

E.O.T.T. ENERGY CORPORATION

SITE INVESTIGATION

CLAY OSBORN JALMAT #22A
Ref. # 2000-10614

SW 1/4 NW 1/4 ~~UL-E~~ Section 18 T25S R37E
~ 1/2 mile Northwest of Jal
Lea County, New Mexico
Latitude: ~~32°07'58"N~~ Longitude: ~~103°12'38"W~~

December 8, 2001

Prepared by

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EOTT-64617

facility - PAC0604052979
incident - PAC0604053133
application - PAC0604053227

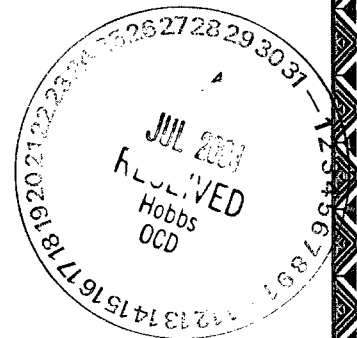
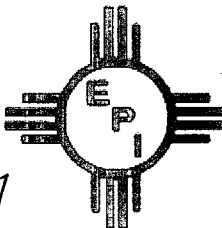


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1.0 INTRODUCTION

This site is located in Unit Letter E, in the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 18 T25S R37E, approximately $\frac{1}{2}$ mile northwest of Jal, Lea County New Mexico at Latitude 32°07'58"N and Longitude 103°12'38"W. Clay and Gerry Osborn who live in the ranch headquarters approximately 1 mile east of the site own the property. 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. Typically, the QA and CO formations in the area are capped by a thick interbed of caliche and generally overlain by blow sand.

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 (*Quercus 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 70.0'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. A Texas-New Mexico Pipeline installed monitor well, referred to as the Clay Osborn Pond Reference Well is located ~1100 horizontal feet southeast of the site.

2.5 AREA SURFACE WATER BODIES

During historic Texas-New Mexico Pipeline remediation activities associated with the Clay Osborn 22A and/or 22B sites during the 1990's, the dirt tank was constructed to contain run-off from the land farm up-gradient of the earthen basin. This basin, used by livestock and wildlife, contains water for most of the year but is intermittent and seasonal. The earthen basin is located approximately 890 horizontal feet southeast of the Jalmat #22A site.

3.0 NMOCD SITE RANKING

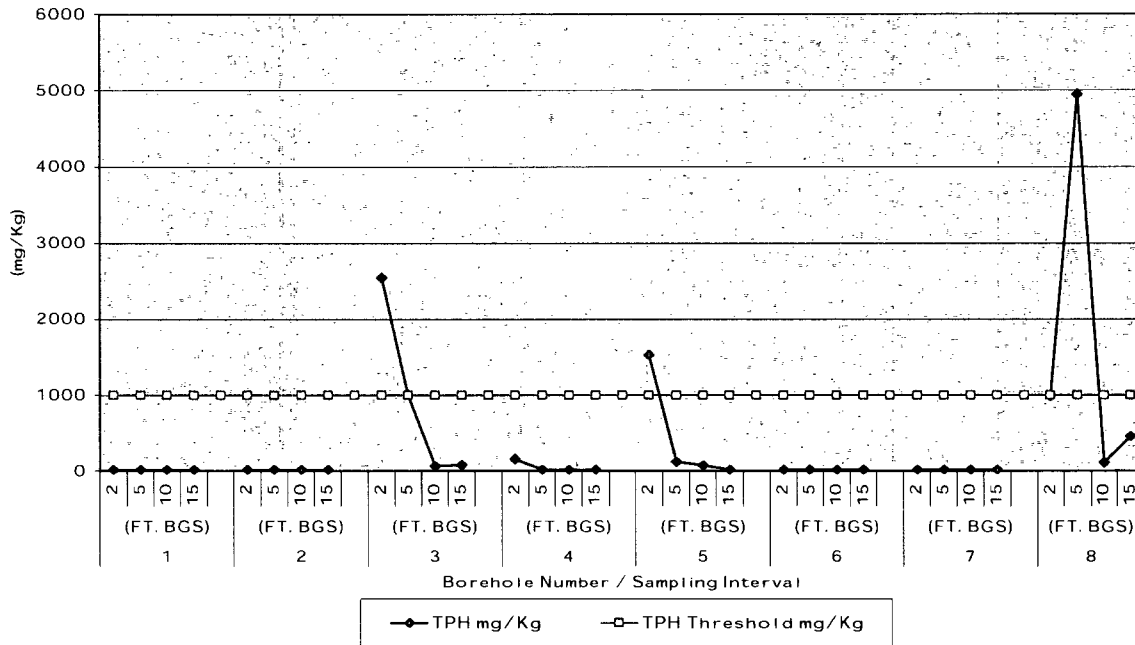
Based on the proximity of the site to protectable area water wells, surface water bodies, and depth to ground water from the lower most contamination, the NMOCD ranking score for the site is 20 points with the soil remedial goals highlighted below in the Site Ranking Matrix.

1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water
If Depth to GW <50 feet: <i>20 points</i>	If <1000' from water source, or; <200' from private domestic water source: <i>20 points</i>	<200 horizontal feet: <i>20 points</i>
If Depth to GW 50 to 99 feet: <i>10 points</i>		200-1000 horizontal feet: <i>10 points</i>
If Depth to GW >100 feet: <i>0 points</i>	If >1000' from water source, or; >200' from private domestic water source: <i>0 points</i>	>1000 horizontal feet: <i>0 points</i>
<i>Ground water Score = 10</i>	<i>Wellhead Protection Area Score= 0</i>	<i>Surface Water Score= 10</i>
<i>Site Rank (1+2+3) = 10 + 0 + 10 = 20 points</i>		
Total Site Ranking Score and Acceptable Remedial Goal Concentrations		
Parameter	>19	
Benzene ¹	10 ppm	
BTEX ¹	50 ppm	
TPH	100 ppm	
¹ 100 ppm field VOC headspace measurement may be substituted for lab analysis		

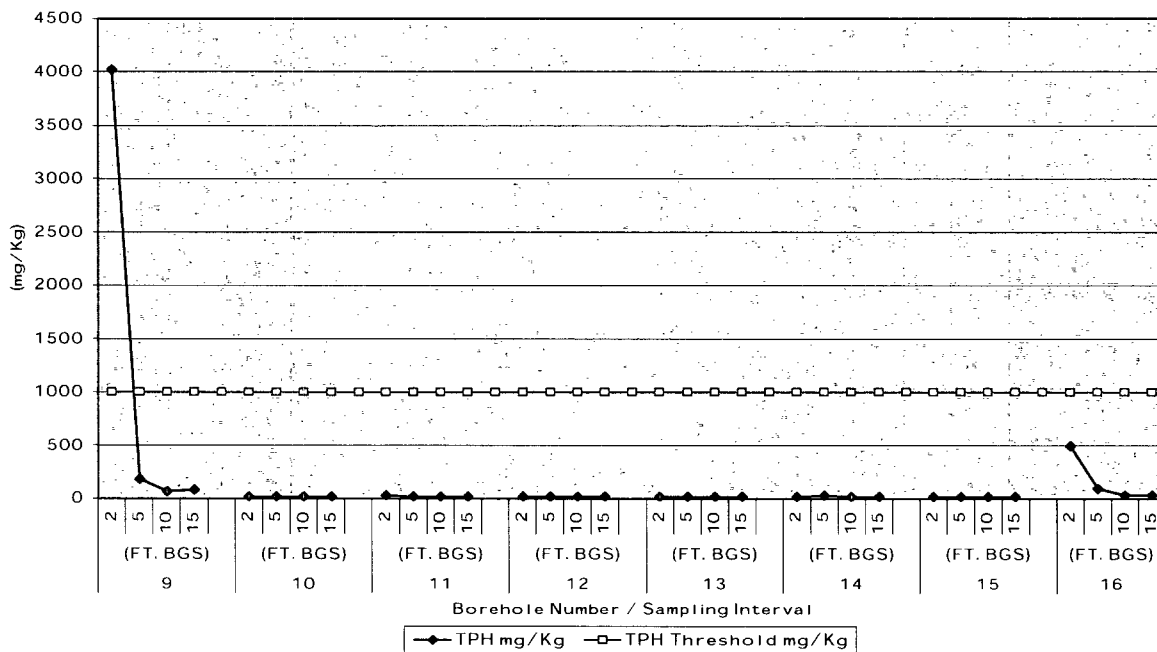
4.0 SUBSURFACE SOIL INVESTIGATION

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 23,437 ft². Vertical contamination above 100 mg/Kg TPH^{8015m} was detected to 15'bgs in the boreholes in the eastern ? of the flow path where the spill apparently pooled and to 10'bgs in the central part of the flow path. The remainder of the site is generally impacted to the 2'bgs interval. The nominal BTEX results attest to the historical nature of the site. Estimated affected expanded (post-excavation) soil volume is 8950yd³, i.e., 5156 yd³ to 15'bgs, 2604 yd³ to 10'bgs, and 1190 yd³ to 2'bgs. The original analytical reports are provided and summarized in Attachment III. The data is illustrated below.

