AE Order Number Banner

Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.

App Number: pGRL1031639830

1RP - 2652

CONOCOPHILLIPS COMPANY

7/25/2016

ENVIRONMENTAL PLUS, INC.
CONSULTING AND REMEDIAL CONSTRUCTION

12 April 2011

Mr. Geoffrey Leking
Environmental Engineer
New Mexico Oil Conservation Division
1265 North French Drive
Hobbs, New Mexico 88240

RE: Remediation Proposal – MCA 4-B Header Release Area
ConocoPhillips UL-N (SE1/4 of the SW1/4) of Section 23, T 17S, R 32 E
Lea County, New Mexico
Latitude: 32° 48' 07.46"; Longitude: 103°28' 33.70"
NMOCD Ref. #1RP-11-10-2652; EPI Ref. #150029

Dear Mr. Leking:

On February 6, 2011 at an unknown time approximately 64.5 barrels of petroleum products (Oil – 48 bbls and Water – 16.5 bbls) were released from a four (4) inch diameter asbestos cement surface flow line covering a release area of ±7,500 square feet. Approximately 60-bbls of free standing petroleum products were recovered. On 7 February 2011 an additional 35 bbls of fluids were recovered and transported to Sundance Services, Inc., for disposal. On February 10, 2011 a vacuum truck collected an additional 66-bbls of solids and transported to Sundance Services for disposal. After vacuuming of petroleum products were concluded, ConocoPhillips retained the services of Environmental Plus, Inc., (EPI) to mitigate surface attached petroleum products, survey via GPS, take photographs and delineate the release area. This letter report documents results of delineation activities and provides a *Remediation Proposal.*

Site Background

The site is located in UL-N (SE1/4 of the SW1/4) of Section 23, T17S, R32E at an approximate elevation of 3,997 feet above mean sea level (amsl). The property is owned by the Department of the Interior and managed by the Bureau of Land Management (BLM). A search for water wells was completed utilizing the *New Mexico Office of the State Engineers* website and a database maintained by the United States Geological Survey (USGS). No wells (domestic, agriculture or public) or bodies of surface exist within a 1,000-feet radius of the Site. Ground data indicates the average water depth is approximately 50-55 feet below ground surface (bgs). Based on available information, vertical distance between impacted soil and groundwater is less than 40-45 feet. Utilizing this information, The New Mexico Oil Conservation Division Remedial Threshold Goals (NMOCD Goals) were determined as follows:

Parameter	Remedial Goal
Benzene	10 mg/Kg
BTEX	50 mg/Kg
TPH	100 mg/Kg
Chlorides	250 mg/Kg

ENVIRONMENTAL PLUS, INC.

Field Work

Prior to this release EPI responded to an initial spill which occurred on July 13, 2010 from the same four (4) inch diameter asbestos cement flow line. Approximately 16.3-bbls of petroleum products were released with 12-bbls recovered. On September 8, 2010 EPI advanced ten (10) hand auger soil borings within the release area. If possible, hand auger soil borings were advanced to a depth where two (2) consecutive soil samples were below NMOCD Goals for TPH (100 mg/Kg) and chloride (250 mg/Kg) concentrations. Based on soil sample laboratory analytical results, EPI developed a *Remediation Proposal* and presented it to the NMOCD on September 27, 2010. However, prior to commencement of remedial activities a second release occurred on the same pipeline and area.

On March 4, 2011 EPI mobilized labor and equipment to the Site. From March 4-18, 2011 EPI excavated and transported approximately 518-cubic yards of petroleum contaminated soil to Controlled Recovery, Incorporated (CRI) for disposal. As the release area was on sandy soil located in a depression surrounded by sand dunes, removal of petroleum contaminated soil as directed by the BLM was a precautionary measure for limiting vertical and horizontal migration of contaminants. In an effort to delineate vertical depth and horizon limits of impacted material, six (6) test trenches were excavated. Soil samples were collected from the six (6) test trenches, three (3) sidewalls and one (1) original sand hill. Soil samples were collected a various depths, field tested and remitted to an independent laboratory for analyses of TPH and chloride concentrations (Ref. *Figure 3* for location and *Table 3* for analytical results).

On April 28, 2011 EPI again mobilized labor and equipment to the release area and collected additional soil samples in locales determined by the BLM and NMOCD. Thirteen (13) soil samples were collected at original locales exhibiting elevated TPH and/or chloride concentrations above NMOCD Goals, but at different vertical depths or extended horizontal limits. Due to collection of soil samples destined for laboratory analyses, no field tests were conducted. All thirteen (13) soil samples indicated TPH concentrations either non-detect (ND) or at limits below NMOCD Goals of 100 mg/Kg. However, all six (6) soil samples analyzed for chloride concentrations were above NMOCD Goals of 250 mg/Kg (Ref. *Figure 3* for locations and *Table 3* for analytical results).

A portion of select soil samples were field tested for organic vapors and in several instances for chloride concentrations. Soil samples collected for field testing of organic vapors were placed in self sealing polyethylene bag and allowed to equilibrate to ~70° F. Soil samples were then tested for organic vapors utilizing a MiniRae™ Photoionization Detector (PID) equipped with a 10.6 electron-volt (eV) lamp calibrated for benzene response. Chloride concentrations were determined via use of a LaMotte Chloride Kit (Titration Method).

Soil samples designated for laboratory analyses were immediately inserted into laboratory provided containers, placed in coolers, iced down and transported to an independent laboratory for quantification of TPH [Gasoline Range Organics (C6-C12), Diesel Range Organics (>C12-C28) and Oil Range Organics (>C28-C35)] and chloride concentrations.

Analytical Data

In reviewing Table 3, *Summary of Soil Sample Field Analyses and Laboratory Analytical Results*, no soil sample collection points have TPH concentrations elevated above 100 mg/Kg. Similarly, TT-1 (6'), TT-2 (6'), TT-3 (7'), TT-5 (7'), WSW-C (6') and ESWM-B (3') have chloride concentrations elevated above 250 mg/Kg.

Site Remedial Proposal

EPI proposes commencing excavation in the vicinity of TT-4/ESWM sample point proceeding in a westerly direction enveloping TT-5/TT-2/TT-3/WSW soil sample locations. The area surrounding TT-4/ESWM will be excavated to whatever depth and width necessary for removal of impacted material. With TT-4 already excavated to a depth greater than five (5) feet, sidewalls PORSW/EHILL will be excavated in the southeasterly direction for safety concerns. Judging from the depth of impacts, excavation in the westerly direction from TT-4/ESWM towards TT-5/TT-2/TT-3/WSW should be approximately nine (9) to ten (10) feet below ground surface (bgs). Excavations to these depths will require sidewalls to be sufficiently sloped or benched for safety concerns especially in sandy soil areas. No vertical sidewalls can be allowed in this regards. However, EPI will take care to excavate minimal depth and width necessary for removal of impacted soil. Also, care will be taken during excavation activities to minimize damage to existing sand dunes. After excavation is complete as defined by field analyses of soil samples, selective soil samples will be collected from excavation sidewalls/bottom and transported to an independent laboratory for analyses of BTEX, TPH and chloride concentrations.

As TT-1 displays chloride concentrations above NMOCD Goals at six (6) feet bgs, the bottom will be excavated to vertical depth and sidewalls to horizontal dimensions as required for removal of impacted soil. Owing to lack of analytical data on sidewalls, soil samples will be collected at selective spots and field analyzed for TPH and chloride concentrations. Dependent on field analyses results, sidewalls will be excavated for removal of impacted soil above NMOCD Goals if contaminated or if clean, considered ready for backfill operations. Sidewall excavations will be sloped or benched per requirements noted in above paragraph. Soil samples will be collected and transported to an independent lab for analyses of BTEX, TPH and chloride concentrations as previously described.

After both north and southerly excavation sites are deemed void of impacted soil and ready for backfill operations, in-situ earthen dams supporting the flow lines will be excavated (Ref. *Photograph No. 7*). Due to lack of beam strength in the four (4) inch asbestos cement line, production fluids will be transferred temporarily to the two (2) inch diameter steel flow line. The earthen dams will be excavated in their entirety. Soil samples will be collected for field and laboratory analyses. Upon receipt of laboratory analytical results indicating in-situ soil is below NMOCD Goals for BTEX, TPH and chloride concentrations, the area under the flow lines will be backfilled immediately. Section of the asbestos cement flow line will be replaced with another type of material and put back into service. Correspondingly, remainder of the excavations will also be backfilled.

Back fill material will be as directed by the BLM, i.e., preferably clean top soil or loamy sand from a nearby source. Whichever material is used will be free of deleterious material, large clumps or rocks. Once backfill operations are completed, the area will be contoured to natural

gradient, promote adequate surface drainage and protection from wind/water erosion. Entire disturbed areas will be disced and deep seed planted with a grass mixture approved by the BLM.

Following closure and acceptance of the area by BLM representative, EPI will submit a *Final Closure Report* to BLM, NMOCD and ConocoPhillips personnel.

Should you have questions, concerns or need additional technical information, please contact me at (575) 394-3481 (office), (575) 441-7802 (cellular) or via e-mail at dduncanepi@gmail.com.

