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REPORTS

DATE:

4/2006

GENERAL REMEDIATION WORK PLAN

Clay Osborn
Rocky Top Ranch Sites
Jal, Lea County, New Mexico
Sections 7, 12 and 13, T25S R36E
Sections 7 and 18, T25S R37E

April 2006

Prepared For:

New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Prepared By:



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TABLE OF CONTENTS

1.0 BACKGROUND	1
2.0 PLAN OBJECTIVES	1
3.0 INVESTIGATION AND DELINEATION OF NEW SITES	2
4.0 PROPOSED TPH AND BTEX REMEDIAL GOALS	
5.0 REMEDIATION STRATEGIES	2
5.1 SURFACE RESTORATION SITES (SCENARIO 1)	2
5.2 TOTAL EXCAVATION (SCENARIO 2)	2
5.3 LIMITED EXCAVATION AND RISK-BASED CLOSURE (SCENARIO 3)	
5.4 LINER DETAILS	
6.0 SAMPLING AND LABORATORY ANALYSIS	4
7.0 CENTRALIZED SOIL TREATMENT FACILITY	4
8.0 BACKFILL AND SITE RESTORATION	
9.0 NOTIFICATIONS	5
10.0 REPORTING	5
11.0 SITE RESTORATION	5

1.0 BACKGROUND

Plains Pipeline, L.P. (Plains) is the owner/operator of several pipelines present on the Clay Osborn Rocky Top Ranch property located in Jal, New Mexico. These pipeline assets were acquired by Eott Energy (later renamed Link Energy) from Shell and from Texas-New Mexico Pipe Line Company (TNMPLC) between 1993 and 1999. Plains acquired the Link Energy assets on April 1, 2004.

The Rocky Top Ranch is located in southern Lea County, New Mexico approximately $\frac{3}{4}$ -mile northwest of Jal and made up of the SE $\frac{1}{4}$ of Section 7, the S $\frac{1}{2}$ of Section 12 and the entire Section 13 of Township 25 South (T25S) and Range 36 East (R36E) and the S $\frac{1}{2}$ of Section 7 and the entire Section 18 of T25S and R37E.

This General Work Plan is provided for NMOCD review and approval. A list of the ten (10) sites that are the subject of this General Work Plan is included in Table 1 in Attachment A. A Site Location Map is included as Figure 1 in Attachment B. Please note that a site-specific work plan will be prepared for each site and will include a summary of the investigation data, categorization of the site based on site-specific characteristics, and a detailed summary of the proposed remedial activities.

2.0 PLAN OBJECTIVES

Plains proposes to remediate crude oil impacted sites at the Rocky Top Ranch, consistent with the remediation/abatement goals and objectives set forth in the New Mexico Oil Conservation Division (NMOCD) "NMOCD Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993." In addition, when applicable, appropriate risk-based thresholds for the contaminants of concern (CoCs) will be proposed based on the relative risk posed by the CoC residuals to local groundwater, area water wells, surface water bodies and impacts on surface reclamation success.

Plains has prepared the following general work plan for typical or standardized soil remediation objectives that will: 1) limit the amount of surface impact to the areas surrounding each of the remediation sites; 2) be effective on all the sites so that remediation at each site can be conducted in a similar manner; 3) be in accordance with New Mexico Oil Conservation (NMOCD) general soil remediation guidelines and accepted practices for the area; and 4) use risk-based remediation principles when Information gathered during the subsurface site and where practical. investigations conducted in these impacted areas in 2001 revealed three (3) potential remediation scenarios: 1) sites where the surface areas have restored themselves naturally, the surface expression of the release is difficult to identity, and the impacts are limited to the surface and/or shallow soils; 2) sites where impacts are limited in depth and total excavation and treatment of the impacted soil is practical; and, 3) sites where soil impacts are deeper and partial excavation of the impacted soil with risk-based closure is warranted. The investigation data also indicates that soil impacts are generally deeper at the source of pipeline leak and shallower along the flowpath. Prior to initiating any remedial activities at these sites, several of the sites will require soil delineation and evaluation of potential groundwater impacts. Each remediation scenario is described further in Section 5.0 below.

3.0 INVESTIGATION AND DELINEATION OF NEW SITES

There are four (4) previously, uninvestigated historical sites that are potentially subject to remediation. Plains will conduct a site investigation at each location to delineate the vertical and horizontal extent of soil impacts and assess the potential impact to groundwater. In the event one or more of the six (6) previously identified sites requires additional delineation prior to or during the soil remediation phase of work, Plains will conduct these activities. The site-specific Work Plan for each site will contain details of the proposed investigation activities such as location, number and depth of soil borings as well as a sampling and analysis plan.

4.0 PROPOSED TPH AND BTEX REMEDIAL GOALS

Based on the results of the previous investigation activities, the site-specific remedial goals in soil are 10 mg/Kg for benzene, 50 mg/Kg for BTEX and 100 mg/Kg for TPH. However, for those sites where risk-based closure will be proposed, Plains will install an impermeable liner at a depth of 10 to 15 feet bgs to isolate the deeper soil impacts and the treated soils, and the site-specific remedial goals of 10 mg/Kg benzene, 50 mg/Kg BTEX, and 100 mg/Kg TPH will only apply to the sidewalls (lateral extent) of the excavation. For soils excavated, treated, and utilized as backfill over a liner, the site-specific remedial goals will be 10 mg/Kg benzene, 50 mg/Kg BTEX, and 2,000 mg/Kg TPH.

5.0 REMEDIATION STRATEGIES

5.1 SURFACE RESTORATION SITES (SCENARIO 1)

For at least one of the known sites, the investigation data indicates the surface area has restored itself naturally, the surface expression of the release is difficult to identity, the impacts are limited to the surface and/or shallow soils, and there is no threat to groundwater. Listed below are the typical steps involved for a site in this category.

- Scrape the surface asphaltines where apparent and remove;
- Blend the underlying 1 to 2 feet of soil with native soil and contour;
- Do not disturb areas that have already re-vegetated.

5.2 TOTAL EXCAVATION (SCENARIO 2)

At several of the sites, investigation data indicates that soil impacts are limited in vertical extent (i.e. 10 to 15 feet in depth) and total excavation of the impacted soil is practical. Listed below are the typical steps involved for a site in this category.

- Excavation of impacted soil to below site guidelines.
- Collect and analyze soil samples from the walls and floor of the excavation to confirm that the remediation has met the site guidelines.
- Relocation of excavated soil to the centralized soil treatment area for blending and aeration.
 - Collect and analyze treated soil to confirm that the soil treatment activities have met the site guidelines.
 - Prepare a risk-based closure proposal for submittal and approval by the NMOCD.
 - Install an impermeable liner in the bottom of the excavation to isolate the excavated/treated soils from the underlying non-impacted soils to prevent vertical migration of petroleum hydrocarbons and allow these soils to further attenuate over time (see liner detail below).
 - Backfill the excavation with treated soil and restore the area to as close as possible to pre-spill conditions.

5.3 LIMITED EXCAVATION AND RISK-BASED CLOSURE (SCENARIO 3)

At several of the sites, investigation data indicates that soil impacts in the source area extend to between 10 feet and 45 feet below ground surface and excavation of all of the impacted soil to below NMOCD guidelines is not practical for these sites. Several of these sites also have an impacted "flowpath" area where the depth of the soil impacts are generally less than 10 feet in depth and excavation of the flowpath area is practical. Listed below are the typical steps involved for a site in this category.

- Excavation of impacted soil to approximately 10 feet below ground surface where investigation data indicates deeper soil impacts remain.
- If portions of the impacted area (flowpath for example) appear to be shallow, then excavate the impacted soil from shallow impacted areas to below NMOCD guidelines.
- Collect and analyze soil samples from the walls and floor of the excavation to confirm that the horizontal extent of the soil remediation effort has met the site guidelines.
- Relocation of excavated soil to the centralized soil treatment area for blending and aeration.
 - Collect and analyze treated soil to confirm that the soil treatment activities have met the site guidelines.
 - Prepare a risk-based closure proposal for submittal and approval by the NMOCD.
 - Install an impermeable liner in the bottom of the excavation to isolate the impacted soil and prevent vertical migration of petroleum hydrocarbons (see liner details below).
 - Backfill the excavation with treated soil and restore the area to as close as possible to pre-spill conditions.

5.4 LINER DETAILS

Soils impacted above site standards will be isolated from the near surface environment with the installation of an oversized 20 mil polyethylene liner that is impermeable and impervious to water and petroleum hydrocarbon. Establishment of the 3-foot wide clean area buffer around the contaminated soil in the floor of the excavation will be determined using a calibrated photoionization detector (PID) and confirmed by laboratory analysis of grab samples collected around the perimeter of the excavation. The liner shall be cushioned above and below with a 3 to 4-inch layer of sand or a geotextile to protect it from puncture and tearing during the backfilling process. After the liner has been properly installed, the excavation will be backfilled with soil remediated to acceptable levels in the soil treatment area, contoured to the natural grade and seeded with a seed mix acceptable to the landowner.

6.0 SAMPLING AND LABORATORY ANALYSIS

The Work Plan soil sampling program will consist in general of the collection of an appropriate number of confirmation soil samples from the walls and floor of the excavations and from the treated soil stockpiles. Each site-specific Work Plan will include details as to the number and location of confirmation soil samples. Soil samples will be analyzed for TPH gasoline range organics (GRO) and TPH diesel range organics (DRO) utilizing EPA Method SW-846 #8015 and benzene, toluene, ethylbenzene and xylene (BTEX) using EPA Method SW-846 #8021b.

The soil samples collected will be placed in laboratory prepared glassware, sealed with custody tape and placed on ice in a cooler which was secured with a custody seal. The samples and completed chain-of-custody forms will be relinquished to the selected laboratory for analysis.

7.0 CENTRALIZED SOIL TREATMENT FACILITY

Plains proposes to utilize the soil landfarm area currently located adjacent to the Jalmat #22A site as a centralized soil treatment and processing area. Prior to transporting the excavated soil to this area, the existing soil in the landfarm will be pushed up into stockpiles with a bulldozer to be later utilized as blending material during the soil treatment process. Soil excavated from each of the remediation sites will be loaded and transported to this centralized soil treatment facility where the soil will be blended, screened, and/or aerated to reduce contaminant concentrations to Work Plan limits (10 mg/Kg benzene, 50 mg/Kg BTEX, and 2,000 mg/Kg TPH). Treated soils will be segregated into approximate 500 cubic yard stockpiles.