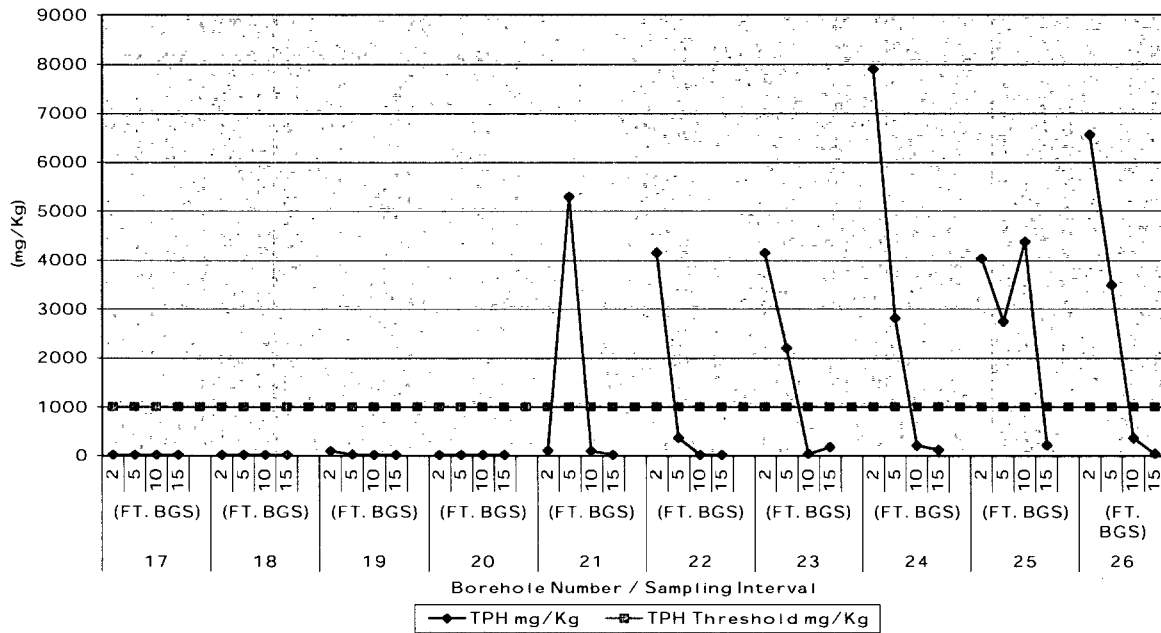
E.O.T.T. Energy Pipeline
Clay Osborn Jalmat 22A
Total Petroleum Hydrocarbon



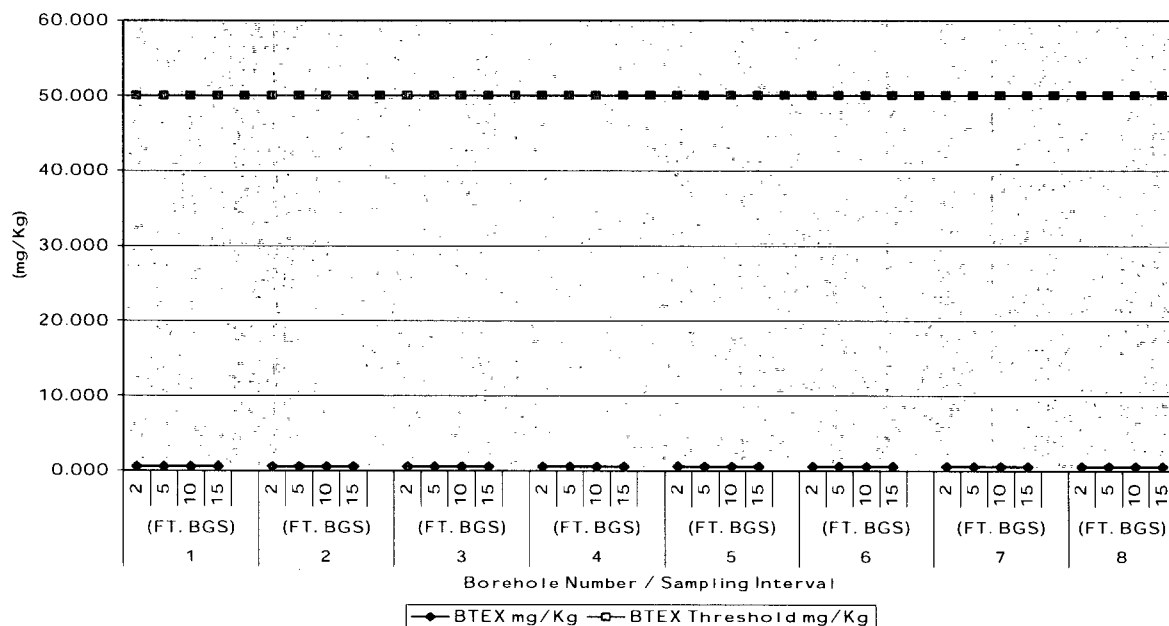
E.O.T.T. Energy Pipeline
Clay Osborn Jalmat 22A
Total Petroleum Hydrocarbon



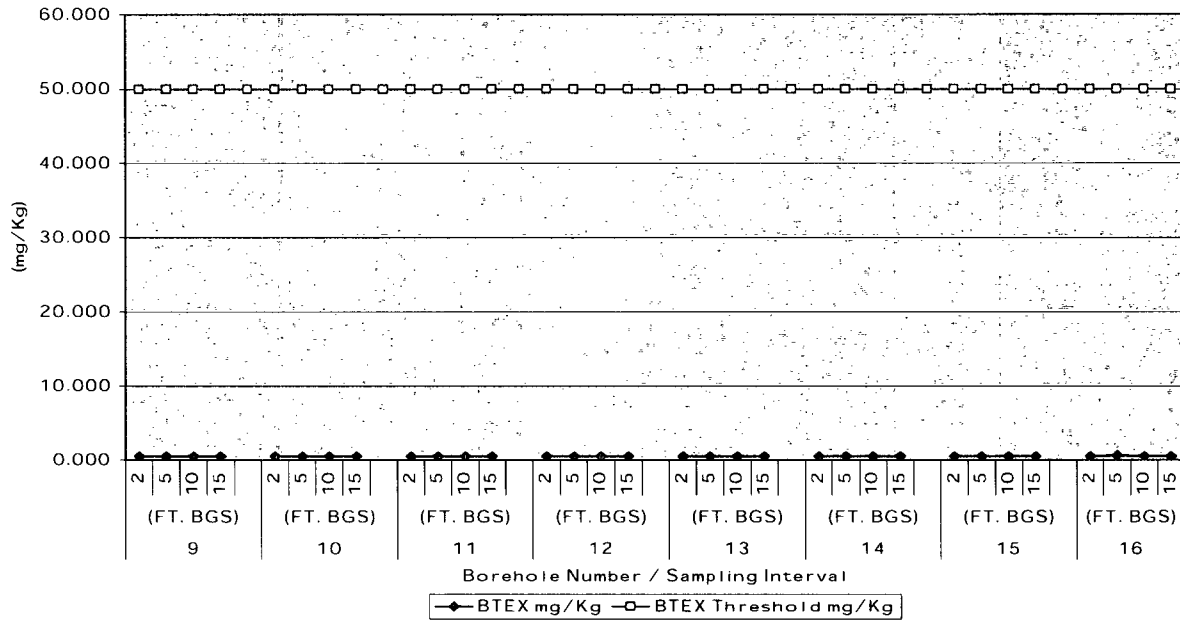
E.O.T.T. Energy Pipeline
Clay Osborn Jalmat 22A
Total Petroleum Hydrocarbon



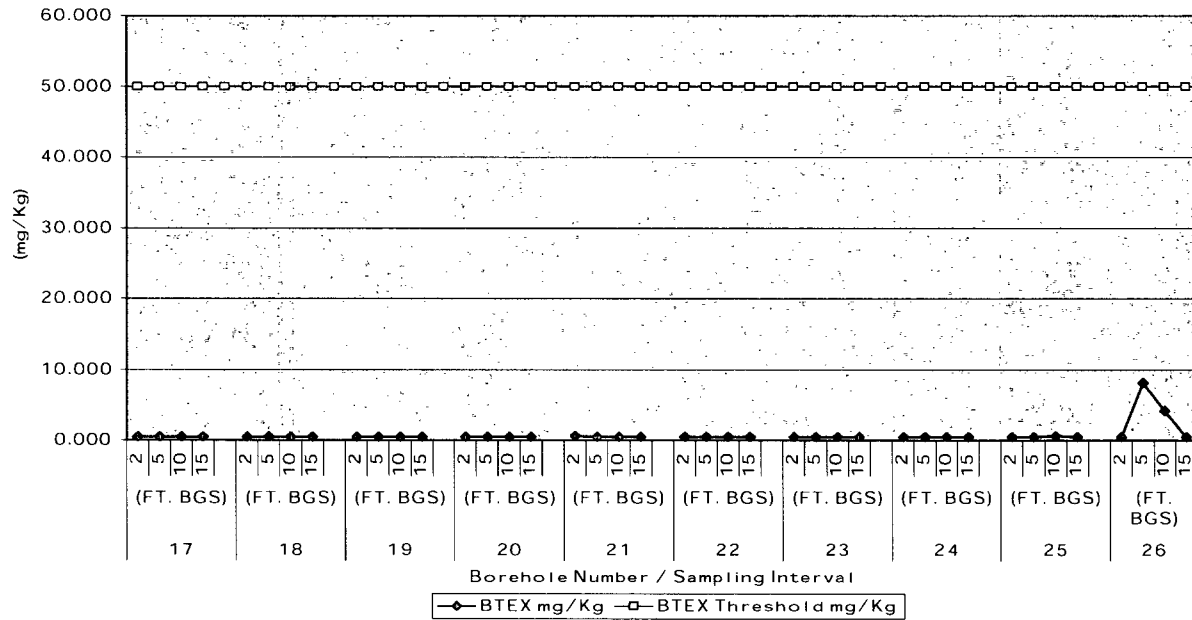
E.O.T.T. Energy Pipeline
Clay Osborn Jalmat 22A
BTEX Delineation



E.O.T.T. Energy Pipeline
Clay Osborn Jalmat 22A
Btex Delineation



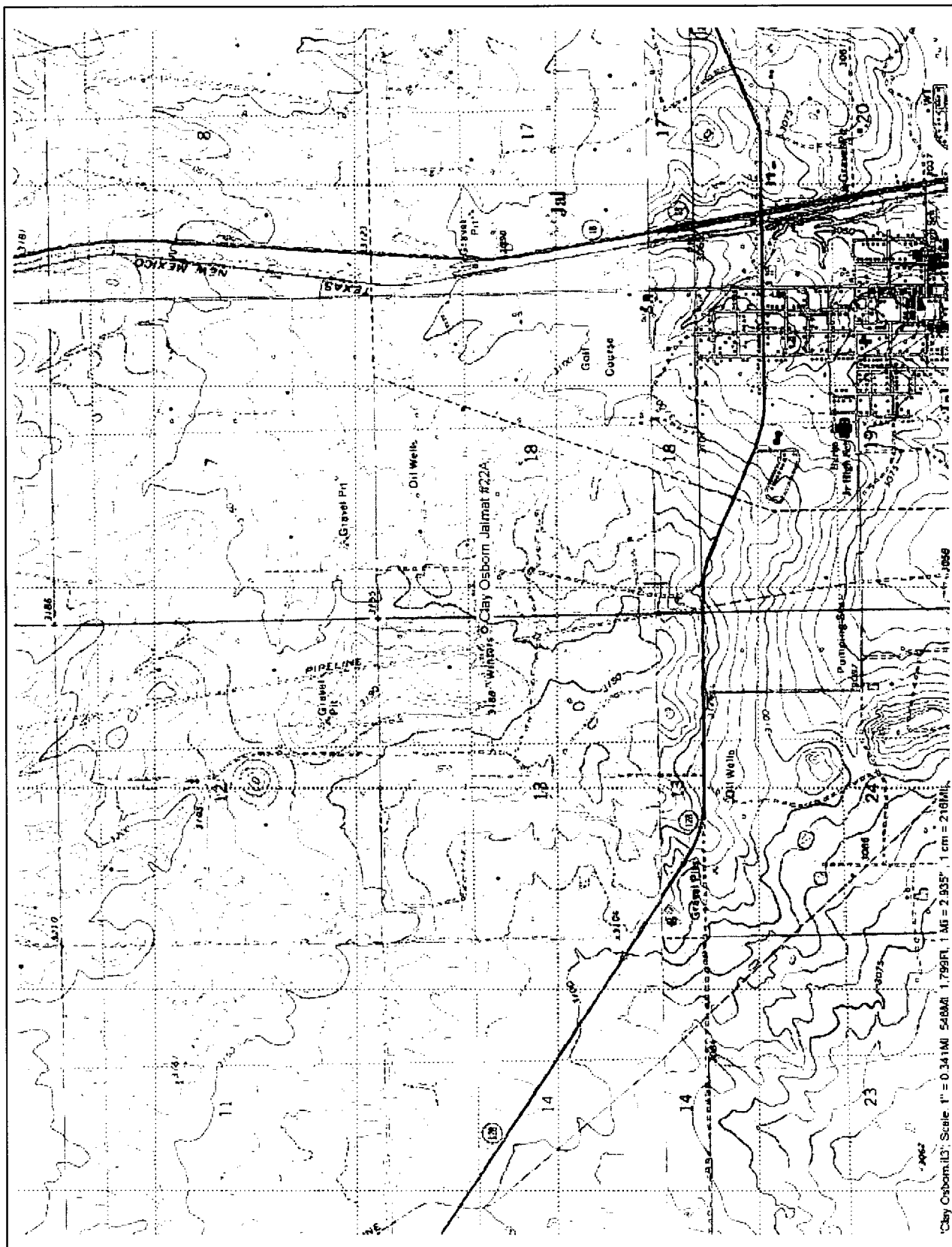
E.O.T.T. Energy Pipeline
Clay Osborn Jalmat 22A
BTEX Delineation



5.0 GROUND WATER INVESTIGATION

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

ATTACHMENT I: SITE MAPS



32°08'00"N

32°07'59"N

32°07'58"N

32°07'57"N

32°07'56"N

32°07'55"N

103°12'38"W

103°12'37"W

103°12'36"W

103°12'35"W

103°12'34"W

Clay Osborn Jalmat 22A

Lat/Long
WGS 1984

N

Scale 1:1,000



Multiple Files

11/10/2001

GPS Pathfinder® Office

PARIMETER

ROAD

BORE HOLE 12

BORE HOLE 11

BORE HOLE 8

BORE HOLE 13

BORE HOLE 9

BORE HOLE 20

BORE HOLE 7

BORE HOLE 14

BORE HOLE 20

BORE HOLE 10

BORE HOLE 25

BORE HOLE 6

BORE HOLE 15

BORE HOLE 19

BORE HOLE 24

BORE HOLE 23

BORE HOLE 16

BORE HOLE 18

BORE HOLE 1

BORE HOLE 22

BORE HOLE 17

BORE HOLE 5

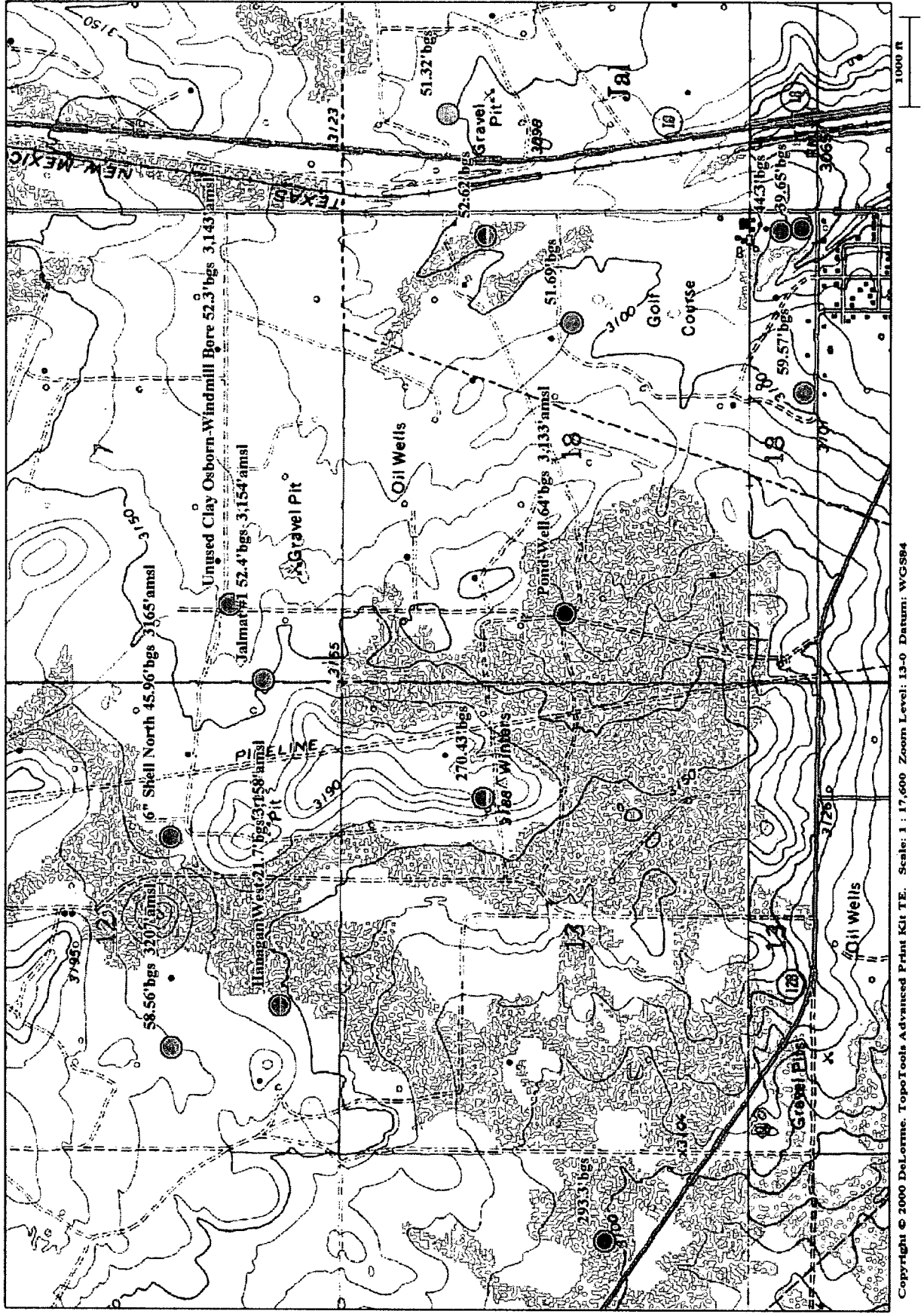
BORE HOLE 4

BORE HOLE 21

BORE HOLE 3

BORE HOLE 2

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



New Mexico Office of the State Engineer

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New Mexico Office of the State Engineer
Well Reports and Downloads

Township: Range: Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic
☒ All

AVERAGE DEPTH OF WATER REPORT 12/29/2001

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
No Records found, try again										

http://164.64.214.10/awdProd/awd.html?email_address=envipus1@aol.com&tw=25S&r... 12/29/2001

New Mexico Office of the State Engineer

Page 1 of 1

New Mexico Office of the State Engineer
Well Reports and Downloads

Township:	25S	Range:	37E	Sections:	7,6,5,8,18,17,20,19
NAD27 X:		Y:		Zone:	
County:		Basin:		Number:	
Owner Name: (First)		(Last)		☐ Non-Domestic ☐ Domestic	
☒ All					
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

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
CP	25S	37E	19				9	27	63	44
CP	25S	37E	20				6	23	60	34