Official communications should be directed to Mr. John Gates at (575) 391-3158 (office), (575) 390-4821 (cellular) or via e-mail at John.W.Gates@conocophillips.com with correspondence addressed to:

Mr. John W. Gates
ConocoPhillips – HSER Lead
Permian-Buckeye Operations
29 Vacuum Complex Lane
Lovington, New Mexico 88260-9664

Sincerely,

ENVIRONMENTAL PLUS, INC.,

David P. Duncan
Civil Engineer
EPI Project Manager

Cc: John W. Gates, HSER Lead – ConocoPhillips Corporation
Ms. Trisha C. Bad Bear, Natural Resources Specialist – Bureau of Land Management
Justin Wright, Contract Person – ConocoPhillips Corporation
Cody Miller, General Manager – EPI
Roger Boone, Operations Manager – EPI

Encl: Figure 1 – Area Map
Figure 2 – Site Location Map
Figure 3 – Soil Sample Site Map
Table 3 – Summary of Soil Sample Field Analyses and Laboratory Analytical Results
Attachment I – Site Photographs
Attachment II – Laboratory Analytical Results and Chain-of-Custody Forms
Attachment III – Copy of Initial NMOCD Form C-141 (Amended)

FIGURES

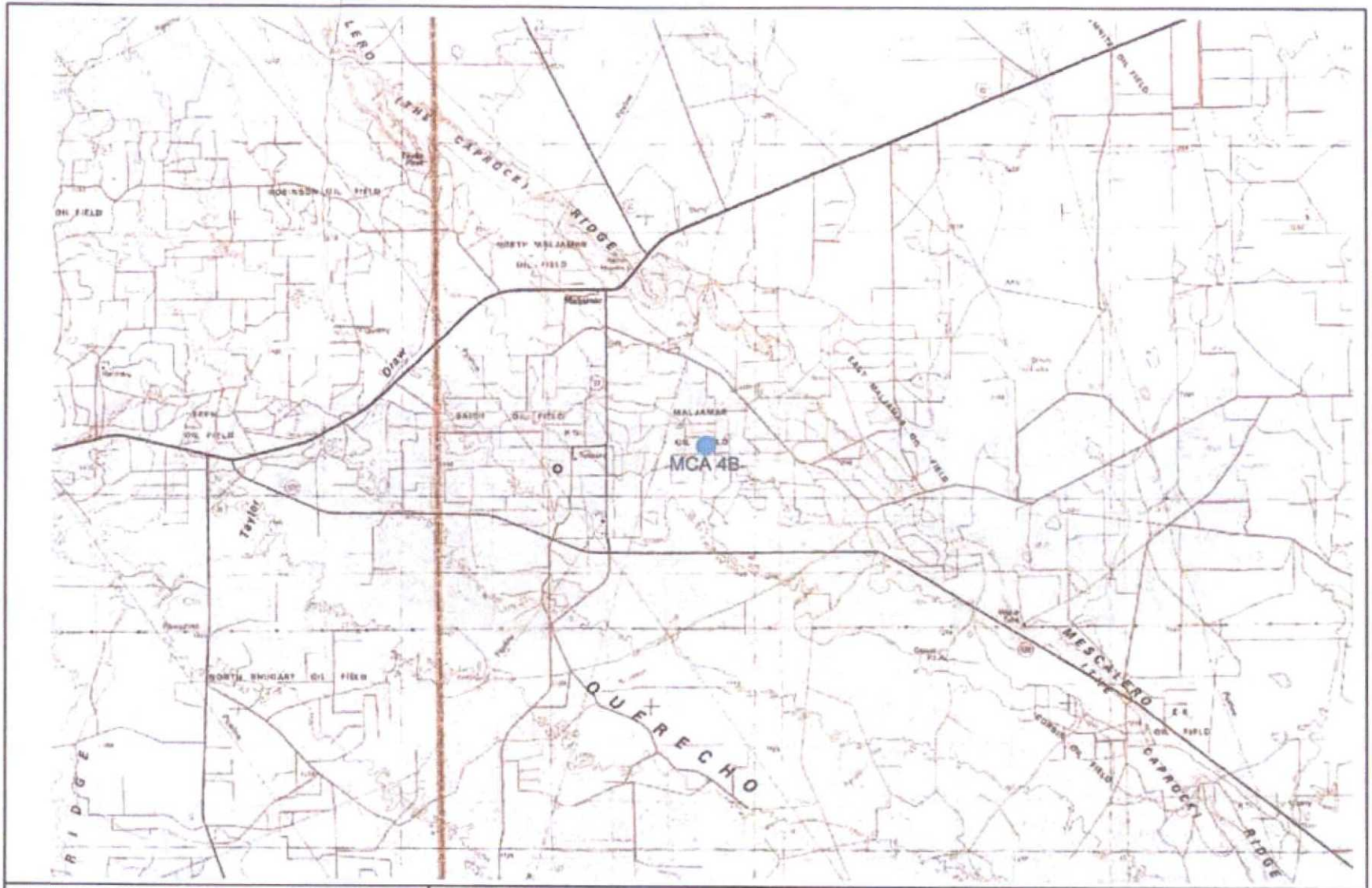


Figure 1 Area Map Conoco–Philips Pipeline MCA 4B	Lea County, New Mexico (SE1/4 of the SW1/4) of Sec 23, 17S, 32 E 32° 48' 07.46"N 103°28' 33.70"W Elevation: 3,997 feet amsl	DWG By: J. Smith April 2011	REVISED:	N
		0 3 6 Miles	SHEET 1 of 1	

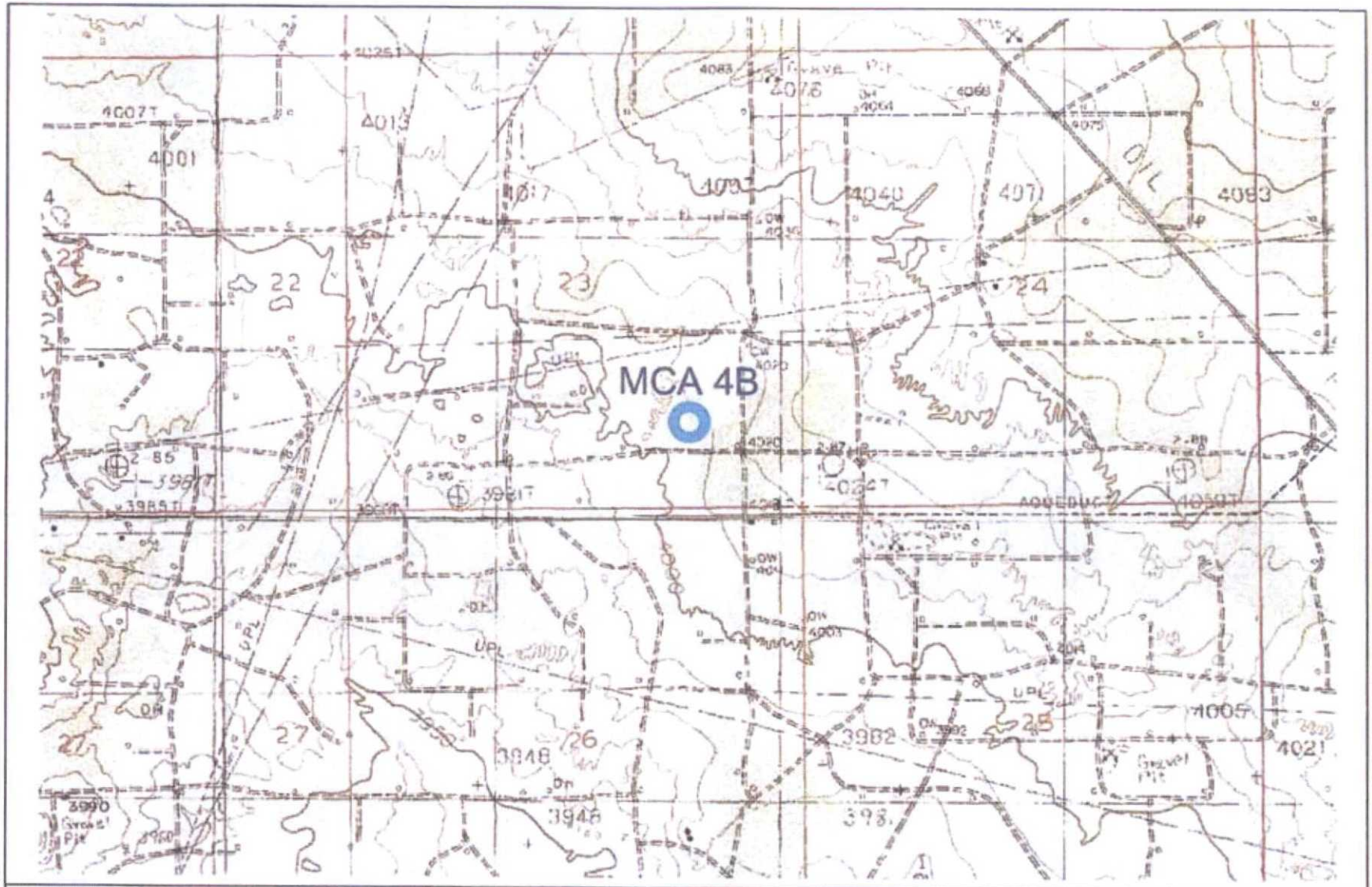
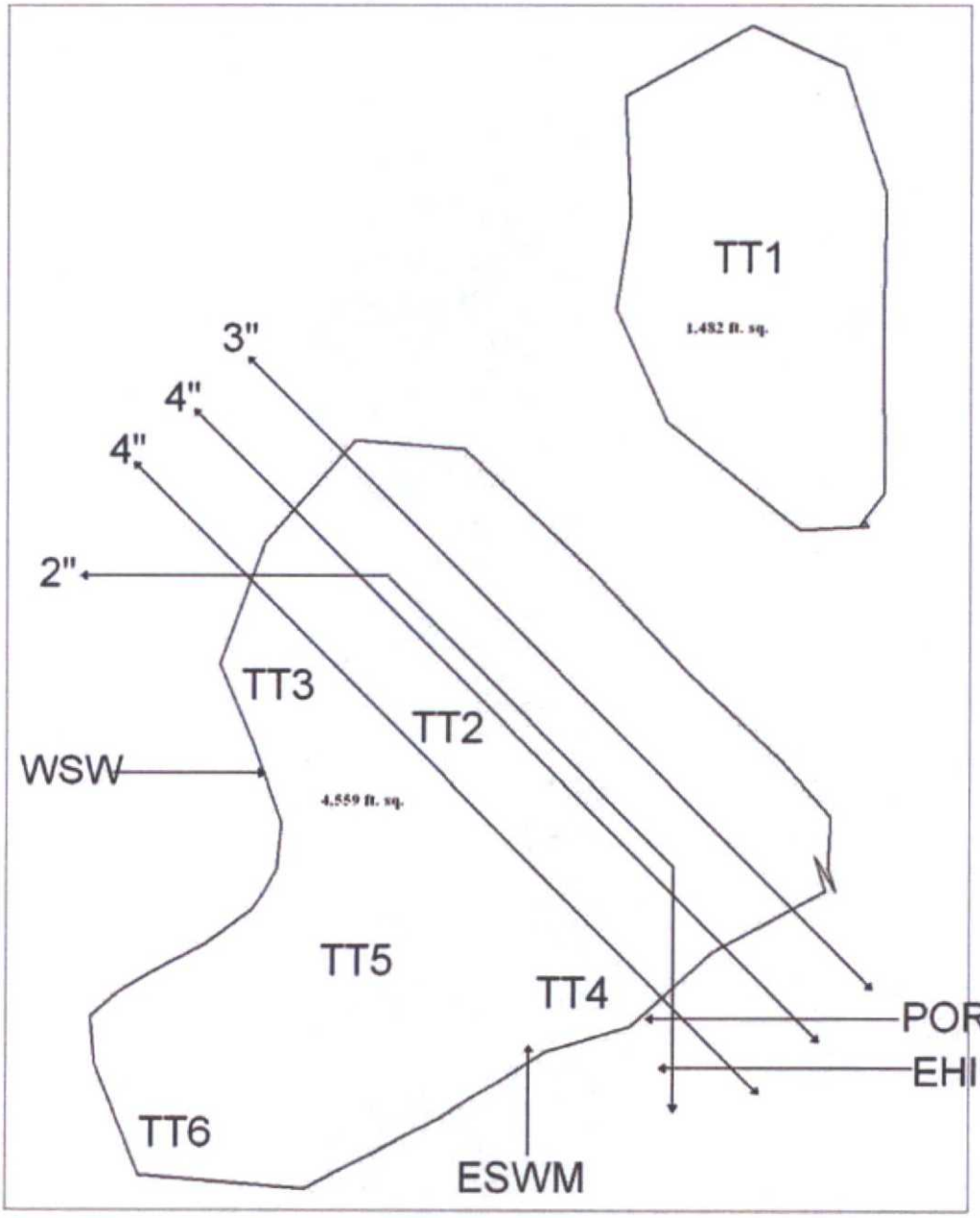


Figure 2 Area Map Conoco–Philips Pipeline MCA 4B	Lea County, New Mexico (SE1/4 of the SW1/4) of Sec 23, 17S, 32 E 32° 48' 07.46"N 103°28' 33.70"W Elevation: 3,997 feet amsl	DWG By: J. Smith April 2011	REVISED:	N
		0 3 6 Miles	SHEET 1 of 1	

ConocoPhilips MCA4 Header Flowline



Lat/Long
WGS 1984

N

Scale 1:250
0 30.00
Feet

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3/24/2011
GPS Pathfinder® Office
Trimble.

TABLES

TABLE 3

Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results

ConocoPhillips

MCA 4-B Header - UL-N (SE1/4 of the SW1/4) of Section 23, T17S R32E; Lea County, New Mexico

NMOCD #1RP-11-10-2652; EPI Ref. #150029

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (C6-C12) (mg/Kg)	TPH (C12-C28) (mg/Kg)	TPH (C28-C35) (mg/Kg)	Total TPH (C6-C35) (mg/Kg)	Chloride (mg/Kg)
TT-5	6	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-5	7	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	3,670
TT-6	4	In Situ	16-Mar-11	3.8	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-6	5	In Situ	16-Mar-11	6.2	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-6	6	In Situ	16-Mar-11	2.8	--	--	--	--	--	--	ND	ND	ND	ND	137
WSW	2	In Situ	16-Mar-11	1,249	--	--	--	--	--	--	4,350	12,400	368	17,118	221
WSW-A	4	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	19.1	ND	19.1	--
WSW-B	5	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	--
WSW-C	6	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	1,630
ESWM	1	In Situ	16-Mar-11	4.9	--	--	--	--	--	--	ND	ND	ND	ND	853
ESWM-A	2	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	36.3	ND	36.3	--
ESWM-B	3	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	295
PORSW	1	In Situ	16-Mar-11	9.3	--	--	--	--	--	--	ND	ND	ND	ND	30.8
East Hill	1	In Situ	16-Mar-11	3.0	--	--	--	--	--	--	ND	ND	ND	ND	37.6
NMOCD Remedial Threshold Goals				100		10				50				100	250[1]

Bolded values are in excess of NMOCD Remediation Thresholds

[1] Chloride residuals may not be capable of impacting groundwater above NMWQCC Ground Water Standards of 250 mg/L

J = Detected, but below Reporting Limits. Therefore, result ia an estimated concentration (CLP J-Flag)

-- = Not Analyzed; ND - Not Detected; SP-Sample Point; Sur. - Surface

TABLE 3

Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results

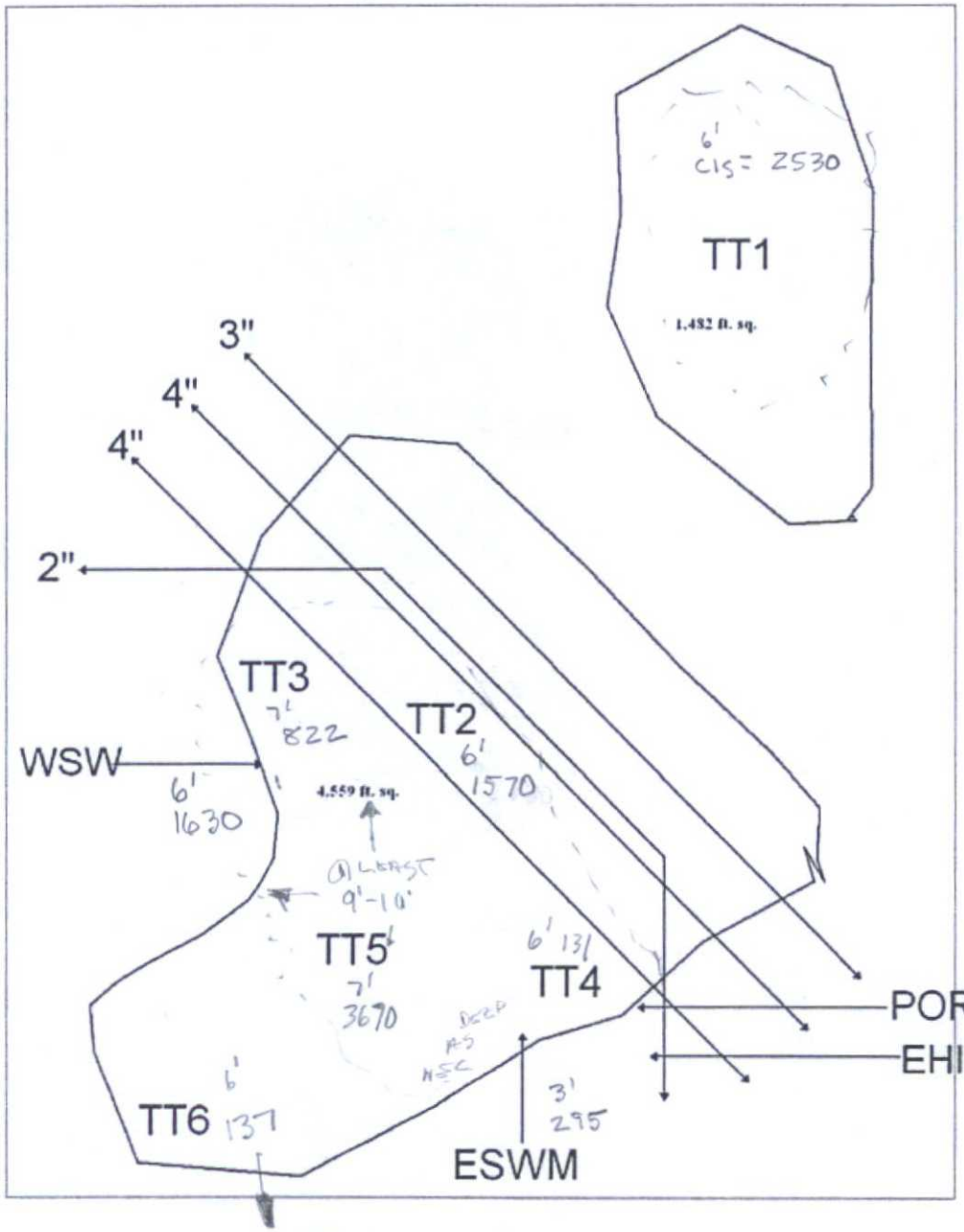
ConocoPhillips

MCA 4-B Header - UL-N (SE1/4 of the SW1/4) of Section 23, T17S R32E; Lea County, New Mexico

NMOCD #1RP-11-10-2652; EPI Ref. #150029

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (C6-C12) (mg/Kg)	TPH (C12-C28) (mg/Kg)	TPH (C28-C35) (mg/Kg)	Total TPH (C6-C35) (mg/Kg)	Chloride (mg/Kg)
TT-1	2	In Situ	16-Mar-11	2.8	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-1	4	In Situ	16-Mar-11	1.7	320	--	--	--	--	--	ND	ND	ND	ND	488
TT-1	5	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-1	6	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	2,530
TT-2	3	In Situ	16-Mar-11	1.6	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-2	4	In Situ	16-Mar-11	1.1	--	--	--	--	--	--	ND	ND	ND	ND	2,730
TT-2	5	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-2	6	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	1,570
TT-3	5	In Situ	16-Mar-11	0.7	560	--	--	--	--	--	ND	ND	ND	ND	311
TT-3	6	In Situ	16-Mar-11	0.4	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-3	6	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-3	7	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	822
TT-4	4	In Situ	16-Mar-11	63.1	--	--	--	--	--	--	ND	1,360	105	1,465	--
TT-4	5	In Situ	16-Mar-11	52.4	--	--	--	--	--	--	ND	1,550	109	1,659	--
TT-4	6	In Situ	16-Mar-11	2.0	1,320	--	--	--	--	--	ND	17.5	ND	17.5	131
TT-5	4	In Situ	16-Mar-11	1.1	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-5	5	In Situ	16-Mar-11	1.7	--	--	--	--	--	--	ND	ND	ND	ND	485

ConocoPhilips MCA4 Header Flowline



Lat/Long
WGS 1984

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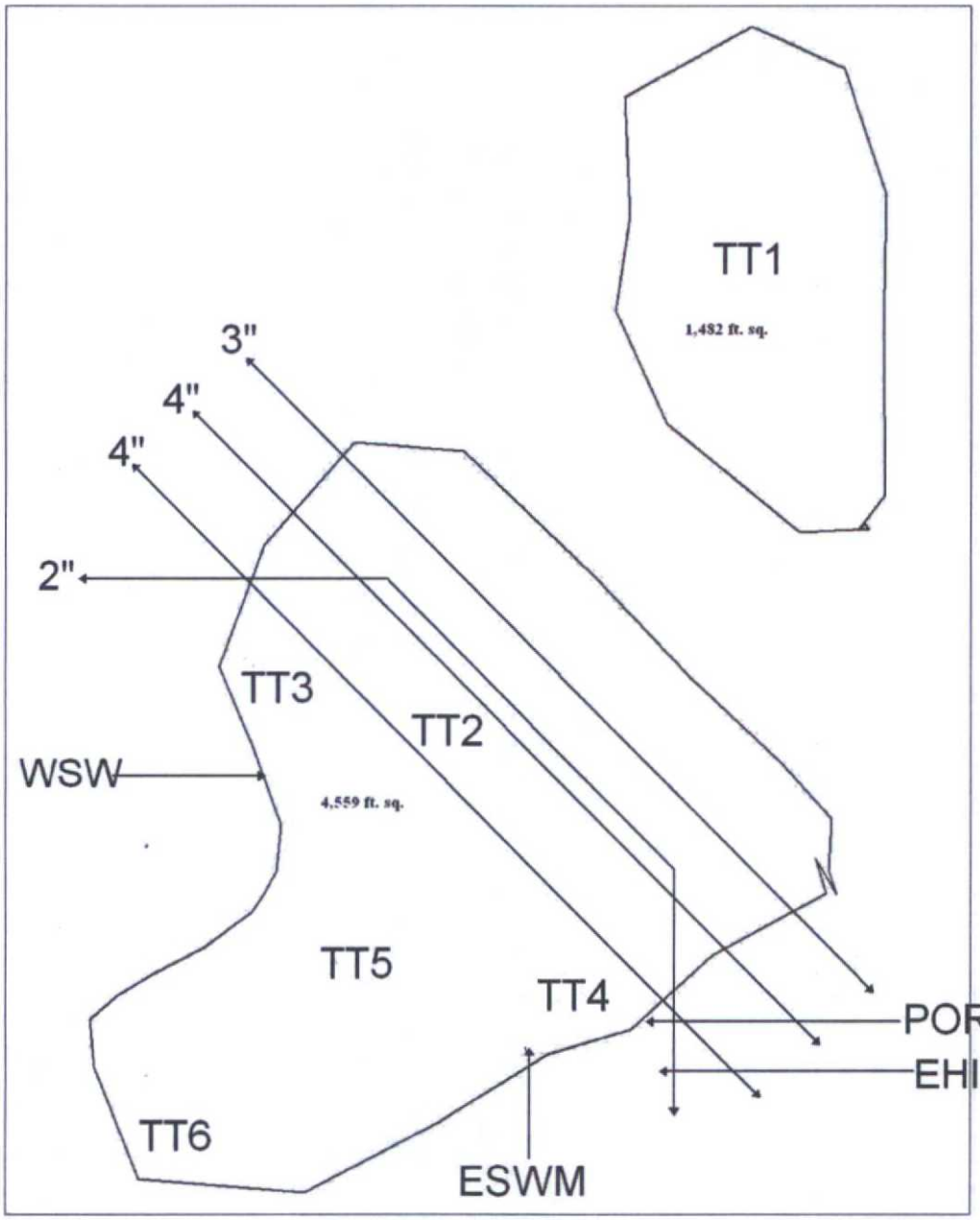
3/24/2011
GPS Pathfinder® Office
Trimble.

ConocoPhilips MCA4 Header Flowline



Lat/Long
WGS 1984

N

Scale 1:250
0 30.00
Feet

R032416A.ssf
3/24/2011
GPS Pathfinder® Office
Trimble.

Photograph No. 1 - Looking westerly at excavation, benching and sidewall overburden

Photograph No. 2 – Looking westerly at ingress/egress ramp, excavation, flow lines, benching and sidewall overburden

Analytical Report 410248

for

Environmental Plus, Incorporated

Project Manager: David P. Duncan

Conoco Phillips MCA 4-B Header

150029

22-MAR-11

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL01273):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):
Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

22-MAR-11

Project Manager: **David P. Duncan**
Environmental Plus, Incorporated
P.O. Box 1558
Eunice, NM 88231

Reference: XENCO Report No: **410248**
Conoco Phillips MCA 4-B Header
Project Address: Lea Co., NM

David P. Duncan:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 410248. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 410248 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

CASE NARRATIVE

Client Name: Environmental Plus, Incorporated
Project Name: Conoco Phillips MCA 4-B Header

Project ID:	*150029*	*Report Date:*	*22-MAR-11*
Work Order Number:	*410248*	*Date Received:*	*03/17/2011*

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Sample Cross Reference 410248

Environmental Plus, Incorporated, Eunice, NM

Conoco Phillips MCA 4-B Header

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TT-1 (2')	S	Mar-16-11 10:00		410248-001
TT-1 (4')	S	Mar-16-11 10:02		410248-002
TT-2 (3')	S	Mar-16-11 10:25		410248-003
TT-2 (4')	S	Mar-16-11 10:28		410248-004
TT-3 (5')	S	Mar-16-11 10:43		410248-005
TT-3 (6')	S	Mar-16-11 10:46		410248-006
TT-4 (4')	S	Mar-16-11 10:55		410248-007
TT-4 (5')	S	Mar-16-11 10:58		410248-008
TT-4 (6')	S	Mar-16-11 11:02		410248-009
TT-5 (4')	S	Mar-16-11 11:15		410248-010
TT-5 (5')	S	Mar-16-11 11:17		410248-011
TT-6 (4')	S	Mar-16-11 11:21		410248-012
TT-6 (5')	S	Mar-16-11 11:23		410248-013
TT-6 (6')	S	Mar-16-11 11:25		410248-014
WSW-1 (2")	S	Mar-16-11 12:05		410248-015
ESWM-1 (1')	S	Mar-16-11 12:15		410248-016
PORSW-1 (1')	S	Mar-16-11 12:30		410248-017
East Hill-1 (1')	S	Mar-16-11 12:35		410248-018

Certificate of Analysis Summary 410248

Environmental Plus, Incorporated, Eunice, NM

Project Name: Conoco Phillips MCA 4-B Header

Project Id: 150029
Contact: David P. Duncan
Project Location: Lea Co., NM

Date Received in Lab: Thu Mar-17-11 04:22 pm
Report Date: 22-MAR-11
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	410248-001		410248-002		410248-003		410248-004		410248-005		410248-006	
	Field Id:	TT-1 (2')		TT-1 (4')		TT-2 (3')		TT-2 (4')		TT-3 (5')		TT-3 (6')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-16-11 10:00		Mar-16-11 10:02		Mar-16-11 10:25		Mar-16-11 10:28		Mar-16-11 10:43		Mar-16-11 10:46	
Anions by E300	***Extracted:***												
	Analyzed:			Mar-21-11 18:26				Mar-21-11 18:26		Mar-21-11 18:26			
	Units/RL:			mg/kg	RL			mg/kg	RL	mg/kg	RL		
Chloride				488	18.3			2730	45.7	311	9.02		
Percent Moisture	***Extracted:***												
	Analyzed:	Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		2.96	1.00	8.26	1.00	4.11	1.00	8.01	1.00	6.91	1.00	3.77	1.00
TPH By SW8015 Mod	***Extracted:***	Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30	
	Analyzed:	Mar-18-11 22:32		Mar-18-11 22:59		Mar-18-11 23:29		Mar-18-11 23:58		Mar-19-11 00:26		Mar-19-11 00:54	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.4	ND	16.4	ND	15.7	ND	16.3	ND	16.0	ND	15.7
C12-C28 Diesel Range Hydrocarbons		ND	15.4	ND	16.4	ND	15.7	ND	16.3	ND	16.0	ND	15.7
C28-C35 Oil Range Hydrocarbons		ND	15.4	ND	16.4	ND	15.7	ND	16.3	ND	16.0	ND	15.7
Total TPH		ND	15.4	ND	16.4	ND	15.7	ND	16.3	ND	16.0	ND	15.7

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 410248

Environmental Plus, Incorporated, Eunice, NM

Project Name: Conoco Phillips MCA 4-B Header

Project Id: 150029
Contact: David P. Duncan
Project Location: Lea Co., NM

Date Received in Lab: Thu Mar-17-11 04:22 pm
Report Date: 22-MAR-11
Project Manager: Brent Barron, II

