SOLUTIONS
mitigation banks

P 228-575-7747
F 228-575-7759

14231 Seaway Road Suite 7007
Gulfport, MS 39503

March 1, 2013

RE:USACE Permit# SAM-2012-01165-MBM

Mr. Mike Moxey
USACE, Mobile District
P.O. Box 2288
Mobile, AL 36628

Dear Mr. Moxey:

Please treat this letter as written confirmation that, in accordance with the above referenced permit, Plains SouthCap, LLC has purchased 56.64 mitigation credit(s) from Wetlands Solutions Mitigation Bank.

If you have any questions, please call me at 228.575.7747.

Very truly yours,

WETLANDS SOLUTIONS, LLC

Jessica Crosby

cc: Mr. Jan Boyd
DMR

Mr. Eric Munscher
SWCA

Mr. Tom Sankey
SWCA

Mr. Dean Gore
Plains SouthCap, LLC

BNM

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

REPLY TO
ATTENTION OF:

February 22, 2013

Mississippi Coastal Branch
Regulatory Division

SUBJECT: Department of the Army Application Number SAM-2012-01165-MBM, Plains Southcap L.L.C. Pipeline, Jackson County, Mississippi.

National Geodetic Survey, NOAA
1315 East-West Highway
Suite 8658
Silver Spring, Maryland 20910

Gentlemen:

Please find the attached Department of Army permit that was issued for a 41-mile pipeline project that crosses under tidal navigable waters on the Mississippi Coast. Using directional drilling, the project crosses under the Escatawpa River and other tidal waters which are navigable per Section 10 of the Rivers and Harbors Act. It is our understanding all permits of this nature must be provided to your agency for mapping purposes. Please not hesitate to contact me at (251) 694-3771, or by e-mail at Michael.B.Moxey@usace.army.mil should you have any questions.

For additional information about permitting and our Regulatory Program, visit our web site at www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

Sincerely,

Michael B. Moxey
Special Projects Manager
Regulatory Division

Moxey, Michael B SAM

From: Moxey, Michael B SAM
Sent: Friday, February 08, 2013 12:47 PM
To: 'Tom Sankey'; Greg Christodoulou
Cc: DGore@paalp.com; SRLee@paalp.com; Eric Munscher
Subject: Plains Southcap - Mississippi SAM-2012-01165-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Tom,
I mailed the permit for the Mississippi component of the pipeline project out this morning. I spoke with Greg Christodoulou this afternoon and he explained to me the current issues regarding your project not having obtained all the required property rights for the pipeline corridor and complications caused to the Coastal Use Permit conditions. Even though we issued a permit for a project, please note our NWP guidance (Section E. Further Conditions) states that 1) NWPs do not obviate the need to obtain other federal,, state, and local permits, approvals, or authorizations, 2) NWPs do not grant any property rights or exclusive privileges, and 3) NWPs do not authorize any injury to the property or rights of others. Our permit remains valid and hopefully you will be able to obtain the required property rights to construct the specific project that was authorized.

Thanks,
Mike Moxey

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg <http://www.sam.usace.army.mil/RD/reg> , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

-----Original Message-----
From: Tom Sankey [mailto:tsankey@swca.com]
Sent: Friday, January 18, 2013 10:00 AM
To: Greg Christodoulou
Cc: Moxey, Michael B SAM; DGore@paalp.com; SRLee@paalp.com; Eric Munscher
Subject: RE: Response to Our 1/11/13 Meeting

Greg:

I attach the response to our January 11, 2013 meeting, as requested. We'll be sending you and Mike Moxey hard copies next week via regular mail. I understand that the envelopes will be going out with today's date, so the end of the 30-day Notice Period will be February 17th.

Thanks so much for your help. We'll be in touch.

Regards,

Tom

R. Thomas Sankey, PWS, CSE

Senior Project Manager / Senior Ecologist

SWCA Environmental Consultants

7255 Langtry, Suite 100

Houston, TX 77040

713-934-9900 (office)

713-934-9906 (fax)

713-252-9291 (mobile)

Sound Science. Creative Solutions.

www.swca.com

From: Greg Christodoulou [mailto:Greg.Christodoulou@dmr.ms.gov]
Sent: Friday, January 18, 2013 8:35 AM
To: Tom Sankey
Subject: RE: Response to Our 1/11/13 Meeting

I briefed her on Tuesday with what was discussed in our 1/11 meeting and she was receptive to the avoidance and minimization activities discussed. If you have all the information we requested ready, you can e-mail it to me ASAP. Thanks!

Greg

Greg Christodoulou

MS Department of Marine Resources

Bureau of Wetlands Permitting

1141 Bayview Ave.

Biloxi, MS 39530

(228)523-4109

From: Tom Sankey [mailto:tsankey@swca.com]
Sent: Thursday, January 17, 2013 6:44 PM
To: Greg Christodoulou
Cc: Eric Munscher; DGore@paalp.com; SRLee@paalp.com
Subject: Response to Our 1/11/13 Meeting

Greg:

I did not hear back from you on Tuesday 1/15 regarding Willa Brantley's agreement with our proposal. Thus, I'm wondering what's the status? Could you give me an update tomorrow morning, via phone or email, regarding this? I am planning on sending you our response via email tomorrow in hopes that you will send out your 30-day Notice tomorrow as we agreed to at our January 11th meeting.

Please advise.

Thanks,

Tom

R. Thomas Sankey, PWS, CSE

Senior Project Manager / Senior Ecologist

SWCA Environmental Consultants

7255 Langtry, Suite 100

Houston, TX 77040

713-934-9900 (office)

713-934-9906 (fax)

713-252-9291 (mobile)

cid:image002.jpg@01CDF4A3.E3618C80

Sound Science. Creative Solutions.

www.swca.com

Classification: UNCLASSIFIED
Caveats: NONE

Moxey, Michael B SAM

From: joyce.gagliano@dmr.ms.gov
Sent: Wednesday, April 24, 2013 2:00 PM
To: SOS Bretz; SOS Dozier; SOS Carter; SOS Bryant; SOS Ruddick; SOS Dossett; DEQ large emails; Moxey, Michael B SAM
Subject: DMR-130181; Plains South Cap, LLC
Attachments: DMR-130181_001.pdf

MISSISSIPPI
DEPARTMENT OF MARINE RESOURCES

March 15, 2013

Plains South Cap, LLC
Attn: Steve Lee
333 Clay Street, Suite 1600
Houston, TX 77210-4648

RE: DMR-130181; SAM-2012-01165-MBM

Dear Mr. Lee:

The Department of Marine Resources (DMR) has reviewed your request to construct a crude oil pipeline from the Ten Mile Crude Oil Terminal approximately 11 miles northwest of Mobile, AL to the Chevron Refinery located in Pascagoula, Jackson County, MS.

In accordance with the provisions of the Mississippi Coastal Wetlands Protection Law and our findings made in compliance with Chapter Eight, Section 2, Part II.D. of the Mississippi Coastal Program, a Certificate of Waiver is issued to you this day. This Waiver does not release you from the responsibility of compliance with other state and federal regulations. These activities shall be conducted in a manner resulting in the least damaging impacts to wetlands and the coastal environment. This Waiver is hereby granted by the Executive Director on this date, provided the following conditions are agreed upon and adhered to in completing the proposed work:

1. Approximately 4,600 linear feet of 24-inch diameter crude oil pipeline shall be installed by means of horizontal directional boring beneath the Lower Escatawpa River and adjacent wetlands with entry at 30° 24' 58.107" N, -88° 28' 58.269" W and exit at 30° 25' 35.748" N, -88° 29' 27.272" W as indicated on the attached diagrams;

2. Approximately 1,800 linear feet of 24-inch diameter crude oil pipeline shall be installed by means of horizontal directional boring beneath Little Black Creek and adjacent wetlands with entry at 30° 26' 18.340" N, -88° 29' 41.670" W and exit at 30° 26' 36.370" N, -88° 29' 43.260" W as indicated on the attached diagrams;

3. Approximately 1,800 linear feet of 24-inch diameter crude oil pipeline shall be installed by means of open trenching of tidal wetlands adjacent to the Escatawpa River commencing at 30° 25' 35.748" N, -88° 29' 27.272" W and ending at approximately 30° 25' 51.87" N, -88° 29' 36.79" W as indicated on the attached diagrams;

4. Approximately 2,800 linear feet of 24-inch crude oil pipeline shall be installed by means of open trenching of non-tidal wetlands adjacent to Little Black Creek commencing at 30° 25' 51.87" N, -88° 29' 36.79" W and ending at 30° 26' 18.340" N, -88° 29' 41.670' W as indicated on the attached diagrams;

5. All excess excavated material should be deposited in an approved upland disposal site, and there will be no change in preconstruction contours, elevation, or grade. In tidal marsh areas adjacent to the Escatawpa River, impacted areas should be restored based on the requirements set forth in the attached document titled: *Marsh Restoration Success Guidelines*. A written report shall be provided to DMR upon pipe installation documenting pre- and post- installation site conditions with fixed photo stations every 600 feet of the 1,800 feet open-trenched marsh area. Thereafter, marsh restoration monitoring reports

shall be submitted yearly until all success criteria have been satisfied. These reports shall be received in the DMR offices by October 1 of each year;

6. Including the above authorized impacts, approximately 105.49 acres of non-tidal wetlands shall be impacted as a result of mechanized land clearing, temporary trenching and side-casting of fill, and temporary and permanent conversion of forested wetlands to scrub-shrub/herbaceous/emergent wetlands;

7. As mitigation for the impacts authorized in condition #6 above, the applicant shall purchase the appropriate number of mitigation credits to offset the above authorized temporary impacts and temporary/permanent conversion of wetlands. The credit purchase must be completed prior to commencement of construction and proof of purchase of mitigation credits from an approved mitigation bank within the service area (as determined by the Mitigation Bank Review Team) must be submitted to this office;

8. All temporary work pads, access roads, and mats shall be removed following completion of pipeline installation;

9. Impacted areas must be replanted with naturally occurring indigenous species if the area has not re-vegetated to pre-project conditions within 1 year of project completion;

10. No additional crude oil pipelines, natural gas pipelines, electrical transmission lines, water/sewer transmission lines, fiber-optic cable, etc. within the crude oil pipeline right-of-way described in the submitted application is authorized by this Waiver;

11. Prior to the commencement of construction, permittee must submit to the DMR a copy of the Tidelands Lease as required by the Secretary of State and as filed in the subject County Land Records, or a statement from the Secretary of State that the permitted activity does not require a Tidelands Lease;

12. Best Management Practices shall be used at all times during construction;

13. No construction debris or unauthorized fill material shall be allowed to enter coastal wetlands or waters; and,

14. Vegetated wetlands outside of the pipeline right-of-way and right-of-way access areas shall not be impacted and no permanent wetland impacts are authorized by this Waiver.

This authorization is contingent on Water Quality Certification from the Mississippi Department of Environmental Quality (DEQ) and the Permittee shall maintain all water quality standards, regulations, and restrictions as set forth by the DEQ.

Any deviations beyond the restrictive conditions as set forth in your permit shall be considered a violation and may result in the revocation of the permit. Violations of these conditions may be subject to fines, project modifications and/or site restoration. Both the permittee and the contractor may be held liable for conducting unauthorized work. A modification to these conditions may be requested by submitting a written request along with a revised project diagram to DMR. *Proposed modifications to dimensions, project footprint, and/or procedures must be approved in writing prior to commencement of work.*

Issuance of this certification by DMR and acceptance by the applicant does not release the applicant from other legal requirements including but not limited to other applicable federal, state or local laws, ordinances, zoning codes or other regulations.

This certification conveys no title to land and water, does not constitute authority for reclamation of coastal wetlands and does not authorize invasion of private property or rights in property.

Please notify this Department upon completion of the permitted project so that compliance checks may be conducted by DMR staff.

This certification shall become effective upon acceptance by the applicant and receipt of the executed copy by the Director.

Please execute this certification by signing both documents and returning the copy to the Department of Marine Resources.

Work authorized by this certification must be completed on or before **March 15, 2018**.

Enclosed is a "Notice of Compliance" which must be conspicuously displayed at the site during construction of the permitted work.

The Department of Marine Resources has also coordinated a review of your project through the Coastal Program review procedures and determined that the project referenced above is consistent with the Mississippi Coastal Program, provided that you comply with the noted conditions and reviewing coastal program agencies do not disagree with said plans. By copy of this certification, we are notifying the U.S. Army Corps of Engineers of this determination.

THE PERMITTEE BY ACCEPTANCE OF THIS PERMIT AGREES TO ABIDE BY THE STIPULATIONS AND CONDITIONS CONTAINED HEREIN AND AS DESCRIBED BY THE PLANS AND SPECIFICATIONS SUBMITTED AS PART OF THE COMPLETED APPLICATION.

STATE OF MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

Willa J. Brantley
Bureau Director, Wetlands Permitting

Accepted this the _____ day of _____, A.D., 20_____

By: _____
Applicant

WJB/gsc

Enclosures

cc: Mr. Mike Moxey, USACE
Ms. Florance Watson, OPC
Mr. Raymond Carter, SOS

1/21/03

Marsh Restoration Success Guidelines

1. The site must have access to normal hydrology from regular tidal inundations.
2. Marsh grade should be restored to pre-impact level using the least destructive method possible such as hand tools.
3. The restoration area should be sprigged with Black Needle Rush (*Juncus roemarianus*) or other appropriate wetlands species as approved by DMR staff. Plant spacing should not exceed 4 feet. No more than 1 sprig per square yard shall be taken from an existing marsh. Sprigs should not exceed 4 by 4 inches wide by 6 inches deep. Bulb planters or sharp shooter shovels can be used to obtain and plant sprigs.
4. The herbaceous layer should have a minimum of 95% coverage of Black Needle Rush (*Juncus roemarianus*) or other appropriate wetlands species as approved by DMR staff after a period of 5 years.
5. The site should be monitored for 5 years during the spring and fall with reports generated once a year and received at the DMR office by October 1st for the preceding year's monitoring. Permit number and applicant name must be noted on the monitoring report cover. If success criteria are met prior to the 5-year deadline, monitoring and annual reports may be discontinued with written approval of DMR staff.

Marsh Creation Success Guidelines

1. The site must have access to normal hydrology from regular tidal inundations.
2. Marsh creation area must be graded to the level of adjacent tidal marsh, or approximately 0.21 m from MLW. The elevation should be sufficient to allow inundation of the site at least weekly in most cases. Site should be graded to have a gentle slope from landward edge to water. Work should be done using the least destructive method possible.
3. The creation area should be sprigged with Black Needle Rush (*Juncus roemarianus*) or other appropriate wetlands species as approved by DMR staff. Plant spacing should not exceed 4 feet. No more than 1 sprig per square yard shall be taken from an existing marsh. Sprigs should not exceed 4 by 4 inches wide by 6 inches deep. Bulb planters or sharp shooter shovels can be used to obtain and plant sprigs.
4. The herbaceous layer should have a minimum of 95% coverage of Black Needle Rush (*Juncus roemarianus*) or other appropriate wetlands species as approved by DMR staff after a period of 5 years.
5. The site should be monitored for 5 years during the spring and fall with reports generated once a year and received at the DMR office by October 1st for the preceding year's monitoring. Permit number and applicant name must be noted on the monitoring report cover. If success criteria are met prior to the 5-year deadline, monitoring and annual reports may be discontinued with written approval of DMR staff.

MISSISSIPPI

Department of Marine Resources

NOTICE OF COMPLIANCE
DMR- 130181 GENERAL PERMIT **DATE: March 15, 2013**
THIS NOTICE ACKNOWLEDGES THAT:

Plains South Cap, LLC
Attn: Steve Lee
333 Clay Street, Suite 1600
Houston, TX 77210-4648

HAS, THROUGH APPLICATION TO THIS DEPARTMENT, DULY COMPLIED WITH THE MISSISSIPPI COASTAL WETLANDS PROTECTION LAW TO:

1. Approximately 4,600 linear feet of 24-inch diameter crude oil pipeline shall be installed by means of horizontal directional boring beneath the Lower Escatawpa River and adjacent wetlands with entry at 30° 24' 58.107" N, -88° 28' 58.269" W and exit at 30° 25' 35.748" N, -88° 29' 27.272" W as indicated on the attached diagrams;
2. Approximately 1,800 linear feet of 24-inch diameter crude oil pipeline shall be installed by means of horizontal directional boring beneath Little Black Creek and adjacent wetlands with entry at 30° 26' 18.340" N, -88° 29' 41.670" W and exit at 30° 26' 36.370" N, -88° 29' 43.260" W as indicated on the attached diagrams;
3. Approximately 1,800 linear feet of 24-inch diameter crude oil pipeline shall be installed by means of open trenching of tidal wetlands adjacent to the Escatawpa River commencing at 30° 25' 35.748" N, -88° 29' 27.272" W and ending at approximately 30° 25' 51.87" N, -88° 29' 36.79" W as indicated on the attached diagrams;
4. Approximately 2,800 linear feet of 24-inch crude oil pipeline shall be installed by means of open trenching of non-tidal wetlands adjacent to Little Black Creek commencing at 30° 25' 51.87" N, -88° 29' 36.79" W and ending at 30° 26' 18.340" N, -88° 29' 41.670' W as indicated on the attached diagrams;
5. All excess excavated material should be deposited in an approved upland disposal site, and there will be no change in preconstruction contours, elevation, or grade. In tidal marsh areas adjacent to the Escatawpa River, impacted areas should be restored based on the requirements set forth in the attached document titled: *Marsh Restoration Success Guidelines*. A written report shall be provided to DMR upon pipe installation documenting pre- and post- installation site conditions with fixed photo stations every 600 feet of the 1,800 feet open-trenched marsh area. Thereafter, marsh restoration monitoring reports shall be submitted yearly until all success criteria have been satisfied. These reports shall be received in the DMR offices by October 1 of each year;
6. Including the above authorized impacts, approximately 105.49 acres of non-tidal wetlands shall be impacted as a result of mechanized land clearing, temporary trenching and side-casting of fill, and temporary and permanent conversion of forested wetlands to scrub-shrub/herbaceous/emergent wetlands;
7. As mitigation for the impacts authorized in condition #6 above, the applicant shall purchase the appropriate number of mitigation credits to offset the above authorized temporary impacts and temporary/permanent conversion of wetlands. The credit purchase must be completed prior to commencement of construction and proof of purchase of mitigation credits from an approved mitigation bank within the service area (as determined by the Mitigation Bank Review Team) must be submitted to this office;
8. All temporary work pads, access roads, and mats shall be removed following completion of pipeline installation;
9. Impacted areas must be replanted with naturally occurring indigenous species if the area has not re-vegetated to pre-project conditions within 1 year of project completion;
10. No additional crude oil pipelines, natural gas pipelines, electrical transmission lines, water/sewer transmission lines, fiber-optic cable, etc. within the crude oil pipeline right-of-way described in the submitted application is authorized by this Waiver;
11. Prior to the commencement of construction, permittee must submit to the DMR a copy of the Tidelands Lease as required by the Secretary of State and as filed in the subject County Land Records, or a statement from the Secretary of State that the permitted activity does not require a Tidelands Lease;
12. Best Management Practices shall be used at all times during construction;
13. No construction debris or unauthorized fill material shall be allowed to enter coastal wetlands or waters; and,
14. Vegetated wetlands outside of the pipeline right-of-way and right-of-way access areas shall not be impacted and no permanent wetland impacts are authorized by this Waiver.

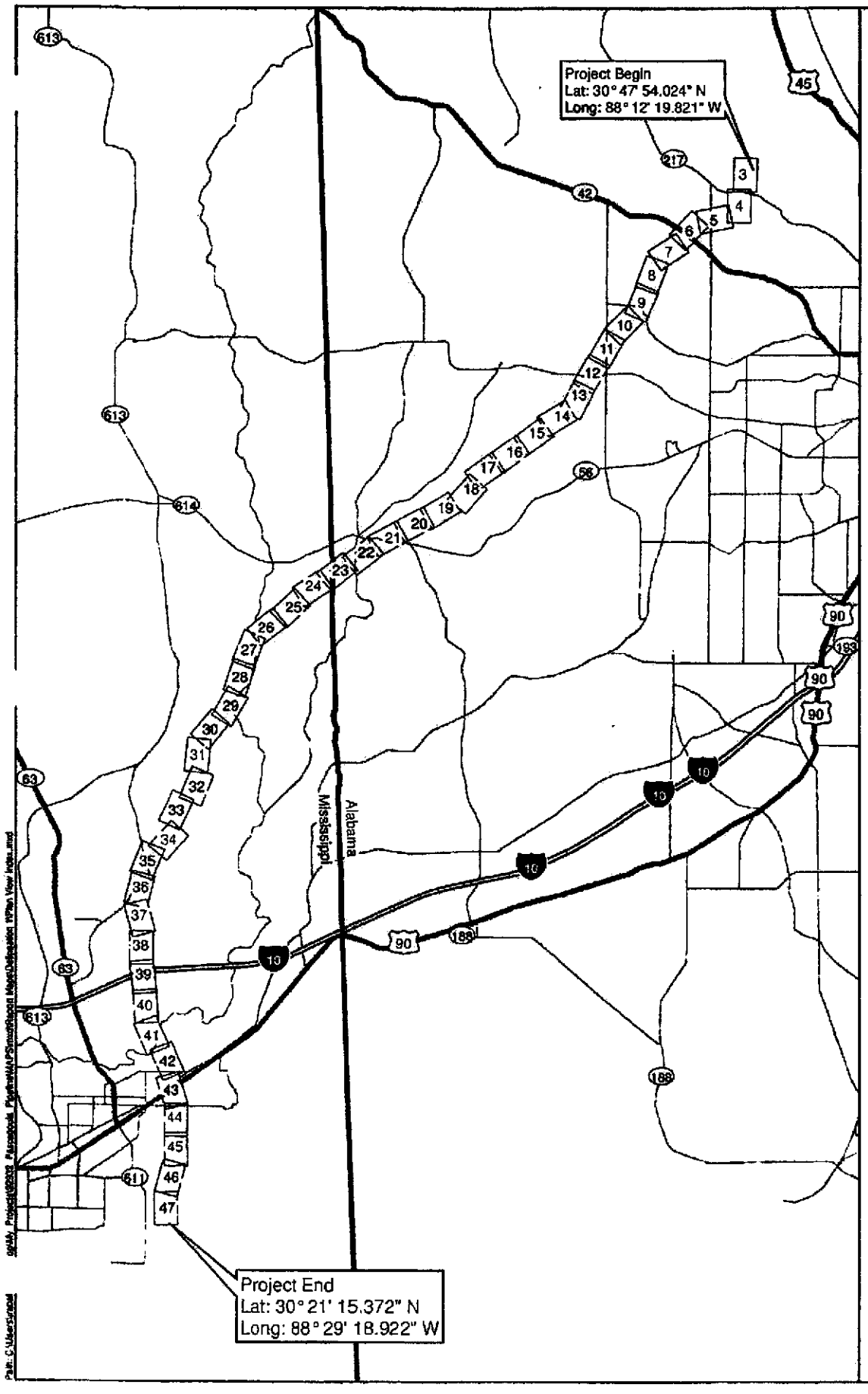
Lower Escatawpa River (and adjacent tidal wetlands), Little Black Creek, and non-tidal USACE jurisdictional wetlands and Section 10 waters located in Jackson County, Mississippi.

No construction debris or unauthorized fill material shall be allowed to enter coastal wetlands or waters.

FURTHERMORE, THIS PROJECT AS PROPOSED HAS BEEN FOUND TO BE CONSISTENT WITH ALL GUIDELINES FOR CONDUCT OF REGULATED ACTIVITIES IN COASTAL WETLANDS AS SET FORTH IN THE MISSISSIPPI COASTAL PROGRAM.

Bureau Director, Wetlands Permitting

POST THIS NOTICE CONSPICUOUSLY AT SITE OF WORK



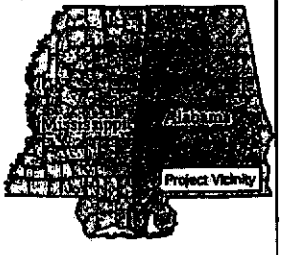
PLAINS SOUTHCAP L.L.C.

PLAN VIEW INDEX
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

JACKSON COUNTY, MS
MOBILE COUNTY, AL

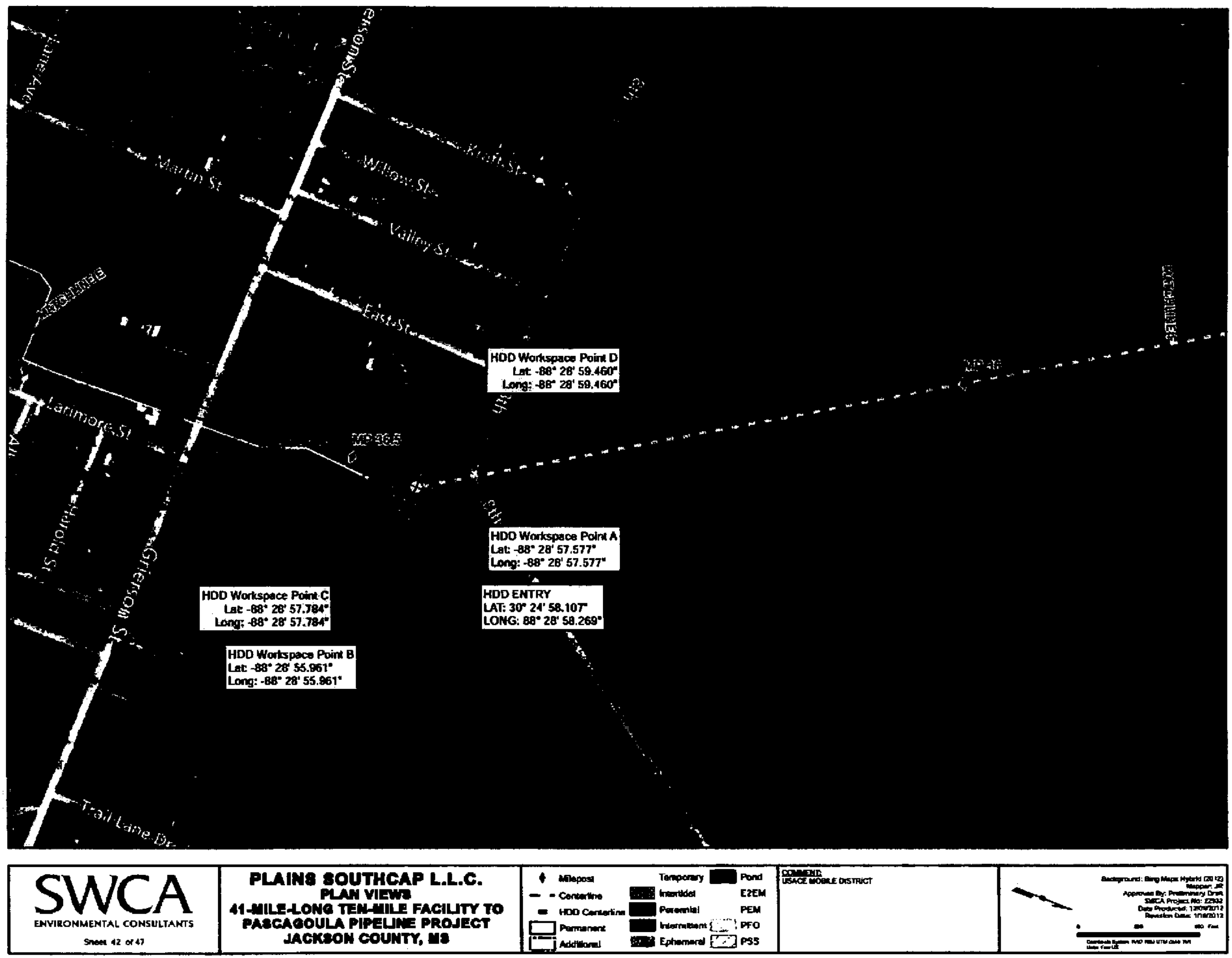
LEGEND

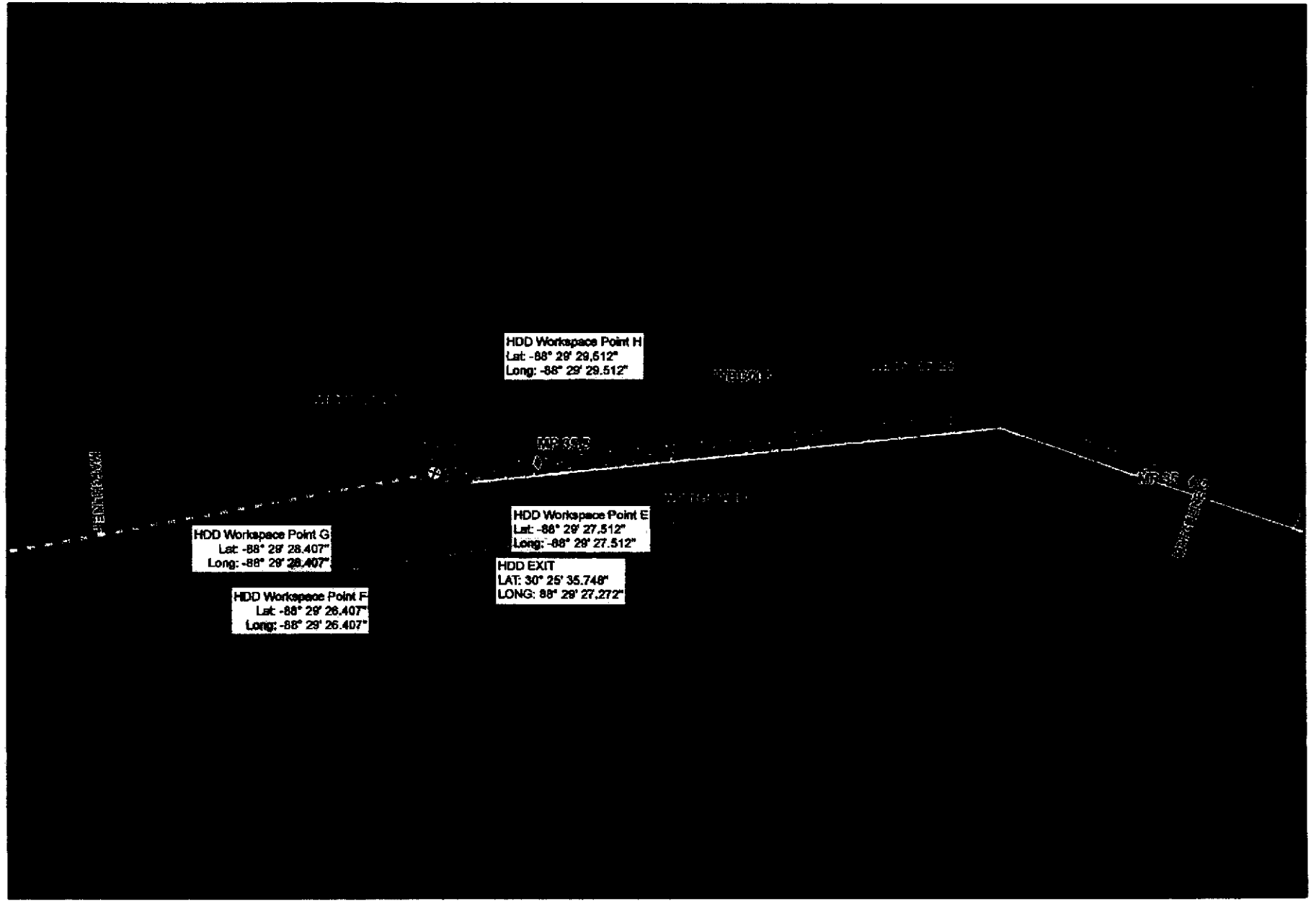
Plan View



0 2 4 Miles

SWCA
ENVIRONMENTAL CONSULTANTS


Grierson St
Kraft St
Willow St
Valley St
East St
Martin St
Larimore St
Harold St
Trail Lane Dr
Lane Ave
HDD Workspace Point D
Lat: -88° 28' 59.460"
Long: -88° 28' 59.460"
HDD Workspace Point A
Lat: -88° 28' 57.577"
Long: -88° 28' 57.577"
HDD ENTRY
LAT: 30° 24' 58.107"
LONG: 88° 28' 58.269"
HDD Workspace Point C
Lat: -88° 28' 57.784"
Long: -88° 28' 57.784"
HDD Workspace Point B
Lat: -88° 28' 55.961"
Long: -88° 28' 55.961"
MP 46
SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 42 of 47
PLAINS SOUTHCAP L.L.C.
PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO
PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS
Milepost
Centerline
HDD Centerline
Permanent
Additional
Temporary
Intertidal
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS
COMMENT:
USACE MOBILE DISTRICT
Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 12/09/2012
Revision Date: 1/18/2012

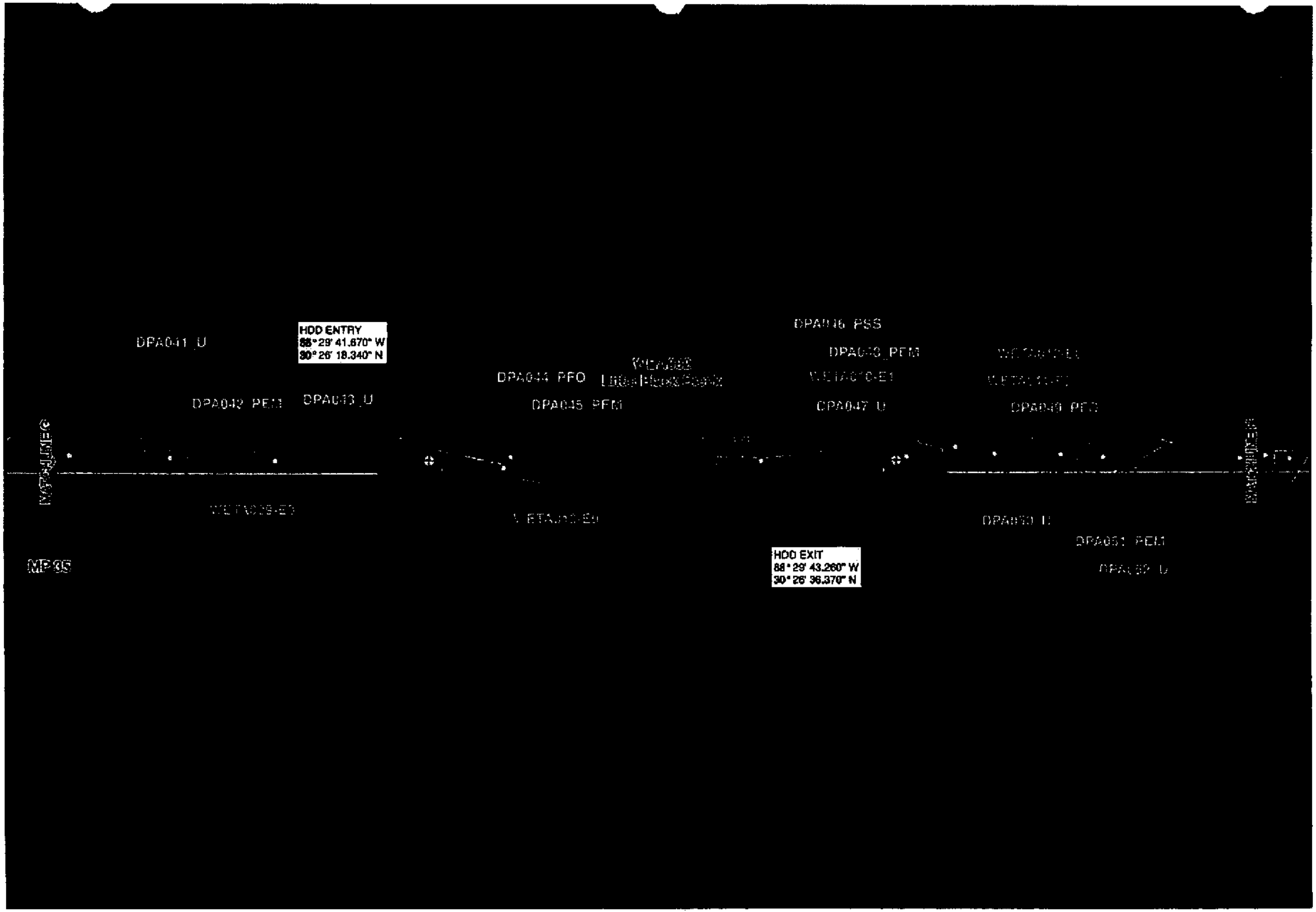


SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 41 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Milepost
Centerline
HDD Centerline
Permanent
Additional
Temporary
Intertidal
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS

COMMENT
USACE MOBILE DISTRICT



SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 40 of 47

PLAINS SOUTHCAP L.L.C.
WETLAND DELINEATION MAP
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

February 7, 2013

REPLY TO
ATTENTION OF:

Coastal Branch
Regulatory Division

SUBJECT: Department of the Army Application Number SAM-2012-01165-MBM, Plains Southcap L.L.C. – Mississippi, Jackson County, Alabama.

Plains Southcap, L.L.C.
C/o SWCA Environmental Consultant
Attention: Mr. R. Thomas Sankey
7255 Langtry, Suite 100
Houston, Texas 77040

Dear Mr. Sankey:

This letter is in response to your September 12, 2012, request for a Department of the Army (DA) permit to construct a 41-mile crude oil pipeline starting at the Plains Ten-Mile Crude Oil Facility in Mobile Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest to Pascagoula, Mississippi. The Mississippi segment of the pipeline application has been assigned number SAM-2012-01165-MBM which should be referred to in all future correspondence with this office. The Mississippi segment of the project starts at the Eli Dudley Road at the Alabama/Mississippi state line at 30.622880 North, -88.407197 West, follows an existing utility corridor to the west, crosses twice under Section 10 reaches of the Escatawpa River, and ends at the Chevron facility at 30.355411 North, -88.488546 West, Pascagoula, Mississippi.

DA permit authorization is necessary because your pipeline project requires trenching of 11 stream crossings causing temporary impacts to a total of 278 linear feet of stream, and crosses 128 wetland polygons causing temporary impacts to a total of 105.49 acres of wetlands as a result of mechanized land-clearing, temporary trenching and side-casting of fill, and temporary and permanent conversion of bottomland hardwood wetlands to shrub-scrub and emergent wetlands. To minimize impacts to larger navigable waters, horizontal directional drilling will be used to place the pipeline across the Escatawpa River at 2 locations as well as under Little Black Creek and Black Creek, which are all Section 10 waters. All temporary stream impacts are within tributaries to the Escatawpa River, tributaries to Black Creek, tributaries to Little Black creek, tributaries to Bayou Cumbest, and tributaries to Bangs Lake. The wetland impacts are within the larger wetland systems adjacent to these waterbodies. The attached Table 1 identifies the permanent and temporary impacts to waters of the U.S. for the Mississippi segment of the pipeline. The attached Table 2 identifies all permanent habitat conversion impacts to bottomland hardwood wetlands requiring compensatory mitigation in accordance with the Mobile District's mitigation guidance for Converted Wetland Habitat Right-of-way for a Typical Linear Project with

Typical Recommendation for Compensation due to Vegetation Conversion. The applicant provides that they will purchase the required 56.64 bottomland hardwood compensatory mitigation credits reflected on Table 2 from the Wetland Solutions George County Mitigation Bank in George County, Mississippi.

Based upon the information and plans you provided, we hereby verify that the work described above, which would be performed in accordance with the attached drawings, is authorized by Nationwide Permit (NWP) 12, *Utility Line Activities*, in accordance with 33 CFR Part 330 of our regulations. As detailed in the enclosed Table 1, sixteen separate NWP 12 verifications are provided. All impacts and crossings of a single water of the United States at a specific location is considered a single and complete project. Impacts associated with each waterbody and adjacent wetland was verified as a single and complete project. NWP 12 project verification numbers are identified in column one of Table 1. NWP 12 and its associated regional and general conditions are available at: www.sam.usace.army.mil/rd/reg/.

You must comply with all of the regional and general conditions and any project specific conditions of these verifications or you may be subject to enforcement action. In the event you have not completed construction of your project within the specified time limit, a separate application or re-verifications may be required. These verifications are valid for **two years** from the date of this document and are subject to all terms and conditions associated with NWP 12, as well as with the special conditions. The following special conditions apply to each of the sixteen NWP 12 verifications identified in Table 1:

a. You shall comply with all the terms and conditions of the Mississippi Department of Environmental Quality Section 401 Water Quality Certification for Nationwide Permit 12. This document can be viewed and downloaded from our website at www.sam.usace.army.mil/RD/reg/nwp.htm for your review and compliance, or at your request a paper copy will be provided to you.

b. No work may begin until you have obtained a Coastal Use Permit or waiver from the Mississippi Department of Marine Resources.

c. Prior to any impacts to waters of the United States, the permittee shall submit to this office of the U.S. Army Corps of Engineers proof-of-purchase of the 56.64 bottomland hardwood wetland mitigation credits from an approved wetland mitigation bank in Mississippi. As shown in the attached Table 2, mitigation shall compensate for the following: 1) temporary impacts to 32.118175 acres of bottomland hardwood wetlands allowed to return to bottomland hardwood wetlands at a ratio of 0.25:1, 3) impacts to 17.159058 acres of bottomland hardwood wetlands permanently converted to scrub-shrub wetlands at a ratio of 0.5:1, and 4) impacts to 40.026231 acres of bottomland hardwood wetlands permanently converted to emergent wetlands at a ratio of 1:1.

d. The project shall avoid impacts to larger Section 10 waterbodies using horizontal directional drilling. These waterbodies include Black Creek, Little Black Creek, and the Escatawpa River at two locations. All entry work pads (200' by 200"), and exit work pads

(250' by 200') will be removed and the wetlands fully restored unless it is located in the permanently maintained right-of-way and requires wetland conversion mitigation. See condition e.3.regarding temporary impacts in tidal marsh.

1) The pipeline shall cross under the upper Escatawpa River at 30° 25'18.30" North, 88° 29'17.26" West. Direction drilling will start at 30° 25'12.61" North, 88° 29'14.06" West, directional bore 25 feet below the river bottom, and resurface at 30° 25'21.84" North, 88° 29'19.26" West.

2) The pipeline shall cross under the lower Escatawpa River at 30° 25'18.07" North, 88° 29'13.21" West . Direction drilling will start at 30° 24'58.107" North, 88° 28'58.269" West, directional bore 69.5 feet below the river bottom, and resurface at 30° 25'35.748" North, 88° 29'27.272" West.

3) The pipeline shall cross under Little Black Creek at 30° 26'30.15" North, 88° 29'42.71" West. Direction drilling will start at 30° 26'18.34" North, 88° 29'41.67" West, directional bore 25 feet below the river bottom, and resurface at 30° 26'36.37" North, 88° 29'43.26" West.

4) The pipeline shall cross under Black Creek at 30° 29'57.69" North, 88° 29'49.05" West. Direction drilling will start at 30° 29'47.06" North, 88° 29'50.86" West, directional bore 31 feet below the river bottom, and resurface at 30° 29'59.52" North, 88° 29'47.43" West.

5) The permitee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

6) You must notify the National Ocean Service, in writing, at least two weeks before work begins, and upon completion. You may contact them at Charting and Geodetic Services N/CG222, National Ocean Service NOAA, Rockville, Maryland 20852.

e. No permanent wetland fill impacts are authorized. All temporary impacts to waters of the United States reflected on Table 1 that are not mitigated for as shown on Table 2, shall be fully restored to pre-impact elevation, contours, and ecological condition .

1) For all temporary trenching impacts in wetlands, the top 6 to 12 inches of removed topsoil will be backfilled as topsoil. Wetlands will be restored to pre-impact elevation, contours, and ecological condition. Sites will be allowed to revegetate naturally unless monitoring reflects the site is not returning to pre-impact ecological condition and requires active management. If active management is necessary, the applicant will develop a wetland mitigation plan for restoring these areas. No exotic invasive species shall be present.

2) Each temporarily impacted stream must be restored to pre-impact pattern, profile, and dimension. For each stream crossing, stream banks will be immediately stabilized upon completion of the utility line installation.

3) For projects impacts requiring restoration of tidal marsh wetlands, the restoration area will be sprigged with black needle rush (Juncus roemarianus) or other marsh species found in wetlands contiguous to the site. Initial plant spacing will not exceed 4 feet apart. No more than one sprig per square yard shall be taken from adjacent donor marshes. Sprigs will not exceed 4 by 4 inches wide by 6 inches deep. Sharpshooter shovels or bulb planters will be utilized to transplant sprigs. The restored site shall have 95% coverage of tidal marsh plants at the end of 5 years.

4) Annual monitoring reports shall be provided for 5 years demonstrating all temporary impacts to wetlands and streams are been returned to pre-impact elevation, contours, and ecological condition. The USACE shall be responsible for making the determination on the success of these areas returning to pre-impact condition. If the temporary impacts to wetlands and streams are not demonstrating achieving this goal, the permittee shall provide an alternative mitigation strategy which may include the purchase of additional mitigation credits from an approved wetland mitigation bank.

f. Should artifacts or archaeological features be encountered during project activities, work shall cease and the permittee shall immediately contact this office at 251-694-3771. The Mobile District will coordinate any findings with the Mississippi State Historic Preservation Officer. This stipulation shall be placed on the construction plans, and it is the permittee's responsibility to ensure that contractors are aware of this requirement.

g. All excavation and fill activities shall be performed in a manner that minimizes disturbance and turbidity increases in "waters of the United States" and wetlands; and shall be retained in a manner to preclude its erosion into any adjacent wetlands or waterway. Appropriate erosion and siltation control measures must be used and maintained in effective operating condition during construction and until such time as the disturbed wetlands and stream banks are revegetated with native wetland species either through natural processes or artificial planting.

h. Material resulting from trench excavation may be temporarily side cast into waters of the United States for no more than three months, and must be placed and stabilized in such a manner that it will not be dispersed by currents or other forces. Onsite soils from the excavated trench should be used as backfill material. After returning the impacted areas to pre-impact elevation and contours, excess soils must be deposited in an upland disposal site.

i. The disposal of trees, brush and other debris in any stream corridor, wetland or surface water is prohibited. No sewage, oil, refuse, or other pollutants shall be discharged into the watercourse.

j. The movement of equipment within wetlands shall be limited to the minimum necessary to accomplish the work authorized herein. All equipment required to traverse through wetland areas shall be supported on mats or other appropriate measures shall be implemented to minimize soil compaction, rutting, and other damage to wetlands.

k. Project construction shall be conducted in such a manner the passage of normal and expected high flows of surface water runoff outside the project boundaries is not restricted or otherwise altered.

l. It is the responsibility of the permittee to ensure that all contractors working on this project are aware of all regional, general, and project specific conditions of this NWP. A copy of the permit and its general and special conditions shall remain on site at all times during construction.

If you commence or are under contract to commence this activity before the date the relevant NWP is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP permit. The statements contained herein do not convey any property rights, or any exclusive privileges and does not authorize any injury to property or obviate the requirements to obtain other local, State or Federal assent required by law. Nothing in this letter shall be construed as excusing you from compliance with other Federal, State, or local statutes, ordinances, or regulations which may affect this work.

Please note, NWP General Condition 26 (*Compliance Certification*) requires that every permittee who has received NWP verification must submit a signed certification regarding the completed work and any required mitigation within 60 days of having completed the authorized work. The enclosed Compliance Certification card may be utilized for that purpose.

The permittee shall also notify the U.S. Army Corps of Engineers, Mobile District Regulatory Division in writing upon commencement of work authorized by this permit. The enclosed Commencement Certification card may be use for that purpose. Such notification must be provided within 5 days of initiation of the authorized work. The enclosed yellow Notice of Authorization card must be posted at the site during construction of the authorized activity.

A copy of this permit is being provided to the Mississippi Department of Marine Resources, Bureau of Wetlands Permitting and Mitigation, Attention: Mr. Greg Christodoulou, 1141 Bayview Avenue, Biloxi, Mississippi 39530; and Charting and Geodetic Services N/CG222, National Ocean Service NOAA, Rockville, Maryland 20852.

Please contact me at (251) 694-3771, or by e-mail at Michael.b.moxey@usace.army.mil if you have any questions. For additional information about our Regulatory Program, visit our web site at www.sam.usace.army.mil/Missions/Regulatory.aspx, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

Sincerely,

Michael B. Moxey
Team Leader, Inland South
Regulatory Division

Enclosures

2/12/2013
M. MOXEY/3771/a[illegible]

FILE

When the structures or work authorized by this nationwide permit SAM-2012-01165-MBM are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

_____ _____

(TRANSFEREE) (DATE)

Table 1 Waters of U.S 1/4

NWP #	Waters_Name	Local_Waterway	Cowardin_Code	HGM_Code	Amount	Units	Waters_Types	Latitude	Longitude
1	WBA001	Tributary to Bangs Lake	E2	RIVERINE	0.039236	ACRE	RPW	30.362182	-88.48339
2	WBA002	Little Black Creek	R1	RIVERINE	0.543211	ACRE	TNW	30.441708	-88.495197
2	WBA003	Tributary To Black Creek	E2	RIVERINE	0.011978	ACRE	RPW	30.453436	-88.496383
2	WETA010-E0	Little Black Creek	PEM	RIVERINE	1.049453	ACRE	RPWWD	30.440285	-88.495076
2	WETA010-E1	Little Black Creek	PEM	RIVERINE	0.056191	ACRE	RPWWD	30.442042	-88.495287
2	WETA011-E0	Little Black Creek	PEM	DEPRESS	0.011453	ACRE	NRPWW	30.443978	-88.495433
2	WETA012-E0	Little Black Creek	PEM	RIVERINE	0.396934	ACRE	NRPWW	30.445744	-88.495528
2	WETA013-E0	Tributary To Black Creek	PEM	RIVERINE	0.392974	ACRE	NRPWW	30.447735	-88.495693
2	WETA015-E0	Tributary To Black Creek	PEM	MINSOILFLT	0.216332	ACRE	NRPWW	30.457139	-88.496995
2	WETA016-E0	Tributary To Black Creek	PEM	MINSOILFLT	0.362438	ACRE	NRPWW	30.459757	-88.497489
2	WETA017-E0	Tributary To Black Creek	PEM	RIVERINE	0.095255	ACRE	NRPWW	30.46169	-88.497469
2	WETA018-E0	Tributary To Black Creek	PEM	LACUSTRINF	0.250255	ACRE	NRPWW	30.464251	-88.497492
2	WETA019-E0	Tributary To Black Creek	PEM	RIVERINE	0.004676	ACRE	NRPWW	30.467774	-88.497582
2	WETA020-E0	Tributary To Black Creek	PEM	RIVERINE	0.079487	ACRE	NRPWW	30.473183	-88.497439
2	WETA010-F0	Little Black Creek	PFO	RIVERINE	0.037304	ACRE	RPWWN	30.439109	-88.49493
2	WETA011-F0	Little Black Creek	PFO	DEPRESS	0.183765	ACRE	NRPWW	30.444467	-88.49542
2	WETA013-F0	Tributary To Black Creek	PFO	RIVERINE	0.196485	ACRE	NRPWW	30.447669	-88.495692
2	WETA015-F0	Tributary To Black Creek	PFO	MINSOILFLT	0.161557	ACRE	NRPWW	30.45683	-88.496877
2	WETA016-F0	Tributary To Black Creek	PFO	MINSOILFLT	0.235135	ACRE	NRPWW	30.459863	-88.497403
2	WETA017-F0	Tributary To Black Creek	PFO	RIVERINE	0.364629	ACRE	NRPWW	30.462052	-88.497486
2	WETA019-F0	Tributary To Black Creek	PFO	RIVERINE	1.436872	ACRE	NRPWW	30.469093	-88.49745
2	WETA020-F0	Tributary To Black Creek	PFO	RIVERINE	0.499755	ACRE	NRPWW	30.472718	-88.497456
2	WETA021-F0	Tributary To Black Creek	PFO	RIVERINE	0.369242	ACRE	RPWWD	30.481021	-88.499277
2	WETA010-S0	Little Black Creek	PSS	RIVERINE	0.0499	ACRE	RPWWD	30.441587	-88.495169
2	WETA010-S1	Little Black Creek	PSS	RIVERINE	0.359759	ACRE	RPWWD	30.442305	-88.49524
3	WBA004	Tributary To Escatawpa River	E2	RIVERINE	0.064011	ACRE	RPW	30.480699	-88.49896
3	WETA007-E0	Tributary To Escatawpa River	PEM	ORGSOILFLT	0.474504	ACRE	RPWWN	30.431844	-88.49427
3	WETA008-E0	Tributary To Escatawpa River	PEM	DEPRESS	0.24165	ACRE	NRPWW	30.43346	-88.494469
3	WETA009-E0	Tributary To Escatawpa River	PEM	ORGSOILFLT	0.725599	ACRE	NRPWW	30.435953	-88.494658
3	WETA007-F0	Tributary To Escatawpa River	PFO	MINSOILFLT	0.392852	ACRE	RPWWN	30.431225	-88.493924
3	WETA008-F0	Tributary To Escatawpa River	PFO	DEPRESS	0.114998	ACRE	NRPWW	30.433225	-88.494449
4	WBA007	Trib to Escatawpa	E2	RIVERINE	0.02544	ACRE	RPW	30.541568	-88.471532
5	WETB003-E0	Escatawpa River	PEM	RIVERINE	0.282325	ACRE	NRPWW	30.582393	-88.450722
5	WETB005-E0	Escatawpa River	PEM	RIVERINE	0.007548	ACRE	NRPWW	30.57315	-88.454164
5	WETB007-E0	Escatawpa River	PEM	RIVERINE	0.019697	ACRE	NRPWW	30.570067	-88.455222
5	WETB008-E0	Escatawpa River	PEM	RIVERINE	0.302254	ACRE	RPWWN	30.602683	-88.436931
5	WETB009-E0	Escatawpa River	PEM	DEPRESS	0.025485	ACRE	NRPWW	30.614783	-88.422012
5	WETC028-E0	Escatawpa River	PEM	RIVERINE	0.106415	ACRE	NRPWW	30.588061	-88.448668
5	WETC030-E0	Escatawpa River	PEM	RIVERINE	1.483488	ACRE	RPWWD	30.5956	-88.445599
5	WETC030-E1	Escatawpa River	PEM	RIVERINE	0.006358	ACRE	RPWWD	30.598805	-88.442462
5	WETC030-E2	Escatawpa River	PEM	RIVERINE	0.08224	ACRE	RPWWD	30.599426	-88.441593
5	WETB003-F0	Escatawpa River	PFO	RIVERINE	1.07348	ACRE	NRPWW	30.582502	-88.45055
5	WETB004-F0	Escatawpa River	PFO	RIVERINE	1.265763	ACRE	RPWWD	30.576724	-88.452742
5	WETB004-F1	Escatawpa River	PFO	RIVERINE	0.049036	ACRE	RPWWD	30.578248	-88.452185

5	WETB004-F2	Escatawpa River	PFO	RIVERINE	0.03734	ACRE	RPWWD	30.578351	-88.452137
5	WETB004-F3	Escatawpa River	PFO	RIVERINE	0.06832	ACRE	NRPWW	30.578483	-88.452087
5	WETB004-F4	Escatawpa River	PFO	RIVERINE	0.086014	ACRE	NRPWW	30.57868	-88.452028
5	WETB006-F0	Escatawpa River	PFO	RIVERINE	0.179267	ACRE	NRPWW	30.571028	-88.454834
5	WETB008-F0	Escatawpa River	PFO	RIVERINE	4.442759	ACRE	RPWWD	30.603653	-88.435373
5	WETB009-F0	Escatawpa River	PFO	DEPRESS	0.526511	ACRE	NRPWW	30.614325	-88.42225
5	WETC028-F0	Escatawpa River	PFO	RIVERINE	0.336623	ACRE	NRPWW	30.587937	-88.448587
5	WETC030-F0	Escatawpa River	PFO	RIVERINE	3.624847	ACRE	RPWWD	30.594986	-88.445842
5	WETC030-F1	Escatawpa River	PFO	RIVERINE	0.01204	ACRE	RPWWD	30.598906	-88.442272
5	WETC030-F2	Escatawpa River	PFO	RIVERINE	0.857707	ACRE	RPWWD	30.599512	-88.441345
5	WETB005-S0	Escatawpa River	PSS	RIVERINE	0.400504	ACRE	NRPWW	30.573502	-88.453955
5	WETB007-S0	Escatawpa River	PSS	RIVERINE	0.8715	ACRE	NRPWW	30.569482	-88.454925
5	WBB001	Upper Escatawpa River	R1	RIVERINE	0.273699	ACRE	TNW	30.600429	-88.440052
6	WBG006	Black Creek	R1	RIVERINE	0.543211	ACRE	TNW	30.49824	-88.49695
6	WBC004	Black Creek	E2	RIVERINE	0.005642	ACRE	RPW	30.502095	-88.495605
6	WETA022-E0	Black Creek	PEM	DEPRESS	0.176541	ACRE	NRPWW	30.490198	-88.49857
6	WETA022-E1	Black Creek	PEM	DEPRESS	0.80707	ACRE	NRPWW	30.491761	-88.498159
6	WETC012-E0	Black Creek	PEM	MINSOILFLT	1.899604	ACRE	NRPWW	30.517697	-88.482751
6	WETC013A-E0	Black Creek	PEM	DEPRESS	0.006201	ACRE	NRPWW	30.525149	-88.482924
6	WETC013B-E1	Black Creek	PEM	MINSOILFLT	0.183708	ACRE	NRPWW	30.526788	-88.481729
6	WETC014-E0	Black Creek	PEM	DEPRESS	0.044581	ACRE	NRPWW	30.529116	-88.478395
6	WETA022-F0	Black Creek	PFO	DEPRESS	2.250672	ACRE	NRPWW	30.48817	-88.49911
6	WETA022-F1	Black Creek	PFO	DEPRESS	0.511197	ACRE	NRPWW	30.490734	-88.498419
6	WETA023-F0	Black Creek	PFO	RIVERINE	0.272844	ACRE	RPWWD	30.494282	-88.498115
6	WETA023-F1	Black Creek	PFO	RIVERINE	0.517442	ACRE	RPWWD	30.495018	-88.497904
6	WETA024-F0	Black Creek	PFO	RIVERINE	0.101816	ACRE	RPWWD	30.497525	-88.49718
6	WETA024-F1	Black Creek	PFO	RIVERINE	0.225167	ACRE	RPWWD	30.49793	-88.497067
6	WETA024-F2	Black Creek	PFO	RIVERINE	0.234651	ACRE	RPWWD	30.498524	-88.4969
6	WETA024-F3	Black Creek	PFO	RIVERINE	0.025082	ACRE	RPWWD	30.498825	-88.496858
6	WETC013A-F0	Black Creek	PFO	DEPRESS	0.123066	ACRE	NRPWW	30.525218	-88.482971
6	WETA022-S0	Black Creek	PSS	DEPRESS	0.154254	ACRE	NRPWW	30.48846	-88.499033
6	WETC011-S0	Black Creek	PSS	MINSOILFLT	0.000506	ACRE	NRPWW	30.502156	-88.495592
6	WETC011-S1	Black Creek	PSS	MINSOILFLT	5.699956	ACRE	NRPWW	30.505973	-88.493337
6	WETC011-S2	Black Creek	PSS	MINSOILFLT	1.289703	ACRE	NRPWW	30.50881	-88.48887
6	WETC012-S0	Black Creek	PSS	MINSOILFLT	4.113781	ACRE	NRPWW	30.516843	-88.48249
6	WETC013B-S0	Black Creek	PSS	MINSOILFLT	1.934126	ACRE	NRPWW	30.527758	-88.48114
7	WBC005	Tributary To Escatawpa River	E2	RIVERINE	0.18916	ACRE	RPW	30.529825	-88.473622
7	WETC015-E0	Tributary To Escatawpa River	PEM	DEPRESS	0.104281	ACRE	RPWWD	30.529608	-88.474354
7	WETC015-E1	Tributary To Escatawpa River	PEM	DEPRESS	0.103253	ACRE	RPWWD	30.529658	-88.473651
7	WETD008-E0	Tributary To Escatawpa River	PEM	MINSOILFLT	0.131962	ACRE	RPWWN	30.552386	-88.471209
7	WETD009-E0	Tributary To Escatawpa River	PEM	MINSOILFLT	0.832893	ACRE	NRPWW	30.556217	-88.46759
7	WETD009-E1	Tributary To Escatawpa River	PEM	MINSOILFLT	0.09838	ACRE	NRPWW	30.561872	-88.46224
7	WETA025-F0	Tributary To Escatawpa River	PFO	MINSOILFLT	3.372373	ACRE	NRPWW	30.533446	-88.471446
7	WETA026-F0	Tributary To Escatawpa River	PFO	RIVERINE	2.482972	ACRE	RPWWD	30.539553	-88.471496

7	WETA026-F1	Tributary To Escatawpa River	PFO	RIVERINE	0.222318	ACRE	RPWWD	30.541749	-88.471514
7	WETC015-F0	Tributary To Escatawpa River	PFO	DEPRESS	0.136076	ACRE	RPWWD	30.529738	-88.473585
7	WETC015-F1	Tributary To Escatawpa River	PFO	DEPRESS	0.410048	ACRE	RPWWD	30.529817	-88.474133
7	WETD005-F0	Tributary To Escatawpa River	PFO	RIVERINE	1.034792	ACRE	NRPWW	30.544245	-88.47154
7	WETD006-F0	Tributary To Escatawpa River	PFO	RIVERINE	0.50567	ACRE	RPWWD	30.546173	-88.471564
7	WETD006-F1	Tributary To Escatawpa River	PFO	RIVERINE	0.090098	ACRE	RPWWD	30.546525	-88.471622
7	WETD006-F2	Tributary To Escatawpa River	PFO	RIVERINE	0.005804	ACRE	RPWWD	30.546699	-88.471424
7	WETD007-F0	Tributary To Escatawpa River	PFO	MINSOILFLT	0.000093	ACRE	RPWWD	30.549764	-88.471767
7	WETD008-F0	Tributary To Escatawpa River	PFO	MINSOILFLT	0.920156	ACRE	RPWWN	30.551834	-88.471281
7	WETD009-F0	Tributary To Escatawpa River	PFO	MINSOILFLT	1.891344	ACRE	NRPWW	30.555128	-88.468466
7	WETD009-F1	Tributary To Escatawpa River	PFO	MINSOILFLT	0.693853	ACRE	NRPWW	30.559647	-88.464199
7	WETD009-F2	Tributary To Escatawpa River	PFO	MINSOILFLT	0.094534	ACRE	NRPWW	30.563393	-88.46065
7	WETD009-F3	Tributary To Escatawpa River	PFO	MINSOILFLT	0.242171	ACRE	NRPWW	30.564215	-88.459867
7	WETD008-S0	Tributary To Escatawpa River	PSS	MINSOILFLT	0.127466	ACRE	RPWWN	30.552008	-88.471431
7	WETD009-S0	Tributary To Escatawpa River	PSS	MINSOILFLT	1.826189	ACRE	NRPWW	30.557914	-88.465834
7	WETD009-S1	Tributary To Escatawpa River	PSS	MINSOILFLT	2.238561	ACRE	NRPWW	30.561906	-88.462055
7	WETD009-S2	Tributary To Escatawpa River	PSS	MINSOILFLT	0.489641	ACRE	NRPWW	30.563761	-88.460295
8	WBD001	Bayou Cumbest	E2	RIVERINE	0.008219	ACRE	RPW	30.408922	-88.483665
8	WETA005-E0	Bayou Cumbest	PEM	MINSOILFLT	0.928868	ACRE	RPWWN	30.402456	-88.480487
8	WETA006-E0	Bayou Cumbest	PEM	MINSOILFLT	0.000006	ACRE	RPWWN	30.405758	-88.482866
8	WETD001-E0	Bayou Cumbest	PEM	RIVERINE	0.001734	ACRE	NRPWW	30.409222	-88.483729
8	WETA005-F0	Bayou Cumbest	PFO	MINSOILFLT	0.816381	ACRE	RPWWN	30.399605	-88.480215
8	WETA005-F1	Bayou Cumbest	PFO	MINSOILFLT	1.039646	ACRE	RPWWN	30.401163	-88.480189
8	WETA005-F2	Bayou Cumbest	PFO	MINSOILFLT	0.869498	ACRE	RPWWN	30.402914	-88.48038
8	WETA005-F3	Bayou Cumbest	PFO	MINSOILFLT	1.370994	ACRE	RPWWN	30.404657	-88.481776
8	WETA006-F0	Bayou Cumbest	PFO	MINSOILFLT	0.073732	ACRE	RPWWN	30.405726	-88.482742
8	WETD001-F0	Bayou Cumbest	PFO	RIVERINE	0.07682	ACRE	NRPWW	30.409188	-88.483596
9	WBD002	Tributary To Escatawpa River	E1	RIVERINE	0.273201	ACRE	TNW	30.417539	-88.482813
10	WBD003A	Tributary To Escatawpa River	E2	RIVERINE	0.012823	ACRE	RPW	30.546504	-88.471538
11	WBD004A	Tributary To Escatawpa River	E2	RIVERINE	0.082912	ACRE	RPW	30.54828	-88.471461
12	WETG001-E0	Escatawpa River	E2EM	ORGSOILFLT	2.306704	ACRE	TNWW	30.425325	-88.490205
12	WETG002-E0	Escatawpa River	E2EM	ORGSOILFLT	1.480351	ACRE	RPWWD	30.429894	-88.493077
12	WETD003-F0	Tributary To Escatawpa River	PFO	ORGSOILFLT	2.372595	ACRE	RPWWN	30.415524	-88.4828
12	WBG007	Lower Escatawpa River	R1	RIVERINE	0.306914	ACRE	TNW	30.421556	-88.488021
13	WBG008	Tributary To Escatawpa River	E2	RIVERINE	0.03972	ACRE	TNW	30.428796	-88.492387
14	WBG011	Tributary to Bangs Lake	E2	RIVERINE	0.020695	ACRE	RPW	30.355996	-88.487114
15	WBG012	Tributary to Bangs Lake	E2	RIVERINE	0.02058	ACRE	RPW	30.355345	-88.488546
16	WETA002-E0	Bangs Lake	PEM	MINSOILFLT	0.020132	ACRE	TNWW	30.355914	-88.483128
16	WETA003-E0	Bangs Lake	PEM	MINSOILFLT	0.134436	ACRE	TNWW	30.369475	-88.48335
16	WETA003-E1	Bangs Lake	PEM	MINSOILFLT	3.666266	ACRE	RPWWN	30.387883	-88.480184
16	WETG005-E0	Bangs Lake	PEM	MINSOILFLT	0.062469	ACRE	RPWWD	30.355411	-88.488546
16	WETG005-E1	Bangs Lake	PEM	MINSOILFLT	0.241702	ACRE	RPWWD	30.355136	-88.488547
16	WETG005-E2	Bangs Lake	PEM	MINSOILFLT	0.039566	ACRE	RPWWD	30.354811	-88.488548
16	WETA002-F0	Bangs Lake	PFO	MINSOILFLT	2.971802	ACRE	TNWW	30.35954	-88.483321

16	WETA003-F0	Bangs Lake	PFO	MINSOILFLT	3.973211	ACRE	TNWW	30.366186	-88.483325
16	WETA003-F1	Bangs Lake	PFO	MINSOILFLT	0.027821	ACRE	TNWW	30.369468	-88.483355
16	WETA003-F2	Bangs Lake	PFO	MINSOILFLT	2.61661	ACRE	TNWW	30.376162	-88.480005
16	WETA003-F3	Bangs Lake	PFO	MINSOILFLT	2.995657	ACRE	RPWWN	30.381341	-88.480093
16	WETA003-F4	Bangs Lake	PFO	MINSOILFLT	0.077068	ACRE	RPWWN	30.384325	-88.48026
16	WETA003-F5	Bangs Lake	PFO	MINSOILFLT	2.025548	ACRE	RPWWN	30.38626	-88.480261
16	WETA003-F6	Bangs Lake	PFO	MINSOILFLT	2.811363	ACRE	RPWWN	30.391311	-88.480315
16	WETA003-F7	Bangs Lake	PFO	MINSOILFLT	1.896313	ACRE	RPWWN	30.397463	-88.480264
16	WETA002-S0	Bangs Lake	PSS	MINSOILFLT	0.904027	ACRE	TNWW	30.356455	-88.483245
16	WETA003-S0	Bangs Lake	PSS	MINSOILFLT	3.133356	ACRE	TNWW	30.3717	-88.481736
16	WETG005-S0	Bangs Lake	PSS	MINSOILFLT	0.826683	ACRE	TNWW	30.355988	-88.484306
16	WETG005-S1	Bangs Lake	PSS	MINSOILFLT	0.972171	ACRE	RPWWD	30.355993	-88.4862
16	WETG005-S3	Bangs Lake	PSS	MINSOILFLT	1.218603	ACRE	RPWWD	30.35589	-88.488086

Plains Southcap Pipeline

Table 2

Corps Mitigation 1/2

NWP 12 Project No.	FGT Wetland/ Waterbody ID	Local Waterway	Jurisdictional Type (Wetland/Stream)	Wetland/ Stream Type	Latitude (dd NAD83)	Longitude (dd NAD83)	PFO Wetlands to revert to PFO (0.25:1)	PFO Wetlands converted to PSS (0.5:1)	PFO Wetlands converted to PEM (1:1)	Total 0.25:1 Credits	Total 0.5:1 Credits	Total 1:1 Credits	Total Mitigation Credits	state
2	WETA010-F0	Escatawpa River	Wetland	PFO	30.439109	-88.49493	0	0	0.037304	0	0	0.037304	0.037304	MS
2	WETA010-S0	Escatawpa River	Wetland	PSS	30.441587	-88.495169	0	0.0499	0	0	0.02495	0	0.02495	MS
2	WETA010-S1	Escatawpa River	Wetland	PSS	30.442305	-88.49524	0	0.359758	0	0	0.179879	0	0.179879	MS
2	WETA011-F0	Escatawpa River	Wetland	PFO	30.444467	-88.49542	0.044976	0	0.138789	0.011244	0	0.138789	0.150033	MS
2	WETA013-F0	Black Creek	Wetland	PFO	30.447669	-88.495692	0.056356	0	0.14013	0.014089	0	0.14013	0.154219	MS
2	WETA015-F0	Black Creek	Wetland	PFO	30.45683	-88.496877	0.06991	0	0.091647	0.017478	0	0.091647	0.109124	MS
2	WETA016-F0	Black Creek	Wetland	PFO	30.459863	-88.497403	0.120866	0	0.114269	0.030217	0	0.114269	0.144485	MS
2	WETA017-F0	Black Creek	Wetland	PFO	30.462052	-88.497486	0.111436	0	0.253192	0.027859	0	0.253192	0.281052	MS
2	WETA019-F0	Black Creek	Wetland	PFO	30.469093	-88.49745	0.588815	0	0.848053	0.147204	0	0.848053	0.995257	MS
2	WETA020-F0	Black Creek	Wetland	PFO	30.472718	-88.497456	0.181169	0	0.318586	0.045292	0	0.318586	0.363878	MS
2	WETA021-F0	Black Creek	Wetland	PFO	30.481021	-88.499277	0.128988	0	0.240254	0.032247	0	0.240254	0.272501	MS
3	WETA007-F0	Escatawpa River	Wetland	PFO	30.431225	-88.493924	0.132514	0	0.260339	0.033128	0	0.260339	0.293467	MS
3	WETA008-F0	Escatawpa River	Wetland	PFO	30.433225	-88.494449	0.021737	0	0.09326	0.005434	0	0.09326	0.098695	MS
5	WETB003-F0	Escatawpa River	Wetland	PFO	30.582502	-88.45055	0.481812	0	0.591668	0.120453	0	0.591668	0.712121	MS
5	WETB004-F0	Escatawpa River	Wetland	PFO	30.576724	-88.452742	0	0	1.265763	0	0	1.265763	1.265763	MS
5	WETB004-F1	Escatawpa River	Wetland	PFO	30.578248	-88.452185	0	0	0.049036	0	0	0.049036	0.049036	MS
5	WETB004-F2	Escatawpa River	Wetland	PFO	30.578351	-88.452137	0	0	0.03734	0	0	0.03734	0.03734	MS
5	WETB004-F3	Escatawpa River	Wetland	PFO	30.578483	-88.452087	0	0	0.068319	0	0	0.068319	0.068319	MS
5	WETB004-F4	Escatawpa River	Wetland	PFO	30.57868	-88.452028	0	0	0.086014	0	0	0.086014	0.086014	MS
5	WETB005-S0	Escatawpa River	Wetland	PSS	30.573502	-88.453955	0	0.400504	0	0	0.200252	0	0.200252	MS
5	WETB006-F0	Escatawpa River	Wetland	PFO	30.571028	-88.454834	0.070375	0	0.108892	0.017594	0	0.108892	0.126486	MS
5	WETB007-S0	Escatawpa River	Wetland	PSS	30.569482	-88.454925	0.290602	0.580898	0	0.072651	0.290449	0	0.363099	MS
5	WETB008-F0	Escatawpa River	Wetland	PFO	30.603653	-88.435373	1.142489	0	3.300276	0.285622	0	3.300276	3.585898	MS
5	WETB009-F0	Escatawpa River	Wetland	PFO	30.614325	-88.42225	0.16864	0	0.357871	0.04216	0	0.357871	0.400031	MS
5	WETC028-F0	Bayou Cumbest	Wetland	PFO	30.587937	-88.448587	0.1408	0	0.195823	0.0352	0	0.195823	0.231023	MS
5	WETC030-F0	Bayou Cumbest	Wetland	PFO	30.594986	-88.445842	1.423222	0	2.201625	0.355805	0	2.201625	2.557431	MS
5	WETC030-F1	Bayou Cumbest	Wetland	PFO	30.598906	-88.442272	0	0	0.01204	0	0	0.01204	0.01204	MS
5	WETC030-F2	Bayou Cumbest	Wetland	PFO	30.599512	-88.441345	0	0	0.857707	0	0	0.857707	0.857707	MS
6	WETA022-F0	Black Creek	Wetland	PFO	30.48817	-88.49911	0.741887	0	1.508787	0.185472	0	1.508787	1.694259	MS
6	WETA022-F1	Black Creek	Wetland	PFO	30.490734	-88.498419	0.186715	0	0.324482	0.046679	0	0.324482	0.371161	MS
6	WETA022-S0	Black Creek	Wetland	PSS	30.48846	-88.499033	0.049813	0.104442	0	0.012453	0.052221	0	0.064674	MS
6	WETA023-F0	Black Creek	Wetland	PFO	30.494282	-88.498115	0.09145	0	0.181394	0.022862	0	0.181394	0.204257	MS
6	WETA023-F1	Black Creek	Wetland	PFO	30.495018	-88.497904	0.140745	0	0.376696	0.035186	0	0.376696	0.411882	MS
6	WETA024-F0	Black Creek	Wetland	PFO	30.497525	-88.49718	0	0	0.101816	0	0	0.101816	0.101816	MS
6	WETA024-F1	Black Creek	Wetland	PFO	30.49793	-88.497067	0	0	0.225167	0	0	0.225167	0.225167	MS
6	WETA024-F2	Black Creek	Wetland	PFO	30.498524	-88.4969	0	0	0.234651	0	0	0.234651	0.234651	MS
6	WETA024-F3	Black Creek	Wetland	PFO	30.498825	-88.496858	0	0	0.025082	0	0	0.025082	0.025082	MS
6	WETC011-S0	Black Creek	Wetland	PSS	30.502156	-88.495592	0.000506	0	0	0.000127	0	0	0.000127	MS
6	WETC011-S1	Black Creek	Wetland	PSS	30.505973	-88.493337	1.900726	3.799229	0	0.475182	1.899615	0	2.374796	MS
6	WETC011-S2	Black Creek	Wetland	PSS	30.50881	-88.48887	0.434887	0.854816	0	0.108722	0.427408	0	0.53613	MS
6	WETC012-S0	Black Creek	Wetland	PSS	30.516843	-88.48249	2.002779	2.111002	0	0.500695	1.055501	0	1.556196	MS
6	WETC013A-F0	Black Creek	Wetland	PFO	30.525218	-88.482971	0.01038	0	0.112685	0.002595	0	0.112685	0.11528	MS
6	WETC013B-S0	Black Creek	Wetland	PSS	30.527758	-88.48114	0.704456	1.22967	0	0.176114	0.614835	0	0.790949	MS

7	WETA025-F0	Black Creek	Wetland	PFO	30.533446	-88.471446	1.202443	0	2.169936	0.300611	0	2.169936	2.470547	MS
7	WETA026-F0	Black Creek	Wetland	PFO	30.539553	-88.471496	0.831017	0	1.651955	0.207754	0	1.651955	1.859709	MS
7	WETA026-F1	Black Creek	Wetland	PFO	30.541749	-88.471514	0.063298	0	0.15902	0.015824	0	0.15902	0.174845	MS
7	WETC015-F0	Black Creek	Wetland	PFO	30.529738	-88.473585	0.045568	0	0.090507	0.011392	0	0.090507	0.101899	MS
7	WETC015-F1	Black Creek	Wetland	PFO	30.529817	-88.474133	0.274421	0	0.135627	0.068605	0	0.135627	0.204233	MS
7	WETD005-F0	Black Creek	Wetland	PFO	30.544245	-88.47154	0.355599	0	0.679193	0.0889	0	0.679193	0.768093	MS
7	WETD006-F0	Black Creek	Wetland	PFO	30.546173	-88.471564	0.206536	0	0.299134	0.051634	0	0.299134	0.350768	MS
7	WETD006-F1	Black Creek	Wetland	PFO	30.546525	-88.471622	0.056145	0	0.033953	0.014036	0	0.033953	0.04799	MS
7	WETD006-F2	Black Creek	Wetland	PFO	30.546699	-88.471424	0	0	0.005804	0	0	0.005804	0.005804	MS
7	WETD007-F0	Black Creek	Wetland	PFO	30.549764	-88.471767	0.000093	0	0	0.000023	0	0	0.000023	MS
7	WETD008-F0	Black Creek	Wetland	PFO	30.551834	-88.471281	0.433107	0	0.487049	0.108277	0	0.487049	0.595326	MS
7	WETD008-S0	Black Creek	Wetland	PSS	30.552008	-88.471431	0.020054	0.107412	0	0.005013	0.053706	0	0.058719	MS
7	WETD009-F0	Escatawpa River	Wetland	PFO	30.555128	-88.468466	0.797007	0	1.094337	0.199252	0	1.094337	1.293589	MS
7	WETD009-F1	Escatawpa River	Wetland	PFO	30.559647	-88.464199	0.244048	0	0.449806	0.061012	0	0.449806	0.510817	MS
7	WETD009-F2	Escatawpa River	Wetland	PFO	30.563393	-88.46065	0.028701	0	0.065833	0.007175	0	0.065833	0.073008	MS
7	WETD009-F3	Escatawpa River	Wetland	PFO	30.564215	-88.459867	0.080891	0	0.16128	0.020223	0	0.16128	0.181503	MS
7	WETD009-S0	Escatawpa River	Wetland	PSS	30.557914	-88.465834	0.701628	1.124561	0	0.175407	0.562281	0	0.737688	MS
7	WETD009-S1	Escatawpa River	Wetland	PSS	30.561906	-88.462055	0.777868	1.460693	0	0.194467	0.730347	0	0.924814	MS
7	WETD009-S2	Escatawpa River	Wetland	PSS	30.563761	-88.460295	0.168901	0.320741	0	0.042225	0.16037	0	0.202595	MS
8	WETA005-F0	Bayou Cumbest	Wetland	PFO	30.399605	-88.480215	0.370981	0	0.4454	0.092745	0	0.4454	0.538145	MS
8	WETA005-F1	Bayou Cumbest	Wetland	PFO	30.401163	-88.480189	0.493009	0	0.546637	0.123252	0	0.546637	0.669889	MS
8	WETA005-F2	Bayou Cumbest	Wetland	PFO	30.402914	-88.48038	0.351871	0	0.517627	0.087968	0	0.517627	0.605595	MS
8	WETA005-F3	Bayou Cumbest	Wetland	PFO	30.404657	-88.481776	0.541241	0	0.829754	0.13531	0	0.829754	0.965064	MS
8	WETA006-F0	Bayou Cumbest	Wetland	PFO	30.405726	-88.482742	0	0	0.073732	0	0	0.073732	0.073732	MS
8	WETD001-F0	Bayou Cumbest	Wetland	PFO	30.409188	-88.483596	0.032127	0	0.044693	0.008032	0	0.044693	0.052725	MS
12	WETD003-F0	Escatawpa River	Wetland	PFO	30.415524	-88.4828	1.346475	0	0.912633	0.336619	0	0.912633	1.249252	MS
12	WETD004-F0	Escatawpa River	Wetland	PFO	30.419177	-88.48561	1.324994	0	2.549677	0.331249	0	2.549677	2.880925	MS
16	WETA002-F0	Bangs Lake	Wetland	PFO	30.35954	-88.483321	1.080201	0	1.891601	0.27005	0	1.891601	2.161651	MS
16	WETA002-S0	Bangs Lake	Wetland	PSS	30.356455	-88.483245	0.30612	0.597908	0	0.07653	0.298954	0	0.375484	MS
16	WETA003-F0	Bangs Lake	Wetland	PFO	30.366186	-88.483325	1.32569	0	2.647521	0.331423	0	2.647521	2.978944	MS
16	WETA003-F1	Bangs Lake	Wetland	PFO	30.369468	-88.483355	0.005969	0	0.021853	0.001492	0	0.021853	0.023345	MS
16	WETA003-F2	Bangs Lake	Wetland	PFO	30.376162	-88.480005	1.103126	0	1.513484	0.275782	0	1.513484	1.789265	MS
16	WETA003-F3	Bangs Lake	Wetland	PFO	30.381341	-88.480093	1.206875	0	1.788776	0.301719	0	1.788776	2.090495	MS
16	WETA003-F4	Bangs Lake	Wetland	PFO	30.384325	-88.48026	0.027846	0	0.049222	0.006961	0	0.049222	0.056184	MS
16	WETA003-F5	Bangs Lake	Wetland	PFO	30.38626	-88.480261	0.675378	0	1.350161	0.168845	0	1.350161	1.519005	MS
16	WETA003-F6	Bangs Lake	Wetland	PFO	30.391311	-88.480315	1.337033	0	1.47433	0.334258	0	1.47433	1.808588	MS
16	WETA003-F7	Bangs Lake	Wetland	PFO	30.397463	-88.480264	0.769573	0	1.126739	0.192393	0	1.126739	1.319133	MS
16	WETA003-S0	Bangs Lake	Wetland	PSS	30.3717	-88.481736	1.039105	2.094251	0	0.259776	1.047126	0	1.306902	MS
16	WETG005-S0	Bangs Lake	Wetland	PSS	30.355988	-88.484306	0.275836	0.550847	0	0.068959	0.275423	0	0.344382	MS
16	WETG005-S1	Bangs Lake	Wetland	PSS	30.355993	-88.4862	0.324231	0.647941	0	0.081058	0.32397	0	0.405028	MS
16	WETG005-S3	Bangs Lake	Wetland	PSS	30.35589	-88.488086	0.454118	0.764485	0	0.113529	0.382242	0	0.495772	MS
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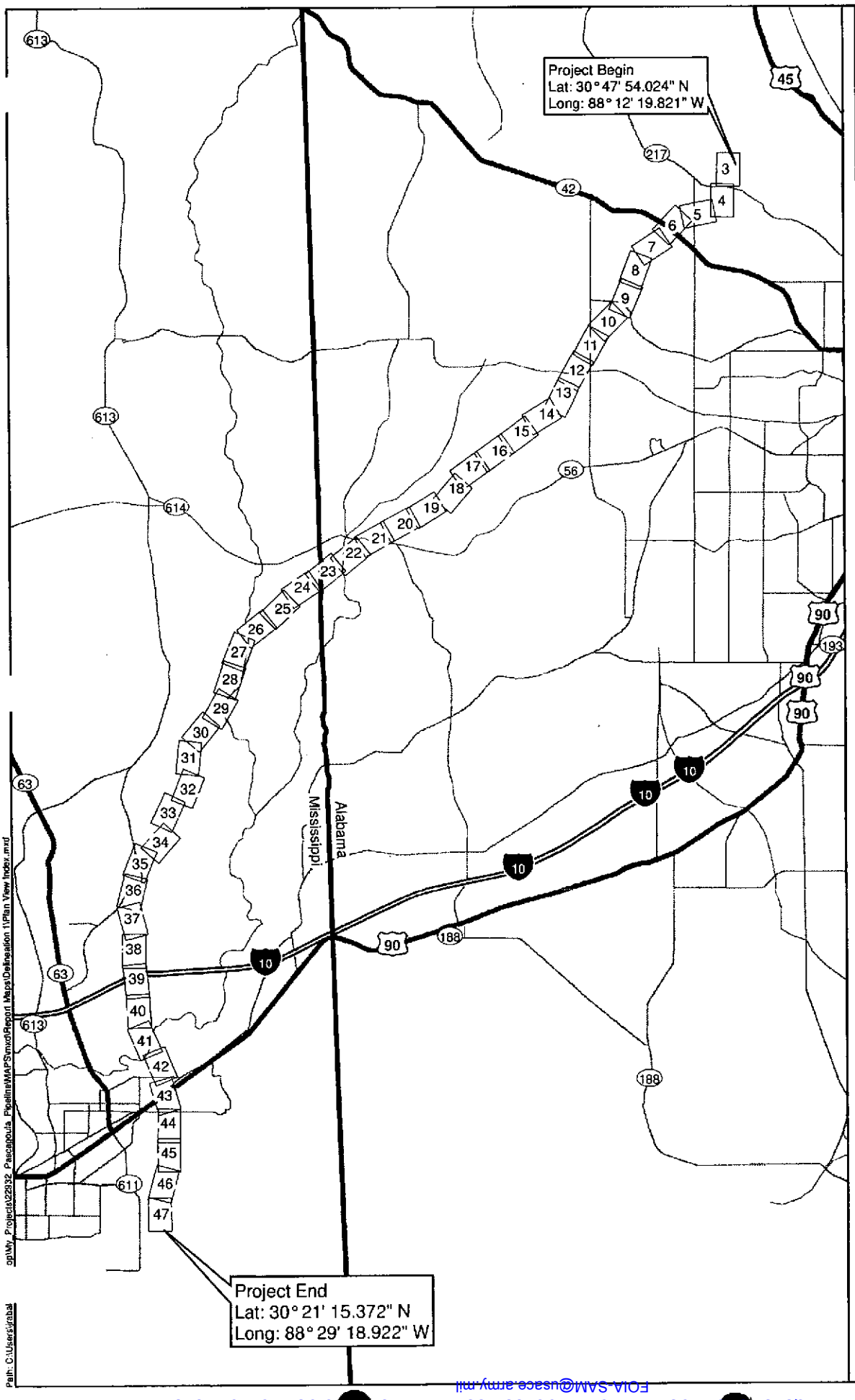


PLAINS SOUTHCAP L.L.C.