Record Count: 15

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

ATTACHMENT III: ORIGINAL ANALYTICAL REPORTS AND SUMMARIES

E.O.T.T. Energy Pipeline Clay Osborn Jalmat 22A

Borehole	Sampling Interval (FT. BGS ¹)	SAMPLE ID#	Date	Lithology	HEADSPACE VOC ² (ppm)	GRO ³ mg/Kg	DRO ⁴ mg/Kg	TPH ⁵ mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ethyl Benzene mg/Kg	m,p-Xylene mg/Kg	o-Xylene mg/Kg
1	2	ECO22AGP1-02	7/27/2000	Sand	N/A	10	10	20,000	0.515	0.100	0.115	0.100	0.100	0.100
	5	ECO22AGP1-05	7/27/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP1-10	7/27/2000	Sand	N/A	10	10	20,000	0.521	0.100	0.121	0.100	0.100	0.100
	15	ECO22AGP1-15	7/27/2000	Sand	N/A	10	10	20,000	0.553	0.100	0.153	0.100	0.100	0.100
2	2	ECO22AGP2-02	7/27/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP2-05	7/27/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP2-10	7/27/2000	Sand	N/A	10	10	20,000	0.530	0.100	0.130	0.100	0.100	0.100
	15	ECO22AGP2-15	7/27/2000	Sand	N/A	10	10	20,000	0.543	0.100	0.143	0.100	0.100	0.100
3	2	ECO22AGP3-02	7/27/2000	Sand	N/A	50	2493	2543,000	0.500	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP3-05	7/27/2000	Sand	N/A	50	957	1007,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP3-10	7/27/2000	Sand	N/A	10	57	67,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP3-15	7/27/2000	Sand	N/A	10	74	84,000	0.500	0.100	0.100	0.100	0.100	0.100
4	2	ECO22AGP4-02	7/28/2000	Sand	N/A	10	151	161,000	0.500	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP4-05	7/28/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP4-10	7/28/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP4-15	7/28/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
5	2	ECO22AGP5-02	7/28/2000	Sand	N/A	10	1520	1530,000	0.579	0.100	0.179	0.100	0.100	0.100
	5	ECO22AGP5-05	7/28/2000	Sand	N/A	10	114	124,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP5-10	7/28/2000	Sand	N/A	10	65	75,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP5-15	7/28/2000	Sand	N/A	10	11	21,000	0.500	0.100	0.100	0.100	0.100	0.100
6	2	ECO22AGP6-02	7/28/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP6-05	7/28/2000	Sand	N/A	10	10	20,000	0.508	0.100	0.100	0.108	0.100	0.100
	10	ECO22AGP6-10	7/28/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP6-15	7/28/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
7	2	ECO22AGP7-02	7/28/2000	Sand	N/A	10	10	20,000	0.514	0.100	0.114	0.103	0.100	0.100
	5	ECO22AGP7-05	7/28/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP7-10	7/28/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP7-15	7/28/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
8	2	ECO22AGP8-02	7/28/2000	Sand	N/A	10	976	986,000	0.500	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP8-05	7/28/2000	Sand	N/A	50	4898	4948,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP8-10	7/28/2000	Sand	N/A	10	102	112,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP8-15	7/28/2000	Sand	N/A	10	451	461,000	0.500	0.100	0.100	0.100	0.100	0.100

¹bgs - below ground surface²VOC-Volatile Organic Contaminants/Constituents³GRO-Gasoline Range Organics C₆-C₁₀⁴DRO-Diesel Range Organics C₁₀-C₂₈⁵TPH-Total Petroleum Hydrocarbon = GRO+DRO.⁶Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter⁷Italicized values are < the instrument detection limit.⁸N/A Not Analyzed

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

E.O.T.T. Energy Pipeline Clay Osborn Jalmat 22A

Borehole	Sampling Interval (FT. BGS ¹)	SAMPLE ID#	Date Taken	Lithology	HEADSPACE VOC ² (ppm)	GRO ³ mg/Kg	DRO ⁴ mg/Kg	TPH ⁵ mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ethyl Benzene mg/Kg	m,p-Xylene mg/Kg
9	2	ECO22AGP9-02	7/28/2000	Sand	N/A	50	3970	4020,000	0.500	0.100	0.100	0.100	0.100
	5	ECO22AGP9-05	7/28/2000	Sand	N/A	10	170	196,000	0.500	0.100	0.100	0.100	0.100
	10	ECO22AGP9-10	7/28/2000	Sand	N/A	10	56	66,000	0.500	0.100	0.100	0.100	0.100
	15	ECO22AGP9-15	7/28/2000	Sand	N/A	10	70	80,000	0.502	0.100	0.100	0.102	0.100
10	2	ECO22AGP10-02	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	5	ECO22AGP10-05	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	10	ECO22AGP10-10	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	15	ECO22AGP10-15	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
11	2	ECO22AGP11-02	7/31/2000	Sand	N/A	10	19	29,000	0.500	0.100	0.100	0.100	0.100
	5	ECO22AGP11-05	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	10	ECO22AGP11-10	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	15	ECO22AGP11-15	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
12	2	ECO22AGP12-02	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	5	ECO22AGP12-05	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	10	ECO22AGP12-10	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	15	ECO22AGP12-15	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
13	2	ECO22AGP13-02	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	5	ECO22AGP13-05	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	10	ECO22AGP13-10	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	15	ECO22AGP13-15	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
14	2	ECO22AGP14-02	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	5	ECO22AGP14-05	7/31/2000	Sand	N/A	10	21	31,000	0.500	0.100	0.100	0.100	0.100
	10	ECO22AGP14-10	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	15	ECO22AGP14-15	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
15	2	ECO22AGP15-02	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	5	ECO22AGP15-05	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	10	ECO22AGP15-10	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
	15	ECO22AGP15-15	7/31/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100
16	2	ECO22AGP16-02	8/1/2000	Sand	N/A	10	484	494,000	0.500	0.100	0.100	0.100	0.100
	5	ECO22AGP16-05	8/1/2000	Sand	N/A	10	85	95,000	0.586	0.100	0.117	0.153	0.116
	10	ECO22AGP16-10	8/1/2000	Sand	N/A	10	24	34,000	0.500	0.100	0.100	0.100	0.100
	15	ECO22AGP16-15	8/1/2000	Sand	N/A	10	24	34,000	0.500	0.100	0.100	0.100	0.100

¹bgs - below ground surface²VOC-Volatile Organic Contaminants/Constituents³GRO-Gasoline Range Organics C₆-C₁₀⁴DRO-Diesel Range Organics C₁₀-C₂₈⁵TPH-Total Petroleum Hydrocarbon = GRO+DRO.⁶Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter⁷Italicized values are < the instrument detection limit.⁸N/A Not Analyzed

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

E.O.T.T. Energy Pipeline Clay Osborn Jalmat 22A

Borehole	Sampling Interval (ft, BGS ¹)	SAMPLE ID#	Date Taken	Lithology	HEADSPACE VOC ² (ppm)	GRO ³ mg/Kg	DRO ⁴ mg/Kg	TPH ⁵ mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ethyl Benzene mg/Kg	m,p- Xylene mg/Kg	o-Xylene mg/Kg
17	2	ECO22AGP17-02	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP17-05	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP17-10	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP17-15	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	2	ECO22AGP18-02	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
18	5	ECO22AGP18-05	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP18-10	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP18-15	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	2	ECO22AGP19-02	8/1/2000	Sand	N/A	50	50	100,000	0.500	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP19-05	8/1/2000	Sand	N/A	10	14	24,000	0.500	0.100	0.100	0.100	0.100	0.100
19	10	ECO22AGP19-10	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP19-15	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	2	ECO22AGP20-02	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP20-05	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP20-10	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
20	15	ECO22AGP20-15	8/1/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	2	ECO22AGP21-02	8/2/2000	Sand	N/A	10	98	108,000	0.588	0.100	0.188	0.100	0.100	0.100
	5	ECO22AGP21-05	8/2/2000	Sand	N/A	50	5240	5290,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP21-10	8/2/2000	Sand	N/A	10	87	97,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP21-15	8/2/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
22	2	ECO22AGP22-02	8/2/2000	Sand	N/A	50	4098	4148,000	0.500	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP22-05	8/2/2000	Sand	N/A	10	357	367,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP22-10	8/2/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP22-15	8/2/2000	Sand	N/A	10	10	20,000	0.500	0.100	0.100	0.100	0.100	0.100
	2	ECO22AGP23-02	8/2/2000	Sand	N/A	92	4052	4144,000	0.500	0.100	0.100	0.100	0.100	0.100
23	5	ECO22AGP23-05	8/2/2000	Sand	N/A	161	2040	2201,000	0.500	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP23-10	8/2/2000	Sand	N/A	10	30	40,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP23-15	8/2/2000	Sand	N/A	10	168	178,000	0.500	0.100	0.100	0.100	0.100	0.100
	2	ECO22AGP24-02	8/3/2000	Sand	N/A	74	7823	7897,000	0.500	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP24-05	8/3/2000	Sand	N/A	135	2678	2813,000	0.500	0.100	0.100	0.100	0.100	0.100
24	10	ECO22AGP24-10	8/3/2000	Sand	N/A	10	202	212,000	0.500	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP24-15	8/3/2000	Sand	N/A	10	109	119,000	0.500	0.100	0.100	0.100	0.100	0.100

¹bgs - below ground surface²VOC-Volatile Organic Contaminants/Constituents³GRO-Gasoline Range Organics C₆-C₁₀⁴DRO-Diesel Range Organics C₁₀-C₂₈⁵TPH-Total Petroleum Hydrocarbon = GRO+DRO.⁶Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter⁷Italicized values are < the instrument detection limit.⁸N/A Not Analyzed

