6.00/0750
7.6.00/1230

663 1423 800

PSR024 7/05/00 9:54:22 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: GROVEP

METHOD: AE Flash Point (1010, Closed Cup)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u>	<u>QTY</u>
										<u>RCVD</u>	<u>REQD</u>
2D CLP1	DFKQ3-1-0X	— — —	247974	399411	1-88-AE	COF300207	001		WATER	13	1

RELINQUISHED BY

Amber D. Hall

RECEIVED BY

Amber D. Hall

DATE/TIME

7-5-00 12:00
7-5-00 13:00

***** END OF REPORT *****

COC/Sample Request

Quanterra Incorporated
450 William Pitt Way
Building 6, Third Floor
Pittsburgh, Pennsylvania 15238
412/826-5477 FAX: 412/826-5571

663 1424
663 1424



QUA-4188

Project Name

Site

Lot Number/Sample Number	Analysis	Matrix
1. C07306207-001	PT	WATER
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
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14.		
15.		
16.		
17.		
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22.		
23.		
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26.		
27.		
28.		
29.		
30.		

Handwritten note: 1-1-00

Raw Sample (Record line number from above)	Raw Relinquished by				Raw Received by			
	Date	Time	Analyst	Location	Date	Time	Analyst	Location
1	7-1-00	10:15	[Signature]	S.R.	7-1-00	10:15	[Signature]	WTCM
1	7-1-00	11:00	[Signature]	WTCM	7-1-00	11:00	[Signature]	S.R.

REQUESTED BY: MESOLOSE

663 1425

METHOD: CT Sulfide (376.1)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
										RCVD	REQD
1E	DFGKA-1-1A	___	247408	058624	I-88-CT	COF290139	004		WATER	12	1
1E	DFGKD-1-1A	___	247409	058624	I-88-CT	COF290139	005		WATER	12	1
1E	DFGKF-1-1A	___	247410	058624	I-88-CT	COF290139	006		WATER	12	1
1E	DFGK3-1-1A	___	247411	058624	I-88-CT	COF290139	001		WATER	12	1
1E	DFGK6-1-1A	___	247412	058624	I-88-CT	COF290139	002		WATER	12	1
1E	DFGK7-1-1A	___	247413	058624	I-88-CT	COF290139	003		WATER	12	1
2A	DFGTM-1-0A	___	247414	059184	I-88-CT	COF290164	001		WATER	11	1
2A CLP1	DFHAE-1-28	___	247416	389829	I-88-CT	COF290209	001		WATER	14	1
2A CLP1	DFHAM-1-28	___	247417	389829	I-88-CT	COF290209	002		WATER	14	1
2A CLP1	DFHAP-1-6P	___	247418	389829	I-88-CT	COF290209	003		WATER	24	1
2C	DFK6R-1-1A	___	247420	058624	I-88-CT	COF300151	002		WATER	12	1
2C	DFK6V-1-1A	___	247421	058624	I-88-CT	COF300151	003		WATER	12	1
2C	DFK6X-1-1A	___	247422	058624	I-88-CT	COF300151	004		WATER	12	1
2C	DFK60-1-1A	___	247423	058624	I-88-CT	COF300151	001		WATER	12	1
2D CLP1	DFKQ3-1-10	___	247419	399411	I-88-CT	COF300207	001		WATER	13	1
2E CLP1	DFL6E-1-27	___	247424	389829	I-88-CT	COF300252	001		WATER	14	1
2E CLP1	DFL6N-1-27	___	247425	389829	I-88-CT	COF300252	002		WATER	14	1
2E,F CLP1	DFMCE-1-03	___	247426	096778	I-88-CT	COG010145	008		WATER	8	1
2E,F CLP1	DFMCG-1-03	___	247427	096778	I-88-CT	COG010145	009		WATER	8	1
2E,F CLP1	DFMCH-1-03	___	247428	096778	I-88-CT	COG010145	010		WATER	8	1
2E,F CLP1	DFMCJ-1-03	___	247429	096778	I-88-CT	COG010145	011		WATER	8	1
2E,F CLP1	DFMCK-1-03	___	247430	096778	I-88-CT	COG010145	012		WATER	8	1
2E,F CLP1	DFMCM-1-03	___	247431	096778	I-88-CT	COG010145	013		WATER	8	1
2E,F CLP1	DFMCN-1-03	___	247432	096778	I-88-CT	COG010145	014		WATER	8	1
2E,F CLP1	DFMCP-1-03	___	247433	096778	I-88-CT	COG010145	015		WATER	8	1
2E,F CLP1	DFMCQ-1-03	___	247434	096778	I-88-CT	COG010145	016		WATER	8	1

REQUESTED BY: MESOLOSE

663 1426

METHOD: CT Sulfide (376.1)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
2E,F CLP1	DFMC9-1-03	___	247439	096778	I-88-CT	COG010145	007		WATER	8	1
2E,F CLP1	DFMC1-1-03	___	247435	096778	I-88-CT	COG010145	001		WATER	8	1
2E,F CLP1	DFMC2-1-03	___	247436	096778	I-88-CT	COG010145	002		WATER	8	1
2E,F CLP1	DFMC3-1-03	___	247437	096778	I-88-CT	COG010145	003		WATER	8	1
2E,F CLP1	DFMC4-1-03	___	247438	096778	I-88-CT	COG010145	004		WATER	8	1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

Car. L. Mesolosi
Car. L. Mesolosi

Car. L. Mesolosi
Car. L. Mesolosi

7/3/00(06:30)
7/3/00(11:55)

***** END OF REPORT *****

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE