Well ID:MW-319 Total Depth (ft. bgs):62

PROJECT NUMBE	R:	10101451
SITE LOCATION:	18	52 Glory Cir
		. <b>.</b>

PROJECT MANAGER: T. Holmes

LOGGED BY: C. Mokri

DATE STARTED: 6/2/20

DATE COMPLETED: 6/2/20

DRILLING CONTRACTOR: Cascade

DRILLER: J. Asua

METHOD/RIG: Sonic TS150CC

HOLE DIAMETER (IN): <u>6</u> GROUND SURFACE ELEVATION (NAVD): <u>296</u> DEPTH TO WATER (ft. btoc): <u>47.63 on 6/13/2020</u> BOREHOLE USE: <u>Monitoring Well</u>

**NOTES:** <u>PID measurement indicated where greater than 0. Well installed on 6/2, pad installed on 6/3 and well developed on 6/13.</u>

o DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)	V Casii	DIAGRAM Elev: 295.65 (ft)
	ML		7.0	SILT, (ML) 2.5YR 5/3 reddish brown, dry, soft, non plastic, low dry strength, trace fine sand			- Sch 40 PVC Blank Casing
	CL		11.0	LEAN CLAY, (CL) 2.5YR 5/3 reddish brown, medium stiff, medium plasticity, trace fine sand	2.6		
	CL		<u>15.0</u>	LEAN CLAY, (CL) 2.5YR 5/3 reddish brown, medium stiff, medium plasticity, trace fine sand, some silt LEAN CLAY, (CL) 2.5YR 4/4 reddish brown, moist, soft, medium plasticity, trace fine sand			
  20	CL		<u>19.0</u>	LEAN CLAY, (CL) 2.5YR 4/4 reddish brown, moist, medium plasticity, trace line sand			
	CL		<u>22.0</u>	LEAN CLAY, (CL) 2.5YR 5/6 red, moist, stiff, medium plasticity, some fine sand			- Cement-Bentonite Grout
	CL		<u>23.5</u>	LEAN CLAY, (CL) 2.5YR 6/6 light red, moist, soft, medium plasticity, some fine sand	2.7		
	CL		28.0		1.3		
30	CL		<u>31.0</u>	LEAN CLAY, (CL) 2.5YR 4/8 red, moist, medium stiff, medium plasticity, some sand			
	CL		33.0	LEAN CLAY WITH SAND, (CL) 2.5YR 5/6 red, medium grained, moist, medium stiff, medium plasticity CLAYEY SAND, (SC) 2.5YR 4/8 red, medium grained, moist, stiff, medium plasticity, trace			
	SC		37.0	fine gravel			
	SP			POORLY GRADED SAND, (SP) 2.5YR 6/6 light red, fine to medium grained, moist, loose, trace gravel	0.9		
	SP SP		41.0 42.0 43.0	POORLY GRADED SAND, (SP) 2.5YR 5/8 red, fine to medium grained, medium dense, laminated			- Bentonite
	SP			POORLY GRADED SAND, (SP) 2.5YR 5/8 red, fine to medium grained, very dense, moderate cementation POORLY GRADED SAND, (SP) 2.5YR 5/8 red, fine to medium grained, moist, loose			 Chips
			47.0	POORLY GRADED SAND, (SP) 2.5YR 6/8 light red, fine to medium grained, wet, loose,			
 _ 50	SP			trace gravel			
				C. Mokri         Page: 1 of 2           E: 7/1/20         7/1/20			Y: <u>T. Holmes</u> ATE: <u>7/6/20</u>

05 DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)	WELL DIAGRAM		
	SP		56.0	POORLY GRADED SAND, (SP) 2.5YR 6/8 light red, fine to medium grained, wet, loose, trace gravel <i>(continued)</i>	1	- #10-20 Filter Sand 		
	SW		58.0	WELL GRADED SAND, (SW) 2.5YR 6/8 light red, wet, loose, trace fine gravel	8	Screen		
60	SP		62.0	POORLY GRADED SAND, (SP) 2.5YR 6/8 light red, wet, loose, trace fine gravel	0.2			
	Bottom of borehole at 62.0 feet.							

Well ID:MW-320 Total Depth (ft. bgs):36

BER:	10101451
: _19	08 Glory Ci
	BER:

PROJECT MANAGER: T. Holmes

LOGGED BY: C. Mokri

DATE STARTED: 6/2/20

DATE COMPLETED: 6/3/20

DRILLING CONTRACTOR: Cascade

DRILLER: J. Asua

METHOD/RIG: Sonic TS150CC

HOLE DIAMETER (IN): <u>6</u> GROUND SURFACE ELEVATION (NAVD): <u>269.2</u> DEPTH TO WATER (ft. btoc): <u>16.38 on 6/15/2020</u> BOREHOLE USE: <u>Monitoring Well</u>