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

E.O.T.T. Energy Pipeline Clay Osborn Jalmat 22A

Borehole	Sampling Interval (FT, BGS ¹)	SAMPLE ID#	Date Taken	Lithology	HEADSPACE VOC ² (ppm)	GRO ³ mg/Kg	DRO ⁴ mg/Kg	TPH ⁵ mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ethyl Benzene mg/Kg	m,p- Xylene mg/Kg
25	2	ECO22AGP25-02	8/3/2000	Sand	N/A	50	3980	4030.000	0.500	0.100	0.100	0.100	0.100
	5	ECO22AGP25-05	8/3/2000	Sand	N/A	120	2621	2741.000	0.500	0.100	0.100	0.100	0.100
	10	ECO22AGP25-10	8/3/2000	Sand	N/A	331	4040	4371.000	0.599	0.100	0.100	0.100	0.143
	15	ECO22AGP25-15	8/3/2000	Sand	N/A	10	208	218.000	0.500	0.100	0.100	0.100	0.100
26	2	ECO22AGP26-02	8/3/2000	Sand	N/A	214	6346	6560.000	0.500	0.100	0.100	0.100	0.100
	5	ECO22AGP26-05	8/3/2000	Sand	N/A	543	2947	3490.000	8.155	0.100	0.645	1.040	3.480
	10	ECO22AGP26-10	8/3/2000	Sand	N/A	15	348	363.000	4.201	0.100	0.934	0.505	1.820
	15	ECO22AGP26-15	8/3/2000	Sand	N/A	10	28	38.000	0.500	0.100	0.100	0.100	0.100

¹bgs – below ground surface²VOC-Volatile Organic Contaminants/Constituents³GRO-Gasoline Range Organics C₆-C₁₀⁴DRO-Diesel Range Organics C₁₀-C₂₈⁵TPH-Total Petroleum Hydrocarbon = GRO+DRO.⁶Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter⁷Italicized values are < the instrument detection limit.⁸N/A Not Analyzed

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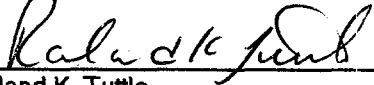
EOTT ENERGY
ATTN: MR. WAYNE BRUNETTE
P.O. BOX 1660
MIDLAND, TEXAS 79703
FAX: 915-684-3456
FAX: 505-394-2601 (Pat McCasland)

Sample Type: Soil
Sample Condition: Intact/ Iced/ 42 deg. F
Project #: None Given
Project Name: Clay Osborn Site 22A
Project Location: None Given

Sampling Date: See Below
Receiving Date: 08/03/00
Analysis Date: 08/03/00

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg	SAMPLE DATE
28804	ECO22AGP1-02	<10	<10	07/27/00
28805	ECO22AGP1-05	<10	<10	07/27/00
28806	ECO22AGP1-10	<10	<10	07/27/00
28807	ECO22AGP1-15	<10	<10	07/27/00
28808	ECO22AGP2-02	<10	<10	07/27/00
28809	ECO22AGP2-05	<10	<10	07/27/00
28810	ECO22AGP2-10	<10	<10	07/27/00
28811	ECO22AGP2-15	<10	<10	07/27/00
28812	ECO22AGP3-02	<50	2493	07/27/00
28813	ECO22AGP3-05	<50	957	07/27/00
28814	ECO22AGP3-10	<10	57	07/27/00
28815	ECO22AGP3-15	<10	74	07/27/00
28816	ECO22AGP4-02	<10	151	07/28/00
28817	ECO22AGP4-05	<10	<10	07/28/00
28818	ECO22AGP4-10	<10	<10	07/28/00
28819	ECO22AGP4-15	<10	<10	07/28/00
28820	ECO22AGP5-02	<10	1520	07/28/00
28821	ECO22AGP5-05	<10	114	07/28/00
28822	ECO22AGP5-10	<10	65	07/28/00
28823	ECO22AGP5-15	<10	11	07/28/00
28824	ECO22AGP6-02	<10	<10	07/28/00
28825	ECO22AGP6-05	<10	<10	07/28/00
28826	ECO22AGP6-10	<10	<10	07/28/00
28827	ECO22AGP6-15	<10	<10	07/28/00
% IA		95	109	
% EA		107	124	
BLANK		<10	<10	

METHODS: SW 846-8015M


Raland K. Tuttle

8-10-00
Date

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MIDLAND, TEXAS 79703
FAX: 915-684-3456
FAX: 505-394-2601 (Pat McCasland)

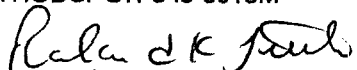
Sample Type: Soil
Sample Condition: Intact/ Iced/ 42 deg. F
Project #: None Given
Project Name: Clay Osborn Site 22A
Project Location: None Given

Sampling Date: See Below
Receiving Date: 08/03/00
Analysis Date: 08/04/00

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg	SAMPLE DATE
28828	ECO22AGP7-02	<10	<10	07/28/00
28829	ECO22AGP7-05	<10	<10	07/28/00
28830	ECO22AGP7-10	<10	<10	07/28/00
28831	ECO22AGP7-15	<10	<10	07/28/00
28832	ECO22AGP8-02	<10	976	07/28/00
28833	ECO22AGP8-05	<50	4898	07/28/00
28834	ECO22AGP8-10	<10	102	07/28/00
28835	ECO22AGP8-15	<10	451	07/28/00
28836	ECO22AGP9-02	<50	3970	07/28/00
28837	ECO22AGP9-05	<10	170	07/28/00
28838	ECO22AGP9-10	<10	56	07/28/00
28839	ECO22AGP9-15	<10	70	07/28/00
28840	ECO22AGP10-02	<10	<10	07/31/00
28841	ECO22AGP10-05	<10	<10	07/31/00
28842	ECO22AGP10-10	<10	<10	07/31/00

% IA	85	99
% EA	107	124
BLANK	<10	<10

METHODS: SW 846-8015M


Raland K. Tuttle

8-10-00
Date

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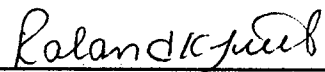
Sample Type: Soil
Sample Condition: Intact/ Iced/ 42 deg. F
Project #: None Given
Project Name: Clay Osborn Site 22A
Project Location: None Given

Sampling Date: 07/31/00
Receiving Date: 08/03/00
Analysis Date: 08/05/00

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
28843	ECO22AGP10-15	<10	<10
28844	ECO22AGP11-02	<10	19
28845	ECO22AGP11-05	<10	<10
28846	ECO22AGP11-10	<10	<10
28847	ECO22AGP11-15	<10	<10
28848	ECO22AGP12-02	<10	<10
28849	ECO22AGP12-05	<10	<10
28850	ECO22AGP12-10	<10	<10
28851	ECO22AGP12-15	<10	<10
28852	ECO22AGP13-02	<10	<10
28853	ECO22AGP13-05	<10	<10
28854	ECO22AGP13-10	<10	<10
28855	ECO22AGP13-15	<10	<10
28856	ECO22AGP14-02	<10	<10
28857	ECO22AGP14-05	<10	21
28858	ECO22AGP14-10	<10	<10
28859	ECO22AGP14-15	<10	<10
28860	ECO22AGP15-02	<10	<10
28861	ECO22AGP15-05	<10	<10
28862	ECO22AGP15-10	<10	<10

% IA	98	108
% EA	82	83
BLANK	<10	<10

METHODS: SW 846-8015M


Raland K. Tuttle

8-10-00
Date

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FAX: 505-394-2601 (Pat McCasland)

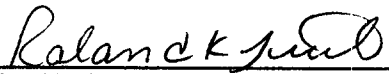
Sample Type: Soil
Sample Condition: Intact/ Iced/ 42 deg. F
Project #: None Given
Project Name: Clay Osborn Site 22A
Project Location: None Given

Sampling Date: See Below
Receiving Date: 08/03/00
Analysis Date: 08/05/00

ELT#	FIELD CODE	GRO	DRO	SAMPLE DATE
		C6-C10 mg/kg	>C10-C28 mg/kg	
28863	ECO22AGP15-15	<10	<10	07/31/00
28864	ECO22AGP16-02	<10	484	08/01/00
28865	ECO22AGP16-05	<10	85	08/01/00
28866	ECO22AGP16-10	<10	24	08/01/00
28867	ECO22AGP16-15	<10	24	08/01/00
28868	ECO22AGP17-02	<10	<10	08/01/00
28869	ECO22AGP17-05	<10	<10	08/01/00
28870	ECO22AGP17-10	<10	<10	08/01/00
28871	ECO22AGP17-15	<10	<10	08/01/00
28872	ECO22AGP18-02	<10	<10	08/01/00
28873	ECO22AGP18-05	<10	<10	08/01/00
28874	ECO22AGP18-10	<10	<10	08/01/00
28875	ECO22AGP18-15	<10	<10	08/01/00
28876	ECO22AGP19-02	<50	<50	08/01/00
28877	ECO22AGP19-05	<10	14	08/01/00
28878	ECO22AGP19-10	<10	<10	08/01/00
28879	ECO22AGP19-15	<10	<10	08/01/00
28880	ECO22AGP20-02	<10	<10	08/01/00
28881	ECO22AGP20-05	<10	<10	08/01/00
28882	ECO22AGP20-10	<10	<10	08/01/00
28883	ECO22AGP20-15	<10	<10	08/01/00

% IA	98	108
% EA	88	86
BLANK	<10	<10

METHODS: SW 846-8015M


Raland K. Tuttle

8-10-00
Date

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"Don't Treat Your Soil Like Dirt!"