PLAN VIEW INDEX
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

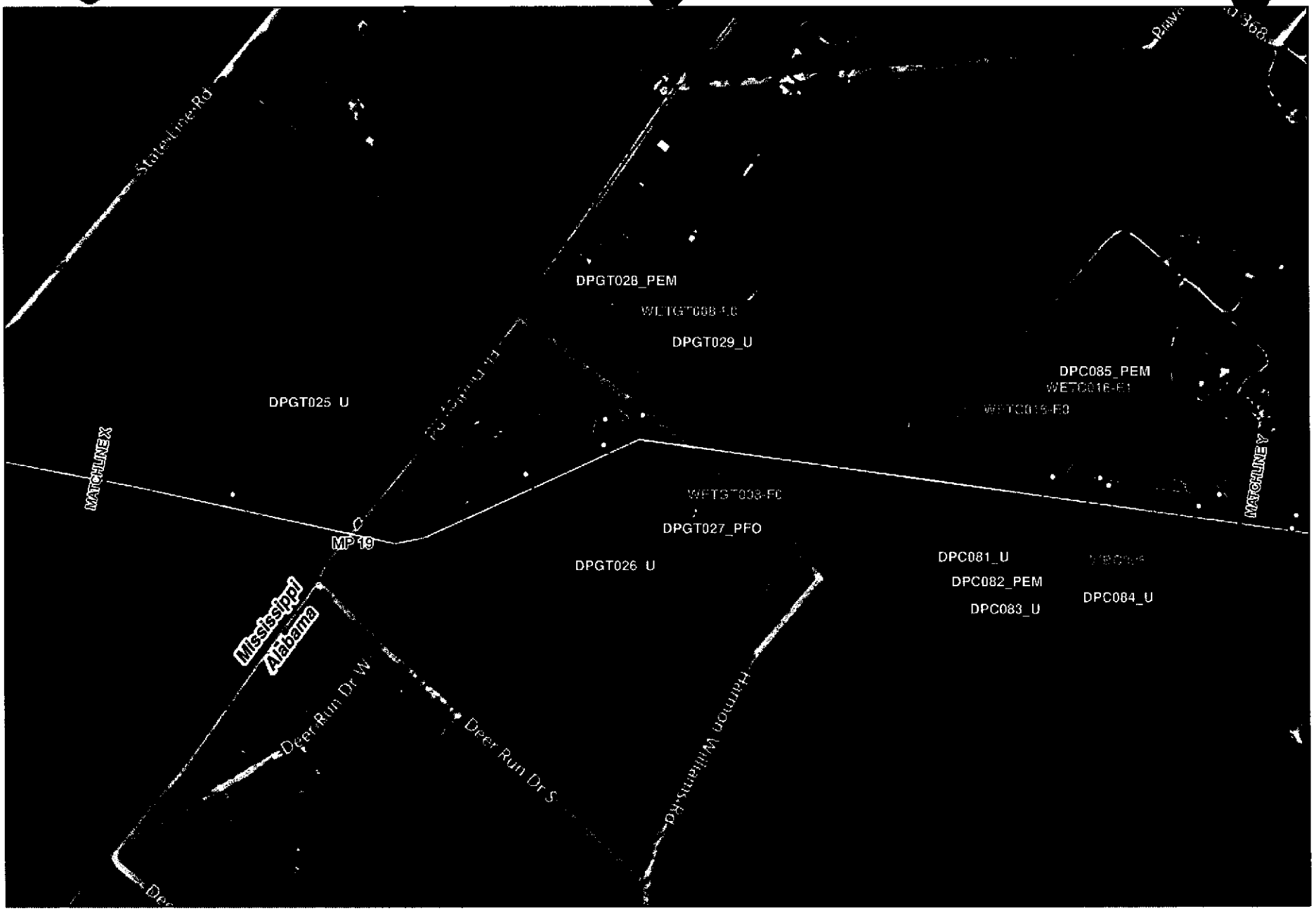
JACKSON COUNTY, MS
MOBILE COUNTY, AL

LEGEND

Plan View

0 2 4 Miles

SWCA ENVIRONMENTAL CONSULTANTS



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PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
MISSISSIPPI / ALABAMA

- Centerline
- Permanent RoW
- Temporary RoW
- Additional Workspace
- 200' Survey
- Unsurveyed Areas
- PEM
- PFO
- PSS
- EEM
- Streams
- Sample Point
- Milepost
- HDD Entry/Exit

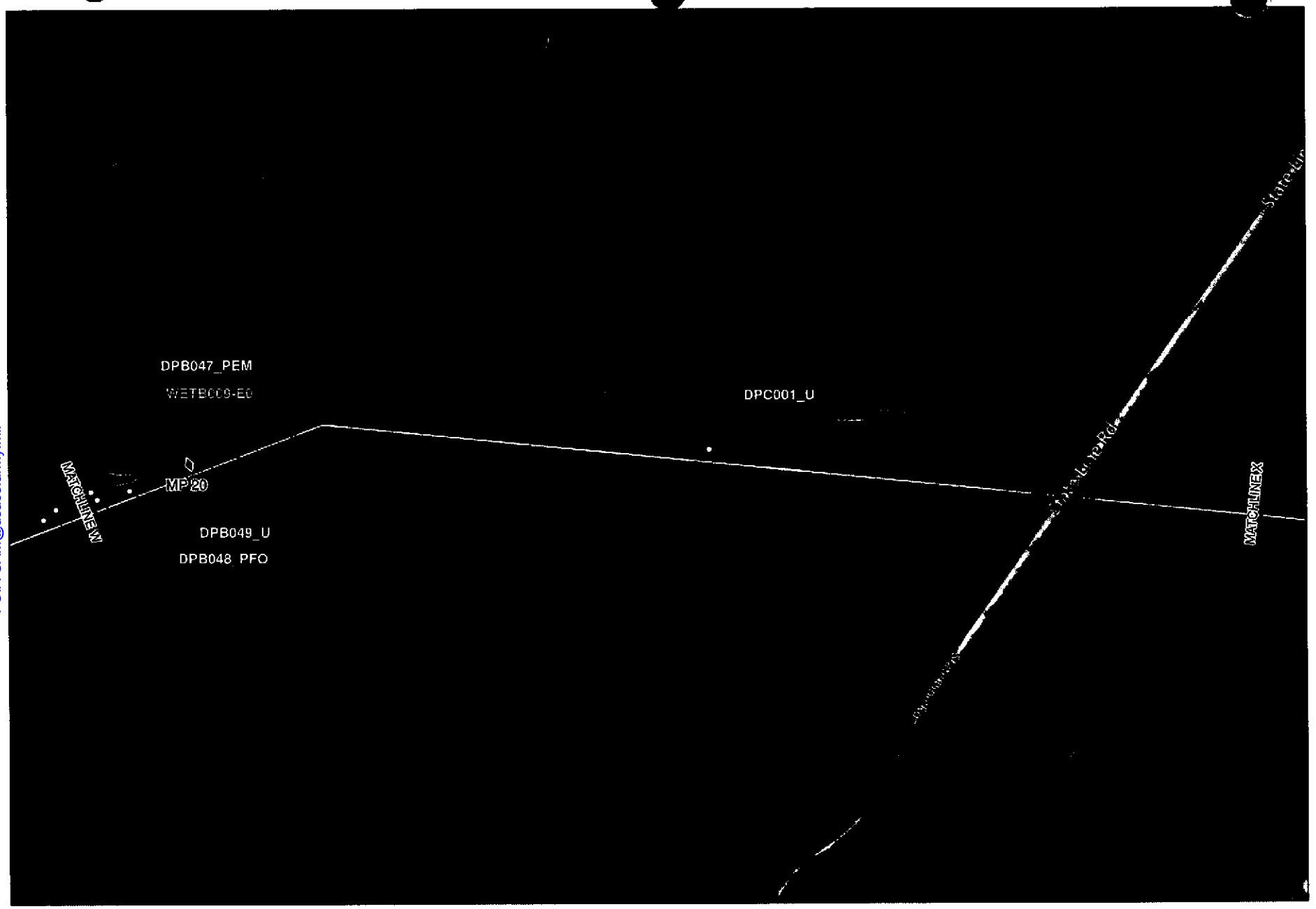
COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 9/20/2012
Revision Date:

0 200 800 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

Path: C:\Users\jrobbins\Desktop\My_Projects\22932_Pascagoula_Pipeline\MAPS\mxd\Region Maps\DPCN Plan Views.mxd



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Sheet 24 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

- Centerline
- Permanent RoW
- Temporary RoW
- Additional Workspace
- 200' Survey
- Unsurveyed Areas
- PEM
- PFO
- PSS
- EEM
- Streams
- Sample Point
- Milepost
- HDD Entry/Exit

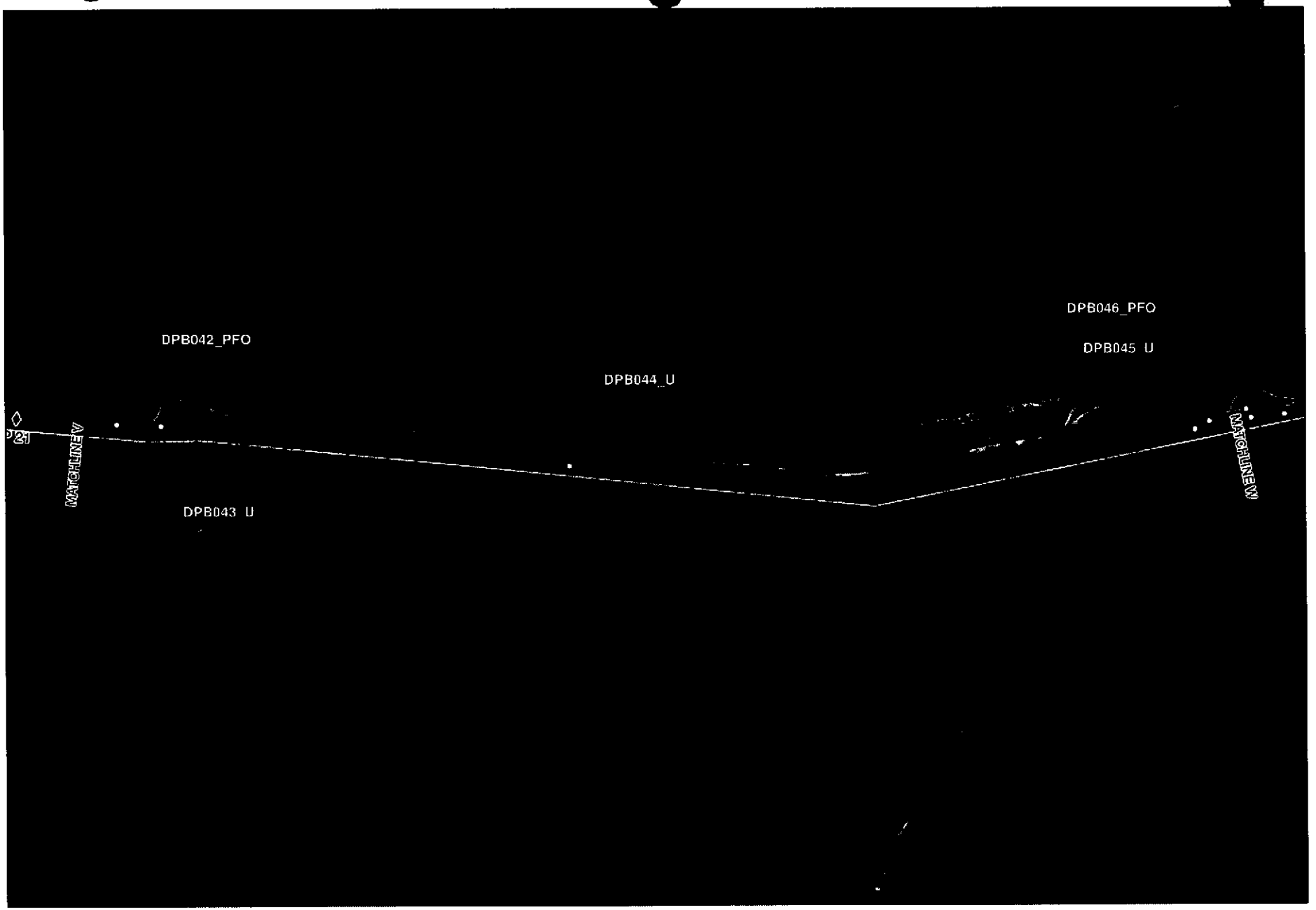
COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22302
Date Produced: 6/20/2012
Revision Date:

0 330 660 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

Path: C:\Users\jrabalais\Desktop\My_Projects\22302_Pascagoula_PipelineMAP Symv2\Report Maps\...\ACN Plan Views.mxd



SWCA ENVIRONMENTAL CONSULTANTS

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PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

- Centerline
- Permanent RoW
- Temporary RoW
- Additional Workspace
- 200' Survey
- Unsurveyed Areas
- PEM
- PFO
- PSS
- EEM
- Streams
- Sample Point
- Milepost
- HDD Entry/Exit

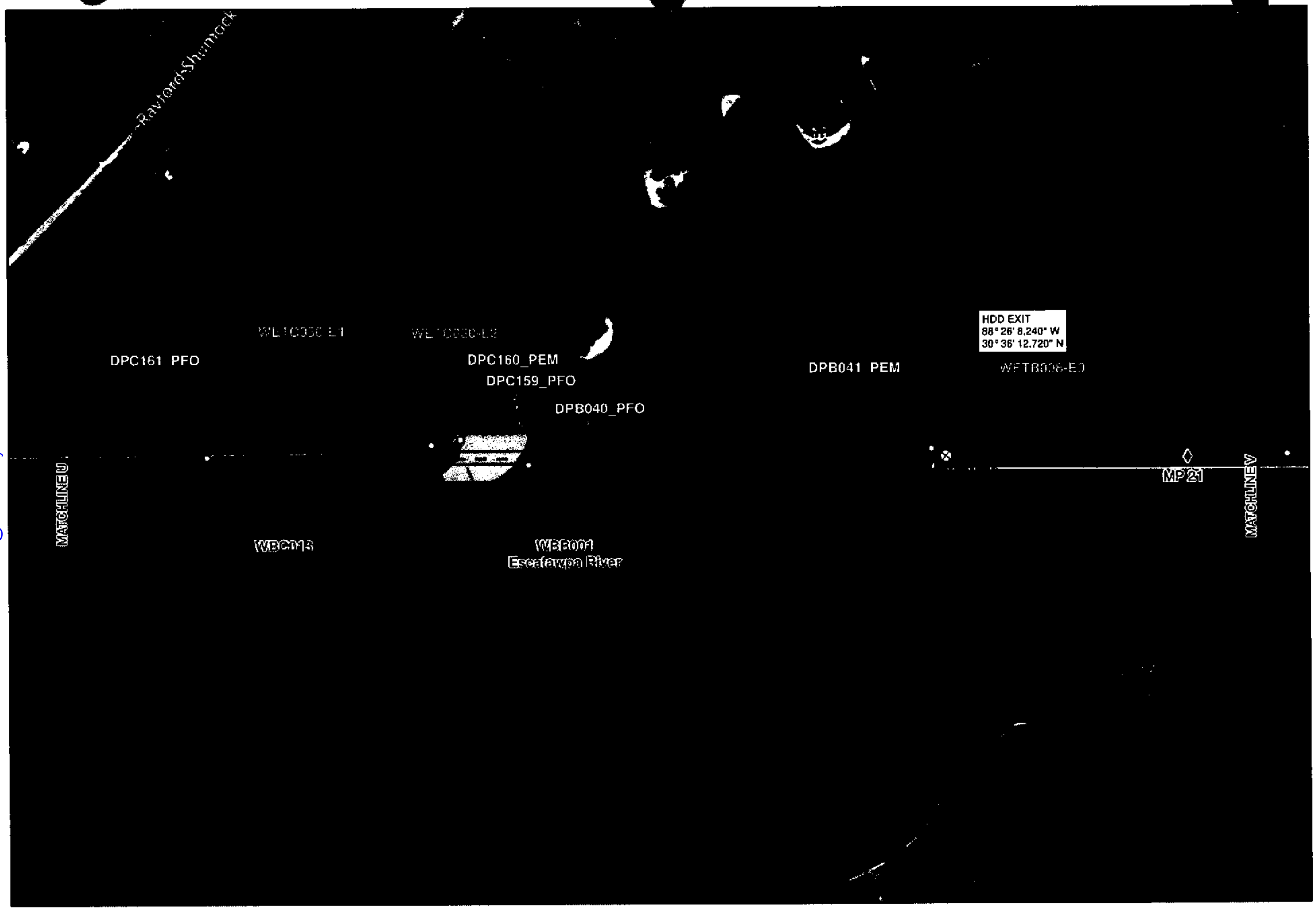
COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 8/20/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

Path: C:\Users\jrocabo\Desktop\My_Projects\22932_Pascagoula_Pipeline\MAPS\mxd\Report Maps\SHPCN Plan Views.mxd



SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 28 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

- Centerline
- Permanent RoW
- Temporary RoW
- Additional Workspace
- 200' Survey
- Unsurveyed Areas
- PEM
- PFO
- PBS
- EEM
- Streams
- Sample Point
- Milepost
- HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 6/20/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Foot US

SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 27 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 4/20/2012
Revision Date:

0 250 500 Feet
Coordinate System: NAD 1983 UTM Zone 16N
Units: Foot US

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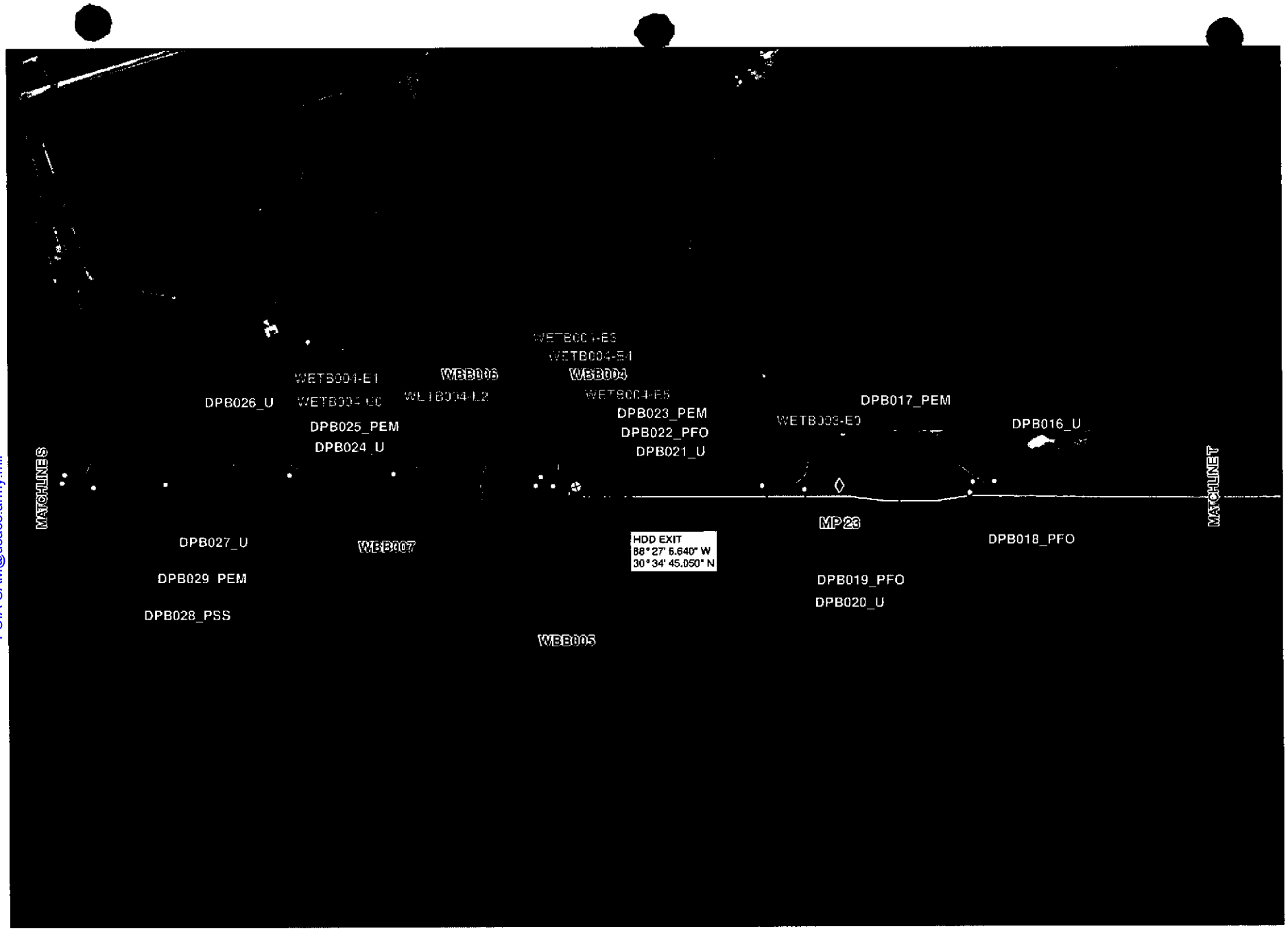


SWCA ENVIRONMENTAL CONSULTANTS

Sheet 28 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

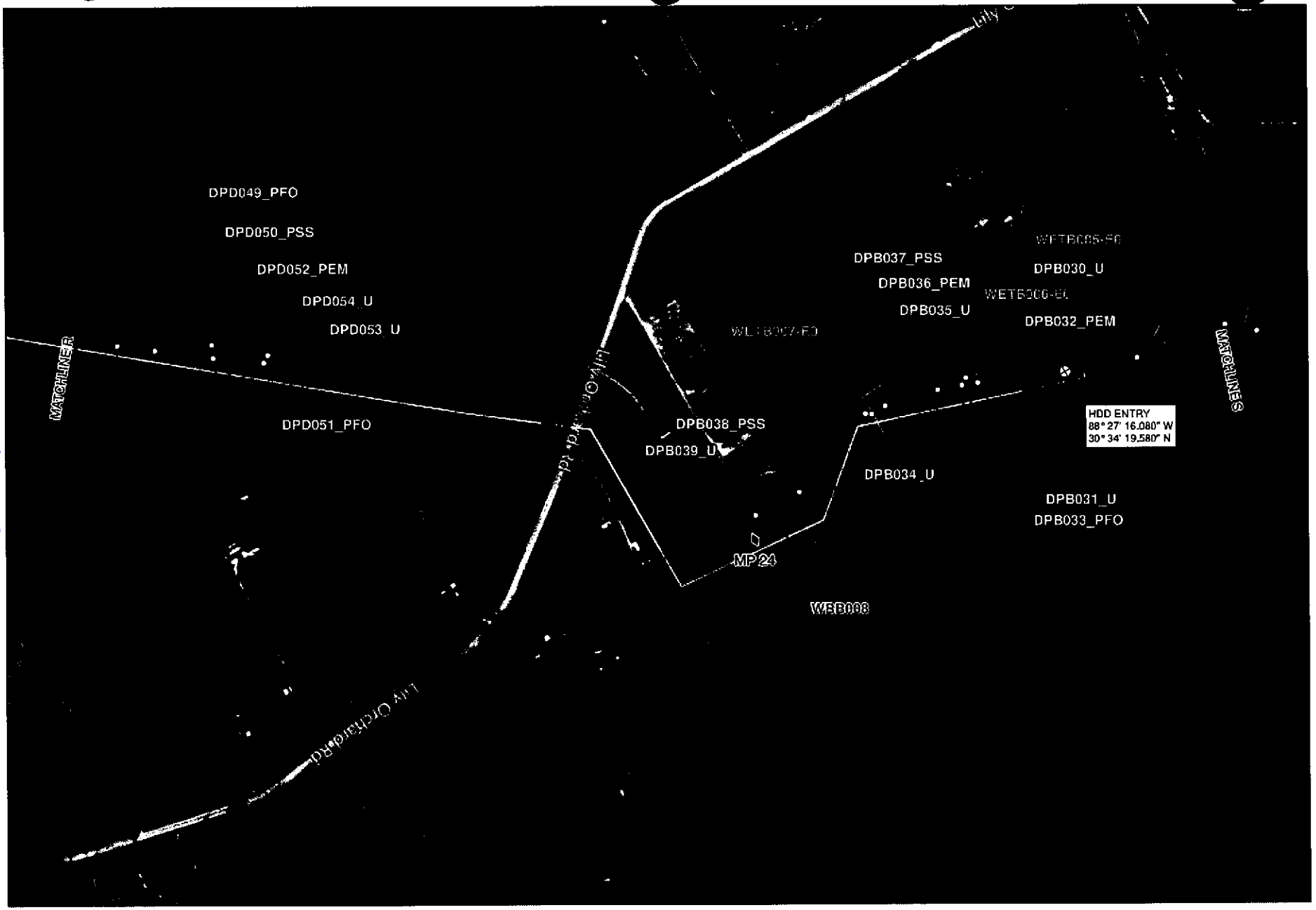
COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 8/20/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

Path: C:\Users\jrabals\Desktop\My Projects\22932_Pascagoula_Pipeline\MAPS\mxd\Report Maps\POPCN Plan Views.mxd



SWCA ENVIRONMENTAL CONSULTANTS

Sheet 29 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 9/20/2012
Revision Date:

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

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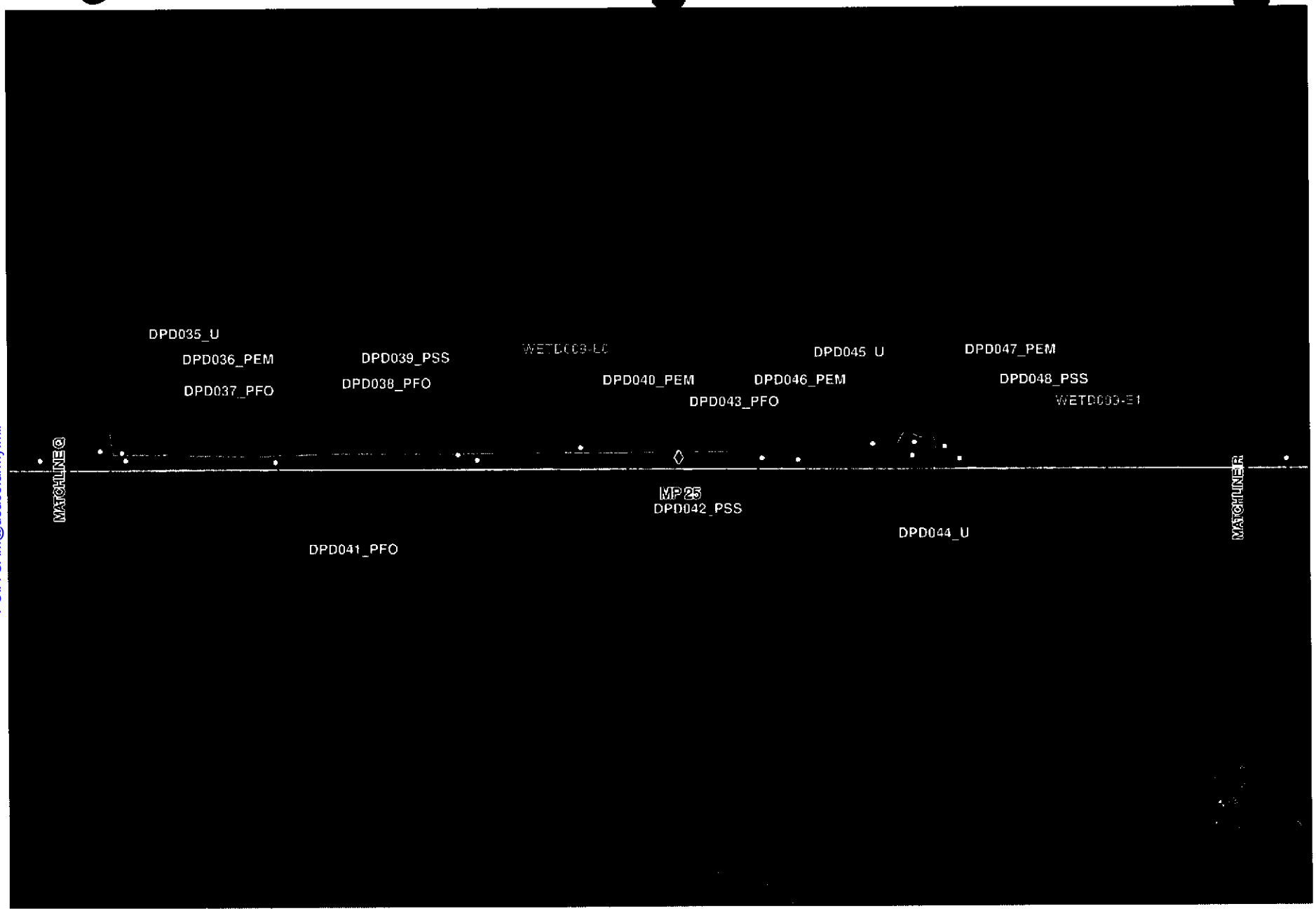


SWCA ENVIRONMENTAL CONSULTANTS

Sheet 30 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

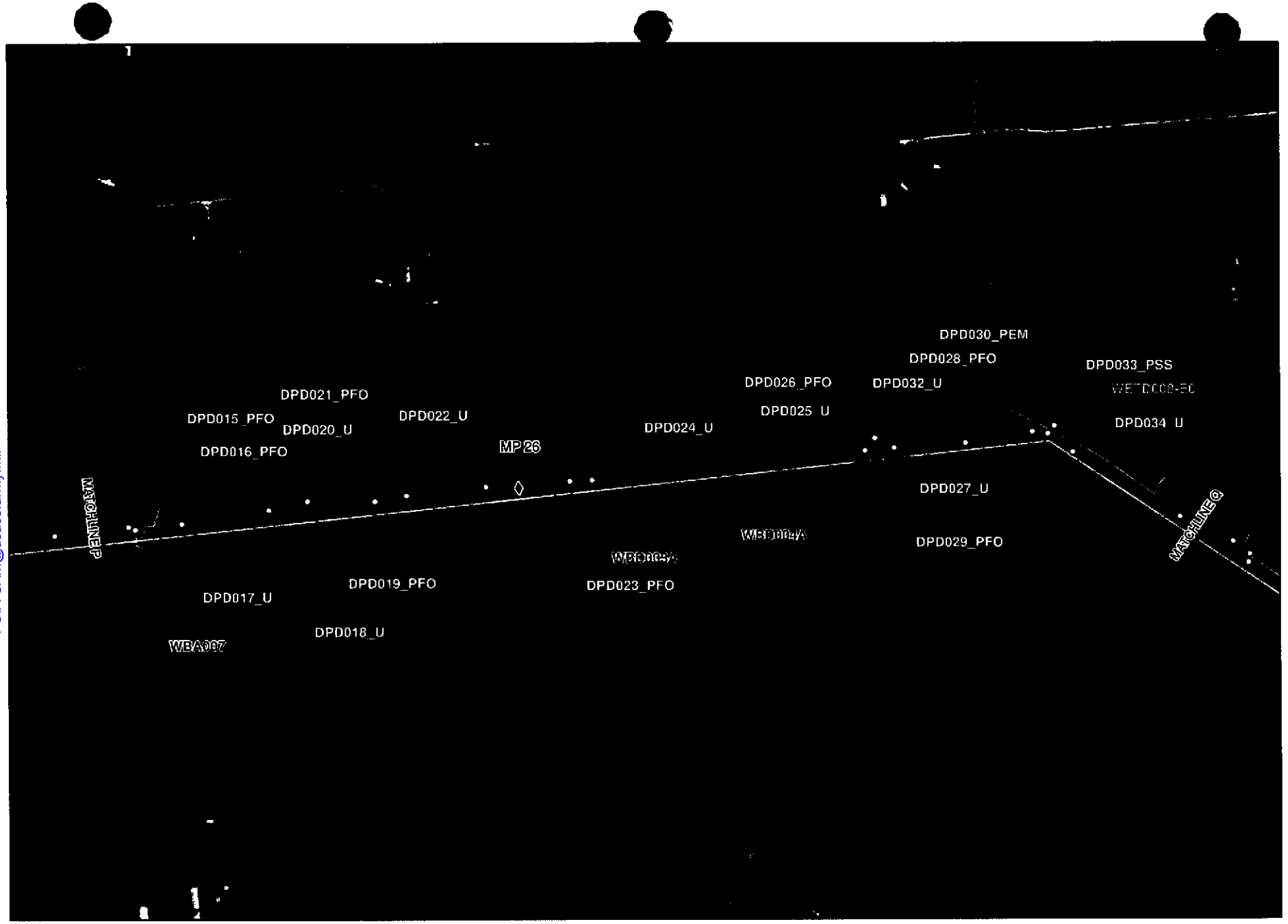
COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 9/20/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

Path: C:\Users\jrhalle\Desktop\My_Projects\22932_Pascagoula_Pipeline\MAPS\mxd\Report Maps\PCN Plan Views.mxd



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PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

- Centerline
- Permanent RoW
- Temporary RoW
- Additional Workspace
- 200' Survey
- Unsurveyed Areas
- PEM
- PFO
- PSS
- EEM
- Streams
- Sample Point
- Milepost
- HDD Entry/Exit

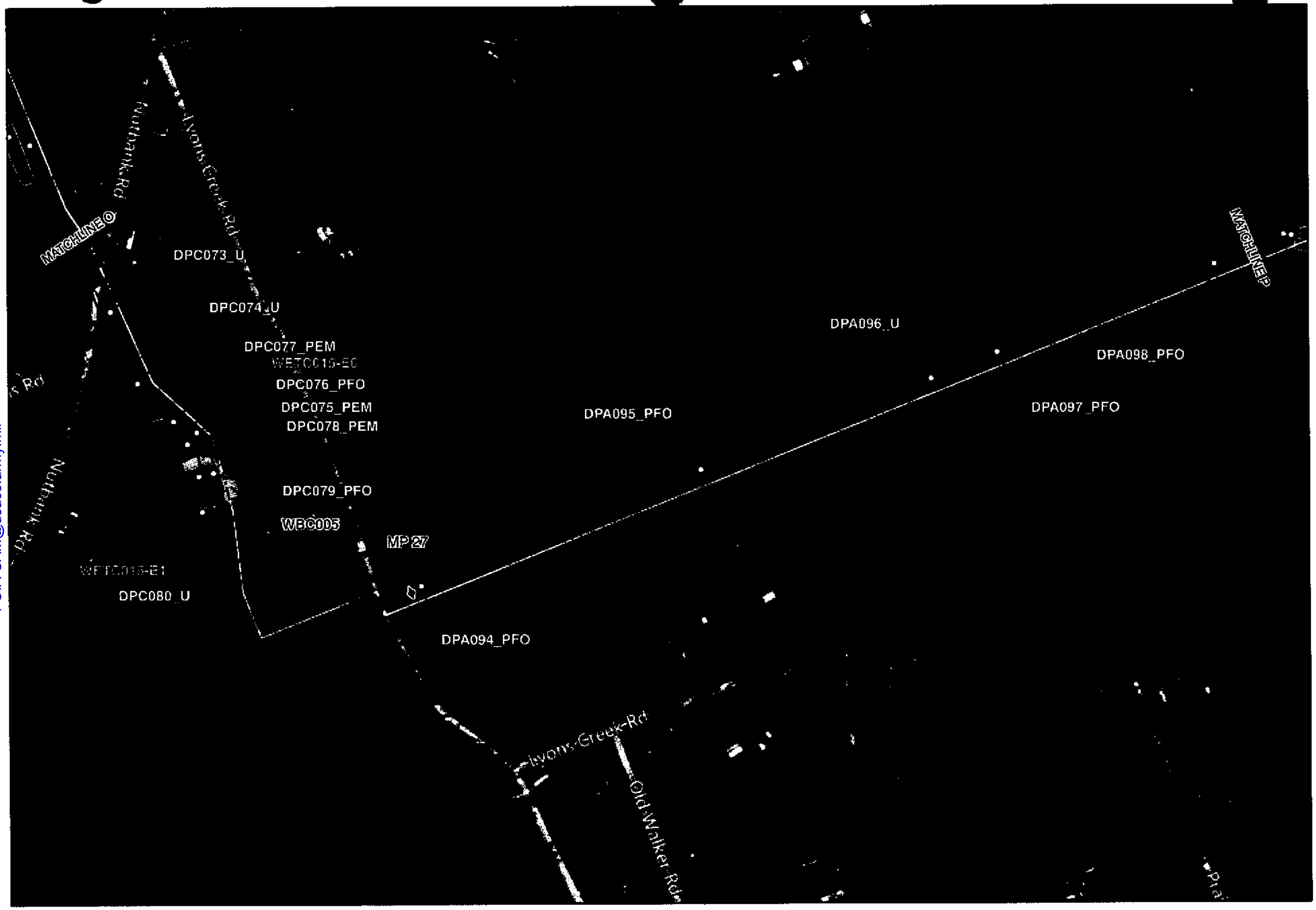
COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 8/20/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Foot US

Path: C:\Users\jrhicks\Desktop\My_Projects\22932_Pascagoula_Pipeline\MAPS\mxd\Report Maps\ACP\ON Plan Views.mxd



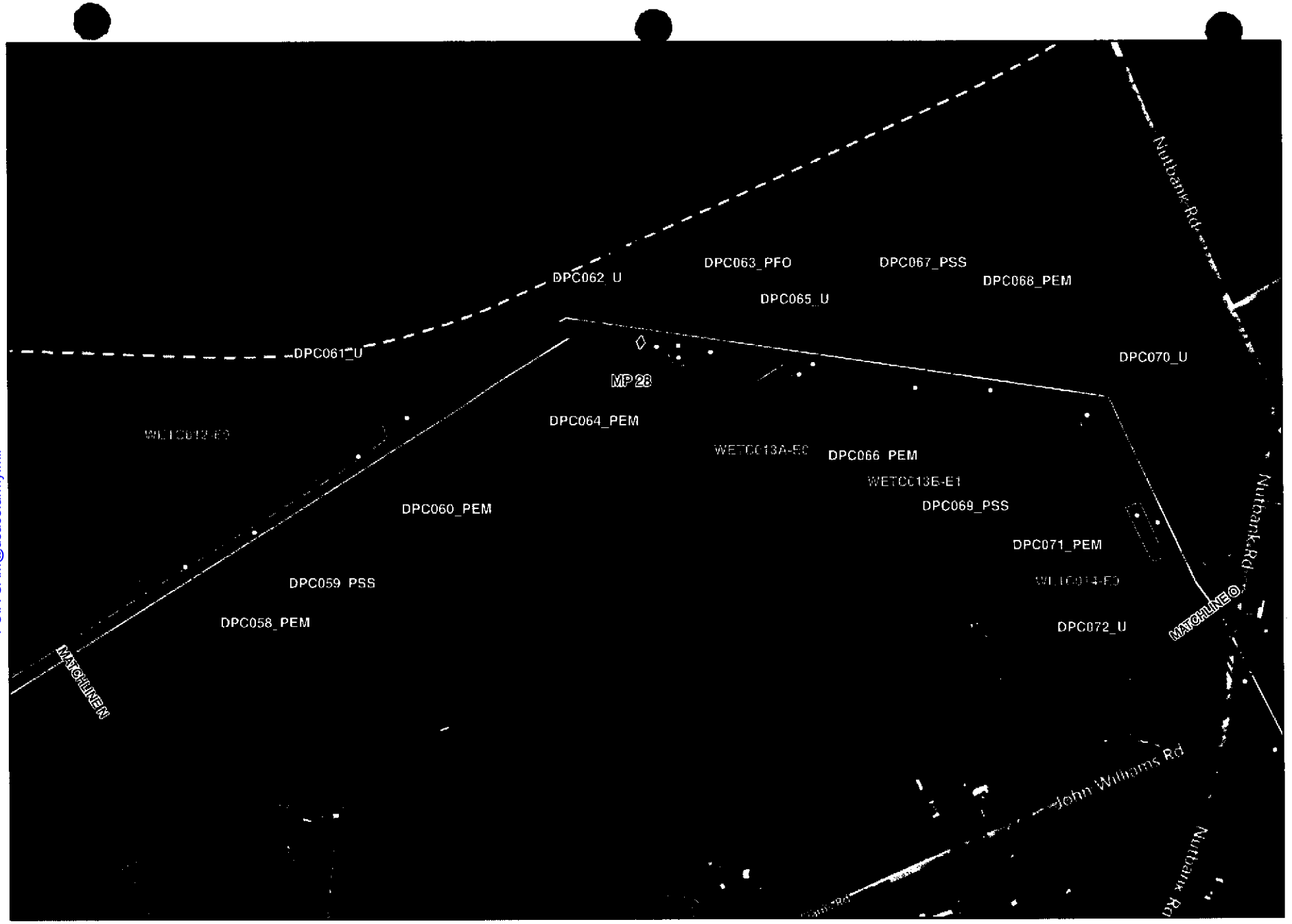
SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 32 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 8/30/2012
Revision Date:



SWCA ENVIRONMENTAL CONSULTANTS

Sheet 33 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

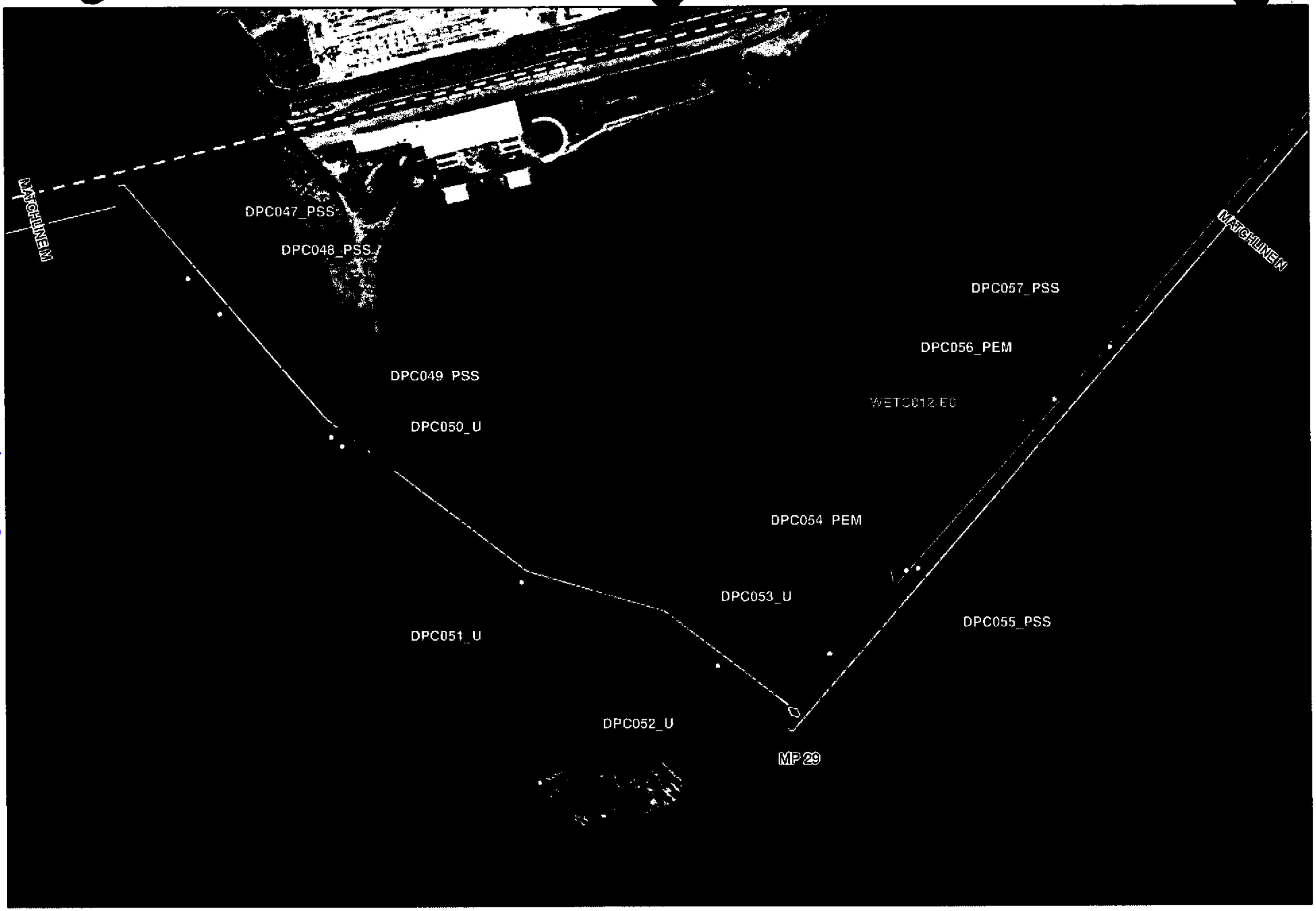
COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22972
Date Produced: 9/20/2012
Revision Date:

0 200 400 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

Path: C:\Users\jracka\Desktop\My_Projects\22972_Pascagoula_Pipeline\MAPS\mxd\Report Maps\mxd\APCN Plan Views.mxd



SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 34 of 47

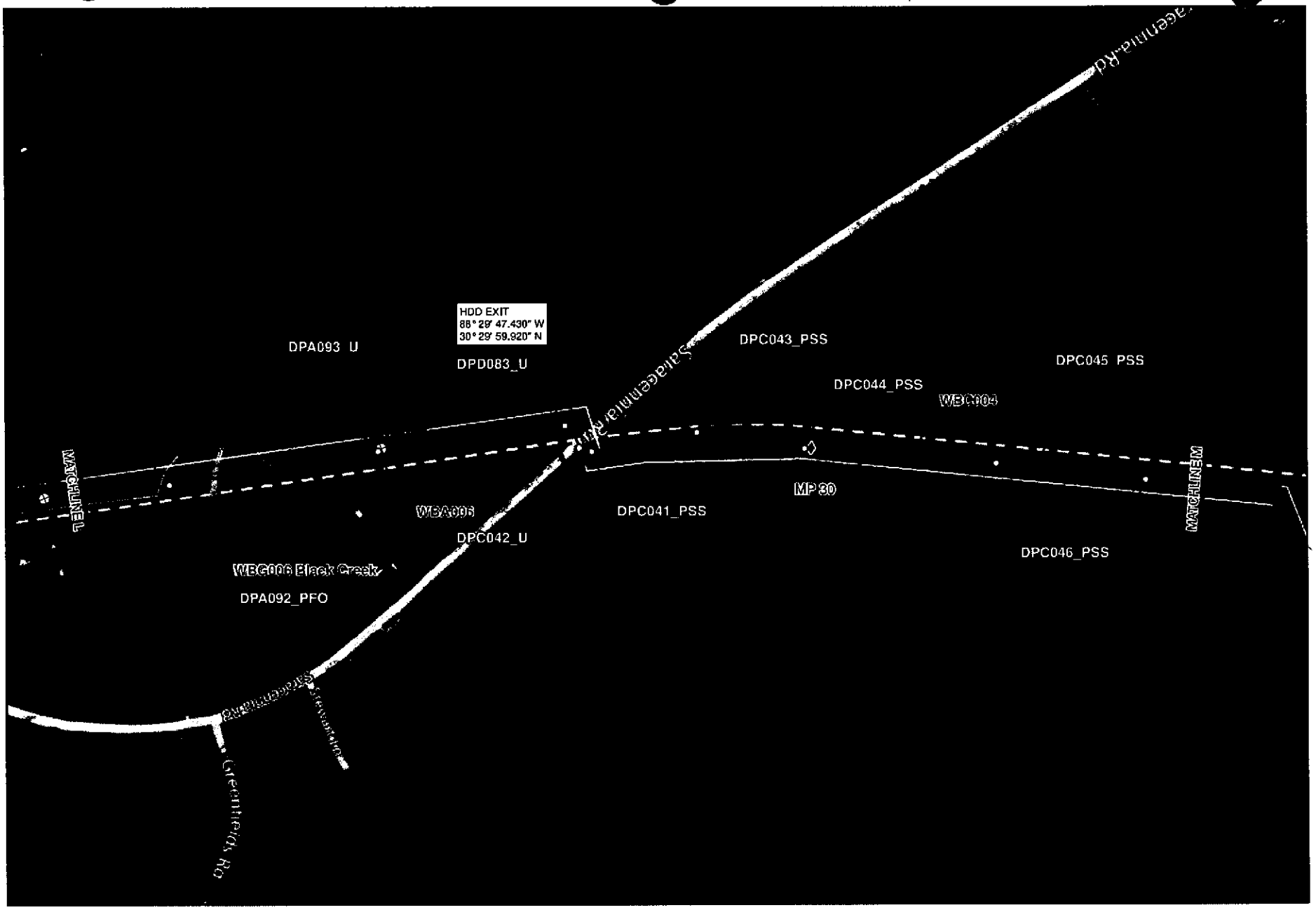
PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 8/20/2012
Revision Date:

0 250 500 Feet
Coordinate System: NAD 1983 UTM Zone 16N
Units: Foot US



SWCA ENVIRONMENTAL CONSULTANTS

Sheet 35 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 8/20/2012
Revision Date:

0 300 600 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

Path: C:\Users\jrasbach\Desktop\My_Project 22932_Pascagoula_Pipeline\MAP Smrd\Report Maps\Plan\Plan Views.mxd

SWCA ENVIRONMENTAL CONSULTANTS

Sheet 36 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22693
Date Produced: 8/20/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Foot US

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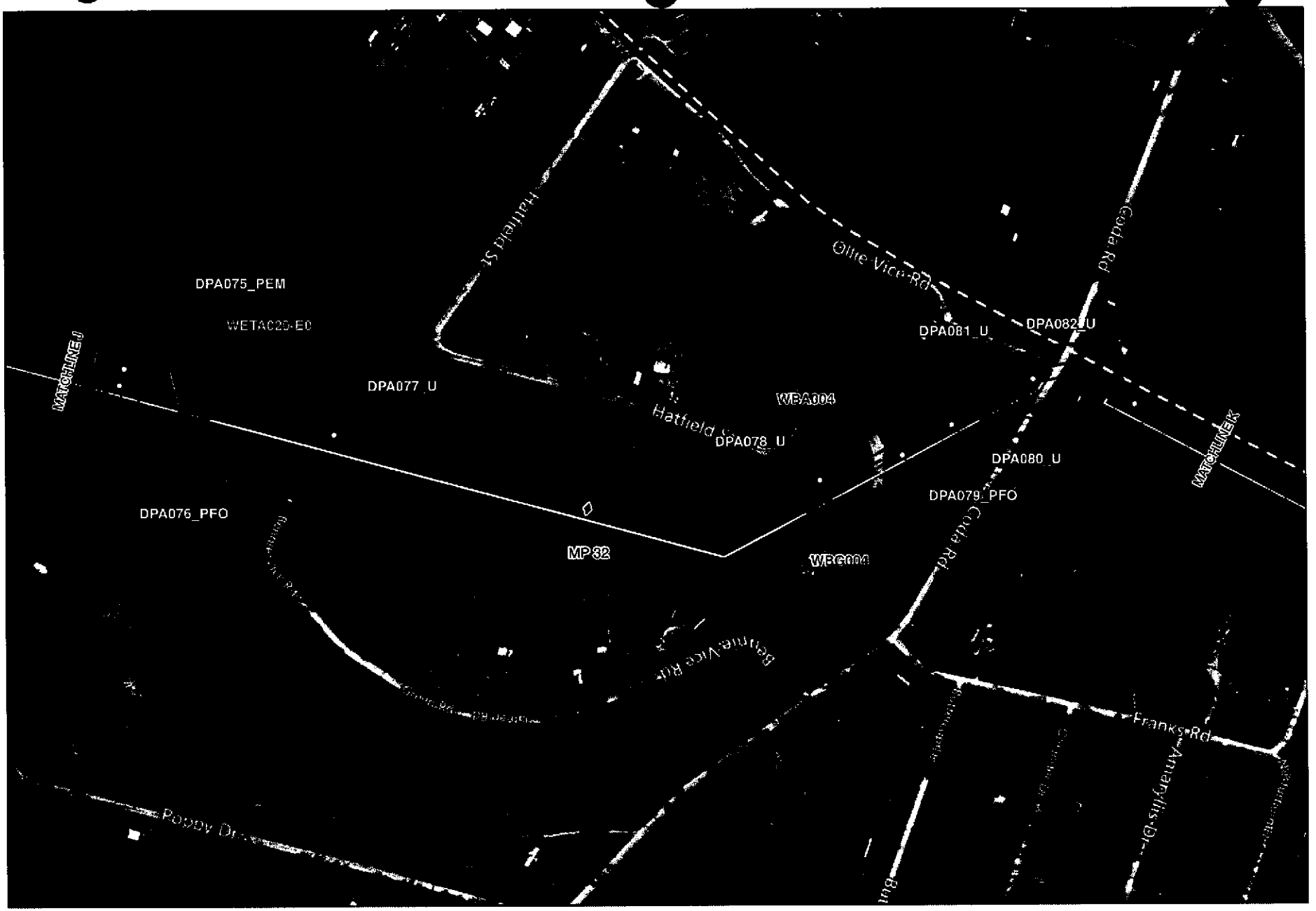

SWCA ENVIRONMENTAL CONSULTANTS

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PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

- Centerline
- Permanent RoW
- Temporary RoW
- Additional Workspace
- 200' Survey
- Unsurveyed Areas
- PEM
- PFO
- PSS
- EEM
- Streams
- Sample Point
- Milepost
- HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 5/30/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Foot US

Path: C:\Users\jrhebert\Desktop\My Projects\22932_Pascagoula_Pipeline\MAPS\mxd\Report Maps\Overview\Plan Views.mxd

SWCA ENVIRONMENTAL CONSULTANTS

Sheet 36 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

- Centerline
- Permanent RoW
- Temporary RoW
- Additional Workspace
- 200' Survey
- Unsurveyed Areas
- PEM
- PFO
- PSS
- EEM
- Streams
- Sample Point
- Milepost
- HDD Entry/Exit

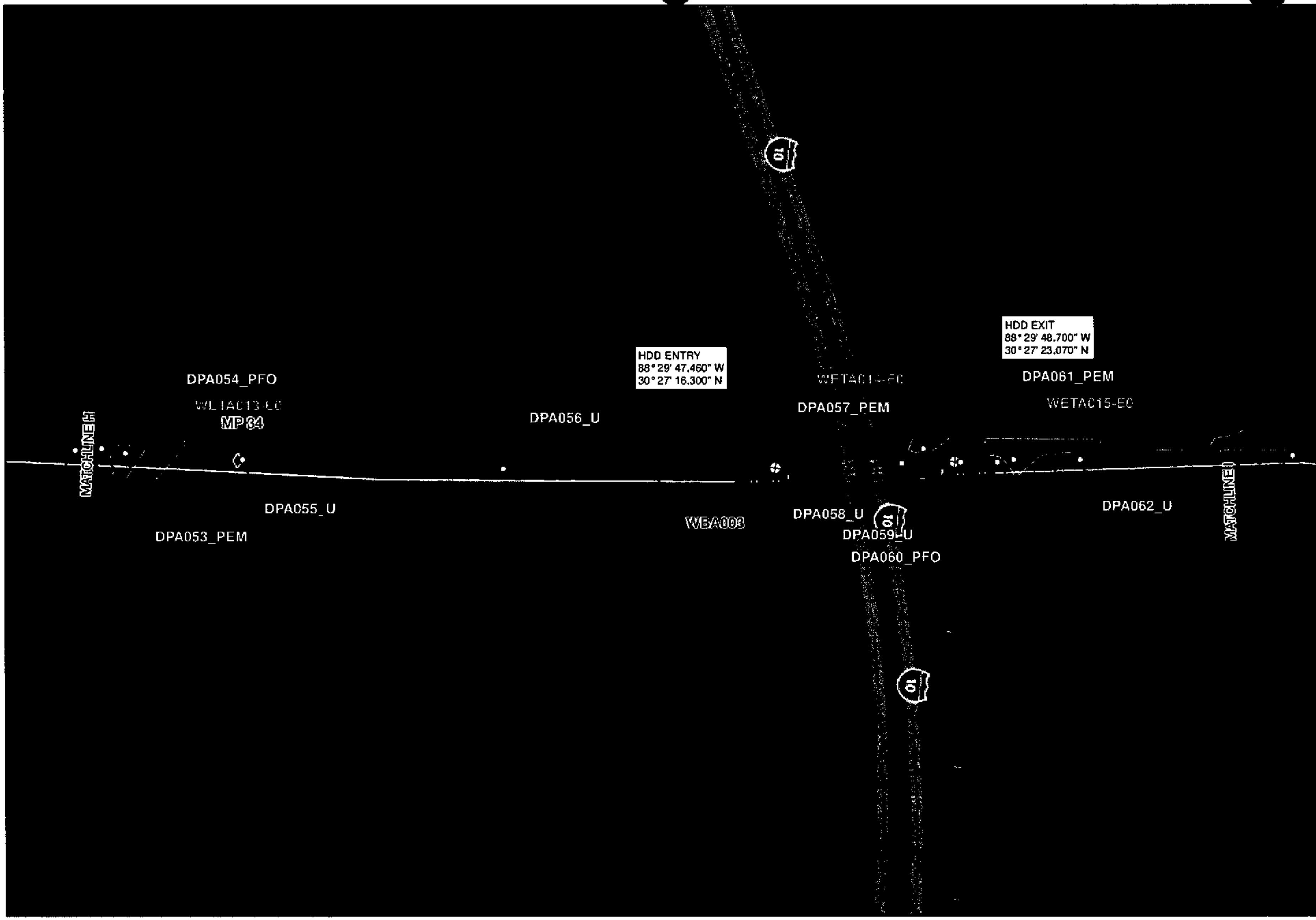
COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 8/20/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

Path: C:\Users\jrobdale\Desktop\My_Projects\22932_Pascagoula_Pipeline\MAPS\mxd\Report Maps\Overview Plan Views.mxd



SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 39 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 8/20/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Foot US

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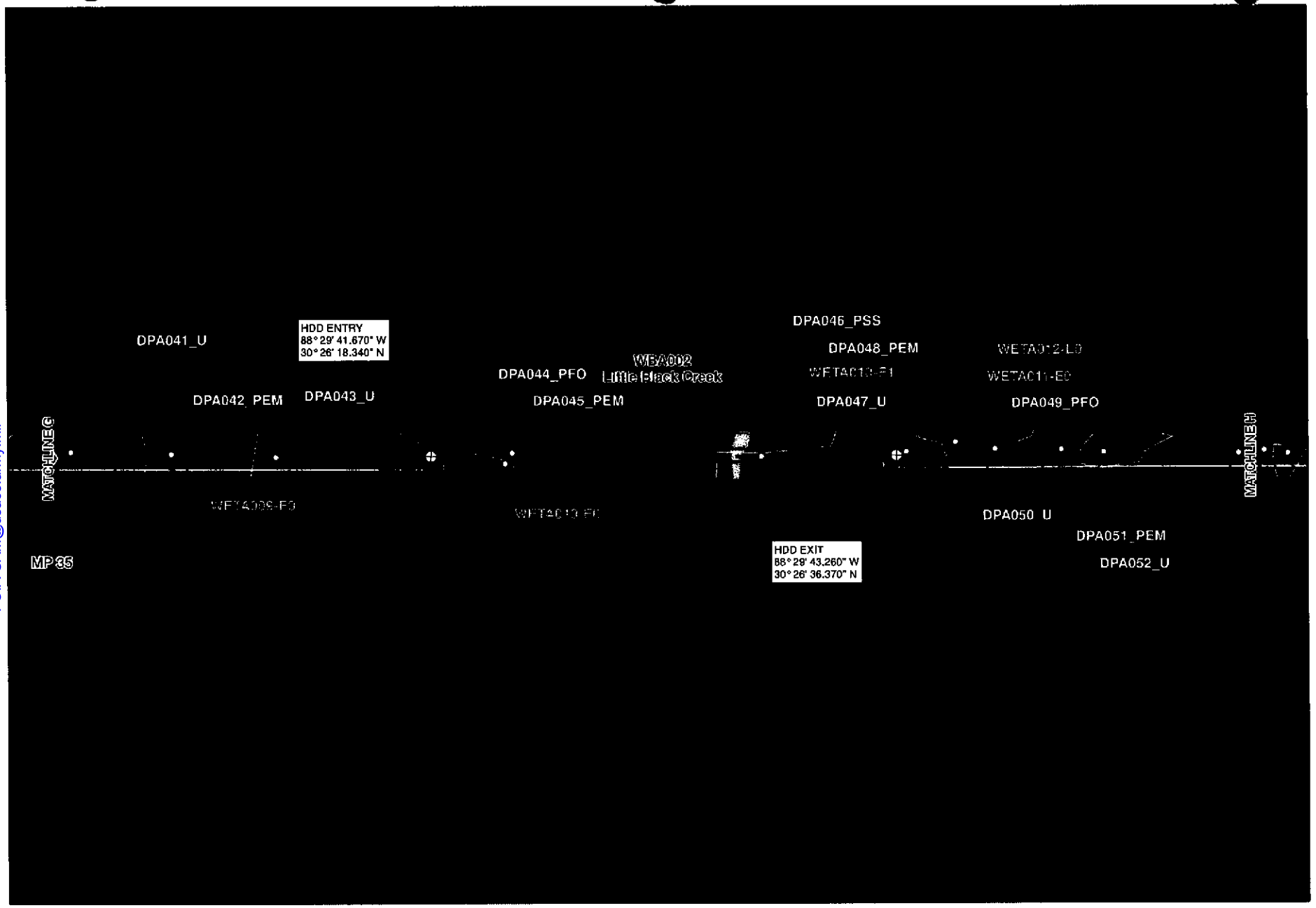

SWCA ENVIRONMENTAL CONSULTANTS

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PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

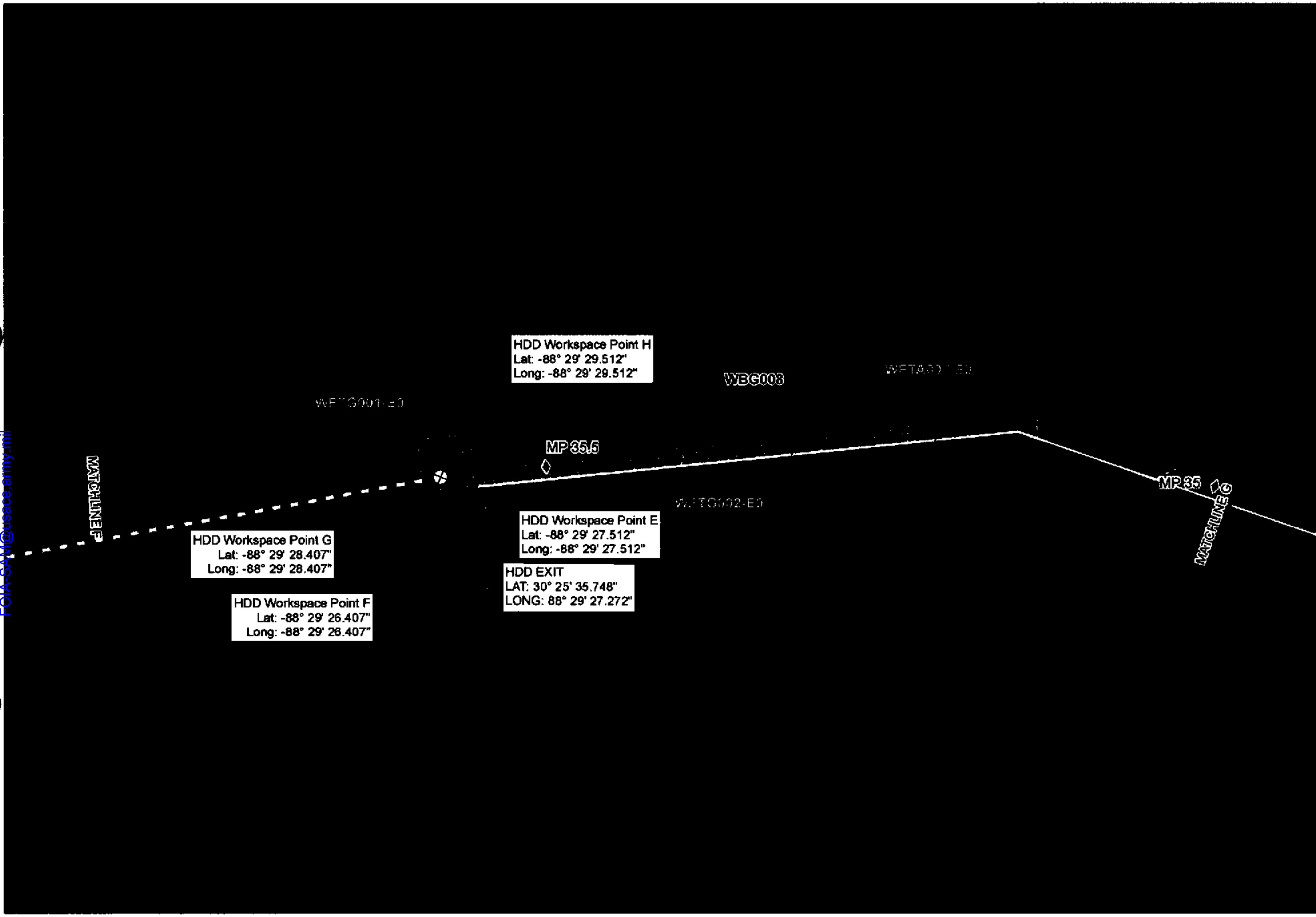
COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 9/20/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

Path: C:\Users\jrobbins\Desktop\My_Projects\22932_Pascagoula_Pipeline\MAPS\mxd\Report Maps\Sheet40_PCN Plan Views.mxd



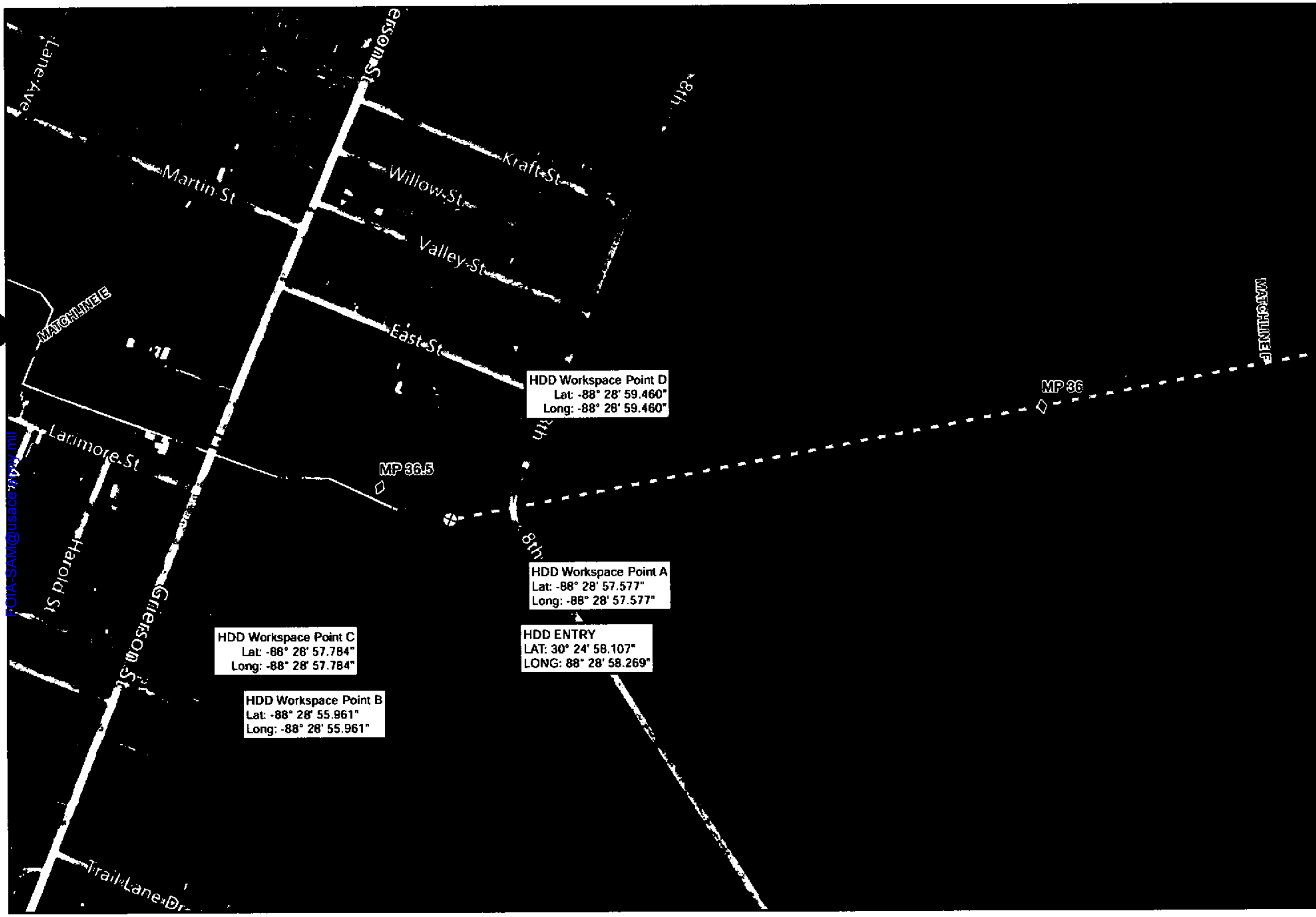
SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 41 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Milepost
Centerline
HDD Centerline
Permanent
Additional
Temporary
Intertidal
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 12/06/2012
Revision Date: 1/16/2012
0 300 600 Feet
Coordinate System: NAD 1983 UTM Zone 16N
Units: Foot US



SWCA
ENVIRONMENTAL CONSULTANTS

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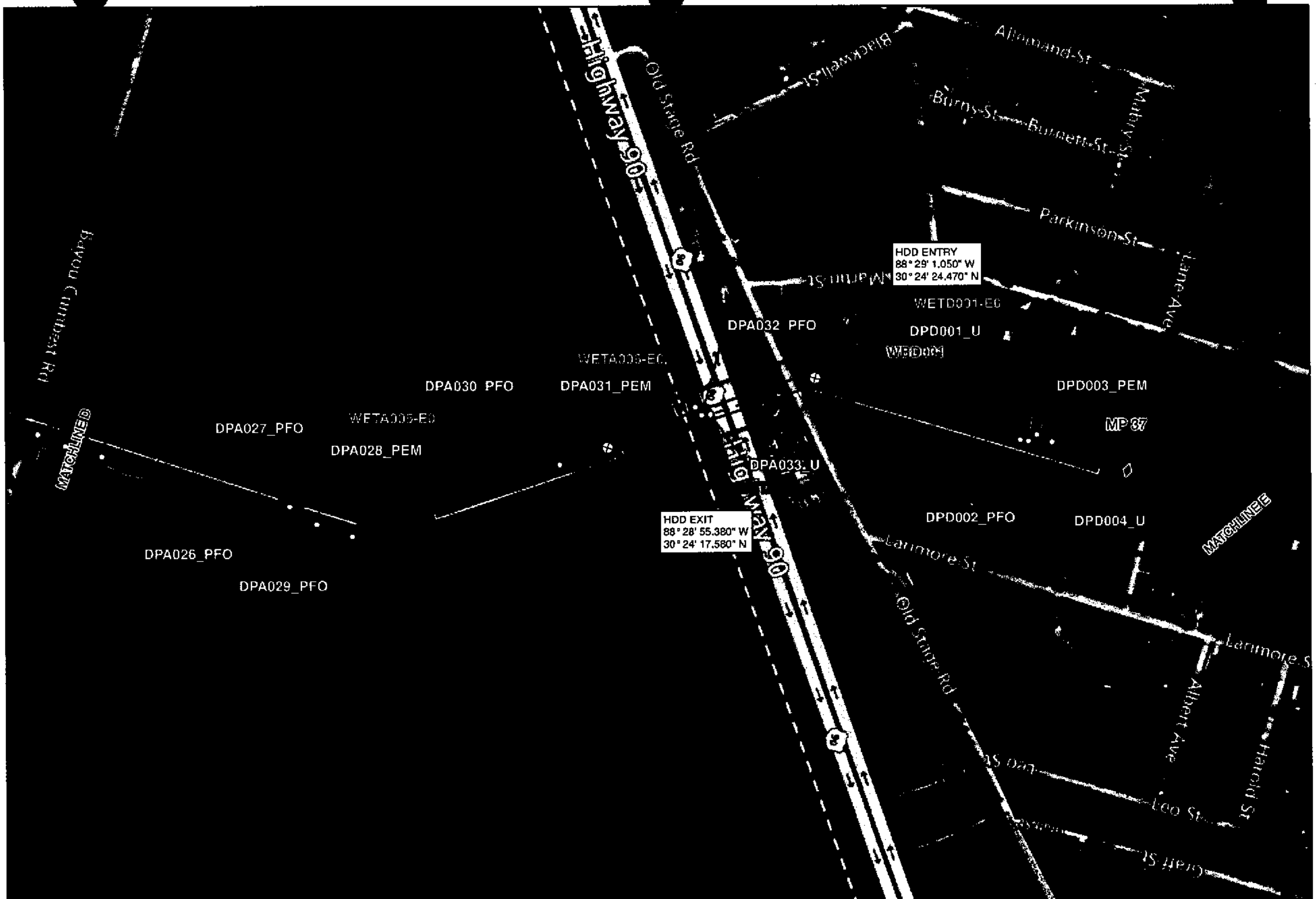
PLAINS SOUTHCAP L.L.C.
PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Milepost
Centerline
HDD Centerline
Permanent
Additional
Temporary
Intertidal
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 12/06/2012
Revision Date: 1/16/2012



SWCA
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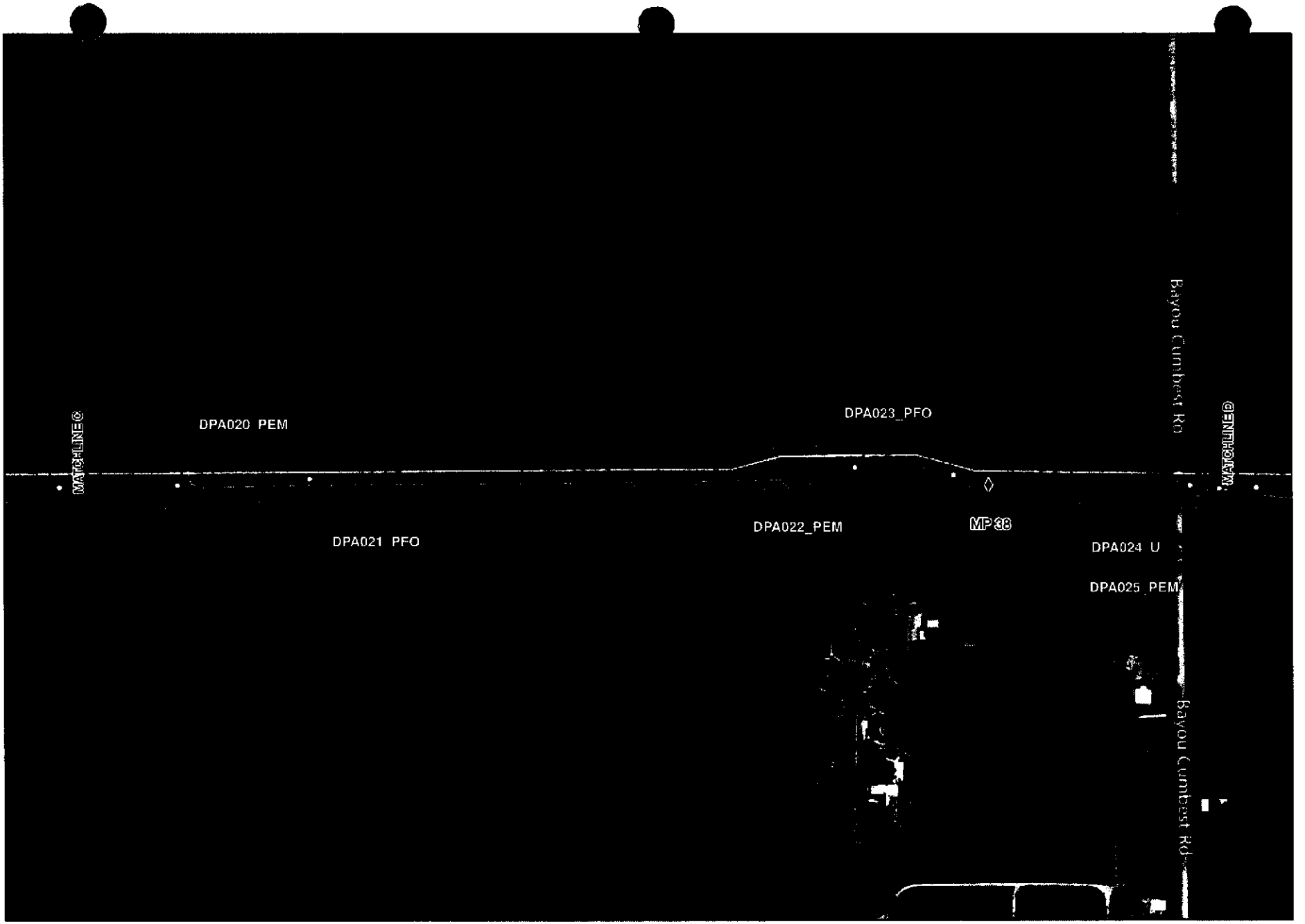
Sheet 43 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 6/20/2012
Revision Date:
0 250 500 Feet
Coordinate System: NAD 1983 UTM Zone 16N
Units: Foot US



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Sheet 44 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