To verify that the soil treatment process has met the Work Plan objectives, a composite soil sample will be collected and analyzed from each 500 cubic yard stockpile. Soil samples will be analyzed for TPH gasoline range organics (GRO) and diesel range organics (DRO) utilizing EPA Method SW-846 #8015 and benzene, toluene, ethylbenzene and xylene (BTEX) using EPA Method SW-846 #8021b. If laboratory results indicate the stockpile sample is below the site-specific remediation goals, the stockpiled soil will be flagged as ready to be utilized for backfill over a liner. In the event the

stockpile analytical results indicate TPH and/or BTEX results above the sitespecific remediation goals, then the stockpile will be reprocessed and the sampling/verification procedure will be repeated.

8.0 BACKFILL AND SITE RESTORATION

Upon verification that the excavation activities have met the goals of the Work Plan, each site will be backfilled with treated soil that has also met the objective of the Work Plan for reuse as backfill. The backfill will be placed and compacted in lifts and the surface will be contoured to match the surrounding area. The site will be reseeded with a native grasses.

9.0 NOTIFICATIONS

At least 48-hours prior to collecting laboratory samples, Plains will notify the Hobbs, New Mexico office of the NMOCD of the intent to collect laboratory samples.

10.0 REPORTING

Remediation and monitoring activities and analytical information will be summarized in a closure report for each individual release site and submitted to the NMOCD requesting "no further action" be required at that particular site.

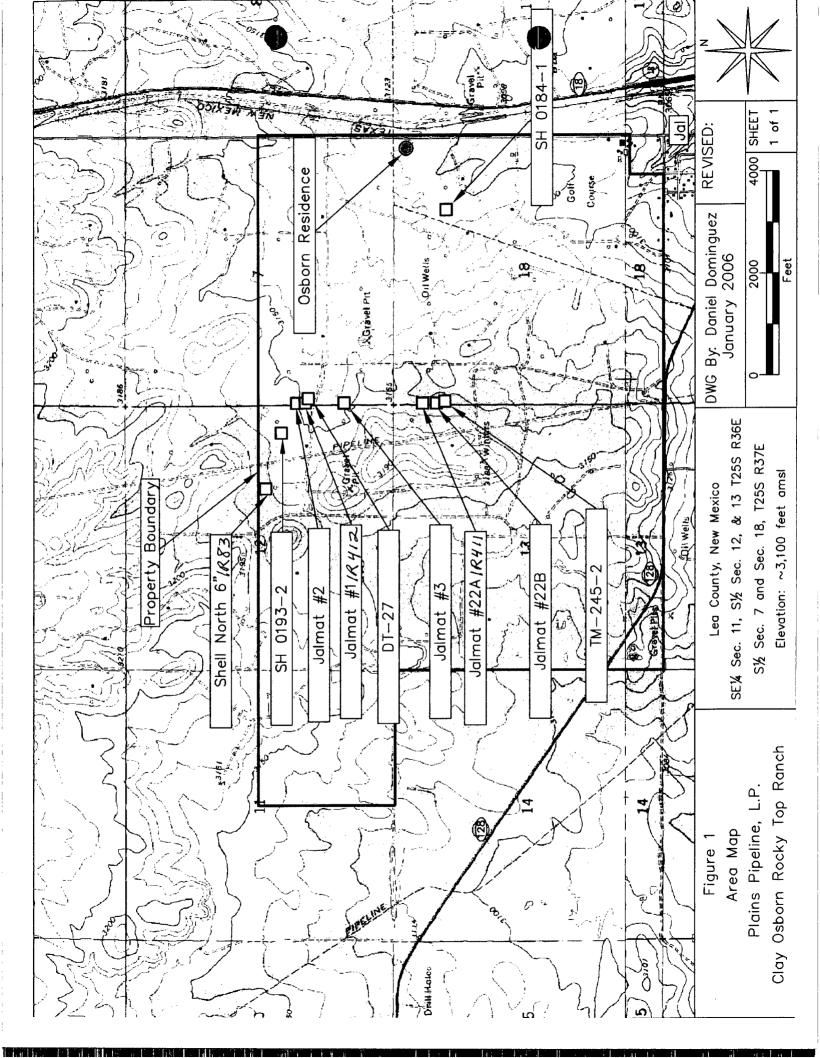
11.0 SITE RESTORATION

After the sites have been backfilled, the landfarm area and remediated release site will be reseeded. Follow-up inspections will be made at least quarterly to verify acceptable revegetation of the landfarmed area and the other areas disturbed during remediation of the sites.

TABLES

		Plains Pipeline, L.P. Clay Osborn – Rocky Top Rand Jal, Lea County, New Mex	
1	Site Name	Legal Description	GPS Coordinates
IR-412	Jalmat #1	Section 7, T25N, R37E	Lat : 32.1403 N Long : 103.2106 W
	Jalmat #2	Section 7, T25N, R37E	Lat : 32.1408 N Long : 103.2106 W
	Jalmat #3	Section 7, T25N, R37E	Lat : 32.1378 N Long : 103.2106 W
JR-411	Jalmat #22A	Section 18, T25N, R37E	Lat: 32.1328 N / 328 Long: 103.2106 W
	Jalmat #22B	Section 18, T25N, R37E	Lat : 32.1319 N Long : 103.2106 W
IR-83	Shell North 6" (East of Road)	Section 12, T25N, R36E	Lat : 32.1428 N Long : 103.2161 W
	TM –245-2	Section 18, T25N, R37E	Lat : 32.1314 N Long : 103.2105 W
	DT-27	Section 7, T25N, R37E	Lat : 32.1402 N Long : 103.2104W
	SH 0193-2	Section 12, T25N, R36E	Lat : 32.1418 N Long : 103.2125 W
	SH 0184-1	Section 18, T25N, R37E	Lat : 32.1313 N Long : 103.1983 W

FIGURES



AGREEMENT OF SETTLEMENT AND RELEASE

THIS AGREEMENT OF SETTLEMENT AND RELEASE (the "Agreement"), made and entered into as of the _____ day of _______, 2006, by WILBUR C. OSBORN and GERALDINE B. OSBORN, for the benefit of TEXAS-NEW MEXICO PIPELINE COMPANY INC., SHELL PIPELINE COMPANY LP, TEXACO PIPELINE INC., SHELL PIPE LINE LLC (DE) TEXACO TRADING AND TRANSPORTATION INC., EQUILON ENTERPRISES LLC d/b/a SHELL OIL PRODUCTS US, EQUILON PIPELINE COMPANY LLC n/k/a SHELL PIPELINE COMPANY LP, SHELL OIL COMPANY, PLAINS PIPELINE, L.P. and all other "Released Entities" as further defined below:

RECITALS

- (A) Landowners are the owners of the "Property" (further defined in Exhibit 1 hereto) or have the legal right and authority, through binding legal agreements, to control or act on behalf of any other interest holders of the Property, including the right to settle and release any and all claims with respect to the Property.
- (B) The term "Released Entities" shall mean and include TEXAS-NEW MEXICO PIPELINE COMPANY INC. INC., SHELL PIPELINE COMPANY LP, TEXACO PIPELINE INC., SHELL PIPE LINE LLC (DE) TEXACO TRADING AND TRANSPORTATION INC., EQUILON ENTERPRISES LLC d/b/a SHELL OIL PRODUCTS US, EQUILON PIPELINE COMPANY LLC n/k/a SHELL PIPELINE COMPANY LP, SHELL OIL COMPANY, PLAINS PIPELINE, L.P., and all their respective successors, assignees, representatives, officers, directors, employees, agents, principals, parents, subsidiaries, affiliates, partners, members,

predecessors, insurers, including American International Specialty Lines Insurance Company, servants, and attorneys, including Miller Stratvert P.A., Thompson & Knight, LLP and Locke, Lidell & Sapp. This release shall be fully binding and a complete settlement between the Plaintiffs and Released Entities, their respective executors, administrators, personal representatives, heirs, successors, assignees, representatives, agents and all parties represented by or claiming through such Parties.

- (C) The term "Landowners" shall mean and include WILBUR C. OSBORN and GERALDINE B. OSBORN, including any future owner of any interest in the Property claiming under the present interest holders in the Property, and the respective executors, administrators, personal representatives, heirs, devisees, successors and assigns of each and any of said persons, and any and all persons for whom said persons own and/or control any property interest, including lessors of surface rights in the Property.
 - (D) The Landowners desire to enter into this Agreement with respect to the Property.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS THAT, for and in consideration of Ten Dollars and no/100 (\$10.00) and other good and valuable consideration, WILBUR C. OSBORN and GERALDINE B. OSBORN, individually, and as representatives of all Landowners as hereinabove defined, do hereby release and agree as follows:

LANDOWNERS ON BEHALF OF THEMSELVES OR ANY OTHER ENTITIES
HEREBY COMPLETELY RELEASE AND FOREVER DISCHARGE THE RELEASED
ENTITIES (AS DEFINED ABOVE) to the full extent permitted by law from any and all claims,
liabilities, demands, obligations, actions, causes of action or complaints of whatever nature
which were brought, or which could have been brought by the Landowners, whether known or

unknown, arising from, or which are the subject of, WILBUR C. OSBORN and GERALDINE B. OSBORN v. TEXAS-NEW MEXICO PIPELINE COMPANY, INC.; TEXACO PIPELINE INC., SHELL PIPELINE COMPANY, L.P.; SHELL PIPELINE GP LLC; SHELL PIPELINE CORPORATION/SHELL PIPELINE LLC (DE), NO. CIV-04-1-34 LCS/KBM, UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW MEXICO, or arising from or relating to the Property including but not limited to future movement or migration of any contamination which is on or under the Property (as hereinafter defined); provided however that Plaintiffs do not release Plains Pipeline, L.P. ("Plains") from damages which might arise as a result of their future operations on the Property after the date of this Agreement. The Osborns acknowledge that this release covers all damages related to the remediation of the sites listed in Exhibit B by Plains and any other areas associated with the remediation so long as Plains complies with the separate Access Agreement to be entered into between Wilbur C. Osborn and Geraldine B. Osborn and Plains. This release does not cover damages resulting from a breach of the Access Agreement.