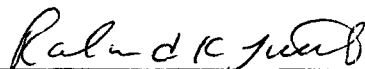
EOTT ENERGY
ATTN: MR. WAYNE BRUNETTE
P.O. BOX 1660
MIDLAND, TEXAS 79703
FAX: 915-684-3456
FAX: 505-394-2601 (Pat McCasland)

Sample Type: Soil
Sample Condition: Intact/ Iced/ 42 deg. F
Project #: None Given
Project Name: Clay Osborn Site 22A
Project Location: None Given

Sampling Date: See Below
Receiving Date: 08/03/00
Analysis Date: 08/05/00

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg	SAMPLE DATE
28884	ECO22AGP21-02	<10	98	08/02/00
28885	ECO22AGP21-05	<50	5240	08/02/00
28886	ECO22AGP21-10	<10	87	08/02/00
28887	ECO22AGP21-15	<10	<10	08/02/00
28888	ECO22AGP22-02	<50	4098	08/02/00
28889	ECO22AGP22-05	<10	357	08/02/00
28890	ECO22AGP22-10	<10	<10	08/02/00
28891	ECO22AGP22-15	<10	<10	08/02/00
28892	ECO22AGP23-02	92	4052	08/02/00
28893	ECO22AGP23-05	161	2040	08/02/00
28894	ECO22AGP23-10	<10	30	08/02/00
28895	ECO22AGP23-15	<10	168	08/02/00
28896	ECO22AGP24-02	74	7823	08/03/00
28897	ECO22AGP24-05	135	2678	08/03/00
28898	ECO22AGP24-10	<10	202	08/03/00
28899	ECO22AGP24-15	<10	109	08/03/00
28900	ECO22AGP25-02	<50	3980	08/03/00
28901	ECO22AGP25-05	120	2612	08/03/00
28902	ECO22AGP25-10	331	4040	08/03/00
28903	ECO22AGP25-15	<10	208	08/03/00
28904	ECO22AGP26-02	214	6346	08/03/00
28905	ECO22AGP26-05	543	2947	08/03/00
28906	ECO22AGP26-10	15	348	08/03/00
28907	ECO22AGP26-15	<10	28	08/03/00
% IA		95	98	
% EA		88	86	
BLANK		<10	<10	

METHODS: SW 846-8015M


Raland K. Tuttle


Date

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"Don't Treat Your Soil Like Dirt!"

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MIDLAND, TEXAS 79703
FAX: 915-684-3456
FAX: 505-394-2601 (Pat McCasland)

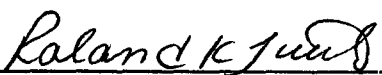
Sample Type: Soil
Sample Condition: Intact/ Iced/ 42 deg. F
Project #: None Given
Project Name: Clay Osborn Site 22A
Project Location: None Given

Sampling Date: See Below
Receiving Date: 08/03/00
Analysis Date: 08/03/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg	SAMPLE DATE
28804	ECO22AGP1-02	<0.100	0.115	<0.100	<0.100	<0.100	07/27/00
28805	ECO22AGP1-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/27/00
28806	ECO22AGP1-10	<0.100	0.121	<0.100	<0.100	<0.100	07/27/00
28807	ECO22AGP1-15	<0.100	0.153	<0.100	<0.100	<0.100	07/27/00
28808	ECO22AGP2-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/27/00
28809	ECO22AGP2-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/27/00
28810	ECO22AGP2-10	<0.100	0.130	<0.100	<0.100	<0.100	07/27/00
28811	ECO22AGP2-15	<0.100	0.143	<0.100	<0.100	<0.100	07/27/00
28812	ECO22AGP3-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/27/00
28813	ECO22AGP3-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/27/00
28814	ECO22AGP3-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/27/00
28815	ECO22AGP3-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/27/00
28816	ECO22AGP4-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28817	ECO22AGP4-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28818	ECO22AGP4-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28819	ECO22AGP4-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28820	ECO22AGP5-02	<0.100	0.179	<0.100	<0.100	<0.100	07/28/00
28821	ECO22AGP5-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28822	ECO22AGP5-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28823	ECO22AGP5-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00

% IA	93	88	90	99	90
% EA	89	90	89	100	91
BLANK	<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030


Raland K. Tuttle

8-10-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

EOTT ENERGY
ATTN: MR. WAYNE BRUNETTE
P.O. BOX 1660
MIDLAND, TEXAS 79703
FAX: 915-684-3456
FAX: 505-394-2601 (Pat McCasland)

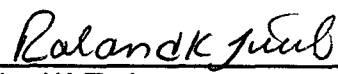
Sample Type: Soil
Sample Condition: Intact/ Iced/ 42 deg. F
Project #: None Given
Project Name: Clay Osborn Site 22A
Project Location: None Given

Sampling Date: See Below
Receiving Date: 08/03/00
Analysis Date: 08/04/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg	SAMPLE DATE
28824	ECO22AGP6-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28825	ECO22AGP6-05	<0.100	<0.100	0.108	<0.100	<0.100	07/28/00
28826	ECO22AGP6-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28827	ECO22AGP6-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28828	ECO22AGP7-02	<0.100	0.111	0.103	<0.100	<0.100	07/28/00
28829	ECO22AGP7-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28830	ECO22AGP7-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28831	ECO22AGP7-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28832	ECO22AGP8-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28833	ECO22AGP8-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28834	ECO22AGP8-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28835	ECO22AGP8-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28836	ECO22AGP9-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28837	ECO22AGP9-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28838	ECO22AGP9-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/28/00
28839	ECO22AGP9-15	<0.100	<0.100	0.102	<0.100	<0.100	07/28/00
28840	ECO22AGP10-02	<0.100	<0.100	<0.100	<0.100	<0.100	07/31/00
28841	ECO22AGP10-05	<0.100	<0.100	<0.100	<0.100	<0.100	07/31/00
28842	ECO22AGP10-10	<0.100	<0.100	<0.100	<0.100	<0.100	07/31/00

% IA	92	89	89	98	89
% EA	89	88	89	100	91
BLANK	<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030


Raland K. Tuttle

8-10-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

EOTT ENERGY
ATTN: MR. WAYNE BRUNETTE
P.O. BOX 1660
MIDLAND, TEXAS 79703
FAX: 915-684-3456
FAX: 505-394-2601 (Pat McCasland)

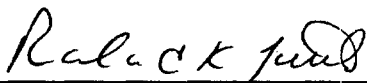
Sample Type: Soil
Sample Condition: Intact/ Iced/ 42 deg. F
Project #: None Given
Project Name: Clay Osborn Site 22A
Project Location: None Given

Sampling Date: 07/31/00
Receiving Date: 08/03/00
Analysis Date: 08/05/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
28843	ECO22AGP10-15	<0.100	<0.100	<0.100	<0.100	<0.100
28844	ECO22AGP11-02	<0.100	<0.100	<0.100	<0.100	<0.100
28845	ECO22AGP11-05	<0.100	<0.100	<0.100	<0.100	<0.100
28846	ECO22AGP11-10	<0.100	<0.100	<0.100	<0.100	<0.100
28847	ECO22AGP11-15	<0.100	<0.100	<0.100	<0.100	<0.100
28848	ECO22AGP12-02	<0.100	<0.100	<0.100	<0.100	<0.100
28849	ECO22AGP12-05	<0.100	<0.100	<0.100	<0.100	<0.100
28850	ECO22AGP12-10	<0.100	<0.100	<0.100	<0.100	<0.100
28851	ECO22AGP12-15	<0.100	<0.100	<0.100	<0.100	<0.100
28852	ECO22AGP13-02	<0.100	<0.100	<0.100	<0.100	<0.100
28853	ECO22AGP13-05	<0.100	<0.100	<0.100	<0.100	<0.100
28854	ECO22AGP13-10	<0.100	<0.100	<0.100	<0.100	<0.100
28855	ECO22AGP13-15	<0.100	<0.100	<0.100	<0.100	<0.100
28856	ECO22AGP14-02	<0.100	<0.100	<0.100	<0.100	<0.100
28857	ECO22AGP14-05	<0.100	<0.100	<0.100	<0.100	<0.100
28858	ECO22AGP14-10	<0.100	<0.100	<0.100	<0.100	<0.100
28859	ECO22AGP14-15	<0.100	<0.100	<0.100	<0.100	<0.100
28860	ECO22AGP15-02	<0.100	<0.100	<0.100	<0.100	<0.100
28861	ECO22AGP15-05	<0.100	<0.100	<0.100	<0.100	<0.100
28862	ECO22AGP15-10	<0.100	<0.100	<0.100	<0.100	<0.100

% IA	92	87	90	98	89
% EA	91	88	89	100	90
BLANK	<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030



Raland K. Tuttle

Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

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/ Iced/ 42 deg. F
Project #: None Given
Project Name: Clay Osborn Site 22A
Project Location: None Given

Sampling Date: See Below
Receiving Date: 08/03/00
Analysis Date: 08/06/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg	SAMPLE DATE
28863	ECO22AGP15-15	<0.100	<0.100	<0.100	<0.100	<0.100	07/31/00
28864	ECO22AGP16-02	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28865	ECO22AGP16-05	<0.100	0.117	0.153	0.116	<0.100	08/01/00
28866	ECO22AGP16-10	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28867	ECO22AGP16-15	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28868	ECO22AGP17-02	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28869	ECO22AGP17-05	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28870	ECO22AGP17-10	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28871	ECO22AGP17-15	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28872	ECO22AGP18-02	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28873	ECO22AGP18-05	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28874	ECO22AGP18-10	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28875	ECO22AGP18-15	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28876	ECO22AGP19-02	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28877	ECO22AGP19-05	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28878	ECO22AGP19-10	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28879	ECO22AGP19-15	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28880	ECO22AGP20-02	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28881	ECO22AGP20-05	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28882	ECO22AGP20-10	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00

% IA	97	93	93	105	93
% EA	91	91	89	100	91
BLANK	<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030

Raland K Tuttle
Raland K. Tuttle

8-10-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

EOTT ENERGY
ATTN: MR. WAYNE BRUNETTE
P.O. BOX 1660
MIDLAND, TEXAS 79703
FAX: 915-684-3456
FAX: 505-394-2601 (Pat McCasland)

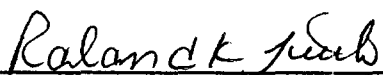
Sample Type: Soil
Sample Condition: Intact/ Iced/ 42 deg. F
Project #: None Given
Project Name: Clay Osborn Site 22A
Project Location: None Given