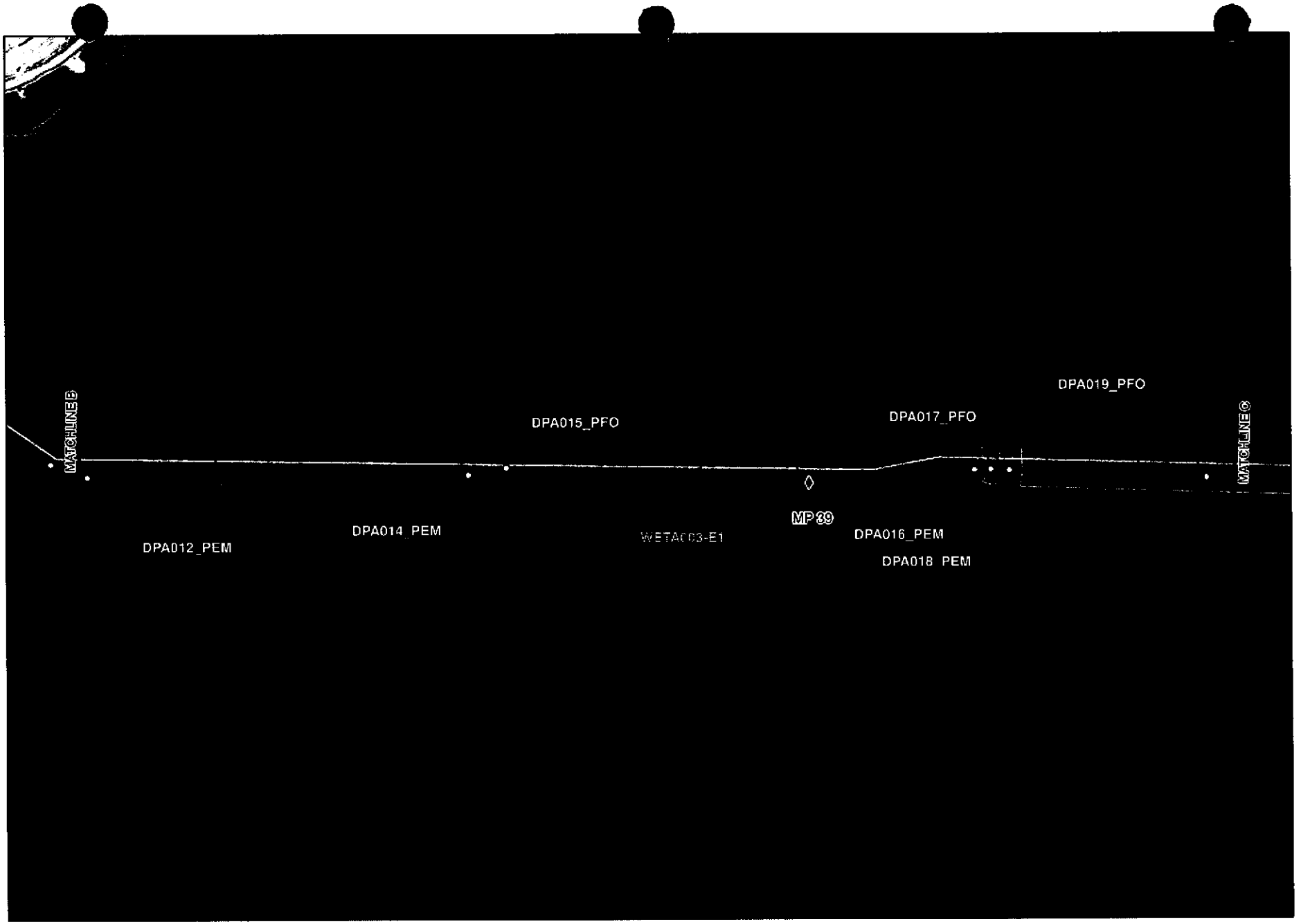
COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22832
Date Produced: 8/20/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

Path: C:\Users\jrscalise\Desktop\My_Projects\22832_Pascagoula_Pipeline\MXD\Permit Maps\PONs\PON Plan Views.mxd



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PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

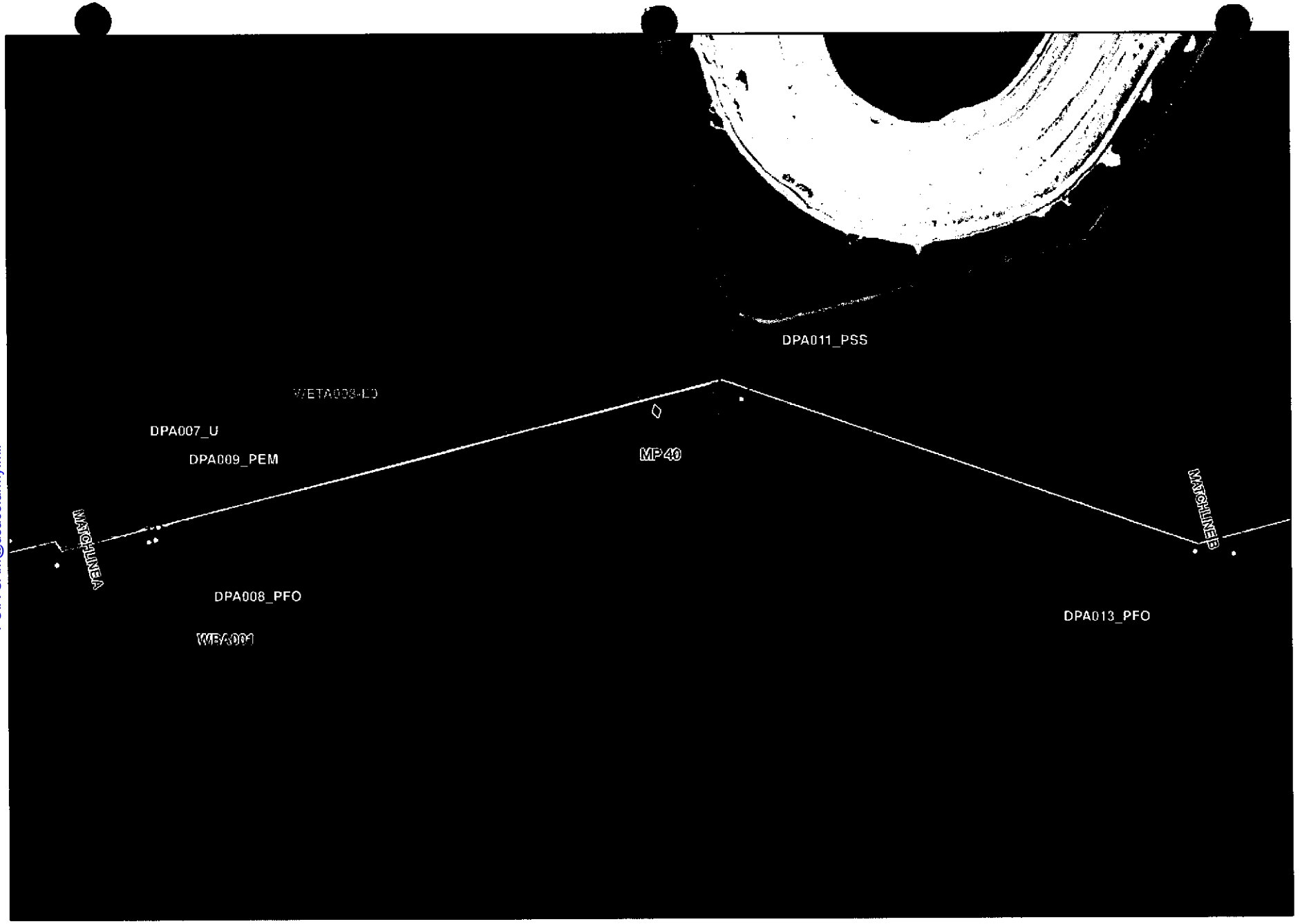
COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 8/20/2012
Revision Date:

0 350 700 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Feet US

Path: C:\Users\rjenkins\Desktop\My_Projects\22932_Pascagoula_Pipeline\MAPS\mxd\Report Maps\PCH-PCN Plan Views.mxd



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PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

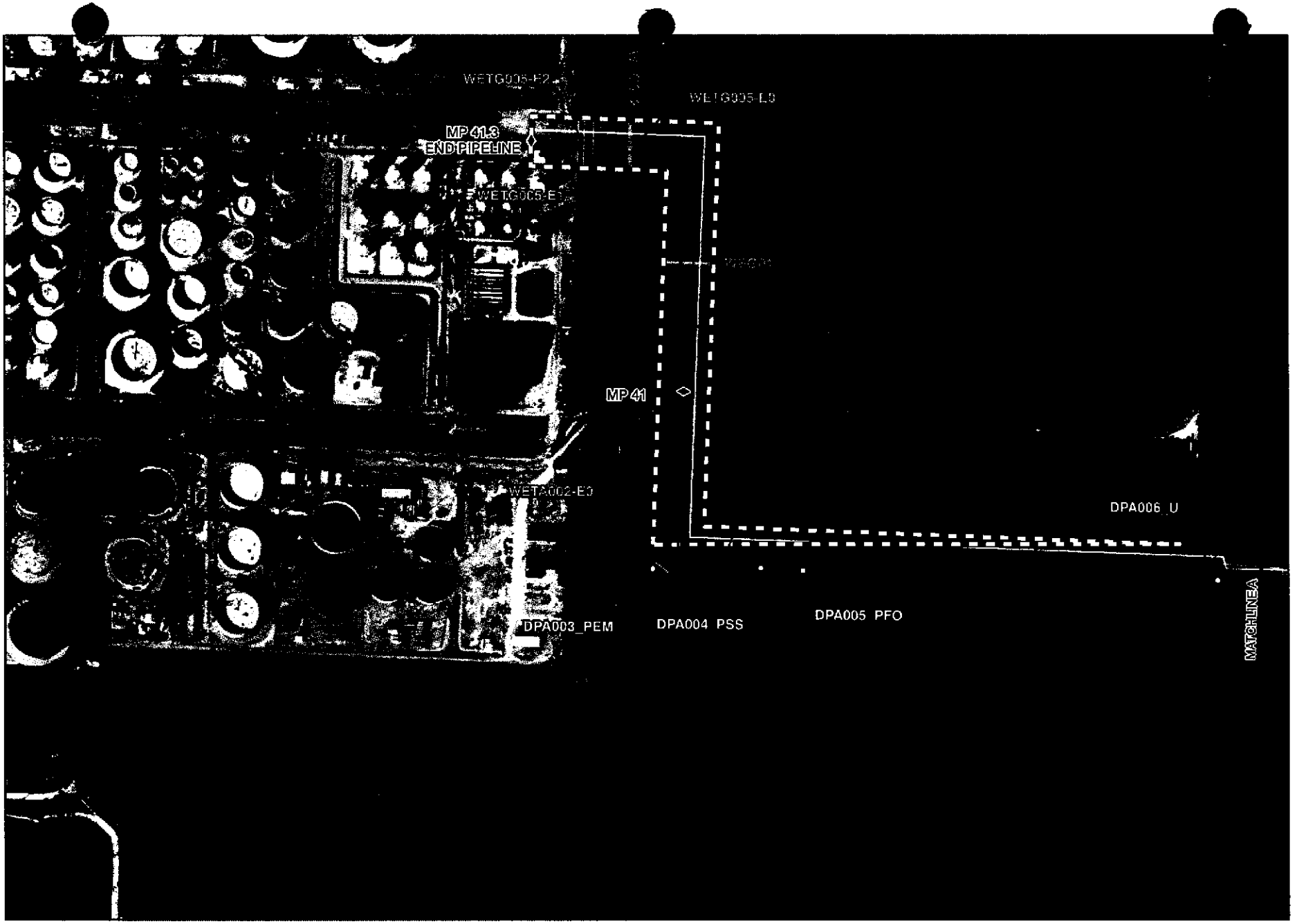
- Centerline
- Permanent RoW
- Temporary RoW
- Additional Workspace
- 200' Survey
- Unsurveyed Areas
- PEM
- PFO
- PSS
- EEM
- Streams
- Sample Point
- Milepost
- HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22932
Date Produced: 8/20/2012
Revision Date:

0 250 500 Feet

Coordinate System: NAD 1983 UTM Zone 16N
Units: Foot US



SWCA
ENVIRONMENTAL CONSULTANTS

Sheet 47 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEW
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
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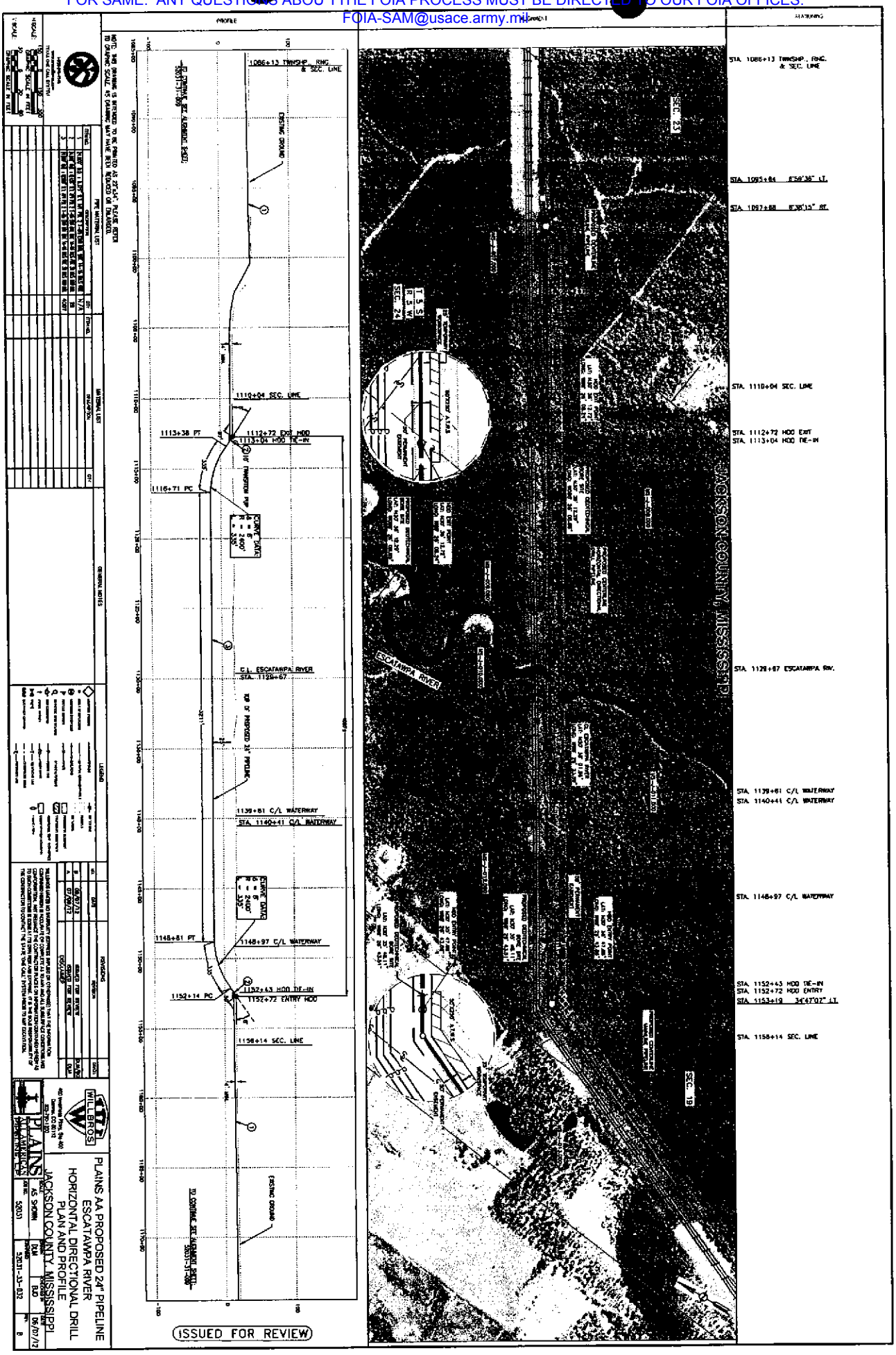
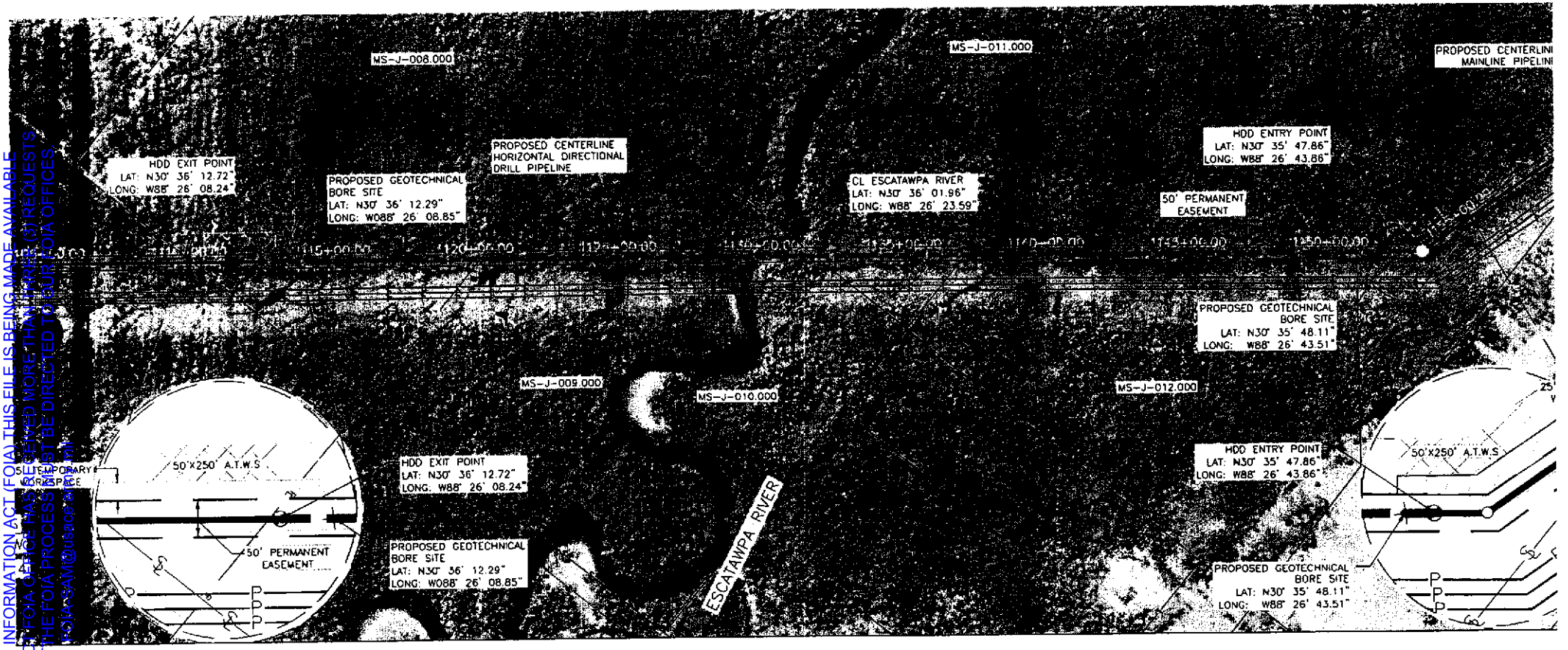
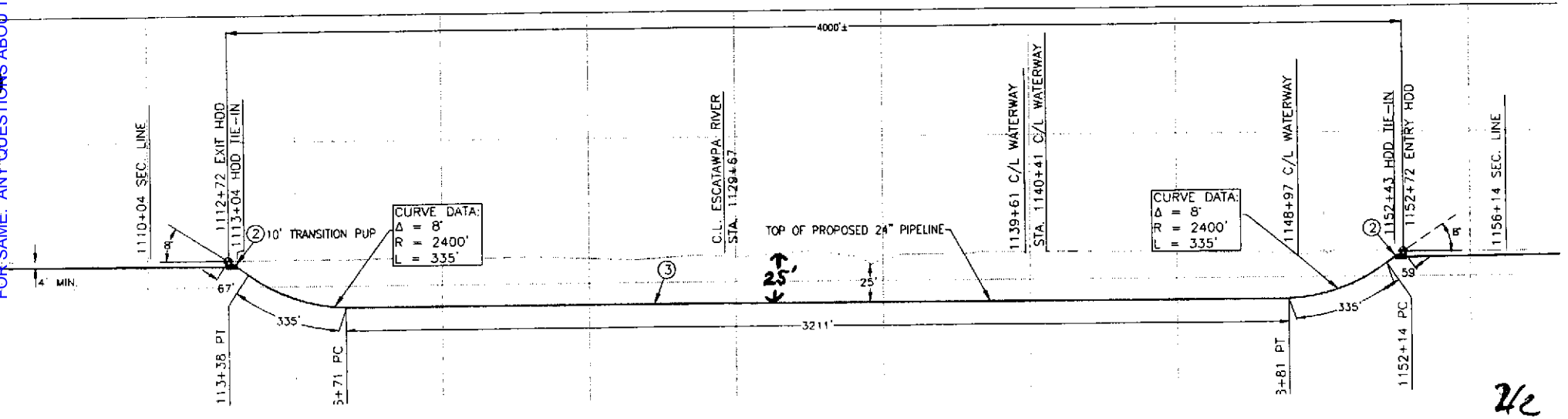
Path: C:\Users\jrascale\Desktop\My_Projects\22932_Pascagoula_Pipeline\MAPS\Circuit\Report Maps\CP\CP04 Plan Views.mxd



Type Escatawpa HDD 1/2

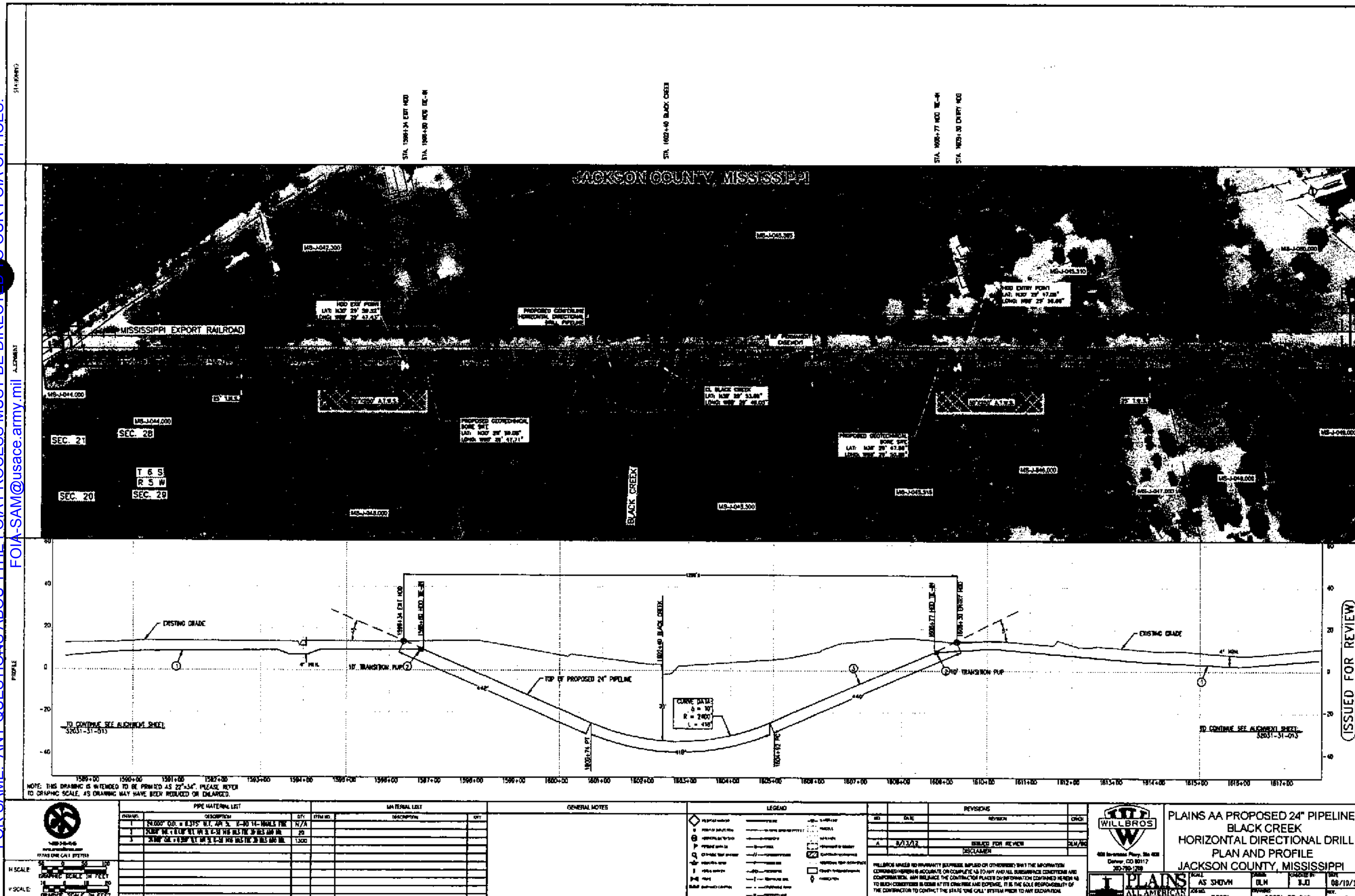
Upper Escatawpa River





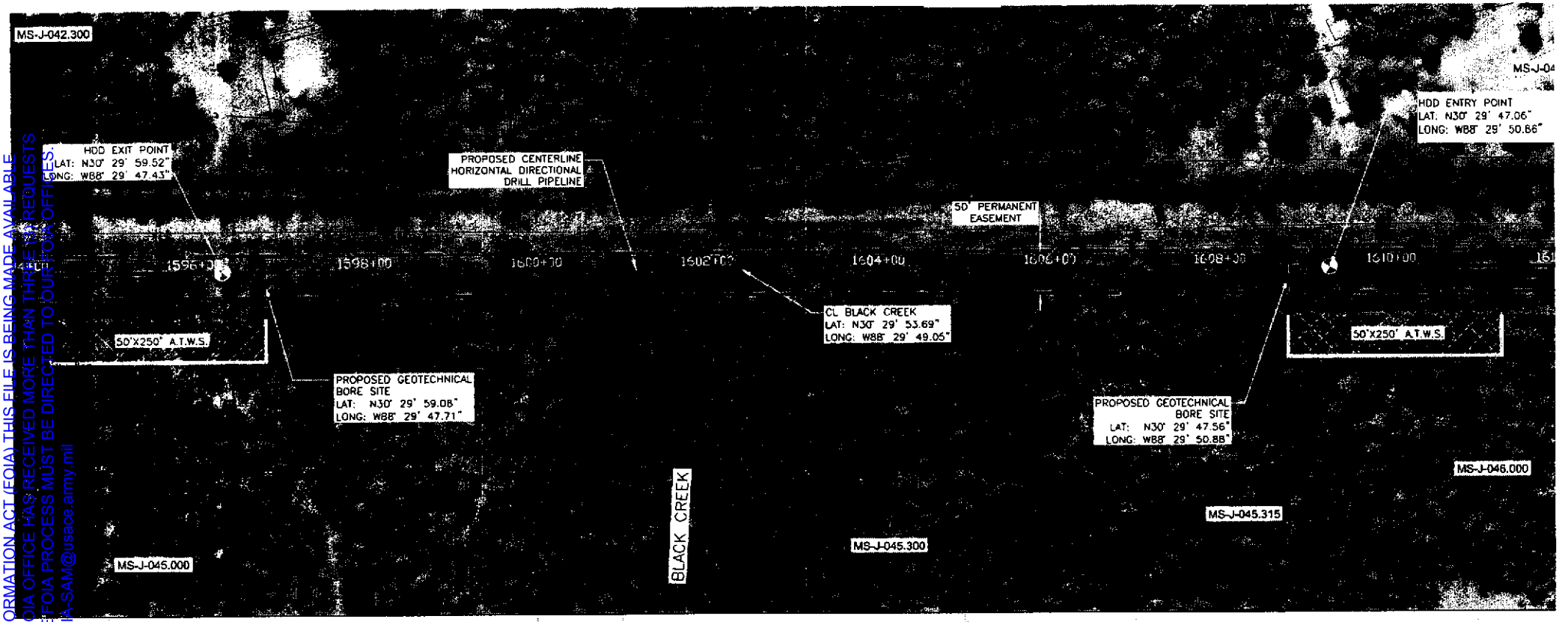
2/2

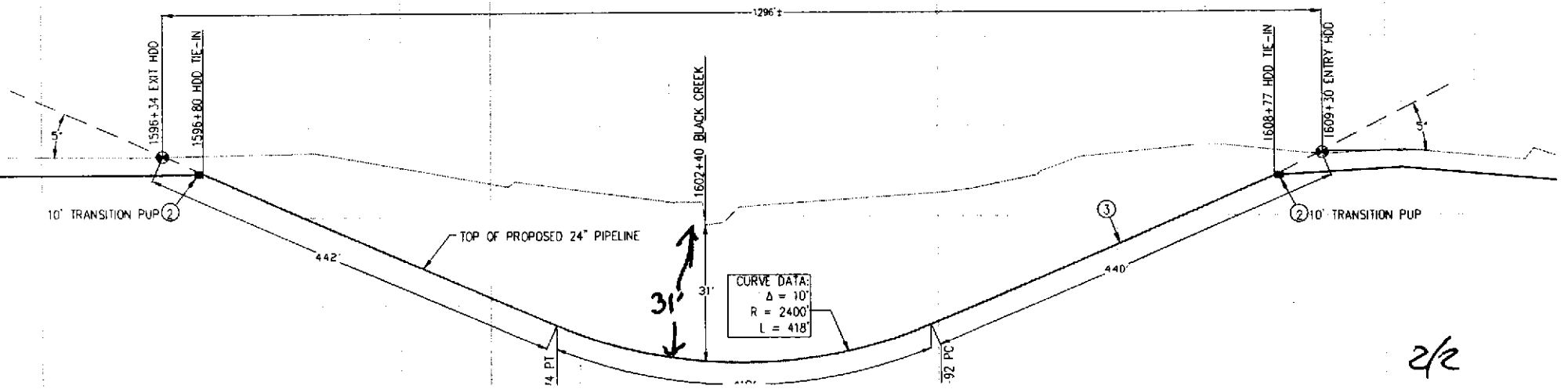
Upper Escatawpa HDD 1/2


JACKSON COUNTY, MISSISSIPPI
MISSISSIPPI EXPORT RAILROAD
BLACK CREEK
SEC. 21
SEC. 28
SEC. 20
SEC. 29
T 6 S
R 5 W
STA. 1596+34 EXIT HDD
STA. 1596+80 HDD TIE-IN
STA. 1602+40 BLACK CREEK
STA. 1608+77 HDD TIE-IN
STA. 1609+30 ENTRY HDD
EXISTING GRADE
TOP OF PROPOSED 24" PIPELINE
10' TRANSITION PUP
CURVE DATA
R = 2400'
L = 418'
TO CONTINUE SEE ALIGNMENT SHEET: 32031-31-013
ISSUED FOR REVIEW
NOTE: THIS DRAWING IS INTENDED TO BE PRINTED AS 22"x34". PLEASE REFER TO GRAPHIC SCALE, AS DRAWING MAY HAVE BEEN REDUCED OR ENLARGED.
PIPE MATERIAL LIST
MATERIAL LIST
GENERAL NOTES
LEGEND
REVISIONS
A 8/13/12 ISSUED FOR REVIEW
DISCLAIMER
H SCALE
V SCALE
GRAPHIC SCALE IN FEET
WILLBROS
PLAINS ALL AMERICAN PIPELINE, L.P.
PLAINS AA PROPOSED 24" PIPELINE
BLACK CREEK
HORIZONTAL DIRECTIONAL DRILL
PLAN AND PROFILE
JACKSON COUNTY, MISSISSIPPI
AS SHOWN
DLH
BJD
08/10/12
32031
32031-33-040
A

HDD Black Creek
1/2

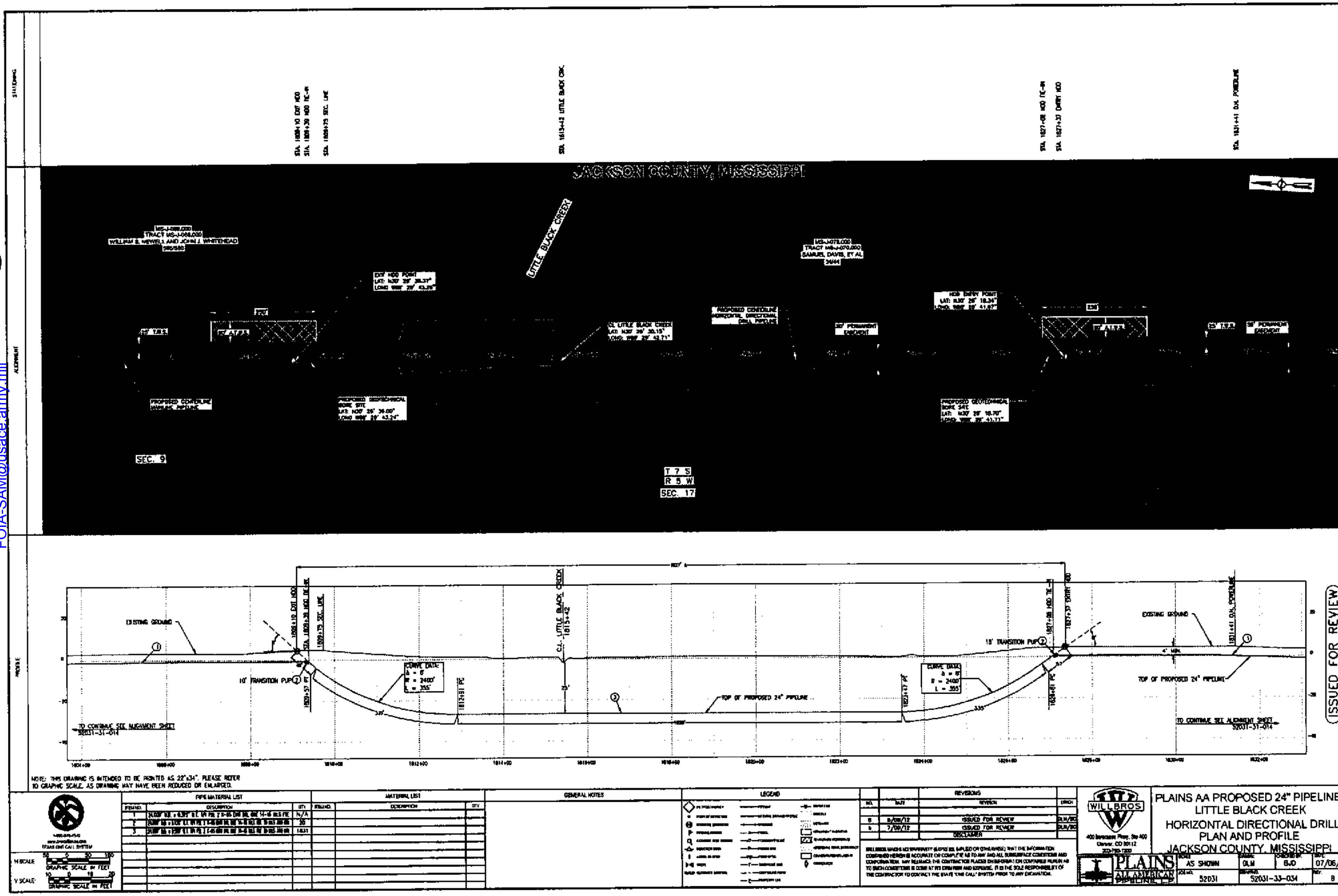
HDD Black Creek





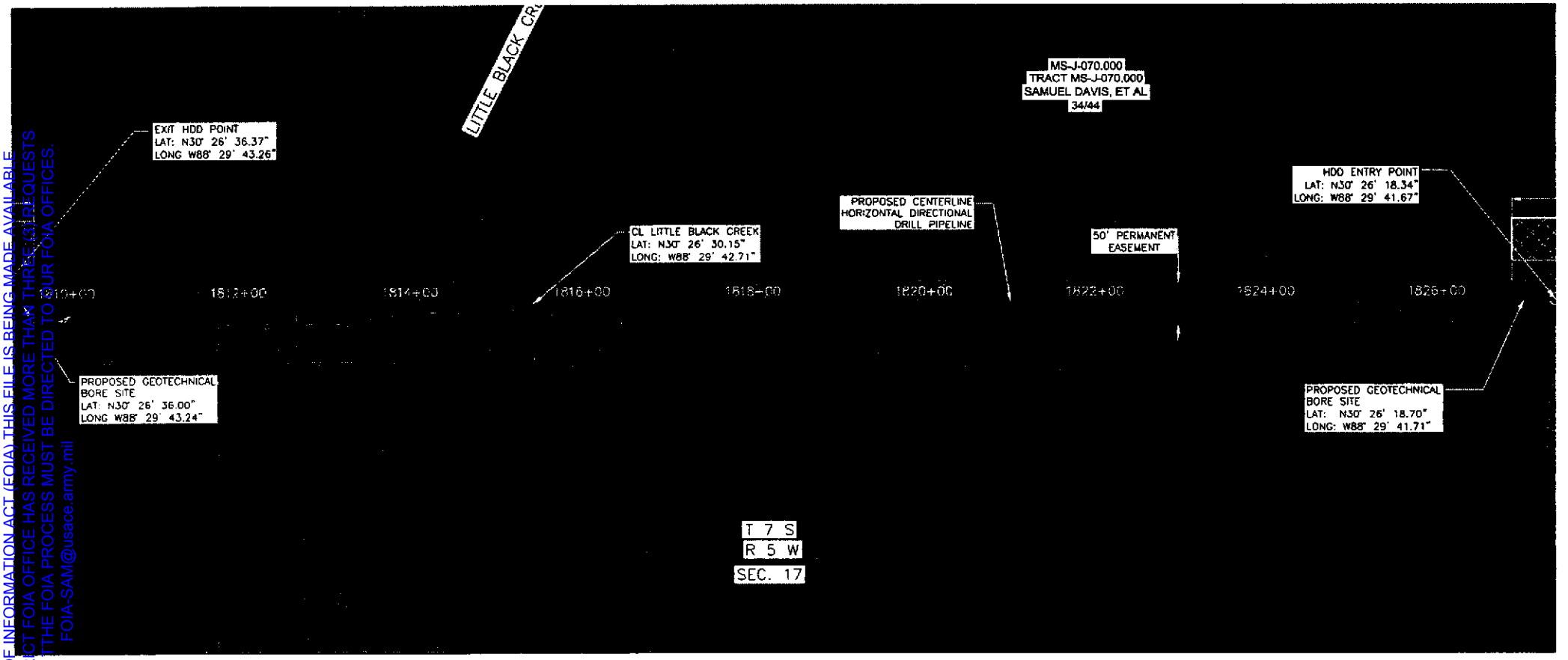
2/2

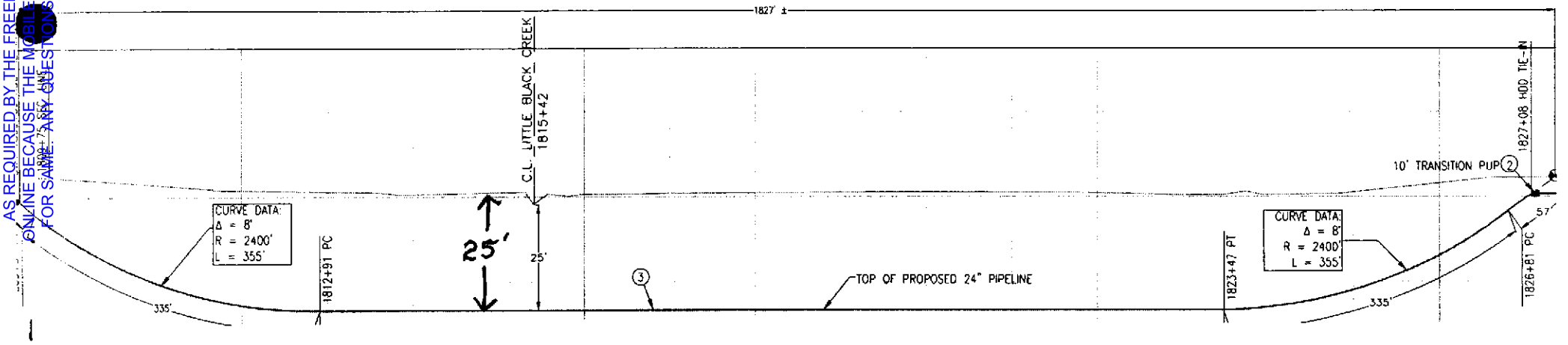
Black Creek HDD



C..H/, Black Creek HDD 1/2

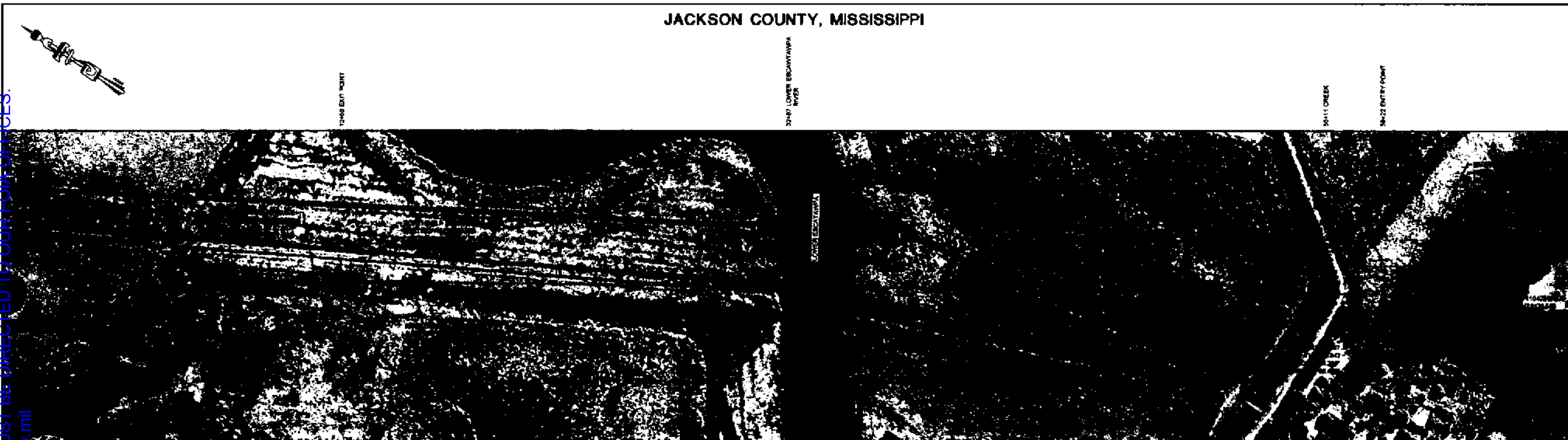
Little Black Creek





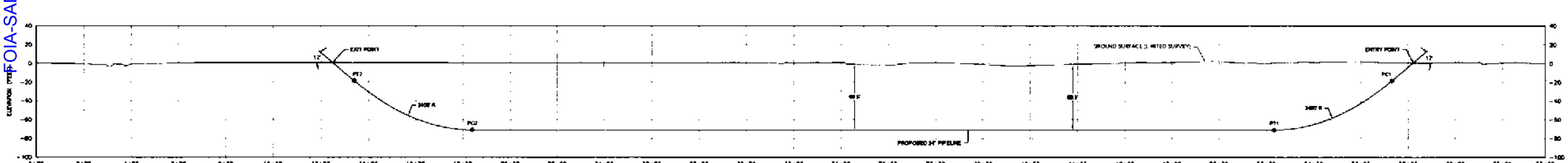
Little Black Creek HDD 2/2

JACKSON COUNTY, MISSISSIPPI



PLAN VIEW

GRAPHIC SCALE IN FEET (200 0 200 400)



PROFILE VIEW

GRAPHIC HORIZONTAL SCALE IN FEET (200 0 200 400)

GRAPHIC VERTICAL SCALE IN FEET (50 0 50 100)

NOTES:

1. ALL EQUIPMENT MUST ACCESS THE SITE ALONG THE CONSTRUCTION RIGHT-OF-WAY OR FROM APPROVED ACCESS ROADS.
2. WORK SPACE: MINIMUM WORK SPACE LIMITS ARE DEPICTED. RESTRICT CLEARING TO THE WORK SPACE INDICATED AT THE ENTRY AND EXIT POINTS AND PRODUCT PIPE STRINGING AND FABRICATION AREA ALONG THE CONSTRUCTION RIGHT-OF-WAY. CLEARING BETWEEN THE ENTRY AND EXIT POINTS REQUIRES PRIOR COMPANY APPROVAL AND IS LIMITED TO THE AMOUNT NECESSARY TO STRING SURVEY WIRES AND INSTALL PUMPS AND PIPING TO OBTAIN WATER (WHERE APPROVED).
3. WATER SOURCE: DRILL WATER AND HYDROSTATIC TEST WATER SHALL BE OBTAINED FROM COMPANY APPROVED SOURCE.
4. HYDROSTATIC TEST: PRE-INSTALLATION AND POST-INSTALLATION HYDROSTATIC TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE HYDROSTATIC TEST PLAN. TEST WATER SHALL BE ACQUIRED FROM AN APPROVED SOURCE. THE TEST WATER SHALL BE DISCHARGED IN AN UPLAND AREA INTO AN EROSION CONTROL STRUCTURE OF [illegible] BALES AND/OR SILT FENCES, GEOTEXTILE FILTER BAG, OR COLLECTED IN A TRUCK AND HAULED TO AN APPROVED DISPOSAL SITE. UPON COMPLETION OF DEWATERING AND DRYING, A CALIPER PIG SURVEY SHALL BE COMPLETED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
5. SPILL-PREVENTION: REFUELING OF ALL EQUIPMENT SHALL BE COMPLETED IN ACCORDANCE WITH THE SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN.
6. EROSION AND SEDIMENT CONTROL: CONTRACTOR SHALL SUPPLY, INSTALL AND MAINTAIN SEDIMENT CONTROL STRUCTURES IN ACCORDANCE WITH CONTRACT DOCUMENTS. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL STRUCTURES AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
7. INSTALLATION: THE PIPE SECTION FOR THE DRILLED CROSSING SHALL BE MADE UP WITHIN THE APPROVED CONSTRUCTION RIGHT-OF-WAY AS SHOWN AFTER THE PILOT HOLE IS COMPLETE. CONTRACTOR'S ACTUAL DRILL PROFILE SHALL BE SUBMITTED FOR COMPANY APPROVAL. CONTRACTOR SHALL ASSESS THE NEED FOR AND SUPPLY APPROPRIATE BALLAST DURING PULL BACK.
8. DRILLING FLUID DISPOSAL: CONTRACTOR SHALL DISPOSE OF EXCESS DRILLING FLUID IN ACCORDANCE WITH PERMIT CONDITIONS. UNDER NO CIRCUMSTANCES SHALL DRILLING FLUID BE DISPOSED OF IN WATER BODIES OR WETLANDS. ANY DRILLING FLUID WHICH INADVERTENTLY SURFACES AT POINTS OTHER THAN THE ENTRY OR EXIT POINTS SHALL BE CONTAINED AND COLLECTED TO THE EXTENT PRACTICAL AND DISPOSED OF IN ACCORDANCE WITH PERMIT CONDITIONS.
9. CLEANUP/STABILIZATION/RESTORATION: ALL DISTURBED AREAS SHALL BE RETURNED TO THE ORIGINAL CONTOURS. DISTURBED AREAS SHALL BE SEEDED AS SPECIFIED IN THE CLEAN-UP AND RESTORATION REQUIREMENTS.
10. IF THE TERRAIN ALLOWS AND ACCESS IS PERMITTED, CONTRACTOR SHALL UTILIZE LOW GROUND PRESSURE EQUIPMENT OR OTHER EQUIPMENT APPROVED BY COMPANY, TO FACILITATE CONTAINMENT AND CLEAN-UP OF ANY INADVERTENT RETURNS THAT OCCUR DURING THE HDD INSTALLATION PROCESS.
11. THE MINIMUM ALLOWABLE THREE JOINT RADIUS SHALL NOT BE LESS THAN 300 FEET.
12. GROUND SURFACE SURVEY DATA PROVIDED BY [illegible] ENGINEERS.
13. CONTRACTOR IS RESPONSIBLE FOR PHYSICALLY LOCATING ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. IF ANY UTILITY IS LOCATED WITHIN 15 FEET OF THE DESIGNED HDD PROFILE AND ALIGNMENT, CONTRACTOR SHALL OBTAIN APPROVAL FROM COMPANY REPRESENTATIVE PRIOR TO INITIATING HDD OPERATIONS.
14. THE PIPELINE INFORMATION SHOWN ON THIS DRAWING IS A COMPILATION OF DATA OBTAINED FROM VARIOUS SOURCES. LANEY DIRECTIONAL DRILLING DOES NOT GUARANTEE THE ACCURACY OF THE INFORMATION SHOWN.
15. GEOTECHNICAL DATA: BORE HOLES ARE OFFSET FROM THE PIPELINE CENTERLINE AS SHOWN ON THE PLAN VIEW. THE GEOTECHNICAL INFORMATION PROVIDED ON THIS DRAWING IS A GENERAL SUMMARY. REFER TO THE APPLICABLE GEOTECHNICAL DOCUMENTATION / REPORT FOR MORE DETAILED INFORMATION.
16. ALL STATIONING SHOWN ON DRAWING IS BASED ON FALSE STATIONING.

PIPE SPECIFICATIONS:

1. PRODUCT PIPE WILL CONSIST OF 24.00" O.D. x 0.500 W.T. API-5L X-65 PIPE WITH XX-XX MILS OF FUSION BONDED EPOXY (FBE) AND XX-XX MILS ARO.
2. MAXIMUM ALLOWABLE OPERATING PRESSURE (MAOP) = 1440 psi

DRAWING COORDINATE SYSTEM
HORIZONTAL DATUM: SPCS - UTM NAD83 AND GEOGRAPHIC NAD83
VERTICAL DATUM: NAVD 88

REFERENCE DRAWINGS	REV	DATE	REVISION	APPR.
	△			
	△			
	△			
	△			
	△			
	A	01/07/13	PRELIMINARY	APS

THINK SAFETY FIRST

PRELIMINARY

HORIZONTAL DIRECTIONAL DRILL DATA HDD-8 PASCAGOULA		
DESCRIPTION	STATION (ft)	ELEVATION (ft)
ENTRY @ 12°	58+22.15	0.87
PC1 = 2400' RADIUS	57+32.15	-18.28
PT1 =	52+33.76	-70.71
PC2 = 2400' RADIUS	18+39.83	-70.71
PT2 =	13+40.04	-18.28
EXIT @ 12°	12+50.00	1.07
HORIZONTAL DISTANCE (ft) = 4572.15		
DIRECTIONAL DRILL PIPE LENGTH (ft) = 4583.52		

PLAINS PIPELINE, LP
PASCAGOULA PIPELINE

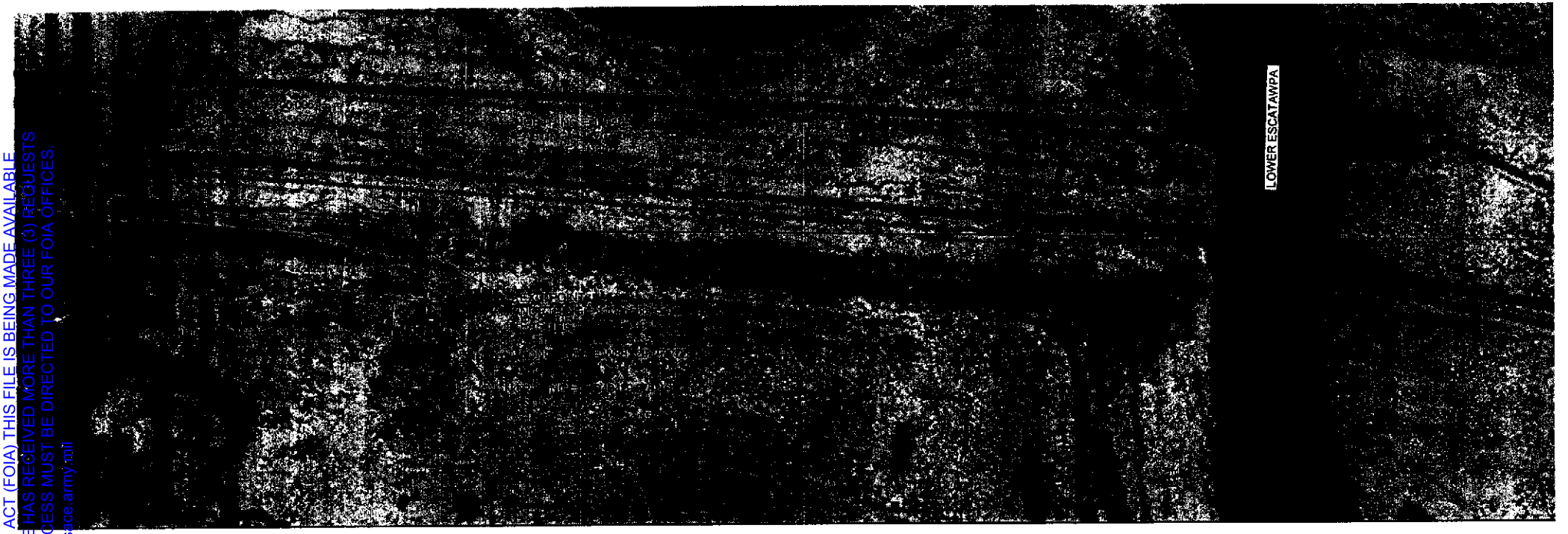
LOWER ESCATAWPA
HORIZONTAL DIRECTIONAL DRILL

DRAWN APS	CHECKED TTH	APPROVED JES	PROJECT NO. 10090	REV A
SCALE AS NOTED	DATE 01/07/13	DWG. NO. [illegible]		

There Is No Substitute For Experience
2001 Humble Place Dr. Suite 100
Humble, Texas 77338
Tel: (281) 540-6616 Fax: (281) 540-8787
http://www.laneydrilling.com

Lower Escatawpa
HDD 1/5

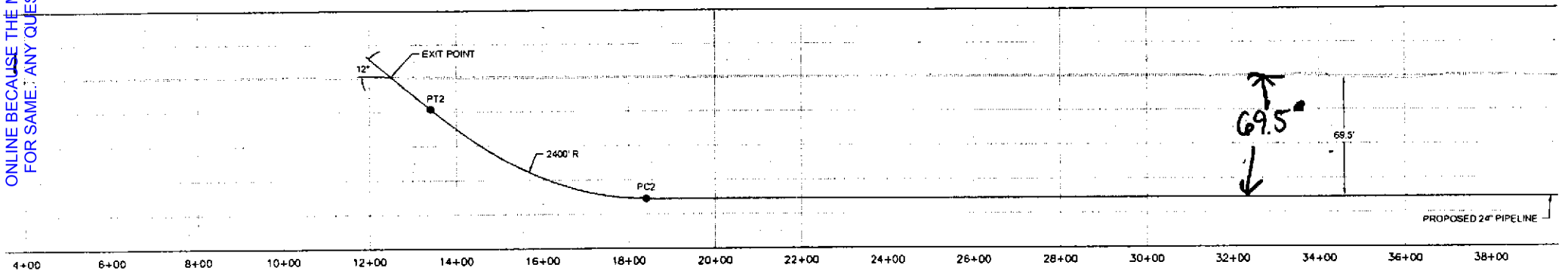
Lower Escatawpa 1/2



PLAN VIEW

200 0 200 400

GRAPHIC SCALE IN FEET



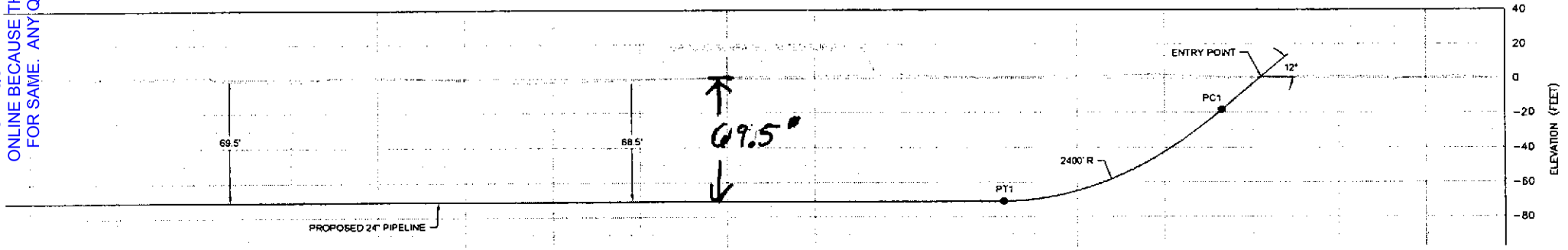
Lower Escatawpa 2/3

Lower Escatawpa River

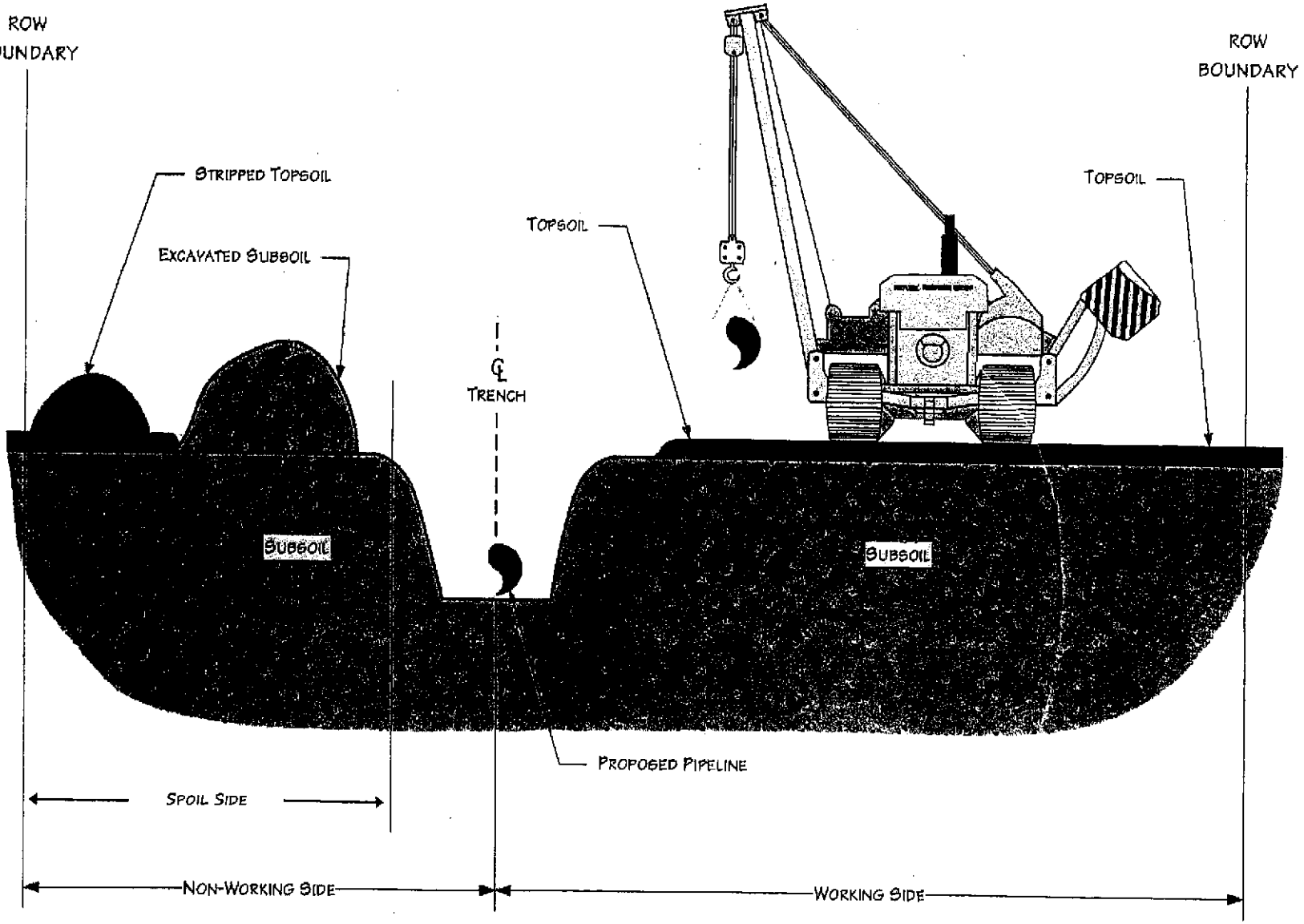
PLAN VIEW

0 200 400

GRAPHIC SCALE IN FEET



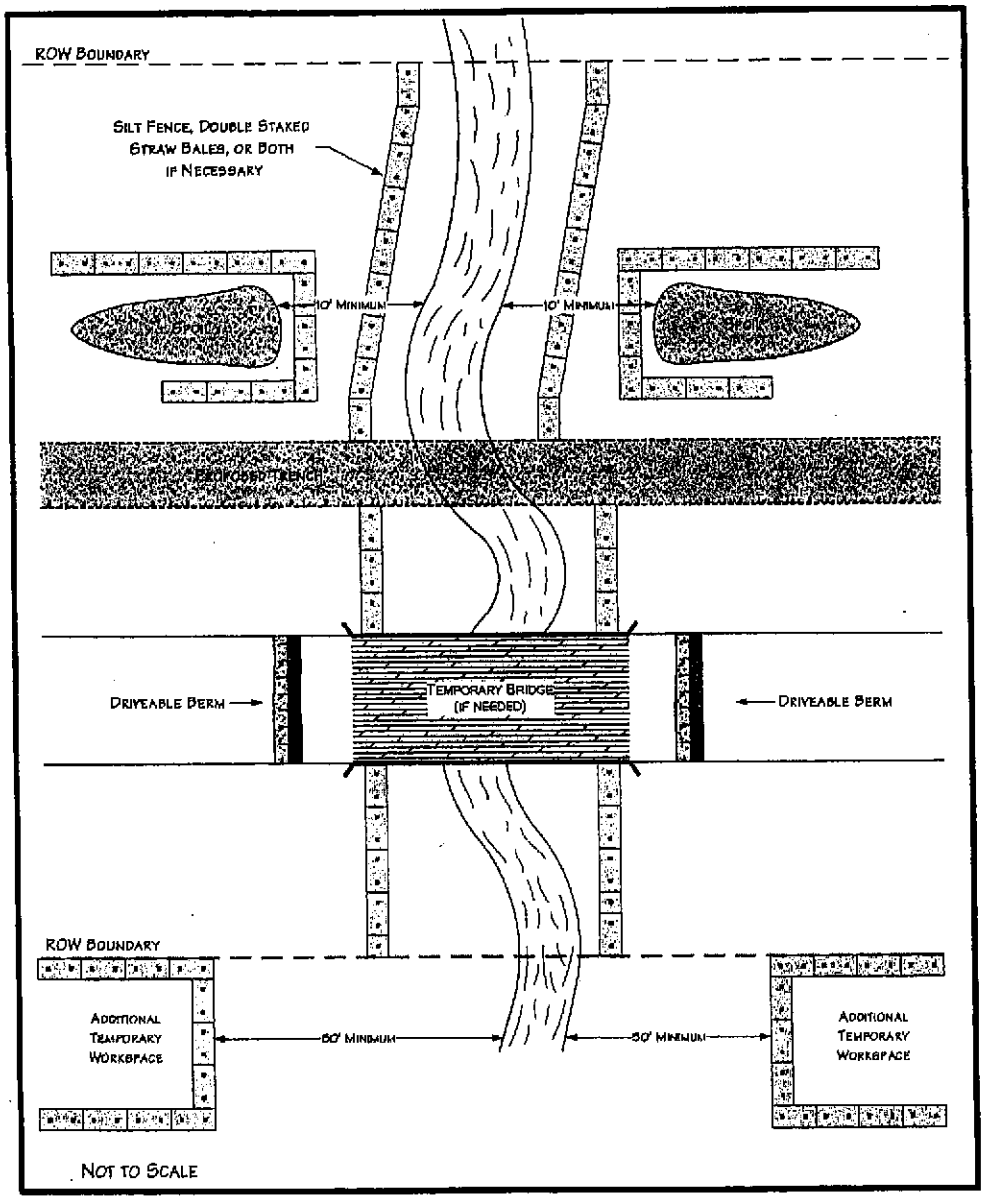
Lower Escatawpa HDD 3/3



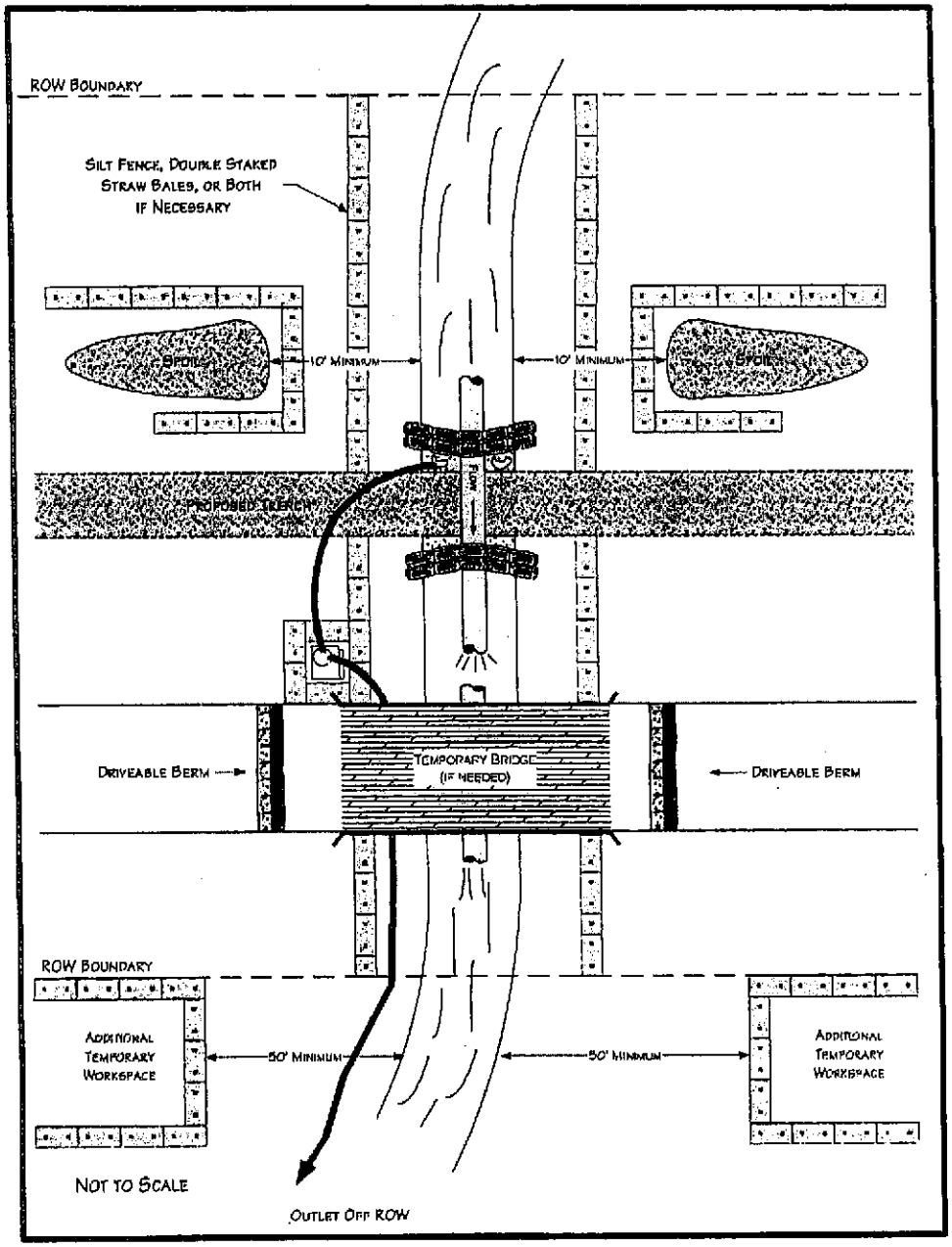
NOT TO SCALE

Trench and Spoil Side Method

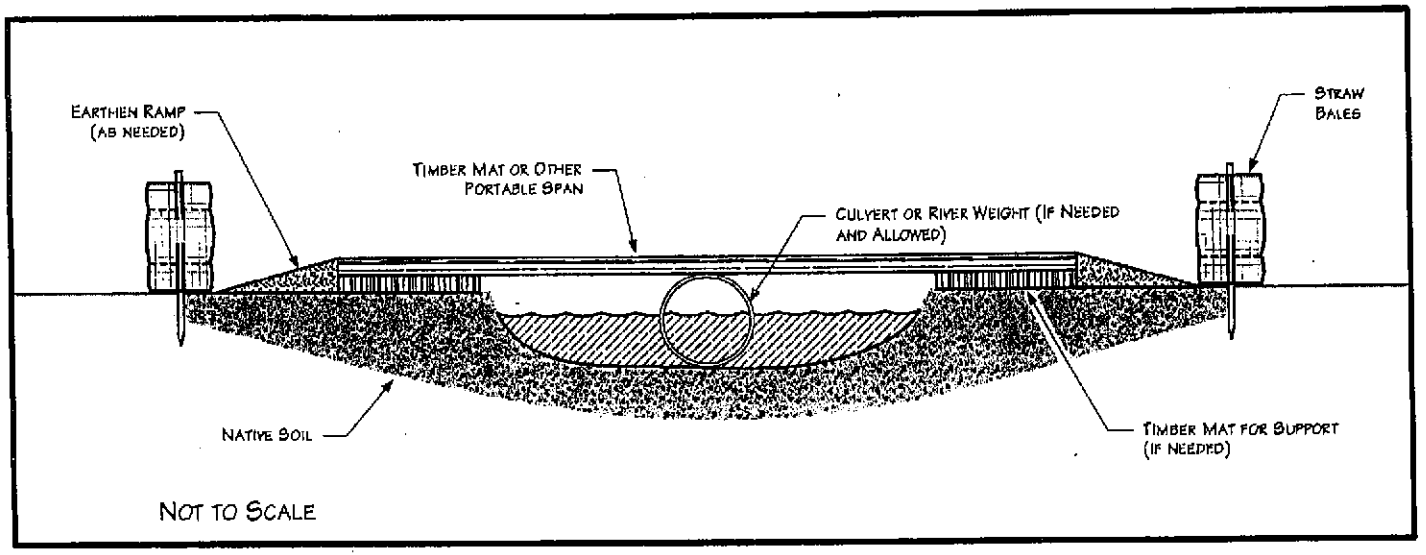
Open-Cut Waterbody Crossing Method



Flumed Waterbody Crossing Method



Equipment Bridge



Performance Criteria

- Design, construct, and maintain to
  - Provide unrestricted flow
  - Withstand and pass highest expected flows
  - Prevent soil from entering waterbody
- Align culverts to prevent bank erosion or streambed scour
- Install energy-dissipating devices downstream of culverts, if necessary

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): 02/4/2013

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:
AGENT: SWCA Environmental Consultant
Attention: R. Thomas Sankey
7255 Langtry, Suite 100
Houston, TX 77040

For

APPLICANT: Plains Southcap, LLC
333 Clay Street, Suite 1600
Houston, Texas 77002

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: Mobile District, Plains Southcap, LLC – Mississippi, SAM-2012-01165-MBM

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

Plains Southcap, LLC (Plains) requested that SWCA Environmental Consultants (SWCA) complete the wetland and waters delineation for the approximately 41 miles of 24-inch crude oil pipeline. The project area begins at the Plains Ten-Mile Crude Oil Facility in Mobile Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest towards Pascagoula, Mississippi. The line ends at the Chevron Pascagoula refinery (project site) approximately one mile north of the Gulf of Mexico. Construction of the proposed project is slated to begin in March 2013 and end before September 2013. There are no permanent fill impacts to wetlands or streams. The proposed project will consist of the construction and placement of approximately 41 miles of 24-inch diameter pipeline from Ten-Mile facility in Alabama to Pascagoula, Mississippi. Construction of the pipeline will be within a 75-foot-wide right-of-way (ROW) in most places and will consist of clearing vegetation, excavating a trench, laying the pipe, replacing the soil, adjusting the topography to match pre-construction contours, and allowing the re-establishment of endemic vegetation. The 50-foot utility corridor over the pipeline will be maintained as emergent vegetation only. There are no permanent impacts to wetlands other than wetland habitat conversion from forested to emergent wetlands within the maintained corridor. All stream impacts consist directional drilling under larger streams and temporary ditching and full restoration afterwards. The project will utilize horizontal directional drill (HDD) methods under the Escatawpa River at 2 locations, as well as 2 tributaries that are also Section 10 waters.

FEB 15 2013

State: **Alabama** **County/parish/borough**: Mobile County
City: Mobile
Center coordinates of site (lat/long in degree decimal format):
Lat. 30.57315 N, Long. -88.454164 W (wetland WETB005-EO).
Universal Transverse Mercator:
Name of nearest waterbody: Escatawpa River, Black Creek, Bayou Cumbest, and Bangs Lake.

(SEE THE WATER RESOURCES TABLE ATTACHED TO THIS PACKET THAT DOCUMENTS MULTIPLE WATERBODIES AT DIFFERENT SITES)

Identify (estimate) amount of waters in the review area: STREAMS: In Jackson County, the 50-foot wide pipeline corridor will require trenching of 11 stream crossings, as well as direction boring under the Escatawpa River at two locations and 2 tributaries to the Escatawpa River. All trenching impacts to intermittent and perennial streams will be temporary. These streams include the Escatawpa River, Black Creek, as well as tributaries to the Escatawpa River, Black Creek, Bayou Cumbest, and Bangs Lake. All streams are tidally-influenced Section 10 waters. WETLANDS: In Jackson County, the pipeline corridor crosses 128 wetland polygons causing temporary impacts to 105.49 acres of jurisdictional wetlands. All impacts to wetlands are associated with conversion of forested wetlands to non-forested wetlands. The wetland polygons are located adjacent to the streams listed above and their tributaries.

Total linear feet of temporary stream impacts: 11 stream crossings, total of 278 linear feet (ft) and/or 0.48 acres requiring temporary trenching impacts. The project will directionally bore under the Escatawpa River at two locations and 2 tributaries to the Escatawpa River which are Section 10 Waters (see attached table).
Cowardin Class: Riverine
Stream Flow: Perennial and intermittent
Wetlands: Cumulatively 105.49 acres of jurisdictional wetlands within 128 wetland polygons. The polygons are located within larger wetland systems adjacent to the above listed streams (see attached table).
Cowardin Class: Palustrine and emergent wetlands

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal: Escatawpa River, Bayou Cumbest, Black Creek, and Bangs Lake, and tributaries to these streams.

Non-Tidal:

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: 1/7/2013
☒ Field Determination. Date(s): 1/16/2013.

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or

to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: SWCA delineation maps.

☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

- ☒ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps: .

☒ Corps navigable waters' study: .

☐ U.S. Geological Survey Hydrologic Atlas: .

- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.

☐ U.S. Geological Survey map(s). Cite scale & quad name: .

☒ USDA Natural Resources Conservation Service Soil Survey. Citation:

.

☐ National wetlands inventory map(s). Cite name: .

☐ State/Local wetland inventory map(s): .

☐ FEMA/FIRM maps: .

☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date): Google Earth 2012.
or ☒ Other (Name & Date): See Attached. Photographs prepared/submitted by or on behalf of the applicant/consultant.

☐ Previous determination(s). File no. and date of response letter: .

☒ Other information (please specify): Wetlands are adjacent to RPW streams that are tributaries to the Escatawpa River which is a tidal TNW closer to the coast.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

2/6/13

Signature and date of
Regulatory Project Manager
(REQUIRED)

2/11/13

Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining
the signature is impracticable)

Site Number	Latitude	Longitude	Cowadin_Code	Size of Aquatic Resopuces / acres	Class of Aquatic Resource
Tributary to Bangs Lake	30.362182	-88.48339	E2	0.039236	Section 10 Stream
Tributary To Escatawpa River	30.453436	-88.496383	E2	0.011978	Section 10 Stream
WETA010-E0	30.440285	-88.495076	PEM	1.049453	Non-Section 10 Wetland
WETA010-E1	30.442042	-88.495287	PEM	0.056191	Non-Section 10 Wetland
WETA010-F0	30.439109	-88.49493	PFO	0.037304	Non-Section 10 Wetland
WETA010-S0	30.441587	-88.495169	PSS	0.0499	Non-Section 10 Wetland
WETA010-S1	30.442305	-88.49524	PSS	0.359759	Non-Section 10 Wetland
WETA011-E0	30.443978	-88.495433	PEM	0.011453	Non-Section 10 Wetland
WETA011-F0	30.444467	-88.49542	PFO	0.183765	Non-Section 10 Wetland
WETA012-E0	30.445744	-88.495528	PEM	0.396934	Non-Section 10 Wetland
WETA013-E0	30.447735	-88.495693	PEM	0.392974	Non-Section 10 Wetland
WETA013-F0	30.447669	-88.495692	PFO	0.196485	Non-Section 10 Wetland
WETA015-E0	30.457139	-88.496995	PEM	0.216332	Non-Section 10 Wetland
WETA015-F0	30.45683	-88.496877	PFO	0.161557	Non-Section 10 Wetland
WETA016-E0	30.459757	-88.497489	PEM	0.362438	Non-Section 10 Wetland
WETA016-F0	30.459863	-88.497403	PFO	0.235135	Non-Section 10 Wetland
WETA017-E0	30.46169	-88.497469	PEM	0.095255	Non-Section 10 Wetland
WETA017-F0	30.462052	-88.497486	PFO	0.364629	Non-Section 10 Wetland
WETA018-E0	30.464251	-88.497492	PEM	0.250255	Non-Section 10 Wetland
WETA019-E0	30.467774	-88.497582	PEM	0.004676	Non-Section 10 Wetland
WETA019-F0	30.469093	-88.49745	PFO	1.436872	Non-Section 10 Wetland
WETA020-E0	30.473183	-88.497439	PEM	0.079487	Non-Section 10 Wetland
WETA020-F0	30.472718	-88.497456	PFO	0.499755	Non-Section 10 Wetland
WETA021-F0	30.481021	-88.499277	PFO	0.369242	Non-Section 10 Wetland
Tributary To Escatawpa River	30.480699	-88.49896	E2	0.064011	Section 10 Stream
WETA007-E0	30.431844	-88.49427	PEM	0.480153	Non-Section 10 Wetland
WETA007-F0	30.431225	-88.493924	PFO	0.389619	Non-Section 10 Wetland
WETA008-E0	30.43346	-88.494469	PEM	0.24165	Non-Section 10 Wetland
WETA008-F0	30.433225	-88.494449	PFO	0.114998	Non-Section 10 Wetland
WETA009-E0	30.435953	-88.494658	PEM	0.725599	Non-Section 10 Wetland
Trib to Escatawpa	30.541568	-88.471532	E2	0.02544	Section 10 Stream
Escatawpa River	30.600429	-88.440052	R1	0.273699	Section 10 Stream
WETB003-E0	30.582393	-88.450722	PEM	0.282325	Non-Section 10 Wetland
WETB003-F0	30.582502	-88.45055	PFO	1.07348	Non-Section 10 Wetland
WETB004-F0	30.576724	-88.452742	PFO	1.265763	Non-Section 10 Wetland
WETB004-F1	30.578248	-88.452185	PFO	0.049036	Non-Section 10 Wetland
WETB004-F2	30.578351	-88.452137	PFO	0.03734	Non-Section 10 Wetland
WETB004-F3	30.578483	-88.452087	PFO	0.06832	Non-Section 10 Wetland

WETB004-F4	30.57868	-88.452028	PFO	0.086014	Non-Section 10 Wetland
WETB005-E0	30.57315	-88.454164	PEM	0.007548	Non-Section 10 Wetland
WETB005-S0	30.573502	-88.453955	PSS	0.400504	Non-Section 10 Wetland
WETB006-F0	30.571028	-88.454834	PFO	0.179267	Non-Section 10 Wetland
WETB007-E0	30.570067	-88.455222	PEM	0.019697	Non-Section 10 Wetland
WETB007-S0	30.569482	-88.454925	PSS	0.8715	Non-Section 10 Wetland
WETB008-E0	30.602683	-88.436931	PEM	0.302254	Non-Section 10 Wetland
WETB008-F0	30.603653	-88.435373	PFO	4.442759	Non-Section 10 Wetland
WETB009-E0	30.614783	-88.422012	PEM	0.025485	Non-Section 10 Wetland
WETB009-F0	30.614325	-88.42225	PFO	0.526511	Non-Section 10 Wetland
WETC028-E0	30.588061	-88.448668	PEM	0.106415	Non-Section 10 Wetland
WETC028-F0	30.587937	-88.448587	PFO	0.336623	Non-Section 10 Wetland
WETC030-E0	30.5956	-88.445599	PEM	1.483488	Non-Section 10 Wetland
WETC030-E1	30.598805	-88.442462	PEM	0.006358	Non-Section 10 Wetland
WETC030-E2	30.599426	-88.441593	PEM	0.08224	Non-Section 10 Wetland
WETC030-F0	30.594986	-88.445842	PFO	3.624847	Non-Section 10 Wetland
WETC030-F1	30.598906	-88.442272	PFO	0.01204	Non-Section 10 Wetland
WETC030-F2	30.599512	-88.441345	PFO	0.857707	Non-Section 10 Wetland
Black Creek	30.502095	-88.495605	E2	0.005642	Section 10 Stream
WETA022-E0	30.490198	-88.49857	PEM	0.176541	Non-Section 10 Wetland
WETA022-E1	30.491761	-88.498159	PEM	0.80707	Non-Section 10 Wetland
WETA022-F0	30.48817	-88.49911	PFO	2.250672	Non-Section 10 Wetland
WETA022-F1	30.490734	-88.498419	PFO	0.511197	Non-Section 10 Wetland
WETA022-S0	30.48846	-88.499033	PSS	0.154254	Non-Section 10 Wetland
WETA023-F0	30.494282	-88.498115	PFO	0.272844	Non-Section 10 Wetland
WETA023-F1	30.495018	-88.497904	PFO	0.517442	Non-Section 10 Wetland
WETA024-F0	30.497525	-88.49718	PFO	0.101816	Non-Section 10 Wetland
WETA024-F1	30.49793	-88.497067	PFO	0.225167	Non-Section 10 Wetland
WETA024-F2	30.498524	-88.4969	PFO	0.234651	Non-Section 10 Wetland
WETA024-F3	30.498825	-88.496858	PFO	0.025082	Non-Section 10 Wetland
WETC011-S0	30.502156	-88.495592	PSS	0.000506	Non-Section 10 Wetland
WETC011-S1	30.505973	-88.493337	PSS	5.699956	Non-Section 10 Wetland
WETC011-S2	30.50881	-88.48887	PSS	1.289703	Non-Section 10 Wetland
WETC012-E0	30.517697	-88.482751	PEM	1.899604	Non-Section 10 Wetland
WETC012-S0	30.516843	-88.48249	PSS	4.113781	Non-Section 10 Wetland
WETC013A-E0	30.525149	-88.482924	PEM	0.006201	Non-Section 10 Wetland
WETC013A-F0	30.525218	-88.482971	PFO	0.123066	Non-Section 10 Wetland
WETC013B-E1	30.526788	-88.481729	PEM	0.183708	Non-Section 10 Wetland

WETC013B-S0	30.527758	-88.48114	PSS	1.934126	Non-Section 10 Wetland
WETC014-E0	30.529116	-88.478395	PEM	0.044581	Non-Section 10 Wetland
Tributary To Escatawpa River	30.529825	-88.473622	E2	0.18916	Section 10 Stream
WETA025-F0	30.533446	-88.471446	PFO	3.372373	Non-Section 10 Wetland
WETA026-F0	30.539553	-88.471496	PFO	2.482972	Non-Section 10 Wetland
WETA026-F1	30.541749	-88.471514	PFO	0.222318	Non-Section 10 Wetland
WETC015-E0	30.529608	-88.474354	PEM	0.104281	Non-Section 10 Wetland
WETC015-E1	30.529658	-88.473651	PEM	0.103253	Non-Section 10 Wetland
WETC015-F0	30.529738	-88.473585	PFO	0.136076	Non-Section 10 Wetland
WETC015-F1	30.529817	-88.474133	PFO	0.410048	Non-Section 10 Wetland
WETD005-F0	30.544245	-88.47154	PFO	1.034792	Non-Section 10 Wetland
WETD006-F0	30.546173	-88.471564	PFO	0.50567	Non-Section 10 Wetland
WETD006-F1	30.546525	-88.471622	PFO	0.090098	Non-Section 10 Wetland
WETD006-F2	30.546699	-88.471424	PFO	0.005804	Non-Section 10 Wetland
WETD007-F0	30.549764	-88.471767	PFO	0.000093	Non-Section 10 Wetland
WETD008-E0	30.552386	-88.471209	PEM	0.131962	Non-Section 10 Wetland
WETD008-F0	30.551834	-88.471281	PFO	0.920156	Non-Section 10 Wetland
WETD008-S0	30.552008	-88.471431	PSS	0.127466	Non-Section 10 Wetland
WETD009-E0	30.556217	-88.46759	PEM	0.832893	Non-Section 10 Wetland
WETD009-E1	30.561872	-88.46224	PEM	0.09838	Non-Section 10 Wetland
WETD009-F0	30.555128	-88.468466	PFO	1.891344	Non-Section 10 Wetland
WETD009-F1	30.559647	-88.464199	PFO	0.693853	Non-Section 10 Wetland
WETD009-F2	30.563393	-88.46065	PFO	0.094534	Non-Section 10 Wetland
WETD009-F3	30.564215	-88.459867	PFO	0.242171	Non-Section 10 Wetland
WETD009-S0	30.557914	-88.465834	PSS	1.826189	Non-Section 10 Wetland
WETD009-S1	30.561906	-88.462055	PSS	2.238561	Non-Section 10 Wetland
WETD009-S2	30.563761	-88.460295	PSS	0.489641	Non-Section 10 Wetland
Bayou Cumbest	30.408922	-88.483665	E2	0.008219	Section 10 Stream
WETA005-E0	30.402456	-88.480487	PEM	0.928868	Non-Section 10 Wetland
WETA005-F0	30.399605	-88.480215	PFO	0.816381	Non-Section 10 Wetland
WETA005-F1	30.401163	-88.480189	PFO	1.039646	Non-Section 10 Wetland
WETA005-F2	30.402914	-88.48038	PFO	0.869498	Non-Section 10 Wetland
WETA005-F3	30.404657	-88.481776	PFO	1.370994	Non-Section 10 Wetland
WETA006-E0	30.405758	-88.482866	PEM	0.000006	Non-Section 10 Wetland
WETA006-F0	30.405726	-88.482742	PFO	0.073732	Non-Section 10 Wetland
WETD001-E0	30.409222	-88.483729	PEM	0.001734	Non-Section 10 Wetland
WETD001-F0	30.409188	-88.483596	PFO	0.07682	Non-Section 10 Wetland
Tributary To Escatawpa River	30.417539	-88.482813	E1	0.273201	Section 10 Stream

Tributary To Escatawpa River	30.546504	-88.471538	E2	0.012823	Section 10 Stream
Tributary To Escatawpa River	30.54828	-88.471461	E2	0.082912	Section 10 Stream
Escatawpa River	30.421556	-88.488021	R1	0.306914	Section 10 Stream
WETD003-F0	30.415524	-88.4828	PFO	2.109928	Non-Section 10 Wetland
WETD004-F0	30.419177	-88.48561	PFO	3.874672	Non-Section 10 Wetland
WETG001-E0	30.425325	-88.490205	E2EM	4.992487	Non-Section 10 Wetland
WETG002-E0	30.429894	-88.493077	E2EM	1.513801	Non-Section 10 Wetland
Tributary to Escatawpa River	30.428796	-88.492387	E1	0.03972	Section 10 Stream
Tributary to Bangs Lake	30.355996	-88.487114	E2	0.020695	Section 10 Stream
Tributary to Bangs Lake	30.355345	-88.488546	E2	0.02058	Section 10 Stream
WETA002-E0	30.355914	-88.483128	PEM	0.020132	Non-Section 10 Wetland
WETA002-F0	30.35954	-88.483321	PFO	2.971802	Non-Section 10 Wetland
WETA002-S0	30.356455	-88.483245	PSS	0.904027	Non-Section 10 Wetland
WETA003-E0	30.369475	-88.48335	PEM	0.134436	Non-Section 10 Wetland
WETA003-E1	30.387883	-88.480184	PEM	3.666266	Non-Section 10 Wetland
WETA003-F0	30.366186	-88.483325	PFO	3.973211	Non-Section 10 Wetland
WETA003-F1	30.369468	-88.483355	PFO	0.027821	Non-Section 10 Wetland
WETA003-F2	30.376162	-88.480005	PFO	2.61661	Non-Section 10 Wetland
WETA003-F3	30.381341	-88.480093	PFO	2.995657	Non-Section 10 Wetland
WETA003-F4	30.384325	-88.48026	PFO	0.077068	Non-Section 10 Wetland
WETA003-F5	30.38626	-88.480261	PFO	2.025548	Non-Section 10 Wetland
WETA003-F6	30.391311	-88.480315	PFO	2.811363	Non-Section 10 Wetland
WETA003-F7	30.397463	-88.480264	PFO	1.896313	Non-Section 10 Wetland
WETA003-S0	30.3717	-88.481736	PSS	3.133356	Non-Section 10 Wetland
WETG005-E0	30.355411	-88.488546	PEM	0.062469	Non-Section 10 Wetland
WETG005-E1	30.355136	-88.488547	PEM	0.241702	Non-Section 10 Wetland
WETG005-E2	30.354811	-88.488548	PEM	0.039566	Non-Section 10 Wetland
WETG005-S0	30.355988	-88.484306	PSS	0.826683	Non-Section 10 Wetland
WETG005-S1	30.355993	-88.4862	PSS	0.972171	Non-Section 10 Wetland
WETG005-S3	30.35589	-88.488086	PSS	1.218603	Non-Section 10 Wetland

DECISION DOCUMENT FOR NATIONWIDE PERMIT (NWP)/REGIONAL GENERAL PERMIT (RGP) VERIFICATION

ORM Number: SAM-2012-01165-MBM

Applicant: Plains Southcap L.L.C. – Mississippi, Jackson County, Mississippi.