- 1. Landowners' release and discharge against the Released Entities is intended to be as broad a release of claims against the predecessors, successors, parents, subsidiaries and affiliates of the Release Entities and all of the officers, directors, employees and agents of such companies, as is permitted by law. All Released Entities shall have standing to enforce the release terms of this Agreement, and Landowners to the Property stipulate that the other Released Entities are intended beneficiaries of this Agreement.
- 2. To the full extent permitted by law, the terms and provisions of this Agreement are and shall be covenants running with the land binding upon the undersigned and any and every other current or future person or legal entity within the definition of the term

Landowners to	the end that all	who hereafter	deal with the	ne Property	will have notic	e of and be
subject to this A	Agreement.					

IN WITNESS WHEREOF, this Agreement is executed as of the day and year first above written.

	WILBUR C. OSBORN and GERALDINE B. OSBORN			
	By:	WILBUR C. O	OSBORN	
	Ву:	GERALDINE	B. OSBORN	
SUBSCRIBED and SWORN To by WILBUR C. OSBORN.	O before me on th	is the day	of	_, 2006
My commission expires:		JBLIC, State ofted Name:		
SUBSCRIBED and SWORN To by GERALDINE B. OSBORN.	O before me on th	is the day	of	_, 2006
My commission expires:		JBLIC, State of _ted Name:		

Exhibit 1

(DEEDED)

Section 1. Township 25, Range 36, 160.0 Acres being the Southwest quarter.

Section 11, Township 25, Range 36, 160 Acres Being the Southeast quarter.

Section 12, Township 25, Range 36, 320 Acres being the South half.

Section 13, Township 25, Range 36, being the entire section.

Section 7, Township 25, Range 37, 317.32 Acres being Lots 3-4, and the East half of the Southwest quarter, and the Southeast quarter of said section 7.

Section 18. Township 25. Range 37, 155.76 acres being Lots 1, 2, 3, 4. 203.40 acres Located in the East half of the West half, and the West half of the East half. Tract beginning 1321.2 feet West of the Northeast corner section, thence West approximately 2638.8 feet. South approximately 5280 feet, East approximately 718 feet, North 19 deg. 46 min. East approximately 5613.9 to the point of beginning.

Section 18, Township 25, Range 37 1.0 Acres located in the Northcast quarter. Beginning South 89 deg. 57 min. West 50 feet, and North 0 deg. 3 min. West 1165 feet from the Southeast corner of the Northeast quarter of section 18, thence south 89 deg. 57 min. West 210 feet, North 0 deg. 3 min. West 197.8 feet, North 84

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OK Clay Com

deg. 27 min. East 211 feet, South 0 deg. 3 min. East 218 feet to the point of beginning.

Section 18, Township 25, Range 37, 255.99 acres located in the East half. Tract beginning at the Northeast corner of section 18, thence South 89 deg. 52 min. West 1321.2 feet to the intersect of the Jal corporate boundary, thence South 19 deg. 46 min. West along Jal corp. Boundary line 5610.7 feet wore or less to the South line of section 18, East along said line 602 feet, more or less, to the South quarter corner of section 18, North 20 feet, East 230 feet, North 210 feet, East 210 feet, South 210 feet, East 20 feet, North 210 feet, East 1310 feet, South 198 feet, more or less, East 10 feet, North 198 feet, East 440 feet, North 400.6 feet, East 20 feet, North 222 feet, East 400 feet to the East Line of Section 18, North along the East line of Section 18, to a point 1165 feet North of the East quarter corner of Section 18, South 89 deg. 57 min. West 260 feat, North 0 deg. 3 min. West 179.8 feat, North 84 deg. 27 min. East 211 feet, South 0 deg. 3 min. East 218 feet, North 89 deg. 57 min. Bast 50 feet to the East line of Section 1s, thence North along said line 419 feet, West 210 feet, North 210 feet, East 210 feet, to the East line of Section 18, North along said East line to the Northeast corner of section 18, and the point of beginning.

OK Charles

50 cg ' 4. 21 00 59 11 0°E 1/2 (1/17/27005) St 1-4 SELTION I NORTH SCALE Š 1" - 700" 11 12 4 03" 43' 10, 3"E 1/3 HITEST 1/3 BIT. SE 1/4 BOJTH, 1/2 EAST 1/2 SECTION 12 SECTION 11 8 93 43 18 3 H 5636.3 LOT (1 2 40 2 ALL D 2501101 13 \$/3 RH. LQ1 3 143 PD.E - 1539.F 23 m. LOT 4 23 24 PLAT OF SW 1/4 SECTION 1. THE SE 1/4 OF SECTION 11. AND THE SOUTH 1/2 OF SECTION 12 ALL OF SECTION 13, T-25-5, R-36-E, N.H.P.M., AND SOUTH 1/2 OF SECTION 7, AND ALL OF SECTION 18 EXCEPT AS SHOWN ON THE PLAT, T-25-5, R-37-E, N.H.P.M., LEA COUNTY, NEW MEXICO. 11.11 7 LIE DE AR IF O शशास्टर ב מונונו נונינינים פצופעינינים AN GARCHI, OO HEREBY COTTIFY THAT AT REPRESENTS A BLINEY WAS CITTLE GLOCK MY SUBSIVISION OF THE THE 12 LA HACKLY OF 1992, AND 15 BEST OF MY ROCKLEGGE THAE MO EAST S 89 ST H H 80 CJ H H 87 H H 87 H CASCIII. REELITERED PUBLIC SURVEYO

w., **

EXHIBIT B

- 1) Jalmat #1
- 2) TM 0245-2
- 3) Jalmat #22B
- 4) Jalmat #22A
- 5) Jalmat 2
- 6) DT-27
- 7) Jalmat #3
- 8) East half Shell 6" (east of road)
- 9) SH 0193-2
- 10) SH 0184-1



May 12, 2006

Mr. Ed Martin State of New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

1R-467

Re:

Plains Pipeline, L.P.

Document Submittal

Clay Osborn - Rocky Top Ranch

Jal, Lea County, New Mexico

Dear Mr. Martin:

Plains Pipeline, L.P. (Plains) is pleased to submit the attached Document Submittal for the soil remediation project sites located on the Osborn's Rocky Top Ranch in Jal, Lea County, New Mexico. These documents include the original soil investigation report, annual groundwater monitoring reports (where monitor wells are present), and various correspondences. Plains assumes this information is already in your files; however, for convenience purposes we have prepared one document containing the reports.

Should you have any questions or comments, please contact me at (713) 646-4657.

Sincerely,

Jéffrey P. Dann, P.G.

Sr. Environmental Specialist

Plains All American

Attachment:

Document Submittal

File: n/jeff-files/Osborn-RockyTopRanch/DocumentSubmittal CovrLtr.doc

E.O.T.T. ENERGY CORPORATION

SITE INVESTIGATION

AND

REMEDIATION PROPOSAL

CLAY OSBORN JALMAT #3 Ref. # 2000-10610

SW¹/₄ SW¹/₄ UL-M Section 7 T25S R37E ~ ¹/₂ mile Northwest of Jal Lea County, New Mexico Latitude: 32°08'16"N Longitude: 103°12'38"W

December 8, 2001

Prepared by

Environmental Plus, Inc.
2100 Avenue O
P.O. Box 1558
Eunice, New Mexico 88231
Tele 505.394.3481 FAX 505.394.2601



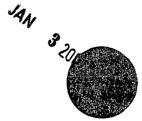


Table of Contents

Table	of Contents	i
1.0	Introduction	1
2.0	Environmental Media Characterization	
2.1	Geological Description	1
2.2	Ecological Description	
2.3	Area Ground Water	
2.4	Area Water Wells	
2.5	Area Surface Water Bodies	
3.0	NMOCD Site Ranking	
4.0	Subsurface Soil Investigation	
5.0	Ground Water Investigation	
6.0	Restoration Proposal	
Attacl	hment I: Site Maps	
	hment II: Average Depth to Ground Water Reports and Well Map	
	hment III: Original Analytical Reports And Summaries	
	hment IV: Photographs	
	hment V: Site Information and Metrics Form	

1.0 Introduction

This site is located in Unit Letter M, in the SW¼ of the SW¼ of Section 7 T25S R37E, approximately ½ mile northwest of Jal, Lea County New Mexico at Latitude 32°08'16"N and Longitude 103°12'38"W. The property is owned by Clay and Gerry Osborn who live in the ranch headquarters approximately 1 mile southeast of the site. A topographical map is included in Attachment I. The leak is historical and the crude oil release and recovery volumes unknown. Photographs are included as Attachment IV.

2.0 ENVIRONMENTAL MEDIA CHARACTERIZATION

Chemical parameters of the soil and ground water were characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the New Mexico Oil Conservation Division (NMOCD) approved "General Work Plan for Remediation of E.O.T.T. Pipeline Spills, Leaks and Releases in New Mexico, July 2000" and the NMOCD guidelines published in the following documents;

- Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)
- Unlined Surface Impoundment Closure Guidelines (February 1993)

Acceptable thresholds for contaminants/constituents of concern (CoCs), i.e., TPH, Benzene, and the sum of Benzene, Toluene, Ethyl Benzene, and total Xylene (BTEX), will be determined based on the NMOCD Ranking Criteria as follows;

- Depth to Ground water, i.e., distance from the lower most acceptable concentration to the ground water.
- Wellhead Protection Area, i.e., distance from fresh water supply wells.
- Distance to Surface Water Body, i.e., horizontal distance to all down gradient surface water bodies.

2.1 GEOLOGICAL DESCRIPTION

The United States Geological Survey (USGS) Ground-Water Report 6, "Geology and Ground-Water Conditions in Southern Lea County, New Mexico," A. Nicholson and A. Clebsch, 1961, describes the near surface geology of southern Lea County as an intergrade of the Quaternary Alluvium (QA) sediments, i.e., fine to medium sand, with the mostly eroded Cenozoic Ogallala (CO) formation. During the investigation a yellowish to tan silty clay interbed was identified at ~55 feet below ground surface ('bgs) and supports a 3-foot thick zone of saturation. Typically, the QA and CO formations in the area are capped by a thick interbed of caliche and was encountered at 5-7'bgs.