**NOTES:** <u>PID measurement indicated where greater than 0. Well installed on 6/3, pad installed on 6/3 and well developed on 6/12.</u>

o DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)		DIAGRAM
0				SANDY SILT, (SM) 2.5YR 5/2 weak red, fine grained, dry, soft, non plastic, low dry strength			- Sch 40 PVC
							Blank Casing
	SM						
			5.0				
	-			SILT, (ML) 2.5YR 6/4 light reddish brown, dry, medium stiff, non plastic, medium dry			
	ML			strength, some fine sand			- Cement-Bentonite
			8.0	LEAN CLAY, (CL) 2.5YR 6/2 pale red, dry, medium stiff, low plasticity, trace sand			Grout
10							
	CL						
	-		12.0		1.4		
			13.0	LEAN CLAY, (CL) 2.5YR 6/3 light reddish brown, dry, medium stiff, medium plasticity, trace			
	CL			fine gravel			
						$\mathbf{v}$	
			17.0	LEAN CLAY, (CL) dry, stiff, medium plasticity, some sand		-	- Bentonite
	CL		19.0				Chips
20				LEAN CLAY WITH GRAVEL, (CL) 2.5YR 6/1 reddish gray, very stiff, medium plasticity,		· · ·	
	CL			with sand			
	-		23.0				
			20.0	WELL GRADED SAND WITH GRAVEL, (SW) rounded, wet, loose, trace clay			
	SW						
	SW		26.0 27.0	WELL GRADED SAND WITH GRAVEL, (SW) 2.5YR 6/4 light reddish brown, wet, loose	0.4		
		ř. ř. ř. ř.	27.0	POORLY GRADED SAND, (SP) fine to medium grained, wet, loose, some gravel			- #10-20 Filter
	SP		29.0		1.4		Sand
_ 30 _	SP			POORLY GRADED SAND WITH GRAVEL, (SP) 2.5YR 7/3 light reddish brown, wet, loose			- Sch 40 PVC
	SW	• • • • • •	31.0 32.0	WELL GRADED SAND, (SW) 2.5YR 7/3 light reddish brown, wet, loose			0.010 Slotted Screen
			JZ.U	FAT CLAY, (CH) 5YR 7/3 pink, wet, soft, high plasticity			1
	СН		34.0				
	sw			WELL GRADED SAND, (SW) 5YR 5/3 reddish brown, wet, very loose, with fine to medium			
		•••••	36.0	gravel Bottom of borehole at 36.0 feet			1

CREATED BY:	C. Mokri
CREATED DATE	: 7/1/20

FSS	
PROJECT:	OSI

Well ID:MW-321 Total Depth (ft. bgs):60

I ROOLOI.	001			
PROJECT N	IUMBE	R:	101014	51
SITE LOCAT	TION:	188	38 Glory	<sup>,</sup> Cir

PROJECT MANAGER: T. Holmes

LOGGED BY: C. Mokri

DATE STARTED: 6/3/20

DATE COMPLETED: 6/3/20

DRILLING CONTRACTOR: Cascade

DRILLER: J. Asua

METHOD/RIG: Sonic TS150CC

HOLE DIAMETER (IN): <u>6</u> GROUND SURFACE ELEVATION (NAVD): <u>284.9</u> DEPTH TO WATER (ft. btoc): <u>33.99 on 6/15/2020</u> BOREHOLE USE: <u>Monitoring Well</u>

NOTES: PID measurement indicated where greater than 0. Well installed on 6/3, pad installed on 6/5 and well developed on 6/11.

DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)	WELL DIAGRAM		
0						Casin	д Тор	Elev: 284.68 (ft)
	SM		6.0	SANDY SILT, (SM) 2.5YR 5/3 reddish brown, fine grained, dry, soft, non plastic, low dry strength, some gravel				- Sch 40 PVC Blank Casing
	CL		11.0	LEAN CLAY, (CL) 2.5YR 4/1 dark reddish gray, moist, medium stiff, low plasticity, some silt				
	CL		18.0	LEAN CLAY, (CL) 2.5YR 5/3 reddish brown, medium stiff, medium plasticity, trace silt, trace fine sand				
20	CL		21.0	LEAN CLAY, (CL) 2.5YR 4/4 reddish brown, moist, soft, medium plasticity, some fine sand				- Cement-Bentonite Grout
	СН		24.0	FAT CLAY WITH SAND, (CH) 2.5YR 6/8 light red, moist, hard, high plasticity, some fine gravel, moderate cementation				
	SC		26.0	CLAYEY SAND, (SC) 2.5YR 7/2 pale red, fine to medium grained, very stiff, medium plasticity	2.7			
 30	SP		30.0	POORLY GRADED SAND, (SP) 2.5YR 5/8 red, fine to medium grained, medium dense	0.1			
_ 00 _	SP		31.0	POORLY GRADED SAND, (SP) medium to coarse grained, dense, some fine gravel,	0.4		$\mathbb{K}$	
	sw		$\sim$	moderate cementation			$\bowtie$	
	sw		33.0 36.0	WELL GRADED SAND, (SW) 2.5YR 5/6 red, moist, loose, some fine gravel WELL GRADED SAND WITH GRAVEL, (SW) 2.5YR 5/6 red, subangular, wet, very loose				
	SP		38.0	POORLY GRADED SAND, (SP) 2.5YR 7/2 pale red, fine to medium grained, wet, very loose				
40	SW		40.0	WELL GRADED SAND, (SW) 2.5YR 7/6 light red, wet, very loose, trace fine gravel WELL GRADED SAND WITH GRAVEL, (SP) wet, very loose				
	SP		43.5					- Bentonite Chips
  _ 50	SP GW SP CH SP SW		44.0 45.0 45.5 47.0 48.0	POORLY GRADED SAND, (SP) 2.5YR 8/1 white, fine grained, wet, very loose         WELL GRADED GRAVEL, (GW) 2.5YR 6/6 light red, subangular, wet, very loose         POORLY GRADED SAND, (SP) 2.5YR 7/6 light red, fine grained, wet, very loose         FAT CLAY, (CH) 2.5YR 8/1 white, wet, soft, high plasticity         POORLY GRADED SAND, (SP) 2.5YR 5/8 red, wet, very loose, trace fine gravel         WELL GRADED SAND, (SW) 2.5YR 7/2 pale red, wet, very loose, trace gravel				·
				C. Mokri         Page: 1 of 2           E: 7/1/20         Page: 1 of 2				Y: <u>T. Holmes</u> ATE: <u>7/6/20</u>