Project Location: The 41-mile crude oil pipeline starts at the Plains Ten-Mile Crude Oil Facility in Mobile Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest to Pascagoula, Mississippi. The Mississippi segment of the pipeline application has been assigned number SAM-2012-01165-MBM which should be referred to in all future correspondence with this office. The Mississippi segment of the project starts at the Eli Dudley Road at the Alabama/Mississippi state line at 30.622880 North, -88.407197 West, follows an existing utility corridor to the west, crosses twice under Section 10 reaches of the Escatawpa River, and ends at the Chevron facility at 30.355411 North, -88.488546 West, Pascagoula, Mississippi.

Receipt Date: September 12, 2012 Complete: No

Additional Information Requested Date: By letter dated September 19, 2012, requested the applicant submit additional information, including an application with an original signature and statement designating the agent for the project, confirmation whether FERC was involved, wetland delineation, scope of work and location of any directional drilling, mitigation plan, statement regarding Threatened and Endangered Species, statement regarding any cultural resource issues, and a request they complete the required ORM mass upload worksheets. The information was again requested on December 6, 2012. On February 6, 2013, the applicant provided revised project designs, wetland impact calculations for the revised project design for crossing the Rhodes Lake Mitigation Bank and lower Escatawpa River.

Application Complete Date: With the submittal of the revised project, the application was considered complete on February 6, 2013.

Waters of the U.S.: Project is located adjacent to and existing pipeline utility corridor. The project will require temporary trenching of 11 stream crossings causing temporary impacts to a total of 278 linear feet of stream, and crosses 128 wetland polygons causing temporary impacts to a total of 105.49 acres of wetlands as a result of mechanized land-clearing, temporary trenching and side-casting of fill, and temporary and permanent conversion of bottomland hardwood wetlands to shrub-scrub and emergent wetlands. To minimize impacts to larger navigable waters, horizontal directional drilling will be used to place the pipeline across the Escatawpa River at 2 locations as well as under Little Black Creek and Black Creek, which are all tidal Section 10 waters. All temporary stream impacts are within tributaries to the Escatawpa River, tributaries to Black Creek, tributaries to Little Black creek, tributaries to Bayou Cumbest, and tributaries to Bangs Lake. The wetland impacts are within the larger wetland systems adjacent to these waterbodies.

Authority: Section 10 and Section 404

Project Description (Describe activities in waters of the U.S. authorized by verification): DA permit authorization is required because the pipeline project will result in the temporary trenching of stream crossings and wetlands. Temporary impacts are associated with the mechanized land-clearing, temporary trenching and side-casting of fill, and temporary and permanent conversion of bottomland hardwood wetlands to shrub-scrub and emergent wetlands within the 75-foot wide work corridor. All wetland and stream impacts are temporary except for the permanent conversion of forested wetlands to non-forested wetlands within the 50-foot maintained utility corridor.

Project Purpose: The project purpose is to construct a 41-mile crude oil pipeline starting at the Plains Ten-Mile Crude Oil Facility in Mobile Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest to the Chevron facility in Pascagoula, Mississippi.

Type of Permit Verified: NWP X , No. 12 (sixteen permits)
RGP , No.

Pre-construction Notification Required: Yes X No

Coordination with Agencies/Tribes: Yes No X
Commenting Agencies:
U.S. Fish and Wildlife Service
Mississippi State Historic Preservation Office
Mississippi Department of Wildlife, Fisheries and Parks

Substantiative Issues and Corps Resolution: All agencies provided letters stating no resources would be affected by the project as proposed. USFWS requested the corridor be resurveyed prior to starting work in 2013 to determine the presence of any new Bald Eagle nests.

Compliance with Other Federal Laws (if Specific law is not applicable write N/A in the adjacent text box):

a) Endangered Species Act:

Name of species present: The applicant provided a Threatened and Endangered Species Report dated 1 November 2012 where they evaluated the likelihood of the entire 41-mile project adversely affecting the bald eagle, red-cockaded woodpecker, flatwoods salamander, gopher frog, gopher tortoise, Alabama red-bellied turtle, Yellow-blotched map turtle, eastern indigo snake, gulf sturgeon, Iron Colored Shiner, and Louisiana Quillwort. In Mississippi, they identified gopher tortoise in the uplands and bald eagle nests in the southern segment of the project near the Escatawpa River.

Effects determination: No effect.

Date of Service(s) concurrence: USFWS provided concurrence that the project would not adversely affect any listed species in their letter dated December 21, 2012.

Basis for "no effect" determination: The applicant is using horizontal direction drilling to avoid all listed species or critical habitat known to occur in the project area.

Additional Information (optional): The applicants report evaluated the likelihood of affecting the listed species. The applicants findings were of no effect and not likely to

adversely affect these species since the project uses horizontal directional drilling to avoid all impacts to Gopher Tortoises and Bald Eagle Nests and larger waterbodies identified in close proximity to the proposed utility corridor. USFWS provided concurrence for the project findings. They requested the corridor be resurveyed prior to starting work in 2013 to verify no new bald eagle nests.

b) Magnuson-Stevens Act (Essential Fish Habitat): N/A
Name of species present:
Effects determination: No effect
Date of Service(s) concurrence:
Basis for "no effect" determination: The applicant is using horizontal directional drilling to cross under all larger streams including Black Creek, Little Black Creek, and two locations under the Escatawpa River, this avoiding any permanent impacts to essential fish habitat. All surface impacts to wetlands are temporary and will be allowed to return to being wetlands.
Additional Information (optional):

c) Section 106 of the National Historic Preservation Act:
Known site present: Yes No X
Survey required/conducted: Yes X Phase 1 survey conducted by applicant.
Effects determination: No eligible sites, no adverse effect
Rationale: area already impacted by existing pipeline utility corridor
Date consultation complete (if necessary): Applicant provided a Phase I cultural resource survey of the proposed project footprint. No resources were found that qualified. By letter dated 7 January 2013 the SHPO concurred with these findings. Further consultation not needed.
Additional information (optional):

d) Section 401 Water Quality Certification:
Individual certification required: Yes No X
Issued Waived Denied
Additional Information (optional): Section 401 Water Quality issued for the 2012 Nationwide Permits.

e) Coastal Zone Management Act: In the coastal zone, DMR requires a Coastal Use Permit for the project.
Individual certification required: Yes
Issued: 8 Feb 2013 DMR stated they intended to issue a conditioned Coastal Use Permit.
Additional Information (optional):

f) Wild and Scenic Rivers Act: N/A
Project located on designated or "study" river: Yes No X
Managing agency:
Date written determination provided that the project will not adversely affect the Wild and Scenic River designation or study status:
Additional Information (optional):

g) Section 10 Rivers and Harbors Act:
Individual authorization required: Yes
Issued: Project was coordinated with USACE Federal Navigation Division. Waters within the project area are Section 10 navigable waters because they are subject to the ebb and flow of the tide and not because of any federally maintained channels. By e-mail date 11 December 2012, Corps Federal Navigation stated the project was not located near any federal channels and provided no objection to the project. Permit has been mailed to NOAA National Ocean Service for notification and mapping to ensure safe navigation in the future.

Special Conditions Required: Yes (If yes, provide rationale for each required condition):

A. You shall comply with all the terms and conditions of the Alabama Department of Environmental Management Section 401 Water Quality Certification for the Nationwide Permits. This document can be viewed and downloaded from our website at www.sam.usace.army.mil/RD/reg/nwp.htm for your review and compliance, or at your request a paper copy will be provided to you.

RATIONALE: Makes permit holder aware that there is a conditioned State 401 Water Quality Certification they must comply with and provides link to the Mobile District website where the permit holder may review the applicable Water Quality Certification conditions and print copies as necessary or quickly provide a location to obtain these conditions to contractors who may be working on the project.

B. No work may begin until you have obtained a Coastal Use Permit or waiver from the Mississippi Department of Marine Resources.

RATIONALE: To ensure projects located in coastal waters and wetlands comply with the Mississippi Coastal Zone Management Plan and balance the public interest with the protection of the natural coastal and marine resources.

C. Prior to any impacts to waters of the United States, the permittee shall submit to this office of the U.S. Army Corps of Engineers proof-of-purchase of the 56.64 bottomland hardwood wetland mitigation credits from an approved wetland mitigation bank in Mississippi. As shown in the attached Table 2, mitigation shall compensate for the following: 1) temporary impacts to 32.118175 acres of bottomland hardwood wetlands allowed to return to bottomland hardwood wetlands at a ratio of 0.25:1, 3) impacts to 17.159058 acres of bottomland hardwood wetlands permanently converted to scrub-shrub wetlands at a ratio of 0.5:1, and 4) impacts to 40.026231 acres of bottomland hardwood wetlands permanently converted to emergent wetlands at a ratio of 1:1.

RATIONALE: Per Executive Order 11900 - Protection of Wetlands (1977): The goal of the Regulatory Program is to demonstrate a "no-net-loss" of wetland functions. Through mitigation, applicants are required to avoid, minimize, and replace wetland functions when there are long and short term adverse impacts associated with the destruction or modification of the wetlands. Calls specific attention to and reinforces the requirements of NWP General Condition 13, Removal of Temporary Fills, and more specifically addresses situations where temporary

vegetative clearing impacts may be required to be replanted if not naturally restored in order to minimize temporal loss of wetland vegetation functions.

D. The project shall avoid impacts to larger Section 10 waterbodies using horizontal directional drilling. These waterbodies include Black Creek, Little Black Creek, and the Escatawpa River at two locations. All entry work pads (200' by 200"), and exit work pads (250' by 200') will be removed and the wetlands fully restored unless it is located in the permanently maintained right-of-way and requires wetland conversion mitigation. See condition e.3.regarding temporary impacts in tidal marsh.

1) The pipeline shall cross under the upper Escatawpa River at 30° 25'18.30" North, 88° 29'17.26" West. Direction drilling will start at 30° 25'12.61" North, 88° 29'14.06" West, directional bore 25 feet below the river bottom, and resurface at 30° 25'21.84" North, 88° 29'19.26" West.

2) The pipeline shall cross under the lower Escatawpa River at 30° 25'18.07" North, 88° 29'13.21" West . Direction drilling will start at 30° 24'58.107" North, 88° 28'58.269" West, directional bore 69.5 feet below the river bottom, and resurface at 30° 25'35.748" North, 88° 29'27.272" West.

3) The pipeline shall cross under Little Black Creek at 30° 26'30.15" North, 88° 29'42.71" West. Direction drilling will start at 30° 26'18.34" North, 88° 29'41.67" West, directional bore 25 feet below the river bottom, and resurface at 30° 26'36.37" North, 88° 29'43.26" West.

4) The pipeline shall cross under Black Creek at 30° 29'57.69" North, 88° 29'49.05" West. Direction drilling will start at 30° 29'47.06" North, 88° 29'50.86" West, directional bore 31 feet below the river bottom, and resurface at 30° 29'59.52" North, 88° 29'47.43" West.

5) The permitee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

6) You must notify the National Ocean Service, in writing, at least two weeks before work begins, and upon completion. You may contact them at Charting and Geodetic Services N/CG222, National Ocean Service NOAA, Rockville, Maryland 20852.

RATIONALE: General Condition 1 of the NWP program requires that no activity can cause more than minimal adverse effect on navigation. These waters are Section 10 traditionally navigable waters because they are tidal waters subject to the ebb and flow of the tide and not because of any federally maintained channels. Directional boring at these depths avoids any adverse impacts to navigation. Even though there are no federal navigation channels in the

project area, a copy of the permit is sent to NOAA National Ocean Service for chart mapping to ensure future safe navigation.

E. No permanent wetland fill impacts are authorized. All temporary impacts to waters of the United States reflected on Table 1 that are not mitigated for as shown on Table 2, shall be fully restored to pre-impact elevation, contours, and ecological condition.

1) For all temporary trenching impacts in wetlands, the top 6 to 12 inches of removed topsoil will be backfilled as topsoil. Wetlands will be restored to pre-impact elevation, contours, and ecological condition. Sites will be allowed to revegetate naturally unless monitoring reflects the site is not returning to pre-impact ecological condition and requires active management. If active management is necessary, the applicant will develop a wetland mitigation plan for restoring these areas. No exotic invasive species shall be present.

2) Each temporarily impacted stream must be restored to pre-impact pattern, profile, and dimension. For each stream crossing, stream banks will be immediately stabilized upon completion of the utility line installation.

3) For projects impacts requiring restoration of tidal marsh wetlands, the restoration area will be sprigged with black needle rush (Juncus roemarianus) or other marsh species found in wetlands contiguous to the site. Initial plant spacing will not exceed 4 feet apart. No more than one sprig per square yard shall be taken from adjacent donor marshes. Sprigs will not exceed 4 by 4 inches wide by 6 inches deep. Sharpshooter shovels or bulb planters will be utilized to transplant sprigs. The restored site shall have 95% coverage of tidal marsh plants at the end of 5 years.

4) Annual monitoring reports shall be provided for 5 years demonstrating all temporary impacts to wetlands and streams are been returned to pre-impact elevation, contours, and ecological condition. The USACE shall be responsible for making the determination on the success of these areas returning to pre-impact condition. If the temporary impacts to wetlands and streams are not demonstrating achieving this goal, the permittee shall provide an alternative mitigation strategy which may include the purchase of additional mitigation credits from an approved wetland mitigation bank.

RATIONALE: Per Executive Order 11900 - Protection of Wetlands (1977): The goal of the Regulatory Program is to demonstrate a "no-net-loss" of wetland functions. Through mitigation, applicants are required to avoid, minimize, and replace wetland functions when there are long and short term adverse impacts associated with the destruction or modification of the wetlands. Calls specific attention to and reinforces the requirements of NWP General Condition 13, Removal of Temporary Fills, and more specifically addresses situations where temporary vegetative clearing impacts may be required to be replanted if not naturally restored in order to minimize temporal loss of wetland vegetation functions.

F. Should artifacts or archaeological features be encountered during project activities, work shall cease and the permittee shall immediately contact this office at 251-694-3771. The Mobile District will coordinate any findings with the Mississippi State Historic Preservation Officer.

This stipulation shall be placed on the construction plans, and it is the permittee's responsibility to ensure that contractors are aware of this requirement.

RATIONALE: Supports efforts to ensure compliance of the authorized activity with the requirements of Section 106. This condition gives notice to the permittee that work must stop and coordination must be initiated with the USACE to determine the proper way to proceed should cultural resource materials be discovered during project implementation.

G. All excavation and fill activities shall be performed in a manner that minimizes disturbance and turbidity increases in "waters of the United States" and wetlands; and shall be retained in a manner to preclude its erosion into any adjacent wetlands or waterway. Appropriate erosion and siltation control measures must be used and maintained in effective operating condition during construction and until such time as the disturbed wetlands and stream banks are revegetated with native wetland species either through natural processes or artificial planting.

RATIONALE: Calls specific attention to and reinforces the requirements of NWP General Condition 12, Soil Erosion and Sediment Controls to prevent adverse impact to wetlands and streams through sedimentation.

H. Material resulting from trench excavation may be temporarily side cast into waters of the United States for no more than three months, and must be placed and stabilized in such a manner that it will not be dispersed by currents or other forces. Onsite soils from the excavated trench should be used as backfill material. After returning the impacted areas to pre-impact elevation and contours, excess soils must be deposited in an upland disposal site.

RATIONALE: Calls specific attention to and reinforces the requirements of NWP General Condition 13, Removal of Temporary Fills, and more specifically addresses situations where temporary vegetative clearing impacts may be required to be replanted if not naturally restored in order to minimize temporal loss of wetland vegetation functions.

I. The disposal of trees, brush and other debris in any stream corridor, wetland or surface water is prohibited. No sewage, oil, refuse, or other pollutants shall be discharged into the watercourse.

RATIONALE: Calls specific attention to and reinforces the requirements of NWP General Condition 6, Suitable Material. Specifies that side casting or unauthorized placement of any type of debris including cleared vegetation in wetlands or waters of the U.S. that was not authorized in the permit review is an adverse impact, but disposal in uplands is an acceptable disposal method.

J. The movement of equipment within wetlands shall be limited to the minimum necessary to accomplish the work authorized herein. All equipment required to traverse through wetland areas shall be supported on mats or other appropriate measures shall be implemented to minimize soil compaction, rutting, and other damage to wetlands.

RATIONALE: Reinforces the requirements of NWP general condition 11 regarding equipment use in wetlands and/or waters of the U.S. and encourages limiting construction and heavy equipment encroachments into wetlands or waters if they can be avoided and minimized.

K. Project construction shall be conducted in such a manner the passage of normal and expected high flows of surface water runoff outside the project boundaries is not restricted or otherwise altered.

RATIONALE: Calls specific attention to and designing the project fill to allow for unrestricted flows of onsite and offsite water through the project site and avoids unnaturally retaining water that would naturally be transient through the system. This condition encourages the use of culverts and low water crossings to minimize hydrologic alterations during construction activities.

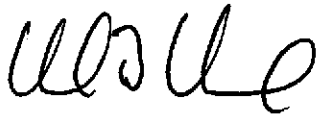
L. It is the responsibility of the permittee to ensure that all contractors working on this project are aware of all regional, general, and project specific conditions of this NWP. A copy of the permit and its general and special conditions shall remain on site at all times during construction.

RATIONALE: Places permit holder on notice that he/she is ultimately responsible to ensure that the permitted activity complies with all General and Special Conditions placed on the Nationwide Permit regardless of contractors or subcontractors who may be hired to conduct work or monitor compliance.

Compensatory Mitigation Required: Yes (If yes, provide rational for compensatory mitigation required): Prior to any impacts to waters of the United States, the permittee shall submit to this office of the U.S. Army Corps of Engineers proof-of-purchase of the 56.64 bottomland hardwood wetland mitigation credits from an approved wetland mitigation bank in Mississippi. In accordance with the Mobile District's mitigation guidance for Converted Wetland Habitat Right-of-way for a Typical Linear Project with Typical Recommendation for Compensation due to Vegetation Conversion, mitigation shall compensate for the following: 1) temporary impacts to 32.118175 acres of bottomland hardwood wetlands allowed to return to bottomland hardwood wetlands at a ratio of 0.25:1, 3) impacts to 17.159058 acres of bottomland hardwood wetlands permanently converted to scrub-shrub wetlands at a ratio of 0.5:1, and 4) impacts to 40.026231 acres of bottomland hardwood wetlands permanently converted to emergent wetlands at a ratio of 1:1. All temporary impacts to waters of the United States shall be restored to pre-impact elevation, contours, and ecological condition except for mitigated permanent conversion impacts.

Determination: I have reviewed the proposed project and determined that the work will result in minimal individual and cumulative adverse effects on the aquatic environment.

This project complies with all terms and conditions of the NWP's including any applicable Regional Conditions.

Prepared by:  Title: Michael B. Moxey, Team Leader, RD-I-S

Date: 7 February 2013

Moxey, Michael B SAM

From: Eric Munscher [emunscher@swca.com]
Sent: Wednesday, February 06, 2013 9:15 AM
To: Moxey, Michael B SAM
Cc: Jeremy Rabalais
Subject: RE: RE: Alabama Plains 41-mile pipeline, SAM-2012-1165-MBM (UNCLASSIFIED)
Attachments: Mobile Corps Pipeline data worksheet Rhodes Updated Values 02062013.xlsx

Mike,

Attached are the replacement values for the corps mitigation worksheet. I hope this will finish things.

Please let us know if you have any other questions.

Thanks and cheers,

EM

Eric C. Munscher, M.S., ES3 (Scientist)
Herpetologist / Ecologist
Certified Gopher Tortoise Agent
Principal Investigator of the NAFTRG
SWCA Environmental Consultants
7255 Langtry Suite, 100
Houston, TX 77040
"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

-----Original Message-----
From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]
Sent: Tuesday, February 05, 2013 10:54 AM
To: Eric Munscher
Subject: RE: RE: Alabama Plains 41-mile pipeline, SAM-2012-1165-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
I was able to update most all the documents. I need to know for the Corps mitigation worksheet, for the changes made to the three FO habitats, which corresponding numbers change on the impact columns/mitigation columns change for that aquatic resource ID so I can calculate the new required amount of mitigation needed.

Thanks,
Mike

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602

NWP12_Pr	Waters_Nam	Local_Waterway	Jurisdictional_Type	Waters_Typ
<Null>	WETA007-F0	Black Creek-Escatawpa River	Wetland	PFO
<Null>	WETD003-F0	Black Creek-Escatawpa River	Wetland	PFO

F	G	H	I	J	K	L	M
Latitude	Longitude	PFO-PFO(0.25:1)	PFO_PSS_0_5_1_	PFO_PEM_	TOTAL 0.25	TOTAL 0.5	TOTAL_1_1_
30.431225	-88.493924	0.132514	0	0.260339	0.033128	0	0.260339
30.415524	-88.4828	1.346475	0	0.912633	0.336619	0	0.912633

N

TOTAL_MITI	State	SHAPE_Ler	SHAPE_Area	
0.293467	MS	615.3145	17112.57	map 3rd
1.249252	MS	2256.717	103349.8	map 12th →

3rd map
Total mit credits
0.392162 credits

12th 4.130177 credit

Moxey, Michael B SAM

From: Eric Munscher [emunscher@swca.com]
Sent: Tuesday, February 05, 2013 9:21 AM
To: Moxey, Michael B SAM
Subject: FW: RE: Alabama Plains 41-mile pipeline, SAM-2012-1165-MBM (UNCLASSIFIED)
Attachments: Rhodes Lake Impact change with HDD 1-17-2013 Updated for M. Moxey 1-30-2013.xlsx

Mike,

Please see below and the attached table for the information that you requested.

Thanks,

EM

Eric C. Munscher, M.S., ES3 (Scientist)

Herpetologist / Ecologist

Certified Gopher Tortoise Agent

Principal Investigator of the NAFTRG

SWCA Environmental Consultants

7255 Langtry Suite, 100

Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

From: Jeremy Rabalais
Sent: Tuesday, February 05, 2013 9:17 AM
To: Eric Munscher; Tom Sankey
Subject: FW: RE: Alabama Plains 41-mile pipeline, SAM-2012-1165-MBM (UNCLASSIFIED)

Tom/Eric,

Attached is the spreadsheet for HDD Impact changes due to the proposed Rhodes Lake Mitigation Area HDD, as well as screen shots detailing the HDD entry and exit. Please review and let me know if you think additional materials are required to answer Mike's questions.

1. I would like to request a list of the changes required to the aquatic resource worksheet to identify which wetlands have less trenching impacts because of increased use of HDD, and which wetlands have additional (temporary) impact numbers because of the HDD pads. It seems like WETG001-EO would have new numbers, and possibly WETD003-FO?

See attached spreadsheet "Rhodes Lake Impact change with HDD 1-17-2013 Updated for M. Moxey 1-30-2013.xls"

2. I need to know the size of the wetland impacts (dimensions and acreage) for the temporary HDD well pad sites located in wetlands. Based on our conversation with DMR, these are temporary impacts to emergent wetland systems that will be fully restored, therefore I believe no changes are required to the Corps mitigation worksheet.

Pad acreages will be less than value calculated by length and width due to incursion of permanent RoW.

HDD Entry = 200' x 200', 0.775 acres

HDD Exit = 250' x 200', 1.004 acres

Jeremy Rabalais
GIS Mapping Specialist

SWCA Environmental Consultants
7255 Langtry, Suite 100

Houston, Texas 77040
P 713-934-9900| F 713.934.9906

"The secret of all victory lies in the organization of the non-obvious."

- Marcus Aurelius

Description: cid:3401782132 144700647

Visit Our Website: http://www.swca.com <http://www.swca.com/>
Description: cid:3401782132 144719963http://on.fb.me/SWCA Environmental Consultants

Changes to Aquatic Resource Impacts with Implementation of Horizontal Directional Drill

Aquatic Resource ID	Aquatic Resource Type	Initially Proposed Area	Revised Area
WETA007-E0	PEM	0.480153	0.474507
	Sub Total	**0.480153**	**0.474507**
WETA007-F0	PFO	0.389619	0.392852
WETD003-F0	PFO	2.109928	2.372595
[redacted]	[redacted]	[redacted]	0
	Sub Total	**6.374219**	**2.765447**
WETG001-E0	E2EM	4.992487	2.306704
WETG002-E0	E2EM	1.513801	1.480351
	Sub Total	**6.506288**	**3.787055**
WBG007 (Escatawpa River)	E2	0	0
WBG008	E2	0	0
WBD002	R5	0	0
	Sub Total	0	0
	Total	**13.36066**	**7.027009**

at Rhodes Lake Mitigation Bank Crossing

Change	Reason for change
-0.005646	Impact reduced due to shifted workspace

-0.005646 ***Change to PEM Wetland Impacts***

0.003233	Impact increased due to shifted workspace
0.262667	Impact increased due to HDD workspace
[redacted]	[redacted]

-3.608772 ***Change to PFO Wetland Impacts***

-2.685783	Impact reduced due to HDD
-0.03345	Impact reduced due to shifted workspace

-2.719233 ***Change to E2EM Wetland Impacts***

0	Waterbody.
0	Waterbody.
0	Waterbody.

-6.333651 ***Change to Overall Wetland Impacts***

Conclusion: Aquatic Resource Impacts will be ***reduced*** *by 6.334 acres.*

15 Stream total

-129 wetland Bly pad
≈ 105.49 acres total
-11 stream crossing
-HDD total wetl

143 acres
-15 ~~128~~
128

wetl
128 pty 105.486 acres
11 stream crossing .481 acres
278 LF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

REPLY TO
ATTENTION OF:

February 5, 2013

Inland South Branch
Regulatory Division

SUBJECT: Department of the Army Jurisdictional Determination **SAM-2012-01165-MBM**, Plains Southcap, L.L.C., Jackson County, Mississippi.

Plains Southcap, L.L.C.
C/o SWCA Environmental Consultant
Attention: Mr. R. Thomas Sankey
7255 Langtry, Suite 100
Houston, Texas 77040

Dear Mr. Sankey:

Reference is made to your December 10, 2012 request for a jurisdictional determination and verification of a wetland delineation for an a 41-mile pipeline starting at the Plains Ten-Mile Crude Oil Facility in Mobile Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest to Pascagoula, Mississippi. This letter addresses the segment of the pipeline located in Mississippi that starts at the Alabama/Mississippi state line near 30.625219 North, -88.405534 West, and ends at the Pascagoula Chevron Facility near 30.354811 North, -88.488548 West. In Mississippi, the 50-foot wide pipeline corridor crosses 128 wetland polygons, 11 stream crossings, as well as being directionally bored under the Escatawpa River at two locations and under two tributaries to the Escatawpa River. The project will cross Black Creek and its tributaries, as well as tributaries to Bayou Cumbest and Bangs Lake. The 128 wetland polygons are located within the larger wetland systems adjacent to the above mentioned streams. This action has been assigned file number **SAM-2012-01165-MBM**, which should be referred to in all future correspondence with this office concerning this matter.

This project was reviewed and jurisdictional areas were identified based upon criteria contained in the U.S. Army Corps of Engineers' 1987 Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0). Based on our review of information submitted, field data collected during site inspections on January 16, 2013, and other information available to our office, we have determined that there are Navigable Waters of the United States within the above described project subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, and there are wetlands on the above described project subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). We have determined that the wetland/upland boundaries reflected in the December 10, 2012, wetland polygon shape files provided for the project have been determined to be accurate. In Mississippi, the pipeline corridor contains 11 stream crossings causing temporary impacts to a total of 278 linear feet of stream. The pipeline corridor crosses 128 wetland polygons causing temporary impacts to a

total of 105.49 acres of wetlands. The pipeline will be directionally bored under the Escatawpa River at 2 locations as well as under 2 tributaries, which are all Section 10 waters. Please be advised that this wetland delineation verification reflects current policy and regulation and is valid for a period of 5 years from the date of this letter. If after the 5-year period this wetland delineation has not been specifically revalidated by the U.S. Army Corps of Engineers (Corps) it shall automatically expire. If the information you have submitted, and on which the USACE has based its determination is later found to be in error, this decision may be revoked.

Also attached to this determination letter are two copies of the Preliminary Jurisdictional Determination (PJD) form for the waters of the U.S., identified within the project area. Both copies must be signed and returned to this office. A copy signed by a representative of this office will be returned to you. The preliminary jurisdictional determination is a non-binding action and shall remain in effect unless new information or a request for an approved jurisdictional determination supporting a revision is provided to this office. Please note that since this jurisdictional determination is preliminary in nature; it is subject to change and therefore is not an appealable action under the Corps administrative appeal procedures defined at 33 CFR 331.

This letter grants no property rights nor shall it be construed as excusing you from compliance with other Federal, State, or local statutes, ordinances, or regulations that may affect any proposed work at this site. Furthermore, this wetland determination has been conducted to identify the limits of the U.S. Army Corps of Engineers' Clean Water Act jurisdiction for particular sites identified in this request.

Section 404 prohibits the placement of dredged or fill material into waters of the U.S., including wetlands, unless the work has been authorized by a Department of the Army permit. Activities such as (but not limited to) slab-on-grade construction, grading, land clearing with heavy equipment, some pile-supported structures, and constructing a built-up road are considered filling activities and will require a permit if located in jurisdictional waters of the U.S.

We appreciate your cooperation with the Corps Regulatory Program. Please contact me by e-mail at Michael.b.moxey@usace.army.mil or by telephone at (251) 694-3771 should you have any questions concerning this matter. For additional information about permitting and our Regulatory Program, visit our web site at www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

Sincerely,

Michael B. Moxey
Team Leader, Inland South
Regulatory Division

M. MOXEY/3771/a[illegible]r

FILE

Enclosures

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): 02/4/2013

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:
AGENT: SWCA Environmental Consultant
Attention: R. Thomas Sankey
7255 Langtry, Suite 100
Houston, TX 77040

For

APPLICANT: Plains Southcap, LLC
333 Clay Street, Suite 1600
Houston, Texas 77002

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: Mobile District, Plains Southcap, LLC – Mississippi, SAM-2012-01165-MBM

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

Plains Southcap, LLC (Plains) requested that SWCA Environmental Consultants (SWCA) complete the wetland and waters delineation for the approximately 41 miles of 24-inch crude oil pipeline. The project area begins at the Plains Ten-Mile Crude Oil Facility in Mobile Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest towards Pascagoula, Mississippi. The line ends at the Chevron Pascagoula refinery (project site) approximately one mile north of the Gulf of Mexico. Construction of the proposed project is slated to begin in March 2013 and end before September 2013. There are no permanent fill impacts to wetlands or streams. The proposed project will consist of the construction and placement of approximately 41 miles of 24-inch diameter pipeline from Ten-Mile facility in Alabama to Pascagoula, Mississippi. Construction of the pipeline will be within a 75-foot-wide right-of-way (ROW) in most places and will consist of clearing vegetation, excavating a trench, laying the pipe, replacing the soil, adjusting the topography to match pre-construction contours, and allowing the re-establishment of endemic vegetation. The 50-foot utility corridor over the pipeline will be maintained as emergent vegetation only. There are no permanent impacts to wetlands other than wetland habitat conversion from forested to emergent wetlands within the maintained corridor. All stream impacts consist directional drilling under larger streams and temporary ditching and full restoration afterwards. The project will utilize horizontal directional drill (HDD) methods under the Escatawpa River at 2 locations, as well as 2 tributaries that are also Section 10 waters.

State: **Alabama** **County/parish/borough**: Mobile County
City: Mobile
Center coordinates of site (lat/long in degree decimal format):
Lat. 30.57315 N, Long. -88.454164 W (wetland WETB005-EO).
Universal Transverse Mercator:
Name of nearest waterbody: Escatawpa River, Black Creek, Bayou Cumbest, and Bangs Lake.

(SEE THE WATER RESOURCES TABLE ATTACHED TO THIS PACKET THAT DOCUMENTS MULTIPLE WATERBODIES AT DIFFERENT SITES)

Identify (estimate) amount of waters in the review area: STREAMS: In Jackson County, the 50-foot wide pipeline corridor will require trenching of 11 stream crossings, as well as direction boring under the Escatawpa River at two locations and 2 tributaries to the Escatawpa River. All trenching impacts to intermittent and perennial streams will be temporary. These streams include the Escatawpa River, Black Creek, as well as tributaries to the Escatawpa River, Black Creek, Bayou Cumbest, and Bangs Lake. All streams are tidally-influenced Section 10 waters. WETLANDS: In Jackson County, the pipeline corridor crosses 128 wetland polygons causing temporary impacts to 105.49 acres of jurisdictional wetlands. All impacts to wetlands are associated with conversion of forested wetlands to non-forested wetlands. The wetland polygons are located adjacent to the streams listed above and their tributaries.

Total linear feet of temporary stream impacts: 11 stream crossings, total of 278 linear feet (ft) and/or 0.48 acres requiring temporary trenching impacts. The project will directionally bore under the Escatawpa River at two locations and 2 tributaries to the Escatawpa River which are Section 10 Waters (see attached table).
Cowardin Class: Riverine
Stream Flow: Perennial and intermittent
Wetlands: Cumulatively 105.49 acres of jurisdictional wetlands within 128 wetland polygons. The polygons are located within larger wetland systems adjacent to the above listed streams (see attached table).
Cowardin Class: Palustrine and emergent wetlands

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal: Escatawpa River, Bayou Cumbest, Black Creek, and Bangs Lake, and tributaries to these streams.

Non-Tidal:

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: 1/7/2013
☒ Field Determination. Date(s): 1/16/2013.

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or

to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: SWCA delineation maps.

☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

- ☒ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps: .

☒ Corps navigable waters' study: .

☐ U.S. Geological Survey Hydrologic Atlas: .

- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.

☐ U.S. Geological Survey map(s). Cite scale & quad name: .

☒ USDA Natural Resources Conservation Service Soil Survey. Citation:

.

☐ National wetlands inventory map(s). Cite name: .

☐ State/Local wetland inventory map(s): .

☐ FEMA/FIRM maps: .

☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date): Google Earth 2012.
or ☒ Other (Name & Date): See Attached. Photographs prepared/submitted by or on behalf of the applicant/consultant.

☐ Previous determination(s). File no. and date of response letter: .

☒ Other information (please specify): Wetlands are adjacent to RPW streams that are tributaries to the Escatawpa River which is a tidal TNW closer to the coast.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory Project Manager
(REQUIRED)

Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining
the signature is impracticable)

Site Number	Latitude	Longitude	Cowadin_Code	Size of Aquatic Resopuces / acres	Class of Aquatic Resource
Tributary to Bangs Lake	30.362182	-88.48339	E2	0.039236	Section 10 Stream
Tributary To Escatawpa River	30.453436	-88.496383	E2	0.011978	Section 10 Stream
WETA010-E0	30.440285	-88.495076	PEM	1.049453	Non-Section 10 Wetland
WETA010-E1	30.442042	-88.495287	PEM	0.056191	Non-Section 10 Wetland
WETA010-F0	30.439109	-88.49493	PFO	0.037304	Non-Section 10 Wetland
WETA010-S0	30.441587	-88.495169	PSS	0.0499	Non-Section 10 Wetland
WETA010-S1	30.442305	-88.49524	PSS	0.359759	Non-Section 10 Wetland
WETA011-E0	30.443978	-88.495433	PEM	0.011453	Non-Section 10 Wetland
WETA011-F0	30.444467	-88.49542	PFO	0.183765	Non-Section 10 Wetland
WETA012-E0	30.445744	-88.495528	PEM	0.396934	Non-Section 10 Wetland
WETA013-E0	30.447735	-88.495693	PEM	0.392974	Non-Section 10 Wetland
WETA013-F0	30.447669	-88.495692	PFO	0.196485	Non-Section 10 Wetland
WETA015-E0	30.457139	-88.496995	PEM	0.216332	Non-Section 10 Wetland
WETA015-F0	30.45683	-88.496877	PFO	0.161557	Non-Section 10 Wetland
WETA016-E0	30.459757	-88.497489	PEM	0.362438	Non-Section 10 Wetland
WETA016-F0	30.459863	-88.497403	PFO	0.235135	Non-Section 10 Wetland
WETA017-E0	30.46169	-88.497469	PEM	0.095255	Non-Section 10 Wetland
WETA017-F0	30.462052	-88.497486	PFO	0.364629	Non-Section 10 Wetland
WETA018-E0	30.464251	-88.497492	PEM	0.250255	Non-Section 10 Wetland
WETA019-E0	30.467774	-88.497582	PEM	0.004676	Non-Section 10 Wetland
WETA019-F0	30.469093	-88.49745	PFO	1.436872	Non-Section 10 Wetland
WETA020-E0	30.473183	-88.497439	PEM	0.079487	Non-Section 10 Wetland
WETA020-F0	30.472718	-88.497456	PFO	0.499755	Non-Section 10 Wetland
WETA021-F0	30.481021	-88.499277	PFO	0.369242	Non-Section 10 Wetland
Tributary To Escatawpa River	30.480699	-88.49896	E2	0.064011	Section 10 Stream
WETA007-E0	30.431844	-88.49427	PEM	0.480153	Non-Section 10 Wetland
WETA007-F0	30.431225	-88.493924	PFO	0.389619	Non-Section 10 Wetland
WETA008-E0	30.43346	-88.494469	PEM	0.24165	Non-Section 10 Wetland
WETA008-F0	30.433225	-88.494449	PFO	0.114998	Non-Section 10 Wetland
WETA009-E0	30.435953	-88.494658	PEM	0.725599	Non-Section 10 Wetland
Trib to Escatawpa	30.541568	-88.471532	E2	0.02544	Section 10 Stream
Escatawpa River	30.600429	-88.440052	R1	0.273699	Section 10 Stream
WETB003-E0	30.582393	-88.450722	PEM	0.282325	Non-Section 10 Wetland
WETB003-F0	30.582502	-88.45055	PFO	1.07348	Non-Section 10 Wetland
WETB004-F0	30.576724	-88.452742	PFO	1.265763	Non-Section 10 Wetland
WETB004-F1	30.578248	-88.452185	PFO	0.049036	Non-Section 10 Wetland
WETB004-F2	30.578351	-88.452137	PFO	0.03734	Non-Section 10 Wetland
WETB004-F3	30.578483	-88.452087	PFO	0.06832	Non-Section 10 Wetland

WETB004-F4	30.57868	-88.452028	PFO	0.086014	Non-Section 10 Wetland
WETB005-E0	30.57315	-88.454164	PEM	0.007548	Non-Section 10 Wetland
WETB005-S0	30.573502	-88.453955	PSS	0.400504	Non-Section 10 Wetland
WETB006-F0	30.571028	-88.454834	PFO	0.179267	Non-Section 10 Wetland
WETB007-E0	30.570067	-88.455222	PEM	0.019697	Non-Section 10 Wetland
WETB007-S0	30.569482	-88.454925	PSS	0.8715	Non-Section 10 Wetland
WETB008-E0	30.602683	-88.436931	PEM	0.302254	Non-Section 10 Wetland
WETB008-F0	30.603653	-88.435373	PFO	4.442759	Non-Section 10 Wetland
WETB009-E0	30.614783	-88.422012	PEM	0.025485	Non-Section 10 Wetland
WETB009-F0	30.614325	-88.42225	PFO	0.526511	Non-Section 10 Wetland
WETC028-E0	30.588061	-88.448668	PEM	0.106415	Non-Section 10 Wetland
WETC028-F0	30.587937	-88.448587	PFO	0.336623	Non-Section 10 Wetland
WETC030-E0	30.5956	-88.445599	PEM	1.483488	Non-Section 10 Wetland
WETC030-E1	30.598805	-88.442462	PEM	0.006358	Non-Section 10 Wetland
WETC030-E2	30.599426	-88.441593	PEM	0.08224	Non-Section 10 Wetland
WETC030-F0	30.594986	-88.445842	PFO	3.624847	Non-Section 10 Wetland
WETC030-F1	30.598906	-88.442272	PFO	0.01204	Non-Section 10 Wetland
WETC030-F2	30.599512	-88.441345	PFO	0.857707	Non-Section 10 Wetland
Black Creek	30.502095	-88.495605	E2	0.005642	Section 10 Stream
WETA022-E0	30.490198	-88.49857	PEM	0.176541	Non-Section 10 Wetland
WETA022-E1	30.491761	-88.498159	PEM	0.80707	Non-Section 10 Wetland
WETA022-F0	30.48817	-88.49911	PFO	2.250672	Non-Section 10 Wetland
WETA022-F1	30.490734	-88.498419	PFO	0.511197	Non-Section 10 Wetland
WETA022-S0	30.48846	-88.499033	PSS	0.154254	Non-Section 10 Wetland
WETA023-F0	30.494282	-88.498115	PFO	0.272844	Non-Section 10 Wetland
WETA023-F1	30.495018	-88.497904	PFO	0.517442	Non-Section 10 Wetland
WETA024-F0	30.497525	-88.49718	PFO	0.101816	Non-Section 10 Wetland
WETA024-F1	30.49793	-88.497067	PFO	0.225167	Non-Section 10 Wetland
WETA024-F2	30.498524	-88.4969	PFO	0.234651	Non-Section 10 Wetland
WETA024-F3	30.498825	-88.496858	PFO	0.025082	Non-Section 10 Wetland
WETC011-S0	30.502156	-88.495592	PSS	0.000506	Non-Section 10 Wetland
WETC011-S1	30.505973	-88.493337	PSS	5.699956	Non-Section 10 Wetland
WETC011-S2	30.50881	-88.48887	PSS	1.289703	Non-Section 10 Wetland
WETC012-E0	30.517697	-88.482751	PEM	1.899604	Non-Section 10 Wetland
WETC012-S0	30.516843	-88.48249	PSS	4.113781	Non-Section 10 Wetland
WETC013A-E0	30.525149	-88.482924	PEM	0.006201	Non-Section 10 Wetland
WETC013A-F0	30.525218	-88.482971	PFO	0.123066	Non-Section 10 Wetland
WETC013B-E1	30.526788	-88.481729	PEM	0.183708	Non-Section 10 Wetland

WETC013B-S0	30.527758	-88.48114	PSS	1.934126	Non-Section 10 Wetland
WETC014-E0	30.529116	-88.478395	PEM	0.044581	Non-Section 10 Wetland
Tributary To Escatawpa River	30.529825	-88.473622	E2	0.18916	Section 10 Stream
WETA025-F0	30.533446	-88.471446	PFO	3.372373	Non-Section 10 Wetland
WETA026-F0	30.539553	-88.471496	PFO	2.482972	Non-Section 10 Wetland
WETA026-F1	30.541749	-88.471514	PFO	0.222318	Non-Section 10 Wetland
WETC015-E0	30.529608	-88.474354	PEM	0.104281	Non-Section 10 Wetland
WETC015-E1	30.529658	-88.473651	PEM	0.103253	Non-Section 10 Wetland
WETC015-F0	30.529738	-88.473585	PFO	0.136076	Non-Section 10 Wetland
WETC015-F1	30.529817	-88.474133	PFO	0.410048	Non-Section 10 Wetland
WETD005-F0	30.544245	-88.47154	PFO	1.034792	Non-Section 10 Wetland
WETD006-F0	30.546173	-88.471564	PFO	0.50567	Non-Section 10 Wetland
WETD006-F1	30.546525	-88.471622	PFO	0.090098	Non-Section 10 Wetland
WETD006-F2	30.546699	-88.471424	PFO	0.005804	Non-Section 10 Wetland
WETD007-F0	30.549764	-88.471767	PFO	0.000093	Non-Section 10 Wetland
WETD008-E0	30.552386	-88.471209	PEM	0.131962	Non-Section 10 Wetland
WETD008-F0	30.551834	-88.471281	PFO	0.920156	Non-Section 10 Wetland
WETD008-S0	30.552008	-88.471431	PSS	0.127466	Non-Section 10 Wetland
WETD009-E0	30.556217	-88.46759	PEM	0.832893	Non-Section 10 Wetland
WETD009-E1	30.561872	-88.46224	PEM	0.09838	Non-Section 10 Wetland
WETD009-F0	30.555128	-88.468466	PFO	1.891344	Non-Section 10 Wetland
WETD009-F1	30.559647	-88.464199	PFO	0.693853	Non-Section 10 Wetland
WETD009-F2	30.563393	-88.46065	PFO	0.094534	Non-Section 10 Wetland
WETD009-F3	30.564215	-88.459867	PFO	0.242171	Non-Section 10 Wetland
WETD009-S0	30.557914	-88.465834	PSS	1.826189	Non-Section 10 Wetland
WETD009-S1	30.561906	-88.462055	PSS	2.238561	Non-Section 10 Wetland
WETD009-S2	30.563761	-88.460295	PSS	0.489641	Non-Section 10 Wetland
Bayou Cumbest	30.408922	-88.483665	E2	0.008219	Section 10 Stream
WETA005-E0	30.402456	-88.480487	PEM	0.928868	Non-Section 10 Wetland
WETA005-F0	30.399605	-88.480215	PFO	0.816381	Non-Section 10 Wetland
WETA005-F1	30.401163	-88.480189	PFO	1.039646	Non-Section 10 Wetland
WETA005-F2	30.402914	-88.48038	PFO	0.869498	Non-Section 10 Wetland
WETA005-F3	30.404657	-88.481776	PFO	1.370994	Non-Section 10 Wetland
WETA006-E0	30.405758	-88.482866	PEM	0.000006	Non-Section 10 Wetland
WETA006-F0	30.405726	-88.482742	PFO	0.073732	Non-Section 10 Wetland
WETD001-E0	30.409222	-88.483729	PEM	0.001734	Non-Section 10 Wetland
WETD001-F0	30.409188	-88.483596	PFO	0.07682	Non-Section 10 Wetland
Tributary To Escatawpa River	30.417539	-88.482813	E1	0.273201	Section 10 Stream

Tributary To Escatawpa River	30.546504	-88.471538	E2	0.012823	Section 10 Stream
Tributary To Escatawpa River	30.54828	-88.471461	E2	0.082912	Section 10 Stream
Escatawpa River	30.421556	-88.488021	R1	0.306914	Section 10 Stream
WETD003-F0	30.415524	-88.4828	PFO	2.109928	Non-Section 10 Wetland
WETD004-F0	30.419177	-88.48561	PFO	3.874672	Non-Section 10 Wetland
WETG001-E0	30.425325	-88.490205	E2EM	4.992487	Non-Section 10 Wetland
WETG002-E0	30.429894	-88.493077	E2EM	1.513801	Non-Section 10 Wetland
Tributary to Escatawpa River	30.428796	-88.492387	E1	0.03972	Section 10 Stream
Tributary to Bangs Lake	30.355996	-88.487114	E2	0.020695	Section 10 Stream
Tributary to Bangs Lake	30.355345	-88.488546	E2	0.02058	Section 10 Stream
WETA002-E0	30.355914	-88.483128	PEM	0.020132	Non-Section 10 Wetland
WETA002-F0	30.35954	-88.483321	PFO	2.971802	Non-Section 10 Wetland
WETA002-S0	30.356455	-88.483245	PSS	0.904027	Non-Section 10 Wetland
WETA003-E0	30.369475	-88.48335	PEM	0.134436	Non-Section 10 Wetland
WETA003-E1	30.387883	-88.480184	PEM	3.666266	Non-Section 10 Wetland
WETA003-F0	30.366186	-88.483325	PFO	3.973211	Non-Section 10 Wetland
WETA003-F1	30.369468	-88.483355	PFO	0.027821	Non-Section 10 Wetland
WETA003-F2	30.376162	-88.480005	PFO	2.61661	Non-Section 10 Wetland
WETA003-F3	30.381341	-88.480093	PFO	2.995657	Non-Section 10 Wetland
WETA003-F4	30.384325	-88.48026	PFO	0.077068	Non-Section 10 Wetland
WETA003-F5	30.38626	-88.480261	PFO	2.025548	Non-Section 10 Wetland
WETA003-F6	30.391311	-88.480315	PFO	2.811363	Non-Section 10 Wetland
WETA003-F7	30.397463	-88.480264	PFO	1.896313	Non-Section 10 Wetland
WETA003-S0	30.3717	-88.481736	PSS	3.133356	Non-Section 10 Wetland
WETG005-E0	30.355411	-88.488546	PEM	0.062469	Non-Section 10 Wetland
WETG005-E1	30.355136	-88.488547	PEM	0.241702	Non-Section 10 Wetland
WETG005-E2	30.354811	-88.488548	PEM	0.039566	Non-Section 10 Wetland
WETG005-S0	30.355988	-88.484306	PSS	0.826683	Non-Section 10 Wetland
WETG005-S1	30.355993	-88.4862	PSS	0.972171	Non-Section 10 Wetland
WETG005-S3	30.35589	-88.488086	PSS	1.218603	Non-Section 10 Wetland

Moxey, Michael B SAM

From: Moxey, Michael B SAM
Sent: Tuesday, January 29, 2013 4:25 PM
To: 'Eric Munscher'
Cc: Tom Sankey; Jeremy Rabalais
Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-1165-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
I am currently reviewing the site design changes because of the HDD changes in the Escatawpa River wetlands with regards to wetland impacts reflected in the upload worksheets.
1. I would like to request a list of the changes required to the aquatic resource worksheet to identify which wetlands have less trenching impacts because of increased use of HDD, and which wetlands have additional (temporary) impact numbers because of the HDD pads. It seems like WETG001-EO would have new numbers, and possibly WETD003-FO?
2. I need to know the size of the wetland impacts (dimensions and acreage) for the temporary HDD well pad sites located in wetlands. Based on our conversation with DMR, these are temporary impacts to emergent wetland systems that will be fully restored, therefore I believe no changes are required to the Corps mitigation worksheet.

Thanks,
Mike

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg <http://www.sam.usace.army.mil/RD/reg> , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

Classification: UNCLASSIFIED
Caveats: NONE

Moxey, Michael B SAM

From: Moxey, Michael B SAM
Sent: Tuesday, January 29, 2013 10:43 AM
To: 'Tom Sankey'; Greg Christodoulou (Greg.Christodoulou@dmr.ms.gov)
Cc: 'Eric Munscher'
Subject: SAM-2012-1165-mbm, Plains SouthCap Pipeline MS (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Good morning,
As a follow-up to our meeting on January 11, 2013 at DMR, on January 18, 2013, Tom Sankey provided this office with copies of the SHPO clearance letter, the USFWS clearance letter, and the revised project design where directional drilling would be used (increased from 1,040-feet to 4,600 feet) to cross the Rhodes Lake mitigation bank and would cross at a greater depth beneath the Escatawpa River (approximately 68.5 feet below). The applicant is currently applying for the Mississippi Coastal Use certification. If there are no expected changes to the new proposed plans, I am prepared to issue our permit(s), which would contain the condition they must obtain the DMR certification for our permit to be valid. Let me now if you believe the project is likely to change.

Thanks,
Mike

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg <http://www.sam.usace.army.mil/RD/reg> , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

Classification: UNCLASSIFIED
Caveats: NONE

MISSISSIPPI
DEPARTMENT OF MARINE RESOURCES

REQUEST FOR REVIEW OF APPLICATION

TO: Mike Moxey, Inland Team Leader,
USACE Regulatory Division, Mobile District
Office of Land and Water Resources
Department of Archives and History
Office of Pollution Control
Mississippi Wildlife Federation
Department of Wildlife, Fisheries and Parks
Secretary of State
Paul Necaise, U.S. Fish and Wildlife Service
Mark Thompson, NMFS
Veronica Beech, NMFS

FROM: Department of Marine Resources
Bureau of Wetlands Permitting

SUBJECT: Application by Plains South Cap, LLC; DMR-130181; SAM-2012-0885-MBM

DATE: January 18, 2013

In accordance with the provisions of the Mississippi Coastal Program, the Coastal Wetlands Protection Law and the terms of the February, 1984 Memorandum of Understanding, we herewith enclose a copy of the application by Plains South Cap, LLC.

Please provide your comments in writing to our office by close of business on **February 18, 2013.**

If a coastal program agency has not commented within the allotted review time, its concurrence with the proposed activity will be assumed.

If you have any questions, please contact Greg Christodoulou at 228-523-4109 or greg.christodoulou@dmr.ms.gov.

Waiver
Mississippi Dept of Marine Resources
PERMITTING

JOINT APPLICATION AND NOTIFICATION

DEC 0 6 2012

RECEIVED

U.S. ARMY CORPS OF ENGINEERS
MISSISSIPPI DEPARTMENT OF MARINE RESOURCES
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY/OFFICE OF POLLUTION CONTROL

This form is to be used for proposed activities in waters of the United States in Mississippi and for the erection of structures on suitable sites for water dependent industry. Note that some items, as indicated, apply only to projects located in the coastal area of Hancock, Harrison and Jackson Counties.

1. Date
12/06/12
month day year

2. Applicant name, mailing address, phone number and email address:
Steve Lee
Plains South Cap, LLC
333 Clay Street, Suite 1600
Houston, TX 77210-4648

Agent name, mailing address, phone number and email address:
Tom Sankey
SWCA Environmental Consultants
7255 Langtry, Suite 100
Houston, TX 77066

3. Official use only
COE
DMR $500 CK#002339
DEQ
A95
DATE RECEIVED 12/6/12

130181 (R) GC

4. Project location
Street Address NA City/Community Pascagoula
Name of Waterway Escatawpa River Drainage Latitude Longitude (if known)
Geographic location: Section 21 Township T-07-S Range R-05-W County Jackson

5. Project description

New work___ Maintenance work___

Dredging

__Channel	length____	width____	existing depth____	proposed depth____
__Canal	length____	width____	existing depth____	proposed depth____
__Boat Slip	length____	width____	existing depth____	proposed depth____
__Marina	length____	width____	existing depth____	proposed depth____
__Other-Mooring Basin	length____	width____	existing depth____	proposed depth____

Cubic yards of material to be removed____ Type of material____
Location of spoil disposal area____
Dimensions of spoil area____ Method of excavation____
How will excavated material be contained?____

Construction of structures

____Bulkhead	Total length____	Height above water____	
____Pier	length____	width____	height____
____Boat Ramp	length____	width____	slope____
____Boat House	length____	width____	height____

____Structures on designed sites for water dependent industry (Coastal area only). Explain in item 11 or include as attachment.
_X_Other (explain)____

Filling

Dimensions of fill area____
Cubic yards of fill____ Type of fill____

Other regulated activities (i.e. Seismic exploration, burning or clearing of marsh) Explain.
See attached PCN drawings from our USACE permit application (Action ID SAM-2012-01165-MBM)

3. **Additional information relating to the proposed activity**

Does project area contain any marsh vegetation? Yes X No ____

(If yes, explain) The lower Escatawpa River contains tidal marsh vegetation that will be crossed via HDD / trenching

Is any portion of the activity for which authorization is sought now complete? Yes____ No X

(If yes, explain)____

Month and year activity took place____

If project is for maintenance work on existing structures or existing channels, describe legal authorization for the existing work. Provide permit number, dates or other form(s) of authorization.____

Has any agency denied approval for the activity described herein or for any activity that is directly related to the activity described herein?

Yes____ No____(If yes, explain)____

7. **Project schedule**

Proposed start date February 1st, 2013 Proposed completion date September 1st, 2013

Expected completion date (or development timetable) for any projects dependent on the activity described herein.____

We do not have a final cost estimate at this time. Bids will be submitted in late December, 2012.

8. **Estimated cost of the project**____

9. **Describe the purpose of this project. Describe the relationship between this project and any secondary or future development the project is designed to support.** The proposed project will be constructed to transport crude oil from the Plains Southcap, LLC Ten-Mile storage facility in northern Mobile County, Alabama to the Chevron Pascagoula Refinery, in southeastern Jackson County, Mississippi

Intended use: Private____Commercial X Public____Other (Explain)____

10. **Describe the public benefits of the proposed activity and of the projects dependent on the proposed activity. Also describe the extent of public use of the proposed project.**

Public will benefit from final refined products.

11. **Narrative Project Description:**

Plains Southcap, LLC (Plains) requested that SWCA Environmental Consultants (SWCA) complete a wetland and waters delineation for approximately 41 miles of 24-inch crude oil pipeline. The project area begins at the Plains Southcap, LLC Ten-Mile crude oil facility in Mobile, Alabama, located approximately 11 miles northwest of downtown Mobile and extends southwest towards Pascagoula, Mississippi. The line ends at the Chevron Pascagoula refinery approximately one mile from the Gulf of Mexico (Project route).

12. Provide the names and addresses of the adjacent property owners. Also identify the property owners on the plan view of the drawing described in Attachment "A". (Attach additional sheets if necessary.)

1. Owner information will be sent to MS DMR via seperate document.

2.

13. List all approvals or certifications received or applied for from Federal, State and Local agencies for any structures, construction, discharges, deposits or other activities described in this application. Note that the signature in Item 14 certifies that application has been made to or that permits are not required from the following agencies. If permits are not required, place N/A in the space for Type Approval.

Agency	***Type Approval***	***Application Date***	***Approval Date***
Dept. of Environmental Quality			
Dept. of Marine Resources	Tidelands Permit	12/06/12	
Army Corps of Engineers	NWP 12	9/12/12	
City/County			
Other USFWS, November 2012			

14. Certification and signatures

Application is hereby made for authorization to conduct the activities described herein. I agree to provide any additional information/data that may be necessary to provide reasonable assurance or evidence to show that the proposed project will comply with the applicable state water quality standards or other environmental protection standards both during construction and after the project is completed. I also agree to provide entry to the project site for inspectors from the environmental protection agencies for the purpose of making preliminary analyses of the site and monitoring permitted works. I certify that I am familiar with and responsible for the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete and accurate. I further certify that I am the owner of the property where the proposed project is located or that I have a legal interest in the property and that I have full legal authority to seek this permit.

U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willingly falsifies, conceals, or covers up by any trick, scheme or device a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than five years, or both.

Mississippi Coastal Program (Coastal area only)

I certify that the proposed project for which authorization is sought complies with the approved Mississippi Coastal Program and will be conducted in a manner consistent with the program.

Signature of Applicant or Agent

12/6/12
Date

15. Fees

Payable to MS Dept. of Marine Resources
$50.00 Single-family residential application fee
$500.00 Commercial application fee
Public notice fee may be required

Please include appropriate fees for all projects proposed in coastal areas of Hancock, Harrison and Jackson Counties.

16. If project is in Hancock, Harrison or Jackson Counties, send one completed copy of this application form and appropriate fees listed in Item 15 to:

Department of Marine Resources
Bureau of Wetlands Permitting
1141 Bayview Avenue
Biloxi, MS 39530
(228) 374-5000

If project <u>IS NOT</u> in Hancock, Harrison or Jackson Counties, send one completed copy of this application form to each agency listed below:

District Engineer
Mobile District
Attn: CESAM-RD
P.O. Box 2288
Mobile, AL 36628-0001

District Engineer
Vicksburg District
Regulatory Branch
Attn: CEMVK-OD-F
4155 Clay Street
Vicksburg, MS 39183-3435

Director
Mississippi Dept. of Environmental Quality
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289

17. In addition to the completed application form, the following attachments are required:

Attachment "A" Drawings

Provide a vicinity map showing the location of the proposed site along with a written description of how to reach the site from major highways or landmarks. Provide accurate drawings of the project site with proposed activities shown in detail. All drawings must be to scale or with dimensions noted on drawings and must show a plan view and cross section or elevation. Use 8 1/2 x 11" white paper or drawing sheet attached.

Attachment "B" Authorized Agent

If applicant desires to have an agent or consultant act in his behalf for permit coordination, a signed authorization designating said agent must be provided with the application forms. The authorized agent named may sign the application forms and the consistency statement.

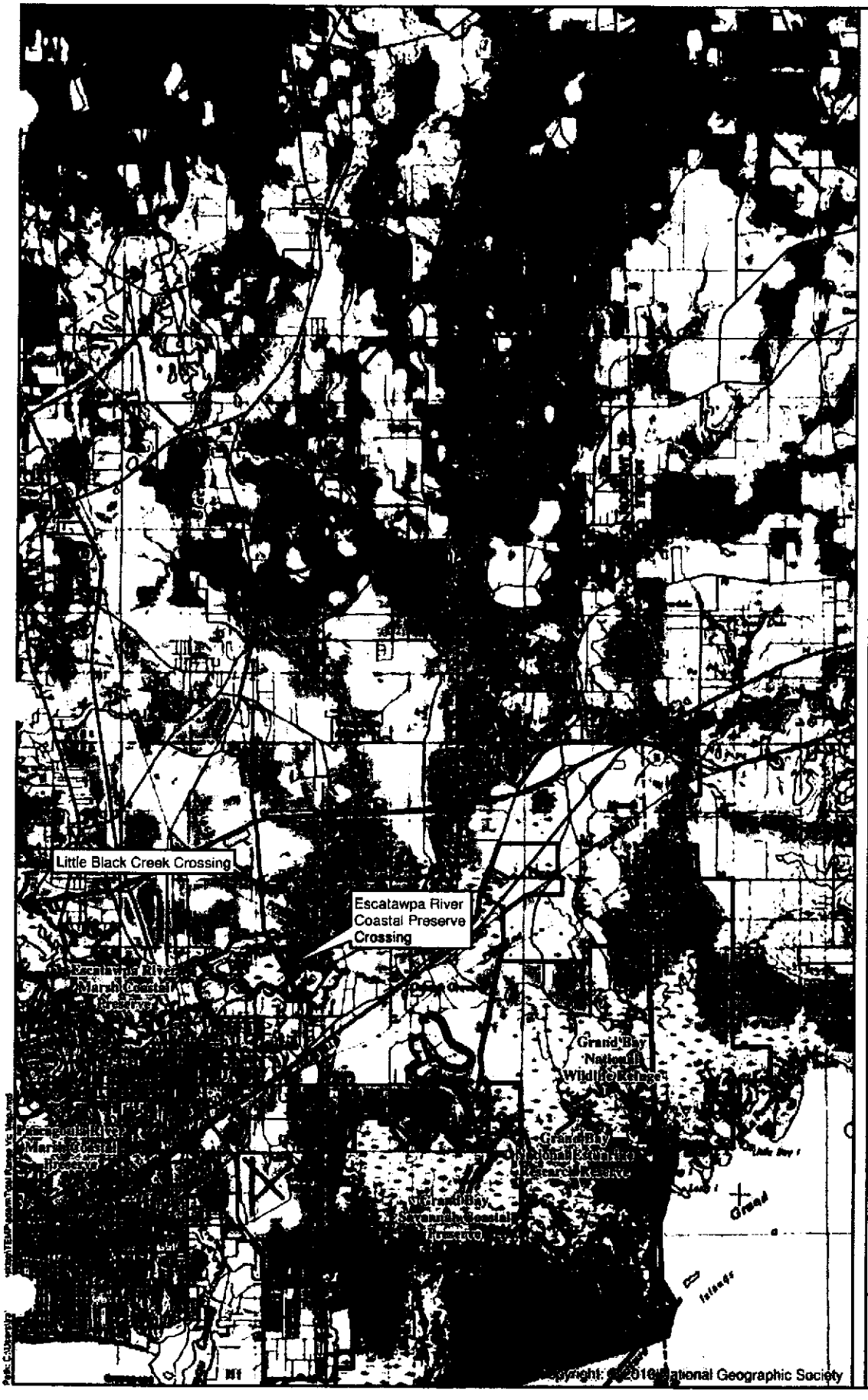
Attachment "C" Environmental Assessment *(Coastal Area Only)*

Provide an appropriate report or statement assessing environmental impacts of the proposed activity and the final project dependent on it. The project's effects on the wetlands and the effects on the life dependent on them should be addressed. Also provide a complete description of any measures to be taken to reduce detrimental offsite effects to the coastal wetlands during and after the proposed activity. Alternative analysis, minimization and mitigation information may be required to complete project evaluation.

Attachment "D" Variance or Revisions to Mississippi Coastal Program *(Coastal area only)*

If the applicant is requesting a variance to the guidelines in Section 2, Part III or a revision to the Coastal Wetlands Use Plan in Section 2, Part IV of the Rules, Regulations, Guidelines and Procedures of the Mississippi Coastal Program, a request and justification must be provided.

Attachment "A" Drawings



PLAINS SOUTHCAP L.L.C.

TIDAL RANGE VICINITY MAP 41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

JACKSON COUNTY, MS

Legend

- Non-Tidal
- Non-Tidal, Proximate to Know MRA's
- Tidal
- MRA Areas
- Lidar < +1.3
- NGS USA Topographic Maps

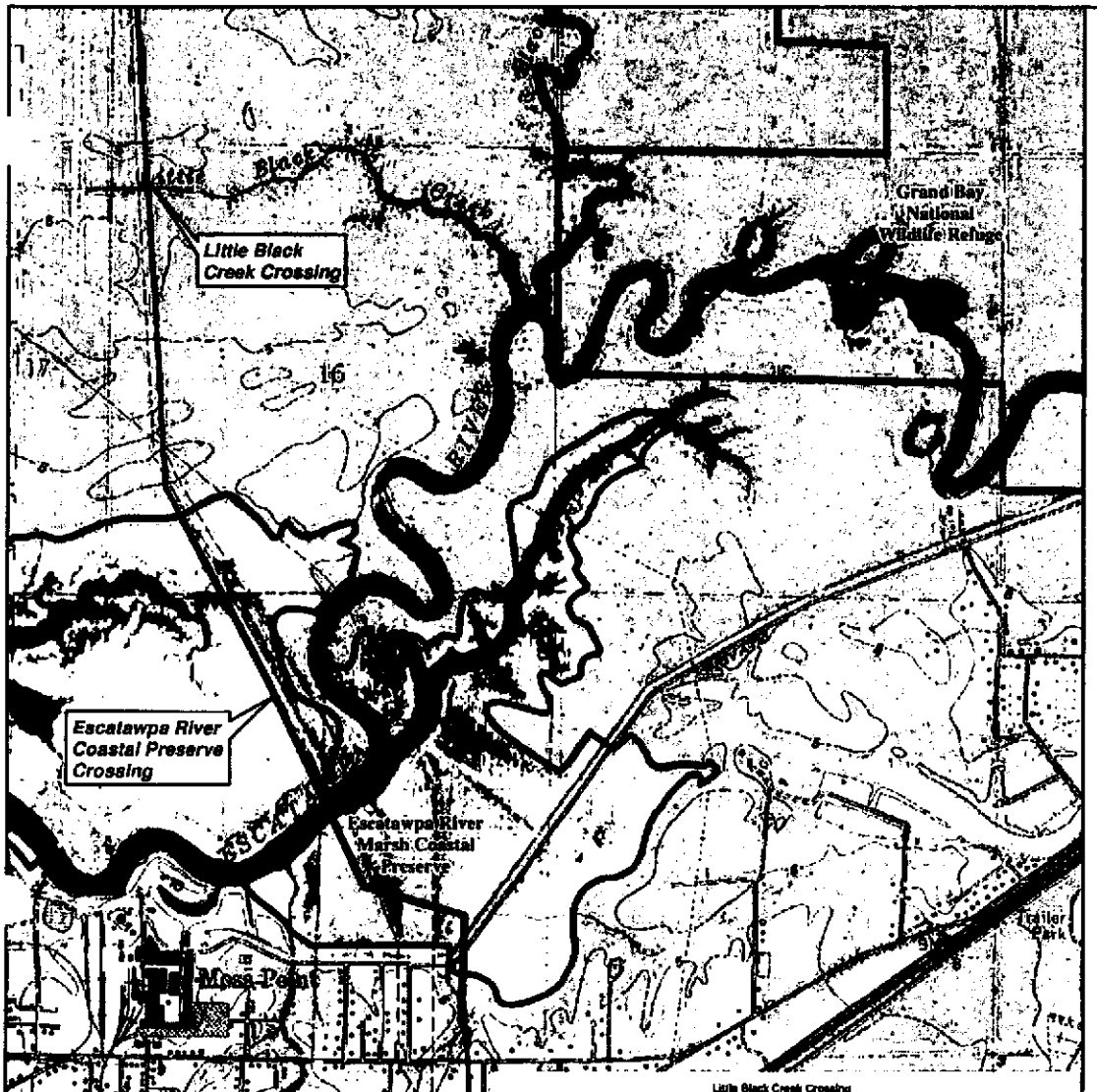
0 6,000 12,000 Feet

SWCA ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.

TIDAL RANGE MAPS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

JACKSON COUNTY, MS



Legend

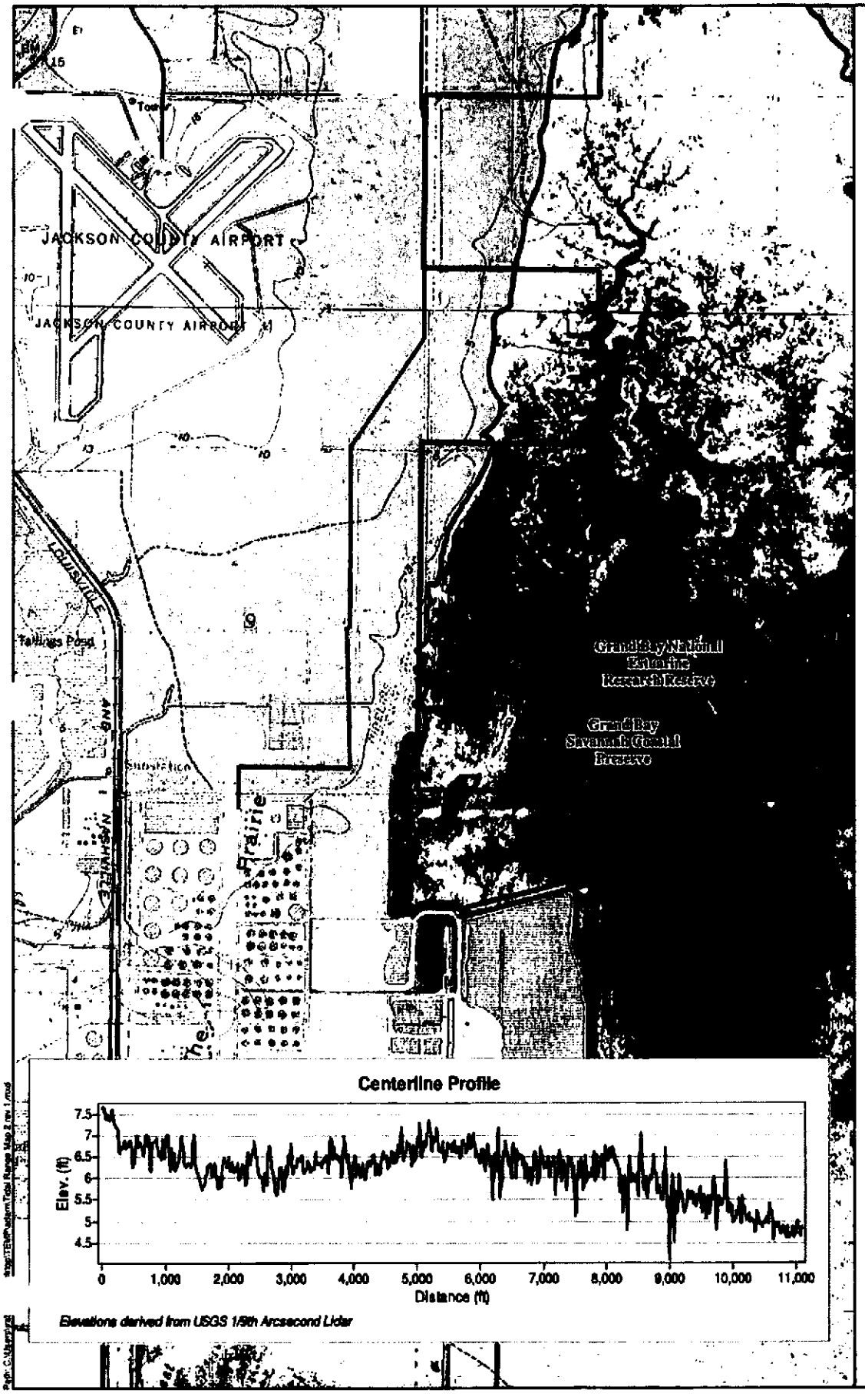
- Non-Tidal
- Tidal
- MRA Areas
- Lidar < +1.3

SWCA ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.

TIDAL RANGE MAPS 41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

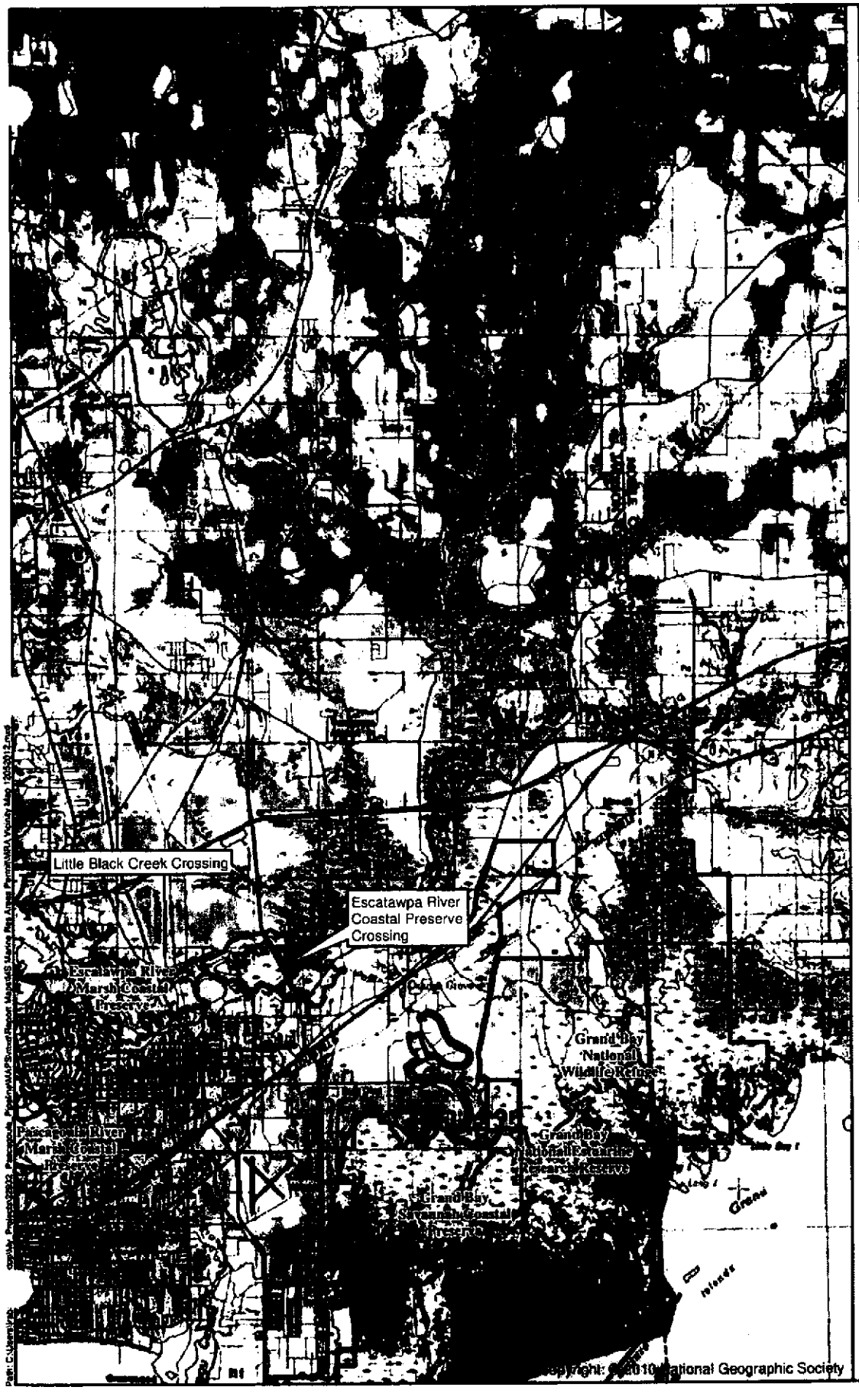
JACKSON COUNTY, MS



Legend

- Non-Tidal
- Non-Tidal, Proximate to Know MRA's
- Tidal
- MRA Areas
- Lidar < +1.3

SWCA ENVIRONMENTAL CONSULTANTS



PLAINS SOUTHCAP L.L.C.