2.2 ECOLOGICAL DESCRIPTION

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of hummocky sand hills covered with Harvard Shin Oak (Querqus harvardi) interspersed with Honey Mesquite (Prosopis glandulosa) along with typical desert grasses and weeds. Mammals represented, include Orrd's and Merriam's Kangaroo

Rat, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, and the Mule Deer. Reptiles, Amphibians, and Birds are numerous and typical of area. A survey of Listed, Threatened, or Endangered species was not conducted.

2.3 AREA GROUND WATER

The unconfined ground water aquifer is estimated to occur beneath the site at approximately 55.0'bgs and is consistent with information provided by the New Mexico Tech Geoinformation website, (www.geoinfo.nmt.edu/.esrimap), the New Mexico Office of the State Engineer, and other local information available for the site. Copies of the State Engineer's Average Depth to Ground Water Reports for Range 36E and 37E in Township 25 are included in Attachment II. According to the USGS, the ground water elevation decreases generally to the southeast.

2.4 AREA WATER WELLS

There are no water wells within 1000 horizontal feet of the site.

2.5 AREA SURFACE WATER BODIES

There are no permanent or intermittent surface water bodies within 1000 horizontal feet of the site.

3.0 NMOCD SITE RANKING

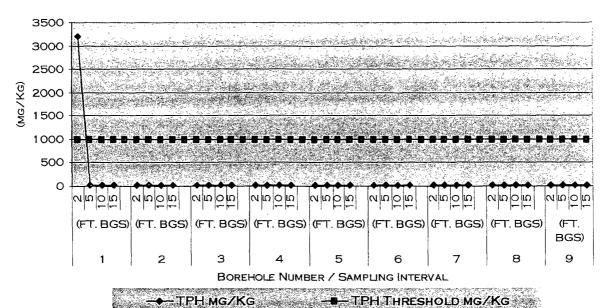
Based on the proximity of the site to protectable area water wells, surface water bodies, and depth to ground water from the lower most contamination, the NMOCD ranking score for the site is 20 points with the soil remedial goals highlighted below in the Site Ranking Matrix.

1. Ground Water	2. Wellhead	Protection Area	3. Distance to Surface Water Body	
If Depth to GW < 50			<200 horizontal feet: 20	
feet: 20 points	If <1000' from v	vater source,	points	
If Depth to GW 50 to 99	or;<200' from pr	rivate domestic	200-100 horizontal feet:	
feet: 10 points	water source: 20			
	If >1000' from w	vater source, or;		
If Depth to GW > 100	>200' from priva	ate domestic water	>1000 horizontal feet: 0	
feet: 0 points	source: 0 points		points	
Ground water Score = 20	Wellhead Protectio	n Area Score= 0	Surface Water Score= 0	
Site Rank $(1+2+3) = 20 + 0 + 0 = 20$ points				
Total Site	Ranking Score a	nd Acceptable C	oncentrations	
Parameter	>19			
Benzene ¹ 10	ppm	1		
BTEX ¹ 50	ppm			
TPH 10	100 ppm			
1100 ppm field VOC headspace measurement may be substituted for lab analysis				

4.0 SUBSURFACE SOIL INVESTIGATION

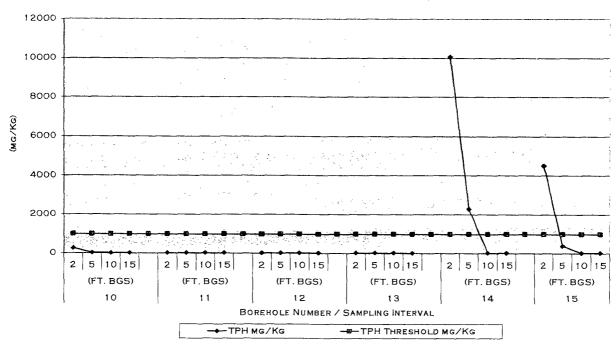
Strategically located boreholes were sampled discretely at 5' vertical intervals using a hollow stem auger and stainless steel sample probe with a vinyl sleeve. All samples were jarred immediately and refrigerated with the remainder decanted into a zip lock bag for Volatile Organic Constituent (VOC) Headspace analysis using a calibrated Photoionization Detector (PID). Sampling equipment was decontaminated routinely between sampling iterations. The site sample location map is included in Attachment I. The visible spill area perimeter defines the horizontal extent of CoC contamination and involves approximately 4,490 ft² and is restricted to the pipeline right of way. Vertical contamination was detected to 2'bgs in BH1, to 10'bgs in BH14, and to 5'bgs at BH15. Estimated affected soil volume is 499 yd³ and accounts for the contamination around BH14 and BH15 and the upper 2' of soil over the remainder of the affected area. The original analytical reports are provided and summarized in Attachment III. The data is illustrated below.

E.O.T.T. ENERGY PIPELINE
CLAY OSBORN JALMAT #3
TOTAL PETROLEUM HYDROCARBON (8015M)

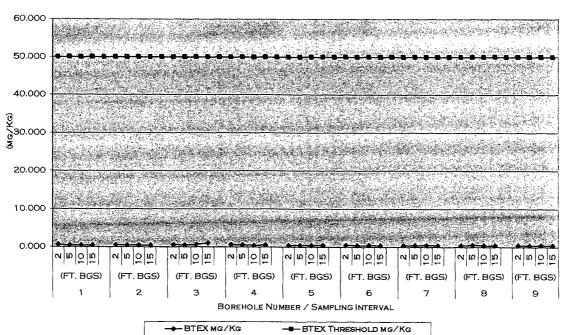


E.O.T.T. ENERGY PIPELINE

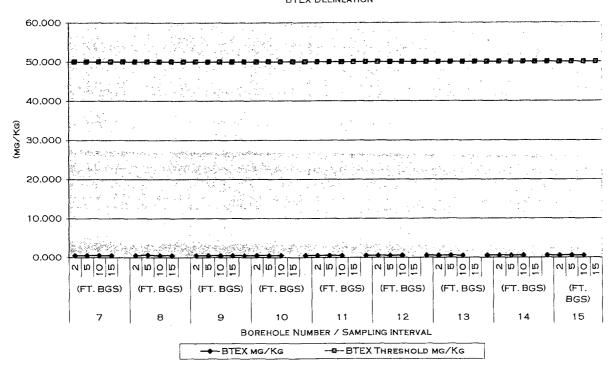
CLAY OSBORN JALMAT #3
TOTAL PETROLEUM HYDROCARBON (8015M)



E.O.T.T. ENERGY PIPELINE CLAY OSBORN JALMAT #3 BTEX DELINEATION



E.O.T.T. ENERGY PIPELINE CLAY OSBORN JALMAT #3 BTEX DELINEATION



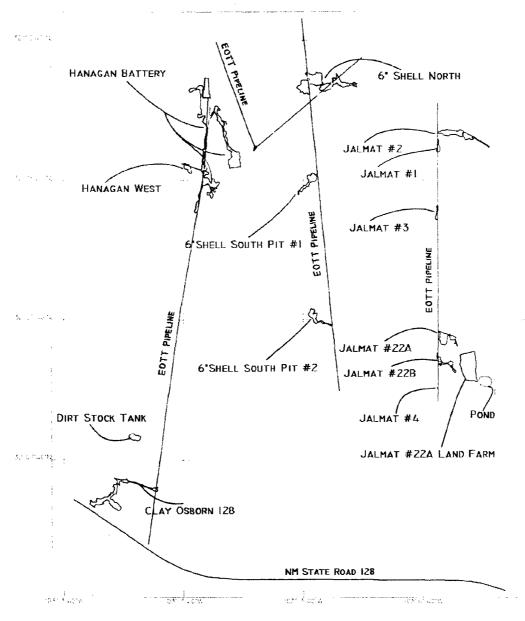
5.0 GROUND WATER INVESTIGATION

The soil investigation did not warrant a ground water investigation at this site.

6.0 RESTORATION PROPOSAL

It is proposed to excavate the soil contaminated above the CoC remedial goals in the areas of BH14 and BH15 and land spread on the east side of the site. The estimated soil volume is 225 yd³. The upper 2 feet of soil from the remainder of the site, approximately 274 yd³, will likewise be placed in the land farm cell and the excavation backfilled with local clean soil. The land farmed soil will be disked monthly, tested quarterly, and may be amended with nutrients or clean soil, shredded, or treated with bio-attenuation accelerants. After achieving the NMOCD remedial goals the remediated soil will be contoured to grade and reseeded. The estimated soil volume affected at the site is approximately 499 yd³.

ATTACHMENT I: SITE MAPS



E.O.T.T. ENERGY PIPELINE CLAY OSBORN RANCH REMEDIATION SITES T25S-R36E & R37E NORTHWEST OF JAL LEA COUNTY, NM

: 417. ong WGS 1984.