Sampling Date: See Below
Receiving Date: 08/03/00
Analysis Date: 08/07/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg	SAMPLE DATE
28883	ECO22AGP20-15	<0.100	<0.100	<0.100	<0.100	<0.100	08/01/00
28884	ECO22AGP21-02	<0.100	0.188	<0.100	<0.100	<0.100	08/02/00
28885	ECO22AGP21-05	<0.100	<0.100	<0.100	<0.100	<0.100	08/02/00
28886	ECO22AGP21-10	<0.100	<0.100	<0.100	<0.100	<0.100	08/02/00
28887	ECO22AGP21-15	<0.100	<0.100	<0.100	<0.100	<0.100	08/02/00
28888	ECO22AGP22-02	<0.100	<0.100	<0.100	<0.100	<0.100	08/02/00
28889	ECO22AGP22-05	<0.100	<0.100	<0.100	<0.100	<0.100	08/02/00
28890	ECO22AGP22-10	<0.100	<0.100	<0.100	<0.100	<0.100	08/02/00
28891	ECO22AGP22-15	<0.100	<0.100	<0.100	<0.100	<0.100	08/02/00
28892	ECO22AGP23-02	<0.100	<0.100	<0.100	<0.100	<0.100	08/02/00
28893	ECO22AGP23-05	<0.100	<0.100	<0.100	<0.100	<0.100	08/02/00
28894	ECO22AGP23-10	<0.100	<0.100	<0.100	<0.100	<0.100	08/02/00
28895	ECO22AGP23-15	<0.100	<0.100	<0.100	<0.100	<0.100	08/02/00

% IA	98	94	93	104	95
% EA	92	92	90	102	92
BLANK	<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030


Raland K. Tuttle

8-10-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

EOTT ENERGY
ATTN: MR. WAYNE BRUNETTE
P.O. BOX 1660
MIDLAND, TEXAS 79703
FAX: 915-684-3456
FAX: 505-394-2601 (Pat McCasland)

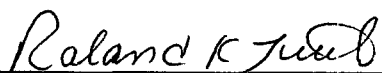
Sample Type: Soil
Sample Condition: Intact/ Iced/ 42 deg. F
Project #: None Given
Project Name: Clay Osborn Site 22A
Project Location: None Given

Sampling Date: 08/03/00
Receiving Date: 08/03/00
Analysis Date: 08/08/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
28896	ECO22AGP24-02	<0.100	<0.100	<0.100	<0.100	<0.100
28897	ECO22AGP24-05	<0.100	<0.100	<0.100	<0.100	<0.100
28898	ECO22AGP24-10	<0.100	<0.100	<0.100	<0.100	<0.100
28899	ECO22AGP24-15	<0.100	<0.100	<0.100	<0.100	<0.100
28900	ECO22AGP25-02	<0.100	<0.100	<0.100	<0.100	<0.100
28901	ECO22AGP25-05	<0.100	<0.100	<0.100	<0.100	<0.100
28902	ECO22AGP25-10	<0.100	<0.100	<0.100	0.143	0.156
28903	ECO22AGP25-15	<0.100	<0.100	<0.100	<0.100	<0.100
28904	ECO22AGP26-02	<0.100	<0.100	<0.100	<0.100	<0.100
28905	ECO22AGP26-05	<0.100	0.645	1.04	3.48	2.89
28906	ECO22AGP26-10	<0.100	0.934	0.505	1.82	0.842
28907	ECO22AGP26-15	<0.100	<0.100	<0.100	<0.100	<0.100

% IA	94	93	89	106	93
% EA	88	87	85	95	87
BLANK	<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030


Roland K. Tuttle

8-10-00
Date

Environmental Laboratory
600 20th St. N. Grand Rapids, MI 49503
(915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: **Wayne Brunette**
Company Name & Address: **CLAY Osborn Site 22A**
Eott
Project #: **915-556-0190**
FAX #: **915-684-3456**
Project Name: **CLAY Osborn Site 22A**

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX						PRESERVATIVE METHOD				SAMPLING	
				WATER	SOIL	AIR	SLUDGE	OTHER	ICL	INOS	ICE	HOIE	OTHER	DATE	TIME
28804	ECO 22 AGP 1-02	1		X	X				X		X			7-27-00	600
28805	ECO 22 AGP 1-05	1		X	X				X		X				830
28806	ECO 22 AGP 1-10	1		X	X				X		X				900
28807	ECO 22 AGP 1-15	1		X	X				X		X				930
28808	ECO 22 AGP 2-02	1		X	X				X		X				10:00
28809	ECO 22 AGP 2-05	1		X	X				X		X				10:30
28810	ECO 22 AGP 2-10	1		X	X				X		X				11:00
28811	ECO 22 AGP 2-15	1		X	X				X		X				11:30
28812	ECO 22 AGP 3-02	1		X	X				X		X				12:00
28813	ECO 22 AGP 3-05	1		X	X				X		X				130
28814	ECO 22 AGP 3-10	1		X	X				X		X				7:00

Relinquished by: **Brett Clay** Date: **8-3-00** Time: **1:00**
Relinquished by: **Royce Boone** Date: **8-3-00** Time: **1550**
Relinquished by: **Royce Boone** Date: **8-3-00** Time: **1550**

ANALYSIS REQUEST										10 of 10	
TCLP Metals Ag As Ba Cd Cr Pb Hg Be											
TCLP Metals Ag As Ba Cd Cr Pb Hg Be											
TCLP Volatiles											
TCLP Semi Volatiles											
T(S)											
HCl											

REMARKS: **Rec 42°F**

ANALYSIS REQUEST 2 of 10

TCLP Metals Ag As Ba Cd Cr Pb Hg Bz	
TCLP Volatiles	
TCLP Semi Volatiles	
TDS	
ICI	

REMARKS
Rec. 42°F

Project Manager: Wayne Brunette
Company Name & Address: Eott
Project #: 22A
Phase #: 915-556-0190
FAX #: 915-684-3456
Project Name: CLAY Osborn Site 22A

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX						PRESERVATIVE METHOD						SAMPLING	
				WATER	SOIL	AIR	SLUDGE	OTHER	ICI	LiNO3	ICE	LiOH	OTHER	DATE	TIME		
28815	ECO 22 AGP 3-15	1		X	X				X		X			1-29-00	230	X	X
28816	ECO 22 AGP 4-02	1		X	X				X		X				800	X	X
28817	ECO 22 AGP 4-05	1		X	X				X		X				820	X	X
28818	ECO 22 AGP 4-10	1		X	X				X		X				840	X	X
28819	ECO 22 AGP 4-15	1		X	X				X		X				900	X	X
28820	ECO 22 AGP 5-02	1		X	X				X		X				930	X	X
28821	ECO 22 AGP 5-05	1		X	X				X		X				950	X	X
28822	ECO 22 AGP 5-10	1		X	X				X		X				1010	X	X
28823	ECO 22 AGP 5-15	1		X	X				X		X				1030	X	X
28824	ECO 22 AGP 6-02	1		X	X				X		X				1100	X	X
28825	ECO 22 AGP 6-05	1		X	X				X		X				1120	X	X

Relinquished by: Brett Clay Date: 8-3-00 Time: 1:00 Received by: Roger Boone
Relinquished by: Roger Boone Date: 8-3-00 Time: 1550 Received by: J. Mennery
Relinquished by: Date: Time: Received by Laboratory:

Project Manager: **Wayne Brunette** Phone #: **915-556-0190** FAX #: **915-684-3456**

Company Name & Address: **CLAY OSBORN Site 22A**
 Project #: **EQT**
 Project Name: **Brato Clay**

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX								PRESERVATIVE METHOD				SAMPLING	
				WATER	SOIL	AIR	SLUDGE	OTHER	HCL	LiNO3	ICE	LiOH	OTHER	DATE	TIME		
26837	ECO 22 AGP 9-05	1		X							X			7-28-00	410		
26838	ECO 22 AGP 9-10	1		X							X			7-28-00	430		
26839	ECO 22 AGP 9-15	1		X							X			7-28-00	450		
26840	ECO 22 AGP 10-02	1		X							X			7-31-00	800		
26841	ECO 22 AGP 10-05	1		X							X						
26842	ECO 22 AGP 10-10	1		X							X						
26843	ECO 22 AGP 10-15	1		X							X						
26844	ECO 22 AGP 11-02	1		X							X						
26845	ECO 22 AGP 11-05	1		X							X						
26846	ECO 22 AGP 11-10	1		X							X						
26847	ECO 22 AGP 11-15	1		X							X						

Relinquished by: **Brett Clay** Date: **8-3-00** Time: **1:00** Received by: **Roger Boone**

Relinquished by: **Roger Boone** Date: **8-3-00** Time: **1:50** Received by: **Donner**

Relinquished by: **Roger Boone** Date: **8-3-00** Time: **1:50** Received by: **Received by Laboratory**

REMARKS: **Rec 42°F**

4 of 10

Phone #: 915-556-0190
 FAX #: 915-684-3456

Project Manager:
 Wayne Brunette

Company Name & Address:

Project #:

CIA7 Osborn Site 22A

Project Name:

Project Location:

Sampler Signature:

Brett CIA7

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX						PRESERVATIVE METHOD				SAMPLING	
				WATER	SOIL	AIR	SLUDGE	OTHER	HCL	LiNO3	ICE	HOHE	OTHER	DATE	TIME
28848	EC022AGP 12-92	1		X							X				1015
28849	EC022AGP 12-05	1		X							X				1030
28850	EC022AGP 12-10	1		X							X				1045
28851	EC022AGP 12-15	1		X							X				1100
28852	EC022AGP 13-02	1		X							X				1115
28853	EC022AGP 13-05	1		X							X				1130
28854	EC022AGP 13-10	1		X							X				1145
28855	EC022AGP 13-15	1		X							X				1200
28856	EC022AGP 14-02	1		X							X				1215
28857	EC022AGP 14-05	1		X							X				1230
28858	EC022AGP 14-10	1		X							X				1245