MRA VICINITY MAP 41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

JACKSON COUNTY, MS

Legend

- Non-Tidal
- Non-Tidal, Proximate to Know MRA's
- Tidal
- MRA Areas
- Lidar < +1 3
- NGS USA Topographic Maps

0 6,000 12,000 Feet

SWCA, Environmental Consultants
7550 Langley, Suite 130
Houston, Texas 77040
(713) 934-8000 phone
(713) 934-8046 fax
www.swca.com

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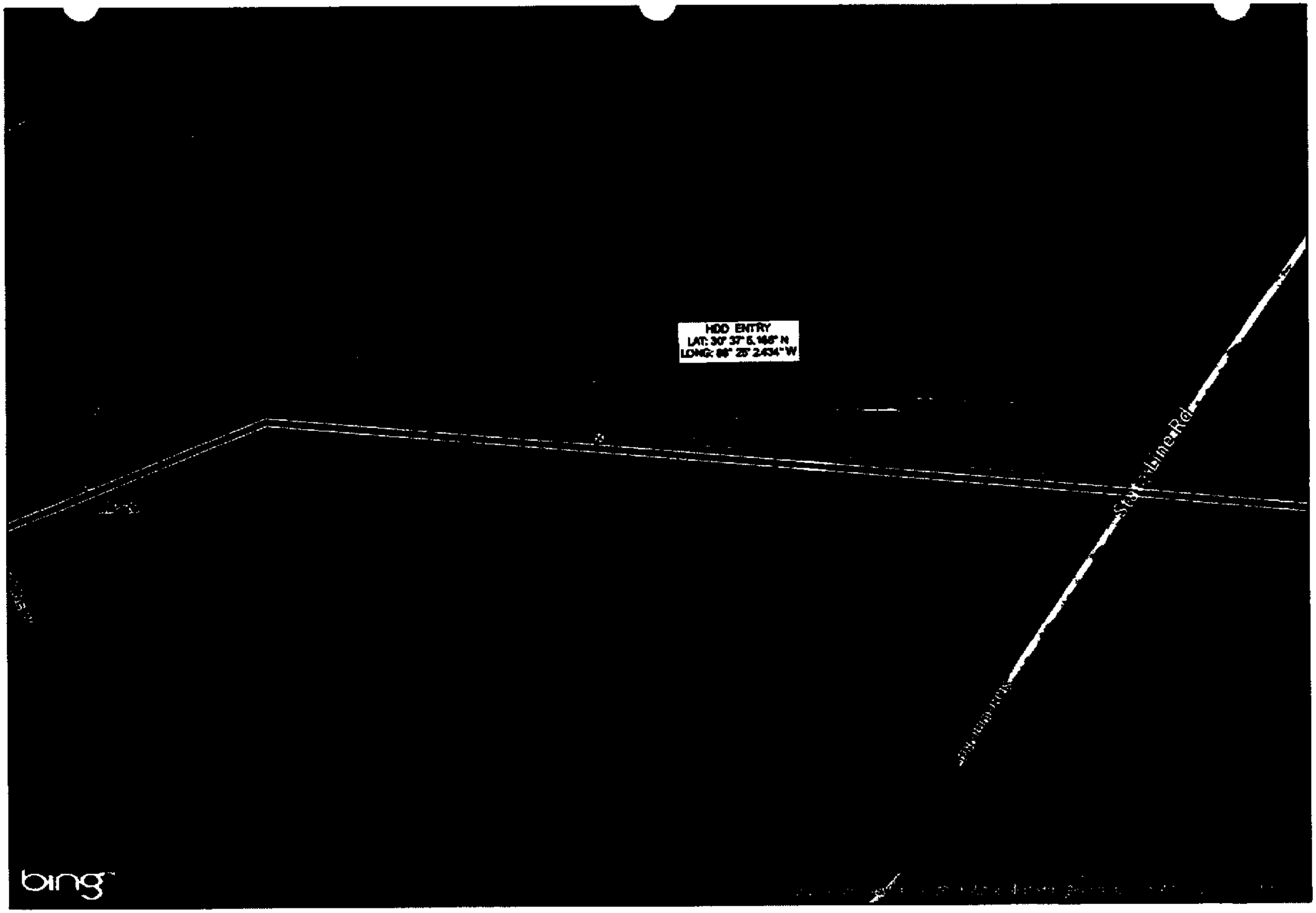
ENVIRONMENTAL CONSULTANTS



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ENVIRONMENTAL CONSULTANTS
Sheet 2 of 27

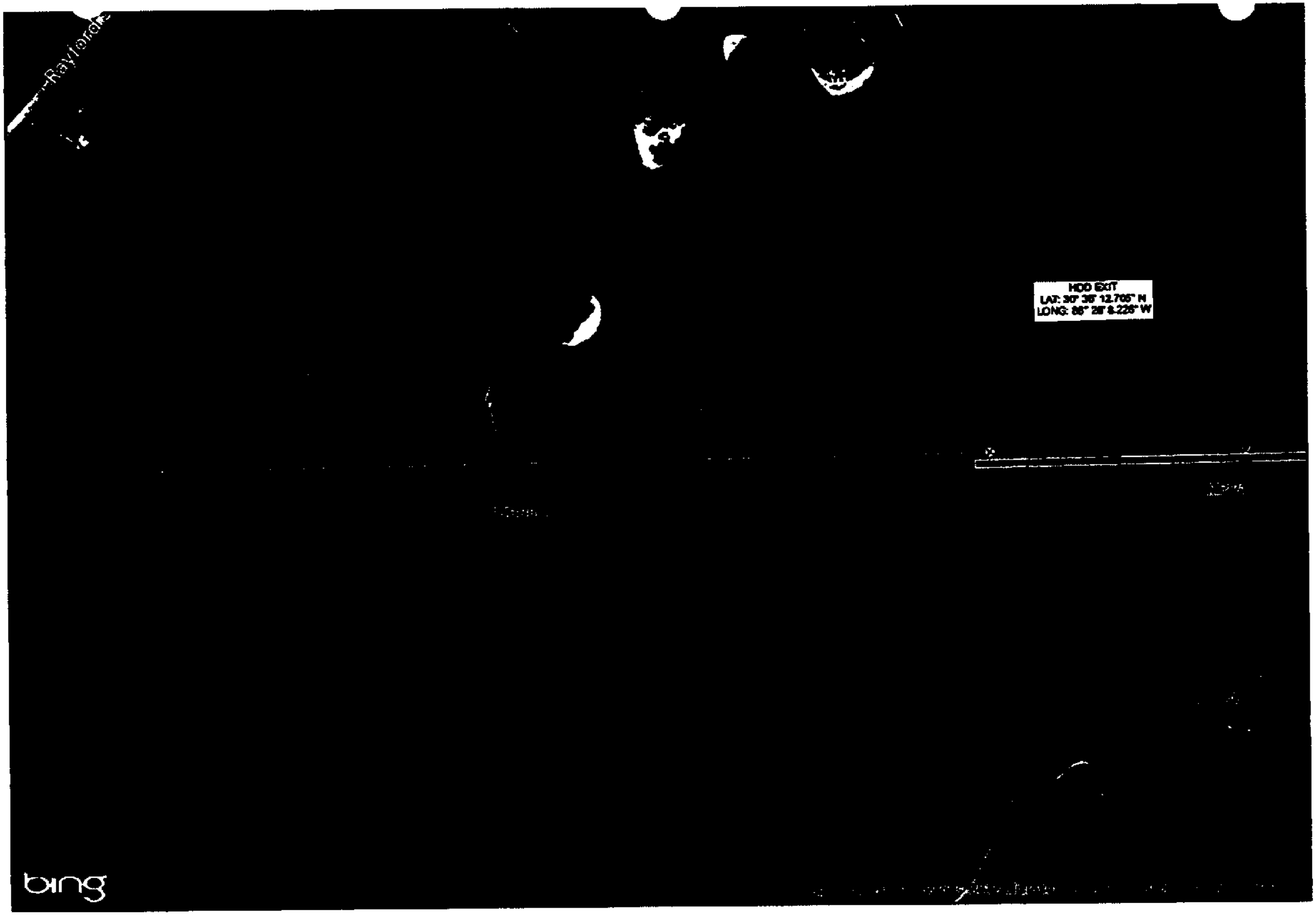
PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
HDD Entry/Exit
HDD Centerline
Milepost
Permanent
Additional Temporary
Intertidal
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS

COMMENT:
USACE MOBILE DISTRICT

SWCA
ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO
PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS



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ENVIRONMENTAL CONSULTANTS
Sheet 4 of 27

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
HDD Entry/Exit
HDD Centerline
Milepost
Permanent
Additional
Temporary
Intertidal
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS

COMMENT:
USACE MOBILE DISTRICT

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

SWCA
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Sheet 7 of 27

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-INCH FACILITY TO
PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
HDD Entry/Exit
HDD Centerline
Milepost
Permanent
Additional
Temporary
Interim
Perennial
Intermittent
Ephemeral
Pond
ESCM
PEM
PFO
PSS

CONTRACTOR
USACE MOBILE DISTRICT

SWCA
ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
HDD Entry/Exit
HDD Centerline
Milepost
Permanent
Additional
Temporary
Internal
Perennial
Intermittent
Ephemeral
Pond
EBSU
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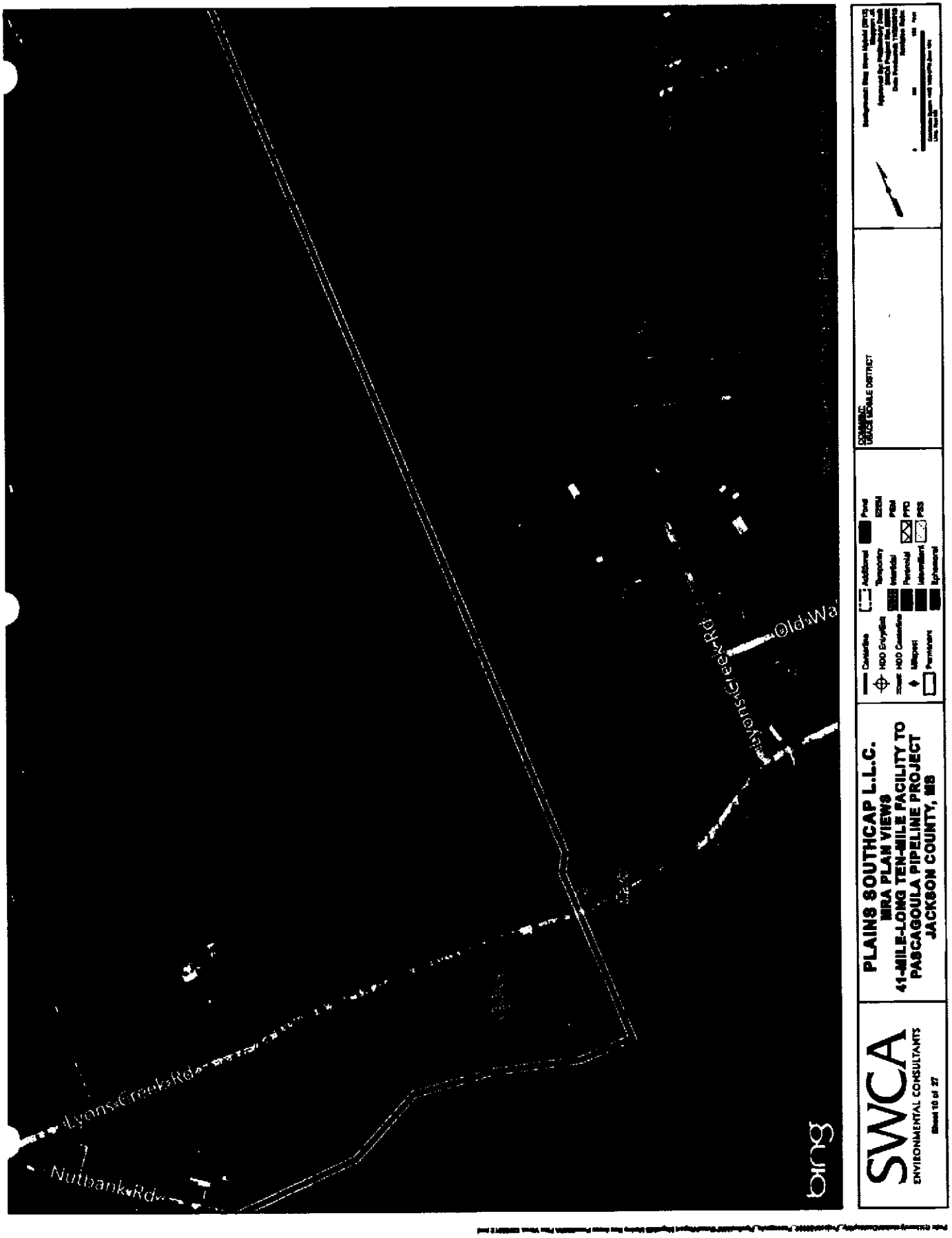
PFO
PSS

COMMENT
MOBILE DISTRICT

SWCA
ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO
PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

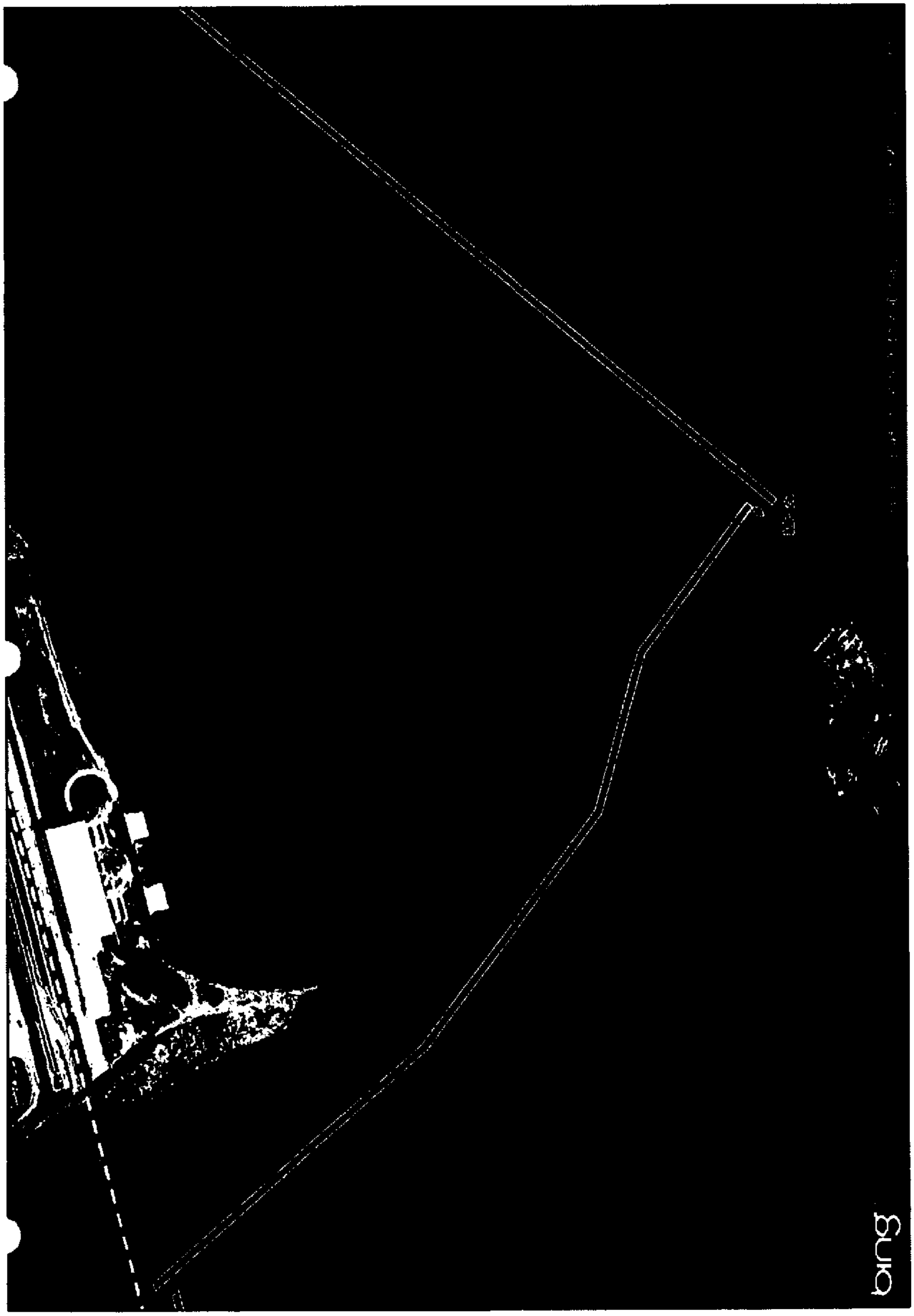


SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 11 of 27

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-INCH FACILITY TO
PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
HDD Entry/Exit
HDD Centerline
Milepost
Permanent
Additional Temporary
Intermittent
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS

COMPARE
USACE MOBILE DISTRICT

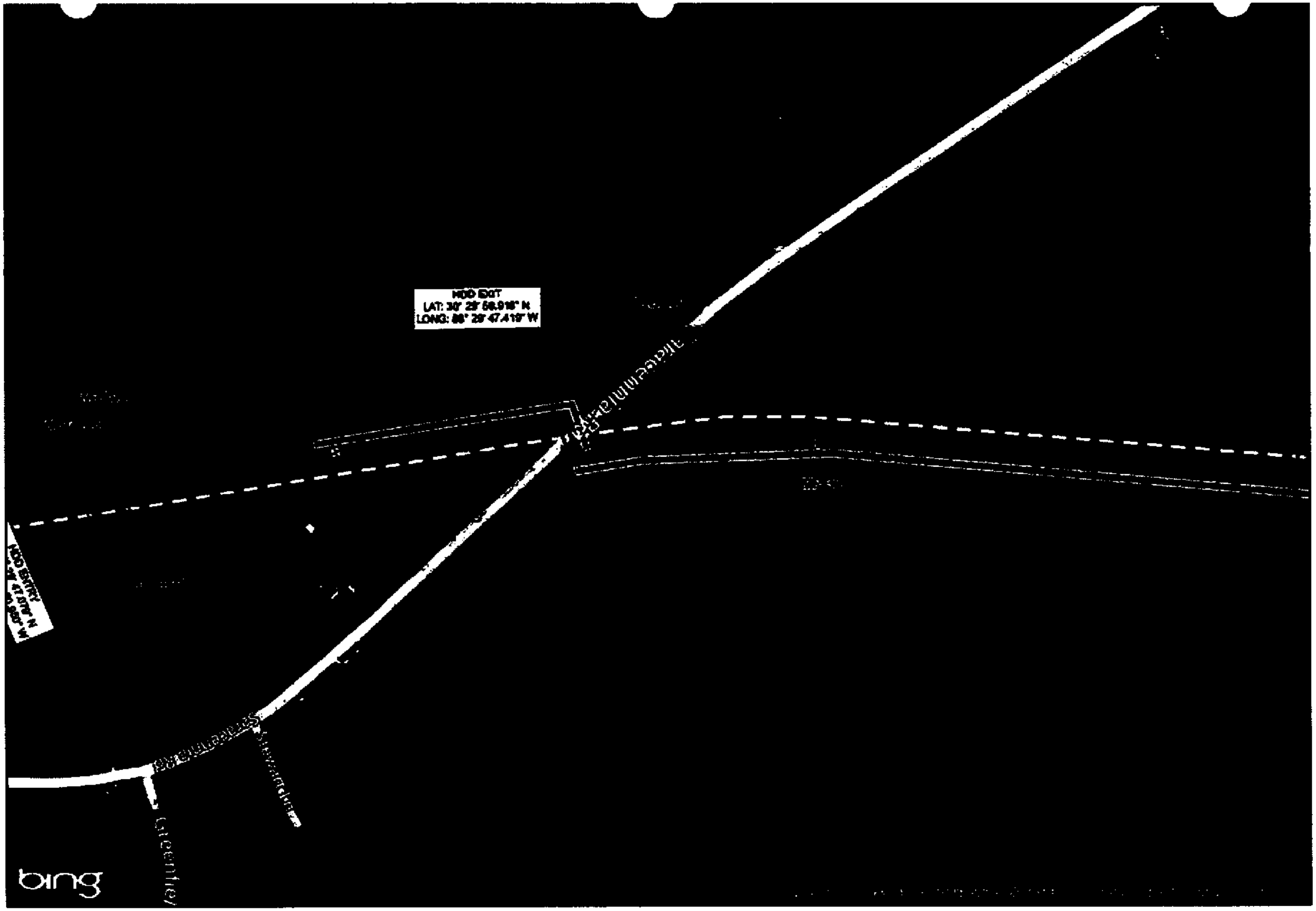


SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 12 of 27

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
HDD Entry/Exit
HDD Centerline
Milepost
Permanent
Additional
Temporary
Intertidal
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS

COMMENT:
USACE MOBILE DISTRICT



SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 13 of 27

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
HDD Entry/Exit
HDD Centerline
Milepost
Permanent
Additional Temporary
Intertidal
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS

COMMENT:
USACE MOBILE DISTRICT

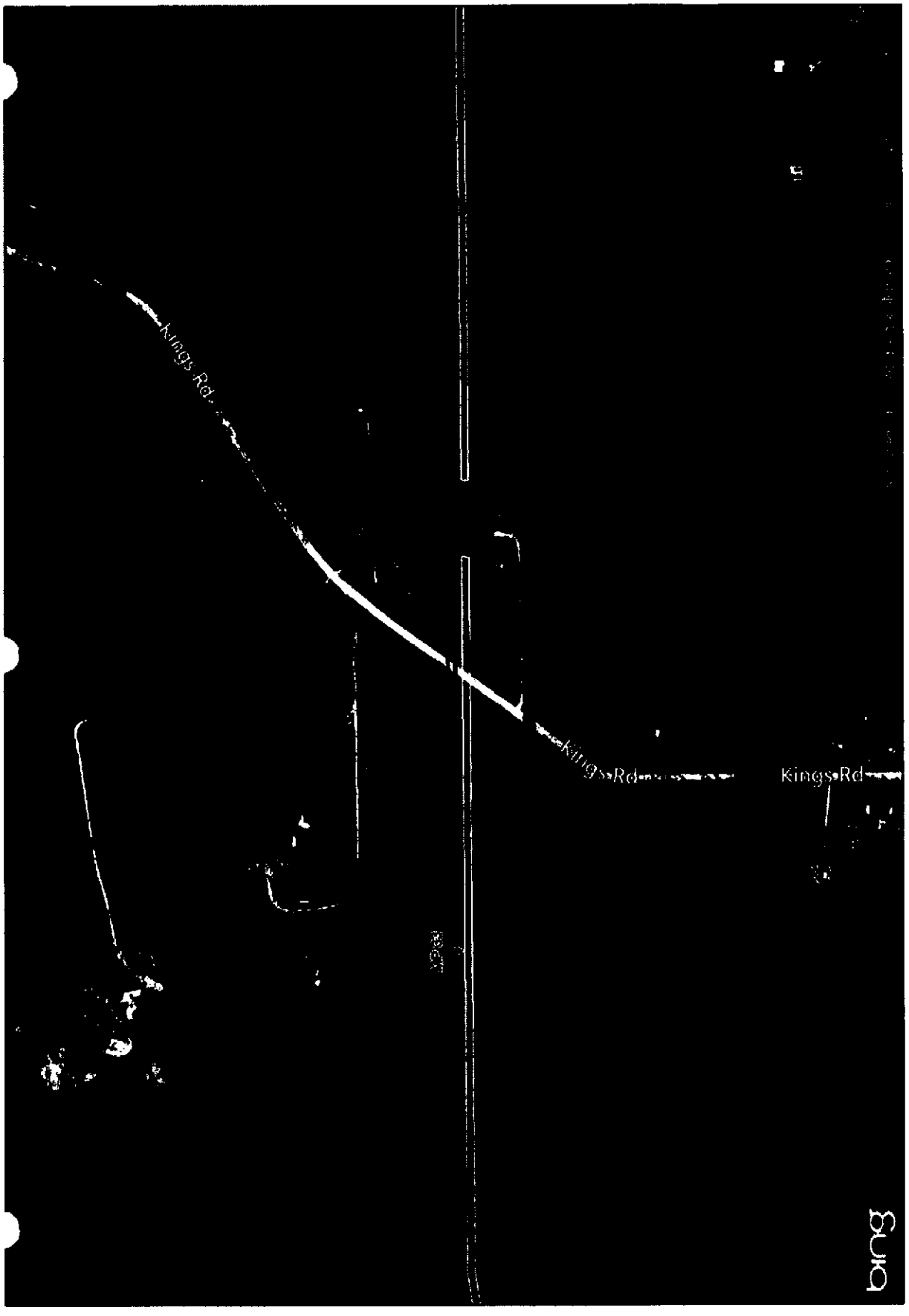
SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 14 of 27

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO
PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
HDD Entry/Exit
HDD Centerline
Milepost
Permanent
Additional
Temporary
Inactive
Perennial
Intermittent
Ephemeral
Pond
ESDM
PEM
PFO
PSS

SWCA
ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO
PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS



PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

SWCA
ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LOMG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 17 of 27

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ENVIRONMENTAL CONSULTANTS
Sheet 19 of 27

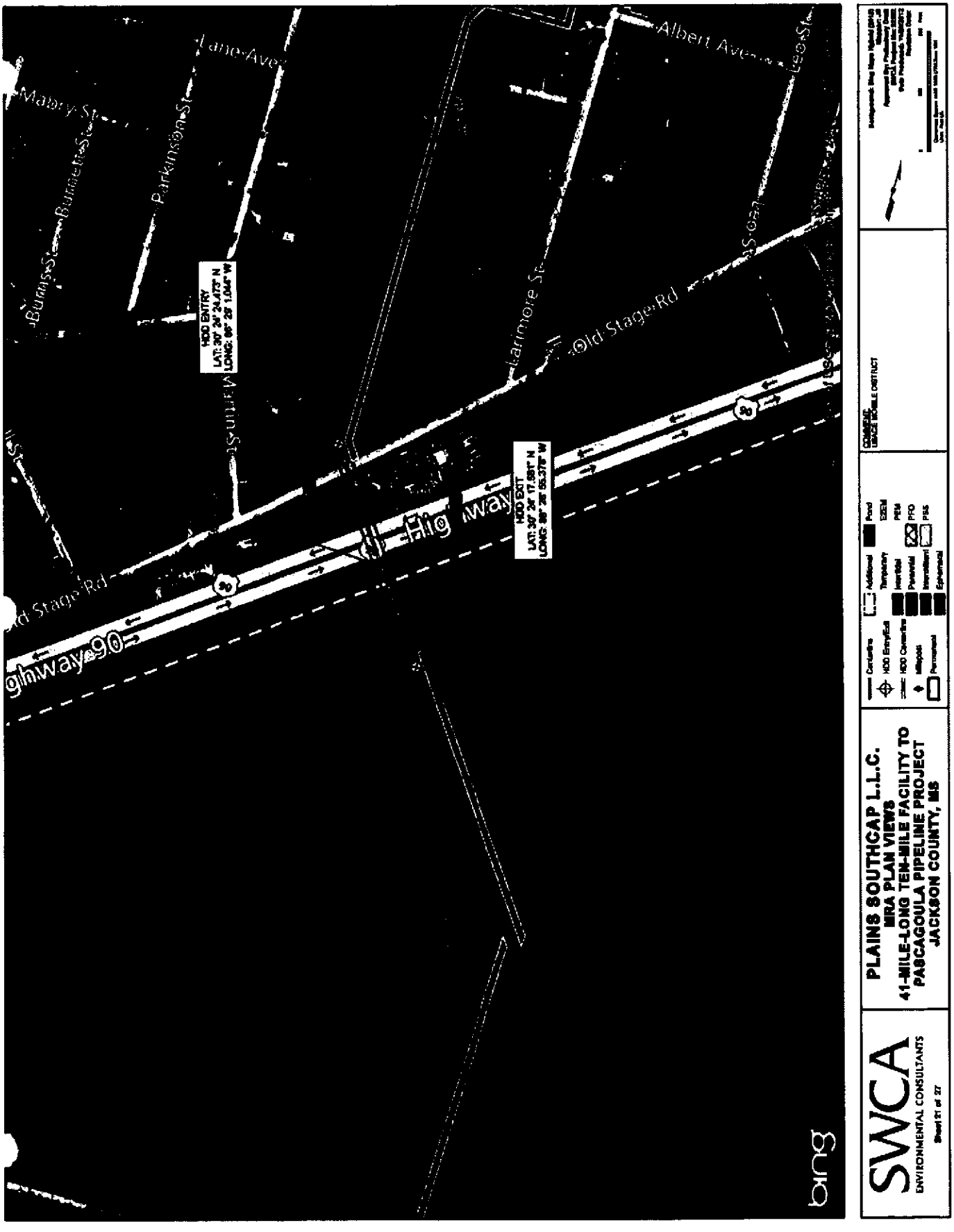
PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO
PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

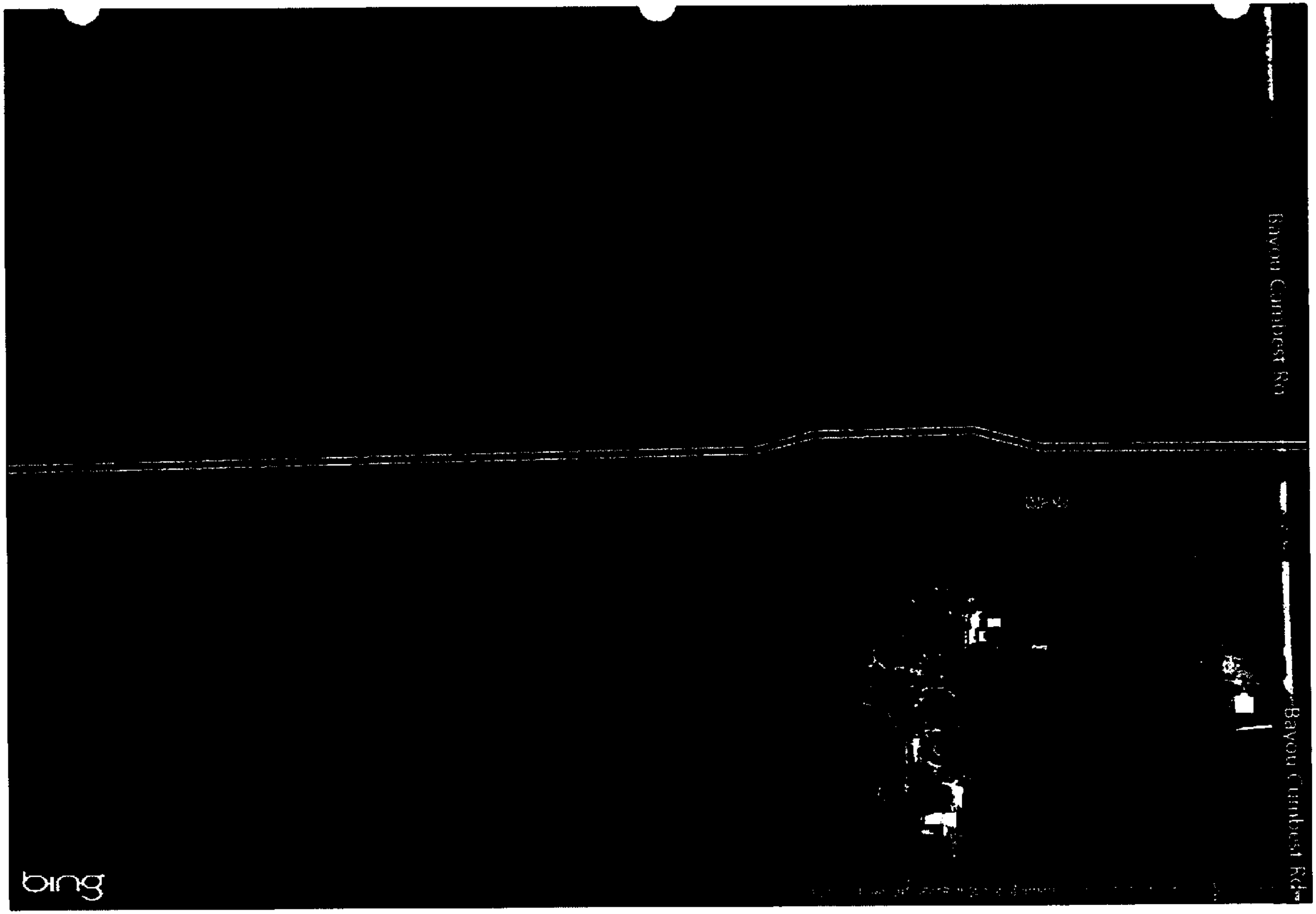
Centerline
HDD Entry/Exit
HDD Centerline
Milepost
Permanent
Additional
Temporary
Isolated
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS

COMMANDER
USACE MOBILE DISTRICT

SWCA
ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS





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ENVIRONMENTAL CONSULTANTS
Sheet 22 of 37

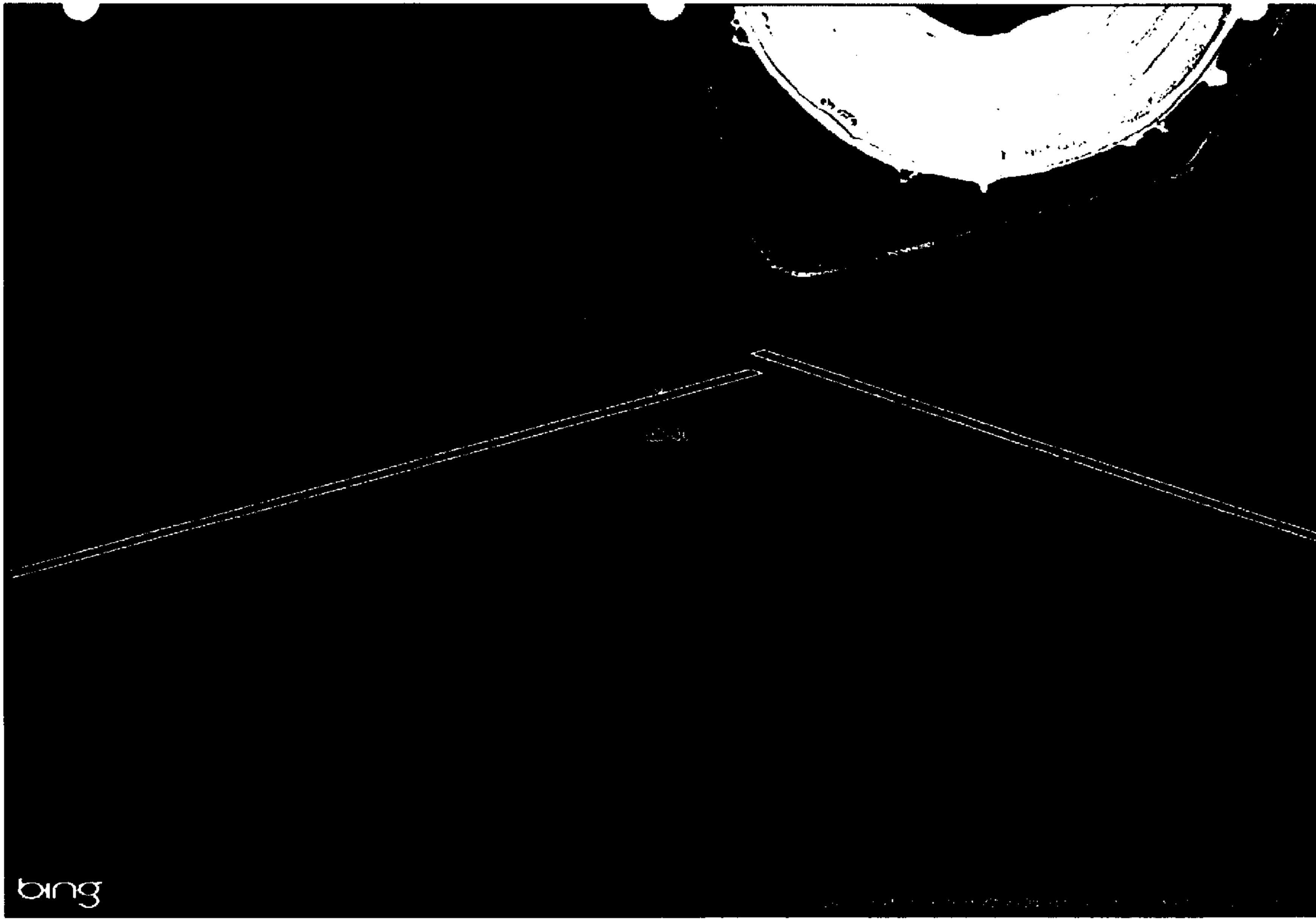
PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline	Additional	Pond
HDD Entry/Exit	Temporary	EEM
HDD Centerline	Intertidal	PEM
Milepost	Perennial	PFO
Permanent	Intermittent	PSS
	Ephemeral	

COMMENT:
USACE MOBILE DISTRICT

SWCA
ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO
PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS



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ENVIRONMENTAL CONSULTANTS

Sheet 24 of 27

PLAINS SOUTHCAP L.L.C.
MRA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
HDD Entry/Exit
HDD Centerline
Milepost
Permanent
Additional Temporary
Intertidal
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS

COMMENT:
USACE MOBILE DISTRICT

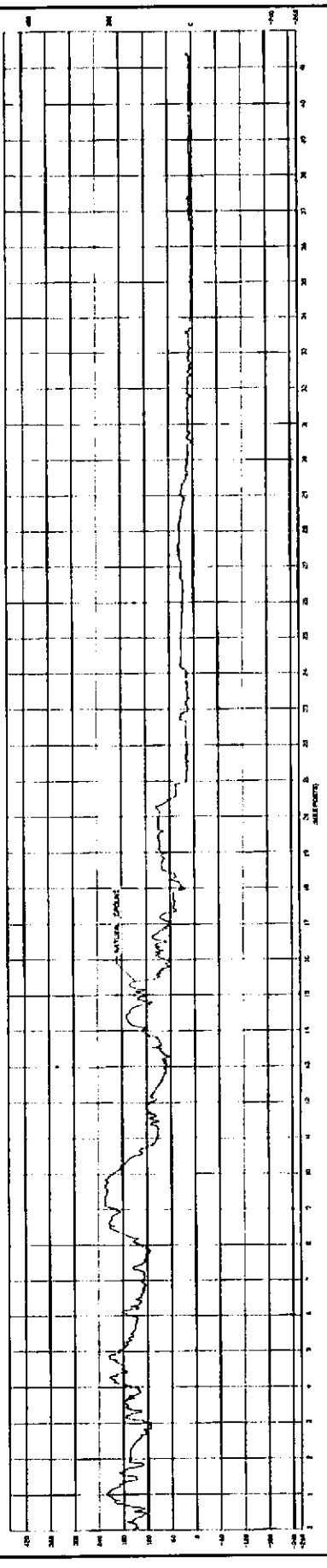
SWCA
ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.
ERA PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO
PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

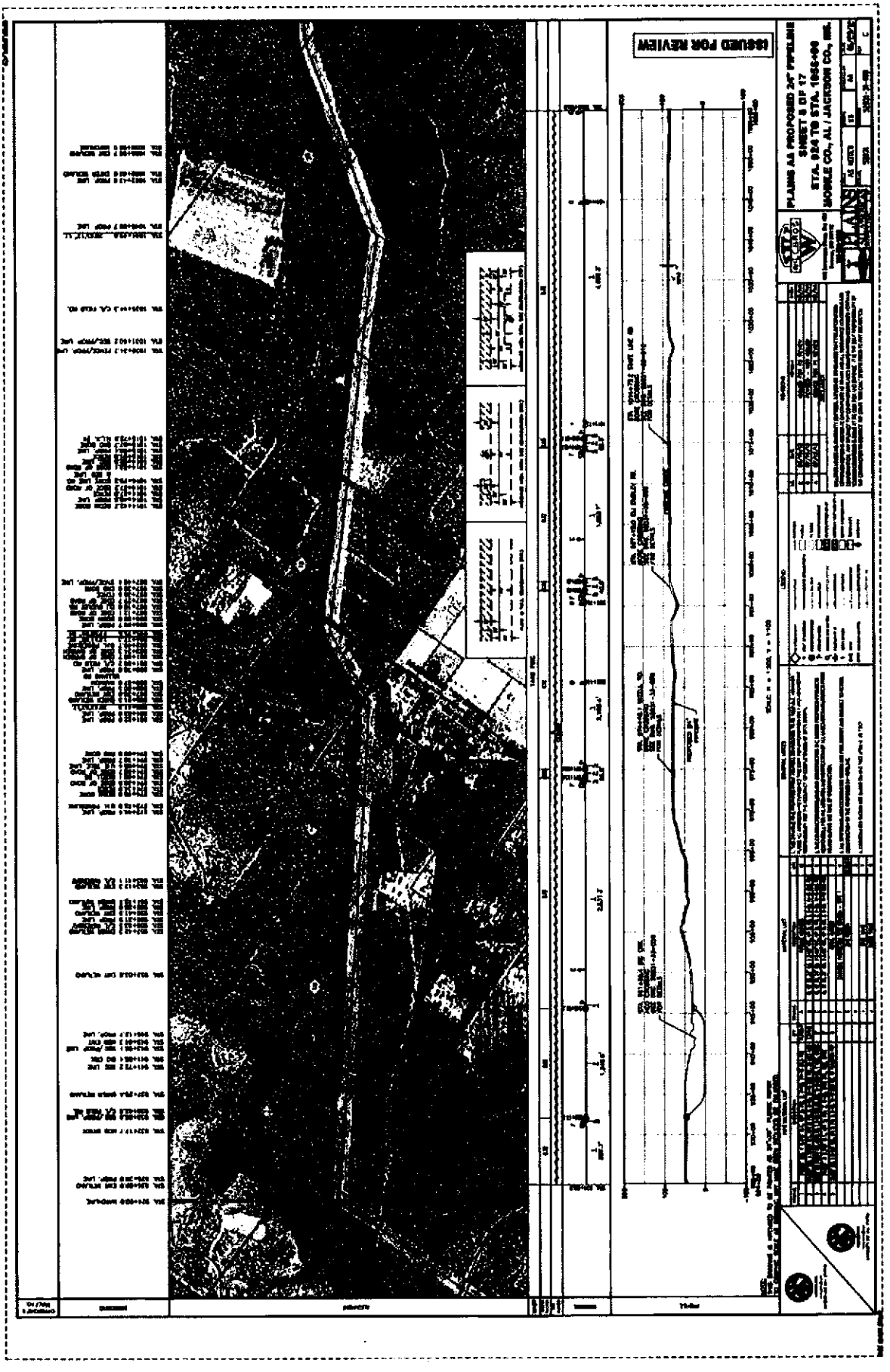
Centerline
HDD Entry/Exit
HDD Centerline
Slippage
Permanent
Additional
Temporary
Interim
Perennial
Intermittent
Ephemeral
Pond
ESA
PEM
PFO
PSS

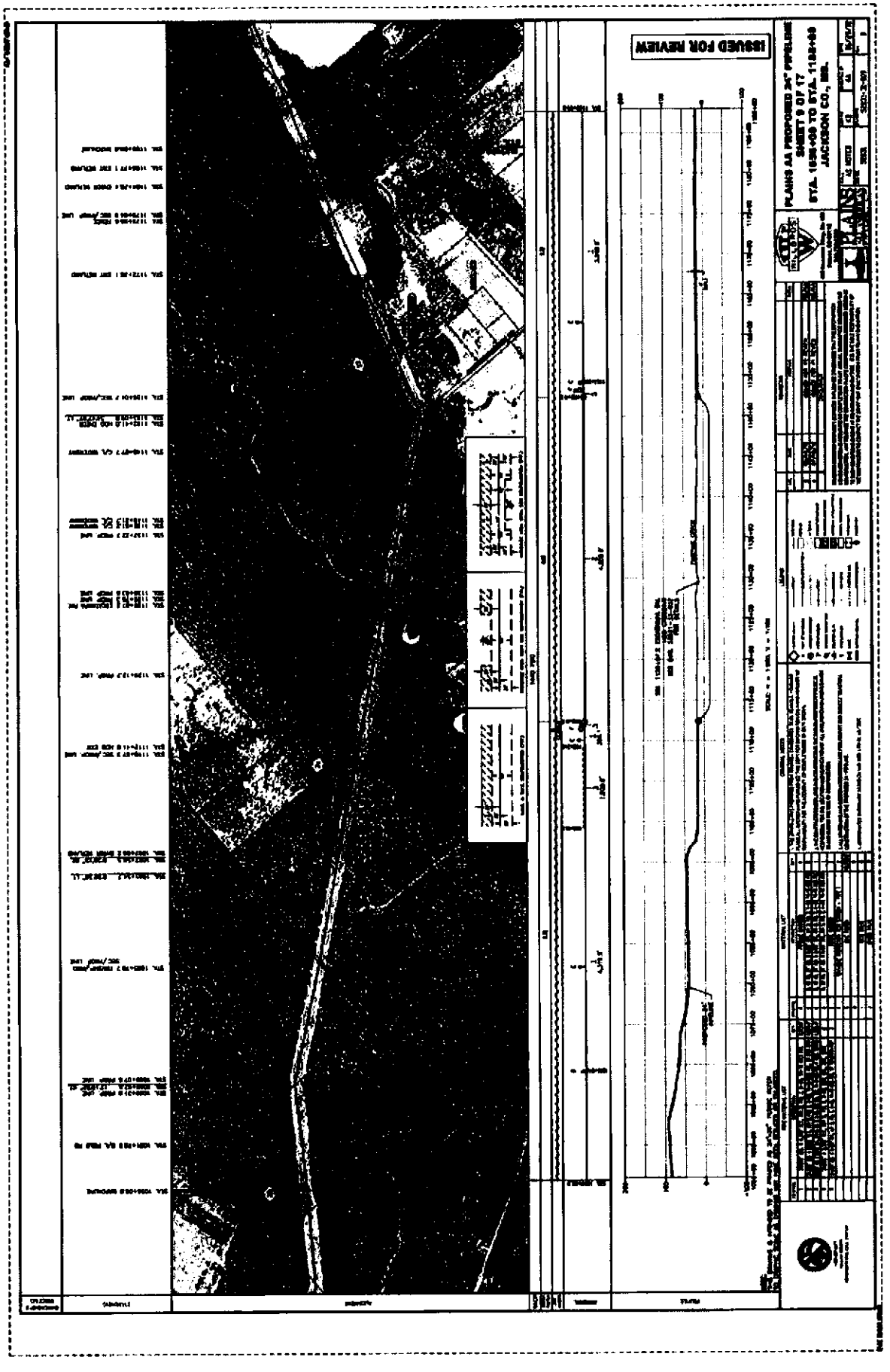
COMMENCE
MOBILE DISTRICT

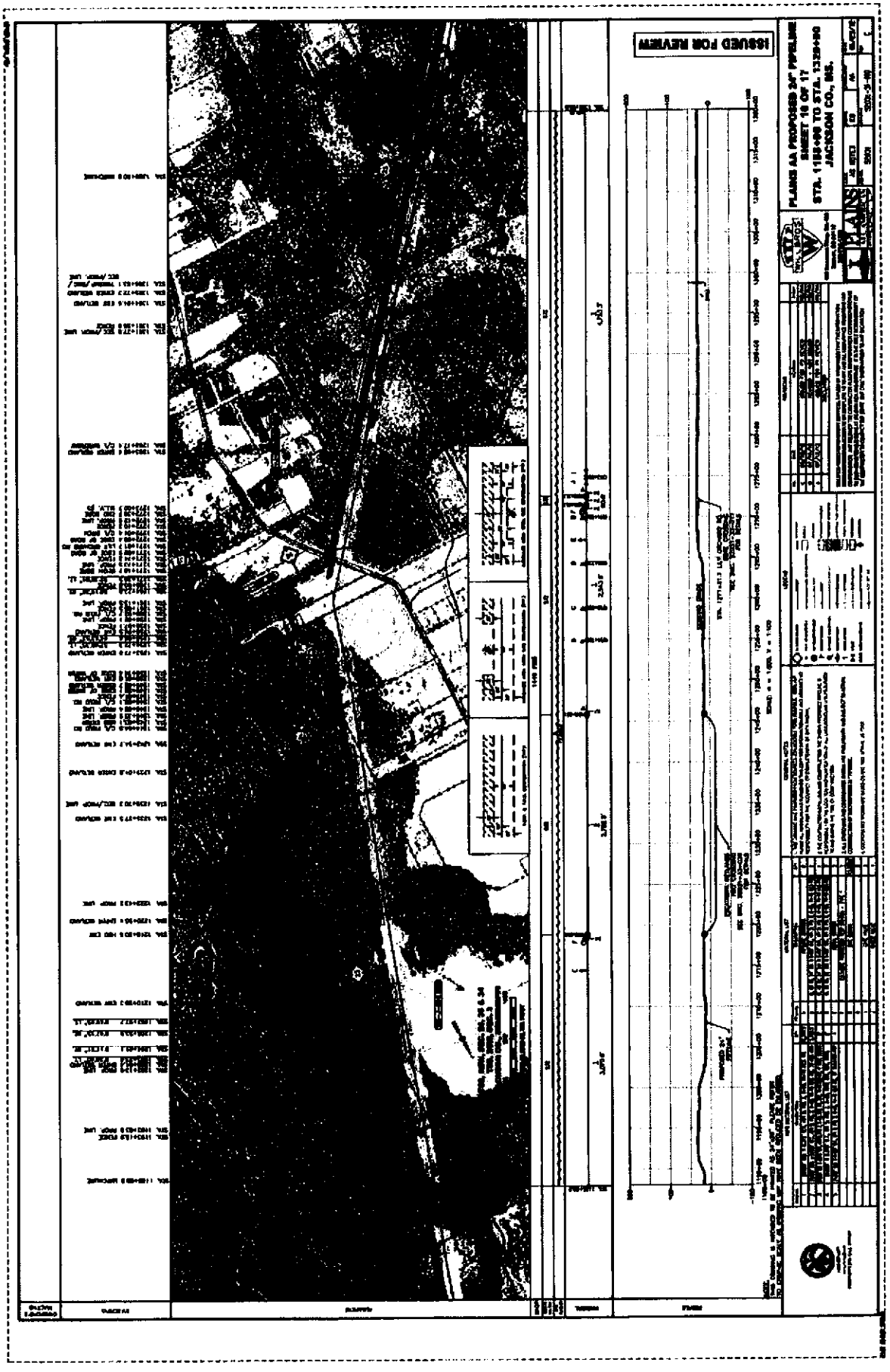
24" PASCAGOULA PIPELINE PROJECT
PIPELINE GROUND PROFILE

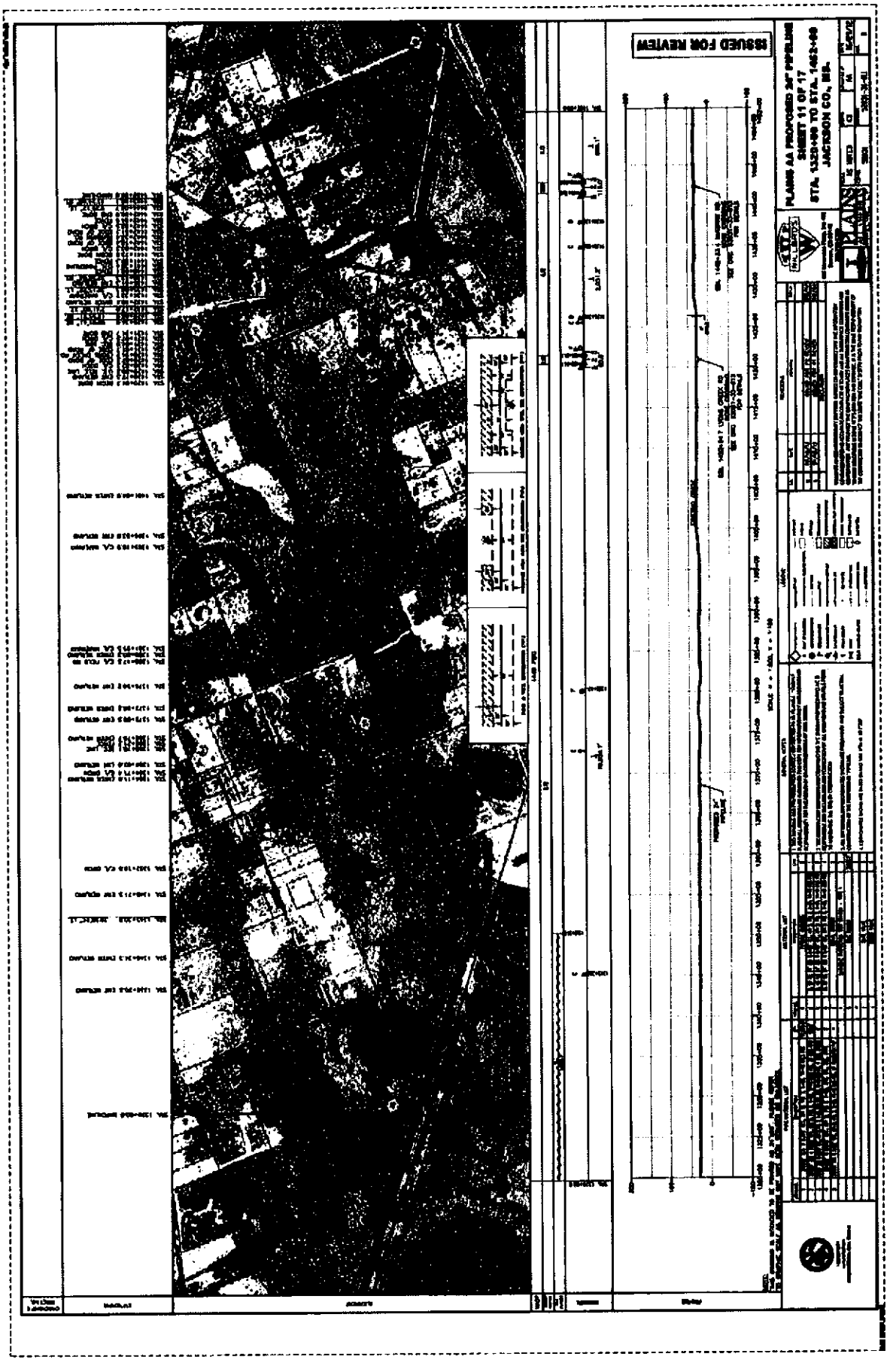


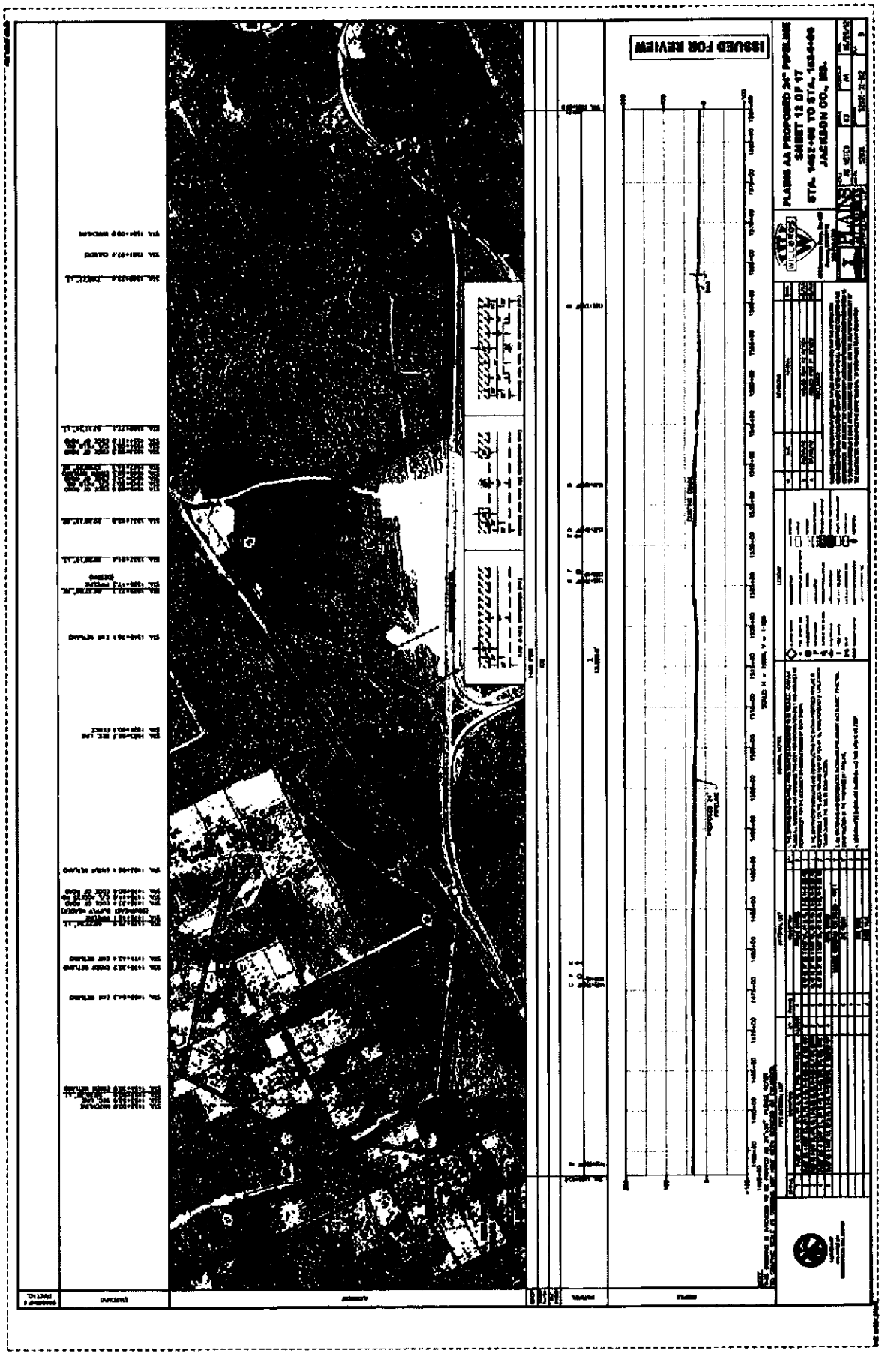
PLAINS SOUTHCAP, LLC
PASCAGOULA PIPELINE
PIPELINE GROUND PROFILE

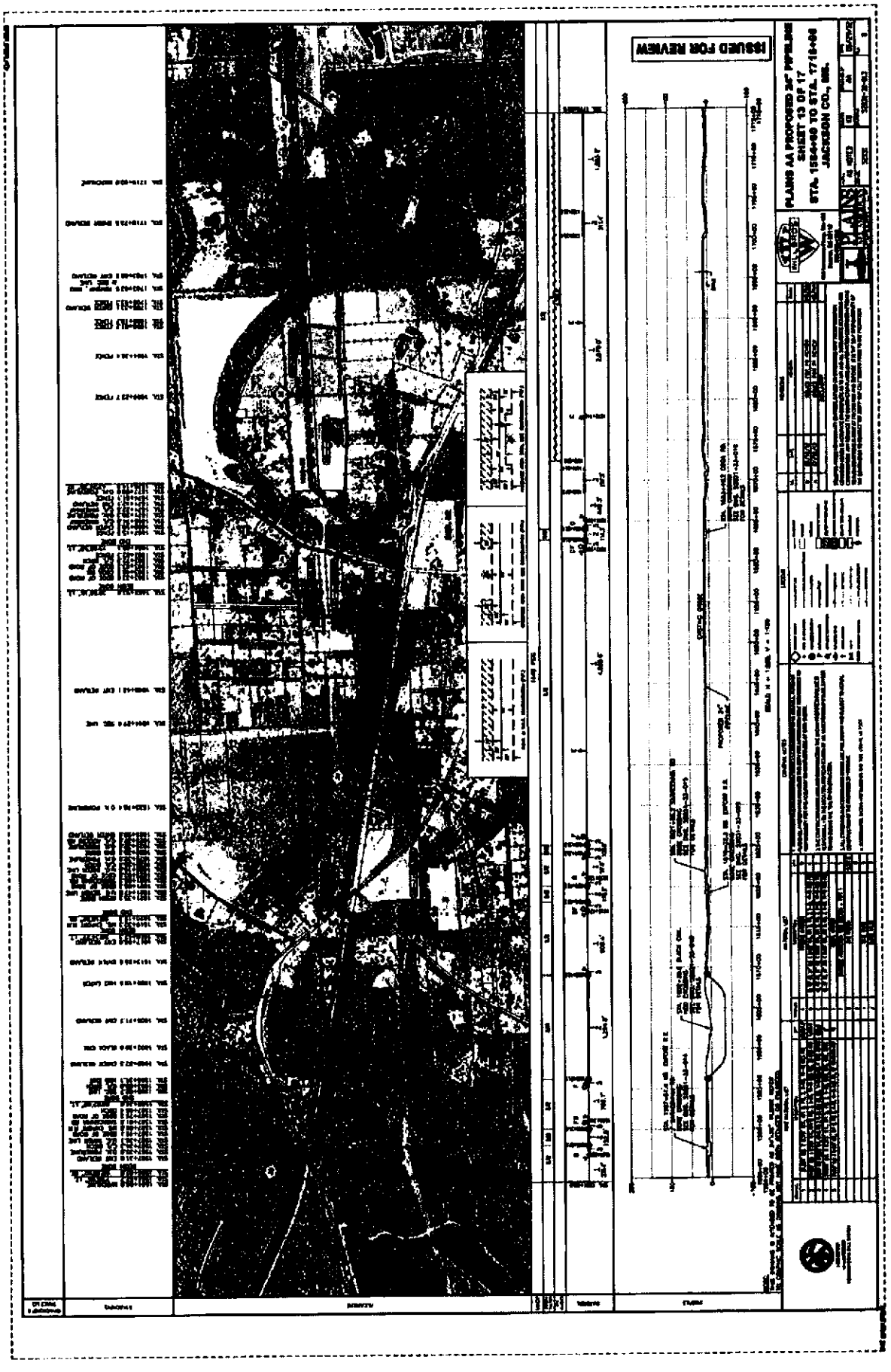


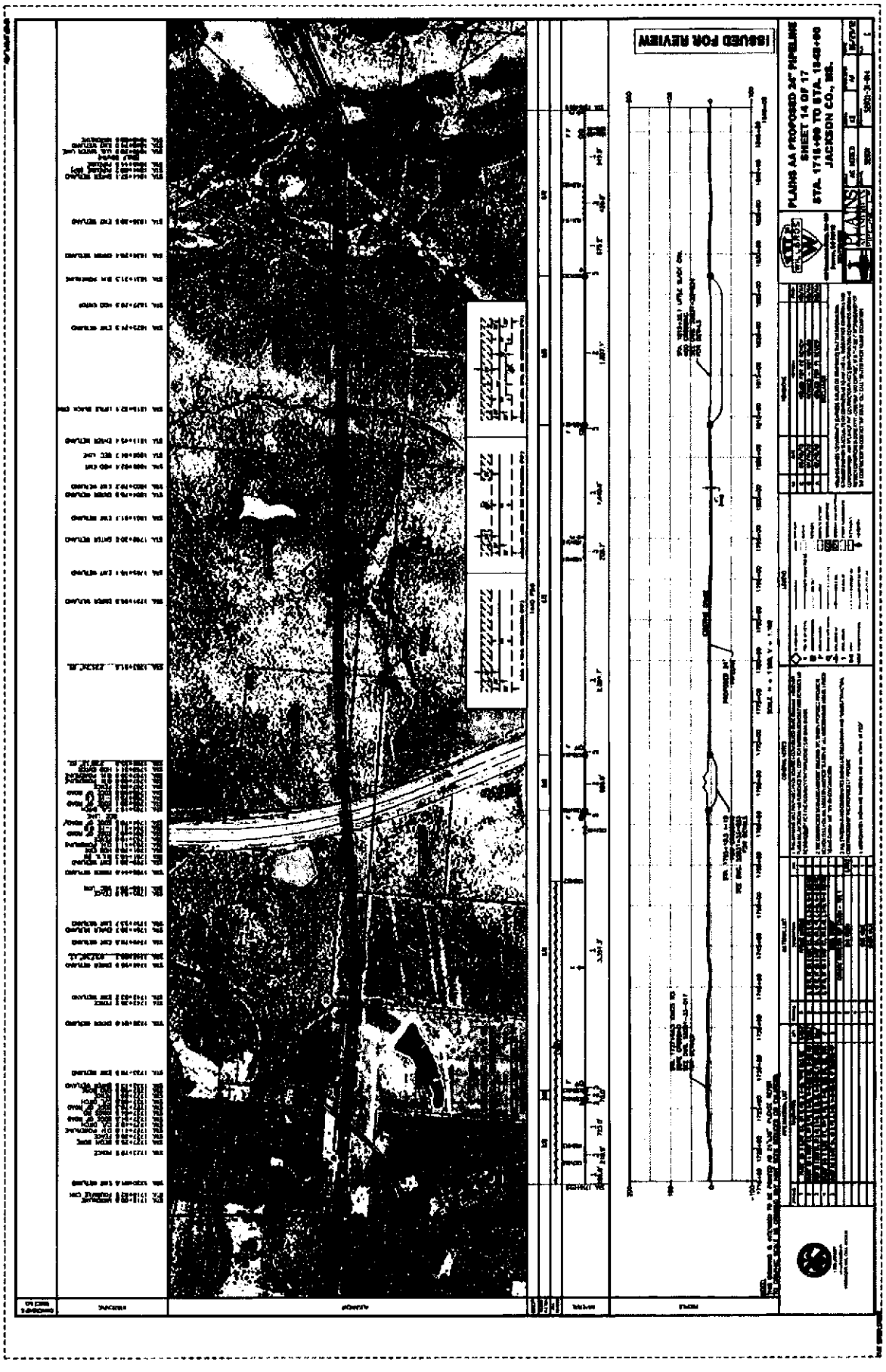


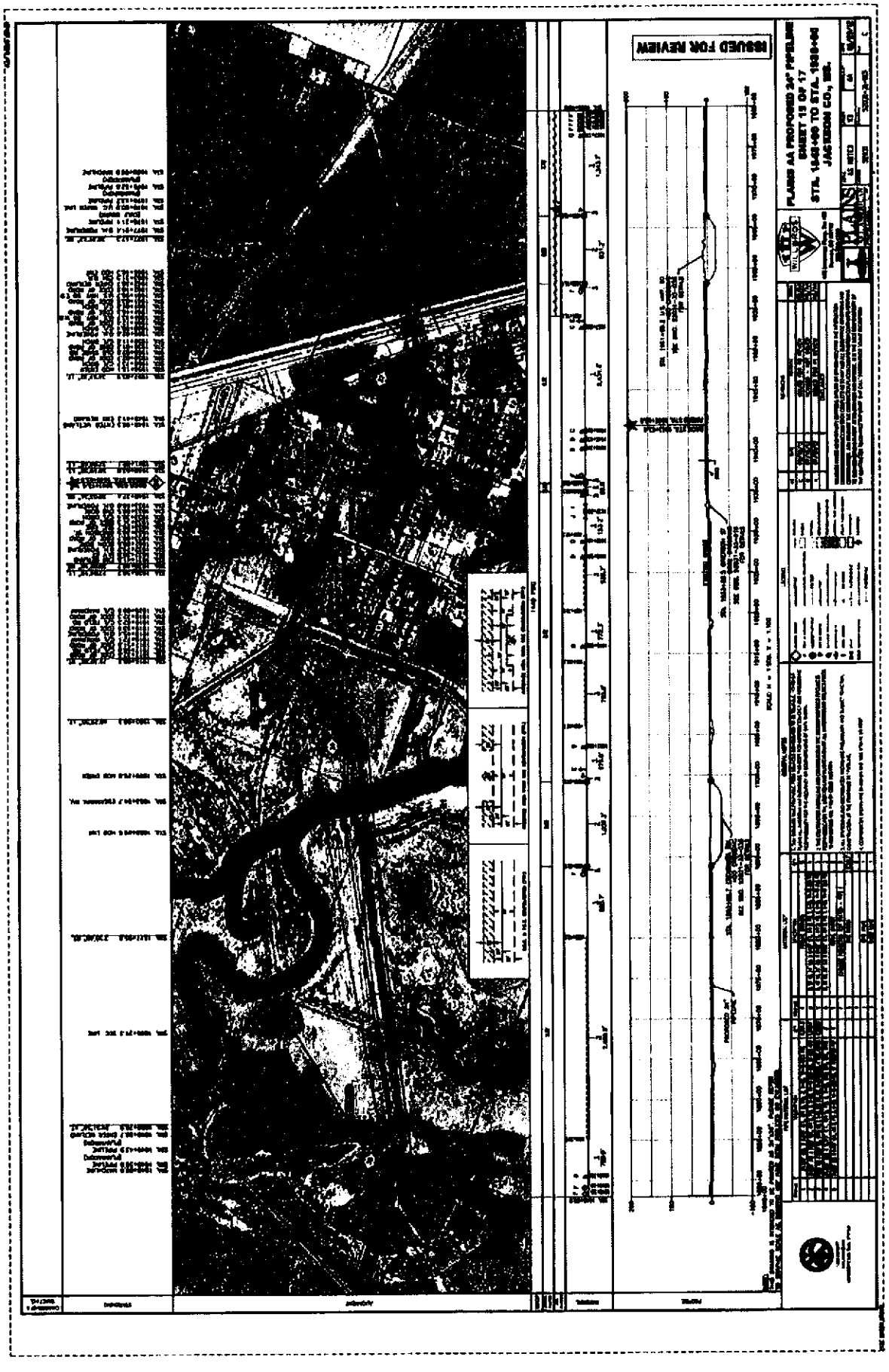


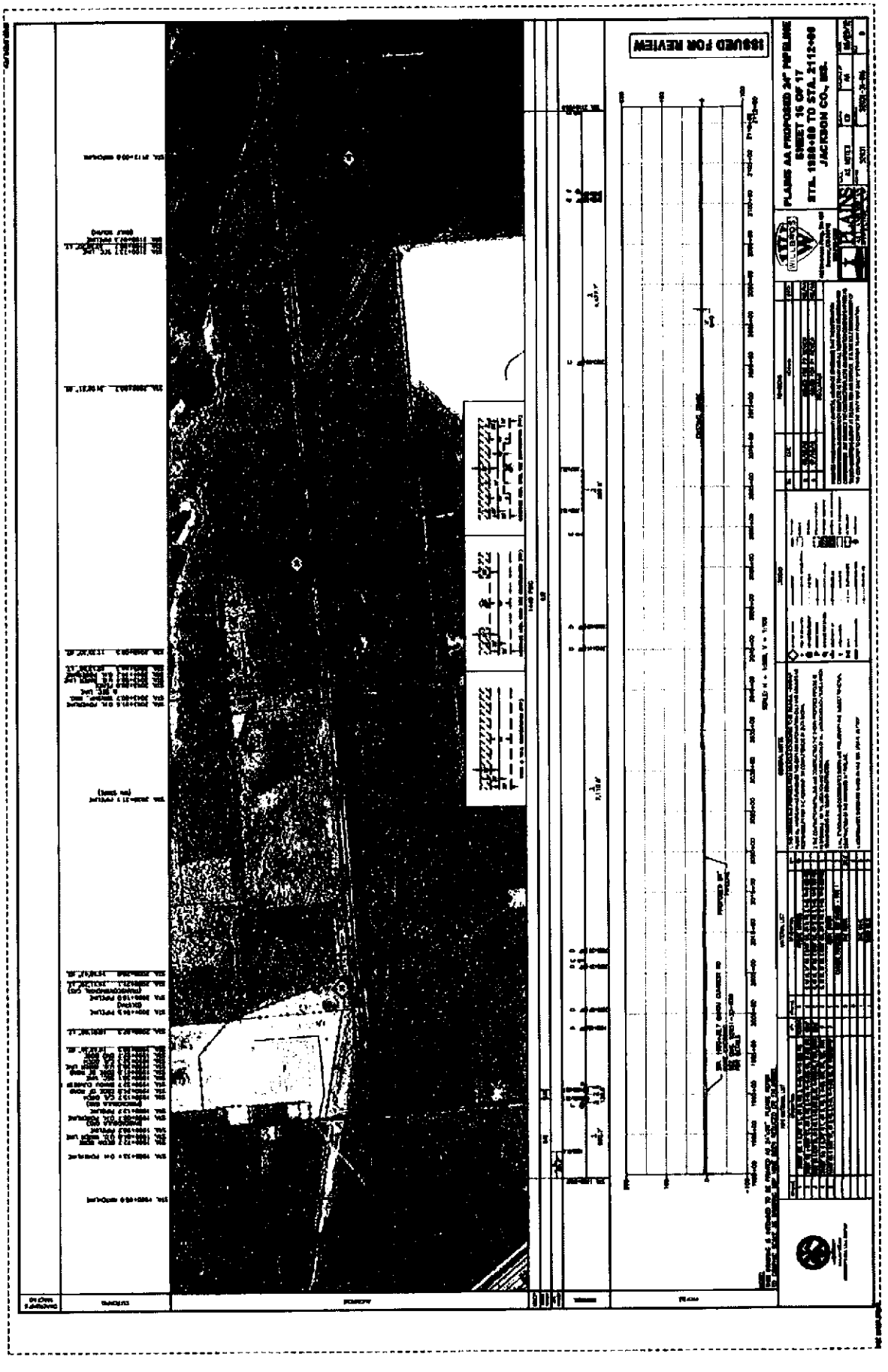


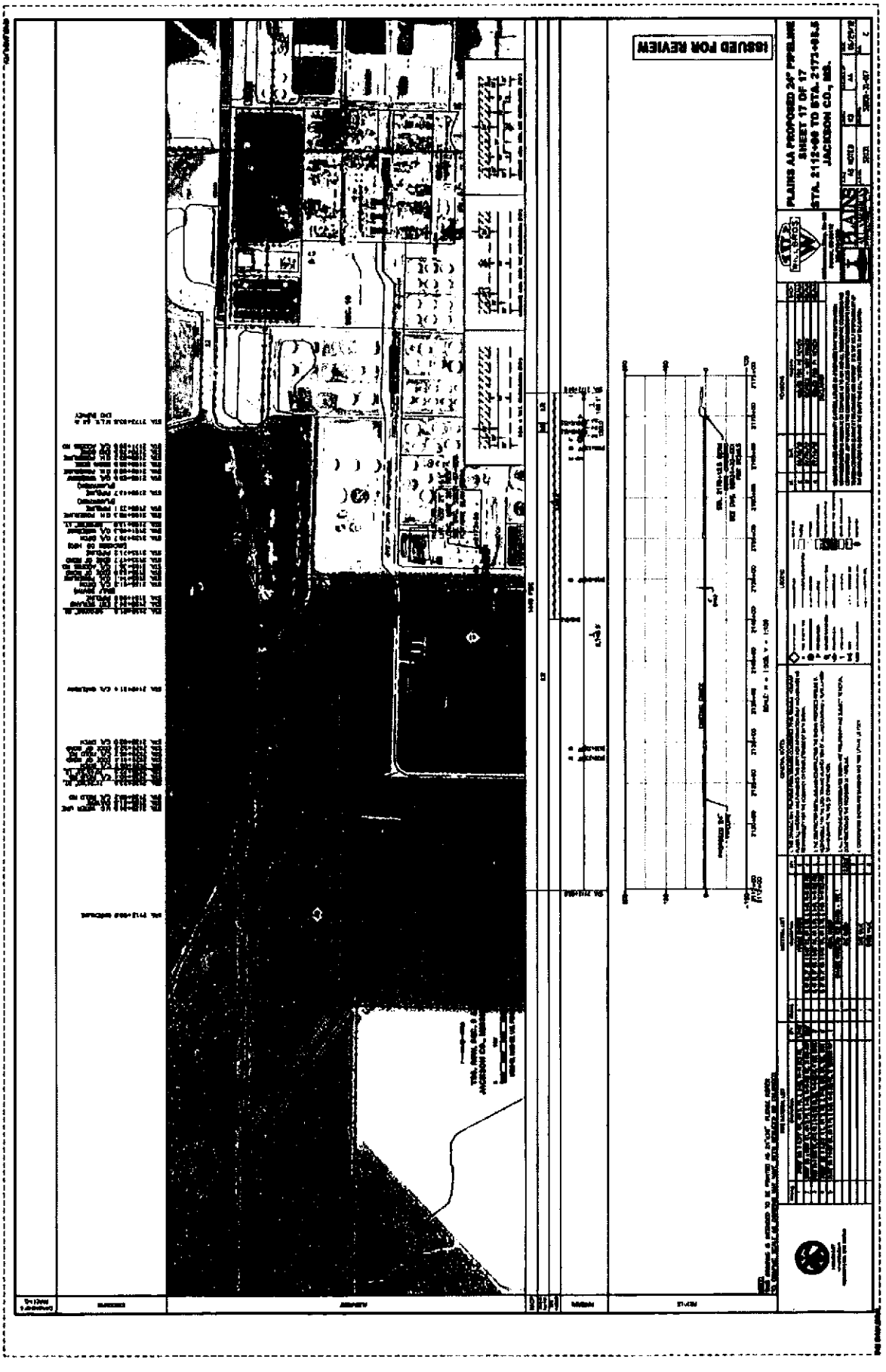












Attachment B

Authorized Agent

PLAINS
ALL AMERICAN
PIPELINE, L.P.

October 8, 2012

Michael B. Moxey
Biologist, Inland Team Leader
Regulatory Division
U.S. Army Corps of Engineers – Mobile District
109 St. Joseph Street
Mobile, AL 36628-0001

Re: Pascagoula Pipeline Project
Pre-Construction Notice (MS and AL)
Action IDs SAM-2012-01165-MBM (MS) and SAM-2012-000885-MBM (AL)

Dear Mr. Moxey:

By this letter, Plains All American Pipeline, L.P. (Plains) provides notification that Mr. R. Thomas Sankey of SWCA Environmental Consultants (SWCA) will be functioning as Plains' authorized agent in the permitting of the referenced project. I would also appreciate being copied on all correspondence between SWCA and the USACE concerning this matter.

If you have any questions or concerns about this letter or any other matter related to the referenced project, please feel free to contact me at (713) 646-4419.

Best Regards,

Wm. Dean Gore, Jr., P.E.
Director, Environmental Project Development

Cc: Tom Sankey, SWCA - Houston
Chuck Fontenot, SWCA - Houston
Steve Lee, Plains - Houston

Attachment C

Environmental Assessment

SWCA
ENVIRONMENTAL CONSULTANTS

MEMORANDUM

To: Willa Brantley, Wetlands Permitting Program Coordinator, Department of Marine Resources (DMR)

From: R. Thomas Sankey, PWS, CSE – SWCA Houston

Date: December 5, 2012

Re: Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project
Environmental Assessment of Tidal Areas
Mobile County, Alabama and Jackson County, Mississippi

This memo details SWCA's evaluation of expected wetland impacts and degrees of minimization of impacts for the Plains Southcap, LLC (Plains) Ten-Mile Facility to Pascagoula Crude Oil Pipeline (project). The project area begins at the Ten-Mile Crude Oil Facility in Mobile County, Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest towards Pascagoula, Mississippi. The line ends at the Chevron Pascagoula refinery approximately one mile from the Gulf of Mexico.

The project plans do not include permanently raising the elevation of any wetland areas or placing impervious materials in wetland areas. All wetlands and other waters in the project area will be restored to pre-construction contours. The proposed project will have no permanent impacts to wetlands, except for the permanent conversion of palustrine scrub/shrub (PSS) and palustrine forested (PFO) wetlands to palustrine emergent (PEM) wetlands immediately adjacent to existing pipeline and power line corridors.

Plains proposes to construct all activities using currently acceptable and preferable construction methods and best management practices (BMPs) such as silt fencing, matting, and hay bales. These will be in place prior to commencement of construction and will be designed to avoid/minimize soil erosion and sedimentation into adjacent wetlands and waterbodies. Plains will use horizontal directional drills (HDDs) to avoid and minimize areas of impacts wherever practical, including the lower Escatawpa River crossing and associated tidal tributaries and marshland. Other areas along the route have had the pipeline footprint reduced or "necked down" in order to minimize disturbances and impacts to gopher tortoise (*Gopherus polyphemus*) pod locations as well as wetland complexes.

Open-cutting certain wetlands will cause the displacement of woody vegetation which will be permanently maintained (mowed) within a 50-foot-wide permanent easement.

SWCA
ENVIRONMENTAL CONSULTANTS

MEMORANDUM

The area outside of the permanent easement will be allowed to revegetate naturally, causing only a temporary conversion of these areas from PSS and PFO wetlands to PEM wetlands. All wetland and waterbody crossings will have erosion control devices (ECDs) installed to prevent silt runoff and erosional disturbances. Reinforced silt fencing will be placed around every observed gopher tortoise pod to prevent tortoises from entering the proposed construction ROW.

The proposed project ROW follows an existing power line corridor and pipeline ROW for the majority of the 41-mile project which helps minimize further habitat fragmentation. Given these considerations, Plains finds the use of HDDs at these locations impracticable, but has completely avoided impacts to all other PSS/PFO wetlands along the project route.

Plains has designed the footprint of the construction corridor to be as small as possible, while still serving the project needs in order to minimize impacts to waters of the U.S. After construction, all temporarily impacted waterbodies and wetlands will be restored to pre-construction conditions/contours.

All construction activities will take place in accordance with all United States Army Corps of Engineers (USACE) NWP 12 General Conditions, including the requirements related to aquatic life movements, soil erosion and sediment controls, proper maintenance, endangered species, historic properties and water quality.

Mitigation compensation for this project will involve restoring all PEM wetlands to pre-construction contours by allowing them to naturally re-vegetate; therefore, PEM wetlands will only incur temporary impacts. Mitigation is not proposed for temporary impacts to emergent wetlands. Plains proposes to mitigate for permanent conversion of PSS and PFO wetlands that will be open-cut and will be permanently converted into PEM wetlands. A mitigation plan that describes the proposed compensation for these conversions has been provided to the USACE Mobile District.