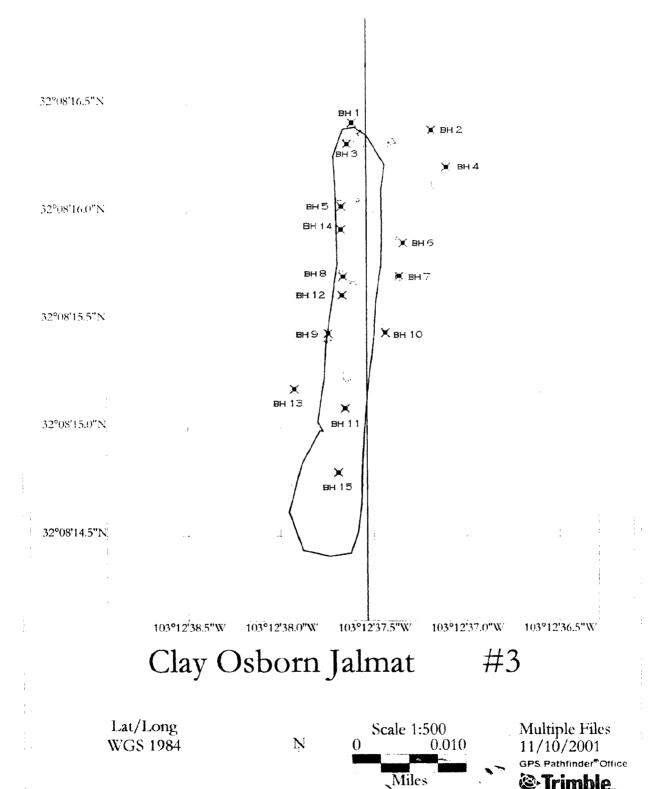


SHALE 1 MA : 1,250 FT

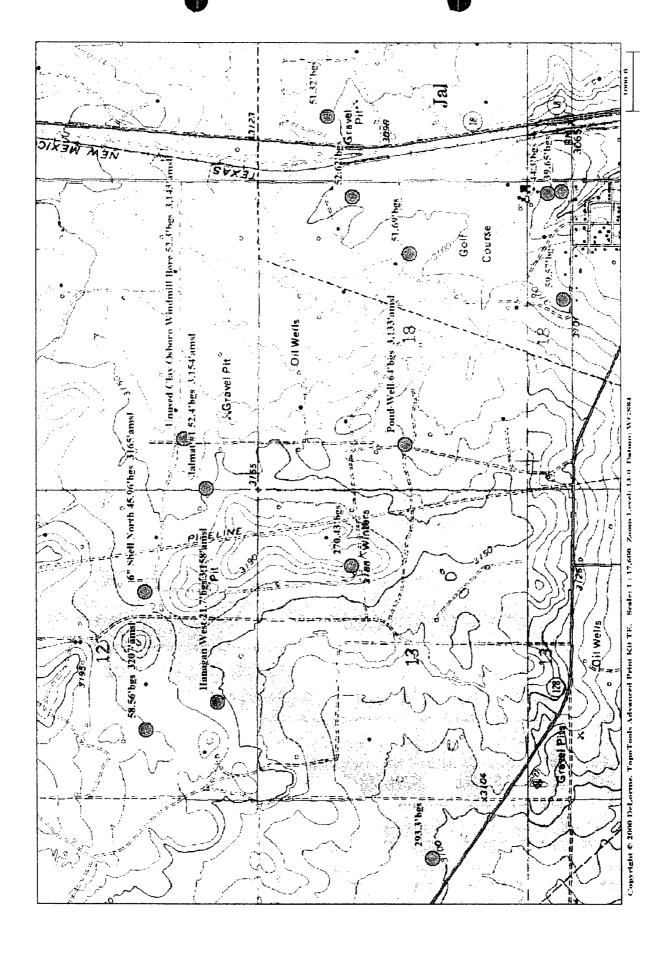
0017760 .ss-



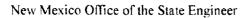
E.O.T.T. ENERGY PII



ATTACHMENT II: AVERAGE DEPTH TO GROUND WATER REPORTS AND WELL MAP



CLAY OSBORN JALMAT #3



Page 1 of 1

	cico Office of the State Engineer Il Reports and Downloads
Township: 258 Range:	36E Sections 12,13,1,2,11,14,23,24
NAD27 X: Y:	Zone: Search Radius:
County: Basin:	Number: Suffix:
Owner Name: (First)	(Last) C Non-Domestic C Domestic
Well / Surface Data R	eport Avg Depth to Water Report
ું ખુ ખુ	Water Column Report
Clear Fon	m , WATERS Menu Help
AVERAGE DEPTH OF WATER P	REPORT 12/29/2001
Bsn Tws Rng Sec Zone X	(Depth Water in Feet) Y Wells Min Max Avg

http://164.64.214.10/awdProd/awd.html?email_address=enviplus1@aol.com&tws=25S&r... 12/29/2001



New Mexico Office of the State Engineer

Page | of |

New Mexico Office of the State Engineer Well Reports and Downloads

NAD27 X: Y. Zone: Search Radius	
County: Basin: Number. Suffix:	
Owner Name: (First) (Last) C Non-Domestic C Domest	ic
Well / Surface Data Report Avg Depth to Water Report	
Water Column Report	
Clear Form WATERS Menu Help	

AVERAGE DEPTH OF WATER REPORT 12/29/2001

								(Depth	Water	in Feet)
Bsn	Tws	Rng	Sec	Zone	x	Y	Wells	Min	Max	Avg
CP	258	37E	19				g	27	63	44
CP	258	37£	20				€	23	€0	34

Record Count: 15

http://164.64.214.10/awdProd/awd.html?email_address=enviplus1@aol.com&tws=25S&r... 12/29/2001

ATTACHMENT III: ORIGINAL ANALYTICAL REPORTS AND SUMMARIES

				E.O.T	T. Ener	gy Pipe	E.O.T.T. Energy Pipeline Jalmat 3	ıt 3						
Borehole	Sampling Interval (FT. BGS ¹)	SAMPLE ID#	Date Taken	HF Lithology	HEADSPACE VOC² (ppm)	E GRO³ mg/Kg)³ DRO⁴ <g kg<="" mg="" td=""><td>TPH⁵ mg/Kg</td><td>BTEX mg/Kg</td><td>Benzene mg/Kg</td><td>Toluene mg/Kg</td><td>Ehtyl Benzene mg/Kg</td><td>m,p- Xylenc mg/Kg</td><td>o- Xylene mg/Kg</td></g>	TPH ⁵ mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ehtyl Benzene mg/Kg	m,p- Xylenc mg/Kg	o- Xylene mg/Kg
	5	ECO3GP102 ECO3GP105	7/17/2000 7/17/2000		170.0 10.0	10		3203.000 20.000	0.500	0.100	0.147	0.116	0.179	0.133
4	\$ \$10. °	ECO3GP1 10 ECO3GP1-15	7/17/2000	Sand	30	9 9	10	20.000	0.500	0.100	0.100	0.100	0.100	0.100
	2	ECO3GP2-02	7/17/2000		4.6	10		20.000	0.505	0.100	0.100	0.105	0.100	0.100
8	ر د ر	ECO3GP2-05	7/17/2000	Sand	5.2	10	10	20.000	0.507	0.100	0.100	0.107	0.100	0.100
	15	ECO3GP2-15	7/17/2000	Sand	0.0	10		20.000	0.500	0.100	0.100	0.100	0.100	0.100
	2.5	EC03GP3-02	7/17/2000		00	9 9	i Section	21.000	0.655	0.100	0.174	0.100	0.153	0.128
3	01.0	ECO3GP3-10	7/17/2000	Send	0.0	2 Q	9	20.000	0.669	0.100	0.181	0.100	0.188	0.100
	15	ECO3GP3-15	7/17/2000	Mr.	1.0	10	y a	20.000	1.064	0.100	0.235	0.100	0.521	0.108
	2	ECO3GP4-02	7/17/2000	Sand	1.3	10		20.000	0.694	0.100	0.196	0.100	0.100	0.198
4	īυ (ECO3GP4-05	7/17/2000	Sand	6.9	10	10	20.000	0.586	0.100	0.186	0.100	0.100	0.100
	10	ECO3GP4-10 FCO3GP4-15	7/17/2000	Sand	0.0	0 0		20.000	0.500	0.100	0.100	0.100	0.100	0.100
	2	ECO3GP5-02	7/17/2000	Sand	~.	额,	10. 30. 80.	20.000	0.500	0.100	0.100	0.100	0.100	0.100
	5		7/17/2000	Sand	. 1	01		20.000	0.528	0.100	0.128	0.100	0.100	0.100
C		ECO3GP5-10	7/17/2000	Sand		10	01	20.000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO3GP5-15	7/17/2000	Sand		i se i cr	ur.	20.000	0.592	0.100	0.192	0.100	0.100	0.100
	2	ECO3GP6-02	7/17/2000	Sand	7.1	10		20.000	0.530	0.100	0.130	0.100	0.100	0.100
y	5	ECO3GP6-05	7/17/2000	Sand	7.0	10	10	20.000	0.500	0.100	0.100	0.100	0.100	0.100
) 	10 15	ECO3GP6-10 ECO3GP6-15	7/17/2000 7/17/2000	Sand Sand	6.0	01 01	10 10	20.000 20.000	0.500	0.100	0.100 0.100	0.100	0.100	0.100 0.100
100 ppm Isob	100 ppm Isobutylene calibration gas = 101 ppm	gas = 101 ppm												
bgs – below	bgs – below ground surface			-										
VOC-Volati	VOC-Volatile Organic Contaminants/Constituents	inants/Constituen	ts											
^{l3} GRO-Gasoli	GRO-Gasoline Range Organics													
DRO-Diesel	DRO-Diesel Range Organics													
⁵ TPH-Total F	'TPH-Total Petroleum Hydrocarbon = GRO+DRO.	bon = GRO+DR	.0.											
Bolded value	Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter	ne New Mexico C	il Conservation	Division guide	line thresh	old for th	te parameter							
⁷ Italicized val	Italicized values are < the instrument detection limit.	ment detection lir	nit											
8N/A Not Analyzed	ıalyzed													
Reported deta	Reported detection limits are considered "de minimus" values and are included in the GRO/DRO and BTEX summations.	nsidered "de minit	nus" values and	l are included ir	the GRO	/DRO at	nd BTEX sur	nmations.			į			