05 DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)	WELL DIAGRAM
	SW		51.5	WELL GRADED SAND, (SW) 2.5YR 7/2 pale red, wet, very loose, trace gravel (continued)		
	CH		<del>52.Q</del>	FAT CLAY, (CH) 2.5YR 8/2 pinkish white, wet, soft, high plasticity		- #10-20 Filter
	SW		54.0	WELL GRADED SAND, (SW) 2.5YR 6/4 light reddish brown, wet, very loose		Sand
				POORLY GRADED SAND, (SP) 2.5YR 7/6 light red, fine to medium grained, wet, very loose		0.010 Slotted Screen
	SP					
60			60.0			

Well ID:MW-322 Total Depth (ft. bgs):70

FRUJECI.	031	
PROJECT N	UMBER:	10101451

SITE LOCATION: <u>Hayes and Boyle Ave</u> PROJECT MANAGER: <u>T. Holmes</u>

PROJECT MANAGER. 1. Holmes

LOGGED BY: C. Mokri

DATE STARTED: 6/3/20

DATE COMPLETED: 6/4/20

DRILLING CONTRACTOR: Cascade

DRILLER: J. Asua

METHOD/RIG: Sonic TS150CC

HOLE DIAMETER (IN): <u>6</u> GROUND SURFACE ELEVATION (NAVD): <u>286.9</u> DEPTH TO WATER (ft. btoc): <u>42.98 on 6/14/2020</u> BOREHOLE USE: <u>Monitoring Well</u>

**NOTES:** <u>PID measurement indicated where greater than 0. Well installed on 6/4, pad installed on 6/7 and well developed on 6/10.</u>

DEPTH (ft)	U.S.C.S.	GRAPHIC I OG	LAYER DEPTH	MATERIAL DESCRIPTION		WELL DIAGRAM
0	, D	ц.	LAYE		Environmental Data PID (ppm)	Casing Top Elev: 286.63 (ft)
				SILT WITH SAND, (ML) 2.5YR 6/2 pale red, dry, soft, non plastic, low dry strength		- Sch 40 PVC
	ML					Blank Casing
		$\left  \left  \right  \right $	4.0	SILT, (ML) 2.5YR 6/4 light reddish brown, dry, soft, non plastic, low dry strength, some fine		
5	ML			sand, trace clay		
			7.0		0.8	
	ML	]		SILT, (ML) 2.5YR 3/2 dusky red, dry, medium stiff, low dry strength, trace fine sand, some clay	0.4	
			9.0_			
10	CL		10.0	LEAN CLAY, (CL) 2.5YR 5/2 reddish brown, medium stiff, medium plasticity		
				,, (,,,,, ,,		
	CL					
_ 15			15.0	LEAN CLAY, (CL) 2.5YR 5/6 red, very stiff, low plasticity, some fine sand, lignite		
				LEAN GEAT, (GE) 2.5 TK 5/0 Teu, very sun, low plasuoity, some nine sand, lignite		
	CL					
_ 20	-					
	<u> </u>		21.0	CLAVEY CAND (CC) 2 EVD E/Q red modium grained maint coff modium plasticity		
	SC		22.0	CLAYEY SAND, (SC) 2.5YR 4/8 red, medium grained, moist, solt, medium stiff, medium		
				plasticity		
25	SC					- Cement-Bentonite Grout
			26.0	POORLY GRADED SAND, (SP) 2.5YR 4/8 red, medium grained, moist, loose, some clay		
	SP					
			28.0	POORLY GRADED SAND, (SP) 2.5YR 4/8 red, medium grained, moist, loose		
30	SP					
			31.0			
	0.0			POORLY GRADED SAND, (SP) 10R 4/8 red, fine to medium grained, moist, hard, weak cementation		
	SP					
35	0.5		34.0	POORLY GRADED SAND, (SP) 10R 5/8 red, fine to medium grained, moist, loose	0.2	
	SP		36.0			
				POORLY GRADED SAND, (SP) 10R 6/8 light red, fine grained, moist, loose	1.5	
	SP					
					1.2	
	CRF		D BY:	_C. Mokri	1	CHECKED BY: <u>T. Holmes</u>
	CRE		CHECKED DATE: <u>7/6/20</u>			

B DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)	WELL DIAGRAM
	SP		41.0	POORLY GRADED SAND, (SP) 10R 6/8 light red, fine grained, moist, loose (continued)		
	SP		43.0	POORLY GRADED SAND, (SP) 2.5YR 7/6 light red, fine to medium grained, wet, loose	0.8	
 45	SP		45.0	POORLY GRADED SAND, (SP) 2.5YR 7/6 light red, fine to medium grained, wet, very loose	0.5	
	sw		40.0	WELL GRADED SAND WITH GRAVEL, (SW) 2.5YR 7/4 light reddish brown, wet, loose	0.3	
	SP SP		49.0 50.0 50.5	POORLY GRADED SAND, (SP) 2.5YR 8/3 pink, fine to medium grained, wet, loose, no gravel		
	СН		52.0	POORLY GRADED SAND, (SP) 2.5YR 8/1 white, fine grained, wet, very loose, 1in thick high plasticity clay interbed		- Bentonite Chips
	SP		Ų	FAT CLAY, (CH) 2.5YR 8/2 pinkish white, wet, soft, high plasticity		
			<u>54.0</u>	POORLY GRADED SAND, (SP) 2.5YR 6/6 light red, fine to medium grained, wet, very loose		
  	SP			POORLY GRADED SAND, (SP) 2.5YR 7/1 light reddish gray, wet, very loose, trace gravel		
60		• • • •	60.0			
	SW		62.0	WELL GRADED SAND, (SW) 2.5YR 7/6 light red, wet, very loose		- #10-20 Filter Sand
	SP		66.0	POORLY GRADED SAND, (SP) 2.5YR 6/6 light red, wet, very loose		- Sch 40 PVC 0.010 Slotted Screen
	SP			POORLY GRADED SAND, (SP) 2.5YR 6/6 light red, fine to medium grained, wet, very loose		
70			70.0			

Well ID:MW-323 Total Depth (ft. bgs):60

	001		
PROJECT N	IUMBER	: 10	)101451
SITE LOCA	<b>FION:</b> _1	740	Dunn Ave.

PROJECT MANAGER: T. Holmes

LOGGED BY: C. Mokri

DATE STARTED: 6/5/20

DATE COMPLETED: 6/6/20

DRILLING CONTRACTOR: Cascade

DRILLER: J. Asua

METHOD/RIG: Sonic TS150CC

HOLE DIAMETER (IN): \_6 GROUND SURFACE ELEVATION (NAVD): 275.8 DEPTH TO WATER (ft. btoc): <u>31.9 on 6/16/2020</u> BOREHOLE USE: Monitoring Well

**NOTES:** <u>PID measurement indicated where greater than 0. Well installed on 6/6, pad installed on 6/9 and well developed on 6/13.</u>

o DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)		ELL DIAGRAM Top Elev: 275.33 (ft)	
	ML			SILT, (ML) 2.5YR 5/3 reddish brown, dry, medium stiff, low plasticity, medium dry strength			ch 40 PVC lank Casing	
	CL		7.0 9.0	LEAN CLAY, (CL) 2.5YR 5/3 reddish brown, dry, stiff, low plasticity, some silt				
10	CL		11.0	LEAN CLAY, (CL) 2.5YR 6/4 light reddish brown, moist, soft, medium plasticity, some silt				
	CL		15.0	LEAN CLAY, (CL) 2.5YR 5/4 reddish brown, medium plasticity, trace fine sand, some fine gravel, lignite				
	CL		15.0	LEAN CLAY WITH SAND, (CL) 2.5YR 6/6 light red, soft, medium plasticity, trace fine gravel				
20	SC		20.0	CLAYEY SAND WITH GRAVEL, (SC) 2.5YR 6/2 pale red, fine to medium grained, very stiff, medium plasticity	0.1		ement-Bentonite rout	
	SP		24.0	POORLY GRADED SAND WITH GRAVEL, (SP) 2.5YR 5/8 red, medium grained, moist, dense, moderate cementation	0.3			
	SP SP		25.0	POORLY GRADED SAND, (SP) 2.5YR 6/8 light red, fine to medium grained, loose, some gravel	0.7			
	SP		20.0	POORLY GRADED SAND, (SP) 2.5YR 5/6 red, fine to medium grained, moist, medium dense, weak cementation	0.7			
			29.0	POORLY GRADED SAND, (SP) 2.5YR 6/6 light red, fine to medium grained, moist, loose	0.4			
30	SP		31.0	POORLY GRADED SAND, (SP) 2.5YR 7/8 light red, fine to medium grained, moist, very loose				
	SP			POORLY GRADED SAND, (SP) 2.5YR 6/8 light red, fine to medium grained, moist, very loose, trace gravel				
	SP		36.0 37.0	POORLY GRADED SAND, (SP) 2.5YR 6/8 light red, fine to medium grained, moist, very loose, trace medium to coarse gravel				
40	SP		41.0	POORLY GRADED SAND, (SP) 2.5YR 7/8 light red, fine to medium grained, wet, very loose				
	GW		46.0	WELL GRADED GRAVEL WITH SAND, (GW) 2.5YR 8/3 pink, subrounded, wet, very loose POORLY GRADED SAND WITH GRAVEL, (SP) 2.5YR 8/3 pink, fine to medium grained,			entonite hips	
	GW		47.0	wet, very loose WELL GRADED GRAVEL WITH SAND, (GW) 2.5YR 8/3 pink, wet, very loose, 2" thick				
_ 50	SP		1 \	high plasticity clay interbed at 47 ft				
				<u>C. Mokri</u> ■ 6/30/20 Page: 1 of 2		CHECKED BY:		