2158

SWCA
ENVIRONMENTAL CONSULTANTS

MEMORANDUM

2136

To: Willa Brantley, Mississippi Department of Marine Resources (MDMR)
Greg Christodoulou, MDMR

From: R. Thomas Sankey, PWS, CSE – SWCA Houston

Date: January 18, 2013

Re: Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project
Environmental Assessment of Tidal Areas
Mobile County, Alabama and Jackson County, Mississippi

This memo was prepared to summarize the discussions held during the Friday, January 11, 2013 meeting between representatives of Plains and Mr. Greg Christodoulou of the MDMR and Mike Moxey of the U.S. Army Corps of Engineers (USACE) regarding the Plains Southcap, LLC (Plains) Ten-Mile Facility to Pascagoula Crude Oil Pipeline (project). The portion of the project area discussed during the meeting consists of the wetlands located adjacent to the Lower Escatawpa River in Jackson County, Mississippi. Plains originally proposed a ~1,040-foot horizontal directional drill (HDD) across just the main-stem of the Lower Escatawpa River and proposed to trench the remaining wetlands to the north and to the south. MDMR expressed concern about the amount of wetland trenching within this area. Plains responded to this concern by revising the original proposal to extend the HDD to a total of ~4600 feet, as shown in the attached drawings.

This HDD length is the maximum distance that Plains and their HDD drilling contractor believe can be successfully completed without running significantly increased risk of HDD failure and/or inadvertent return (IR) of drilling mud to the surface, both of which could result in significant impacts to the wetlands in the area. This maximum distance is based on a combination of subsurface geologic conditions, pipe diameter, drilling pressure and required HDD depth. In addition, 4600 feet is the maximum distance that an HDD can be attempted given the point of inflection (PI) north of the northern edge of the Lower Escatawpa River wetlands.

At present, Plains proposes to set up the HDD rig immediately south of the canal adjacent to 8th Street and drill northward to the exit point located ~4,600 feet to the northwest of the entry drill pad. Extending the HDD length to ~4,600 feet will reduce the overall wetland impact by 6.64 acres compared to the original HDD drill design.

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MEMORANDUM

During the meeting, Mr. Christodoulou and Mr. Moxey suggested that Plains consider an alternate route across a portion of the Lower Escatawpa River wetlands to the west of the proposed alignment that would make use of a wetland area of marginal current value. This alternate approach would involve two separate HDDs: one extending southeast from the southern edge of the marginal wetlands and a second HDD extending northeast from the northern edge of the marginal wetland area. Connection of these two HDDs would be by open trenching through the marginal wetland area.

At first glance, this suggestion appeared to have merit. However, The Plains Project manager pointed out that to accomplish this an access road would have to be built from the north side of the Lower Escatawpa River wetlands out to the marginal wetland area, then across an additional ~1,400 feet of undisturbed marsh to the alternate pad location in order to build a drill pad to allow for an HDD. This approach would actually result in more wetlands impacts when compared to the present proposal. In addition, the pipe would have to be strung across the mainstem of the Lower Escatawpa River, which would cause potential navigational impacts. Finally, there would be additional wetland impacts resulting from pipe stringing activities across the marsh to the northwest and southwest of the marginal wetland area. During the meeting it was agreed that the suggested alternate alignment was not a practicable alternative and would result in significantly more impacts to the aquatic ecosystem than the proposed alignment.

Mr. Christodoulou expressed concern that the ~1,800 feet of wetlands that would be open-trenched from the northern end of the ~4,600-foot HDD to the northern edge of the Lower Escatawpa River wetlands would result in an open linear feature. In response, Plains assured him that it was their intent that the temporary impact area be restored to pre-impact contours. Plains committed to monitoring the natural re-vegetation of this area to document that there is at least 50% emergent vegetation coverage at the end of the first full growing season following construction (at the end of 2014). However, if this 50% threshold is not met, then Plains committed to restore the area during the following year (2015), in accordance with MDMR Marsh Restoration Success Guidelines, as outlined below:

1. Specifically, the restoration area will be sprigged with black needlerush (*Juncus roemarianus*) or other appropriate wetland species as approved by MDMR staff.
2. Plant spacing will not exceed 4 feet.
3. No more than one sprig per square yard shall be taken from adjacent donor marshes.
4. Sprigs will not exceed 4 by 4 inches wide by 6 inches deep. Sharpshooter shovels or bulb planters will be utilized to plant sprigs.

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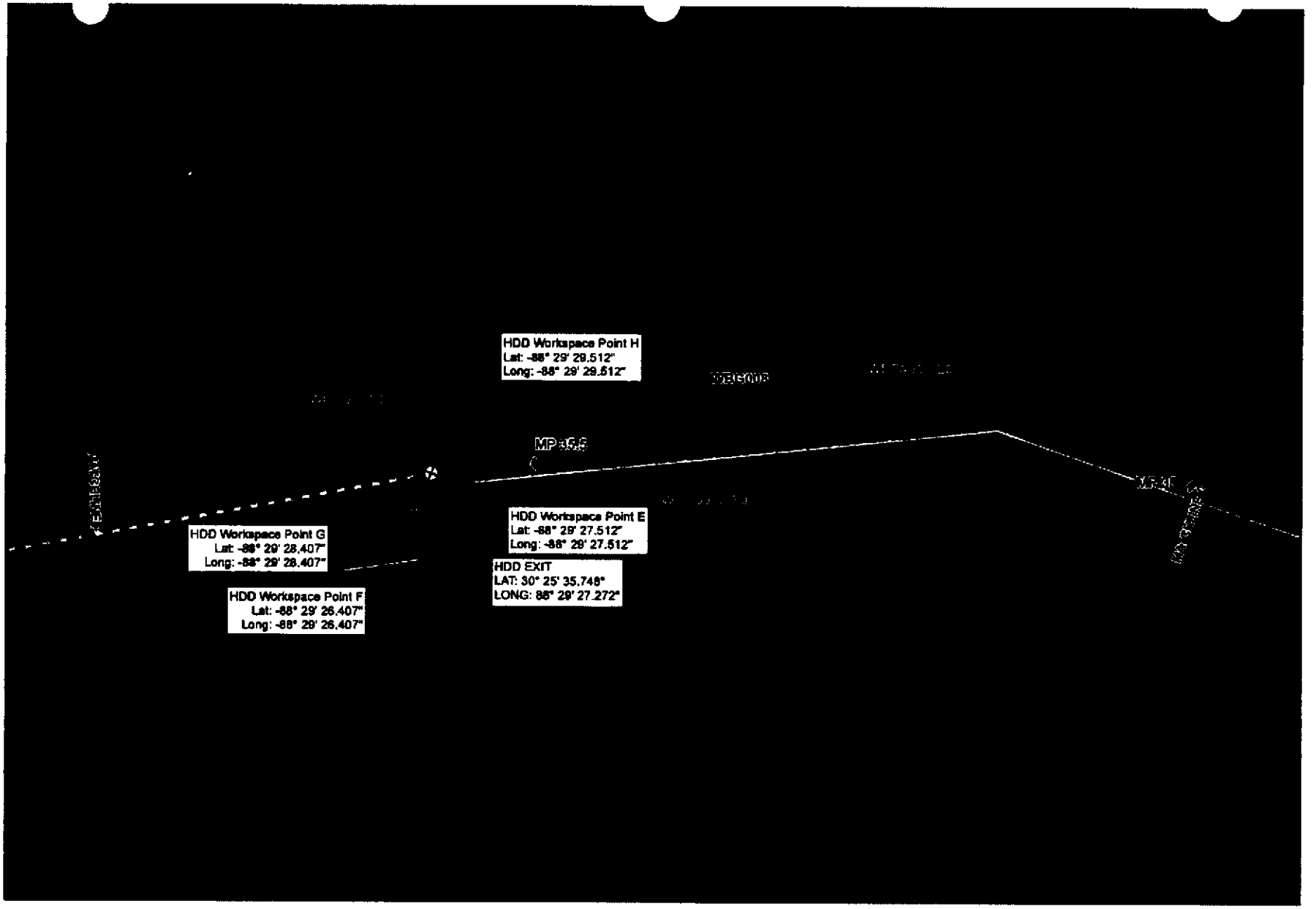
MEMORANDUM

5. The herbaceous layer should have a minimum of 95% coverage of black needlerush or other appropriate wetland species as approved by MDMR staff after a period of 5 years.
6. The site should be monitored for 5 years during the spring and fall with reports generated once a year and received by the MDMR office by October 1st for the preceding year's monitoring. If success criteria are met prior to the 5-year deadline, monitoring and annual reports may be discontinued with written approval of MDMR staff.

In our opinion, the proposal to extend the HDD under the Lower Escatawpa River and adjoining wetlands from 1,040 feet to ~4,600 feet will result in the least damage to this area. We left the meeting with Mr. Christodoulou and Mr. Moxey with the belief that they also agreed with this conclusion. We therefore respectfully request that the MDMR proceed with issuance of the Coastal Wetlands Permit based upon the extended Lower Escatawpa River HDD design so that project construction may proceed in a timely manner.



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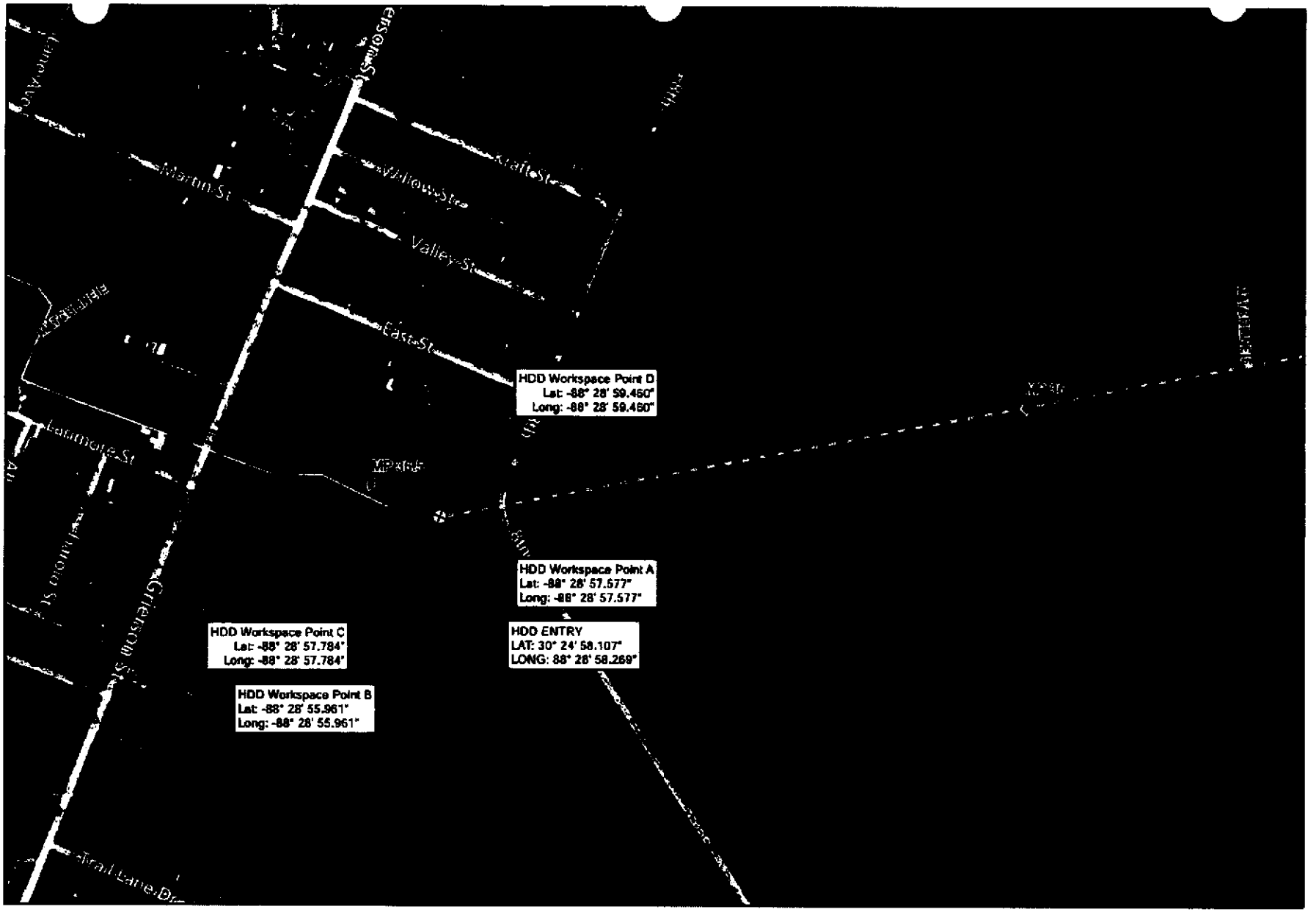
Sheet 41 of 47

PLAINS SOUTHCAP L.L.C.
PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Milepost
Centerline
HDD Centerline
Permanent
Additional
Temporary
Intertidal
Perennial
Intermittent
Ephemeral
Pond
E2EM
PEM
PFO
PSS

COMMENT
USACE MOBILE DISTRICT



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Background: Bing Maps Hybrid (2012)
Mapped: JR
Approved By: Professional Desk
SWCA Project No: 32633
Date Produced: 12/06/2012
Revision Date: 1/16/2013

Point Number	Lat	Long
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47	30° 25.726'	-88° 28.829'

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	HDD Entry	
A	-88° 28' 57.577"	-88° 28' 57.577"
B	-88° 28' 55.961"	-88° 28' 55.961"
C	-88° 28' 57.784"	-88° 28' 57.784"
D	-88° 28' 59.460"	-88° 28' 59.460"
	HDD Exit	
E	-88° 29' 27.512"	-88° 29' 27.512"
F	-88° 29' 26.407"	-88° 29' 26.407"
G	-88° 29' 28.407"	-88° 29' 28.407"
H	-88° 29' 29.512"	-88° 29' 29.512"

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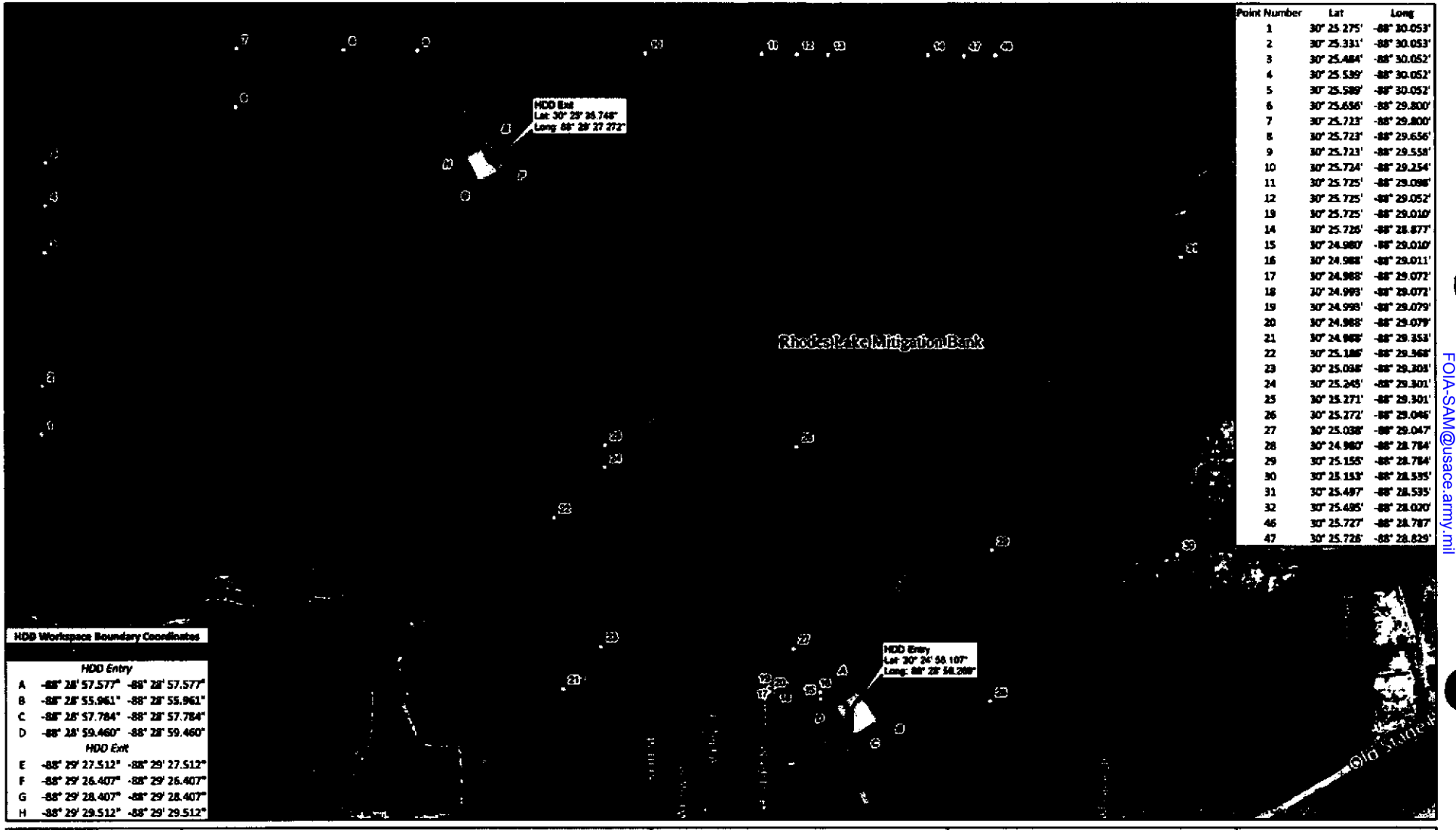
PLAINS SOUTHCAP L.L.C.
RHODES LAKE MITIGATION BANK
CROSSING DETAIL

Legend

- Milepost
- Centerline
- HDD Workspace Corners
- Mitigation Bank Boundary Points
- Additional Workspace
- Permanent RoW
- Temporary RoW
- Mitigation Bank Boundary



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0 300 600 1,200 Feet

MISSISSIPPI DEPARTMENT of ARCHIVES AND HISTORY

MDAH

HISTORIC PRESERVATION
Ken P'Pool, director • Jim Woodrick, acting director
PO Box 571, Jackson, MS 39205-0571
601-576-6940 • Fax 601-576-6955
mdah.state.ms.us

January 7, 2013

Mr. Todd L. Butler, Principal Investigator
SWCA Environmental Consultants
7255 Langtry, Suite 100
Houston, Texas 77040

RE: Final Phase I Cultural Resources Survey of the Proposed 10-mile Facility to Pascagoula 41-Mile Crude Oil Pipeline, SAM-2012-000885-MBM, SWCA #2012-390 for Plains Southcap, LLC, MDAH Project Log #10-186-12, (#12-064-12) Report 12-0627, Jackson County

Dear Mr. Butler:

We reviewed your final December 11, 2012, revised resources survey report on December 13, 2012, for the above referenced undertaking, pursuant to our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After review, we concur that the proposed project will have no adverse effect to significant cultural resources, including the two identified historic resources, 22JA802 and 22JA803. As such, we have no reservations with the proposed undertaking.

There remains the possibility that unrecorded cultural resources may be encountered during the project. Should this occur, we would appreciate your contacting this office immediately in order that we may offer appropriate comments under 36 CFR 800.13.

If you need further information, please let me know.

Sincerely,

Greg Williamson
Review and Compliance Officer

FOR: H.T. Holmes
State Historic Preservation Officer

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Mississippi Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213

December 21, 2012

Mr. Thomas Sankey
SWCA Environmental Consultants
7255 Langtry, Suite 100
Houston, Texas 77040

Dear Mr. Sankey:

The Fish and Wildlife Service (Service) has received your letter dated November 14, 2012 regarding the proposed Plains Southcap, LLC Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project in Jackson County, Mississippi and Mobile County, Alabama. The proposed project will consist of the construction and placement of approximately 41 miles of 24-inch diameter crude oil pipeline from the Plains Southcap Ten-Mile Crude Oil Facility in Mobile County, Alabama to the Chevron Pascagoula Refinery in Jackson County, Mississippi. The Service has reviewed the information and offers the following comments in accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Your office performed threatened and endangered species reviews for all species potentially found within the action area, and conducted field surveys for all areas that contained potential habitat for such species. Your initial determination is that the proposed project would have either no effect on federally listed species because suitable habitat for these species was not present, or, if suitable habitat was present, avoidance measures such as horizontal directional drilling (HDD) would be used to avoid such habitat (i.e. drilling under the Escatwapa River).

In addition, approximately 277 gopher tortoise burrows (burrows) were found in or near the proposed pipeline project, comprising approximately 19 gopher tortoise colonies (colonies). Plains Southcap proposes to completely avoid potential impacts to gopher tortoises by use of HDD and silt screen fencing near burrows. Specifically, Plains Southcap proposes to use HDD under all colonies that are within the proposed pipeline right-of-way (ROW), and will install heavy reinforced silt fencing between construction activities and burrows near the proposed ROW. Also, for all tree clearing activities within colony areas, Plains Southcap will flag all burrows and hand clear trees and vegetation near burrows. Finally, certified gopher tortoise

biologists will monitor all such activities near colonies and inspect silt screen fencing during project construction.

Provided that the proposed project incorporates all avoidance and minimization measures outlined in your report, the Service has determined that the proposed Plains Southcap project is unlikely to result in take of federally listed threatened or endangered species. As an additional protective measure, we do however recommend that all abandoned burrows (that have not naturally collapsed) within the proposed pipeline ROW be scoped and excavated via backhoe before burrow collapse. Finally, please notify this office if federally listed species are encountered during construction activities, or if potential impacts to listed species are revealed that were not previously considered.

Although the bald eagle is no longer protected under the ESA, it continues to be protected under the Bald and Golden Eagle Protection Act (BGEPA). We concur with your recommendation to resurvey the proposed pipeline ROW during the 2013 bald eagle breeding season. If active nests are found near the proposed project, we recommend you follow the National Bald Eagle Management (NBEM) Guidelines in order to minimize potential project impacts to bald eagles. A copy of the NBEM Guidelines is available at http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf.

The Service appreciates the opportunity to provide technical assistance on the Plains Southcap Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project. If you have any questions, please contact David Felder of our office, telephone: (601) 321-1131.

Sincerely,

for Stephen M. Ricks
Field Supervisor
MS Field Office

SWCA
ENVIRONMENTAL CONSULTANTS

2136

MEMORANDUM

To: Willa Brantley, Mississippi Department of Marine Resources (MDMR)
Greg Christodoulou, MDMR

From: R. Thomas Sankey, PWS, CSE – SWCA Houston

Date: January 18, 2013

Re: Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project
Environmental Assessment of Tidal Areas
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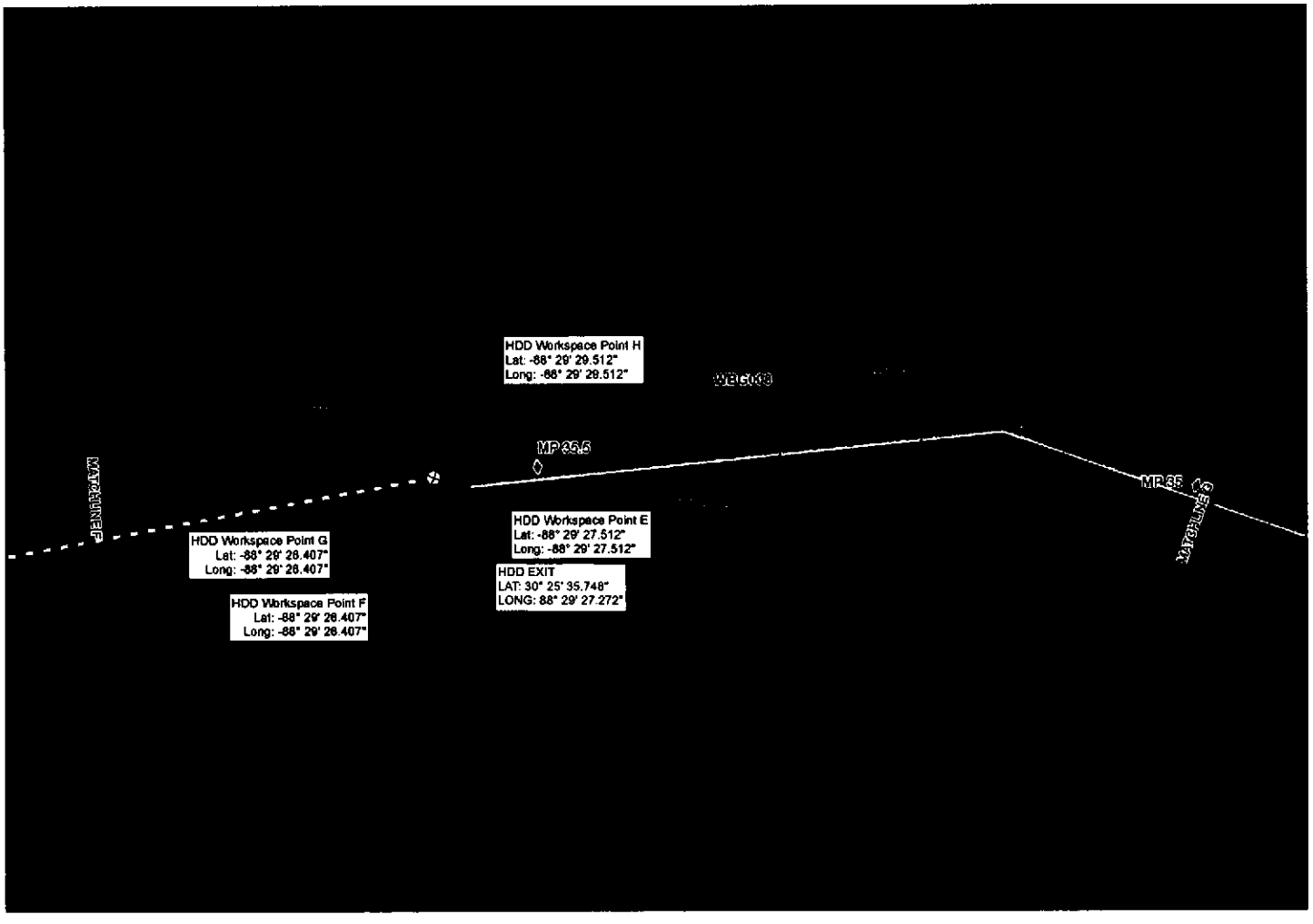

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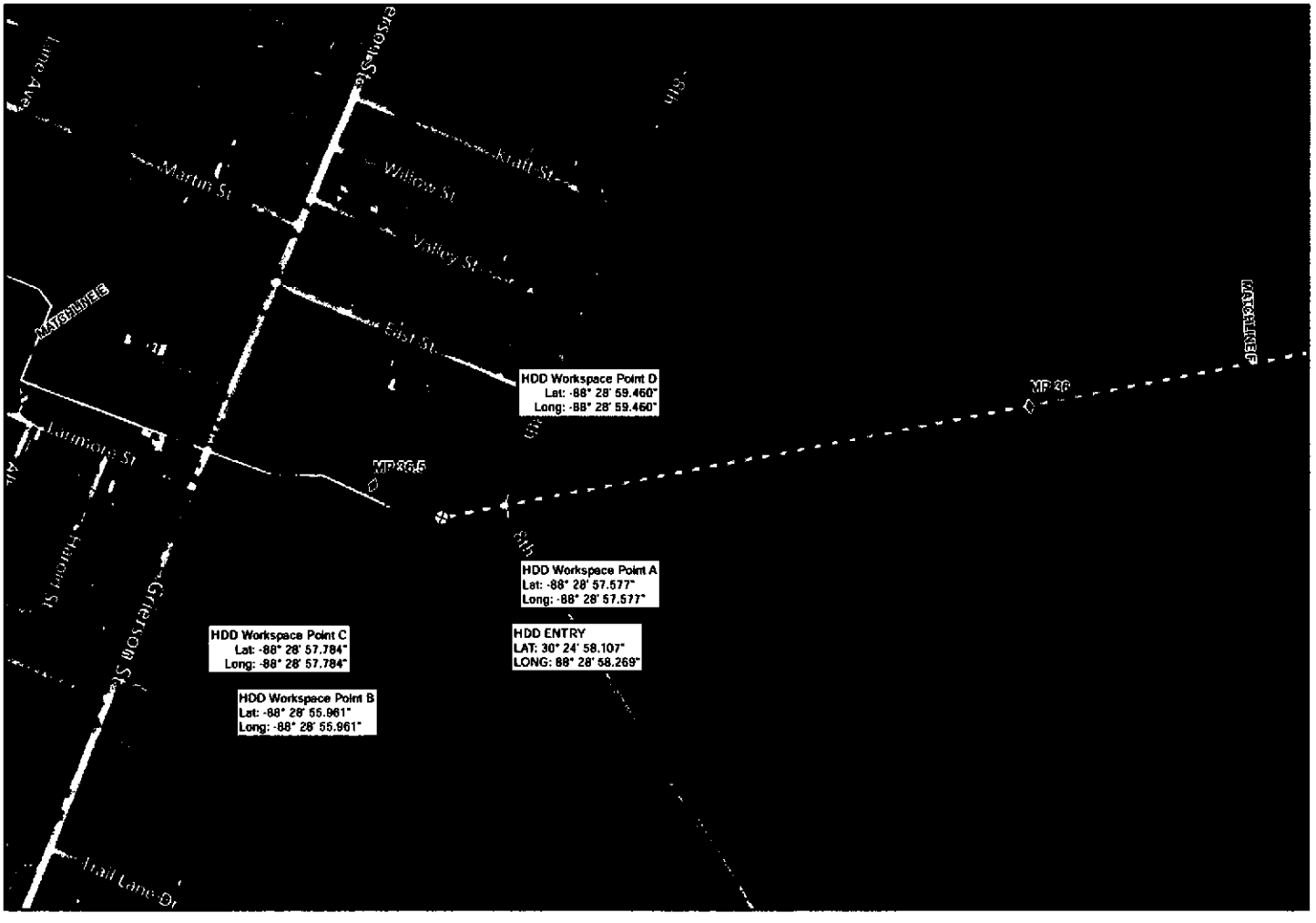

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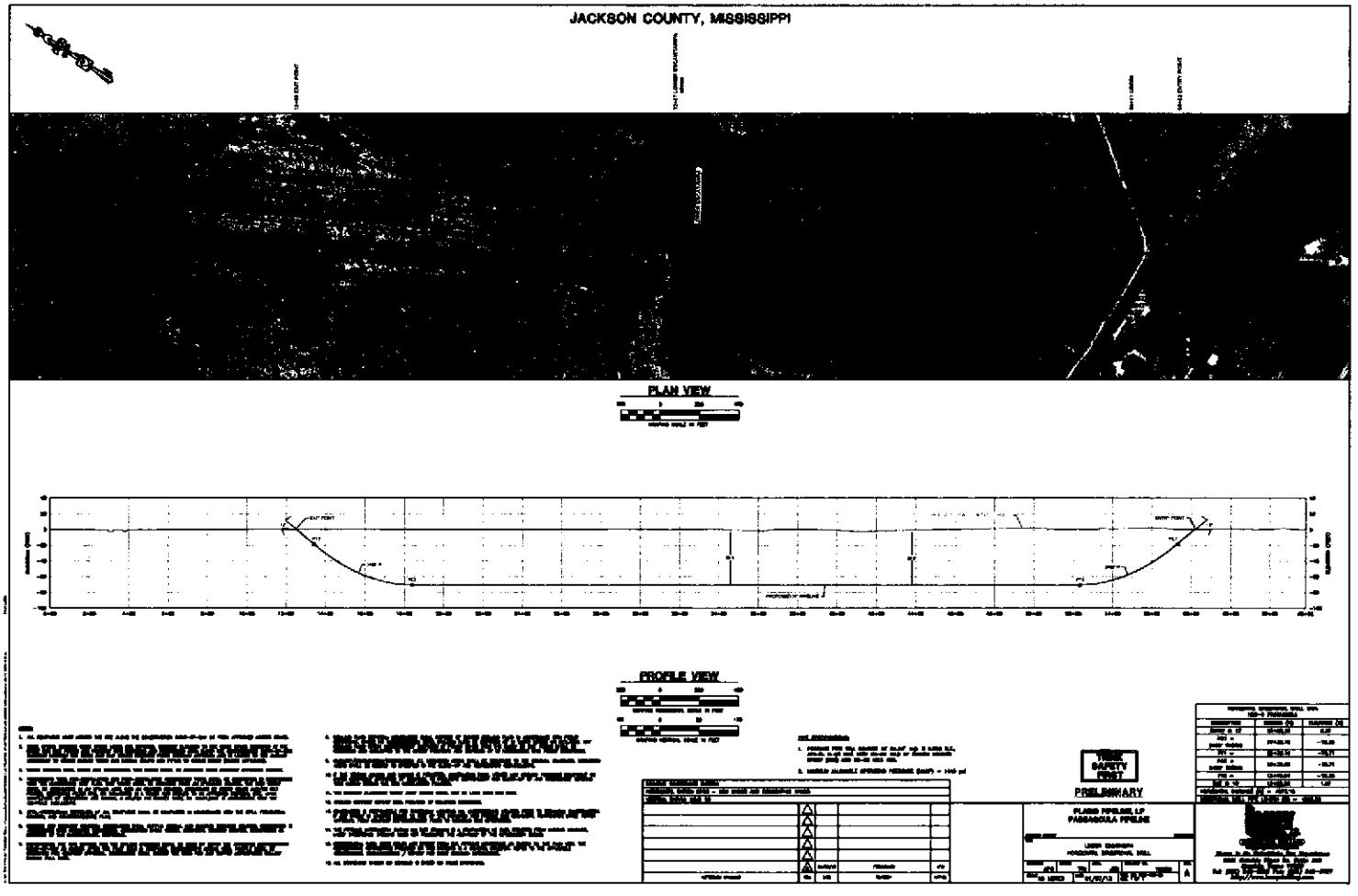

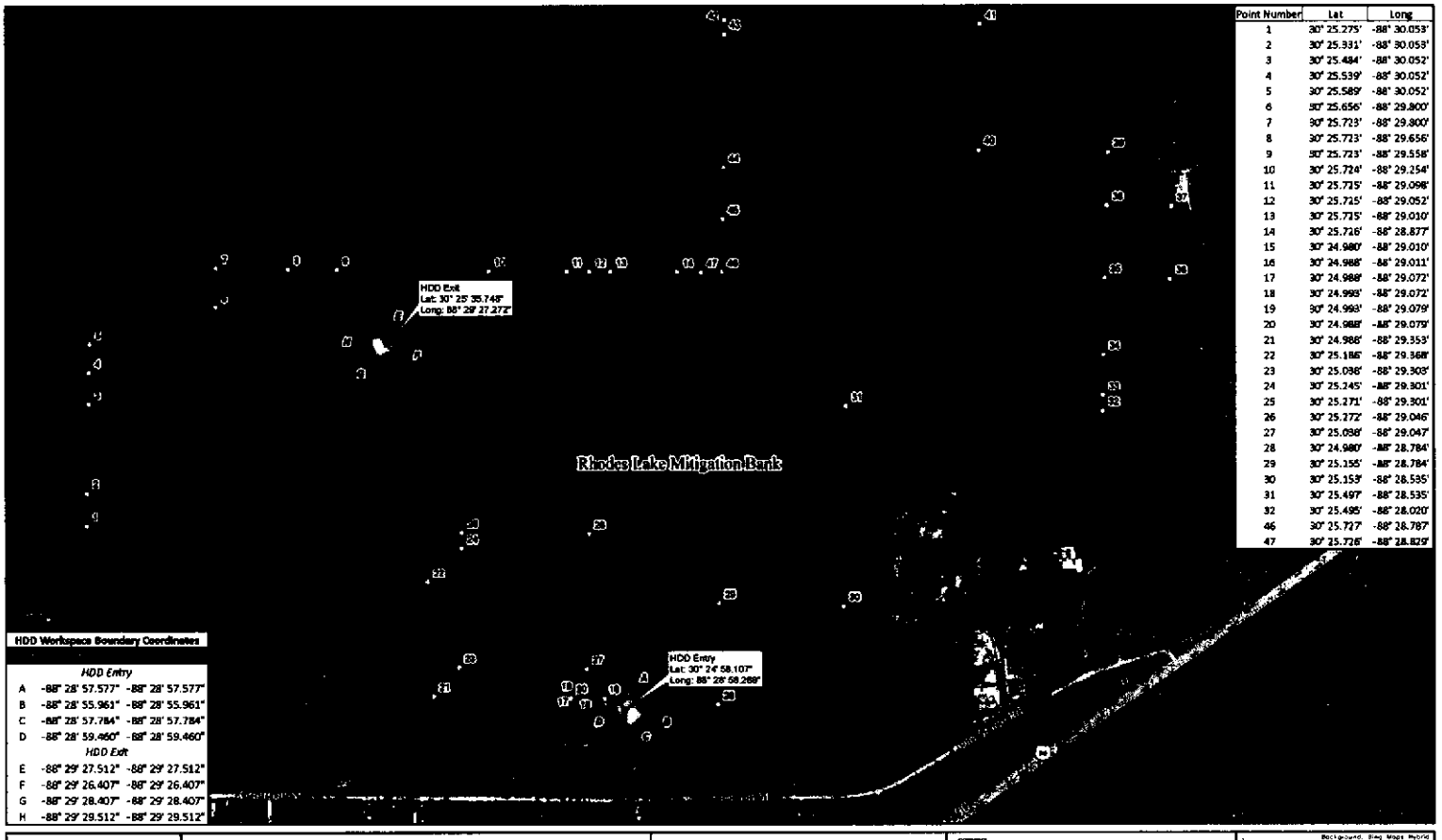

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	HDD Entry	
A	-88° 28' 57.577"	-88° 28' 57.577"
B	-88° 28' 55.961"	-88° 28' 55.961"
C	-88° 28' 57.784"	-88° 28' 57.784"
D	-88° 28' 59.460"	-88° 28' 59.460"
	HDD Exit	
E	-88° 29' 27.512"	-88° 29' 27.512"
F	-88° 29' 26.407"	-88° 29' 26.407"
G	-88° 29' 28.407"	-88° 29' 28.407"
H	-88° 29' 29.512"	-88° 29' 29.512"

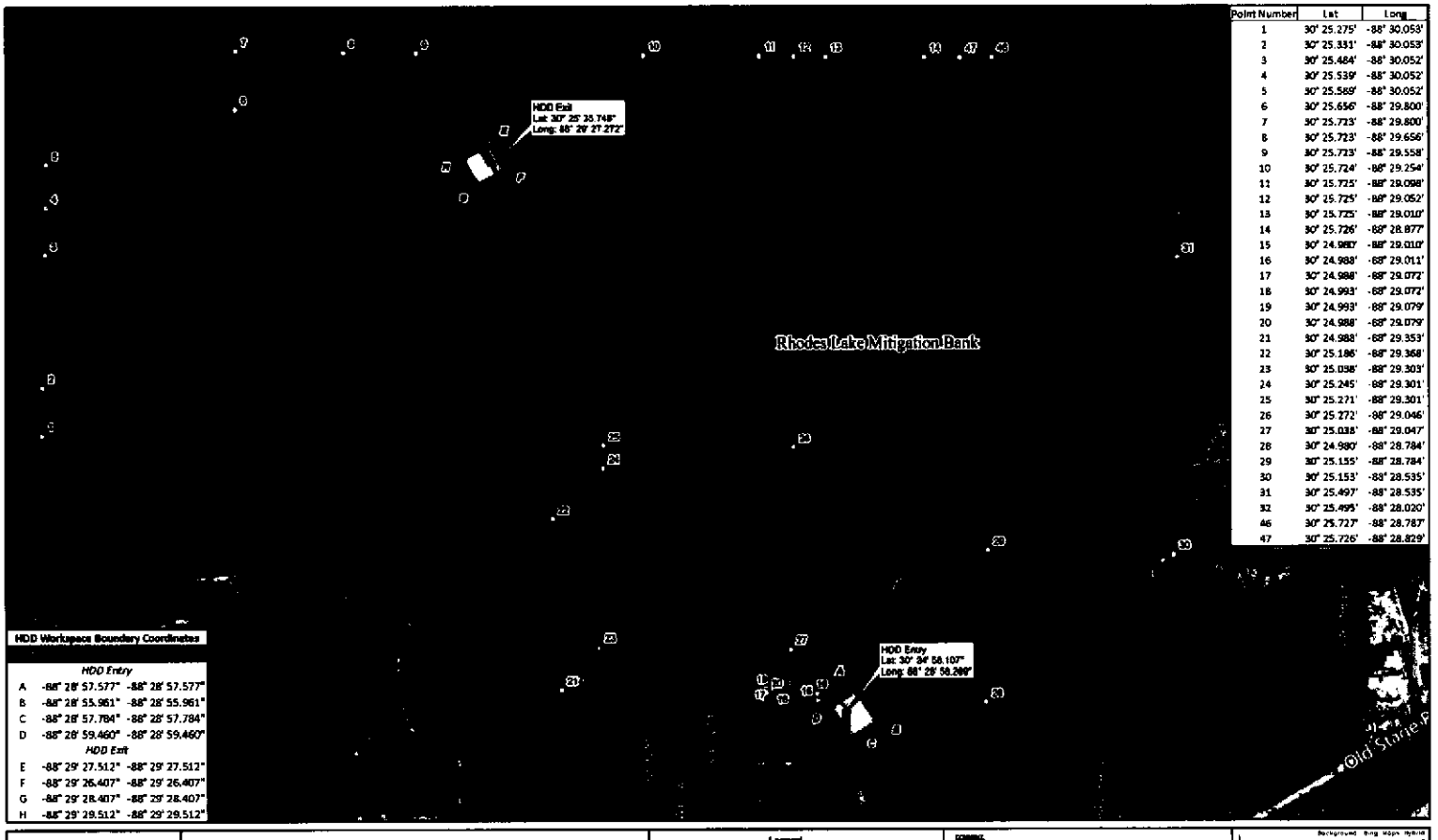
SWCA ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.
RHODES LAKE MITIGATION BANK
CROSSING DETAIL

Legend
- Milepost
- Centerline
- HDD Workspace Corners
- Mitigation Bank Boundary Points
- Additional Workspace
- Permanent RoW
- Temporary RoW
- Mitigation Bank Boundary

Background: Bing Maps Hybrid
Mapper: JP
Approved By: TB
SWCA Project No: 22833
Date Produced: 1/10/2013
Revision Date: 1/18/2013

0 450 900 1,800



Point Number	Lat	Long
1	30° 25.275'	-88° 30.053'
2	30° 25.331'	-88° 30.053'
3	30° 25.484'	-88° 30.052'
4	30° 25.539'	-88° 30.052'
5	30° 25.589'	-88° 30.052'
6	30° 25.656'	-88° 29.800'
7	30° 25.723'	-88° 29.800'
8	30° 25.723'	-88° 29.656'
9	30° 25.723'	-88° 29.558'
10	30° 25.724'	-88° 29.254'
11	30° 25.725'	-88° 29.098'
12	30° 25.725'	-88° 29.052'
13	30° 25.725'	-88° 29.010'
14	30° 25.726'	-88° 28.877'
15	30° 24.987'	-88° 29.010'
16	30° 24.988'	-88° 29.011'
17	30° 24.988'	-88° 29.072'
18	30° 24.993'	-88° 29.072'
19	30° 24.993'	-88° 29.079'
20	30° 24.988'	-88° 29.079'
21	30° 24.988'	-88° 29.353'
22	30° 25.186'	-88° 29.368'
23	30° 25.038'	-88° 29.303'
24	30° 25.245'	-88° 29.301'
25	30° 25.271'	-88° 29.301'
26	30° 25.272'	-88° 29.046'
27	30° 25.038'	-88° 29.047'
28	30° 24.980'	-88° 28.784'
29	30° 25.155'	-88° 28.784'
30	30° 25.153'	-88° 28.535'
31	30° 25.497'	-88° 28.535'
32	30° 25.495'	-88° 28.020'
46	30° 25.727'	-88° 28.787'
47	30° 25.726'	-88° 28.829'

HDD Workspace Boundary Coordinates

	HDD Entry	
A	-88° 28' 57.577"	-88° 28' 57.577"
B	-88° 28' 55.961"	-88° 28' 55.961"
C	-88° 28' 57.784"	-88° 28' 57.784"
D	-88° 28' 59.460"	-88° 28' 59.460"
	HDD Exit	
E	-88° 29' 27.512"	-88° 29' 27.512"
F	-88° 29' 26.407"	-88° 29' 26.407"
G	-88° 29' 28.407"	-88° 29' 28.407"
H	-88° 29' 29.512"	-88° 29' 29.512"

SWCA ENVIRONMENTAL CONSULTANTS

PLAINS SOUTHCAP L.L.C.
RHODES LAKE MITIGATION BANK
CROSSING DETAIL

Legend
- Milepost
- Mitigation Bank Boundary Points
- HDD Workspace Corners
- Centerline
- Additional Workspace
- Permanent RoW
- Temporary RoW
- Mitigation Bank Boundary

Background: Bing Maps Hybrid
Mapper: JR
Approved By: DK
SWCA Project No: 22952
Date Produced: 7/10/2013
Revision Date: 7/16/2013

0 300 600 1,200 Feet

Moxey, Michael B SAM

From: Moxey, Michael B SAM
Sent: Thursday, January 17, 2013 4:46 PM
To: 'Eric Munscher'
Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Thanks Eric,
I had trouble accessing the shape-file so I plotted the points, measured distances and calculated approximate acreages (based on 50-foot wide corridor) being impacted for the specific wetland polygon. My approximate calculation supported the data on the upload data sheet. We are good.

The reward: I mailed the JD and delineation letter out this morning, and the permit SAM-2012-00885-MBM out this afternoon.

Mike

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg <http://www.sam.usace.army.mil/RD/reg> , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

-----Original Message-----
From: Eric Munscher [mailto:emunscher@swca.com]
Sent: Thursday, January 17, 2013 3:51 PM
To: Moxey, Michael B SAM
Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Mike,

Did those Lat / Longs suffice?

Thanks,

EM

-----Original Message-----
From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]
Sent: Thursday, January 17, 2013 8:46 AM
To: Moxey, Michael B SAM; Eric Munscher
Cc: Tom Sankey; Brandon Pike; Jessica Crosby
Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Good morning,
I am working on completing the permits for the Alabama component of the pipeline project. The document states that they will purchase credits from a Wetland Solutions mitigation bank. I assume in Alabama, this would be the Lillian Swamp Mitigation Bank.

Thanks,
Mike

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg <http://www.sam.usace.army.mil/RD/reg> , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Comment	Lat	Long
Mike Moxey Verification Point 1	N30° 41' 5.603"	W88° 18' 33.079"
Mike Moxey Verification Point 2	N30° 41' 6.761"	W88° 18' 31.352"
Mike Moxey Verification Point 3	N30° 46' 37.021"	W88° 13' 34.706"

Moxey, Michael B SAM

From: Eric Munscher [emunscher@swca.com]
Sent: Tuesday, January 08, 2013 2:49 PM
To: Moxey, Michael B SAM
Cc: Tom Sankey
Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Mr. Moxey,

I have contacted land and will have them try and gain us access to the following areas for verification.

WETC027-F0
WETC0018-F0
WETD 009-F3
WETD 009-F2

Once I hear back from them I will let you know. My plan is to fly out on Monday and flag the wetlands Monday and Tuesday and to have you meet us for verification on Wednesday the 16th.

I will get back to you as soon as I can.

Thanks and cheers,

EM

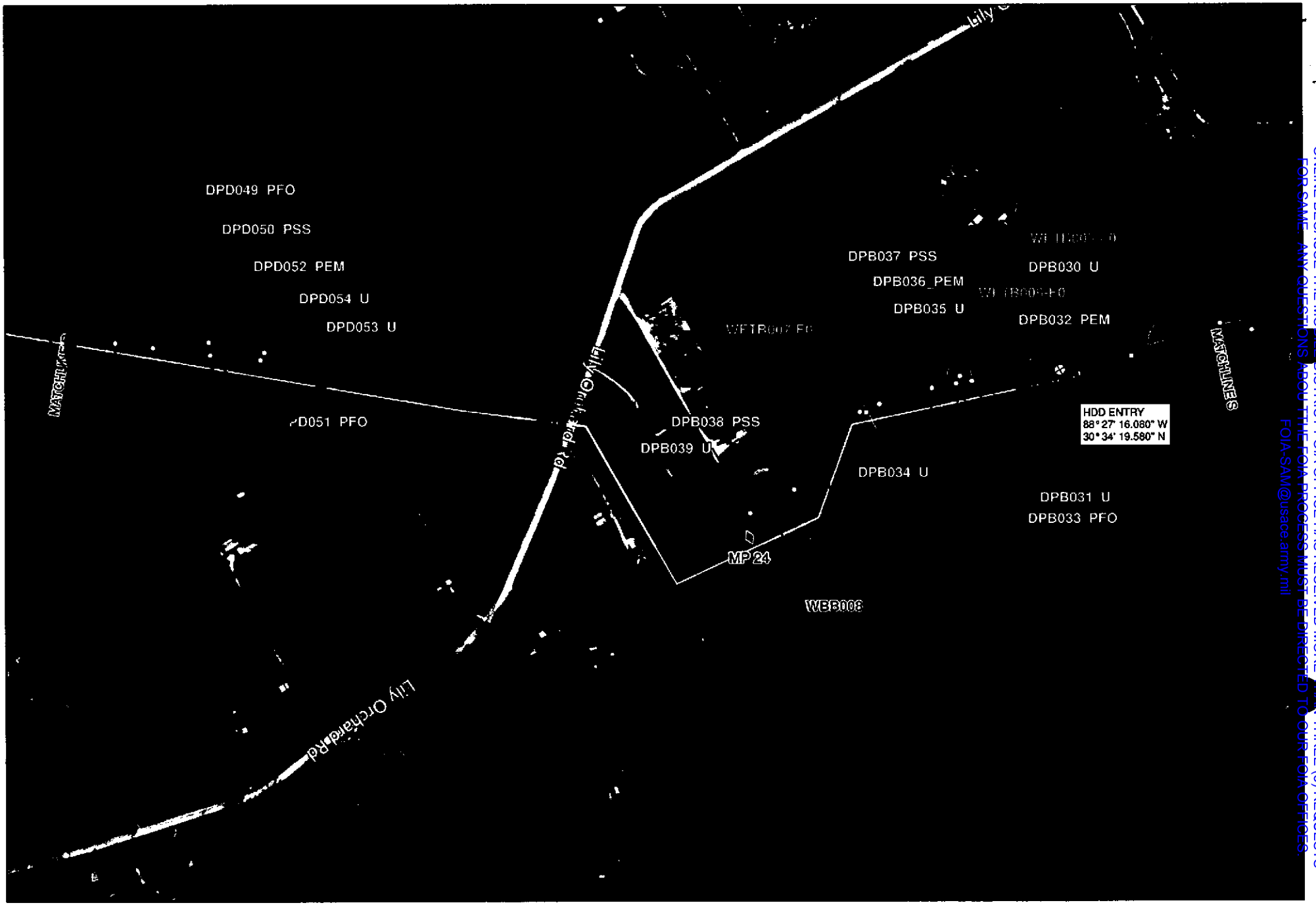
Eric C. Munscher, M.S., ES3 (Scientist)
Herpetologist / Ecologist
Certified Gopher Tortoise Agent
Principal Investigator of the NAFTRG
SWCA Environmental Consultants
7255 Langtry Suite, 100
Houston, TX 77040

"And I can only believe, from somewhere ıter of the brain, that a life of incomprehensible loneliness awai ı things were, but are never to be again." William Stolzenburg. Whe

-----Original Message-----
From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]
Sent: Tuesday, January 08, 2013 2:34 PM
To: Eric Munscher
Cc: Tom Sankey
Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,



SWCA
ENVIRONMENTAL CONSULTANTS
Sheet 29 of 47

PLAINS SOUTHCAP L.L.C.
WETLAND DELINEATION MAP
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS

Centerline
Permanent RoW
Temporary RoW
Additional Workspace
200' Survey
Unsurveyed Areas
PEM
PFO
PSS
EEM
Streams
Sample Point
Milepost
HDD Entry/Exit

COMMENT:
USACE MOBILE DISTRICT

Background: Bing Maps Hybrid (2012)
Mapper: JR
Approved By: Preliminary Draft
SWCA Project No: 22933
Date Produced: 6/20/2012
Revision Date:
Coordinate System: NAD 1983 UTM Zone 16N
Units: Foot US

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Pascagoula P.L. - AL, MS County: Mobile Sampling Date: May 25, 2012
Applicant/Owner: Plains Southcap LLC State: Alabama Sample Point: DPD054_U
Investigator(s): L. Wolfe and M. Gagnon Section, Township, Range: Sec. 35, T5SR5W
Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): Convex Slope (%): 00-05
Subregion (LRR or MLRA): Atlantic and Gulf Coast Lowland Forest and Crop Region (T) Lat: 30.56475 Long: -88.45980 Datum: UTM 16N NB3 USFT
Soil Map Unit Name: Heidel sandy loam, 5 to 8 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (If no, explain in Remarks.)
Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X		
Hydric Soil Present?	Yes X	No	**Is the Sampled Area within a Wetland?**	Yes No X
Wetland Hydrology Present?	Yes	No X		

Remarks:

This point was determined not to be within a wetland due to the lack of hydrophytic vegetation and wetland hydrology.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots(C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):	N/A
Water Table Present?	Yes	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):	>20

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: DPD054_U

	Absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		
Shrub Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		
Herb Stratum (Plot size: 30 ft.)			
1. *Solidago canadensis*	30	Yes	FACU
2. *Eupatorium capillifolium*	20	Yes	FACU
3. *Andropogon glomeratus*	15	No	FACW
4. *Rhexia lutea*	15	No	FACW
5. *Pinus palustris*	5	No	FACU
6. *Ilex glabra*	2	No	FACW
7.			
8.			
9.			
10.			
11.			
	87 = Total Cover		
50% of total cover: 43.5	20% of total cover: 17.4		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	32	x 2 =	64
FAC species	0	x 3 =	0
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	87 (A)		284 (B)

Prevalence Index = B/A = 3.26

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤ 3.0[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (if observed, list morphological adaptations below).

No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FAC− or drier).

SOIL

Sampling Point: DPD054_U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/1	98	10YR 3/6	2	C	PL	Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

A positive indication of hydric soil was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Pascagoula P.L. - AL, MS County: Mobile Sampling Date: May 25, 2012
Applicant/Owner: Plains Southcap LLC State: Alabama Sample Point: DPD051_PFO
Investigator(s): L. Wolfe and M. Gagnon Section, Township, Range: Sec. 35, T5SR5W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 00-05
Subregion (LRR or MLRA): Atlantic and Gulf Coast Lowland Forest and Crop Region (T) Lat: 30.58423 Long: -88.45991 Datum: UTM 16N N83 USFT
Soil Map Unit Name: Heidel sandy loam, 5 to 8 percent slopes NWI Classification: PSS7/EM1B
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**		
Hydric Soil Present?	Yes X	No	**within a Wetland?**	Yes X	No
Wetland Hydrology Present?	Yes X	No			

Remarks:

This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots(C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- X Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):	N/A
Water Table Present?	Yes	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):	>20

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Buttressing present

A positive indication of wetland hydrology was observed (at least one primary indicator).

VEGETATION (Five Strata) - Use scientific names of plants. Sampling Point: DPD051_PFO

	Absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft.)			
1. *Nyssa biflora*	55	Yes	OBL
2. *Taxodium distichum* Bald cypress	25	Yes	OBL
3. *Cyrilla racemiflora*	10	No	FACW
4. *Pinus elliottii*	5	No	FACW
5.			
6.			
	95 = Total Cover		
	50% of total cover: 47.5	20% of total cover: 19	
Sapling Stratum (Plot size: 30 ft.)			
1. *Liriodendron tulipifera* tulip poplar	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	5 = Total Cover		
	50% of total cover: 2.5	20% of total cover: 1	
Shrub Stratum (Plot size: 30 ft.)			
1. *Ilex myrtifolia* Holly	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
	5 = Total Cover		
	50% of total cover: 2.5	20% of total cover: 1	
Herb Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0 = Total Cover		
	50% of total cover: 0	20% of total cover: 0	
Woody Vine Stratum (Plot size: 30 ft.)			
1. *Smilax walteri*	15	Yes	OBL
2.			
3.			
4.			
5.			
	15 = Total Cover		
	50% of total cover: 7.5	20% of total cover: 3	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	95	x 1 =	95
FACW species	20	x 2 =	40
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	120 (A)		150 (B)

Prevalence Index = B/A = 1.25

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤ 3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (if observed, list morphological adaptations below).

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).

A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.00).

SOIL

Sampling Point: DPD051_PFO

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/1	97	10YR 3/6	3	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

A positive indication of hydric soil was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Pascagoula P.L. - AL, MS County: Mobile Sampling Date: May 25, 2012
Applicant/Owner: Plains Southcap LLC State: Alabama Sample Point: DPD052_PEM
Investigator(s): L. Wolfe and M. Gagnon Section, Township, Range: Sec. 35, T5SR5W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 00-05
Subregion (LRR or MLRA): Atlantic and Gulf Coast Lowland Forest and Crop Region (T) Lat: 30.58428 Long: -88.46006 Datum: UTM 16N N83 USFT
Soil Map Unit Name: Johnston-Pamlico association, 0 to 1 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?**	Yes X	No
Hydric Soil Present?	Yes X	No			
Wetland Hydrology Present?	Yes X	No			

Remarks:

This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots(C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- X Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):	N/A
Water Table Present?	Yes	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):	>20

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

VEGETATION (Five Strata) - Use scientific names of plants. Sampling Point: DPD052_PEM

	Absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		
Sapling Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		
Shrub Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		
Herb Stratum (Plot size: 30 ft.)			
1. *Muhlenbergia capillaris*	40	Yes	FACU
2. *Hypericum cistifolium*	15	Yes	FACW
3. *Andropogon glomeratus*	15	Yes	FACW
4. *Typha latifolia*	10	No	OBL
5. *Rhynchospora caduca*	10	No	OBL
6. *Solidago canadensis*	5	No	FACU
7. *Rubus trivialis*	2	No	FAC
8. *Acer negundo*	2	No	FACW
9.			
10.			
11.			
	99 = Total Cover		
50% of total cover: 49.5	20% of total cover: 19.8		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	32	x 2 =	64
FAC species	2	x 3 =	6
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	99 (A)		270 (B)

Prevalence Index = B/A = 2.73

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤ 3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (if observed, list morphological adaptations below).

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).

A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.00).

SOIL

Sampling Point: **DPD052_PEM**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/1	60	10YR 3/4	10	C	M	Sandy Clay Loam	
	10YR 5/3	30	None	—	—	—	Sandy Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

A positive indication of hydric soil was observed.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Pascagoula P.L. - AL, MS County: Mobile Sampling Date: May 25, 2012
Applicant/Owner: Plains Southcap LLC State: Alabama Sample Point: DPF049_PFO
Investigator(s): L. Wolfe and M. Gagnon Section, Township, Range: Sec. 35, T5SR5W
Landform (hillslope, terrace, etc.): N/A Local relief (concave, convex, none): Concave Slope (%): 00-05
Subregion (LRR or MLRA): Atlantic and Gulf Coast Lowland Forest and Crop Region (T) Lat: 30.56340 Long: -88.46064 Datum: UTM 16N N83 USFT
Soil Map Unit Name: Johnston-Pamlico association, 0 to 1 percent slopes NWI Classification: PSS7/EM1B
Are climatic / hydrologic conditions on the site typical for this time of year? (Yes / No) Yes (if no, explain in Remarks.)
Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**		
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes X**	**No**
Wetland Hydrology Present?	Yes X	No			

Remarks:

This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

HYDROLOGY

Wetland hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots(C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- X Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- X Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):	N/A
Water Table Present?	Yes	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):	>20

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Buttressing present

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

VEGETATION (Five Strata) - Use scientific names of plants.

Sampling Point: DPF049_PFO

	Absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft.)			
1. *Pinus elliottii*	50	Yes	FACW
2. *Taxodium distichum*	15	Yes	OBL
3.			
4.			
5.			
6.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Sapling Stratum (Plot size: 30 ft.)			
1. *Acer negundo*	10	Yes	FACW
2. *Taxodium distichum*	5	Yes	OBL
3.			
4.			
5.			
6.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Shrub Stratum (Plot size: 30 ft.)			
1. *Ilex glabra* gallberry	15	Yes	FACW
2.			
3.			
4.			
5.			
6.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 30 ft.)			
1. *Muhlenbergia capillaris*	65	Yes	FACU
2. *Sarracenia alata*	10	No	OBL
3. *Leersia oryzoides* Rice cutgrass	5	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *Smilax walteri*	30	Yes	OBL
2.			
3.			
4.			
5.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 86% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	65	x 1 =	65
FACW species	75	x 2 =	150
FAC species	0	x 3 =	0
FACU species	65	x 4 =	260
UPL species	0	x 5 =	0
Column Totals:	205 (A)		475 (B)

Prevalence Index = B/A = 2.32

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤ 3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (if observed, list morphological adaptations below).

A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).

A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.00).

SOIL

Sampling Point: DPF049_PFO

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/1	95	10YR 6/1	5	D	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- X Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

A positive indication of hydric soil was observed.

CESAM-RD-C
MEMORANDUM FOR RECORD

- SUBJECT: SAM-2012-01165-MBM; Plains Southcap LLC Pipeline, Jackson County Mississippi

On January 11, 2013, met with Gregg Christodoulou (MS DMR), Tom Sankey (SWCA), Stephen Lee and Dean Gore (Plains Southcap) at DMR to discuss the current changes in the pipeline design and route across the Escatawpa River and adjacent marshes in the coastal zone in Jackson County, because DMR had significant concerns issuing CZM for trenching the tidal marshes. The applicant presented a revised project that directional drilling across the wetlands except for the northern 1200 feet of pipeline which will require trenching. DMR was satisfied with this minimization and would be asking for the applicant to fully restore the marsh and monitor until success was confirmed. The revised project would also require a temporary work pad be built in the marsh which would also be removed and restored. They also showed proposed plans to directional bore at a deeper depth of 60 feet below the Escatawpa River. I stated that I would need detailed design plans with GPS coordinates, and these needed to be of quality to send to federal navigation section and NOAA. DMR stated they needed a 30 day public advertisement period but expects to be able to issue CZM in 30 days. I stated that would be ready to issue our permit once I receive the CZM certification and conditions which would be added to our permit conditions. They asked about agency coordination with NOAA and I stated that since they were directional boring under all waterbodies that I made a "no effect" determination that did not require coordination. They stated they could provide the revised project designs next week.

DATE: 11 January 2013

Michael Moxey
Project Manager

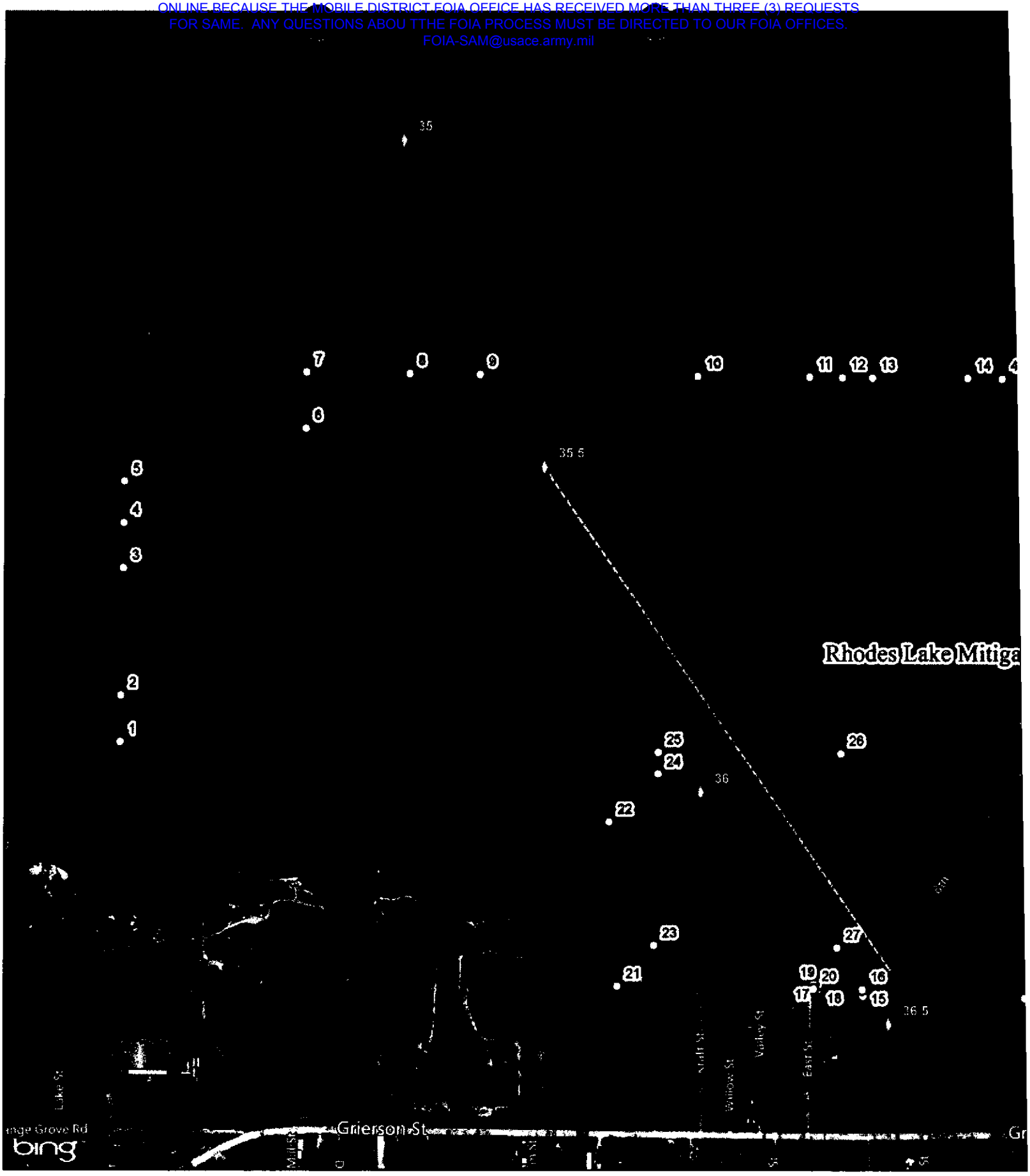
1/21/03

Marsh Restoration Success Guidelines

1. The site must have access to normal hydrology from regular tidal inundations.
2. Marsh grade should be restored to pre-impact level using the least destructive method possible such as hand tools.
3. The restoration area should be sprigged with Black Needle Rush (*Juncus roemarianus*) or other appropriate wetlands species as approved by DMR staff. Plant spacing should not exceed 4 feet. No more than 1 sprig per square yard shall be taken from an existing marsh. Sprigs should not exceed 4 by 4 inches wide by 6 inches deep. Bulb planters or sharp shooter shovels can be used to obtain and plant sprigs.
4. The herbaceous layer should have a minimum of 95% coverage of Black Needle Rush (*Juncus roemarianus*) or other appropriate wetlands species as approved by DMR staff after a period of 5 years.
5. The site should be monitored for 5 years during the spring and fall with reports generated once a year and received at the DMR office by October 1st for the preceding year's monitoring. Permit number and applicant name must be noted on the monitoring report cover. If success criteria are met prior to the 5-year deadline, monitoring and annual reports may be discontinued with written approval of DMR staff.

Marsh Creation Success Guidelines

1. The site must have access to normal hydrology from regular tidal inundations.
2. Marsh creation area must be graded to the level of adjacent tidal marsh, or approximately 0.21 m from MLW. The elevation should be sufficient to allow inundation of the site at least weekly in most cases. Site should be graded to have a gentle slope from landward edge to water. Work should be done using the least destructive method possible.
3. The creation area should be sprigged with Black Needle Rush (*Juncus roemarianus*) or other appropriate wetlands species as approved by DMR staff. Plant spacing should not exceed 4 feet. No more than 1 sprig per square yard shall be taken from an existing marsh. Sprigs should not exceed 4 by 4 inches wide by 6 inches deep. Bulb planters or sharp shooter shovels can be used to obtain and plant sprigs.
4. The herbaceous layer should have a minimum of 95% coverage of Black Needle Rush (*Juncus roemarianus*) or other appropriate wetlands species as approved by DMR staff after a period of 5 years.
5. The site should be monitored for 5 years during the spring and fall with reports generated once a year and received at the DMR office by October 1st for the preceding year's monitoring. Permit number and applicant name must be noted on the monitoring report cover. If success criteria are met prior to the 5-year deadline, monitoring and annual reports may be discontinued with written approval of DMR staff.



SWCA
ENVIRONMENTAL CONSULTANTS

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CROSSING DETAIL

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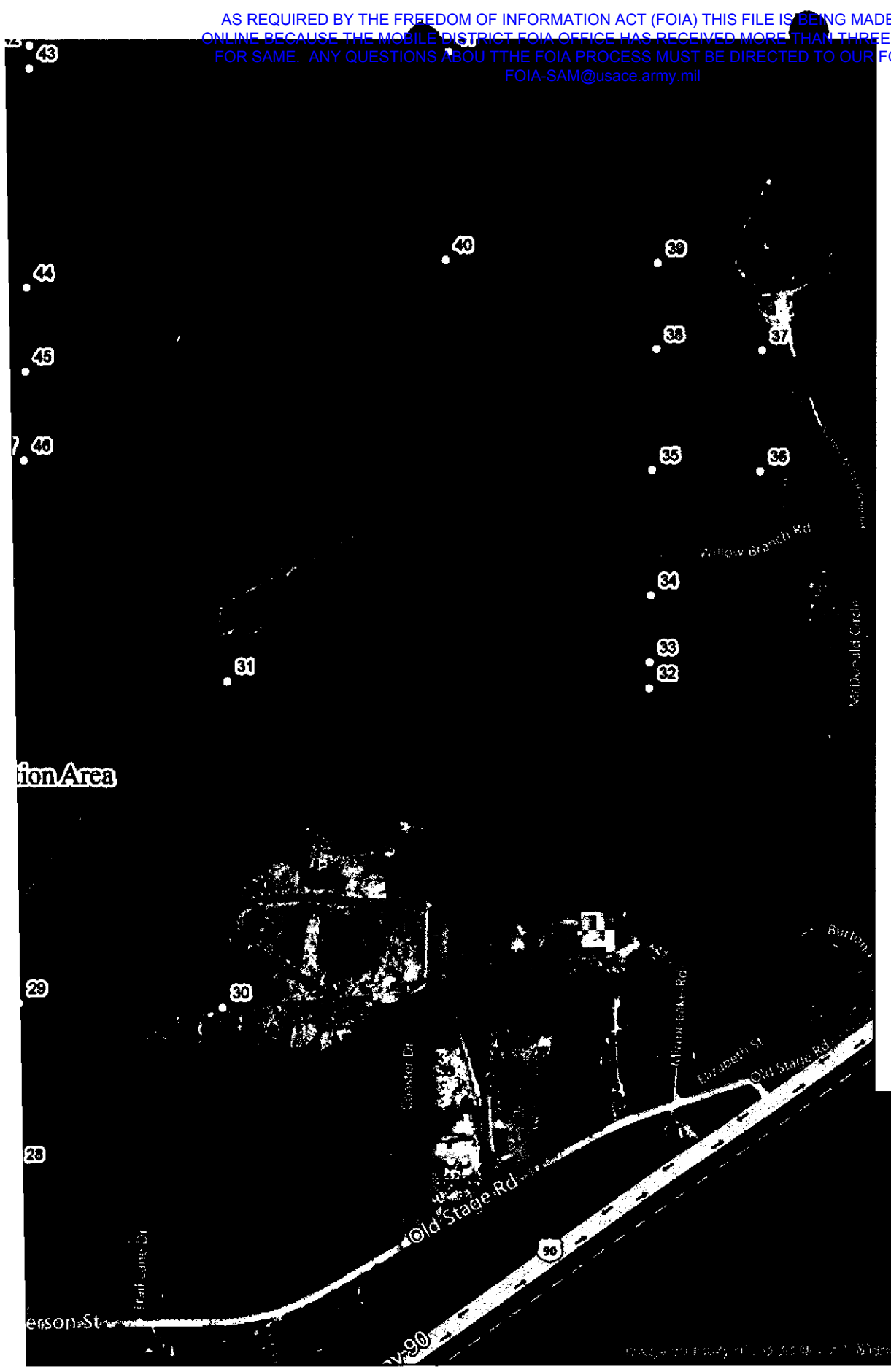

1	30° 25.275'	-88° 30.053'
2	30° 25.331'	-88° 30.053'
3	30° 25.484'	-88° 30.052'
4	30° 25.539'	-88° 30.052'
5	30° 25.589'	-88° 30.052'
6	30° 25.656'	-88° 29.800'
7	30° 25.723'	-88° 29.800'
8	30° 25.723'	-88° 29.656'
9	30° 25.723'	-88° 29.558'
10	30° 25.724'	-88° 29.254'
11	30° 25.725'	-88° 29.098'
12	30° 25.725'	-88° 29.052'
13	30° 25.725'	-88° 29.010'
14	30° 25.726'	-88° 28.877'
15	30° 24.980'	-88° 29.010'
16	30° 24.988'	-88° 29.011'
17	30° 24.988'	-88° 29.072'
18	30° 24.993'	-88° 29.072'
19	30° 24.993'	-88° 29.079'
20	30° 24.988'	-88° 29.079'
21	30° 24.988'	-88° 29.353'
22	30° 25.186'	-88° 29.368'
23	30° 25.038'	-88° 29.303'
24	30° 25.245'	-88° 29.301'
25	30° 25.271'	-88° 29.301'
26	30° 25.272'	-88° 29.046'
27	30° 25.038'	-88° 29.047'
28	30° 24.980'	-88° 28.784'
29	30° 25.155'	-88° 28.784'
30	30° 25.153'	-88° 28.535'
31	30° 25.497'	-88° 28.535'
32	30° 25.495'	-88° 28.020'
33	30° 25.522'	-88° 28.020'
34	30° 25.593'	-88° 28.020'
35	30° 25.725'	-88° 28.020'
36	30° 25.725'	-88° 27.888'
37	30° 25.852'	-88° 27.888'
38	30° 25.852'	-88° 28.017'
39	30° 25.943'	-88° 28.017'
40	30° 25.944'	-88° 28.276'
41	30° 26.162'	-88° 28.276'
42	30° 26.163'	-88° 28.788'
43	30° 26.139'	-88° 28.788'
44	30° 25.909'	-88° 28.787'
45	30° 25.820'	-88° 28.787'
46	30° 25.727'	-88° 28.787'
47	30° 25.726'	-88° 28.829'

t

on Bank Boundary Points

d HDD Reroute

Proposed Centerline

n Bank Boundary

COMMENT:

Background: Bing Maps Hybrid
Mapper: JR
Approved By: EM
SWCA Project No: 22932
Date Produced: 1/10/2013
Revision Date:

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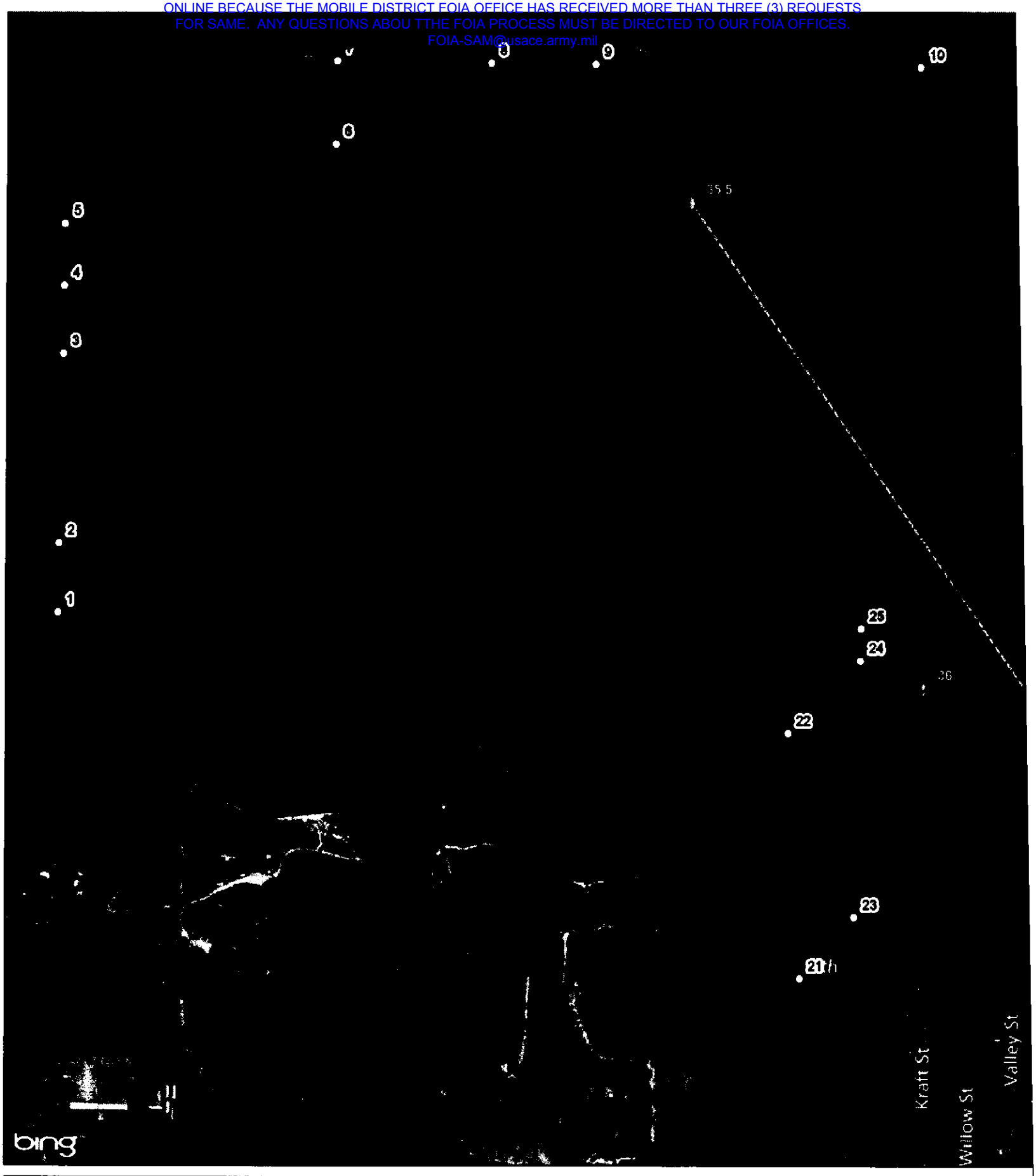

SWCA
ENVIRONMENTAL CONSULTANTS

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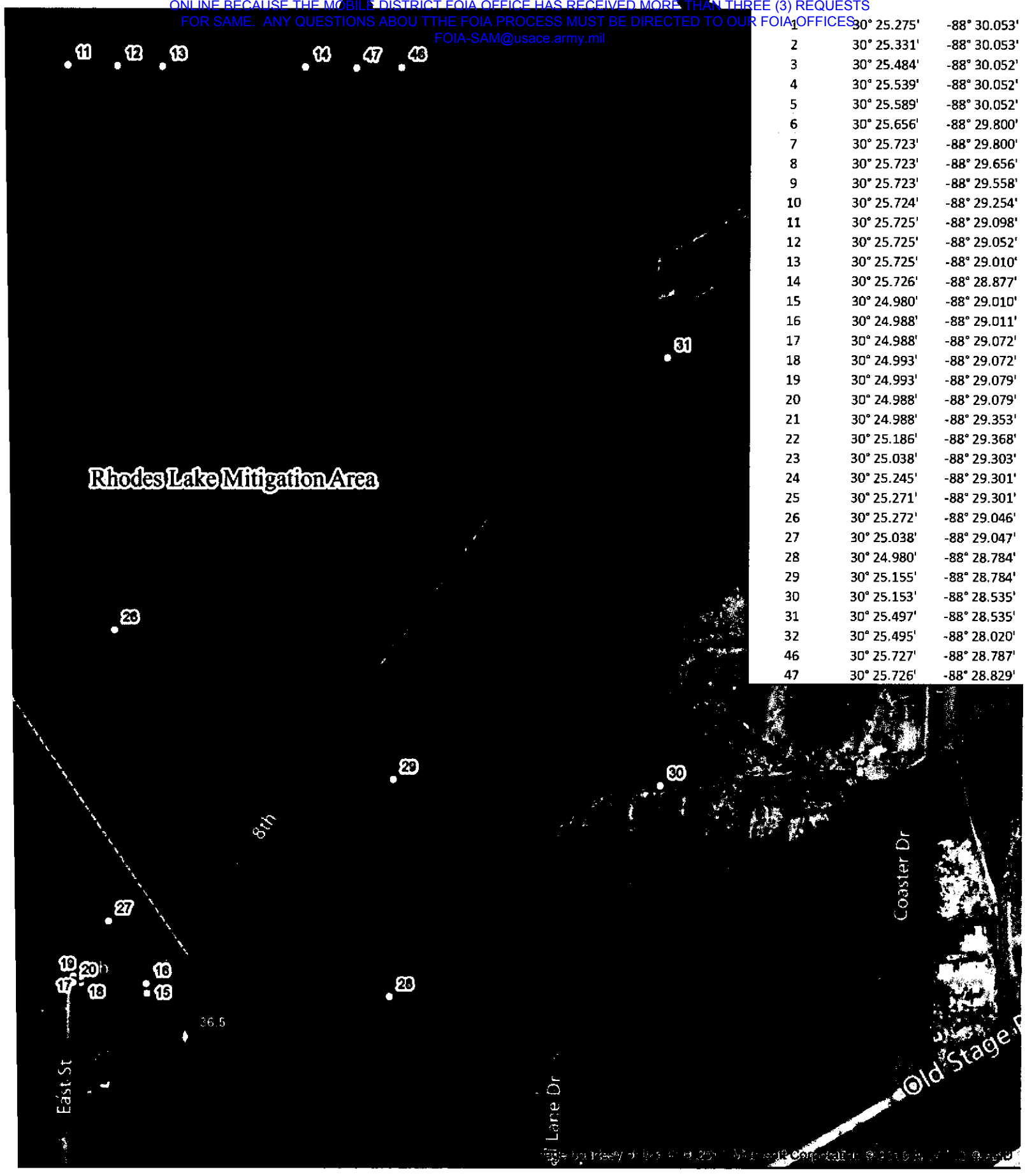

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Bank Boundary Points
HDD Reroute
roposed Centerline
Bank Boundary

COMMENT

Background: Bing Maps Hybrid
Mapper: JR
Approved By: EM
SWCA Project No: 22932
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Revision Date:

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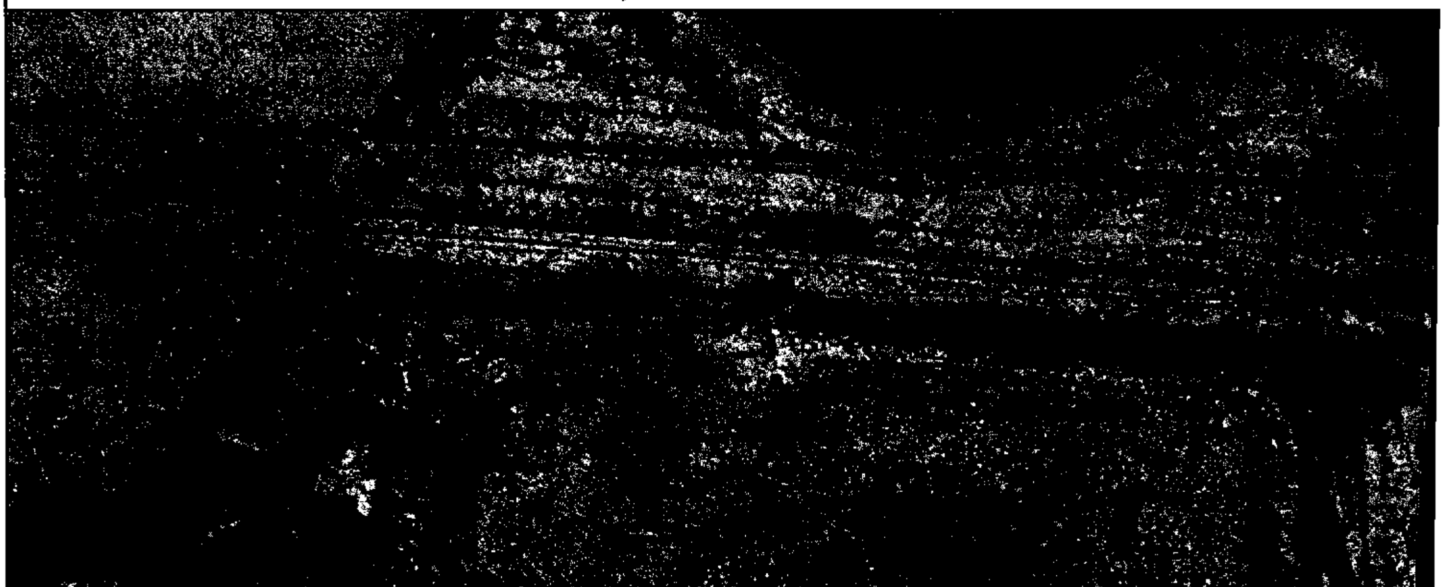
JACKSON COU

12+50 EXIT POINT



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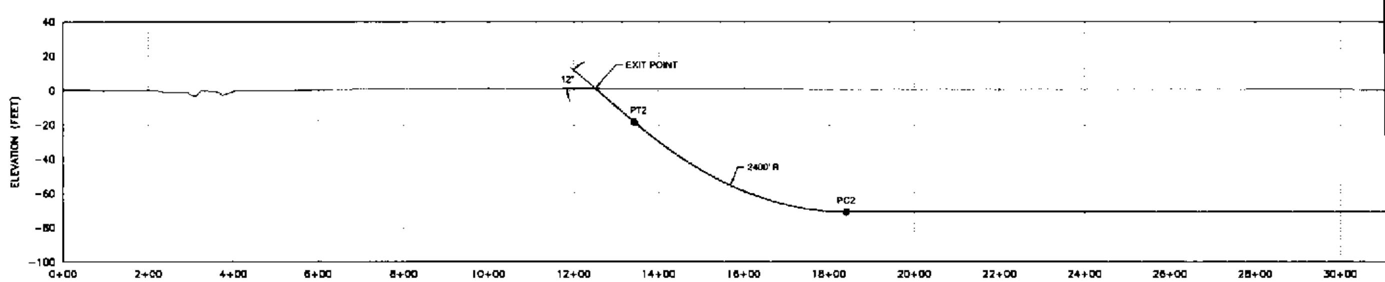

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NOTES:

1. ALL EQUIPMENT MUST ACCESS THE SITE ALONG THE CONSTRUCTION RIGHT-OF-WAY OR FROM APPROVED ACCESS ROADS.
2. WORK SPACE: MAXIMUM WORK SPACE LIMITS ARE DEPICTED. RESTRICT CLEARING TO THE WORK SPACE INDICATED AT THE ENTRY AND EXIT POINTS AND PRODUCT PIPE STRINGING AND FABRICATION AREA ALONG THE CONSTRUCTION RIGHT-OF-WAY. CLEARING BETWEEN THE ENTRY AND EXIT POINTS REQUIRES PRIOR COMPANY APPROVAL AND IS LIMITED TO THE AMOUNT NECESSARY TO STRING SURVEY WIRES AND INSTALL PUMPS AND PIPING TO OBTAIN WATER (WHERE APPROVED).
3. WATER SOURCE: DRILL WATER AND HYDROSTATIC TEST WATCR SHALL BE OBTAINED FROM COMPANY APPROVED SOURCE.
4. HYDROSTATIC TEST: PRE-INSTALLATION AND POST-INSTALLATION HYDROSTATIC TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE HYDROSTATIC TEST PLAN. TEST WATER SHALL BE ACQUIRED FROM AN APPROVED SOURCE. THE TEST WATER SHALL BE DISCHARGED IN AN UPLAND AREA INTO AN EROSION CONTROL STRUCTURE OF STRAW BALES AND/OR SILT FENCES, GEOTEXTILE FILTER BAG, OR COLLECTED IN A TRUCK AND HAULED TO AN APPROVED DISPOSAL SITE. UPON COMPLETION OF DEWATERING AND DRYING, A CALIPER PIG SURVEY SHALL BE COMPLETED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS
5. SPILL-PREVENTION: REFUELING OF ALL EQUIPMENT SHALL BE COMPLETED IN ACCORDANCE WITH THE SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN.
6. EROSION AND SEDIMENT CONTROL: CONTRACTOR SHALL SUPPLY, INSTALL AND MAINTAIN SEDIMENT CONTROL STRUCTURES IN ACCORDANCE WITH CONTRACT DOCUMENTS. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL STRUCTURES AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
7. INSTALLATION: THE PIPE SECTION FOR THE DRILLED CROSSING SHALL BE MADE UP WITHIN THE APPROVED CONSTRUCTION RIGHT-OF-WAY AS SHOWN. AFTER THE PILOT HOLE IS COMPLETE, CONTRACTOR'S ACTUAL DRILL PROFILE SHALL BE SUBMITTED FOR COMPANY APPROVAL. CONTRACTOR SHALL ASSESS THE NEED FOR AND SUPPLY APPROPRIATE BALLAST DURING PULL BACK.
8. DRILLING FLUID DISPOSAL: CONTRACTOR SHALL DISPOSE OF EXCESS DRILLING FLUID IN ACCORDANCE WITH PERMIT CONDITIONS. UNDER NO CIRCUMSTANCES SHALL DRILLING FLUID BE DISPOSED OF IN WATER BODIES OR WETLANDS. ANY DRILLING FLUID WHICH INADVERTENTLY SURFACES AT POINTS OTHER THAN THE ENTRY OR EXIT POINTS SHALL BE CONTAINED AND COLLECTED TO THE EXTENT PRACTICAL AND DISPOSED OF IN ACCORDANCE WITH PERMIT CONDITIONS.
9. CLEANUP/STABILIZATION/RESTORATION: ALL DISTURBED AREAS SHALL BE RETURNED TO THE ORIGINAL CONTOURS. DISTURBED AREAS SHALL BE SEEDED AS SPECIFIED IN THE CLEAN-UP AND RESTORATION REQUIREMENTS.
10. IF THE TERRAIN ALLOWS AND ACCESS IS PERMITTED, CONTRACTOR SHALL UTILIZE LOW GROUND PRESSURE EQUIPMENT OR OTHER EQUIPMENT APPROVED BY COMPANY, TO FACILITATE CONTAINMENT AND CLEAN-UP OF ANY INADVERTENT RETURNS THAT OCCUR DURING THE HDD INSTALLATION PROCESS.
11. THE MINIMUM ALLOWABLE THREE JOINT RADIUS SHALL NOT BE LESS THAN XXX FEET.
12. GROUND SURFACE SURVEY DATA PROVIDED BY WILLBROS ENGINEERS.
13. CONTRACTOR IS RESPONSIBLE FOR PHYSICALLY LOCATING ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. IF ANY UTILITY IS LOCATED WITHIN 15 FEET OF THE DESIGNED HDD PROFILE AND ALIGNMENT, CONTRACTOR SHALL OBTAIN APPROVAL FROM COMPANY REPRESENTATIVE PRIOR TO INITIATING HDD OPERATIONS.
14. THE PIPELINE INFORMATION SHOWN ON THIS DRAWING IS A COMPILATION OF DATA OBTAINED FROM VARIOUS SOURCES. LANEY DIRECTIONAL DRILLING DOES NOT GUARANTEE THE ACCURACY OF THE INFORMATION SHOWN.
15. GEOTECHNICAL DATA: BORE HOLES ARE OFFSET FROM THE PIPELINE CENTERLINE AS SHOWN ON THE PLAN VIEW. THE GEOTECHNICAL INFORMATION PROVIDED ON THIS DRAWING IS A GENERAL SUMMARY. REFER TO THE APPLICABLE GEOTECHNICAL DOCUMENTATION / REPORT FOR MORE DETAILED INFORMATION.
16. ALL STATIONING SHOWN ON DRAWING IS BASED ON FALSE STATIONING.