REMARKS

Rec 420°F

Relinquished by: Brett CIA7	Date: 8-3-00	Time: 1:00	Received by: Roy Brown
Relinquished by: Roy Brown	Date: 8-3-00	Time: 1:50	Received by: Denny
Relinquished by:	Date:	Time:	Received by Laboratory:

ANALYSIS REQUEST

5 of 10

TCLP Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Metals Ag As Ba Cd Cr Pb Hg Se	
TCLP Volatiles	
TCLP Semi Volatiles	
TDS	
RCI	

80.15

UTEX 8020/5030

Project Manager:
 Wayne Brunette
 Phone #: 915-556-0190
 FAX #: 915-684-3456

Company Name & Address:
 Clay Osborn Site 22A

Project Name:

Sampler Signature:

Project Location:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX						PRESERVATIVE METHOD				SAMPLING	
				WATER	SOIL	AIR	SLUDGE	OTHER	HCL	HNO3	ICE	HOHE	OTHER	DATE	TIME
28870	EC022AGP 17-10	1		X							X			8-10-00	930
28871	EC022AGP 17-15	1		X							X				950
28872	EC022AGP 18-02	1		X							X				1010
28873	EC022AGP 18-05	1		X							X				1030
28874	EC022AGP 18-10	1		X							X				1050
28875	EC022AGP 18-15	1		X							X				1110
28876	EC022AGP 19-02	1		X							X				1130
28877	EC022AGP 19-05	1		X							X				1150
28878	EC022AGP 19-10	1		X							X				1210
28879	EC022AGP 19-15	1		X							X				1230
28880	EC022AGP 20-02	1		X							X				110

REMARKS

Relinquished by: Brett Clay	Date: 8-3-00	Time: 1:00	Received by: Rory Boone
Relinquished by: Rory Boone	Date: 8-3-00	Time: 1:50	Received by: Jmcumey
Relinquished by:	Date:	Time:	Received by Laboratory:

REC 420F

TPH	60.15
TC:P Metals Ag As Ba Cd Cr Pb Hg Se	
TC:P Volatiles	
TC:P Semi Volatiles	
TDS	
HCl	

ANALYSIS REQUEST 8 of 10

Phone #: 915-556-0190
 FAX #: 915-684-3456

Project Manager:
 Wayne Brunette

Company Name & Address:

CLAY Osborn Site 22 A

Lab #

Project Name :

Project #:

Project Location:

Sampler Signature:

Brett Clay

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX						PRESERVATIVE METHOD				SAMPLING	
				WATER	SOIL	AIR	SLUDGE	OTHER	HCL	LiNO3	ICE	HOHE	OTHER	DATE	TIME
28881	EC022A6P 20-05	1		X							X			1:30	8-2-00
28882	EC022A6P 20-10	1		X							X			1:50	8-2-00
28883	EC022A6P 20-15	1		X							X			2:10	8-2-00
28884	EC022A6P 21-02	1		X							X			8:00	8-2-00
28885	EC022A6P 21-05	1		X							X			8:40	8-2-00
28886	EC022A6P 21-10	1		X							X			9:20	8-2-00
28887	EC022A6P 21-15	1		X							X			10:00	8-2-00
28888	EC022A6P 22-02	1		X							X			10:40	8-2-00
28889	EC022A6P 22-05	1		X							X			11:20	8-2-00
28890	EC022A6P 22-10	1		X							X			12:00	8-2-00
28891	EC022A6P 22-15	1		X							X			12:50	8-2-00

DTX NH20/5030	X
TPH	80.15
TCLP Metals Ag As Ba Cd Cr Pb Hg Bz	
Total Metals Ag As Ba Cd Cr Pb Hg Bz	
TCLP Volatiles	
TCLP Semi Volatiles	
TOS	
HCI	

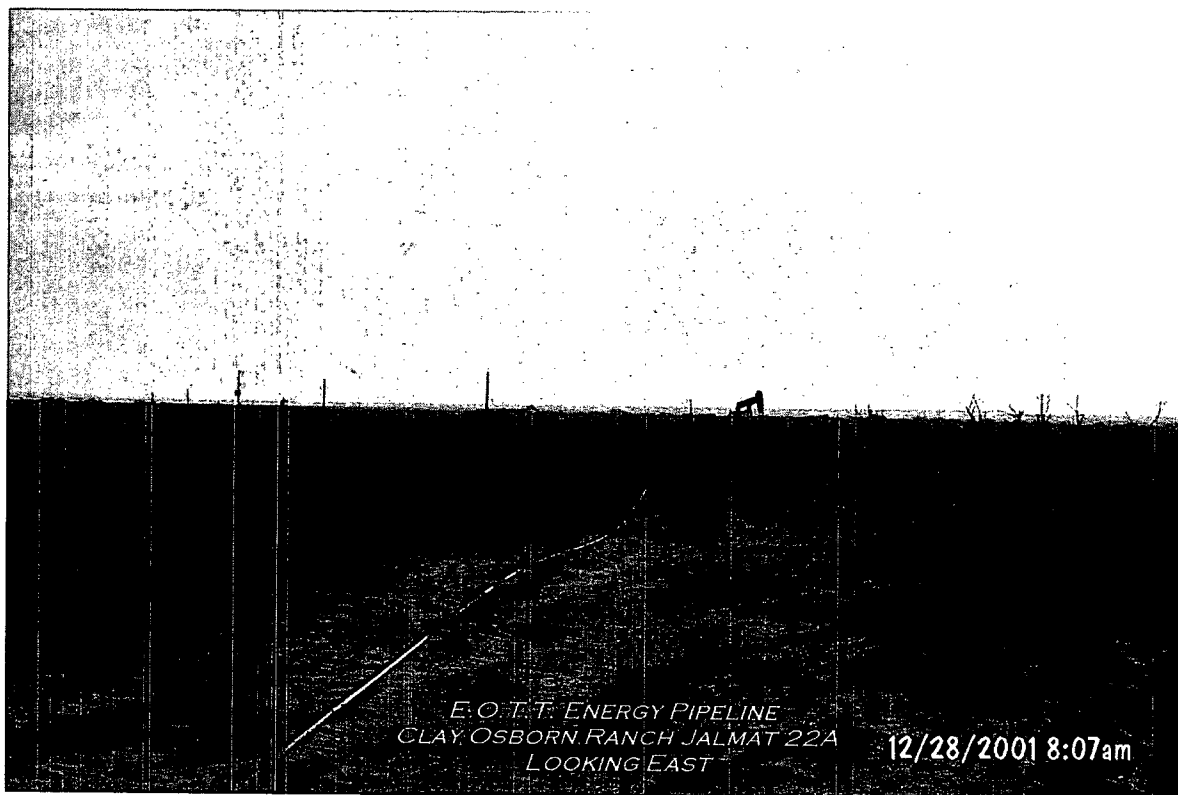
REMARKS

Relinquished by: <i>Brett Clay</i>	Date: 8-3-00	Time: 1:00	Received by: <i>Royin Boone</i>
Relinquished by: <i>Royin Boone</i>	Date: 8-3-00	Time: 1:50	Received by: <i>J. Mcmurry</i>
Relinquished by:	Date:	Time:	Received by Laboratory:

Rec 420F

Rec 420F

ATTACHMENT IV: PHOTOGRAPHS



ATTACHMENT V: SITE INFORMATION AND METRICS FORM

Site Information and Metrics

SITE: Clay Osborn Jalmat #22A		Assigned Site Reference #2000-10614	
Company: EOTT Energy Pipeline			
Company Street Address: 5805 E. Highway 80, Midland, Texas 79701			
Company Mailing Address: P.O. Box 1660			
Company City, State, Zip: Midland, Texas 79702			
Company Representative: Wayne Brunette			
Company Representative Telephone: 915.553.7557			
Company Telephone: 915.684.3479 Fax: 915.684.3456			
Fluid volume released (bbls) =?			
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
Leak, Spill, or Pit (LSP) Name: Clay Osborn Jalmat #22A			
Source of contamination: Pipe Line			
Land Owner, i.e., BLM, ST, Fee, Other: Clay and Gerry Osborn			
LSP Dimensions: affected area = 340' X 150'			
LSP Area = 23,437 ft ²			
Latitude: 32°07'58"N			
Longitude: 103°12'38"W			
Elevation above mean sea level: ~3,150'amsl			
Location- Unit or ¼¼: SW¼ of NW¼ UL-E			
Location- Section = 18			
Location- Township = 25S			
Location- Range = 37E			
Surface water body within 1000' radius of site: Intermittent earthen livestock watering tank 890' East			
Domestic water wells within 1000' radius of site: None			
Agricultural water wells within 1000' radius of site: None			
Public water supply wells within 1000' radius of site: None			
Depth from land surface to ground water (DG): ~70			
Depth of contamination (DC): 15'bgs			
Depth to ground water (DG - DC = DtGW) 55'bgs			
1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water Body	
If Depth to GW <50 feet: 20 points	If <1000' from water source, or; <200' from private domestic water source: 20 points	<200 horizontal feet: 20 points	
If Depth to GW 50 to 99 feet: 10 points		200-1000 horizontal feet: 10 points	
If Depth to GW >100 feet: 0 points	If >1000' from water source, or; >200' from private domestic water source: 0 points	>1000 horizontal feet: 0 points	
Ground water Score = 10	Wellhead Protection Area Score = 0	Surface Water Score = 10	
Site Rank (1+2+3) = 10 + 0 + 10 = 20 points			
Total Site Ranking Score and Acceptable Concentrations			
Parameter	>19	10-19	0-9
Benzene ¹	10 ppm	10 ppm	10 ppm
BTEX ¹	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm
¹ 100 ppm field VOC headspace measurement may be substituted for lab analysis			