CREATED DATE: <u>6/30/20</u>

CHECKED DATE: 7/6/20

05 DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)	WELL DIAGRAM
	SP		<u>51.0</u>	POORLY GRADED SAND, (SP) 2.5YR 8/1 white, fine to medium grained, wet, very loose (continued)		
	SP		56.0	POORLY GRADED SAND, (SP) 2.5YR 6/8 light red, fine to medium grained, wet, very loose		- Sch 40 PVC - Sch 40 PVC 0.010 Slotted Screen
	SP		58.0	POORLY GRADED SAND, (SP) 2.5YR 8/2 pinkish white, fine to medium grained, wet, very loose		
	SP SP	1.1.1.1.1.1.1.1	59.0 60.0\	POORLY GRADED SAND, (SP) 2.5YR 8/2 pinkish white, fine to medium grained, wet, very loose, some medium to coarse gravel		
			Ţ	POORLY GRADED SAND, (SP) 2.5YR 8/2 pinkish white, fine to medium grained, wet, very loose, no gravel		

Well ID:MW-324 Total Depth (ft. bgs):70

<b>LUD</b>

PROJECT: OSI

LOGGED BY: C. Mokri

DATE STARTED: 6/6/20

DATE COMPLETED: 6/6/20

PROJECT NUMBER: 10101451

PROJECT MANAGER: T. Holmes

SITE LOCATION: Near intersection of McClean and Person

DRILLING CONTRACTOR: Cascade

DRILLER: J. Asua

METHOD/RIG: Sonic TS150CC

HOLE DIAMETER (IN): \_6 GROUND SURFACE ELEVATION (NAVD): 279.14 DEPTH TO WATER (ft. btoc): 35.63 on 6/14/2020 BOREHOLE USE: Monitoring Well

NOTES: PID measurement indicated where greater than 0. Well installed on 6/7, pad installed on 6/8 and well developed on 6/11.

DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	w	WELL DIAGRAM			
0		р 19 19 19 19	LAYE		Environmental Data PID (ppm)	Casing Top Elev: 278.7 (ft)			
				SILT, (ML) 2.5YR 6/6 light red, dry, soft, non plastic, low dry strength, trace fine sand			-	- Sch 40 PVC Blank Casing	
	ML							-	
	CL		4.0 5.0	LEAN CLAY, (CL) dry, low plasticity, low dry strength, some silt, some fine sand					
	ML		7.0	SILT, (ML) 2.5YR 5/3 reddish brown, dry, soft, non plastic, low dry strength					
 10	CL		10.0	LEAN CLAY, (CL) 2.5YR 4/4 reddish brown, dry, soft, low plasticity, some silt, trace fine sand					
	CL		11.0	LEAN CLAY, (CL) 2.5YR 4/4 reddish brown, dry, medium stiff, low plasticity, some silt, trace fine sand					
	CL			LEAN CLAY WITH SAND, (CL) 2.5YR 5/6 red, dry, soft, medium plasticity					
			14.0	CLAYEY SAND, (SC) 2.5YR 3/6 dark red, fine to medium grained, dry, very stiff, medium					
	sc			plasticity					
	SP		17.0	POORLY GRADED SAND WITH CLAY, (SP) 2.5YR 4/8 red, fine to medium grained, loose					
20			19.0	POORLY GRADED SAND, (SP) 2.5YR 4/8 red, fine to medium grained, dry, loose, trace					
	SP			gravel					
			23.0						
	SP		25.0	POORLY GRADED SAND, (SP) 2.5YR 4/8 red, fine to medium grained, dry, loose, trace gravel, weak cementation				- Cement-Bentonite	
			23.0	POORLY GRADED SAND, (SP) 2.5YR 4/8 red, fine to medium grained, dry, loose				Grout	
	SP								
			29.0	POORLY GRADED SAND, (SP) 2.5YR 4/8 red, fine to medium grained, moist, loose					
30	-			FOORET GRADED SAND, (SF) 2.5TR 4/6 Ted, line to medium grained, moist, loose					
	SP								
						<b>T</b>			
			37.0	POORLY GRADED SAND, (SP) 2.5YR 7/4 light reddish brown, fine to medium grained,					
	SP			moist, very loose					
40			41.0						
	SP	<u> </u>	42.0	POORLY GRADED SAND, (SP) 5YR 6/4 light reddish brown / light brown, fine to medium grained, wet, very loose					
	sw			WELL GRADED SAND, (SW) 5YR 7/4 pink, wet, very loose, trace gravel					
	<u> </u>	<b>****</b>	45.0	POORLY GRADED SAND, (SP) 5YR 7/4 pink, fine to medium grained, wet, very loose					
	SP		48.0						
	GW			WELL GRADED GRAVEL, (GW) 5YR 7/4 pink, wet, very loose			×		
50			50.0					/ T Holmos	
				<u>C. Mokri</u> <b>E:</b> <u>6/30/20</u> Page: 1 of 2				<b>7:</b> <u>T. Holmes</u>	