CLAY OSBORN JALMAT #3

				E.O.	.T.T. Energy	E.O.T.T. Energy Pipeline Jalmat 3	mat 3							
Borehole	Sampling Interval (FT. BGS ¹)	SAMPLE ID#	Date Taken	Lithology	HEADSPACE VOC² (ppm)	GRO³ mg/Kg	DRO⁴ mg/Kg	TPH ⁵ mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ehtyl Benzene mg/Kg	m,p- Xylene mg/Kg	o- Xylene mg/Kg
12	2 5 100	ECO3GP7.02 ECO3GP7.05 ECO3GP7.10 ECO3GP7.15	7/18/2000 7/18/2000 7/18/2000	Sand Sand Sand	1.8 0.8 1.0	9 9 9	0 0 0	20.000 20.000 20.000 20.000	0.500 0.500 0.539 0.500	0.100 0.100 0.100 0.100	0.100 0.133 0.133	0.100 0.100 0.100 0.100	0.100 0.100 0.100	0.100 0.100 0.106 0.100
&	2 2 5 10 15	ECO3GP8-02 ECO3GP8-05 ECO3GP8-10 ECO3GP8-15	7/18/2000 7/18/2000 7/18/2000 7/18/2000	Sand Sand Sand Sand	3.0 2.0 2.6 1.8	10 10 10	10 10 10	20.000 20.000 20.000 20.000	0.500 0.662 0.500 0.500	0.100 0.100 0.100 0.100	0.100 0.100 0.100 0.100	0.100 0.100 0.100 0.100	0.100 0.262 0.100	0.100 0.100 0.100
6	2 5 5 10 10 15 15 15 15 15 15 15 15 15 15 15 15 15	ECO3GP9-05 ECO3GP9-05 ECO3GP9-15 ECO3GP9-15	77/18/2000 77/18/2000 77/18/2000 77/18/2000	Sand: Sand: Sand: Sand	3.3 0.8 0.1 5.7	0 0 0 0	Q Q Q Q %	20.000 20.000 20.000 20.000	0.500 0.500 0.500	0.100 0.100 0.100	0.100 0.100 0.100 0.100	0.100 0.100 0.100	0.100 0.100 0.100	0.100 0.100 0.100
10	5 10 15	ECO3GP10-02 ECO3GP10-05 ECO3GP10-10 ECO3GP10-15	7/18/2000 7/18/2000 7/18/2000 7/18/2000		3.5 3.0 4.2	01 01 01		34.000 20.000 20.000	0.500 0.500 0.500	0.100 0.100 0.100	0.100	0.100	0.100	0.100
112	2 5 10 2 2 5 10 15	ECO3GP11.02 ECO3GP11.05 ECO3GP11.15 ECO3GP12.02 ECO3GP12.02 ECO3GP12.02 ECO3GP12.03 ECO3GP12.03	7/18/2000 7/18/2000 7/18/2000 7/18/2000 7/19/2000 7/19/2000 7/19/2000	Sand Sand Sand Sand Sand Sand Sand	0.0 0.0 7.6 7.6 0.0 0.0	10 10 10 10 10 10 10 10	0.000 00000000000000000000000000000000	20.000 20.000 20.000 20.000 20.000 20.000 20.000	0.500 0.500 0.500 0.500 0.500 0.500 0.500	0100 0.100 0.100 0.100 0.100 0.100	0.100 0.100 0.100 0.100 0.100 0.100 0.100	0.100 0.100 0.100 0.100 0.100 0.100 0.100	. 0.100 0.100 0.100 0.100 0.100 0.100 0.100	0.100 0.100 0.100 0.100 0.100 0.100 0.100
100 ppm Isobutylen ¹ bgs – below ground ² VOC–Volatile Orgs ³ GRO-Gasoline Ran ⁴ DRO-Diesel Range ⁵ TPH-Total Petroleu ⁶ Bolded values are ii ⁷ Italicized values are ii ⁸ N/A Not Analyzed	100 ppm Isobutylene calibration gas = 101 ppm ^b bgs - below ground surface ^c VOCVolatile Organic Contaminants/Constituents ^d GRO-Casoline Range Organics ^f DRO-Diesel Range Organics ^f TPH-Total Petroleum Hydrocarbon = GRO+DRO. ^f Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter ^f Italicized values are < the instrument detection limit. ^f N/A Not Analyzed	gas = 101 ppm nants/Constituents oon = GRO+DRC e New Mexico Oil nent detection lim.). Conservation it.	Division guide	line threshole	l for the paran	neter							

Reported detection limits are considered "de minimus" values and are included in the GRO/DRO and BTEX summations.

CLAY OSBORN JALMAT #3

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				H	E.O.T.T. Energy Pipeline Jalmat 3	gy Pipelin	ne Jahmat 3							
Borehole	Sampling Interval (FT. BGS ¹)	SAMPLE ID#	Date Taken	Lithology	HEADSPACE VOC ² (ppm)	E GRO³ mg/Kg	DRO ⁴ pmg/Kg	TPH ⁵ mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ehtyl Benzene mg/Kg	m.p- Xylene mg/Kg	o-Xylene mg/Kg
	2.	ECO3GP13-02 7/19/2000	7/19/2000	Sand	8.9	18	200	20.0	0.5	0.100	0.100	0.100	0.100	0.100
	5	EC03GP13-05		Sand	9.5	9	10	20.0	0.5	0.100	0.100	0.100	0.100	0.100
Ω	10	ECO3GP13-10	-7/19/2000	Sand	4.1	9	. 01	20.0	0.5	0.100	0.100	0.100	0.100	0.100
	15	ECO3GP13-15	ğr.	Sand	1.6	2	10	20.0	0.5	0.100	0.100	0.100	0.100	0.100
;	2	ECO3GP14-02		Sand	1.6	271	9626	10067.0	0.5	0.100	0.100	0.100	0.100	0.100
;	2	ECO3GP14-05	7/19/2000	Sand	1.2	20	2233	2283.0	0.5	0.100	0.100	0.100	0.100	0.100
	10	ECO3GP14-10	7/19/2000	Sand	1	10	10	20.0	6.5	0.100	0.100	0.100	0.100	0.100
	15	ECO3GP14-15	7/19/2000	Sand	0	10	10	20.0	0.5	0.100	0.100	0.100	0.100	0.100
	2	ECO3GP15-02	7/19/2000	Sand	0	S	4454	4504.0	0.5	0.100	0.100	0.100	0.100	0.100
u u	5.	ECO3GP15-05	7/19/2000	Sand	0	9	378	388.0	0.5	0.100	0.100	0.113	0.106	0.100
Ŷ	10	*ECO3GP15_10	7/19/2000	Sand	0	9	10	20.0	0.5	0.100	0.100	0.100	0.100	0.100
	15	ECO3GP15-15	7/19/2000	Sand	0	10		20.0	0.5	0.100	0.100	0.100	0.100	0.100
100 ppm Is	100 ppm Isobutylene calibration gas = 101 ppm	gas = 101 ppm												

bgs - below ground surface

VOC-Volatile Organic Contaminants/Constituents

GRO-Gasoline Range Organics

'DRO-Diesel Range Organics

TPH-Total Petroleum Hydrocarbon = GRO+DRO.

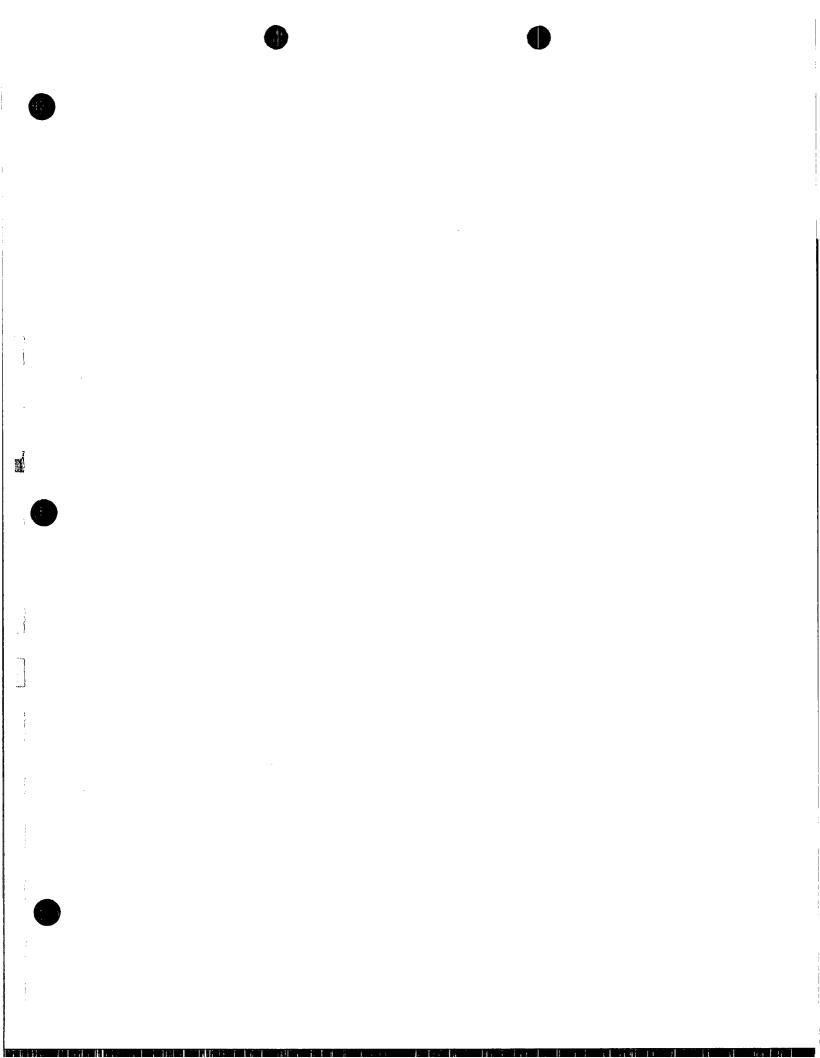
Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter

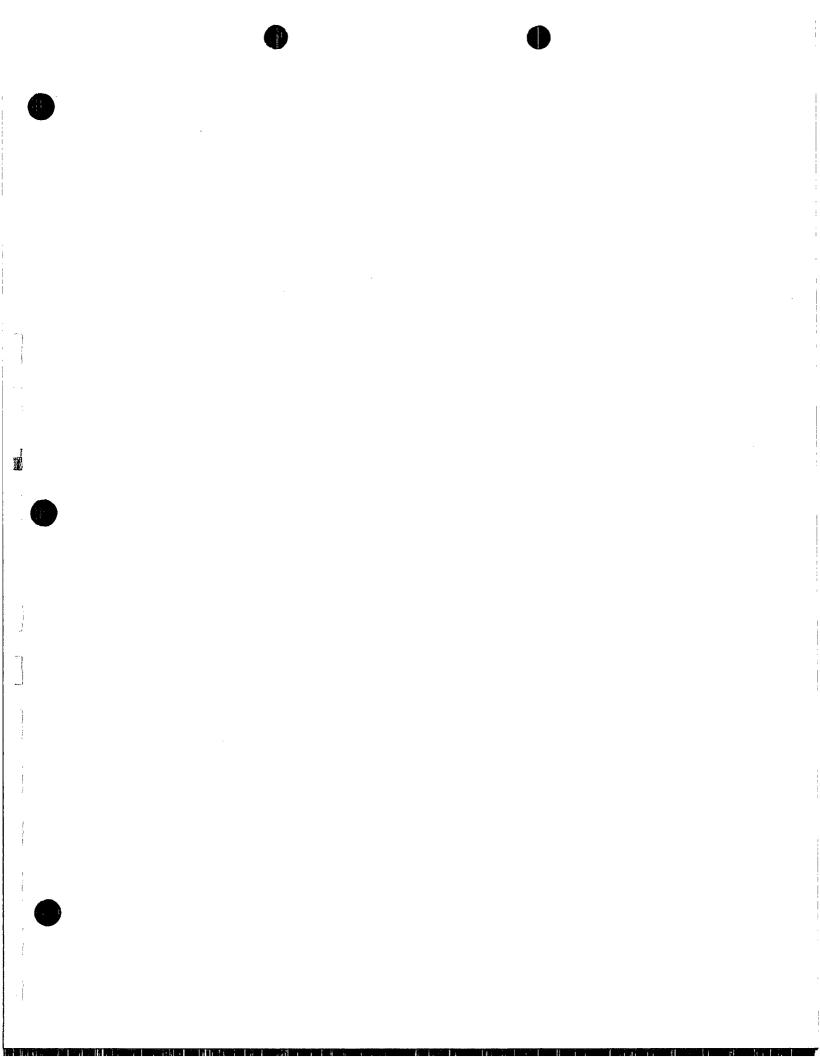
Italicized values are < the instrument detection limit.

N/A Not Analyzed

Reported detection limits are considered "de minimus" values and are included in the GRO/DRO and BTEX summations.

CLAY OSBORN JALMAT #3





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		Wayne & Address Company Name & Address East Project F.	Project Locadous Sel. 12 F2155 A36E	= 5000 CEH (≥SC Er7);	28937 8603622-15		28341 8 COSAP4-10	28343 Eco3(np4-15	8345		1 2 1 1 2 2 2 1	in both the second seco

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n: • Ject Mane get	Wayne Browthe Eatherthe Eatherthe Eath Project Location Sel 12 Taris 186E	((((((((((((((((((((28362 810369-10	28363	28364 2036410 US	28366 50361P 10-10	28367 8003MP 10-15	38368 903(20) 1-03		1	G	Tolangerand by	(A population of the control of the

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EOTT ENERGY

ATTN: MR. WAYNE BRUNETTE

P.O. BOX 1660

MIDLAND, TEXAS 79703

FAX: 915-684-3456

FAX: 505-394-2601 (Pat McCasland)

Sample Type: Soil

Sample Condition: Intact/ 116 deg. F

Project #: None Given

Project Name: Clay Osborn Site 3
Project Location: Site 12, T25S, R36E

Sampling Date: 07/17/00 Receiving Date: 07/20/00 Analysis Date: 07/20/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m.p-XYLENE mg/kg	o-XYLENE mg/kg
28328	ECO3GP1-02	<0.100	0.147	<0.100	0.179	0.133
28329	EC03GP1-05	<0.100	<0.100	<0.100	<0.100	<0.100
28330	EC03GP1-10	<0.100	<0.100	<0.100	<0.100	<0.100
28331	EC03GP1-15	<0.100	<0.100	<0.100	<0.100	<0.100
28332	ECO3GP2-02	<0.100	<0.100	<0.100	<0.100	<0.100
28333	ECO3GP2-05	<0.100	<0.100	<0.100	<0.100	<0.100
28334	ECO3GP2-10	<0.100	<0.100	<0.100	<0.100	<0.100
28335	ECO3GP2-15	<0.100	<0.100	<0.100	<0.100	<0.100

% IA	88	90	88	100	92
% EA	86	84	86	94	86
BLANK	<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030

Kalandk Julib Raland K. Tuttle

7-28-00

12600 West I-20 East • Odessa, Texas 79765 • (915) 563-1800 • Fax (915) 563-1713



EOTT ENERGY

ATTN: MR. WAYNE BRUNETTE

P.O. BOX 1660

MIDLAND, TEXAS 79703

FAX: 915-684-3456

FAX: 505-394-2601 (Pat McCasland)

Sample Type: Soil

Sample Condition: Intact/ 116 deg. F

Project #: None Given

Project Name: Clay Osborn Site 3
Project Location: Site 12, T25S, R36E

Sampling Date: See Below Receiving Date: 07/20/00 Analysis Date: 07/21/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m.p-XYLENE mg/kg	o-XYLENE mg/kg	SAMPLE DATE
28336	ECO3GP3-02	<0.100	0.174	0.116	0.153	0.128	07/17/00
28337	ECC3GP3-05	<0.100	0.127	<0.100	<0.100	<0.100	07/17/00
28338	ECC3GP3-10	<0.100	0.181	<0.100	<0.100	<0.100	07/17/00
28339	ECO3GP3-15	<0.100	0.235	<0.100	0.188	0.108	07/17/00
28340	ECO3GP4-02	<0.100	0.1 9 6	0.105	0.521	0.198	07/17/00
28341	ECO3GP4-05	<0.100	0.186	0.107	<0.100	<0.100	07/17/00
28342	ECO3GP4-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/17/00
28343	ECO3GP4-15	<0.100	0.136	<0.100	<0.100	<0.100	07/17/00
28344	ECO3GP5-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/17/00
28345	ECO3GP5-05	<0.100	0.128	<0.100	<0.100	<0.100	07/17/00
28346	ECO3GP5-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/17/00
28347	ECO3GP5-15	<0.100	0.192	<0.100	<0.100	<0.100	07/17/00
28348	ECO3GP6-02	<0.100	0.130	<0.100	<0.100	<0.100	07/17/00
28349	ECO3GP6-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/17/00
28350	ECO3GP6-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/17/00
28351	ECO3GP6-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/17/00
28352	ECO3GP7-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
28353	ECO3GP7-05	<0.100	<0.100	<0.100	<0.100	< 0.100	07/18/00
28354	ECO3GP7-10	0.153	0.133	<0.100	<0.100	0.106	07/18/00
28355	ECO3GP7-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
	% IA	89	86	86	94	87	
	% EA	85	81	88	98	90	
	BLANK	<0.100	<0.100	<0.100	<0.100	<0.100	•

METHODS: SW 846-8021B,5030

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7-28-00

Date



EOTT ENERGY

ATTN: MR. WAYNE BRUNETTE

P.O. BOX 1660

MIDLAND, TEXAS 79703

FAX: 915-684-3456

FAX: 505-394-2601 (Pat McCasland)

Sample Type: Soil

Sample Condition: Intact/ 116 deg. F

Project #: None Given

Project Name: Clay Osborn Site 3
Project Location: Site 12, T25S, R36E

Sampling Date: See Below Receiving Date: 07/20/00 Analysis Date: 07/22/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m.p-XYLENE mg/kg	o-XYLENE mg/kg	SAMPLE DATE
28356	ECO3GP8-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
			<0.100			<0.100	07/18/00
28357	ECC3GP8-05	<0.100		<0.100	0.262	<0.100	07/18/00
28358	ECC3GP8-10	<0.100	<0.100	<0.100	<0.100 <0.100	<0.100	07/18/00
28359	ECO3GP8-15	<0.100	<0.100	<0.100			
28360	ECO3GP9-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
28361	ECO3GP9-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
28362	ECO3GP9-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
28363	ECO3GP9-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
28364	ECO3GP10-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
28365	ECO3GP10-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
28366	ECO3GP10-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
28367	EC03GP10-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
28368	ECO3GP11-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
28369	ECO3GP11-05	0.157	<0.100	<0.100	<0.100	<0.100	07/18/00
28370	ECO3GP11-10	<0.100	<0.100	<0.100	< 0.100	<0.100	07/18/00
28371	EC03GP11-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/18/00
28372	ECO3GP12-02	<0.100	<0.100	<0.100	< 0.100	<0.100	07/19/00
28373	ECO3GP12-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/19/00
28374	ECO3GP12-10	<0.100	<0.100	<0.100	< 0.100	< 0.100	07/19/00
28375	ECO3GP12-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/19/00
	% IA	89	85	87	95	88	
	% EA	92	89	91	102	92	
	BLANK	<0.100	<0.100	<0.100	<0.100	<0.100	

METHODS: SW 846-8021B,5030

Raland K. Tuttle

7-28-00



EOTT ENERGY

ATTN: MR. WAYNE BRUNETTE

P.O. BOX 1660

MIDLAND, TEXAS 79703

FAX: 915-684-3456

FAX: 505-394-2601 (Pat McCasland)

Sample Type: Soil

Sample Condition: Intact/ 116 deg. F

Project #: None Given

Project Name: Clay Osborn Site 3 Project Location: Site 12, T25S, R36E Sampling Date: 07/19/00 Receiving Date: 07/20/00 Analysis Date: 07/22/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m.p-XYLENE mg/kg	o-XYLENE mg/kg
28376	ECO3GP13-02	<0.100	<0.100	<0.100	<0.100	<0.100
	ECO3GP13-05					
28377		<0.100	<0.100	<0.100	<0.100	<0.100
28378	ECO3GP13-10	<0.100	<0.100	<0.100	<0.100	<0.100
28379	ECO3GP13-15	<0.100	<0.100	<0.100	<0.100	<0.100
28380	ECO3GP14-02	<0.100	<0.100	<0.100	<0.100	<0.100
28381	ECO3GP14-05	<0.100	<0.100	<0.100	<0.100	<0.100
28382	ECO3GP14-10	<0.100	<0.100	<0.100	<0.100	<0.100
28383	ECO3GP14-15	<0.100	<0.100	<0.100	<0.100	<0.100
28384	ECO3GP15-02	<0.100	<0.100	<0.100	<0.100	<0.100
28385	ECO3GP15-05	<0.100	<0.100	0.113	0.106	<0.100
28386	ECO3GP15-10	<0.100	<0.100	<0.100	<0.100	<0.100
28387	ECO3GP15-15	<0.100	<0.100	<0.100	<0.100	<0.100