Analysis Requested		410248-007		410248-008		410248-009		410248-010		410248-011		410248-012	
	Lab Id:												
	Field Id:	TT-4 (4')		TT-4 (5')		TT-4 (6')		TT-5 (4')		TT-5 (5')		TT-6 (4')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-16-11 10:55		Mar-16-11 10:58		Mar-16-11 11:02		Mar-16-11 11:15		Mar-16-11 11:17		Mar-16-11 11:21	
Anions by E300	*Extracted:*												
	Analyzed:					Mar-21-11 18:26				Mar-21-11 18:26			
	Units/RL:					mg/kg	RL			mg/kg	RL		
Chloride						131	8.91			485	8.91		
Percent Moisture	*Extracted:*												
	Analyzed:	Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		9.10	1.00	7.41	1.00	5.77	1.00	3.98	1.00	5.70	1.00	6.53	1.00
TPH By SW8015 Mod	*Extracted:*	Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30	
	Analyzed:	Mar-19-11 01:24		Mar-19-11 01:53		Mar-19-11 02:53		Mar-19-11 03:23		Mar-19-11 03:53		Mar-19-11 04:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.5	ND	16.2	ND	15.9	ND	15.5	ND	15.9	ND	16.1
C12-C28 Diesel Range Hydrocarbons		1360	16.5	1550	16.2	17.5	15.9	ND	15.5	ND	15.9	ND	16.1
C28-C35 Oil Range Hydrocarbons		105	16.5	109	16.2	ND	15.9	ND	15.5	ND	15.9	ND	16.1
Total TPH		1470	16.5	1660	16.2	17.5	15.9	ND	15.5	ND	15.9	ND	16.1

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 410248

Environmental Plus, Incorporated, Eunice, NM

Project Name: Conoco Phillips MCA 4-B Header

Project Id: 150029
Contact: David P. Duncan
Project Location: Lea Co., NM

Date Received in Lab: Thu Mar-17-11 04:22 pm
Report Date: 22-MAR-11
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	410248-013		410248-014		410248-015		410248-016		410248-017		410248-018	
	Field Id:	TT-6 (5')		TT-6 (6')		WSW-1 (2')		ESWM-1 (1')		PORSW-1 (1')		East Hill-1 (1')	
	Depth:					2'							
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-16-11 11:23		Mar-16-11 11:25		Mar-16-11 12:05		Mar-16-11 12:15		Mar-16-11 12:30		Mar-16-11 12:35	
Anions by E300	*Extracted:*												
	Analyzed:			Mar-21-11 18:26		Mar-21-11 18:26		Mar-21-11 18:26		Mar-21-11 18:26		Mar-21-11 18:26	
	Units/RL:			mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride				137	8.70	221	8.81	853	23.1	30.8	4.23	37.6	4.24
Percent Moisture	*Extracted:*												
	Analyzed:	Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00		Mar-18-11 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		2.54	1.00	3.40	1.00	4.64	1.00	8.90	1.00	ND	1.00	ND	1.00
TPH By SW8015 Mod	*Extracted:*	Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30		Mar-18-11 15:30	
	Analyzed:	Mar-19-11 04:58		Mar-19-11 05:30		Mar-19-11 05:59		Mar-19-11 06:27		Mar-19-11 06:56		Mar-19-11 07:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.4	ND	15.5	4350	78.6	ND	16.4	ND	15.1	ND	15.1
C12-C28 Diesel Range Hydrocarbons		ND	15.4	ND	15.5	12400	78.6	ND	16.4	ND	15.1	ND	15.1
C28-C35 Oil Range Hydrocarbons		ND	15.4	ND	15.5	368	78.6	ND	16.4	ND	15.1	ND	15.1
Total TPH		ND	15.4	ND	15.5	17100	78.6	ND	16.4	ND	15.1	ND	15.1

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

XENCO Laboratories

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips MCA 4-B Header

Work Orders : 410248, **Project ID:** 150029

Lab Batch #: 848449 **Sample:** 598432-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/11 20:08

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	100	107	70-135	
o-Terphenyl	49.2	50.0	98	70-135	

Lab Batch #: 848449 **Sample:** 598432-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/11 20:37

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	45.5	50.1	91	70-135	

Lab Batch #: 848449 **Sample:** 598432-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/18/11 21:05

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.8	100	97	70-135	
o-Terphenyl	48.4	50.1	97	70-135	

Lab Batch #: 848449 **Sample:** 410248-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/11 22:32

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.4	99.8	98	70-135	
o-Terphenyl	47.1	49.9	94	70-135	

Lab Batch #: 848449 **Sample:** 410248-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/11 22:59

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	49.3	50.2	98	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips MCA 4-B Header

Work Orders : 410248,

Project ID: 150029

Lab Batch #: 848449 **Sample:** 410248-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/11 23:29

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.3	100	98	70-135	
o-Terphenyl	46.6	50.1	93	70-135	

Lab Batch #: 848449 **Sample:** 410248-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/18/11 23:58

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.9	100	92	70-135	
o-Terphenyl	43.9	50.0	88	70-135	

Lab Batch #: 848449 **Sample:** 410248-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 00:26

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.3	99.5	94	70-135	
o-Terphenyl	44.4	49.8	89	70-135	

Lab Batch #: 848449 **Sample:** 410248-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 00:54

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	48.0	50.2	96	70-135	

Lab Batch #: 848449 **Sample:** 410248-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 01:24

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.5	99.7	99	70-135	
o-Terphenyl	47.5	49.9	95	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips MCA 4-B Header

Work Orders : 410248,

Project ID: 150029

Lab Batch #: 848449 **Sample:** 410248-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 01:53

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.9	105	70-135	
o-Terphenyl	51.0	50.0	102	70-135	

Lab Batch #: 848449 **Sample:** 410248-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 02:53

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.9	128	70-135	
o-Terphenyl	62.0	50.0	124	70-135	

Lab Batch #: 848449 **Sample:** 410248-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 03:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	99.5	127	70-135	
o-Terphenyl	61.1	49.8	123	70-135	

Lab Batch #: 848449 **Sample:** 410248-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 03:53

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	59.3	50.1	118	70-135	

Lab Batch #: 848449 **Sample:** 410248-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 04:25

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	52.8	50.1	105	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips MCA 4-B Header

Work Orders : 410248,

Project ID: 150029

Lab Batch #: 848449 **Sample:** 410248-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 04:58

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	100	120	70-135	
o-Terphenyl	56.7	50.1	113	70-135	

Lab Batch #: 848449 **Sample:** 410248-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 05:30

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	49.7	50.0	99	70-135	

Lab Batch #: 848449 **Sample:** 410248-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 05:59

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.1	99.9	97	70-135	
o-Terphenyl	35.1	50.0	70	70-135	

Lab Batch #: 848449 **Sample:** 410248-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 06:27

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	51.4	50.0	103	70-135	

Lab Batch #: 848449 **Sample:** 410248-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 06:56

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.6	100	70-135	
o-Terphenyl	46.7	49.8	94	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips MCA 4-B Header

Work Orders : 410248,

Project ID: 150029

Lab Batch #: 848449 **Sample:** 410248-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/19/11 07:25

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.8	100	98	70-135	
o-Terphenyl	43.8	50.0	88	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Conoco Phillips MCA 4-B Header

Work Order #: 410248 **Project ID:** 150029

Analyst: LATCOR **Date Prepared:** 03/21/2011 **Date Analyzed:** 03/21/2011

Lab Batch ID: 848685 **Sample:** 848685-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

Anions by E300	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.420	10.0	9.58	96	10.0	9.12	91	5	75-125	20	

Analyst: BEV **Date Prepared:** 03/18/2011 **Date Analyzed:** 03/18/2011

Lab Batch ID: 848449 **Sample:** 598432-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	952	95	1000	908	91	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	954	95	1000	910	91	5	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: Conoco Phillips MCA 4-B Header

Work Order #: 410248
Lab Batch #: 848685
Project ID: 150029
Date Analyzed: 03/21/2011
Date Prepared: 03/21/2011
Analyst: LATCOR
QC- Sample ID: 410248-002 S
Batch #: 1
Matrix: Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	488	436	1020	122	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

XENCO Laboratories

Sample Duplicate Recovery

ACCREDITED IN ACCORDANCE WITH nelac

Project Name: Conoco Phillips MCA 4-B Header

Work Order #: 410248

Lab Batch #: 848685 **Project ID:** 150029

Date Analyzed: 03/21/2011 18:26 **Date Prepared:** 03/21/2011 **Analyst:** LATCOR

QC- Sample ID: 410248-002 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	488	449	8	20	

Lab Batch #: 848483

Date Analyzed: 03/18/2011 17:00 **Date Prepared:** 03/18/2011 **Analyst:** WRU

QC- Sample ID: 410245-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.85	3.79	2	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Environmental Plus, Inc.

P.O. Box 1558, 2100 Avenue O, Eunice, NM 88231
(575) 394-3481 FAX: (575) 394-2601

Chain of Custody Form

LAB: Xenco

Company Name	Environmental Plus, Inc.
EPI Project Manager	David P. Duncan
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	575-394-3481 / 575-394-2601
Client Company	ConocoPhillips
Facility Name	MCA 4-B Header
Location	Lea Co., NM
Project Reference	150029
EPI Sampler Name	Danny Deaton

Remit Invoice To:

ConocoPhillips

ATTN: Mr. John Gates
HSER Lead
ConocoPhillips Company
29 Vacuum Complex Lane
Lovington, New Mexico 88260-9664

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO_4^{-2})	pH	TCLP	OTHER >>>	PAH			
410248																									
1	TT-1 (2')	G	1			X					X		16-Mar-11	10:00		X									
2	TT-1 (4')	G	1			X					X		16-Mar-11	10:02		X	X								
3	TT-2 (3')	G	1			X					X		16-Mar-11	10:25		X									
4	TT-2 (4')	G	1			X					X		16-Mar-11	10:28		X	X								
Omit 5	~~TT-3 (4')~~	~~G~~	~~1~~			~~X~~					~~X~~		~~16-Mar-11~~	~~10:39~~		~~X~~									
6	TT-3 (5')	G	1			X					X		16-Mar-11	10:43		X	X								
7	TT-3 (6')	G	1			X					X		16-Mar-11	10:46		X									
8	TT-4 (4')	G	1			X					X		16-Mar-11	10:55		X									
9	TT-4 (5')	G	1			X					X		16-Mar-11	10:58		X									
10	TT-4 (6')	G	1			X					X		16-Mar-11	11:02		X	X								

Sampler Relinquished: Danny Deaton	3/17/2011 Time 0700	Received By: [signature]	E-mail results to: dduncanepi@gmail.com & John.W.Gates@conocophillips.com
Relinquished by: [signature]	3/17/2011 Time 1522	Received By: (lab staff) Lisa Munoz	
Delivered by:	Sample Cool & Intact: Yes / No; 16°C	Checked By: [signature]	

Environmental Plus, Inc.