DRAWN

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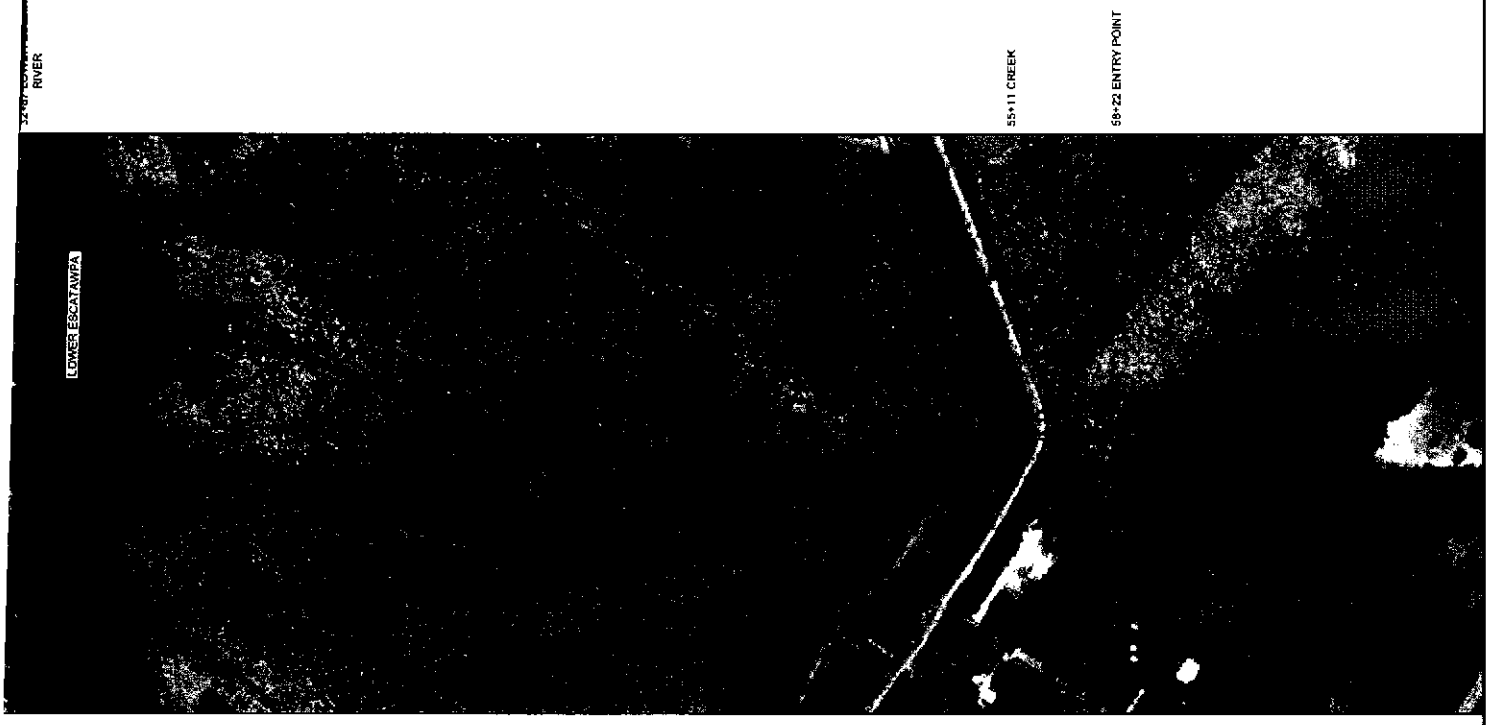
NTY, MISSISSIPPI



AN VIEW

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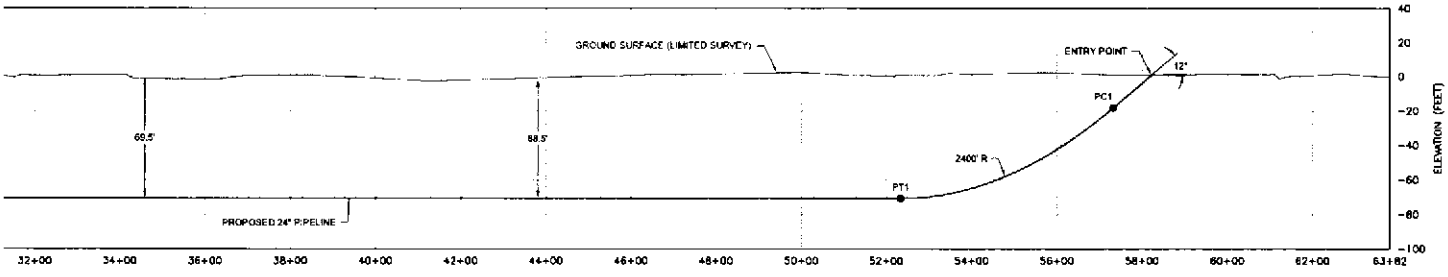
C SCALE IN FEET



FILE VIEW

200 400

ZONTAL SCALE IN FEET

50 100

RTICAL SCALE IN FEET

PIPE SPECIFICATIONS:

1. PRODUCT PIPE WILL CONSIST OF 24.00" O.D. X 0.500 W.T., API-5L X-65 PIPE WITH XX-XX MILS OF FUSION BONDED EPOXY (FBE) AND XX-XX MILS ARO.
2. MAXIMUM ALLOWABLE OPERATING PRESSURE (MAOP) = 1440 psi

HORIZONTAL DIRECTIONAL DRILL DATA HDD-9 PASCAGOULA		
DESCRIPTION	STATION (ft)	ELEVATION (ft)
ENTRY @ 12°	58+22.15	0.87
PC1 = 2400' RADIUS	57+32.15	-18.26
PT1 =	52+33.16	-70.71
PC2 = 2400' RADIUS	18+38.93	-70.71
PT2 =	13+40.94	-18.26
EXIT @ 12°	12+50.00	1.07
HORIZONTAL DISTANCE (ft) = 4572.15		
DIRECTIONAL DRILL PIPE LENGTH (ft) = 4583.52		

COORDINATE SYSTEM
TAL DATUM: SPCS - UTM NAD83 AND GEOGRAPHIC NAD83
DATUM: NAVD 88

THINK SAFETY FIRST

PRELIMINARY

REV.	DATE	REVISION	APPVD.
A	01/08/13	PRELIMINARY	APS

REFERENCE DRAWINGS

PLAINS PIPELINE, LP
PASCAGOULA PIPELINE

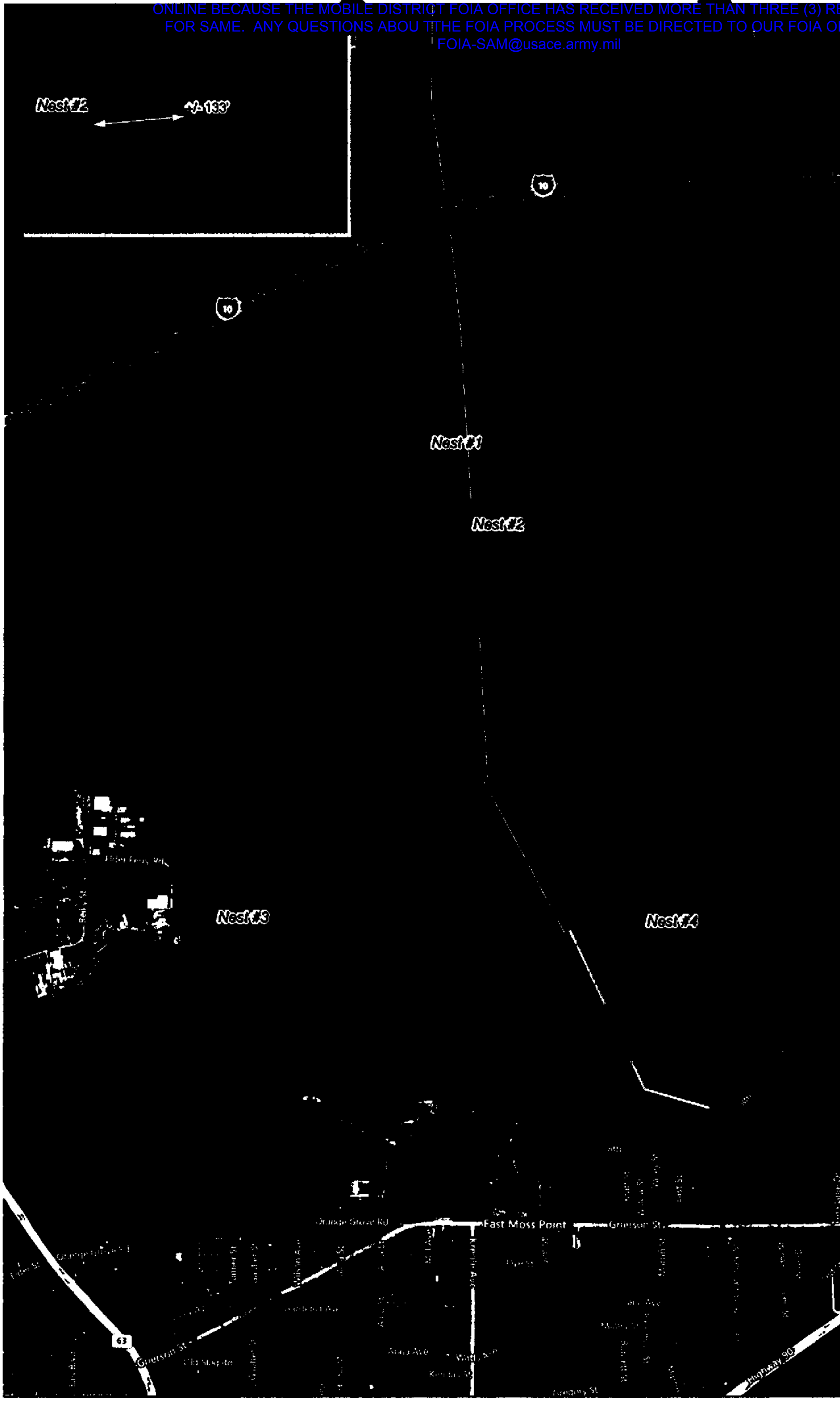
JACKSON COUNTY MISSISSIPPI

TITLE
LOWER ESCATAWPA
HORIZONTAL DIRECTIONAL DRILL

DESIGNED	DRAWN	CHKD.	PROJECT NO.	REV.
APS	TTH	JES	10050	A

SCALE AS NOTED | DATE 01/07/13 | DWG. NO. HDD-035-08 SHT. 1 OF 1

DIRECTIONAL DRILLING
There Is No Substitute For Experience
2031 Humble Place Dr. Suite 100
Humble, Texas 77338
Tel: (281) 540-6615 Fax: (281) 540-6727
http://www.laneydrilling.com



PLAINS SOUTHCAP L.L.C

BALD EAGLE SURVEY
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOUL PIPELINE PROJECT

JACKSON COUNTY, MS
MOBILE COUNTY, AL

Nest #1*
88° 29' 51.88" W 30° 26' 42.12" N

Nest #2*
88° 29' 44.51" W 30° 26' 30.09" N

Nest #3
88° 30' 27.65" W 30° 25' 30.98" N

Nest #4
88° 29' 13.52" W 30° 25' 31.23" N

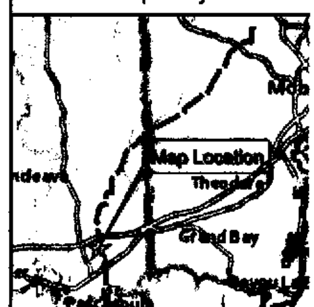
*Nests 1 & 2 may be Osprey Nest

Legend

Potential Bald Eagle Nest
Centerline

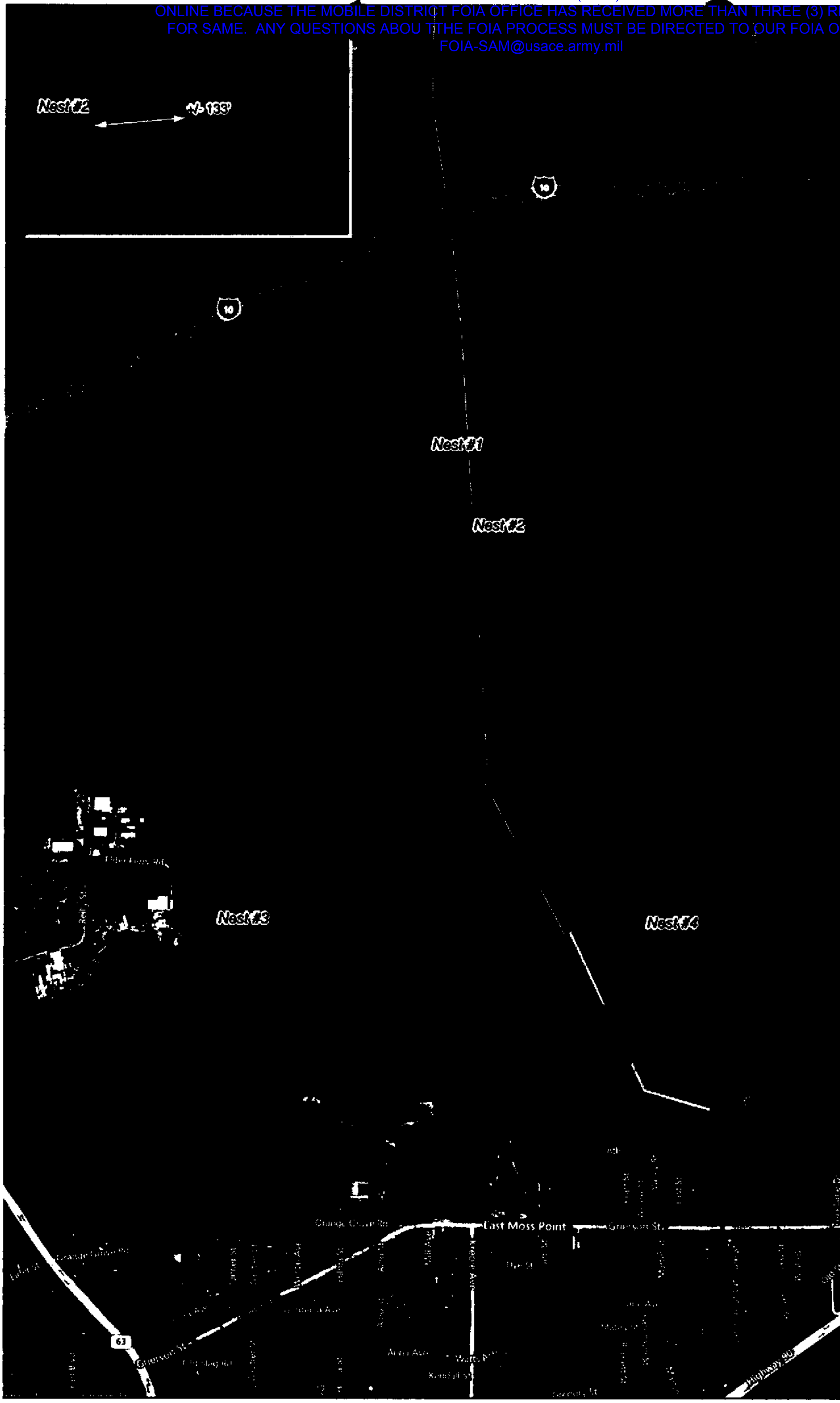
Construction Servitud

Additional Workspac
Permanent RoW
HDD
Temporary RoW



0 1,000 2,000 Feet

SWCA
ENVIRONMENTAL CONSULTANT



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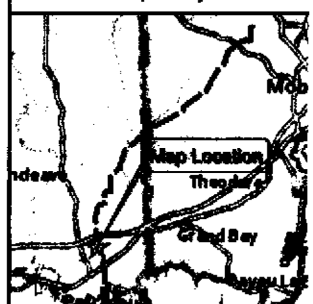
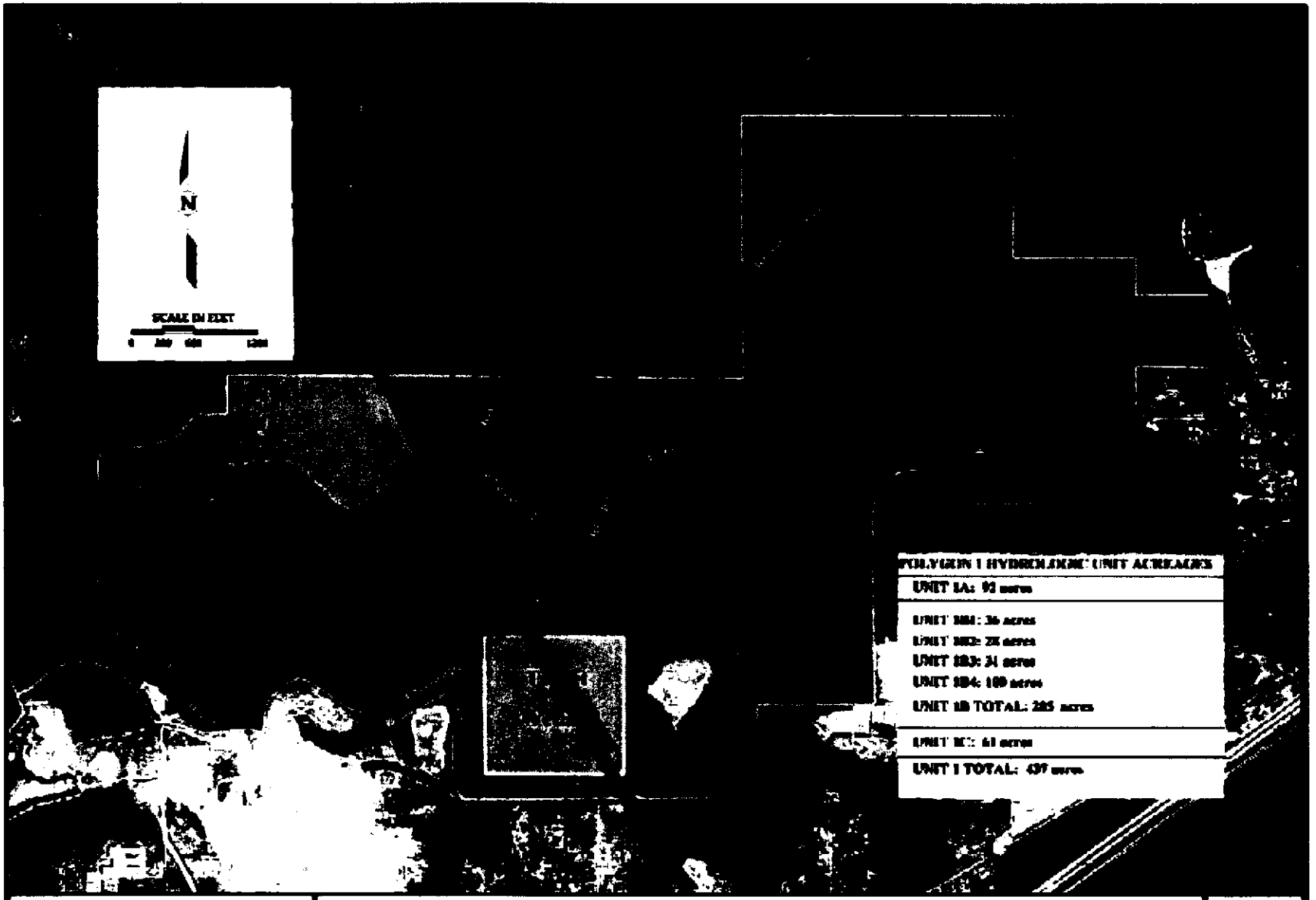


Background: USA Topo maps (ESRI Basemap)
Mapper: JR
Approved By: EM

0 1,000 2,000 Feet

SWCA ENVIRONMENTAL CONSULTANT



ERM Environmental Resources Management

POLYGON 1 HYDROLOGIC UNITS

RHODES LAKE MITIGATION AREA

INTERNATIONAL PAPER

MOSS POINT, JACKSON COUNTY, MISSISSIPPI

FIGURE 3

Moxey, Michael B SAM

To: Moxey, Michael B SAM
Subject: FW: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

From: Eric Munscher [mailto:emunscher@swca.com]
Sent: Tuesday, January 08, 2013 2:49 PM
To: Moxey, Michael B SAM
Cc: Tom Sankey
Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Mr. Moxey,

I have contacted land and will have them try and gain us access to the following areas for verification.

WETC027-F0
WETC0018-F0
WETD 009-F3
WETD 009-F2

Once I hear back from them I will let you know. My plan is to fly out on Monday and flag the wetlands Monday and Tuesday and to have you meet us for verification on Wednesday the 16th.

I will get back to you as soon as I can.

Thanks and cheers,

EM

Eric C. Munscher, M.S., ES3 (Scientist)
Herpetologist / Ecologist
Certified Gopher Tortoise Agent
Principal Investigator of the NAFTRG
SWCA Environmental Consultants
7255 Langtry Suite, 100
Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

-----Original Message-----
From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]
Sent: Tuesday, January 08, 2013 2:34 PM
To: Eric Munscher
Cc: Tom Sankey
Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,
I looked and am fine with your proposed alternative sites. My can arrange my schedule so that I can be available anytime the next two weeks.

Thanks,
Mike

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg <http://www.sam.usace.army.mil/RD/reg> , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

-----Original Message-----
From: Eric Munscher [mailto:emunscher@swca.com]
Sent: Tuesday, January 08, 2013 2:08 PM
To: Moxey, Michael B SAM
Cc: Tom Sankey
Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Mr. Moxey,

We appreciate your work to push this project permit along.

As for the verification location. I see no issues with WETC017-F0 or WETD009-F2 and F3. There is an issue with WETGT008-F0 in that it has been an access issue tract. Would WETC027-F0 off of Schillinger Road or WETC0018-F0 off of Novatan Road work better for you? If so I will contact our land agents to gain access to these properties. When would be a good time for this verification to take place? I can fly out to Mobile Monday the 14th and stay out there until Thursday the 17th. That would give me time to flag the wetlands in question and then meet with you to verify each one. Please let me know as soon as you can what days would work best for you so I can plan with land and flights.

Thanks and cheers,

EM

Eric C. Munscher, M.S., ES3 (Scientist)
Herpetologist / Ecologist
Certified Gopher Tortoise Agent
Principal Investigator of the NAFTRG
SWCA Environmental Consultants
7255 Langtry Suite, 100
Houston, TX 77040

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-----Original Message-----
From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]
Sent: Tuesday, January 08, 2013 1:45 PM
To: Jeremy Rabalais
Cc: Eric Munscher; Tom Sankey; Chuck Fontenot
Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Good afternoon,
I have submitted completed the upload worksheets and submitted them to our computer folks to upload. I have completed the mitigation tables and impact tables which will be attached to the permit. I think the next priority should be a field verification of jd and the wetland delineations.

I recommend looking at a sub-sample of sites for the JD and delineation verification. I recommend the following adjacent polygons be flagged and GP points provided for the flags so that we verify the wetland delineation verifications (2 for each permit application). I can then follow-up with the preliminary JD and wetland delineation verification letters for each project.

Alabama (off Eli Dudley Road)
WET GT008-FO
WET CO17-FO

Mississippi (off Lily Orchard Road)
WETD 009-F3
WETD 009-F2

Thanks,
Mike

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

Moxey, Michael B SAM

From: Eric Munscher [emunscher@swca.com]
Sent: Wednesday, January 02, 2013 10:00 AM
To: Moxey, Michael B SAM
Cc: Tom Sankey
Subject: FW: Plains Southcap - Tortoises
Attachments: plains southcap_usfws.PDF

Mr. Moxey,

I was not sure if I sent this email to you or not. This is confirmation from the USFWS concerning our gopher tortoise plans. Please see the attachment from David Felder.

Please let me know if you have any questions.

Thanks and cheers,

EM

From: David Felder [mailto:david_felder@fws.gov]
Sent: Friday, December 21, 2012 9:40 AM
To: Eric Munscher
Cc: Tom Sankey; Matthew Hinderliter; Bruce Porter
Subject: RE: Plains Southcap - Tortoises

Eric and Tom,

See attachment. Our color copier is down today, so I had to send a black and white version. Hard copy in the mail today.

Let me know if you have any questions.

Bruce and Matt, if you have any additional questions or recommendations for this project, please forward to Eric or Tom.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Mississippi Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213

December 21, 2012

Mr. Thomas Sankey
SWCA Environmental Consultants
7255 Langtry, Suite 100
Houston, Texas 77040

Dear Mr. Sankey:

The Fish and Wildlife Service (Service) has received your letter dated November 14, 2012 regarding the proposed Plains Southcap, LLC Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project in Jackson County, Mississippi and Mobile County, Alabama. The proposed project will consist of the construction and placement of approximately 41 miles of 24-inch diameter crude oil pipeline from the Plains Southcap Ten-Mile Crude Oil Facility in Mobile County, Alabama to the Chevron Pascagoula Refinery in Jackson County, Mississippi. The Service has reviewed the information and offers the following comments in accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Your office performed threatened and endangered species reviews for all species potentially found within the action area, and conducted field surveys for all areas that contained potential habitat for such species. Your initial determination is that the proposed project would have either no effect on federally listed species because suitable habitat for these species was not present, or, if suitable habitat was present, avoidance measures such as horizontal directional drilling (HDD) would be used to avoid such habitat (i.e. drilling under the Escatwapa River).

In addition, approximately 277 gopher tortoise burrows (burrows) were found in or near the proposed pipeline project, comprising approximately 19 gopher tortoise colonies (colonies). Plains Southcap proposes to completely avoid potential impacts to gopher tortoises by use of HDD and silt screen fencing near burrows. Specifically, Plains Southcap proposes to use HDD under all colonies that are within the proposed pipeline right-of-way (ROW), and will install heavy reinforced silt fencing between construction activities and burrows near the proposed ROW. Also, for all tree clearing activities within colony areas, Plains Southcap will flag all burrows and hand clear trees and vegetation near burrows. Finally, certified gopher tortoise

biologists will monitor all such activities near colonies and inspect silt screen fencing during project construction.

Provided that the proposed project incorporates all avoidance and minimization measures outlined in your report, the Service has determined that the proposed Plains Southcap project is unlikely to result in take of federally listed threatened or endangered species. As an additional protective measure, we do however recommend that all abandoned burrows (that have not naturally collapsed) within the proposed pipeline ROW be scoped and excavated via backhoe before burrow collapse. Finally, please notify this office if federally listed species are encountered during construction activities, or if potential impacts to listed species are revealed that were not previously considered.

Although the bald eagle is no longer protected under the ESA, it continues to be protected under the Bald and Golden Eagle Protection Act (BGEPA). We concur with your recommendation to resurvey the proposed pipeline ROW during the 2013 bald eagle breeding season. If active nests are found near the proposed project, we recommend you follow the National Bald Eagle Management (NBEM) Guidelines in order to minimize potential project impacts to bald eagles. A copy of the NBEM Guidelines is available at http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf.

The Service appreciates the opportunity to provide technical assistance on the Plains Southcap Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project. If you have any questions, please contact David Felder of our office, telephone: (601) 321-1131.

Sincerely,

for Stephen M. Ricks
Field Supervisor
MS Field Office

1.) Ray Ashton coined the term "Pod" in his book The Natural History and Management of the Gopher Tortoise (Gopherus polyphemus), 2008. The terms Pod and Colony basically mean the same thing. Ashton described a "Pod" as being a group of tortoises living and foraging in close proximity to one another. While he treated the term "Colony" as groups of "Pods" in connected tortoise habitat. I was lucky enough to take the last Florida gopher tortoise certification class taught by Mr. Ashton before he passed away. To be honest, I largely use the term "Pod" instead of "Colony" out of respect to Ray Ashton. In regards to this project, I believe either of the terms would suffice.

2. What's the minimum distance the HDD will be under an active burrow? Did you factor in a buffer distance from the mouth of the burrow since the actual tortoise chamber may be some distance away from the opening?

2.) Yes we did factor that in. We mapped burrow entrance angle to ROW as well as distance of each burrow entrance to the construction corridor. Bruce Porter originally determined that we should maintain a 25-foot buffer around all active burrows in order to protect the animals. This is based upon his experience that the maximum burrow lengths are ~25 feet. In turn, we have proposed to HDD in areas where there are active burrow entrances within 30 feet of the edge of the construction corridor. We believe that we have also provided you with cross-sections of the proposed HDDs, which show the horizontal setback of the HDD entry and exit points, as well as the depth that we will be drilling. Please let me know if these have not been included in the packet we sent to you. In addition, we are proposing to scope some of the burrows in questions, as discussed in Item 3 below.

3. You are only HDD's under active burrows. Does this mean you will collapse inactive/abandoned burrows? If so, will you scope just before collapse, excavate all burrows, etc? The State of MS generally requires inactive/abandoned burrows be scoped, then completely excavated with backhoe since they have found there can be a 5-10% error rate when scoping.

3.) At present, we are proposing to HDD under 11 "Pods" that include burrows of various conditions, but each one of the 11 Pods includes at least some active burrows, hence the need to HDD. I would agree that we should scope burrows that are within the construction corridor and the 30-foot buffer; however, I'm not so sure of the need to scope the burrows within the vicinity of the HDDs. Our client has no intention of collapsing burrows. To us the purpose of scoping, is to determine if the burrow extends into the construction ROW and/or verify that the burrows do not extend into the construction corridor. If the burrow does not extend into the construction ROW, the area will be conventionally trenched. Let's discuss this further. Tom and I will be calling you today to discuss.

4. For colonies where HDD will be used, what types of activities will occur above ground? Will there be land clearing by Plains Southcap? Will access roads be created through these areas, etc?

4.) Plains intends on using low pressure equipment and hand clearing in the HDD areas. A certified gopher tortoise agent will be on hand during these clearing activities and will flag all burrows to assure tortoise burrow safety. Plains Southcap, LLC will install reinforced silt fencing along GT Pod locations where HDDs are not occurring. Florida certified gopher tortoise agents will be present during the construction phase at all of the Pod locations. No new access roads will be built in these areas. Existing property roads will be used.

5. I also did a quick review of your determination of effects for the other species found in Jackson and Mobile Counties. Your effects determination looks accurate and I did not see any specific issues or concerns. There is one newly designated critical habitat unit for the dusky gopher frog near the project near Helena, MS, however, the pipeline appear to be just outside the boundaries.

5.) Thanks for the feedback.

Incidentally, Tom and I have developed the attached graphic that we believe illustrates all 7 possible scenarios regarding GT burrows along the project corridor. Let's discuss on our phone call.

Thanks,

Eric

Eric C. Munscher, M.S., ES3 (Scientist)

Herpetologist / Ecologist

Certified Gopher Tortoise Agent

Principal Investigator of the NAFTRG

SWCA Environmental Consultants

7255 Langtry Suite, 100

Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

From: David Felder [mailto:david_felder@fws.gov]
Sent: Friday, November 30, 2012 2:48 PM
To: Eric Munscher
Subject: Plains Southcap - Tortoises

Eric,

Please forward to Tom as well, I could not find his email.

I have reviewed the documents related to the Plains Southcap as well as started the coordination with Bruce Porter and Matt Hinderliter (the gopher tortoise species lead). We may eventually need to all get together on a conf call to discuss, but let's address a few more issues first.

A couple of initial questions/issue to clarify.

1. You use the term pods. Is the pod polygon the same as the colony definition (2 or more active/inactive burrows within 600 feet of each other)?

2. What's the minimum distance the HDD will be under an active burrow? Did you factor in a buffer distance from the mouth of the burrow since the actual tortoise chamber may be some distance away from the opening?

3. You are only HDD's under active burrows. Does this mean you will collapse inactive/abandoned burrows? If so, will you scope just before collapse, excavate all burrows, etc? The State of MS generally requires inactive/abandoned burrows be scoped, then completely excavated with backhoe since they have found there can be a 5-10% error rate when scoping.

4. For colonies where HDD will be used, what types of activities will occur above ground? Will there be land clearing by Plains Southcap? Will access roads be created through these areas, etc?

5. I also did a quick review of your determination of effects for the other species found in Jackson and Mobile Counties. Your effects determination looks accurate and I did not see any specific issues or concerns. There is one newly designated critical habitat unit for the dusky gopher frog near the project near Helena, MS, however, the pipeline appear to be just outside the boundaries.

Thanks

David

David Felder

Fish and Wildlife Biologist

US Fish and Wildlife Service

6578 Dogwood View Parkway, Suite A

Jackson, MS 39213

david_felder@fws.gov

(601) 321-1131 office

(601) 720-6458 mobile

(601) 965-4340 fax

Moxey, Michael B SAM

From: Moxey, Michael B SAM
Sent: Wednesday, December 19, 2012 10:44 AM
To: Moxey, Michael B SAM; Tom Sankey; Eric Munscher; Jeremy Rabalais
Subject: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Good morning everyone:
As an update sine our December 6, 2012 conference call. Since I can expect to have the Alabama agency clearances for the Alabama Plains 41-mile pipeline soonest, SAM-2012-0885-MBM, I am making an effort to complete this action first. I received the December 2012 CD with the shape files, waters upload worksheet, impacts worksheet, and COE template for mitigation.

After reviewing the information on the CD, I have the following follow-up comments our discussions:

1. It would seem that since our evaluation is based on aquatic resources with impacts from trenching and conversion that require a 404 permit, that all the Alabama mass upload worksheets (aquatic resources, impacts, and mitigation provided in October 30 e-mail) would have the same data entries.

2. Alabama Aquatic Resource Upload Worksheet: The December 2012 aquatic resource upload worksheet reflects isolated waters (POW shown as isolated). The worksheet is protected so I cannot edit any information. An Aquatic Resource Upload Worksheet will be provided that reflects only aquatic resources with impacts requiring a Corps permit (trenching and/or conversions) and not aquatic resources subject to directional drilling without 404 impacts. The copy provided is protected so I can correct this.

3. Alabama Impact Upload Worksheet: The December 2012 impact upload worksheet reflects isolated waters (ponds) and a different number of entries than the aquatic resource upload worksheet. The worksheet is protected so I cannot edit any information. An impact Upload Worksheet is needed that reflects only aquatic resources with impacts requiring a Corps permit (trenching and/or conversions) and not aquatic resources subject to directional drilling without a 404 regulated action. The copy provided is protected so I can correct this.

4. Alabama Mitigation Upload Worksheet: There are two mitigation worksheets, the mass upload worksheet and the Corps Regulatory mitigation worksheet. You provided the Corps Regulatory worksheet. I will need a mass upload mitigation worksheet (provided in October 30 e-mail) that reflects the same number of entries as the aquatic resource and impact mass upload worksheets, however they would reflect no mitigation/self mitigating for entries for temporary impacts to the PEM and stream crossings. Both the mitigation mass upload worksheet and also the Corps mitigation worksheet should reflect the same number of entries.

5. I will complete the NWP and JD mass upload worksheets.

6. The same information format will be required for the Mississippi permit.

Thanks,
Mike

USACE, Regulatory Division

Moxey, Michael B SAM

From: Dan M Davis [Dan.Davis@ipaper.com]
Sent: Friday, December 14, 2012 11:13 AM
To: Stacey Shankle; Bill Roberson; Moxey, Michael B SAM; Taylor, Kenneth; Suderman, Keith
Subject: FW: Plains route International Paper

FYI

From: Jerry Moran [mailto:jerry.moran@contractlandstaff.com]
Sent: Friday, December 14, 2012 10:34 AM
To: Dan M Davis
Subject: RE: Plains route International Paper

Dan

It has been decided that we will be doing an HDD drill across most of the property involved. Once I have the plans finalized I will forward them to you. We are also going to survey the Tidelands to acquire a permit from the State. We are trying to get these completed as soon as possible.

If you have any additional questions let me know.

Jerry Moran

Jerry Moran

Right of Way Agent

Contract Land Staff, LLC

contractor for:

Plains Pipeline / Pascagoula Project

Cell: 918-855-3228

jerry.moran@contractlandstaff.com <mailto:jerry.moran@contractlandstaff.com>

From: Dan M Davis [Dan.Davis@ipaper.com]
Sent: Friday, December 14, 2012 10:16 AM
To: Jerry Moran
Subject: RE: Plains route International Paper

Jerry,

Where are you on the decision to directional drill or not? That would be IP's preferred method.

Dan

From: Jerry Moran [mailto:jerry.moran@contractlandstaff.com]
Sent: Friday, December 07, 2012 11:42 AM
To: Dan M Davis
Cc: Buck Howell; Pat Sallman; Frank Roberts; George N Polydoros; Andrew L Edwards; Ted E Hoz; Kerry Malone; Brent Leftwich
Subject: Plains route International Paper

Dan

[redacted]

Jerry Moran

Jerry Moran

Right of Way Agent

Contract Land Staff, LLC

contractor for:

Plains Pipeline / Pascagoula Project

Cell: 918-855-3228

jerry.moran@contractlandstaff.com <mailto:jerry.moran@contractlandstaff.com>

Mike MS

SWCA
ENVIRONMENTAL CONSULTANTS

2136

MEMORANDUM

To: Michael B. Moxey, U.S. Army Corps of Engineers, Mobile District

From: R. Thomas Sankey, PWS, CSE – SWCA Houston

Date: December 7, 2012

Re: Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project
Projected Wetland Mitigation Costs
Mobile County, Alabama and Jackson County, Mississippi

The following memo details our response to the conference call on 12-06-12. All of the criteria listed below has either been attached in hard copy format or loaded on the accompanying flash drive. The items listed below are what was discussed to complete this permit application. All previous files that are not a part of this package should be ignored.

a.) Impact forms will recognize single and complete projects that require 404 or Section 10 permit. Directional drilling areas with no wetland or stream impacts will not be included in this list. ***Response:*** *The impact data sheet has been updated to include only those areas that require 404 or section 10 actions. All HDD sites with no impact areas have been removed. The impact worksheet could not be printed out due to being a protected document. The worksheet can be found on the accompanying flash drive.*

b.) Mitigation forms will correlate with the impact form. Directional drilling with no wetland impacts will not be included in this list. ***Response:*** *The mitigation form has been updated. The mitigation form is congruent with the impacts worksheet. All impacts to PSS and PFO wetlands are addressed.*

c.) The Aquatic Resource form will recognize waters of the U.S. in the federal permit area that have wetlands and streams impacts. Directional drilling area with no 404 or Section 10 impacts will be listed. ***Response:*** *The aquatic resources table includes all wetlands and waterbodies that were delineated across the entire project that are associated with the federal permit area.*

d.) JD form will recognize each waters of the U.S. with wetland or stream impacts, or Section 10 crossings. The list will not provide duplicate listing of the same water because of multiple crossings of the same larger wetland or stream system. ***Response:*** *As discussed during our conference call 12-06-12, this would be taken care of in house by the USACE.*

e.) Wetland delineation. You stated that Pauline has been provided shape files to minimize GPS data in files. We will reference this is the delineation verification

letter. We still need to identify 3 wetland sites that have been flagged and GPS points provided to confirm wetland delineation. ***Response:*** *Updated boundary points and data point GIS shapefiles can be found in the accompanying flash drive. We will select three easily accessed areas for verification shortly.*

f.) The location of the Section 10 water crossings have not changed. The information provided contains the correct sites and GPS locations. I will coordinate this with our Federal Navigation Section for approval. ***Response:*** *As discussed in our conference call the required cross sections for the two Section 10 crossings have already been supplied.*

g.) The SHPO and USFWS clearance letters are expected next week. ***Response:*** *We will send USFWS and SHPO clearance letters upon receipt.*

MEMORANDUM

ATTACHMENT 1
WETLAND IMPACT AREA MAPS

Path: C:\Users\rabalais\Desktop\My Projects\22933 - Pascagoula Pipeline\MAPS\mxd\Report Maps\PCN 3 12062012\PCN Vicinity map 12062012.mxd

PLAINS SOUTHCAP L.L.C.

VICINITY MAP
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

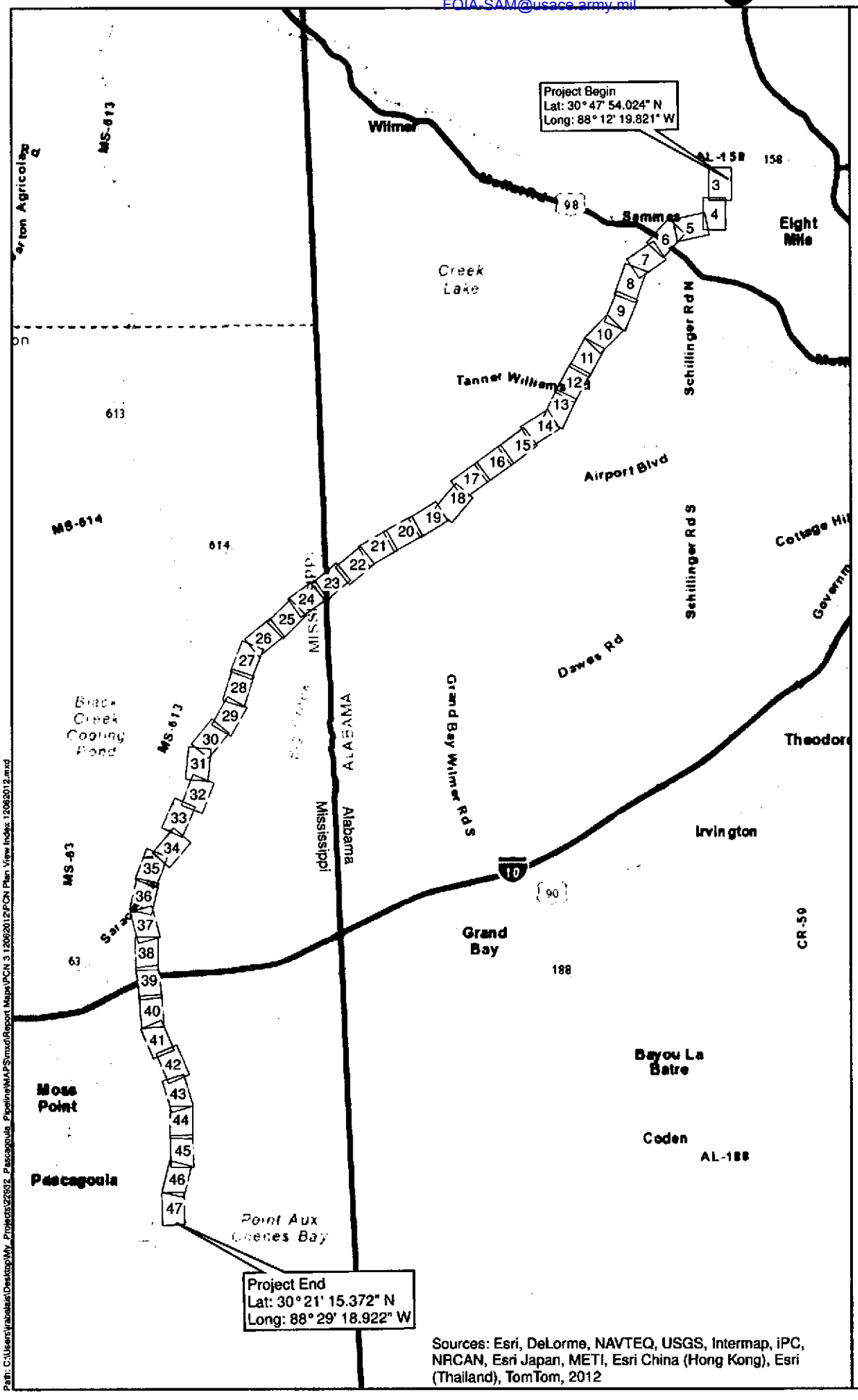
JACKSON COUNTY, MS
MOBILE COUNTY, AL

LEGEND

Project Area

0 2 4 Miles

SWCA
ENVIRONMENTAL CONSULTANTS



PLAINS SOUTHCAP L.L.C.

PLAN VIEW INDEX
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

JACKSON COUNTY, MS
MOBILE COUNTY, AL

LEGEND

Plan View

SWCA ENVIRONMENTAL CONSULTANTS

Path: C:\Users\rabalais\Desktop\My_Projects\22932_Pascagoula_Pipeline\MAPS\mxd\Report Maps\PCN 3 12062012\PCN Plan View Index 12062012.mxd

Moxey, Michael B SAM

From: Moxey, Michael B SAM
Sent: Tuesday, December 11, 2012 12:21 PM
To: Eric Munscher; 'Tom Sankey'
Subject: FW: Pipeline proposed under Escatawpa River (UNCLASSIFIED)
Attachments: Section 10 Water Crossings.pptx

Classification: UNCLASSIFIED
Caveats: NONE

Tom and Eric,
Good news, there are no Section 10 issues with the project.

Mike Moxey
USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg <http://www.sam.usace.army.mil/RD/reg> , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

-----Original Message-----
From: McElhenney, Kelly N SAM
Sent: Tuesday, December 11, 2012 10:14 AM
To: Moxey, Michael B SAM
Subject: FW: Pipeline proposed under Escatawpa River (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Mike,

From the presentation you sent, I identified two areas where the pipeline would cross the Escatawpa River. Both crossings are outside of our federal limits. The location on slide no. 2 is about 500' east of the eastern limit of the federal project. The location on slide no. 4 is north of the federal limit. Our federal portion of the Escatawpa is south of I-10.

Kelly McElhenney
US Army Corps of Engineers
Operations-Navigation
Mobile District
(251) 694-3722 Office
kelly.n.mcelhenney@usace.army.mil

-----Original Message-----
From: Dyess, Carl E SAM
Sent: Monday, December 10, 2012 10:24 AM

To: McElhenney, Kelly N SAM
Subject: FW: Pipeline proposed under Escatawpa River (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Please look at this - I know that we do have a fed project on lower end of Escatawpa but I think this may be way north - respond to Mike.

Thanks

Carl Dyess
Chief of Navigation
U.S. Army Corps of Engineers, Mobile District
251-690-2570

-----Original Message-----
From: Moxey, Michael B SAM
Sent: Friday, December 07, 2012 2:46 PM
To: Dyess, Carl E SAM
Subject: Pipeline proposed under Escatawpa River (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Carl,
I am working on a large pipeline project that proposes to directional bore in two places under the Escatawpa River in Jackson County, Mississippi, at a depth of 25 feet under the Escatawpa River. I put together the attached presentation of the plans from the application and can provide hard copies if you prefer. Does federal navigation have any issues with this proposed action?

Thanks,
Mike Moxey
USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

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Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Moxey, Michael B SAM

From: Moxey, Michael B SAM
Sent: Friday, December 07, 2012 2:46 PM
To: Dyess, Carl E SAM
Subject: Pipeline proposed under Escatawpa River (UNCLASSIFIED)
Attachments: Section 10 Water Crossings.pptx

Classification: UNCLASSIFIED
Caveats: NONE

Carl,
I am working on a large pipeline project that proposes to directional bore in two places under the Escatawpa River in Jackson County, Mississippi, at a depth of 25 feet under the Escatawpa River. I put together the attached presentation of the plans from the application and can provide hard copies if you prefer. Does federal navigation have any issues with this proposed action?

Thanks,
Mike Moxey
USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
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Classification: UNCLASSIFIED
Caveats: NONE

Southcap LLC 41-Mile-Long Ten-Mile Pipeline

SAM-2012-1165-MBM

Directional drilling under Escatawpa River
Mississippi

Mike Moxey
Regulatory Division
694-3771

Moxey, Michael B SAM

From: Moxey, Michael B SAM
Sent: Thursday, December 06, 2012 1:43 PM
To: 'Tom Sankey'; Eric Munscher; Jeremy Rabalais
Cc: Rumbley, Pauline B. Contractor
Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Tom, Eric, and Jeremy:
I just want to follow-up with a summary of our call this morning. The project will be authorized using NWP 12's.
1. To minimize confusion on editions of information, new Corp template mass download forms would be provided for:
a. Impact forms will recognize single and complete projects that require 404 or Section 10 permit. Directional drilling areas with no wetland or stream impacts will not be included in this list.
b. Mitigation forms will correlate with the impact form. Directional drilling with no wetland impacts will not be included in this list.
c. The Aquatic Resource form will recognize waters of the U.S. in the federal permit area that have wetlands and streams impacts. Directional drilling area with no 404 or Section 10 impacts will be listed.
d. JD form will recognize each waters of the U.S. with wetland or stream impacts, or Section 10 crossings. The list will not provide duplicate listing of the same water because of multiple crossings of the same larger wetland or stream system.
e. Wetland delineation. You stated that Pauline has been provided shape files to minimize GPS data in files. We will reference this is the delineation verification letter. We still need to identify 3 wetland sites that have been flagged and GPS points provided to confirm wetland delineation.
f. The location of the Section 10 water crossings have not changed. The information provided contains the correct sites and GPS locations. I will coordinate this with our Federal Navigation Section for approval.
g. The SHPO and USFWS clearance letters are expected next week.

Let me know if I missed something.

Thanks,
Mike

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

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-----Original Message-----
From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]
Sent: Wednesday, November 28, 2012 10:41 AM
To: Eric Munscher
Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
Thanks for the quick response. I spoke with Jeremy this morning and he informed me that the information and field data we currently have has been updated and replaced. It is my understanding the corrected information will be provided to us in the near future.

Jeremy mentioned that the previous data reflected all wetlands and streams within the 200-foot corridor that your firm traditionally surveys for the applicant. I mentioned that our evaluation is limited to our federal permit areas, which are wetlands and streams in the 75-foot wide pipeline corridor that will subject to regulated impacts (ditching and clearing), and any actions requiring a Section 10 permit. Please note that directional drilling where there are no impacts to 404 wetlands or streams (complete avoidance) is a non-regulated activity. This is important the provided data and worksheets address only regulated actions in federal permit areas that requiring a permit by our program.

I look forward to receiving the most current information and data so that we may continue with our evaluation.

Thanks,
Mike Moxey

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

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Classification: UNCLASSIFIED
Caveats: NONE

MS

Moxey, Michael B SAM

From: Moxey, Michael B SAM
Sent: Monday, December 03, 2012 3:09 PM
To: 'Tom Sankey'
Cc: Eric Munscher
Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Tom,
Thanks for the information, the name without the 41-mile descriptor or reference permit numbers threw me. Could you verify that each wetland ID entry is a single and complete linear project per the NWP program definition? Assuming they are, we now have the defined project requiring permits. It is only these 150 or so "single and complete" projects with impacts that would be reflected in the download worksheets to be provided. Could you provide this document and the other waters download worksheets where they reflect only the 150 or so projects with impacts that require permits. This should allow us to proceed forward with our evaluation.

Thanks,
Mike

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

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-----Original Message-----
From: Tom Sankey [mailto:tsankey@swca.com]
Sent: Monday, December 03, 2012 2:42 PM
To: Moxey, Michael B SAM
Cc: Eric Munscher
Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Mike:

That is the mitigation memo and worksheet for the existing project we have been working on... Plains Southcap, LLC's Ten-Mile, Alabama Facility to Pascagoula Refinery project Action IDs SAM-2012-01165-MBM and SAM-2012-00885-MBM.

Thanks,
Tom

-----Original Message-----
From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Monday, December 03, 2012 2:06 PM
To: Moxey, Michael B SAM; Tom Sankey
Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Mr. Sankey,
I received a bound document providing aerial images for a 10-mile pipeline from Mobile to Pascagoula, and a mitigation worksheet. Could you update me whether a PCN or permit application has been submitted to the Corps.

Thanks,
Mike Moxey

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

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Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

SWCA
ENVIRONMENTAL CONSULTANTS

2136

MEMORANDUM

To: Michael B. Moxey, U.S. Army Corps of Engineers, Mobile District

From: R. Thomas Sankey, PWS, CSE – SWCA Houston

Date: November 29, 2012

Re: Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project
Projected Wetland Mitigation Costs
Mobile County, Alabama and Jackson County, Mississippi

The following memo details the results of our evaluation of expected wetland mitigation costs for Plains All American's Ten-Mile Facility to Pascagoula Crude Oil Pipeline (project). The project area begins at the Ten-Mile Crude Oil Facility in Mobile Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest towards Pascagoula, Mississippi. The line ends at the Chevron Pascagoula refinery approximately one mile from the Gulf of Mexico.

Based on analysis of the impact areas in our field survey mapping (**Attachment 1**), as well as an assumed 50-foot-wide construction corridor and a 25-foot temporary corridor, the project would impact the following wetland types and acreages: estuarine emergent (6.51 ac); palustrine emergent (PEM) (20.7 ac); palustrine scrub-shrub (PSS) (27.4ac), and palustrine forested (PFO) (97.6 ac). Of these categories, only the PSS and PFO wetlands will likely require mitigation. These wetland types total approximately 125.0 acres of impacts.

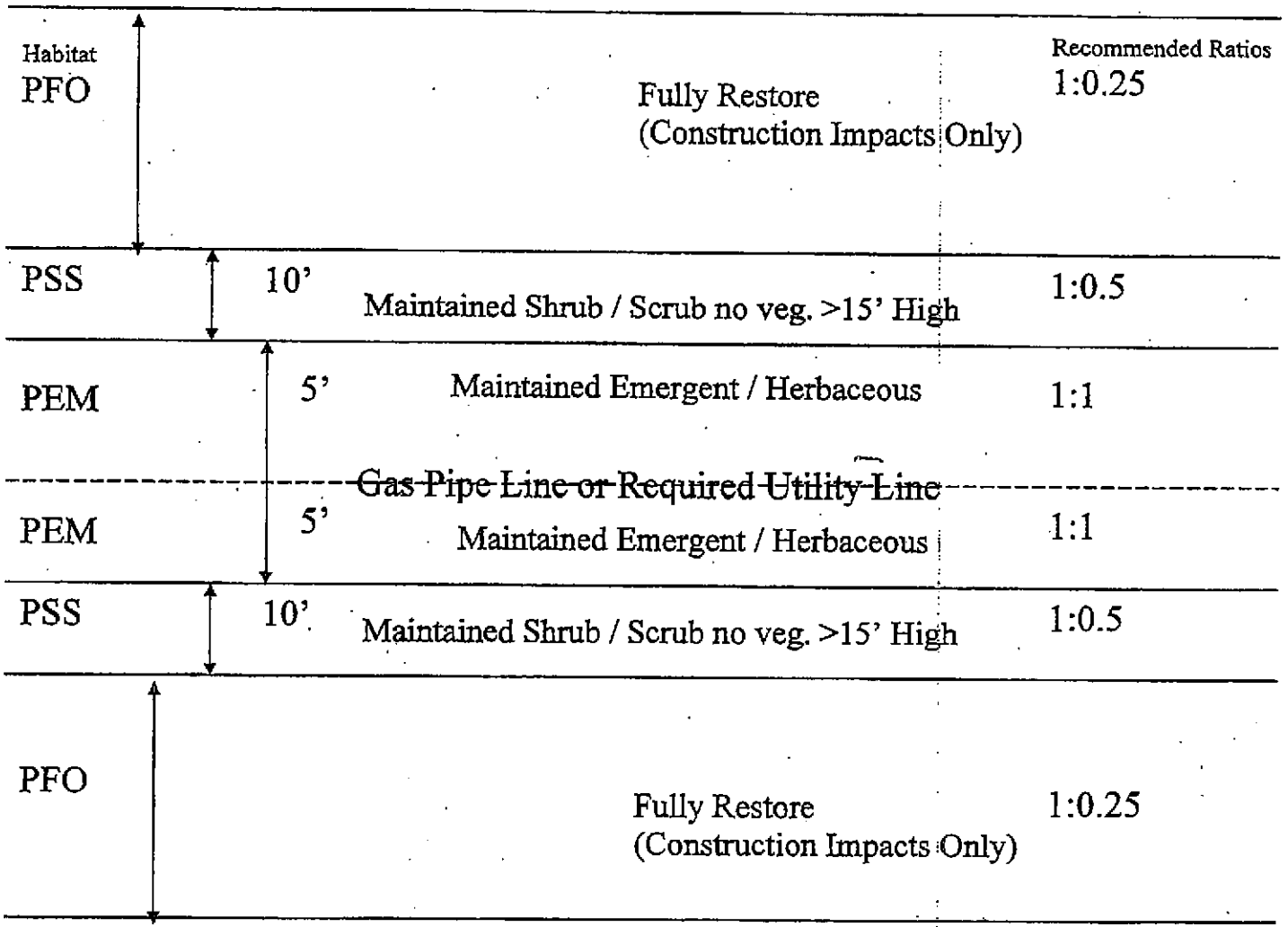
In our recent pipeline permitting experience with the USACE, the Mobile District has required compensatory mitigation for permanent impacts only. Conversion of PFO and PSS wetlands to permanently maintained PEM wetlands would require a 1:0.25 to 1:1 replacement ratio based off of the distance from centerline of the proposed ROW see attached USACE compensation sheet (**Attachment 2**). Detailed wetland mitigation calculations as per Mobile District guidance are included in (**Attachment 3**).

We proposed purchasing approximately 64.2 credits of bottomland hardwood wetland and 10.5 credits of pine savannah along the proposed ROW through both states.

ATTACHMENT 1
Wetland Impact Area Maps

ATTACHMENT 2
WETLAND HABITAT COMPENSTATION CALCULATION SHEET

Converted Wetland Habitat ROW for Typical Linear Project w/ Typical Recommendation for Compensation due to Vegetation Conversion



Note:
Palustrine forested (PFO)
Palustrine Shrub / Scrub
Palustrine Emergent / Herbaceous (PEM)

Note: Assuming original habitat was a Palustrine forested corridor.

ATTACHMENT 3
MOBILE CORPS MITIGATION WORKSHEET

NWP 12 Project No.	FGT Wetland/ Waterbody ID	Local Waterway	Jurisdictional Type (Wetland/Stream)	Wetland/ Stream Type	Latitude (dd NAD83)	Longitude (dd NAD83)	PFO Wetlands to revert to PFO (0.25:1)	PFO Wetlands converted to PSS (0.5:1)	PFO Wetlands converted to PEM (1:1)	Total 0.25:1 Credits	Total 0.5:1 Credits	Total 1:1 Credits	Total Mitigation Credits	state
0	WBA001	Pt Aux Chenes Bay-Mississippi Sound	STREAM	R4	30.362179	-88.483413	0	0	0	0	0	0	0	MS
0	WBA002	Little Black Creek	STREAM	R5	30.441738	-88.495247	0	0	0	0	0	0	0	MS
0	WBA003	Black Creek-Escatawpa River	STREAM	R6	30.453589	-88.496405	0	0	0	0	0	0	0	MS
0	WBA004	Black Creek-Escatawpa River	STREAM	R5	30.480654	-88.499077	0	0	0	0	0	0	0	MS
0	WBA005	Black Creek-Escatawpa River	STREAM	R5	30.496089	-88.497469	0	0	0	0	0	0	0	MS
0	WBA006	Black Creek-Escatawpa River	STREAM	R5	30.500321	-88.496286	0	0	0	0	0	0	0	MS
0	WBA007	Black Creek-Escatawpa River	STREAM	R5	30.54165	-88.4716	0	0	0	0	0	0	0	MS
0	WBB001	Escatawpa River	STREAM	R5	30.600421	-88.440078	0	0	0	0	0	0	0	MS
0	WBB004	Rocky Creek-Escatawpa River	STREAM	R4	30.578524	-88.452051	0	0	0	0	0	0	0	MS
0	WBB005	Rocky Creek-Escatawpa River	STREAM	R4	30.578401	-88.452114	0	0	0	0	0	0	0	MS
0	WBB006	Rocky Creek-Escatawpa River	STREAM	R4	30.578317	-88.452218	0	0	0	0	0	0	0	MS
0	WBB007	Rocky Creek-Escatawpa River	STREAM	R5	30.578203	-88.452216	0	0	0	0	0	0	0	MS
0	WBB008	Rocky Creek-Escatawpa River	POND	POW	30.56868	-88.454774	0	0	0	0	0	0	0	MS
0	WBC004	Black Creek-Escatawpa River	STREAM	R6	30.505584	-88.493876	0	0	0	0	0	0	0	MS
0	WBC005	Black Creek-Escatawpa River	STREAM	R5	30.529756	-88.473698	0	0	0	0	0	0	0	MS
0	WBC013	Rocky Creek-Escatawpa River	STREAM	R4	30.598884	-88.442303	0	0	0	0	0	0	0	MS
0	WBD001	Black Creek-Escatawpa River	STREAM	R6	30.408902	-88.483617	0	0	0	0	0	0	0	MS
0	WBD002	Black Creek-Escatawpa River	STREAM	R5	30.417491	-88.482852	0	0	0	0	0	0	0	MS
0	WBD003A	Black Creek-Escatawpa River	STREAM	R4	30.546427	-88.471696	0	0	0	0	0	0	0	MS
0	WBD004A	Black Creek-Escatawpa River	STREAM	R4	30.548429	-88.471501	0	0	0	0	0	0	0	MS
0	WBG003	Black Creek-Escatawpa River	POND	POW	30.464371	-88.497297	0	0	0	0	0	0	0	MS
0	WBG004	Black Creek-Escatawpa River	STREAM	R5	30.480747	-88.49869	0	0	0	0	0	0	0	MS
0	WBG006	Black Creek	STREAM	R5	30.498219	-88.49696	0	0	0	0	0	0	0	MS
0	WBG007	Escatawpa River	RIVER	E2	30.421551	-88.488024	0	0	0	0	0	0	0	MS
0	WBG008	Black Creek-Escatawpa River	RIVER	E2	30.428795	-88.492343	0	0	0	0	0	0	0	MS
0	WBG011	Pt Aux Chenes Bay-Mississippi Sound	STREAM	R5	30.35603	-88.487115	0	0	0	0	0	0	0	MS
0	WBG012	Pt Aux Chenes Bay-Mississippi Sound	STREAM	R5	30.355344	-88.488586	0	0	0	0	0	0	0	MS
0	WETA002-E0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PEM	30.355828	-88.483106	0	0	0	0	0	0	0	MS
0	WETA002-F0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.359556	-88.483349	1.080196	0	1.891593	0.270049	0	1.891593	2.161642	MS
0	WETA002-S0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PSS	30.356497	-88.48327	0.306118	0.597905	0	0.07653	0.298953	0	0.375482	MS
0	WETA003-E0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PEM	30.366111	-88.483571	0	0	0	0	0	0	0	MS
0	WETA003-E1	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PEM	30.386137	-88.479995	0	0	0	0	0	0	0	MS
0	WETA003-F0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.366167	-88.483281	1.325685	0	2.64751	0.331421	0	2.64751	2.978932	MS
0	WETA003-F1	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.369471	-88.483237	0.005969	0	0.021852	0.001492	0	0.021852	0.023345	MS
0	WETA003-F2	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.376091	-88.480074	0.988338	0	1.513478	0.247085	0	1.513478	1.760562	MS
0	WETA003-F3	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.381474	-88.480167	1.101071	0	1.788769	0.275268	0	1.788769	2.064036	MS
0	WETA003-F4	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.384309	-88.480314	0.027846	0	0.049222	0.006961	0	0.049222	0.056184	MS
0	WETA003-F5	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.386262	-88.480282	0.675385	0	1.350155	0.168846	0	1.350155	1.519001	MS
0	WETA003-F6	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.391451	-88.48038	1.337028	0	1.474324	0.334257	0	1.474324	1.808581	MS
0	WETA003-F7	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.397319	-88.480301	0.654142	0	1.126735	0.163536	0	1.126735	1.290271	MS
0	WETA003-S0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PSS	30.371704	-88.481687	1.039101	2.094243	0	0.259775	1.047121	0	1.306897	MS
0	WETA005-E0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PEM	30.40253	-88.480762	0	0	0	0	0	0	0	MS
0	WETA005-F0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.399673	-88.480255	0.255024	0	0.445398	0.063756	0	0.445398	0.509154	MS

0	WETA005-F1	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.401093	-88.480226	0.336236	0	0.546635	0.084059	0	0.546635	0.630694	MS
0	WETA005-F2	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.402922	-88.480294	0.255401	0	0.517625	0.06385	0	0.517625	0.581475	MS
0	WETA005-F3	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.40473	-88.481768	0.311671	0	0.520872	0.077918	0	0.520872	0.59879	MS
0	WETA006-E0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PEM	30.405627	-88.482907	0	0	0	0	0	0	0	MS
0	WETA006-F0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PFO	30.405783	-88.482651	0	0	0.073732	0	0	0.073732	0	MS
0	WETA007-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.431792	-88.494193	0	0	0	0	0	0	0	MS
0	WETA007-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.431216	-88.493949	0.129378	0	0.26024	0.032344	0	0.26024	0.292585	MS
0	WETA008-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.433388	-88.494576	0	0	0	0	0	0	0	MS
0	WETA008-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.433225	-88.494448	0.021737	0	0.09326	0.005434	0	0.09326	0.098694	MS
0	WETA009-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.435943	-88.494702	0	0	0	0	0	0	0	MS
0	WETA010-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.440197	-88.49510S	0	0	0	0	0	0	0	MS
0	WETA010-E1	Black Creek-Escatawpa River	WETLAND	PEM	30.442262	-88.495436	0	0	0	0	0	0	0	MS
0	WETA010-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.43919	-88.494887	0	0	0.037304	0	0	0.037304	0	MS
0	WETA010-S0	Black Creek-Escatawpa River	WETLAND	PSS	30.441596	-88.495044	0	0.0499	0	0	0.02495	0	0	MS
0	WETA010-S1	Black Creek-Escatawpa River	WETLAND	P5S	30.442285	-88.495122	0	0.359757	0	0	0.179878	0	0	MS
0	WETA011-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.444244	-88.495643	0	0	0	0	0	0	0	MS
0	WETA011-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.444481	-88.495397	0.044976	0	0.138789	0.011244	0	0.138789	0.150033	MS
0	WETA012-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.445833	-88.495656	0	0	0	0	0	0	0	MS
0	WETA013-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.447739	-88.495778	0	0	0	0	0	0	0	MS
0	WETA013-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.447662	-88.495649	0.056355	0	0.140129	0.014089	0	0.140129	0.154218	MS
0	WETA014-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.456093	-88.497043	0	0	0	0	0	0	0	MS
0	WETA015-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.457236	-88.497125	0	0	0	0	0	0	0	MS
0	WETA015-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.45685	-88.496861	0.066223	0	0.091647	0.016556	0	0.091647	0.108202	MS
0	WETA016-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.459875	-88.497613	0	0	0	0	0	0	0	MS
0	WETA016-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.459861	-88.497376	0.120866	0	0.114268	0.030216	0	0.114268	0.144485	MS
0	WETA017-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.461878	-88.497633	0	0	0	0	0	0	0	MS
0	WETA017-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.462061	-88.497429	0.111436	0	0.253191	0.027859	0	0.253191	0.28105	MS
0	WETA018-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.464232	-88.497612	0	0	0	0	0	0	0	MS
0	WETA019-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.468055	-88.497708	0	0	0	0	0	0	0	MS
0	WETA019-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.469302	-88.497375	0.588813	0	0.848053	0.147203	0	0.848053	0.995256	MS
0	WETA020-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.472781	-88.497653	0	0	0	0	0	0	0	MS
0	WETA020-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.47276	-88.497407	0.158572	0	0.318585	0.039643	0	0.318585	0.358228	MS
0	WETA021-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.480986	-88.499295	0.128988	0	0.240253	0.032247	0	0.240253	0.2725	MS
0	WETA022-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.490184	-88.498532	0	0	0	0	0	0	0	MS
0	WETA022-E1	Black Creek-Escatawpa River	WETLAND	PEM	30.491844	-88.498114	0	0	0	0	0	0	0	MS
0	WETA022-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.488128	-88.499075	0.741884	0	1.508779	0.185471	0	1.508779	1.69425	MS
0	WETA022-F1	Black Creek-Escatawpa River	WETLAND	PFO	30.490728	-88.498365	0.186715	0	0.324481	0.046679	0	0.324481	0.371159	MS
0	WETA022-S0	Black Creek-Escatawpa River	WETLAND	P5S	30.488449	-88.499027	0.049812	0.104441	0	0.012453	0.052221	0	0.064674	MS
0	WETA023-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.494338	-88.498085	0.091449	0	0.181394	0.022862	0	0.181394	0.204256	MS
0	WETA023-F1	Black Creek-Escatawpa River	WETLAND	PFO	30.495022	-88.497936	0.140746	0	0.376694	0.035187	0	0.376694	0.41188	MS
0	WETA024-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.497594	-88.49726	0	0	0.101816	0	0	0.101816	0	MS
0	WETA024-F1	Black Creek-Escatawpa River	WETLAND	PFO	30.497965	-88.497104	0	0	0.225166	0	0	0.225166	0	MS
0	WETA024-F2	Black Creek-Escatawpa River	WETLAND	PFO	30.498524	-88.496924	0	0	0.23465	0	0	0.23465	0	MS
0	WETA024-F3	Black Creek-Escatawpa River	WETLAND	PFO	30.498808	-88.497028	0	0	0.025082	0	0	0.025082	0	MS
0	WETA025-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.533543	-88.471512	1.085137	0	2.169928	0.271284	0	2.169928	2.441212	MS
0	WETA026-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.539633	-88.471603	0.831014	0	1.651948	0.207753	0	1.651948	1.859701	MS
0	WETA026-F1	Black Creek-Escatawpa River	WETLAND	PFO	30.541777	-88.471558	0.063297	0	0.15902	0.015824	0	0.15902	0.174844	MS
0	WETB003-E0	Rocky Creek-Escatawpa River	WETLAND	PEM	30.582457	-88.450813	0	0	0	0	0	0	0	MS
0	WETB003-F0	Rocky Creek-Escatawpa River	WETLAND	PFO	30.582521	-88.450453	0.48181	0	0.591665	0.120453	0	0.591665	0.712118	MS
0	WETB004-E0	Rocky Creek-Escatawpa River	WETLAND	PEM	30.575998	-88.453263	0	0	0	0	0	0	0	MS
0	WETB004-E1	Rocky Creek-Escatawpa River	WETLAND	PEM	30.577901	-88.452538	0	0	0	0	0	0	0	MS
0	WETB004-E2	Rocky Creek-Escatawpa River	WETLAND	PEM	30.578328	-88.452368	0	0	0	0	0	0	0	MS
0	WETB004-E3	Rocky Creek-Escatawpa River	WETLAND	PEM	30.57849	-88.452314	0	0	0	0	0	0	0	MS

0	WETB004-E4	Rocky Creek-Escatawpa River	WETLAND	PEM	30.578646	-88.452266	0	0	0	0	0	0	0 MS
0	WETB004-E5	Rocky Creek-Escatawpa River	WETLAND	PEM	30.578865	-88.452177	0	0	0	0	0	0	0 MS
0	WETB004-F0	Rocky Creek-Escatawpa River	WETLAND	PFO	30.576537	-88.452708	0	0	1.265758	0	0	1.265758	0 MS
0	WETB004-F1	Rocky Creek-Escatawpa River	WETLAND	PFO	30.57825	-88.452198	0	0	0.049036	0	0	0.049036	0 MS
0	WETB004-F2	Rocky Creek-Escatawpa River	WETLAND	PFO	30.578286	-88.452081	0	0	0.03734	0	0	0.03734	0 MS
0	WETB004-F3	Rocky Creek-Escatawpa River	WETLAND	PFO	30.578403	-88.452019	0	0	0.068319	0	0	0.068319	0 MS
0	WETB004-F4	Rocky Creek-Escatawpa River	WETLAND	PFO	30.578577	-88.451959	0	0	0.086014	0	0	0.086014	0 MS
0	WETB005-E0	Rocky Creek-Escatawpa River	WETLAND	PEM	30.57361	-88.454134	0	0	0	0	0	0	0 MS
0	WETB005-S0	Rocky Creek-Escatawpa River	WETLAND	PSS	30.573455	-88.453845	0	0.400502	0	0	0.200251	0	0 MS
0	WETB006-E0	Rocky Creek-Escatawpa River	WETLAND	PEM	30.571167	-88.455076	0	0	0	0	0	0	0 MS
0	WETB006-F0	Rocky Creek-Escatawpa River	WETLAND	PFO	30.571003	-88.454785	0.070375	0	0.108892	0.017594	0	0.108892	0.126485 MS
0	WETB007-E0	Rocky Creek-Escatawpa River	WETLAND	PEM	30.570023	-88.455463	0	0	0	0	0	0	0 MS
0	WETB007-S0	Rocky Creek-Escatawpa River	WETLAND	PSS	30.569456	-88.454944	0.290601	0.580895	0	0.07265	0.290448	0	0.363098 MS
0	WETB008-E0	Rocky Creek-Escatawpa River	WETLAND	PEM	30.603578	-88.43586	0	0	0	0	0	0	0 MS
0	WETB008-F0	Rocky Creek-Escatawpa River	WETLAND	PFO	30.603197	-88.435919	0.85548	0	1.646361	0.21387	0	1.646361	1.860231 MS
0	WETB009-E0	Lower Big Creek	WETLAND	PEM	30.614633	-88.422257	0	0	0	0	0	0	0 MS
0	WETB009-F0	Lower Big Creek	WETLAND	PFO	30.614258	-88.422211	0.16864	0	0.35787	0.04216	0	0.35787	0.400029 MS
0	WETC011-S0	Black Creek-Escatawpa River	WETLAND	PSS	30.505764	-88.493845	0.000506	0	0	0.000127	0	0	0 MS
0	WETC011-S1	Black Creek-Escatawpa River	WETLAND	PSS	30.506044	-88.493181	1.900719	3.799214	0	0.47518	1.899607	0	2.374787 MS
0	WETC011-S2	Black Creek-Escatawpa River	WETLAND	PSS	30.508763	-88.488886	0.410198	0.854813	0	0.102549	0.427406	0	0.529956 MS
0	WETC012-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.517279	-88.482759	0	0	0	0	0	0	0 MS
0	WETC012-S0	Black Creek-Escatawpa River	WETLAND	PSS	30.516975	-88.482432	2.002771	2.110993	0	0.500693	1.055497	0	1.556189 MS
0	WETC012-S1	Black Creek-Escatawpa River	WETLAND	PSS	30.517238	-88.482911	0	0	0	0	0	0	0 MS
0	WETC013A-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.525166	-88.482827	0	0	0	0	0	0	0 MS
0	WETC013A-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.525218	-88.482971	0.01038	0	0.112685	0.002595	0	0.112685	0.11528 MS
0	WETC013B-E1	Black Creek-Escatawpa River	WETLAND	PEM	30.527375	-88.48114	0	0	0	0	0	0	0 MS
0	WETC013B-S0	Black Creek-Escatawpa River	WETLAND	PSS	30.5278	-88.481203	0.704453	1.229666	0	0.176113	0.614833	0	0.790946 MS
0	WETC014-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.529048	-88.478363	0	0	0	0	0	0	0 MS
0	WETC015-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.529502	-88.474329	0	0	0	0	0	0	0 MS
0	WETC015-E1	Black Creek-Escatawpa River	WETLAND	PEM	30.529558	-88.473648	0	0	0	0	0	0	0 MS
0	WETC015-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.529746	-88.473573	0.043821	0	0.090507	0.010955	0	0.090507	0.101462 MS
0	WETC015-F1	Black Creek-Escatawpa River	WETLAND	PFO	30.529838	-88.474139	0.128257	0	0.135627	0.032064	0	0.135627	0.167691 MS
0	WETC028-E0	Rocky Creek-Escatawpa River	WETLAND	PEM	30.588265	-88.448732	0	0	0	0	0	0	0 MS
0	WETC028-F0	Rocky Creek-Escatawpa River	WETLAND	PFO	30.587934	-88.448508	0.1408	0	0.195822	0.0352	0	0.195822	0.231022 MS
0	WETC030-E0	Rocky Creek-Escatawpa River	WETLAND	PEM	30.595793	-88.445514	0	0	0	0	0	0	0 MS
0	WETC030-E1	Rocky Creek-Escatawpa River	WETLAND	PEM	30.598805	-88.442463	0	0	0	0	0	0	0 MS
0	WETC030-E2	Rocky Creek-Escatawpa River	WETLAND	PEM	30.599762	-88.441304	0	0	0	0	0	0	0 MS
0	WETC030-F0	Rocky Creek-Escatawpa River	WETLAND	PFO	30.595236	-88.445532	1.190324	0	1.371646	0.297581	0	1.371646	1.669227 MS
0	WETC030-F1	Rocky Creek-Escatawpa River	WETLAND	PFO	30.598906	-88.442272	0	0	0.01204	0	0	0.01204	0 MS
0	WETC030-F2	Rocky Creek-Escatawpa River	WETLAND	PFO	30.599376	-88.441362	0	0	0.857704	0	0	0.857704	0 MS
0	WETD001-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.409225	-88.483868	0	0	0	0	0	0	0 MS
0	WETD001-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.409143	-88.48355	0.032127	0	0.044693	0.008032	0	0.044693	0.052725 MS
0	WETD002-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.413603	-88.482927	0	0	0	0	0	0	0 MS
0	WETD003-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.415632	-88.482824	0.681013	0	1.317787	0.170253	0	1.317787	1.48804 MS
0	WETD004-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.419186	-88.485628	1.038028	0	2.058806	0.259507	0	2.058806	2.318313 MS
0	WETD005-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.544185	-88.471693	0.355598	0	0.67919	0.088899	0	0.67919	0.76809 MS
0	WETD006-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.546176	-88.47158	0.105657	0	0.299133	0.026414	0	0.299133	0.325547 MS
0	WETD006-F1	Black Creek-Escatawpa River	WETLAND	PFO	30.546532	-88.471817	0.014445	0	0.033953	0.003611	0	0.033953	0.037564 MS
0	WETD006-F2	Black Creek-Escatawpa River	WETLAND	PFO	30.546699	-88.471409	0	0	0.005804	0	0	0.005804	0 MS
0	WETD007-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.549742	-88.471867	0.000093	0	0	0.000023	0	0	0 MS
0	WETD008-E0	Black Creek-Escatawpa River	WETLAND	PEM	30.552149	-88.471554	0	0	0	0	0	0	0 MS
0	WETD008-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.551646	-88.471437	0.433106	0	0.487047	0.108276	0	0.487047	0.595323 MS
0	WETD008-S0	Black Creek-Escatawpa River	WETLAND	PSS	30.552008	-88.471432	0.020054	0.107412	0	0.005013	0.053706	0	0.058719 MS

[redacted]

Plains Southcap Pipeline

0	WETD009-E0	Rocky Creek-Escatawpa River	WETLAND	PEM	30.556909	-88.467092	0	0	0	0	0	0	0 MS
0	WETD009-E1	Rocky Creek-Escatawpa River	WETLAND	PEM	30.5625	-88.461803	0	0	0	0	0	0	0 MS
0	WETD009-F0	Black Creek-Escatawpa River	WETLAND	PFO	30.555082	-88.468406	0.797004	0	1.094333	0.199251	0	1.094333	1.293584 MS
0	WETD009-F1	Rocky Creek-Escatawpa River	WETLAND	PFO	30.559597	-88.464144	0.244047	0	0.449804	0.061012	0	0.449804	0.510815 MS
0	WETD009-F2	Rocky Creek-Escatawpa River	WETLAND	PFO	30.563347	-88.460597	0.028701	0	0.065832	0.007175	0	0.065832	0.073008 MS
0	WETD009-F3	Rocky Creek-Escatawpa River	WETLAND	PFO	30.564177	-88.459807	0.080891	0	0.161279	0.020223	0	0.161279	0.181502 MS
0	WETD009-S0	Rocky Creek-Escatawpa River	WETLAND	PSS	30.557863	-88.46578	0.701625	1.124557	0	0.175406	0.562278	0	0.737685 MS
0	WETD009-S1	Rocky Creek-Escatawpa River	WETLAND	PSS	30.561855	-88.462	0.777869	1.460683	0	0.194467	0.730342	0	0.924809 MS
0	WETD009-S2	Rocky Creek-Escatawpa River	WETLAND	PSS	30.563713	-88.460237	0.168902	0.320738	0	0.042225	0.160369	0	0.202594 MS
0	WETG001-E0	Black Creek-Escatawpa River	WETLAND	E2EM	30.425354	-88.49021	0	0	0	0	0	0	0 MS
0	WETG002-E0	Black Creek-Escatawpa River	WETLAND	E2EM	30.429913	-88.493043	0	0	0	0	0	0	0 MS
0	WETG005-E0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PEM	30.35541	-88.488585	0	0	0	0	0	0	0 MS
0	WETG005-E1	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PEM	30.355135	-88.488585	0	0	0	0	0	0	0 MS
0	WETG005-E2	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PEM	30.354811	-88.488588	0	0	0	0	0	0	0 MS
0	WETG005-S0	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PSS	30.356023	-88.484307	0.275835	0.550845	0	0.068959	0.275422	0	0.344381 MS
0	WETG005-S1	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PSS	30.356028	-88.486201	0.324229	0.647938	0	0.081057	0.323969	0	0.405026 MS
0	WETG005-S3	Pt Aux Chenes Bay-Mississippi Sound	WETLAND	PSS	30.355964	-88.48811	0.338679	0.764482	0	0.08467	0.382241	0	0.466911 MS
GRAND TOTAL							29.133647	17.158984	37.147524	7.283408	8.579492	37.147524	49.52543

Moxey, Michael B SAM

From: Moxey, Michael B SAM
Sent: Wednesday, November 28, 2012 10:41 AM
To: 'Eric Munscher'
Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
Thanks for the quick response. I spoke with Jeremy this morning and he informed me that the information and field data we currently have has been updated and replaced. It is my understanding the corrected information will be provided to us in the near future.