05 DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)	WELL DIAGRAM
	sw	• • • • • • • • • • • • • • • • • • •	54.7	WELL GRADED SAND WITH GRAVEL, (SW) 5YR 7/4 pink, wet, very loose		- Bentonite Chips
	CH	<b>***</b> 5	55. <del>0</del>	FAT CLAY, (CH) 5YR 8/1 white / pinkish gray, wet, medium stiff, high plasticity		
	SP	5	58.0	POORLY GRADED SAND, (SP) 5YR 8/2 pinkish white, fine grained, wet, loose		
	GW		59.0	WELL GRADED GRAVEL, (GW) 7.5YR 7/6 reddish yellow, wet, very loose	1	
60	SP	6	60.0	POORLY GRADED SAND, (SP) 7.5YR 7/6 reddish yellow, fine grained, wet, very loose	-	
				WELL GRADED SAND, (SW) 7.5YR 7/6 reddish yellow, wet, very loose		- #10-20 Filter
						Sand
						- Sch 40 PVC
	014					Screen
	SW					
70		<b>ૻ</b> •ૻ૾•ૻ.•ૻ	70.0	Bottom of borehole at 70.0 feet		

Well ID:MW-325 Total Depth (ft. bgs):70

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					_					_	
_	_	_									

PROJECT NUMBER: <u>10101451</u> SITE LOCATION: NE end of McClean Blvd.

PROJECT MANAGER: T. Holmes

LOGGED BY: C. Mokri

DATE STARTED: 6/7/20

DATE COMPLETED: 6/7/20

DRILLING CONTRACTOR: Cascade

DRILLER: J. Asua

METHOD/RIG: Sonic TS150CC

HOLE DIAMETER (IN): <u>6</u> GROUND SURFACE ELEVATION (NAVD): <u>284.53</u> DEPTH TO WATER (ft. btoc): <u>34.21 on 6/14/2020</u> BOREHOLE USE: <u>Monitoring Well</u>

**NOTES:** <u>PID measurement indicated where greater than 0. Well installed on 6/7, pad installed on 6/8 and well developed on 6/12.</u>

o DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION		WELL DIAGRAM Casing Top Elev: 284.33 (ft)			
			1.0	Asphalt and aggregate base			- Sch 40 PVC		
			1.0	SILT, (ML) 2.5YR 4/4 reddish brown, dry, soft, non plastic, low dry strength, some sand			Blank Casing		
	ML			Sier, (ME/2.511(4/4 reduish brown, dry, son, non plastic, low dry strength, some sand					
			1.0						
		+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$	4.0						
				SILT, (ML) 2.5YR 6/4 light reddish brown, dry, soft, low plasticity, some clay					
	ML								
			7.0						
			1	LEAN CLAY, (CL) 2.5YR 5/6 red, moist, very soft, medium plasticity					
	CL	V////							
10	OL.		1						
			11.0						
		V////		LEAN CLAY, (CL) 2.5YR 5/6 red, moist, medium stiff, medium plasticity, some fine sand					
			1						
	CL	V////	1				$\mathbb{M}$		
			}						
			16.0						
		V////	10.0	LEAN CLAY, (CL) 2.5YR 5/6 red, moist, soft, medium plasticity					
			1						
	CL		1						
20		V////							
20									
			21.0	CLAVEV CAND (CC) 2 EVD 4/0 and modium stiff modium plasticity					
			1	CLAYEY SAND, (SC) 2.5YR 4/8 red, medium stiff, medium plasticity			$\bowtie$		
	SC								
			25.0				- Cement-Bentonite Grout		
				POORLY GRADED SAND WITH CLAY, (SP) 2.5YR 7/4 light reddish brown, medium					
	SP			grained, medium dense, some gravel					
			28.0						
			·	POORLY GRADED SAND, (SP) 2.5YR 6/8 light red, medium grained, moist, loose, trace					
_ 30 _	SP			clay, no gravel					
			32.0						
	SP			POORLY GRADED SAND, (SP) 2.5YR 5/8 red, fine to medium grained, wet, medium			$\bowtie$		
			34.0	dense					
				POORLY GRADED SAND, (SP) 2.5YR 5/8 red, fine to medium grained, loose, trace gravel					
	SP								
	0		·						
			38.0						
				POORLY GRADED SAND, (SP) 2.5YR 5/8 red, fine to medium grained, loose, no gravel					
_ 40			ľ						
	SP								
			43.0						
		1		POORLY GRADED SAND, (SP) 2.5YR 7/8 light red, wet, very loose, trace gravel			$\bowtie$		
	1		·						
	SP						$\bowtie$		
	1						$\bigotimes$		
			48.0				$\mathbb{K}$		
				WELL GRADED SAND WITH GRAVEL, (SW) 2.5YR 5/6 red, wet, very loose					
50	SW	<b>.</b>	1						
_ 30	1	o`o`o`o	I						
				<u>C. Mokri</u>			DBY: T. Holmes		
	CRE	ATED	DAT	E:6/30/20 Page: 1 of 2		CHECKE	D DATE: <u>7/6/20</u>		