P.O. Box 1558, 2100 Avenue O, Eunice, NM 88231
(575) 394-3481 FAX: (575) 394-2601

Chain of Custody Form

LAB: Xenco

Company Name	Environmental Plus, Inc.
EPI Project Manager	David P. Duncan
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	575-394-3481 / 575-394-2601
Client Company	ConocoPhillips
Facility Name	MCA 4-B Header
Location	Lea Co., NM
Project Reference	150029
EPI Sampler Name	Danny Deaton

Remit Invoice To:

ConocoPhillips

ATTN: Mr. John Gates
HSER Lead
ConocoPhillips Company
29 Vacuum Complex Lane
Lovington, New Mexico 88260-9664

LAB I.D. 410248	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO_4^{-})	pH	TCLP	OTHER >>>	PAH			
11	TT-5 (4')	G	1			X					X		16-Mar-11	11:15		X									
12	TT-5 (5')	G	1			X					X		16-Mar-11	11:17		X	X								
13	TT-6 (4')	G	1			X					X		16-Mar-11	11:21		X									
14	TT-6 (5')	G	1			X					X		16-Mar-11	11:23		X									
15	TT-6 (6')	G	1			X					X		16-Mar-11	11:25		X	X								
16	WSW - 1 (2")	G	1			X					X		16-Mar-11	12:05		X	X								
17	ESWM -1 (1')	G	1			X					X		16-Mar-11	12:15		X	X								
18	PORSW- 1 (1')	G	1			X					X		16-Mar-11	12:30		X	X								
19	East Hill - 1 (1')	G	1			X					X		16-Mar-11	12:35		X	X								
20																									

Sampler Relinquished: Danny Deaton	3/17/2011 Time 0700	Received By:	E-mail results to: dduncanepi@gmail.com & John.W.Gates@conocophillips.com
Relinquished by: D. Duncan	3/17/2011 Time 1622	Received By: (lab staff) Lisa Murdock	
Delivered by:	Sample Cool & Intact: Yes / No	Checked By: LM	

XENCO Laboratories

XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-in

Client: Environmental Plus
Date/Time: 3-17-11 16:22
Lab ID#: 410248
Initials: LM

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	(Yes)	No	N/A	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	(No)	N/A	
17. VOC sample have zero head space?	Yes	No	(N/A)	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	6 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
- ☐ Initial and Backup Temperature confirm out of temperature conditions
- ☐ Client understands and would like to proceed with analysis

Leking, Geoffrey R, EMNRD

From: Leking, Geoffrey R, EMNRD
Sent: Thursday, April 07, 2011 9:39 AM
To: 'tbadbear@blm.gov'; justinw@conocophillips.com
Subject: RE: MCA 4B header

Justin

I agree with Trishia's comments.

Geoffrey Leking
Environmental Engineer
NMOCD-Hobbs
1625 N. French Drive
Hobbs, NM 88240
Office: (575) 393-6161 Ext. 113
Cell: (575) 399-2990
email: geoffreyr.leking@state.nm.us

-----Original Message-----
From: tbadbear@blm.gov [mailto:tbadbear@blm.gov]
Sent: Wednesday, April 06, 2011 4:23 PM
To: justinw@conocophillips.com
Cc: Leking, Geoffrey R, EMNRD
Subject: MCA 4B header

Mr. Wright,

After reviewing the lab results from the 3/16/2011 soil sampling:

TT 1, 2, 3, 5 & ESWM - chlorides are too high. Further sampling is required.
WSW - TPH is too high. Further sampling is required.

Please give a 48-hour notification prior to soil sampling.

Thank you,

Trishia C. Bad Bear
Natural Resource Specialist
BLM-Hobbs Field Station
575.393.3612 office
575.390.2258 cell
575.393.4280 fax
Trishia_Bad_Bear@nm.blm.gov

ENVIRONMENTAL PLUS, INC.
CONSULTING AND ENVIRONMENTAL REMEDIATION

27 September 2010

Mr. Geoffrey Leking
Environmental Engineer
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

RE: Remediation Proposal
ConocoPhillips – MCA 4-B Header
UL-N (SE¼ of the SW ¼) of Section 23, T 17 S, R 32 E
Longitude: 32° 48' 07.46"; Latitude: 103° 28' 33.70"
NMOCD Ref. #1RP-; EPI Ref. #190029

Dear Mr. Leking:

On July 13, 2010 at 10:00 p.m. approximately 16.3-bbls of petroleum products were released from a four (4) inch diameter asbestos cement surface flow line. Approximately 12-barrels of petroleum product were recovered. The petroleum products covered a release area of 3,500 square feet. After vacuuming of petroleum products and field activities mitigating the release area, ConocoPhillips retained the services of Environmental Plus, Inc., (EPI) to GPS, take photographs and delineate the release area. This letter report documents the results of delineation activities and provides a Remediation Proposal.

Site Background

The Site is located in UL-N (SE ¼ of the SW ¼) of Section 23, T17S, R32E at an approximate elevation of 3,825 feet above mean sea level (amsl). The property is owned by Department of the Interior and managed by the Bureau of Land Management (BLM). A search for water wells was completed utilizing the New Mexico Office of the State Engineers website and a database maintained by the United States Geological Survey (USGS). No wells (domestic, agriculture or public) or bodies of surface water exist within a 1,000 feet radius of the Site. Groundwater data indicates the average water depth is approximately 50-55 feet below ground surface (bgs). Based on available information, it was determined the distance between impacted soil and groundwater is less than 43-48 feet. Utilizing this information, the New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this Site were determined as follows:

Parameter	Remedial Goal
Benzene	10 parts per million
BTEX	50 parts per million
TPH	100 parts per million

Chloride residuals may not be capable of impacting local Groundwater above NMWQCC of 250 mg/L

P.O. BOX 1558 ••• 2100 AVENUE O ••• EUNICE, NEW MEXICO 88231
TELEPHONE 575•394•3481 ••• FAX 575•394•2601

ENVIRONMENTAL PLUS, INC.

Field Work

On September 8, 2010 EPI mobilized at the Site to direct locale and depth of ten (10) hand auger soil borings (Ref. Fig #4). The hand auger soil borings were advanced to a depth where two (2) consecutive soil borings were below NMOCD Remedial Threshold Goals for TPH and chloride concentrations. However, as field analyses proved chloride concentrations a non-factor of soil impacts, said tests were discontinued. Soil samples were collected initially at ground surface then at one (1) foot intervals until NMOCD Goals were achieved.

A portion of each soil sample was field analyzed for organic vapor and in several instances for chloride concentrations. Soil samples collected for field testing of organic vapors were placed in a self-sealing polyethylene bag and allowed to equilibrate to ~70° F. The samples were then tested for organic vapor concentrations utilizing an MiniRae™ Photoionization detector (PID) equipped with a 10.6 electron-volt (eV) lamp. Chloride concentrations were analyzed in the field with use of a LaMotte Chloride Kit (titration method).

Soil samples designated for laboratory analyses were immediately inserted into laboratory provided containers, placed into coolers, iced down and transported to Cardinal Laboratory, Hobbs, New Mexico, for quantification of TPH concentrations [Gasoline Range Organics (C6-C12), Diesel Range Organics (>C12-C28) and Oil Range Organics (>C28-C35)].

Analytical Data

Relying on accuracy of field analysis, soil samples for laboratory analytical procedures were collected only at intervals were two (2) consecutive field analyses were below NMOCD Goals. A review of Table #2, *Summary of Hand Auger Soil Sample Field Analyses and Laboratory Analytical Results,* indicates TPH concentrations are surficial in some of the impacted area.

Site Remedial Proposal

Areas of most concern are in the vicinity of SP-4 (release area) and SP-3 where field analyses indicate high TPH concentrations exist to seven (7) feet bgs (Ref. Table #2). It is anticipated impacted material lies below this depth, but solid caliche formation prevented additional hand auger efforts. EPI proposes initiating excavation activities in the area of SP-4, proceeding horizontally to SP-3 then peripherally in an upward gradient to terminus of impacts. Vertical depth of excavation at SP-4 will be terminated when field analysis indicate two (2) consecutive NMOCD Goals for TPH and chloride concentrations are achieved. Said criteria will be followed during lateral excavation of the remaining impacted area. Using SP-4 (release area) as the focal point, it appears impacted soil in the southerly direction (SP-5 through SP-10) will require a maximum two (2) foot excavation depth. Impacted material in the northerly direction (SP-1 through SP-3) will require more extensive excavation. However, extent of lateral and vertical excavation will be restricted to limits necessary for removal of highly impacted material. Similarly, existing asphaltine will be excavated and disposed. Impacted material will be transported to Controlled Recovery, Inc., (CRI) for disposal.

Soil samples collected from both sidewalls and bottom will be conducted in a systematic pattern providing good representation of the finished excavated areas. A portion of each soil sample collected will be field analyzed for TPH and chloride concentrations as previously described. After attaining TPH and chloride concentrations below NMOCD Goals, the second portion will be placed into laboratory provided containers, stored in coolers, iced down and transported to an independent laboratory for analyses of TPH and chloride concentrations. Upon receipt of laboratory analytical results indicating NMOCD Goals have been achieved, excavated areas will be backfilled.