Jeremy mentioned that the previous data reflected all wetlands and streams within the 200-foot corridor that your firm traditionally surveys for the applicant. I mentioned that our evaluation is limited to our federal permit areas, which are wetlands and streams in the 75-foot wide pipeline corridor that will subject to regulated impacts (ditching and clearing), and any actions requiring a Section 10 permit. Please note that directional drilling where there are no impacts to 404 wetlands or streams (complete avoidance) is a non-regulated activity. This is important the provided data and worksheets address only regulated actions in federal permit areas that requiring a permit by our program.

I look forward to receiving the most current information and data so that we may continue with our evaluation.

Thanks,
Mike Moxey

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

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-----Original Message-----
From: Eric Munscher [mailto:emunscher@swca.com]
Sent: Wednesday, November 28, 2012 8:42 AM
To: Moxey, Michael B SAM
Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Mike,

I will be in a class all week but will get with my GIS guy who has all of the data to figure this out. His name is Jeremy Rabalais. He has worked on all of the mapping and acreages for impacts and mitigation. We will figure this out as soon as possible.

Thanks,

EM

-----Original Message-----
From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]
Sent: Tuesday, November 27, 2012 3:28 PM
To: Moxey, Michael B SAM; Eric Munscher
Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
I have been reviewing the JD paperwork to get a grasp of the number of entries needed. I have the following questions.
A. Overall
1. There are 262 wetlands and 52 streams, and 7 ponds. Should there be 321 water uploads instead of 311 for the JD?

A. Streams.
1. The overall project summary states there are 7 ponds and 52 streams (6 ephemeral, 13 intermittent, and 33 perennial).
2. Based on the waters upload sheet provided with the JD template, 14 of the streams are named: Little Black Creek, Black Creek - Escatawpa, Escatawpa, Rocky Creek-Escatawpa, Upper Big Creek, Wolf Branch, Double Branch, Big Creek, Hamilton Creek, Red Creek, Chickasaw Creek, Black Creek, Pierce Creek, Pt. Aux Chenes - Mississippi Sound.
3. Based on the waters upload sheet, 7 of the waters of the U.S. are isolated? The impact worksheet only showed 5 ponds being directional bored under. I assume the other two ponds are also being directional bored to allow for the use of a preliminary JD form?
4. The impact worksheet reflects 106 stream crossings and 5 ponds being directional boring actions. Are the same streams being crossed multiple times?

B. Wetlands

1. In the overall project summary, there are 262 wetland areas (109 PEM, 22 PSS, 129 PFO, 2 EEM). Based on the number of actions on the impact worksheet, are we to assume a wetland area the same as a single water of the U.S.? If it is a single water of the U.S., then should the JD form reflect 262 water uploads for the wetlands, and 321 total entries (including 52 streams and 5 ponds)?
2. The impact worksheet reflects 568 actions occurring in streams, ponds, and wetlands. These actions include including directional boring under 105 streams (Double Branch correctly listed as a wetland on the first page?), 5 ponds, and 38 wetlands. The worksheet reflects 288 wetland conversions, and undefined "work" being performed in an additional 132 wetland areas. I assume the other 2 ponds need to be added to the worksheet? Based on these numbers, you would be directionally boring under the same streams at multiple locations, and crossing the same wetland areas numerous times?
3. Do we have wetland delineations for all the impacted (conversion and "work") wetland areas not being directionally bored (approximately 420 of them based on this worksheet)

Any help would be greatly appreciated. Please let me know if I should be sending these e-mails to someone else. I do not have Mr. Sankey's e-mail.

Thanks,
Mike Moxey

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

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-----Original Message-----
From: Moxey, Michael B SAM
Sent: Tuesday, November 27, 2012 10:35 AM
To: Eric Munscher
Cc: Moxey, Michael B SAM
Subject: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
I have been reviewing the information provided to clarify the next steps forward for this 41-mile pipeline project. Based on my review, the following summarizes what I believe is still needed to issue the 2 permits (Alabama: SAM-2012-885-MBM, and Mississippi:SAM-2012-1165-MBM). There was a lot of information so please let me know if any of this information is already provided and I may have missed it.

1.Need to develop the wetland delineation verification letter that will be good for both projects. Need to visit 3 easily accessible sites to verify flagged wetland/upland line.

2.Need to develop preliminary JD verification documents. Need to verify Waters of U.S. worksheet contains all single waters of U.S. (but not same water multiple times).

3. Need mitigation worksheet, identifying all impacts for each "single water of the U.S" that will be each separate nationwide permits for each "single and complete project".

4. Check to see if Mississippi SHPO letter was obtained.

Thanks,
Mike

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-----Original Message-----
From: Eric Munscher [mailto:emunscher@swca.com]
Sent: Friday, November 02, 2012 9:45 AM
To: Moxey, Michael B SAM
Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Mr. Moxey,

Attached you will find the Aquatic Resource and Impact tables for the Pascagoula project broken down by state. The mitigation table and plan will follow shortly. Please let us know if you have any questions. Copies of these tables have already been sent to Pauline.

Thanks and cheers,

EM

Eric C. Munscher, M.S., ES3 (Scientist)
Herpetologist / Ecologist
Certified Gopher Tortoise Agent
Principal Investigator of the CFFTRG
SWCA Environmental Consultants
7255 Langtry Suite, 100
Houston, TX 77040

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-----Original Message-----
From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]
Sent: Wednesday, October 24, 2012 11:00 AM
To: Moxey, Michael B SAM; Eric Munscher
Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
I have also attached the data forms we use when downloading large numbers of waters of U.S. into our database. I remember seeing datasheets on the CD's you provided, however I am not sure if these were the ones provided?

Thanks,
Mike Moxey

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-----Original Message-----
From: Moxey, Michael B SAM
Sent: Wednesday, October 24, 2012 10:55 AM
To: 'Eric Munscher'
Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
Attached are our spreadsheets we use for pipeline projects. You will note along the first column that we issue multiple nationwide 12 permits in our letter, based on single and complete project definition, and that we use the pipeline conversions ratios for mitigation in the right columns. I have attached the pipeline mitigation ratio worksheet also.

Thanks,
Mike Moxey

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-----Original Message-----
From: Eric Munscher [mailto:emunscher@swca.com]
Sent: Wednesday, October 24, 2012 9:13 AM
To: Moxey, Michael B SAM
Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Mr. Moxey,

Can you send me the mitigation spredsheets for wetland impacts.

Thanks and cheers,

EM

Eric C. Munscher, M.S.
Ecologist / Herpetologist
7255 Langtry, Suite 100
Houston, Texas 77040
Phone: 717-676-8497

Sound Science. Creative Solutions. (r)
www.swca.com <http://www.swca.com/>
<http://www.swca.com/>

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]
Sent: Mon 8/27/2012 7:40 AM
To: Eric Munscher
Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
Using the definition in the Nationwide permits for "Single and Complete Project", long pipeline projects can usually be authorized by multiple nationwide permits (using one permit number). If any single component exceeds the 0.5 acre thresh hold and must go IP, then the whole project will go IP. Attached is the worksheet we attach to the permit if we can use multiple nationwide permits.

Thanks,
Mike

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-----Original Message-----
From: Eric Munscher [mailto:emunscher@swca.com]
Sent: Monday, August 27, 2012 9:22 AM
To: Moxey, Michael B SAM
Subject: Spread sheet for U.S. Waterbodys

Mr. Moxey,

During our July meeting concerning the Plains Southcap, LLC Pascagoula pipeline project you had mentioned that we need to use a spread sheet that describes waterbody information throughout the entire project line. Could you please send me this table so I can include it in our permit applications.

Thanks and cheers,

EM

Eric C. Munscher, M.S., ES3 (Scientist)

Herpetologist / Ecologist

Certified Gopher Tortoise Agent

Principal Investigator of the CFFTRG

SWCA Environmental Consultants

7255 Langtry Suite, 100

Houston, TX 77040

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cid:3401782132_144728300

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Caveats: NONE

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Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Moxey, Michael B SAM

From: Eric Munscher [emunscher@swca.com]
Sent: Friday, November 02, 2012 9:45 AM
To: Moxey, Michael B SAM
Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)
Attachments: Aquatic Resources AL 10-30-2012.xlsx; Aquatic Resources MS 10-30-2012.xlsx; Impacts AL 10-30-2012.xlsx; Impacts MS 10-30-2012.xlsx

Mr. Moxey,

Attached you will find the Aquatic Resource and Impact tables for the Pascagoula project broken down by state. The mitigation table and plan will follow shortly. Please let us know if you have any questions. Copies of these tables have already been sent to Pauline.

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Sent: Wednesday, October 24, 2012 11:00 AM
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Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

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From: Eric Munscher [mailto:emunscher@swca.com]
Sent: Wednesday, October 24, 2012 9:13 AM
To: Moxey, Michael B SAM
Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Mr. Moxey,

Can you send me the mitigation spredsheets for wetland impacts.

Thanks and cheers,

EM

Eric C. Munscher, M.S.
Ecologist / Herpetologist
7255 Langtry, Suite 100

Houston, Texas 77040
Phone: 717-676-8497

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www.swca.com <http://www.swca.com/>
<http://www.swca.com/>

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]
Sent: Mon 8/27/2012 7:40 AM
To: Eric Munscher
Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
Using the definition in the Nationwide permits for "Single and Complete Project", long pipeline projects can usually be authorized by multiple nationwide permits (using one permit number). If any single component exceeds the 0.5 acre thresh hold and must go IP, then the whole project will go IP. Attached is the worksheet we attach to the permit if we can use multiple nationwide permits.

Thanks,
Mike

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

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Sent: Monday, August 27, 2012 9:22 AM
To: Moxey, Michael B SAM
Subject: Spread sheet for U.S. Waterbodys

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Thanks and cheers,

EM

Eric C. Munscher, M.S., ES3 (Scientist)

Herpetologist / Ecologist

Certified Gopher Tortoise Agent

Principal Investigator of the CFFTRG

SWCA Environmental Consultants

7255 Langtry Suite, 100

Houston, TX 77040

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cid:3401782132_144728300

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Moxey, Michael B SAM

From: Moxey, Michael B SAM
Sent: Wednesday, November 14, 2012 7:54 AM
To: 'Eric Munscher'
Cc: Bruce_Porter@fws.gov
Subject: RE: HDD sites for Pascagoula (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
Thanks for sending this information explaining how you will be direction boring to avoid all of the gopher tortoise pods. It is my understanding that you will be directionally boring under gopher tortoise pods, which are located in uplands and outside the Corps 404 federal permit area, to address coordination and Section 10 consultation requirements with the U.S. Fish and Wildlife Service. State concurrence letters would be required on our 404 evaluation if any "single and complete project" per the definition in the nationwide permit guidance exceeds 0.5 acre of wetland loss and we have to use a standard individual permit (IP) instead of a nationwide permit. I am not aware of any state concurrence letters that would be required for the gopher tortoise component.

Thanks,
Mike Moxey
USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

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-----Original Message-----
From: Eric Munscher [mailto:emunscher@swca.com]
Sent: Thursday, November 08, 2012 12:26 PM
To: Moxey, Michael B SAM
Subject: HDD sites for Pascagoula
Importance: High

Mike,

Attached are all of the new HDD sites for avoiding all of the located gopher tortoise pods. Please let us know if you have any questions.

I also wanted to ask you about the state concurrence letters. Who would you like us to send the T/E reports to at the state agencies? Names and addresses would help immensely.

Thanks and cheers,

EM

Eric C. Munscher, M.S., ES3 (Scientist)

Herpetologist / Ecologist

Certified Gopher Tortoise Agent

Principal Investigator of the CFFTRG

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Classification: UNCLASSIFIED
Caveats: NONE

Moxey, Michael B SAM

From: Eric Munscher [emunscher@swca.com]
Sent: Friday, November 02, 2012 9:45 AM
To: Moxey, Michael B SAM
Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)
Attachments: Aquatic Resources AL 10-30-2012.xlsx; Aquatic Resources MS 10-30-2012.xlsx; Impacts AL 10-30-2012.xlsx; Impacts MS 10-30-2012.xlsx

Mr. Moxey,

Attached you will find the Aquatic Resource and Impact tables for the Pascagoula project broken down by state. The mitigation table and plan will follow shortly. Please let us know if you have any questions. Copies of these tables have already been sent to Pauline.

Thanks and cheers,

EM

Eric C. Munscher, M.S., ES3 (Scientist)
Herpetologist / Ecologist
Certified Gopher Tortoise Agent
Principal Investigator of the CFFTRG
SWCA Environmental Consultants
7255 Langtry Suite, 100
Houston, TX 77040

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-----Original Message-----
From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]
Sent: Wednesday, October 24, 2012 11:00 AM
To: Moxey, Michael B SAM; Eric Munscher
Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
I have also attached the data forms we use when downloading large numbers of waters of U.S. into our database. I remember seeing datasheets on the CD's you provided, however I am not sure if these were the ones provided?

Thanks,
Mike Moxey

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771

Fax: (251) 690-2660

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From: Moxey, Michael B SAM
Sent: Wednesday, October 24, 2012 10:55 AM
To: 'Eric Munscher'
Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Eric,
Attached are our spreadsheets we use for pipeline projects. You will note along the first column that we issue multiple nationwide 12 permits in our letter, based on single and complete project definition, and that we use the pipeline conversions ratios for mitigation in the right columns. I have attached the pipeline mitigation ratio worksheet also.

Thanks,
Mike Moxey

USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
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cid:3401782132_144728300

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

THREATENED AND ENDANGERED SPECIES REPORT FOR THE PLAINS SOUTHCAP LLC 41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA REFINMERY PIPELINE PROJECT

MOBILE COUNTY, ALABAMA AND JACKSON COUNTY, MISSISSIPPI

Prepared for

Plains Southcap, LLC
333 Clay Street, Suite 1600 (77002)
Houston, TX 77210-4648
Attn: Dean Gore

Prepared by

SWCA®
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.®

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Houston, TX 77040
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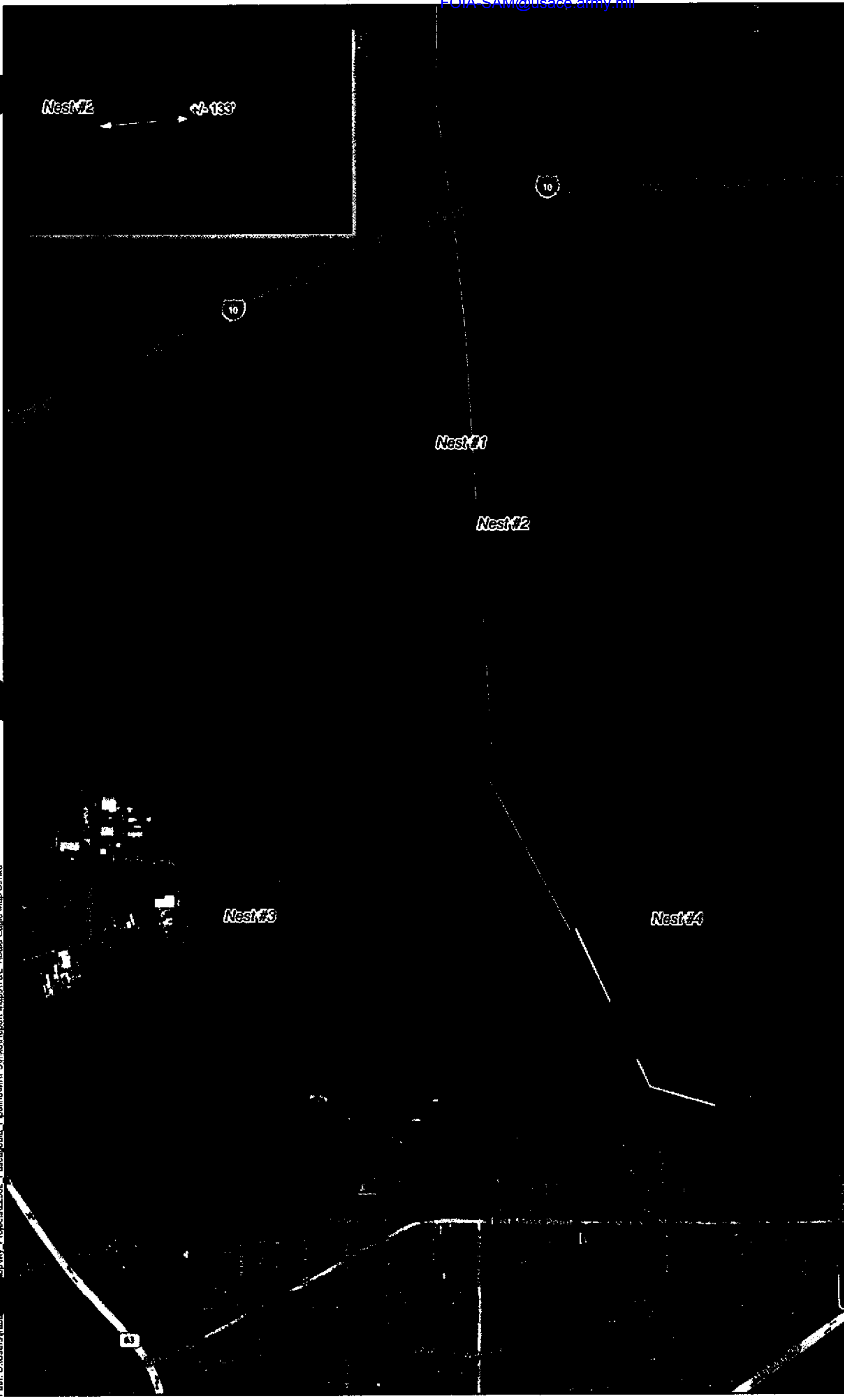
Eric Munscher
Herpetologist (Scientist)
Houston Natural Resources

Tom Sankey
Senior Project Manager
Houston Natural Resources

SWCA Project No. 22932

September 9, 2012

Revised on November 1, 2012



PLAINS SOUTHCAP L.L.C.

BALD EAGLE SURVEY 41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

JACKSON COUNTY, MS
MOBILE COUNTY, AL

Nest #1*
88° 29' 51.88" W 30° 26' 42.12" N

Nest #2*
88° 29' 44.51" W 30° 26' 30.09" N

Nest #3
88° 30' 27.65" W 30° 25' 30.98" N

Nest #4
88° 29' 13.52" W 30° 25' 31.23" N

Nests 1 & 2 may be Osprey Nests.

Legend

- Potential Bald Eagle Nest
- Centerline

Construction Servitudes

- Additional Workspace
- Permanent RoW
- HDD
- Temporary RoW

SWCA ENVIRONMENTAL CONSULTANTS

Path: C:\Users\raba...\My Projects\22832_Pascagoula_Pipeline\MAPS\mxd\Report Maps\T&E 1\Bald Eagle Map 8.mxd

EXECUTIVE SUMMARY

SWCA Environmental Consultants (SWCA) has prepared this threatened and endangered species report for the proposed approximately 41-mile-long Plains Southcap, LLC (Plains) Ten-Mile Facility to Chevron Pascagoula Refinery Pipeline Project (proposed project) in Mobile County, Alabama and Jackson County, Mississippi (Figure 1). The work was conducted at the request of Plains Southcap, LLC in order to facilitate compliance with the Endangered Species Act of 1973 (ESA), as amended.

SWCA performed a threatened and endangered species review to determine which federally listed species would have the potential to occur within the proposed project area (Figure 1). Based upon field observations and habitat descriptions and requirements of listed species, SWCA determined that the proposed project may affect the gopher tortoise, eastern indigo snake, gopher frog, and bald eagle. SWCA recommends avoiding gopher tortoise burrows which will, in turn, minimize potential impacts to the eastern indigo snake and gopher frog. SWCA also recommends performing a second eagle survey before the construction phase of the project to verify that the documented nests are not active during the 2012-2013 breeding season.

Within the limitations of schedule, budget, and scope of work, SWCA warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed.

The results and conclusions of this report represent the best professional judgment of SWCA scientists. No other warranty, expressed or implied, is made.

Please be aware that only the U.S. Fish and Wildlife Service and/or lead federal agency can determine compliance with the Endangered Species Act.

Table of Contents

List of Figures

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List of Attachments

1.0 INTRODUCTION

SWCA Environmental Consultants (SWCA) has prepared this threatened and endangered species report for the proposed 41-mile-long Ten-Mile to Pascagoula Crude Oil Pipeline Project (proposed project) in Mobile County Alabama and Jackson County Mississippi (Figure 1). The work was conducted at the request of Plains Southcap, LLC in order to facilitate compliance with the Endangered Species Act of 1973 (ESA), as amended.

The scope of work for this threatened and endangered species report included:

- review of the U.S. Fish and Wildlife Service (USFWS) threatened and endangered species lists for Mobile County Alabama and Jackson County Mississippi (**Appendix A**);
- review of the Alabama and Mississippi Natural Diversity Databases (NDD) occurrence records for threatened and endangered species near the project location;
- field reconnaissance survey of a 200-foot-wide corridor centered on the proposed pipeline centerline (project area); and
- evaluation of the potential for the species listed in this report to occur in the project area.

1.1 PROJECT PURPOSE

The proposed project will be constructed to transport crude oil from the Plains Southcap, LLC Ten-Mile facility northwest of Mobile Alabama, to the Chevron Rrefinery in Pascagoula, Mississippi.

1.2 PROJECT LOCATION

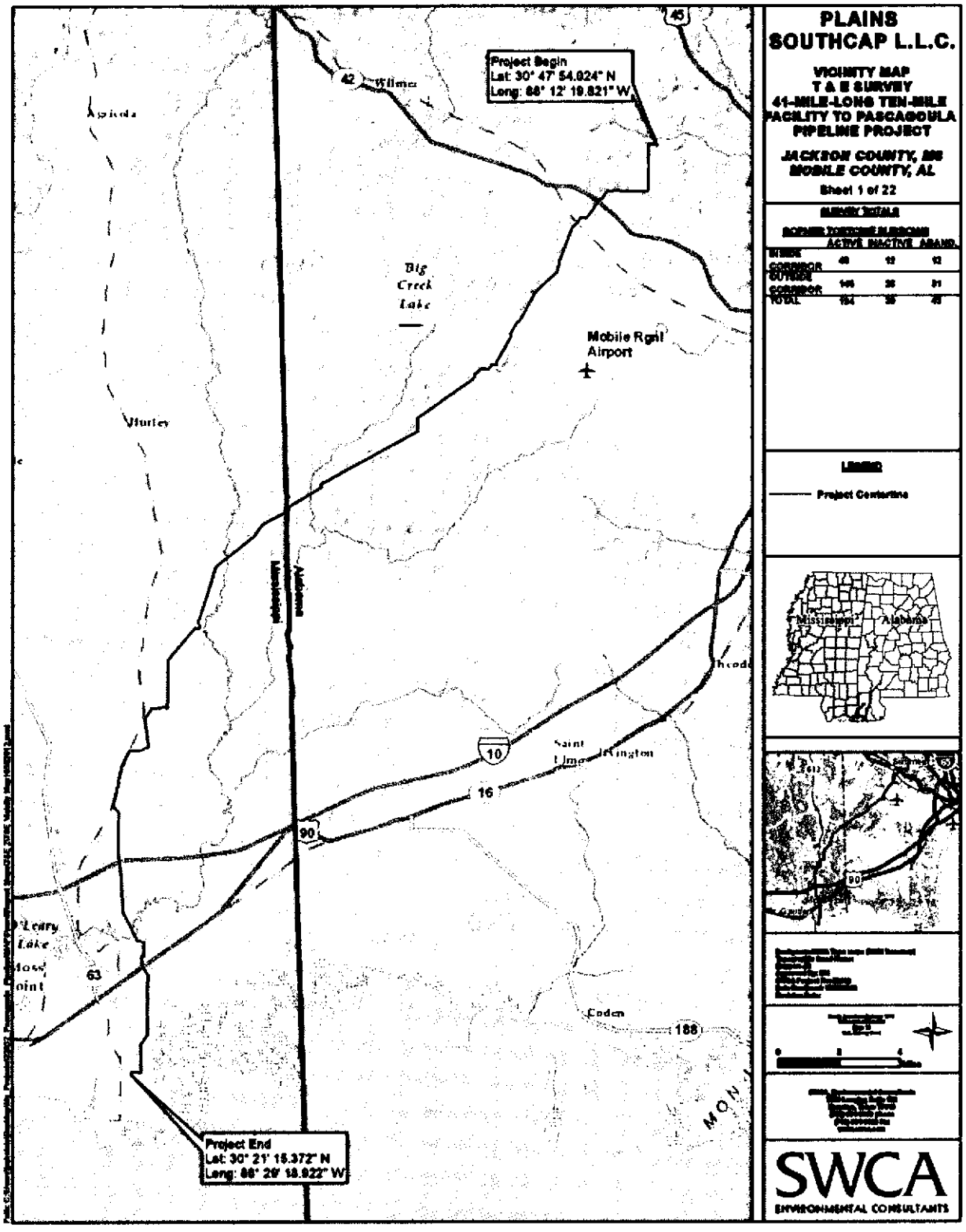
The proposed project will originate at the Plains Southcap, LLC Ten-Mile crude oil facility approximately 0.5 mile north off of County Road 217 on Whigham Rd. The proposed project will extend southwest through Mobile County, Alabama and Jackson County, Mississippi for approximately 41 miles and terminate at the Chevron Pascagoula Refinery, Mississippi. Above-ground facility locations are not yet defined, but once identified will be constructed in upland locations within or immediately adjacent to the pipeline right-of-way (ROW) and will include pig launching stations, pig receiving stations, and valve sites.

1.3 PROJECT DESCRIPTION

Construction of the proposed project is slated to begin in March 2013 and end before September 2013. No fill material will be placed within waters or wetlands for more than three months.

The proposed project will consist of the construction and placement of approximately 41 miles of 24-inch diameter crude oil pipeline. Construction of the pipeline will be within a 50-foot-wide ROW and will consist of clearing vegetation, excavating a trench, laying the pipe, replacing the soil, adjusting the topography to match pre-construction contours, and re-establishing vegetation Please refer to the attached map book (**Appendix B**) for an illustration of the survey corridor and 50' permanent ROW within the project area.

Figure 1: Project Location Map



2.0 METHODS

SWCA performed a threatened and endangered species review to determine which federally and state listed threatened, endangered, and candidate species would have the potential to occur within the project area. The first step was to review the U.S. Fish and Wildlife Service (USFWS) County records for each state as well as the Alabama Department of Conservation and Natural Resources and the Mississippi Department of Wildlife, Fisheries, and Parks annotated county lists of rare species for Mobile County, Alabama and Jackson County, Mississippi, respectively (**Appendix A**). The next step was to determine which listed species may occur in the project area based on species biology and habitat requirements. A Natural Diversity Database review for both Alabama and Mississippi was also completed to acknowledge and note occurrences of rare, threatened, or endangered species within the project area. Finally, the biology and life history requirements for each species were discussed and the project's potential effect on each species was evaluated.

2.1 SPECIES IDENTIFICATION

The threatened and endangered species evaluated in this report were based on lists of federally listed species for Mobile County, Alabama and Jackson County, Mississippi, available at the USFWS (2011) website as well as NDD documentation from both state (Alabama and Mississippi) wildlife departments (see **Appendix A**). SWCA also accessed the NDD databases for both states, which provides known occurrence records for listed species. The potential for occurrence within the project area of the species addressed in this report was based on 1) documented occurrences, 2) existing information on distribution, and 3) qualitative comparisons of the habitat requirements of each species with vegetation communities or landscape features in the project area. Possible impacts to these species were evaluated based on reasonably foreseeable project-related activities.

2.2 SPECIES EVALUATION

The potential for occurrence of each species was summarized according to the categories listed below. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided. Potential for occurrence categories are as follows:

- *Known to occur*—the species has been documented in the project area by a reliable observer.
- *May occur*—the project area is within the species' currently known range, and vegetation communities, soils, etc., resemble those known to be used by the species.
- *Unlikely to occur*—the project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species, or the project area is clearly outside the species' currently known range.

Those species listed by the USFWS were assigned to one of three categories of possible effect, following USFWS recommendations. The effects determinations recommended by USFWS include:

- *May affect, is likely to adversely affect*—adverse effects to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.

- *Not likely to adversely affect*—the proposed action may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial.
- *No effect*—the proposed action will not affect federally listed species or critical habitat.

3.0 RESULTS

3.1 ECOLOGICAL OVERVIEW

The project area consists of numerous vegetated communities across the 41-mile project area including, palustrine emergent (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO), and estuarine emergent (EEM) wetlands, as well as herbaceous, scrub-shrub, and forested uplands as described below.

3.2 VEGETATION

Biologists identified seven general types of vegetative communities within the project area. Determination of wetland habitat (type) is based on the classification system developed by Cowardin et al. (1979). These vegetative communities were classified as herbaceous upland, scrub-shrub upland, forested upland, PEM, PSS, PFO, and EEM wetlands. Examples of common dominant species identified within each vegetative community are listed below.

3.2.1 *Herbaceous Upland*

Herbaceous upland communities occur throughout the project area and are found within existing maintained right of way (ROW). Common dominant herbaceous species within the herbaceous upland communities include Bermuda grass (*Cynodon dactylon*), Italian ryegrass (*Lolium multiflorum*), Canada goldenrod (*Solidago canadensis*), roundpod St. Johnswort (*Hypericum cistifolium*, FACW), broom grass (*Andropogon virginicus*, FAC), candyroot (*Polygala nana*, FAC), heartwing sorrel (*Rumex hastatulus*, FAC), cogon grass (*Imperata cylindrical,* UPL), poverty rush (*Juncus tenuis*, FAC), slender crab grass (*Digitaria filiformis*, UPL), tapered rosette grass (*Dichanthelium acuminatum*, FAC), cuman ragweed (*Ambrosia psilostachya*, FAC), perennial rye grass (*Lolium perenne*, FACU), romerillo (*Bidens alba*, UPL), and American beauty berry (*Callicarpa americana*, UPL). In occasional instances trees, saplings, shrubs, or woody vines were identified as minor components of herbaceous uplands. Common dominant tree, sapling, or shrub species which occur in these instances include red maple (*Acer rubrum*, FAC) slash pine (*Pinus ellioittii*, FACW), long leaf pine (*Pinus palustris*, UPL), sweetbay (*Magnolia virginiana*, FACW), Chinese tallow (*Triadica sebifera*, FAC) dwarf live oak (*Quercus minima*), American holly (*Ilex opaca*, FAC), and saw greenbriar (*Smilax bona-nox*, FAC).

3.2.2 *Scrub-Shrub Upland*

Scrub-shrub upland communities occur throughout the project area and are mostly found along the edges of existing maintained ROW. Common dominant sapling or shrub species within scrub-shrub upland communities include yaupon (*Ilex vomitoria*, FAC), fetterbush (*Lyonia lucida*, FACW), gallberry (*Ilex glabra*, FACW), swamp titi (*Cyrilla racemiflora*, FACW), eastern sweet shrub (*Calycanthus floridus*, FACU), swamp bay (*Persea palustris*, FAC), wax myrtle (*Myrica cerifera*,

FAC), American holly (*Ilex opaca*, FAC), slash pine, and highbush blueberry (*Vaccinium corymbosum*). In occasional instances trees, herbaceous species, or woody vines, were identified as minor components for scrub-shrub uplands. Common examples of the following are longleaf pine, southern magnolia (*Magnolia grandiflora*, UPL), dwarf live oak, red maple, and herbaceous species such as American beauty berry, broom grass, and saw palmetto (*Serenoa repens*, FACU).

3.2.3 Forested Upland

Forested upland communities occur throughout forested portions of the project area along the edge of the existing maintained ROW. Common dominant tree or sapling species within the forested upland communities include slash pine, longleaf pine, southern magnolia, sweetbay, tulip poplar (*Liriodendron tulipifera*, FAC), dwarf live oak, water oak (*Quercus nigra*, FAC), and laurel oak (*Quercus laurifolia*, FAC). In occasional instances shrubs, herbaceous species, or woody vines, were identified as minor components of forested uplands. Common dominant shrub species which occur in these instances include fetterbush, gallberry, yaupon, and eastern sweetbush (*Calycanthus floridus*, FACU). Common herbaceous plants were western bracken fern (*Pteridium aquilinum*, FACU), cogon grass, broom grass, American beauty berry, St. Andrew's cross (*Hypericum hypericoides,* FAC), and Bermuda grass.

3.2.4 Palustrine Emergent Wetland

PEM wetlands occur throughout the project area and are found within existing maintained ROW. Common dominant herbaceous species within the PEM wetland communities include swamp smartweed (*Polygonum hydropiperoides*, OBL), pale pitcher plant (*Sarracenia alata*, OBL), crimson pitcher plant (*Sarracenia leucophylla*, OBL), parrot pitcher plant (*Sarracenia psittacina*, OBL), roundleaf sundew (*Drosera rotundifolia,* OBL), netted chainfern (*Woodwardia areolata*, OBL), Virginia chainfern (*Woodwardia viringinica*, OBL), royal fern (*Osmunda regalis*, OBL), common rush (*Juncus effuses*, OBL), roundhead rush (*Juncus validus*, FACW), roundpod St. Johnswort, St. Andrew's cross (*Hypericum hypericoides*, FAC), candyweed (*Polygala lutea*, FACW), Frank's sedge (*Carex frankii*, OBL), false hopsedge (*Carex lupuliformis*, OBL), whitehead bugbutton (*Lachnocaulon anceps*, OBL), foxtail clubmoss (*Lycopodiella alopecuroides*, OBL), broadleaved cattail (*Typha latifolia*, OBL), bushy broom grass (*Andropogon glomeratus*, FACW), *cogon grass, Carolina spider lily (*Hymenocallis caroliniana*, FACW), creeping primrose willow (*Ludwigia repens*, OBL), floating primrose willow (*Ludwigia peploides*, OBL), velvet panicum (*Dicanthelium scoparium*, FACW), disk waterhyssop (*Bacopa rotundifoloia*, OBL), and anglestem beaksedge (*Rhynchospora caduca*, FACW). In occasional instances, trees such as slash pine, saplings such as red maple, and sweetbay, shrubs such as wax myrtle and swamp titi, or woody vines such as sawtooth blackberry (*Rubus argutus*, FAC) and coral greenbriar (*Smilax walteri*, OBL) were identified as minor components within PEM wetlands.

3.2.5 Palustrine Scrub-shrub Wetland

PSS wetlands occur within the project area and are found within existing ROW and along the edges of existing maintained ROWs. The dominant shrub and sapling species within the PSS wetland communities include, swamp titi, buckwheat titi (*Cliftonia monophylla*, OBL), gall berry, large gallberry (*Ilex coriacea*, FACW), fetterbush, swamp bay, eastern baccharis (*Baccharis halimifolia,*

FACW), wax myrtle, sweetleaf (*Symplocos tinctoria*, FAC), highbush blueberry, pawpaw (*Asimina triloba*, FAC), and yaupon. In occasional instances, trees such as red maple, sweetgum (*Liquidambar styraciflua*, FAC), sweetbay, slash pine, *Chinese tallow, laurel oak, and overcup oak (*Quercus lyrata*, OBL), herbaceous species, or woody vines were identified as minor components within PSS wetlands. Common dominant herbaceous species which occur in these instances include bushy bluestem, netted chainfern, Virginia chainfern, royal fern, bog button, foxtail clubmoss, roundpod St. Johnswort, common rush, and Franks sedge. Common dominate vine species observed were coral greenbriar, southern dewberry (*Rubus trivialis*, FAC), and Florida grape (*Vitis cinerea*, FACW).

3.2.6 Palustrine Forested Wetland

PFO wetlands occur within the project and are found within the existing ROW and along the edges of existing maintained ROWs. The dominant shrub and sapling species within the PSS wetland community include swamp tupelo (*Nyssa biflora*, OBL), tulip poplar, sweetbay, slash pine, bald cypress (*Taxodium distichum*, OBL), water oak, cherrybark oak (*Quercus pagoda*, FACW), overcup oak, laurel oak, swamp chestnut oak (*Quercus michauxii*, FACW), and boxelder (*Acer negundo*, FACW). On occasion shrubs such as wax myrtle, swamp titi, sweetleaf, gall berry, and fetterbush dominated the understory. Woody vines such as sawtooth blackberry, coral greenbriar, and saw greenbriar (*Smilax bona-nox*, FAC) were identified as minor components within PFO wetlands.

3.2.7 Estuarine Emergent Wetland

EEM wetlands occur within the project area around the southern Escatawpa River crossing. The dominant vegetation within these communities include giant cut grass (*Zizaniopsis miliacea*, OBL), broadleaved cattail, California bulrush (*Schoenoplectus californicus*, OBL), and on occasion trees such as bald cypress and swamp tupelo.

3.3 Alabama and Mississippi Natural Diversity Database Records

According to the USFWS and the Alabama and Mississippi NDD records (**Appendix A**), there are occurrence records for two federally protected species within 5 miles of the project area. The gopher tortoise (*Gopherus polyphemus*) occurs in both Jackson County, Mississippi and Mobile County, Alabama. The bald eagle (*Haliaeetus leucocephalus*), which has been delisted from the federal list of threatened and endangered species, is also documented in the project vicinity. A summary of these species as they relate to the proposed project is discussed in detail in Section 3.4.

Absence of mapped occurrences in the NDD database does not constitute an absence of protected species within the project area.

3.4 Species Evaluation

The Alabama and Mississippi USFWS NDD data (2011) lists a total of 16 federally threatened or endangered species that have the potential to occur in Jackson County, Mississippi and Mobile County, Alabama. The Alabama and Mississippi USFWS NDD (2011) lists one candidate species as well as one delisted species that has the potential to occur in both counties. Additionally the Alabama and Mississippi NDD (2011) list two important state listed species. Table 1 summarizes the habitat requirements, the potential for occurrence, and possible effects on these species. All

currently listed candidates, threatened, or endangered species that are assigned the occurrence categories "known to occur" or "may occur" and which may be affected, are discussed in detail in Sections 3.4.1 through 3.4.13.

Table 1: Federally Listed Species Potentially Occurring in Jackson County Mississippi and Mobile County Alabama.

Common Name (Scientific Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
BIRDS				
Bald eagle (*Haliaeetus leucocephalus*)	USFWS (DL) all counties	Found primarily near large bodies of water. Nests in tall trees or cliffs near water.	May occur. Mississippi and Alabama NDD occurrence records indicate the presence of bald eagles within and around the project area.	Not likely to adversely affect. See Section 3.4.1 below.
Piping plover (*Charadrius melodus*)	USFWS (T) all counties	Wintering migrant along the Mississippi and Alabama coast; beaches and bayside mud or salt flats.	Unlikely to occur. The project area does not occur near coastal beaches.	No effect.
Mississippi Sandhill Crane (*Grus canadensis pulla*)	USFWS (E) all counties	Open pine savannah. Today found only in the Mississippi Sandhill Crane National Wildlife Refuge.	Unlikely to occur. The project does not cross near the national wildlife refuge in which the current and only population lives.	No effect.
Red-Cockaded Woodpecker (*Picoides borealis*)	USFWS (E) Mobile county	Suitable nesting habitat for the RCW consists of pine stands that contain mature (60 + year old) trees with DBH of 16 inches of greater and is devoid of a midstory. Suitable foraging habitat consists of pine stands in which 50% of pines are mature.	Unlikely to occur. The project area lacks adequate nesting habitat.	Not likely to adversely affect. See Section 3.4.2 below.
Wood Stork (*Mycteria americana*)	USFWS (E) all counties	Freshwater wetlands dominated by large cypress trees in which they use to nest in colonies. Regular visitors to the state of Alabama but have not been observed nesting since the 1960's.	Unlikely to occur. The project area is historic habitat.	Not likely to adversely affect. See Section 3.4.3 below
*Bewick's Wren (*Thryomanes bewickii*)	Alabama (E) Jackson county	Brush habitat in open country or open woodlands.	Unlikely to occur. The project area is historic habitat.	No effect.
REPTILES and AMPHIBIANS				
Atlantic hawksbill sea turtle (*Eretmochelys imbricata*)	USFWS (E) all counties	Found in clear waters off of mainland and island shelves. Commonly found near coral reef formations. The turtles nest on sandy beaches with a close proximity to coral reefs.	Unlikely to occur. The project area does not occur near coastal waters.	No effect.
Green sea turtle (*Chelonia mydas*)	USFWS (T) all counties	Found in gulf and bay systems with shallow water seagrass beds, open water between feeding and nesting areas, and barrier island beaches.	Unlikely to occur. The project area does not occur near coastal waters.	No effect.
Kemp's Ridley sea turtle (*Lepidochelys kempii*)	USFWS (E) all counties	Found in gulf and bay systems with shallow water; feeds primarily on crabs, snails, clams, and other crustaceans and plants; nests April through August.	Unlikely to occur. The project area does not occur near coastal waters.	No effect.
Leatherback sea turtle (*Dermochelys coriacea*)	USFWS (E) all counties	Found in pelagic (open ocean) habitats. Has been found in coastal areas. Lays nests in large expanses of beach.	Unlikely to occur. The project area does not occur near coastal waters.	No effect.
Flatwoods Salamander (*Ambystoma cingulatum*)	USFWS (T) Mobile County	Found in pine flatwood communities dominated by longleaf or slash pine with wiregrass cover. Isolated pocket wetlands dominated by cypress and black gum trees.	Unlikely to occur. Habitat is available, however, the project area is historic habitat.	Not likely to adversely affect. See Section 3.4.4 below.

Gopher Frog (*Rana sevosa*)	USFWS (E) Jackson County	Found in upland, sandy areas dominated by longleaf pine forests, with isolated, temporary, wetland breeding sites within.	Unlikely to occur. Abundant habitat is available however; this species has not been observed in the project vicinity in over 50 years.	Not likely to adversely affect. See Section 3.4.5 below.
Gopher tortoise (*Gopherus polyphemus*)	USFWS (T) In parts of its range	The gopher tortoise digs and lives in burrows throughout its range from South Carolina, into Florida, west into Alabama and far east Louisiana. They can use a variety of upland habitats including scrub, pine Flatwoods, and dunes along the beach. Tortoises have also been observed using newly created edge habitat due to the construction of pipeline and power line easements.	Likely to occur. The project area has an abundance of suitable habitat.	Not likely to adversely affect. Active pods will be avoided by HDD. See Section 3.4.6 below.
Alabama Red-bellied turtle (*Pseudemys alabamensis*)	USFWS (E) all counties	Found in shallow water ranging from 3 to 6 feet in backwater bays, lakes, and river channels. This turtle prefers broad vegetated expanses in these shallow water habitats. Current distribution is thought to occur in the Mobile Bay and its tributary system.	Unlikely to occur. The project area does not occur near broad expanses of shallow water such as bays.	No effect. Section 3.4.7 below.
Yellow blotched map turtle (Graptemys flavimaculata)	USFWS (T) all counties	Found in the Pascagoula River drainage system. Inhabitats sandy/mud bottomed rivers and tributaries. It is associated with vegetated debris such as snags and fallen down trees.	May occur. The project does not cross the Pascagoula River but does cross the Escatawpa River and tributaries.	Not likely to adversely affect. See Section 3.4.8 below
Eastern Indigo Snake (*Drymarchon corais couperi*)	USFWS (T) all counties	Almost always associated with gopher tortoises and gopher tortoise habitats.	May occur. Project area does support abundant gopher tortoise habitat and burrows.	Not likely to adversely affect. See Section 3.4.9 below
Black Pine Snake (*Pituophis melanoleucus lodingi*)	USFWS (C)	Xeric, fire maintained longleaf pine forest with well drained sandy soils. Usually found along hill tops, in open canopied and dense herbaceous areas.	May occur. Project area does support abundant gopher tortoise habitat and burrows	Not likely to adversely affect. See Section 3.4.10 below
Fish				
Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)	USFWS (T) all counties	Found in coastal rivers along the Gulf of Mexico. These rivers contain high levels of tanic acid that make the water appear dark in color.	May occur. Project area does cross the Escatawpa River twice. This river is a large tanic coastal river.	Not likely to adversely affect. See Section 3.4.11 below.
*Iron Color Shiner (*Notropis chaybacus*)	Mississippi (T)	Inhabits slow acidic blackwater steams and drainages and other types of vegetated wetlands from Chipola River to Big Creek.	May occur. Project area does cross Big Creek and tributaries.	Not likely to adversely affect. See Section 3.4.12 below.
Plants				
Louisiana quillwort (*Isoetes louisianensis*)	USFWS (E) all counties	Occurs in small blackwater streams as well as sand and gravel mud bars and steam banks. Associated with Laurel and water oaks as well as sweet bay magnolia trees.	Unlikely to occur. Historic populations. Species has not been identified in the part of Jackson county the project occurs in.	No effect. See Section 3.4.13 below.

USFWS Status Definitions
E = Endangered. The ESA specifically prohibits the take of a species listed as endangered. Take is defined by the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.
T = Threatened. The ESA specifically prohibits the take of a species listed as threatened. Take is defined by the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.
C=Candidate species. A species that has warranted further attention to gain federally threatened or endangered status.
DL = Delisted. Delisted species are those which USFWS had previously listed as threatened or endangered. These species are considered rare and vulnerable to population decrease. This listing has no legal protection.
Range or habitat information is from USFWS 2011, and Campbell 2003
*Indicates a state listed species. These two species are not federally listed and have no federal protection.

3.4.1 Bald Eagle

Current Federal Status: The bald eagle has been delisted by the USFWS. However it still holds protection under the Bald and Golden Eagle Protection Act (BGEPA).

Habitat and Range Requirements: Bald eagles build large stick nests lined with soft materials such as grass, leaves, and Spanish moss. Nests are used for several years by the same pair of eagles, with the birds adding materials each year. Nests are often very large, measuring 6 feet across and weighing hundreds of pounds. In south Alabama and Mississippi, eagle nest-building activities generally begin in October of each year. Peak egg-laying occurs in December and hatching occurs in January. The young eagles generally fledge in April after 10-12 weeks of growth but parental care continues in the nesting territory for another 4-6 weeks. Adults and juveniles begin to migrate north in May (Campbell, 1995).

Eagles are vulnerable to disturbance throughout the nesting period but are particularly vulnerable during the first 12 weeks, during courtship, nest-building, egg-laying, incubation and brooding. Disturbance at this time may cause nest abandonment and chilled or overheated eggs or young. Human activity, even late in the nesting cycle, may cause premature fledging and reduce the young eagles' chance of survival (Campbell, 1995).

Once a suitable breeding territory is found, breeding pairs will return to the same area year after year, often using alternate nests within the territory during different breeding years. Although a given nest may be lost due to weather or age of the tree, a pair often returns to the same territory to begin building another nest. In cases where one member of a pair dies, the nest may be colonized by the surviving member returning with a new mate. Nesting territories can also be inherited by subsequent generations (Campbell, 1995).

Bald eagles generally inhabit areas near large bodies of open water such as lakes, marshes, rivers, and sea coasts where there are plenty of fish to eat and tall trees for nesting and roosting (Campbell, 1995). Although the bald eagle was removed from the federal endangered species list on June 28, 2007, this species remains protected by the BGEPA of 1940 and the Migratory Bird Treaty Act of 1918.

SWCA discovered in our file search through the Mississippi and Alabama wildlife departments that there are records for bald eagles nesting near the Lower Escatawpa River in Mississippi. Based on these results, SWCA conducted an extensive aerial survey to identify bald eagle nests. The methods and results of this survey are discussed below.

Potential for Occurrence: This species likely occurs within the project area. Large expanses of open water with large associated forested wetlands occur throughout the southern portion of this project.

Determination of Impact: SWCA biologists Mr. Tom Sankey and Ms. Colette Craft were flown by Mr. Doug Dickey of Apex Helicopters out of Trent Lott Airport (TLA) to the project area on the morning of February 23, 2012. The investigators utilized a Robinson R-44 helicopter to complete a

bald eagle survey. The investigators took off from TLA at approximately 0930. The weather was cloudy and overcast. Visibility was estimated at 2 miles and the winds were out of the southwest at 5-10 knots. The investigators arrived at the northern end of the pipeline ROW in Mobile County by approximately 0950 to initiate the aerial survey.

The entire proposed ROW was searched methodically for the presence of bald eagles and/or eagle nests. The majority of the survey effort was spent searching a swath of land centered on the northern and the southern Escatawpa River crossings. These areas were searched for a distance of approximately one mile upstream of the proposed ROW and for a distance of approximately one mile downstream of the proposed ROW. The purpose of the survey was to ensure that eagle nests were not within the vicinity of the proposed pipeline construction area. The investigators left the project area at approximately 1330, after spending approximately 3 hours and 40 minutes in the search area.

Results of the Bald Eagle Survey

A total of five large nests were identified within the Lower Escatawpa River wetland complex during the helicopter survey (**Appendix C**). Nests 1 and 2 were identified as either inactive or abandoned bald eagle nests or possible osprey nests (*Pandion haliaetus*). Nest 4 was identified as either an inactive or abandoned eagle nest. Another nest was later identified as an osprey nest and is not shown in **Appendix C.** Nest 3 was determined to be a probable active bald eagle nest during the 2011-2012 breeding season.

Nest 1 is located over 2,700 feet away from the proposed project ROW. Nest 2 is located immediately adjacent to the proposed project area. Nest 3 is located approximately 5,000 feet west of the project area. Nest 4 is located immediately adjacent to the Escatawpa River, approximately 500 feet northeast of the proposed project area. SWCA biologists located one adult and two recently fledged juvenile bald eagles in the immediate vicinity of Nest 3.

Based on the results of the aerial survey, SWCA was able to verify that bald eagles are actively nesting in the Lower Escatawpa River marshes and tributaries in the vicinity of the proposed project area. With respect to the remainder of the project pipeline ROW (i.e., those areas located outside of the Lower Escatawpa River marshes and tributaries), due to the project's distance from large waterbodies, the lack of available foraging, roosting and nesting habitat for this species in the project area, as well as the mobility of this species, it is our professional opinion that the proposed project is not likely to adversely affect this species within the remainder of the project area (i.e., outside the Lower Escatawpa River marshes and tributaries).

Based on the location of the confirmed probable active nest within 5,000 feet of the proposed ROW, as well as the location of additional possible inactive nests in the project area, it is possible that bald eagles may nest within the immediate project vicinity during the upcoming 2012-2013 breeding season. SWCA recommends performing a boat or an additional helicopter survey during the beginning of the 2012-2013 bald eagle breeding season (i.e., December 2012 or January 2013) to determine if eagles are in the area and are nesting within the project area. If Nests 2 and 4 are active, then it will be necessary for the project to either be constructed via HDD across this portion of the

Escatawpa River, or construction will need to be delayed until after the end of the eagle breeding season (i.e., after March 2013).

3.4.2 Red-Cockaded Woodpecker

Current Federal Status: Federally endangered throughout its range.

Habitat and Range Requirements: Suitable nesting habitat for red-cockaded woodpecker (RCW) consists of pine stands that contain pine trees greater than 60 years of age, approximately 16-inch diameter at breast height (dbh), and that are located within 0.5 mile of suitable foraging habitat. Suitable foraging habitat for the RCW consists of pine stands in which 50 percent or more of the dominant trees are mature pines (greater than 30 years old, 10 inch dbh). Preferred nesting habitat is typically devoid of moderate to heavy mid-story layers (20 to 50 feet above the ground) (USFWS, 1985).

The RCW recovery plan survey protocol states that if the project area contains any suitable foraging habitat that will be impacted by the project, that habitat, if it contains any 60 year old pine trees or older, and all other suitable nesting habitat within 0.8 km (0.5 mi) of the project site, regardless of ownership, must be surveyed for the presence of red-cockaded woodpeckers (USFWS, 1985).

The project area's upland habitat consists mainly of mixed young pine and hardwoods or young silvicultural stands. Approximately 40-60 percent of the canopy is comprised of slash pine and long leaf pine approximately 10-20 years old with a dbh average of 12-16 inches. The pines are closely spaced along the ROW, with a tall midstory (40-50 feet) and at times a very thick understory (15-30 feet) existing within the project corridor. No 60 year old or older trees were identified within the project area and surrounding vicinity. The age and size of the pines are not suitable for RCW nesting habitat. Furthermore, most of these areas were determined not to be potential RCW foraging or nesting habitat due to the overall height and density of the midstory and understory. However, several areas along the project corridor did match up with potential foraging habitat requirements. In these areas the pine to hardwood ratio was adequate. The trees were spread farther apart and greater than 50% of the canopy was occupied by either maturing slash or long leaf pine. The midstory was thin and adequate to allow for flight paths.

Potential for Occurrence: RCWs have not been observed recently in either county the project occurs in. Habitat assessment was conducted during the gopher tortoise and wetland surveys. No suitable nesting habitat was documented.

Determination of Impact: The red cockaded woodpecker has not been observed in Mobile County, Alabama and Jackson County, Mississippi for a long time. SWCA conducted habitat surveys along the entire length of the proposed project and did not observe any habitat that would be considered RCW nesting habitat. Due to the lack of recent observations and habitat to support the species in the project vicinity it is our opinion that this project will not have any adverse affects to the red cockaded woodpecker.

3.4.3 Wood Stork

Current Federal Status: Federally endangered throughout its range.

Habitat and Range Requirements: Wood storks are large wading birds that inhabit freshwater wetlands. They use tall cypress trees near wetlands and waterbodies as colonial nesters. Nesting sites historically reached upwards of 10,000 pairs. Today the colonies are much smaller. They are regular visitors to Alabama's swamps and wetlands to forage, but are not known to nest in the state since the 1960's. Nesting has also not been confirmed in Mississippi (MDWFP, 2001).

Potential for Occurrence: This species is highly mobile, and has not been observed actually nesting or breeding in Alabama since the 1960s, and it has been an unconfirmed breeder in Mississippi.

Determination of Impact: Due to the absence of breeding individuals and known breeding colonies it is unlikely that this project will adversely affect this species.

3.4.4 Flatwoods Salamander

Current Federal Status: Threatened

Habitat and Range Requirements: Adults live underground in pine flatwood communities dominated by longleaf or slash pine with wiregrass ground cover in isolated pocket wetlands dominated by cypress and gum trees (Palis, 1996; Palis and Means, 2005). Ponds that are free of predatory fish are preferred breeding habitat. In Alabama, range is restricted to the lower coastal plain in Mobile, Baldwin, Escambia, Covington, Geneva, and Houston counties. No individuals have been found in Alabama since 1981 despite intensive survey of 143 ponds in winter (1992-1993 and 1993-1994) (Goodwin, 2002).

Potential for Occurrence: Abundant habitat is available throughout the proposed project route; however, Due to the lack of recent populations and individuals being found within Alabama, it is SWCA's opinion that this project will not likely adversely affect this species.

Determination of Impact: SWCA believes that this species had historic populations in this area. However, due to the extreme time frame in which it has not been documented in either state it is SWCA's opinion that the proposed project may affect, but is not likely to adversely affect this species.

3.4.5 Gopher Frog

Current Federal Status: Endangered

Habitat and Range Requirements: This species was once found in nine counties from Louisiana, Mississippi, and Alabama. It has not been observed in Louisiana since 1967 or in Alabama since 1922. The gopher frog is presently known to inhabit only one site in Harrison County, Mississippi (MDWFP, 2001).

Typical habitat for this species includes both upland, sandy areas dominated by longleaf pine forests, with isolated, temporary, wetland breeding sites within. The frogs spend most of their lives underground. They use active and abandoned gopher tortoise and armadillo burrows (Ashton and Ashton, 2008). This species requires sufficient winter precipitation to fill up breeding habitat to allow for reproduction.

Potential for Occurrence: Abundant habitat is available throughout the proposed project route; however, due to the amount of time which has passed since this species was last documented in the project area; it is SWCA's opinion that this project will not likely adversely affect this species.

Determination of Impact: SWCA believes that this species had historic populations in this area. However, due to the extreme time frame in which it has not been documented in the project area, it is SWCA's opinion that the proposed project is not likely to adversely affect this species. Also due to Plains ability to avoid all of gopher tortoise burrows within the construction ROW by the use of HDD, impacts to their habitat is not expected.

3.4.6 Gopher Tortoise

Current Federal Status: Federally threatened in both counties the project occurs in. The species is protected through much of its range from South Carolina, throughout Florida, and into the four eastern parishes of Louisiana.

Habitat and Range Requirements: The gopher tortoise (*Gopherus polyphemus*) ranges from South Carolina all through Florida and west into the four most eastern parishes of Louisiana. Gopher tortoises favor dry, sandy ridges with broad open stands of turkey oak and long leaf pine along with other scrub species. They have also been documented in frequently edge habitats around roads, fence lines, and pipeline ROWs. Habitats much have well drained sandy soils with a relatively shallow water table. Burrows will be dug up to 30' long and 9 feet deep. Burrows are typically dug to the water table so that the end chamber can maintain a constant level of humidity.

Potential gopher tortoise habitat was first located by examining aerial imagery. Large areas that were indicative of classic gopher tortoise habitat such as sand hills, open pine and turkey oak savannahs, and existing linear line ROW were selected for ground-truthing. It is important to note that due to constant habitat alterations, identifying natural gopher tortoise habitat has become problematic (Ashton and Ashton, 2008). These animals are rather adaptive and will flourish in edge habitat (Ashton and Ashton, 2008).

The on-ground gopher tortoise survey protocol was adapted from the Florida Fish and Wildlife Conservation Commission Gopher Tortoise Management Plan (2007) and from Ashton and Ashton (2008). No actual linear line survey protocol currently exists. SWCA adapted the standard survey protocol used for large tracts of land to fit to a 200-foot-wide linear corridor. In the 200-foot-wide corridor, SWCA established three equally-spaced transects that traversed the entire length of the area to be surveyed. A team of three biologists (one biologist per transect) walked the 200-foot-wide corridor looking for burrows or other signs of gopher tortoises. To increase survey success and total area surveyed within the 200-foot corridor, perpendicular transects were added every 100 feet. SWCA adapted the survey to fit a 100% survey model.

Once gopher tortoise burrows were found, the state of the burrow was determined. Burrows were identified as active, inactive, abandoned or impacted, depending on the state of the burrow entrance (Ashton and Ashton, 2008), and as defined below:

- An **active** burrow has a defined shape and a clear mouth and apron; recent tracks and feces may be present in or around the burrow; and active feeding "lanes" may be visible in thicker vegetation.

- An **inactive** burrow has a defined shape but may have leaves and other debris blocking the mouth and apron; no fresh tracks or feces are found in the immediate area; could be a secondary burrow for a tortoise or one that is used intermittently by many tortoises in the pod.

- An **abandoned** burrow has lost its defined shape, and the entrance may be collapsed or clogged with debris or plant roots.

- An **impacted** burrow may be active, inactive, or abandoned. The entrance to the burrow has been damaged, possibly by a potential predator (such as dog or coyote) or by human activity. Impacted burrows are not identified on any of the attached maps, as they transcend active, inactive and abandoned categories.

GPS locations were taken for all burrows regardless of their state. The burrows' distance and bearing to the nearest transect was also taken (Florida Fish and Wildlife Conservation Commission Gopher Tortoise Management Plan 2007; Ashton and Ashton, 2008). Each burrow was photographed; between two to four photos of the apron and the entrance were taken to document the state of the burrow and to document possible tortoise activity.

Using this methodology resulted in the vast majority of the 200-foot-wide corridor being surveyed. It is highly unlikely that gopher tortoise burrows or activity within the survey corridor went undetected during the field survey.

Results of Gopher Tortoise Survey

Mr. Eric Munscher (Florida-certified Gopher Tortoise Agent-permit # GTA-09-00286A), Mr. Matt Gagnon, Mrs. Lynne Ray, Mrs. Michelle Wood-Ramirez, and Mrs. Kristal Schneider surveyed over 18 miles of potential habitat along the proposed pipeline corridor in February 14th-21th, April 18th-26th, and May 20th-June 2nd, 2012. The remaining 23 miles of line was also surveyed for the presence of absence of gopher tortoises during the wetland delineation. A second survey was completed September 23rd through October 3rd to reassess gopher tortoise burrows and survey previously un-surveyed areas. A total of 19 pods (tortoise concentrations, possibly family units) were found along the route on various properties (**Appendix B**). Of the 19 pods a total of 277 burrows were identified and mapped. Of the 277 burrows identified, 194 were considered to be active and showed signs of tortoise movement (tracks, trails in vegetation, or fresh scat) or displayed defined burrow shape and clean entrance, 40 were considered inactive, largely due to no evidence of recent tortoise movement and the degree of debris in the entrance to the burrow, and 43 were considered abandoned (**Appendix B**). The abandoned burrows all suffered from partially or fully collapsed burrow entrances, vegetation growing within burrow or apron, and other obstructions. Of the 277 burrows located, 10 were impacted in some manner. The most common form of impact observed was the result of an animal (i.e., a dog or coyote) digging at the entrance of the burrow (see photos in **Appendix D**). SWCA observed numerous dogs in the vicinity of some of the active tortoise pods.

SWCA identified 48 active burrows within the proposed 50-foot-wide construction corridor. Impacts to these burrows and habitat will be completely avoided by the use of HDD. An additional 146 active burrows are located within the 200-foot-wide survey corridor (see **Appendix B**).

Determination of Impact: SWCA believes that by avoiding all of the active burrows along the construction corridor by the use of HDD that impacts to this species will be avoided. As further assurance that impacts to this species will be avoided Certified gopher tortoise agents as well as environmental inspectors will be present during the construction aspect of this project and will be able monitor the presence of tortoises within the area. Heavy reinforced silt fencing will be placed at the edge of the construction ROW to deter gopher tortoises from entering the construction area.

3.4.7 Alabama Red-Bellied Turtle

Current Federal Status: Endangered throughout its range.

This highly endangered turtle prefers broad, vegetated expanses of shallow water (3 to 6 feet in depth) in backwater bays, lakes, and along river channels (USFWS, 1990). It has been suggested by Dobie (1985a) that snags and dense beds of submersed and emergent aquatic vegetation provide food and cover for this species. Current distribution is thought to be contained to Mobile Bay and its tributary streams. One of the only known major nesting sites is located on a dredged material disposal area known as Gravine Island (Dobie, 1985a).

The only area along the proposed route that offers potential habitat for this species is the Escatawpa River marshes. However, populations of this species are not known to occur within this area (USFWS, 1990).

Determination of Impact: Due to the extremely low population numbers and limited known nesting areas, SWCA believes that the proposed project would likely not adversely affect this species.

3.4.8 Yellow-Blotched Map Turtle

Current Federal Status: Threatened

Habitat and Range Requirements: This species is endemic to Mississippi and the Pascagoula River drainage system including the Escatawpa River (MDWFP, 2001). The largest viable current population is located in the lower Pascagoula River. This species requires waterbodies with strong, consistent current and large sandbars. As with most of this genus this species spends a great amount of time basking on vegetated debris (fallen down trees) (MDWFP, 2001).

Potential for Occurrence: This species may occur in the project area. The project crosses the Escatawpa River twice and numerous smaller tributaries of the river system. This turtle could find suitable habitat within these waterways.

Determination of Impact: It is highly unlikely that this project would have any adverse affects to this species. Several major waterbodies, including the two crossings of the Escatawpa River will be horizontally directional drilled (HDD) and as such will not have any direct impact to associated wildlife.

3.4.9 Eastern Indigo Snake

Current Federal Status: Threatened

Habitat and Range Requirements: This very large diurnal snake's habitat preference appears to vary with season and perhaps with latitude; it favors dry xeric habitats in winter and more mesic habitats in summer. Seasonal movements between these habitat types occur during fall and spring. In areas where the eastern indigo snakes occur sympatrically with gopher tortoises, they rely heavily on tortoise burrows (both active and abandoned) for denning and nesting sites (USFWS, 1982; Stevenson et al., 2003; Ashton and Ashton, 2008). Eastern indigo snakes have very large home ranges (>100 hectares or 250 acres). Although eastern indigo snakes remain active throughout much of the winter, their home ranges in winter are smaller. Breeding occurs November-April. Females lay clutches of 5 to12 eggs between March and July. Eggs hatch 90 - 120 days later. Males are territorial and male-male combat is known to occur (USFWS, 1982; Stevenson et al., 2003; Ashton and Ashton, 2008).

Potential for Occurrence: This species may occur in the project area. The majority of habitat which was surveyed for the presence of gopher tortoise would be adequate habitat for this species. Since this species has such a large home range and spends much time within animal burrows, we cannot confirm its presence or absence within the proposed project area. It is assumed that this species may likely be found within the project area.

Determination of Impact: Due to the amount of suitable habitat due to the presence of gopher tortoises throughout the proposed project route it is likely that this species would occur within the project area. A total of 194 active gopher tortoise burrows were observed during the field survey for this project. The potential for an eastern indigo snake to be living in one of these burrows is likely. Plains Southcap, LLC intends on avoiding all impacts to gopher tortoise PODs that occur within their construction corridor by the use of HDD (see **Appendix B**).

As another precaution, certified gopher tortoise agents and environmental inspectors will be on hand during the construction phase of this project to ensure threatened and endangered species safety. If an indigo snake is observed it will be taken out of the construction zone and moved to suitable habitat. Based on these precautions, it is SWCA's opinion that the proposed project may affect, but is likely to not adversely affect this species. Also due to Plains ability to narrow the ROW foot print, the majority of gopher tortoise burrows within the survey area have been avoided.

3.4.10 Black Pine Snake

Current Federal Status: Candidate species.

Habitat and Range Requirements: This large snake species inhabitats similar habitat to the eastern indigo snake and the gopher tortoise. They require long leaf pine forest with well drained sandy soils, open canopy, thin midstory with a thick herbaceous layer. The habitat should be maintained by frequent burning. They are believed to spend a great deal of time inside abandoned gopher tortoise burrows (MDWFP, 2001).

Potential for Occurrence: Habitat that meets this species needs is abundant throughout the project vicinity. The gopher tortoise is found throughout the region and numerous abandoned burrows were located. It is possible that black pine snakes occur within this area but no recent evidence has shown this to be true. All known occurrences of this snake in Mississippi are from the northwest of Jackson County, Mississippi.

Determination of Impact: Due to the amount of suitable habitat due to the presence of gopher tortoises throughout the proposed project route it is likely that this species would occur within the project area. Gopher tortoise burrows that are within the proposed projects construction ROW will be dug up with the tortoises being relocated to suitable habitat out of the project corridor. The potential for an black pine snake to be living in one of these burrows is likely. Certified gopher tortoise agents and environmental inspectors will be on hand during the construction phase of this project to ensure threatened and endangered species safety. If an black pine snake is observed it will be taken out of the construction zone and moved to suitable habitat. Based on these precautions, it is SWCA's opinion that the proposed project may affect, but is likely to not adversely affect this species. Also due to Plains ability to narrow the ROW foot print, the majority of gopher tortoise burrows within the project survey corridor have been avoided.

3.4.11 Gulf Sturgeon

Current Federal Status: Endangered throughout its range.

Habitat and Range Requirements: Gulf sturgeon can be found in coastal rivers of the Gulf of Mexico from the Suwannee River in Florida, to the Pearl River in Louisiana. The rivers which support sturgeons contain high levels of tannic acid that make the water appear dark in color. Sturgeons spawn near the headwaters of rivers, and spend the summer in the middle to lower portions of rivers. The most viable population of Gulf sturgeon in Alabama is located in the Choctawhatchee River near Geneva where over two dozen individuals were observed from 1991-1994 (Fox et al. 2000).

Potential for Occurrence: The project does cross the Escatawpa River twice along with large tributaries such as Big Creek. It is unlikely but not impossible that this species could be found within the project vicinity.

Determination of Impact: The Escatawpa River, will be crossed via horizontal directional drill (HDD) in accordance with U.S. Army Corps. of Engineers (USACE) requirements. In our opinion, due to this species' discontinuous population, the overall lack of appropriate habitat along the project route and the Escatawpa River being crossed via HDD, this project will not likely adversely affect this species.

3.4.12 Iron Colored Shiner

Current Federal Status: This species has a very sporadic distribution. Due to this it is considered to be endangered throughout its range.

Habitat and Range Requirements: This fish can be found throughout the Atlantic and Gulf coast drainages from Maine to Texas. It has a very sporadic distribution in south Alabama from the Chipola River system west to Big Creek in Mobile County.

This shiner inhabits small, slow, acidic blackwater streams draining swamps and other types of vegetated wetlands. Spawning in Alabama likely occurs from April to August. During spawning, females use sand-bottomed pools to broadcast their eggs.

Potential for Occurrence: The project does cross the Escatawpa River twice along with large tributaries such as Big Creek. It is unlikely but not impossible that this species could be found within the project vicinity.

Determination of Impact: The proposed project crosses Big Creek; however, this creek will be crossed via HDD. It is our opinion that due to the sporadic and discontinuous distribution of this species and the fact that Big Creek will be drilled, this project will not likely adversely affect this species.

3.4.13 Louisiana quillwort

Current Federal Status: Endangered throughout its range.

Habitat and Range Requirements: This species is found associated with mineral soil in bottomland forested wetlands. These wetlands typically see seasonal flooding. Overstory trees are typically several species of oak including water oak and water oak, as well as red maple, tulip poplar, and black gum. The shrub layer is sparse with titi usually being the dominate plant. This species is also typically associated with perennial waterbodies (MDWFP, 2001).

Potential for Occurrence: Most of the documented occurrences of this species in Mississippi occur in colonies around the De Soto Ranger District of DNF (Forrest, Perry, Stone, Harrison, and extreme northwest Jackson counties) (MDWFP, 2001). The proposed project occurs in the far southeastern corner of Jackson County. It is unlikely that this species would be found in this area with no known occurrences.

Determination of Impact: No known occurrences have been documented in the vicinity of the proposed project. The known colonies of this species occur over 20 miles to the northwest of the proposed project. Experienced wetland delineators conducted an extensive wetland delineation throughout the project area taking over 500 data points documenting several hundred species. Not one included an observation of this species. It is SWCA's professional opinion that this species will not be affected by this project.

4.0 LIMITATIONS AND WARRANTY

Within the limitations of schedule, budget, and scope of work, SWCA warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed.

The results and conclusions of this report represent the best professional judgment of SWCA scientists. No other warranty, expressed or implied, is made.

Please be aware that only the USFWS and/or lead federal agency can determine compliance with the Endangered Species Act.

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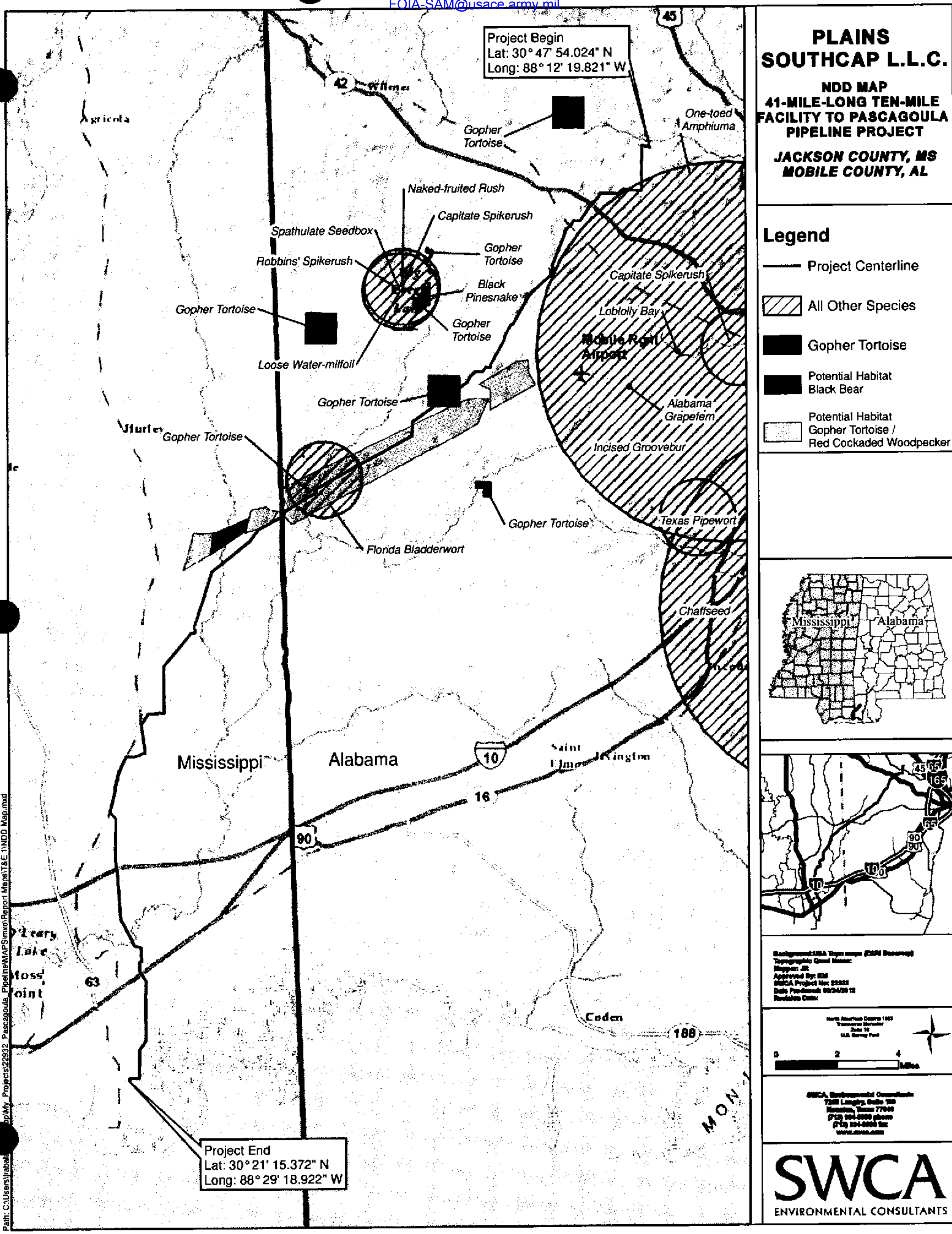
Appendix A

USFWS and Alabama and Mississippi Threatened and Endangered Species Lists and NDD occurrence map


PLAINS SOUTHCAP L.L.C.
NDD MAP
41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT
JACKSON COUNTY, MS
MOBILE COUNTY, AL
Legend
Project Centerline
All Other Species
Gopher Tortoise
Potential Habitat Black Bear
Potential Habitat Gopher Tortoise / Red Cockaded Woodpecker
Mississippi
Alabama
Project Begin
Lat: 30° 47' 54.024" N
Long: 88° 12' 19.821" W
Project End
Lat: 30° 21' 15.372" N
Long: 88° 29' 18.922" W
Gopher Tortoise
One-toed Amphiuma
Naked-fruited Rush
Capitate Spikerush
Spathulate Seedbox
Robbins' Spikerush
Black Pinesnake
Loose Water-milfoil
Loblolly Bay
Mobile Regl Airport
Alabama Grapefern
Incised Groovebur
Florida Bladderwort
Texas Pipewort
Chaffseed
Agricola
Wilmer
Hurley
Saint Elmo
Irvington
Coden
Moss Point
42
45
10
16
90
63
188
0
2
4
Miles
SWCA
ENVIRONMENTAL CONSULTANTS