(ff) 20 20 20 20 20 20 20 20 20 20 20 20 20	U.S.C.S.	GRAPHIC LOG I AYER DEPTH		Environmental Data PID (ppm)	WELL DIAGRAM
		51.			
	GW	52.			- Bentonite Chips
			WELL GRADED SAND WITH GRAVEL, (SW) 2.5YR 6/8 light red, wet, very loose, 2inch		Chips
			thich high plasticity clay interbed at 53 ft bgs		tienta tienta)
					[ [2] [2]
	SW				[] 문화 [] 문화
	300				
60					
		61.			
			POORLY GRADED SAND, (SP) 10YR 7/8 yellow, fine to medium grained, wet, very loose		- #10-20 Filter
	SP				Sand
	0				- Sch 40 PVC
		65.			0.010 Slotted
	SW	66.			Screen
			POORLY GRADED SAND, (SP) 10YR 5/8 yellowish brown, fine to medium grained, wet,		
	SP		very loose, 1inch thich high plasticity clay interbed at 68ft bgs		
		69.		-	
70	SP	70.	D POORLY GRADED SAND, (SP) 10YR 6/3 pale brown, fine grained, wet, very loose Bottom of borehole at 70.0 feet		

Well ID:MW-326 Total Depth (ft. bgs):70

<b>LUD</b>

PROJECT: OSI

LOGGED BY: C. Mokri

DATE STARTED: 6/7/20

DATE COMPLETED: 6/8/20

PROJECT NUMBER: 10101451

PROJECT MANAGER: \_\_\_\_\_ Holmes

SITE LOCATION: Near SE corner of Cintas foundation

DRILLING CONTRACTOR: Cascade

DRILLER: J. Asua

METHOD/RIG: Sonic TS150CC

HOLE DIAMETER (IN): <u>6</u> GROUND SURFACE ELEVATION (NAVD): <u>274.24</u> DEPTH TO WATER (ft. btoc): <u>24.96 on 6/16/2020</u> BOREHOLE USE: <u>Monitoring Well</u>

**NOTES:** <u>PID measurement indicated where greater than 0. Well installed on 6/8, pad installed on 6/9 and well developed on 6/13.</u>

DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION		WELL DIAGRAM Casing Top Elev: 273.83 (ft)			
0			1.0	Asphalt and aggregate base		N/			
			1.0	Asphalt and aggregate base				<ul> <li>Sch 40 PVC Blank Casing</li> </ul>	
	CL		6.0	LEAN CLAY, (CL) 2.5YR 5/4 reddish brown, wet, soft, low plasticity LEAN CLAY, (CL) 2.5YR 3/4 dark reddish brown, moist, soft, low plasticity				g	
	CL			ELAN CEAT, (CE) 2.311X 3/4 dark reduist brown, moist, son, low plasticity					
		<i>\/////</i>	~ ~						
10	CL		9.0 12.0	LEAN CLAY, (CL) 2.5YR 3/3 dark reddish brown, moist, medium stiff, low plasticity, trace fine gravel LEAN CLAY WITH SAND, (CL) 2.5YR 5/8 red, moist, stiff, medium plasticity, trace gravel					
	CL		15.0	LEAN CLAT WITH SAND, (CL) 2.3TK 5/6 Teu, moisi, sun, meulum plasticity, trace graver					
	sc		18.0	CLAYEY SAND, (SC) 2.5YR 5/6 red, fine to medium grained, moist, soft, medium plasticity, trace fine gravel					
20	sc		21.0	CLAYEY SAND, (SC) 2.5YR 6/6 light red, medium grained, moist, soft, high plasticity, some fine gravel					
	SP		23.0	POORLY GRADED SAND, (SP) 2.5YR 4/8 red, medium grained, moist, dense					
	SP		<u>25.0</u>					<ul> <li>Cement-Bentonite Grout</li> </ul>	
	SP	-	<u>27.0</u>	POORLY GRADED SAND, (SP) 2.5YR 5/8 red, fine to medium grained, moist, loose, trace gravel				Croak	
 _ 30	SP		31.0	POORLY GRADED SAND, (SP) 2.5YR 6/8 light red, fine to medium grained, moist, very loose					
	SP		32.0	POORLY GRADED SAND, (SP) 2.5YR 6/8 light red, fine to medium grained, wet, very			$\otimes$		
	sw		Ţ	loose, some gravel // WELL GRADED SAND, (SW) 2.5YR 6/8 light red, wet, very loose, some coarse gravel					
			36.0						
	GW		38.0	WELL GRADED GRAVEL, (GW) 2.5YR 6/4 light reddish brown, wet, very loose, some medium to coarse sand					
_ 40	GP		42.0	POORLY GRADED GRAVEL, (GP) 2.5YR 6/4 light reddish brown, fine to medium grained, very loose					
	SP			POORLY GRADED SAND, (SP) 2.5YR 6/3 light reddish brown, fine grained, wet, very loose					
			46.0				$\mathbb{N}$		
	GW		47.0				$\bigvee$		
				POORLY GRADED SAND, (SP) 2.5YR 7/4 light reddish brown, fine to medium grained,			$\mathbb{N}$		
	SP	: · · · ·		wet, very loose, no gravel			$\bigotimes$		
50									
	- 		-					·	
				C. Mokri				<b>r:</b> <u>T. Holmes</u>	
	CRE	ATED	DAT	E:         6/30/20         Page: 1 of 2		CHECK	ED D/	ATE: <u>7/6/20</u>	

G DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)	WELL DIAGRAM	
	SP		53.0	POORLY GRADED SAND, (SP) 2.5YR 7/4 light reddish brown, fine to medium grained, wet, very loose, no gravel <i>(continued)</i>		- Bentonite Chips	
 	SP		61.0	POORLY GRADED SAND, (SP) 10YR 7/6 yellow, fine to medium grained, wet, loose			
	SP		66.0	POORLY GRADED SAND, (SP) 10YR 6/8 brownish yellow, medium to coarse grained, wet, very loose, some gravel		- #10-20 Filter Sand - Sch 40 PVC 0.010 Slotted Screen	
  <u>70</u>	SP		70.0	POORLY GRADED SAND, (SP) 10YR 6/8 brownish yellow, medium to coarse grained, wet, very loose, trace fine gravel			

Well ID:MW-327 Total Depth (ft. bgs):70

PROJECT	031	
DDO IECT N		10101

PROJECT NUMBER: <u>10101451</u> SITE LOCATION: <u>W. of Cintas foundation</u>

PROJECT MANAGER: \_\_\_\_\_ Holmes

LOGGED BY: C. Mokri

DATE STARTED: 6/8/20

DATE COMPLETED: 6/8/20

DRILLING CONTRACTOR: Cascade

DRILLER: J. Asua

METHOD/RIG: Sonic TS150CC

HOLE DIAMETER (IN): 6 GROUND SURFACE ELEVATION (NAVD): 273.3 DEPTH TO WATER (ft. btoc): 24.5 on 6/16/2020 BOREHOLE USE: Monitoring Well

NOTES: PID measurement indicated where greater than 0. Well installed on 6/8, pad installed on 6/9 and well developed on 6/13.

			E		n) al	
o DEPTH (ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)	ELL DIAGRAM g Top Elev: 272.91 (ft)
	CL		7.0	LEAN CLAY, (CL) 2.5YR 6/3 light reddish brown, moist, soft, low plasticity, low dry strength, with silt, some sand		- Sch 40 PVC Blank Casing
	CL		12.0	LEAN CLAY, (CL) 2.5YR 6/3 light reddish brown, moist, soft, medium plasticity		
	CL		18.0	LEAN CLAY, (CL) 2.5YR 3/3 dark reddish brown, moist, medium stiff, medium plasticity, trace fine gravel		
20	CL		21.0	LEAN CLAY WITH SAND, (CL) 2.5YR 7/1 light reddish gray, medium plasticity, some fine gravel, lignite		
	SC		23.0	CLAYEY SAND, (SC) 2.5YR 6/8 light red, medium grained, moist, medium plasticity, trace coarse gravel		- Cement-Bentonite Grout
  _ 30	SP			POORLY GRADED SAND, (SP) 10YR 6/6 brownish yellow / dark yellowish orange, fine to medium grained, moist, loose		
	SP		32.0 36.0	POORLY GRADED SAND, (SP) 10YR 6/6 brownish yellow / dark yellowish orange, fine to medium grained, wet, loose, trace gravel		
 	GW		41.0	WELL GRADED GRAVEL WITH SAND, (GW) 10YR 5/6 yellowish brown, wet, very loose		
	sw		45.0	WELL GRADED SAND, (SW) 2.5YR 6/8 light red, wet, very loose, some fine to medium gravel		
	SP		47.0	POORLY GRADED SAND, (SP) fine to medium grained, wet, very loose, trace gravel		- Bentonite
	SW		48.0	WELL GRADED SAND, (SW) 2.5YR 7/8 light red, fine to medium grained, wet, very loose		Chips
_ 50	SP			POORLY GRADED SAND, (SP) 2.5YR 7/8 light red, fine to medium grained, wet, very loose, no gravel		
					ED BY: <u>T. Holmes</u> ED DATE: <u>7/6/20</u>	

05 DEPTH 0(ft)	U.S.C.S.	GRAPHIC LOG	LAYER DEPTH	MATERIAL DESCRIPTION	Environmental Data PID (ppm)	WELL DIAGRAM
	SP		51.0			
	SW		55.0	WELL GRADED SAND, (SW) 10YR 7/6 yellow, very loose		
  _ 60	SP		60.0	POORLY GRADED SAND, (SP) 10YR 7/6 yellow, fine to medium grained, very loose		- #10-20 Filter Sand - Sch 40 PVC 0.010 Slotted
	SP		64.0	POORLY GRADED SAND, (SP) 10YR 7/6 yellow, fine to medium grained, very loose, trace gravel		Screen
	SW		66.5	WELL GRADED SAND, (SW) 5YR 7/6 reddish yellow, wet, very loose, some gravel		
	СН			FAT CLAY, (CH) 10YR 7/6 yellow, moist, very stiff, high plasticity, high toughness		- Bentonite Chips
70			70.0	Pottom of borobala at 70.0 feat		