Excavated areas will be backfilled with caliche to within three (3) feet of original ground surface. Remaining depth of excavation will be backfilled with imported top soil free of large clods, rocks and deleterious material. Both caliche and top soil will be imported from available sources within proximity of the excavation. During excavation and backfill operations, extreme care will be taken to protect existing surface flow lines. After backfill operations are complete, the entire disturbed areas will be contoured to promote natural drainage and prevent wind/water erosion. Contouring of disturbed areas will require both mechanical and hand labor efforts. Disturbed areas will be drill seeded and/or broadcast with a grass mixture approved by BLM and ConocoPhillips representative.

Should you have any technical questions, concerns or need additional information, please contact me at (575) 394-3481 (office), (575) 441-7802 (cellular) or via email at dduncanepi@gmail.com. Official communications should be directed to Mr. John Gates at (575) 391-3158 (office), (575) 390-4821 (cellular) or via email at John.W.Gates@conocophillips.com. with correspondence addressed to:

Mr. John W. Gates
ConocoPhillips - HSER Lead
Permian-Buckeye Operations
29 Vacuum Complex Lane
Lovington, New Mexico 88260-9664

Sincerely,

ENVIRONMENTAL PLUS, INC.,

David P. Duncan
Civil Engineer
EPI Project Manager

Cc: John W. Gates, HSER Lead – ConocoPhillips, Inc.
Justin Wright, Contract Person – ConocoPhillips, Inc.
Cody Miller, General Manager – EPI
Roger Boone, Operations Manager - EPI
Bureau of Land Management

Encl: Figure 1 – Area Map (Not Included)
Figure 2 – Site Location Map (Not Included)
Figure 3 – Site Map (Not Included)
Figure 4 – Soil Boring Map (Not Included)
Table 1 – Well Data (Not Included)
Table 2 – Summary of Soil Boring Field Analyses and Laboratory Analytical Results
Attachment I – Site Photographs
Attachment II – Laboratory Analytical Results and Chain-of-Custody Form
Attachment III – Soil Boring Logs (FM & OL Forms)
Attachment IV – Copy of Initial C-141

TABLES

TABLE 2

Summary of Hand Auger Soil Sample Field Analyses and Laboratory Analytical Results

ConocoPhillips

MCA 4-B Header - UL-N (SE1/4 of the SW1/4) of Section 23, T17S R32E; Lea County, New Mexico

NMOCD #; EPI Ref. #150029

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (C6-C12) (mg/Kg)	TPH (C12-C28) (mg/Kg)	TPH (C28-C35) (mg/Kg)	Total TPH (C6-C35) (mg/Kg)	Chloride (mg/Kg)
SP-1	Sur.	In Situ	08-Sep-10	8.4	240						ND	141	18.4	159	--
SP-1	1	In Situ	08-Sep-10	21.3	--						ND	440	ND	440	--
SP-2	Sur.	In Situ	08-Sep-10	17.8	--						ND	ND	ND	ND	--
SP-2	1	In Situ	08-Sep-10	18.6	--						ND	342	ND	342	--
SP-3	Sur.	In Situ	08-Sep-10	161	--						--	--	--	--	--
SP-3	1	In Situ	08-Sep-10	662	--						--	--	--	--	--
SP-3	2	In Situ	08-Sep-10	102	--						--	--	--	--	--
SP-3	3	In Situ	08-Sep-10	85.2	--						--	--	--	--	--
SP-3	4	In Situ	08-Sep-10	26.1	--						16.3	201	ND	217	--
SP-3	5	In Situ	08-Sep-10	22.2	--						18.2	242	ND	260	
SP-4	Sur.	In Situ	08-Sep-10	800	--						--	--	--	--	--
SP-4	1	In Situ	08-Sep-10	--	--						--	--	--	--	--
SP-4	1	In Situ	08-Sep-10	1,886	--						--	--	--	--	--
SP-4	2	In Situ	08-Sep-10	1,785	--						--	--	--	--	--
SP-4	3	In Situ	08-Sep-10	1,776	--						--	--	--	--	--
SP-4	4	In Situ	08-Sep-10	1,779	--						--	--	--	--	--

TABLE 2

Summary of Hand Auger Soil Sample Field Analyses and Laboratory Analytical Results

ConocoPhillips

MCA 4-B Header - UL-N (SE1/4 of the SW1/4) of Section 23, T17S R32E; Lea County, New Mexico

NMOCD #; EPI Ref. #150029

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (C6-C12) (mg/Kg)	TPH (C12-C28) (mg/Kg)	TPH (C28-C35) (mg/Kg)	Total TPH (C6-C35) (mg/Kg)	Chloride (mg/Kg)
SP-4	5	In Situ	08-Sep-10	1,619	--						--	--	--	--	--
SP-4	6	In Situ	08-Sep-10	1,932	--						--	--	--	--	--
SP-4	7	In Situ	08-Sep-10	1,448	--						--	--	--	--	--
SP-5	Sur.	In Situ	08-Sep-10	261	--						--	--	--	--	--
SP-5	1	In Situ	08-Sep-10	18.9	--						ND	41.4	ND	41.4	--
SP-5	2	In Situ	08-Sep-10	42.6	--						ND	ND	ND	ND	--
SP-6	Sur.	In Situ	08-Sep-10	29.2	--						ND	ND	ND	ND	--
SP-6	1	In Situ	08-Sep-10	41.3	--						ND	ND	ND	ND	--
SP-7	Sur.	In Situ	08-Sep-10	38.2	--						ND	89.2	ND	89.2	--
SP-7	1	In Situ	08-Sep-10	33.3	--						ND	ND	ND	ND	--
SP-8	Sur.	In Situ	08-Sep-10	26.3	--						ND	ND	ND	ND	--
SP-8	1	In Situ	08-Sep-10	34.2	--						ND	ND	ND	ND	--
SP-9	Sur.	In Situ	08-Sep-10	438	--						--	--	--	--	
SP-9	1	In Situ	08-Sep-10	51.3	--						--	--	--	--	--
SP-9	2	In Situ	08-Sep-10	38.2	--						ND	19.0	ND	19.0	--
SP-9	3	In Situ	08-Sep-10	39.1	--						ND	ND	ND	ND	--

TABLE 2

Summary of Hand Auger Soil Sample Field Analyses and Laboratory Analytical Results

ConocoPhillips

MCA 4-B Header - UL-N (SE1/4 of the SW1/4) of Section 23, T17S R32E; Lea County, New Mexico

NMOCD #; EPI Ref. #150029

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (C6-C12) (mg/Kg)	TPH (C12-C28) (mg/Kg)	TPH (C28-C35) (mg/Kg)	Total TPH (C6-C35) (mg/Kg)	Chloride (mg/Kg)
SP-10	Sur.	In Situ	08-Sep-10	89.5	--						--	--	--	--	--
SP-10	1	In Situ	08-Sep-10	71.2	--						--	--	--	--	--
SP-10	2	In Situ	08-Sep-10	13.9	--						ND	ND	ND	ND	--
SP-10	3	In Situ	08-Sep-10	41.0	--						ND	ND	ND	ND	--
NMOCD Remedial Threshold Goals				100		10				50				100	250 [1]

Bolded values are in excess of NMOCD Remediation Thresholds

[1] Chloride residuals may not be capable of impacting groundwater above NMWQCC Ground Water Standards of 250 mg/L

J = Detected, but below Reporting Limits. Therefore, result ia an estimated concentration (CLP J-Flag)

-- = Not Analyzed; ND - Not Detected; SP-Sample Point; Sur. - Surfac

ATTACHMENTS

ATTACHMENT I

SITE PHOTOGRAPHS

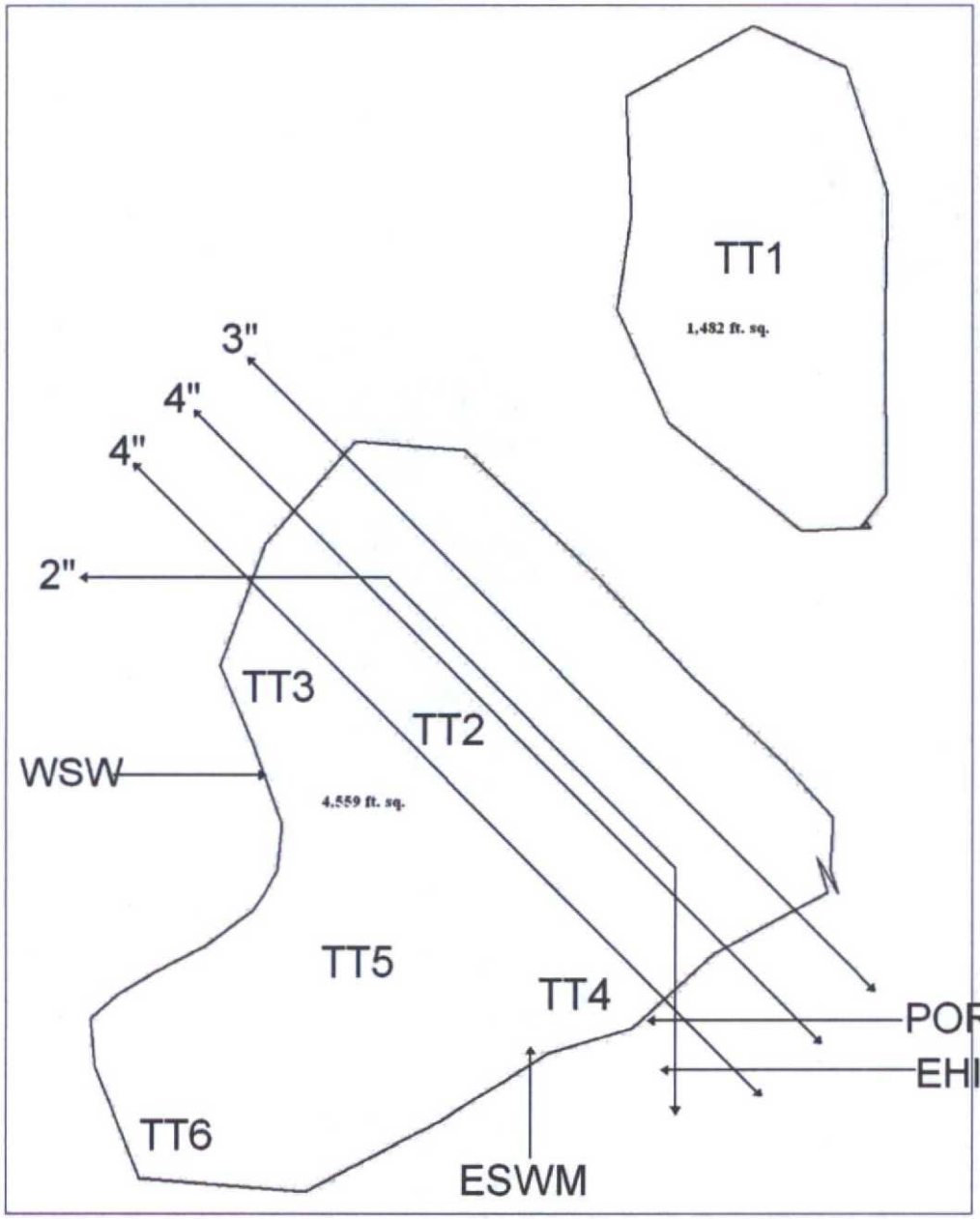
Photograph No. 1 – Looking westerly at Point of Release and impacted area