% IA	89	86	87	95	88
% EA	90	88	90	99	92
BLANK	<0.100	<0.100	<0.100	<0.100	< 0.100

METHODS: SW 846-8021B,5030



EOTT ENERGY

ATTN: MR. WAYNE BRUNETTE

P.O. BOX 1660

MIDLAND, TEXAS 79703

FAX: 915-684-3456

FAX: 505-394-2601 (Pat McCasland)

Sampling Date: 07/17/00

Receiving Date: 07/20/00 Analysis Date: 07/23/00

Sample Condition: Intact/ 116 deg. F

Project #: None Given

Sample Type: Soil

Project Name: Clay Osborn Site 3

Project Location: Sec 12, T25S, R36E

GRO DRO C6-C10 >C10-C28 ELT# FIELD CODE mg/kg mg/kg 28328 ECO3GP1-02 <10 3193 28329 ECO3GP1-05 <10 <10 28330 ECO3GP1-10 <10 <10 28331 ECO3GP1-15 <10 <10 28332 ECO3GP2-02 <10 <10 28333 ECO3GP2-05 <10 <10 28334 EC03GP2-10 <10 <10 28335 EC03GP2-15 <10 <10 28336 ECO3GP3-02 <10 11 28337 ECO3GP3-05 <10 <10 28338 EC03GP3-10 <10 <10 28339 EC03GP3-15 <10 <10 28340 ECO3GP4-02 <10 <10 28341 EC03GP4-05 <10 <10 28342 ECO3GP4-10 <10 <10 28343 ECO3GP4-15 <10 <10 28344 EC03GP5-02 <10 <10 28345 ECO3GP5-05 <10 <10 28346 ECO3GP5-10 <10 <10 28347 EC03GP5-15 <10 <10 28348 EC03GP6-02 <10 <10 28349 ECO3GP6-05 <10 <10 28350 EC03GP6-10 <10 <10 28351 EC03GP6-15 <10 <10

METHODS: SW 846-8015M

% IA

% EA

BLANK

Z8-00

70

84

<10

66

79

<10



EOTT ENERGY

ATTN: MR. WAYNE BRUNETTE

P.O. BOX 1660

MIDLAND, TEXAS 79703

FAX: 915-684-3456

FAX: 505-394-2601 (Pat McCasland)

Sample Type: Soil

Sample Condition: Intact/ 116 deg. F

Project #: None Given

Project Name: Clay Osborn Site 3
Project Location: Sec 12, T25S, R36E

Sampling Date: See Below Receiving Date: 07/20/00 Analysis Date: 07/23/00

		GRO	DRO		
		C6-C10	>C10-C28	SAMPLE	
ELT#	FIELD CODE	mg/kg	mg/kg	DATE	• • • • • • • • • • • • • • • • • • • •
28352	ECC3GP7-02	<10	<10	07/18/00	
28353	ECO3GP7-05	<10	<10	07/18/00	
28354	ECO3GP7-10	<10	<10	07/18/00	
28355	ECO3GP7-15	<10	<10	07/18/00	
28356	ECO3GP8-02	<10	<10	07/18/00	
28357	ECO3GP8-05	<10	<10	07/18/00	
28358	ECO3GP8-10	<10	<10	07/18/00	
28359	ECO3GP8-15	<10	<10	07/18/00	
28360	ECO3GP9-02	<10	<10	07/18/00	
28361	ECO3GP9-05	<10	<10	07/18/00	
28362	ECO3GP9-10	<10	<10	07/18/00	
28363	ECO3GP9-15	<10	<10	07/18/00	
28364	ECO3GP10-02	<10	266	07/18/00	
28365	ECO3GP10-05	<10	24	07/18/00	
28366	ECO3GP10-10	<10	<10	07/18/00	
28367	ECO3GP10-15	<10	<10	07/18/00	
28368	ECO3GP11-02	<10	<10	07/18/00	
28369	ECO3GP11-05	<10	<10	07/18/00	
28370	ECO3GP11-10	<10	<10	07/18/00	
28371	ECO3GP11-15	<10	<10	07/18/00	
28372	ECO3GP12-02	<10	<10	07/19/00	
28373	ECO3GP12-05	<10	<10	07/19/00	
	% IA	84	92		
	% EA	88	87	•	
	BLANK	<10	<10		

METHODS: SW 846-8015M

Raland K July

Raland K. Tuttle

7-28-00

Date



EOTT ENERGY

ATTN: MR. WAYNE BRUNETTE

P.O. BOX 1660

MIDLAND, TEXAS 79703

FAX: 915-684-3456

FAX: 505-394-2601 (Pat McCasland)

Sampling Date: 07/19/00 Receiving Date: 07/20/00

Analysis Date: 07/24/00

Sample Type: Soil

Sample Condition: Intact/ 116 deg. F

Project #: None Given

Project Name: Clay Osborn Site 3 Project Location: Sec 12, T25S, R36E

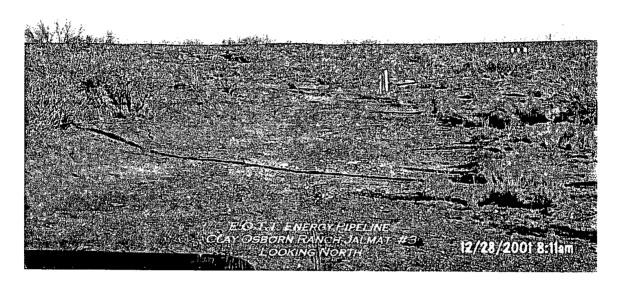
	GHO C6-C10	DRO	
		>C10-C28	
FIELD CODE	mg/kg	mg/kg	
EOO3GP12-10	<10	<10	
ECO3GP12-15	<10	<10	
ECO3GP13-02	<10	<10	
ECO3GP13-05	<10	<10	
ECO3GP13-10	<10	<10	
ECO3GP13-15	<10	<10	
ECO3GP14-02	271	9796	
ECC3GP14-05	<50	2233	
ECO3GP14-10	<10	<10	
ECO3GP14-15	<10	<10	
ECO3GP15-02	<50	4454	
ECC3GP15-05	<10	378	
ECC3GP15-10	<10	<10	
ECO3GP15-15	<10	<10	
	ECO3GP12-10 ECO3GP12-15 ECO3GP13-02 ECO3GP13-05 ECO3GP13-10 ECO3GP14-02 ECO3GP14-05 ECO3GP14-10 ECO3GP14-15 ECO3GP15-02 ECO3GP15-05 ECO3GP15-05	FIELD CODE C6-C10 mg/kg ECO3GP12-10 <10	FIELD CODE C6-C10 mg/kg >C10-C28 mg/kg ECO3GP12-10 <10

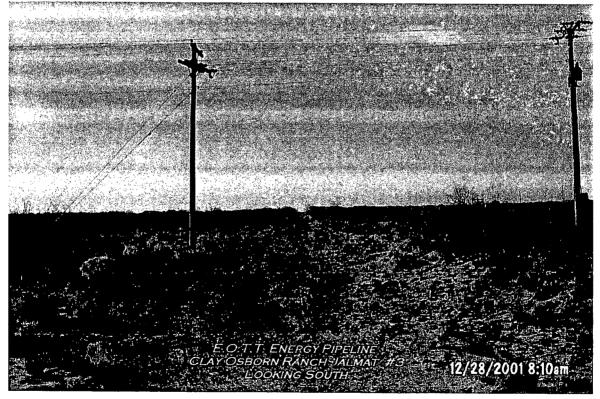
% IA	88	112
% EA	88	87
BLANK	<10	<10

METHODS: SW 846-8015M

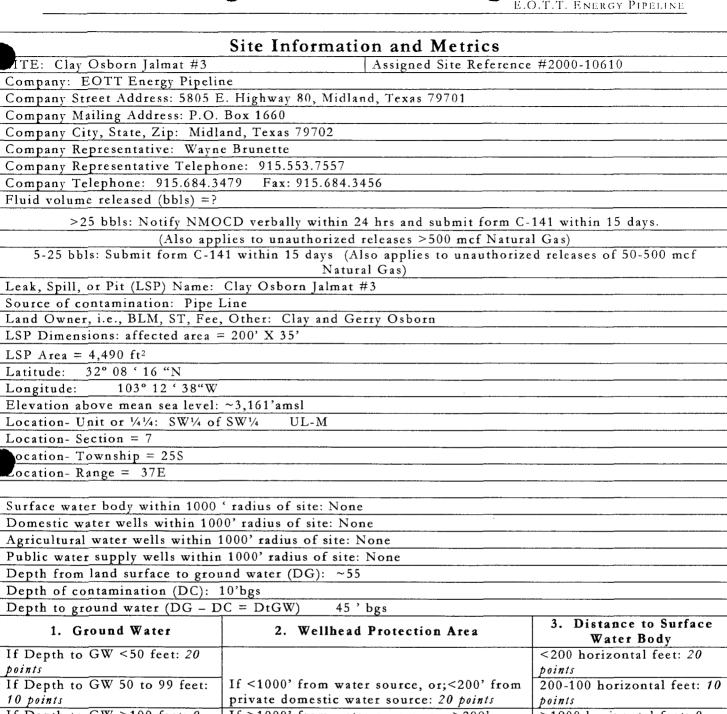
7-28-00

ATTACHMENT IV: PHOTOGRAPHS





ATTACHMENT V: SITE INFORMATION AND METRICS FORM



points			points
If Depth to	GW 50 to 99 feet:	If <1000' from water source, or;<200' from	200-100 horizontal feet: 10
10 points		private domestic water source: 20 points	points
If Depth to	GW >100 feet: 0	If >1000' from water source, or; >200'	>1000 horizontal feet: 0
points		from private domestic water source: 0 points	points
Ground water Score = 20		Wellhead Protection Area Score= 0	Surface Water Score= 0
Site Rank (1-	+2+3) = 20 + 0 + 0	= 20 points	
	Total Site	Ranking Score and Acceptable Conce	ntrations
Parameter	>19		
Benzene ¹ 10 ppm		·	
BTEX ¹ 50 ppm			
PH 100 ppm			
100 ppm fie	eld VOC headspace :	neasurement may be substituted for lab analy	sis