Photograph No. 2 – Looking northwesterly at Point of Release and impacted area

Photograph No. 4 – Looking southwesterly at impacted area

Photograph No. 4 – Looking at Point of Release and repair clamp

ConocoPhilips MCA4 Header Flowline



Lat/Long
WGS 1984

N

Scale 1:250
0 30.00
Feet

R032416A.ssf
3/24/2011
GPS Pathfinder® Office
Trimble.

TABLE 3

Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results

ConocoPhillips

MCA 4-B Header - UL-N (SE1/4 of the SW1/4) of Section 23, T17S R32E; Lea County, New Mexico

NMOCD #1RP-11-10-2652; EPI Ref. #150029

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (C6-C12) (mg/Kg)	TPH (C12-C28) (mg/Kg)	TPH (C28-C35) (mg/Kg)	Total TPH (C6-C35) (mg/Kg)	Chloride (mg/Kg)
TT-1	2	In Situ	16-Mar-11	2.8	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-1	4	In Situ	16-Mar-11	1.7	320	--	--	--	--	--	ND	ND	ND	ND	488
TT-1	5	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-1	6	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	2,530
TT-2	3	In Situ	16-Mar-11	1.6	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-2	4	In Situ	16-Mar-11	1.1	--	--	--	--	--	--	ND	ND	ND	ND	2,730
TT-2	5	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-2	6	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	1,570
TT-3	5	In Situ	16-Mar-11	0.7	560	--	--	--	--	--	ND	ND	ND	ND	311
TT-3	6	In Situ	16-Mar-11	0.4	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-3	6	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-3	7	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	822
TT-4	4	In Situ	16-Mar-11	63.1	--	--	--	--	--	--	ND	1,360	105	1,465	--
TT-4	5	In Situ	16-Mar-11	52.4	--	--	--	--	--	--	ND	1,550	109	1,659	--
TT-4	6	In Situ	16-Mar-11	2.0	1,320	--	--	--	--	--	ND	17.5	ND	17.5	131
TT-5	4	In Situ	16-Mar-11	1.1	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-5	5	In Situ	16-Mar-11	1.7	--	--	--	--	--	--	ND	ND	ND	ND	485

TABLE 3

Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results

ConocoPhillips

MCA 4-B Header - UL-N (SE1/4 of the SW1/4) of Section 23, T17S R32E; Lea County, New Mexico

NMOCD #1RP-11-10-2652; EPI Ref. #150029

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (C6-C12) (mg/Kg)	TPH (C12-C28) (mg/Kg)	TPH (C28-C35) (mg/Kg)	Total TPH (C6-C35) (mg/Kg)	Chloride (mg/Kg)
TT-5	6	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-5	7	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	3,670
TT-6	4	In Situ	16-Mar-11	3.8	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-6	5	In Situ	16-Mar-11	6.2	--	--	--	--	--	--	ND	ND	ND	ND	--
TT-6	6	In Situ	16-Mar-11	2.8	--	--	--	--	--	--	ND	ND	ND	ND	137
WSW	2	In Situ	16-Mar-11	1,249	--	--	--	--	--	--	4,350	12,400	368	17,118	221
WSW-A	4	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	19.1	ND	19.1	--
WSW-B	5	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	--
WSW-C	6	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	1,630
ESWM	1	In Situ	16-Mar-11	4.9	--	--	--	--	--	--	ND	ND	ND	ND	853
ESWM-A	2	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	36.3	ND	36.3	--
ESWM-B	3	In Situ	28-Apr-11	--	--	--	--	--	--	--	ND	ND	ND	ND	295
PORSW	1	In Situ	16-Mar-11	9.3	--	--	--	--	--	--	ND	ND	ND	ND	30.8
East Hill	1	In Situ	16-Mar-11	3.0	--	--	--	--	--	--	ND	ND	ND	ND	37.6
NMOCD Remedial Threshold Goals				100		10				50				100	250 [1]

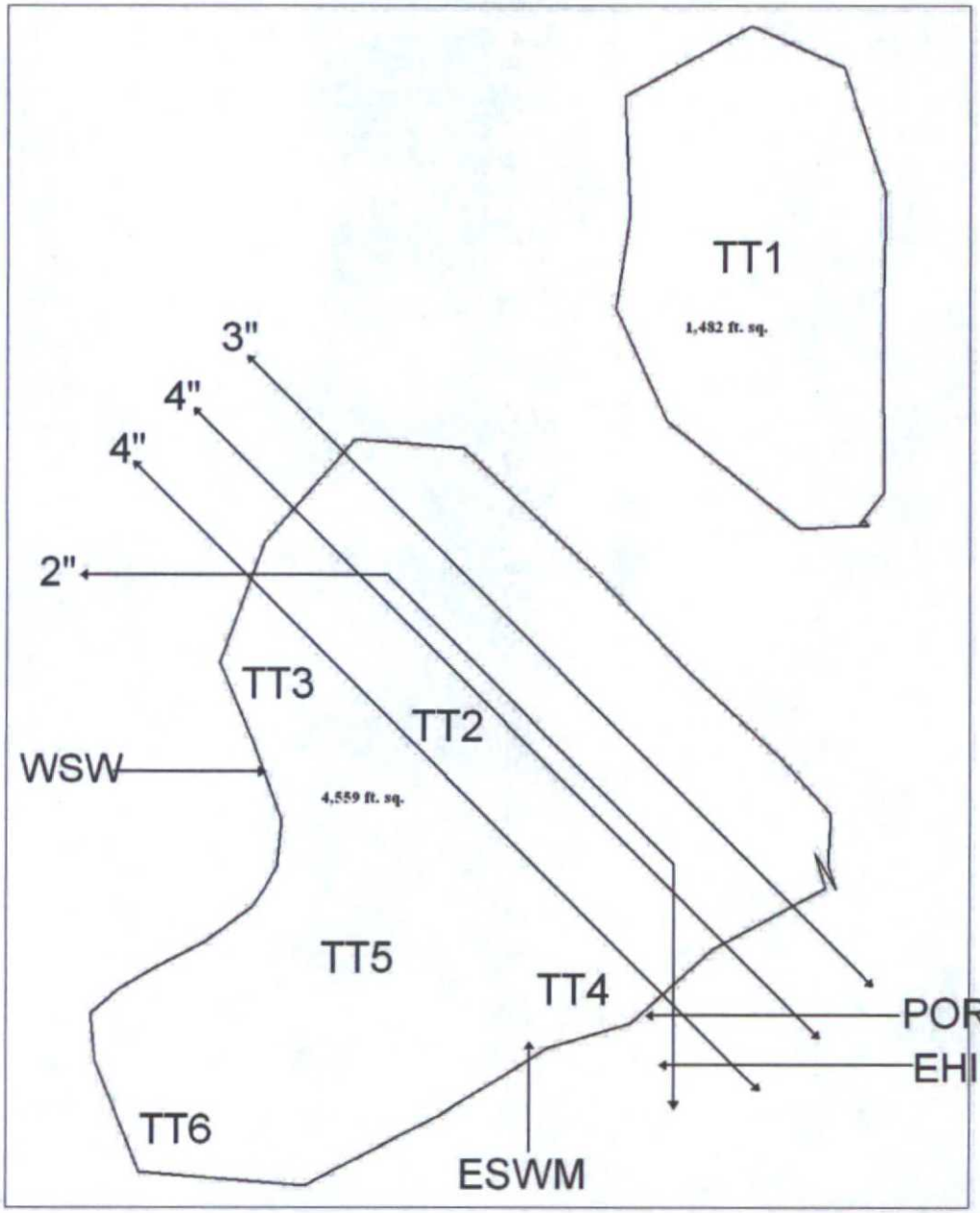
Bolded values are in excess of NMOCD Remediation Thresholds

[1] Chloride residuals may not be capable of impacting groundwater above NMWQCC Ground Water Standards of 250 mg/L

J = Detected, but below Reporting Limits. Therefore, result ia an estimated concentration (CLP J-Flag)

-- = Not Analyzed; ND - Not Detected; SP-Sample Point; Sur. - Surface

ConocoPhilips MCA4 Header Flowline



Lat/Long
WGS 1984

N

Scale 1:250
0 30.00
Feet

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3/24/2011
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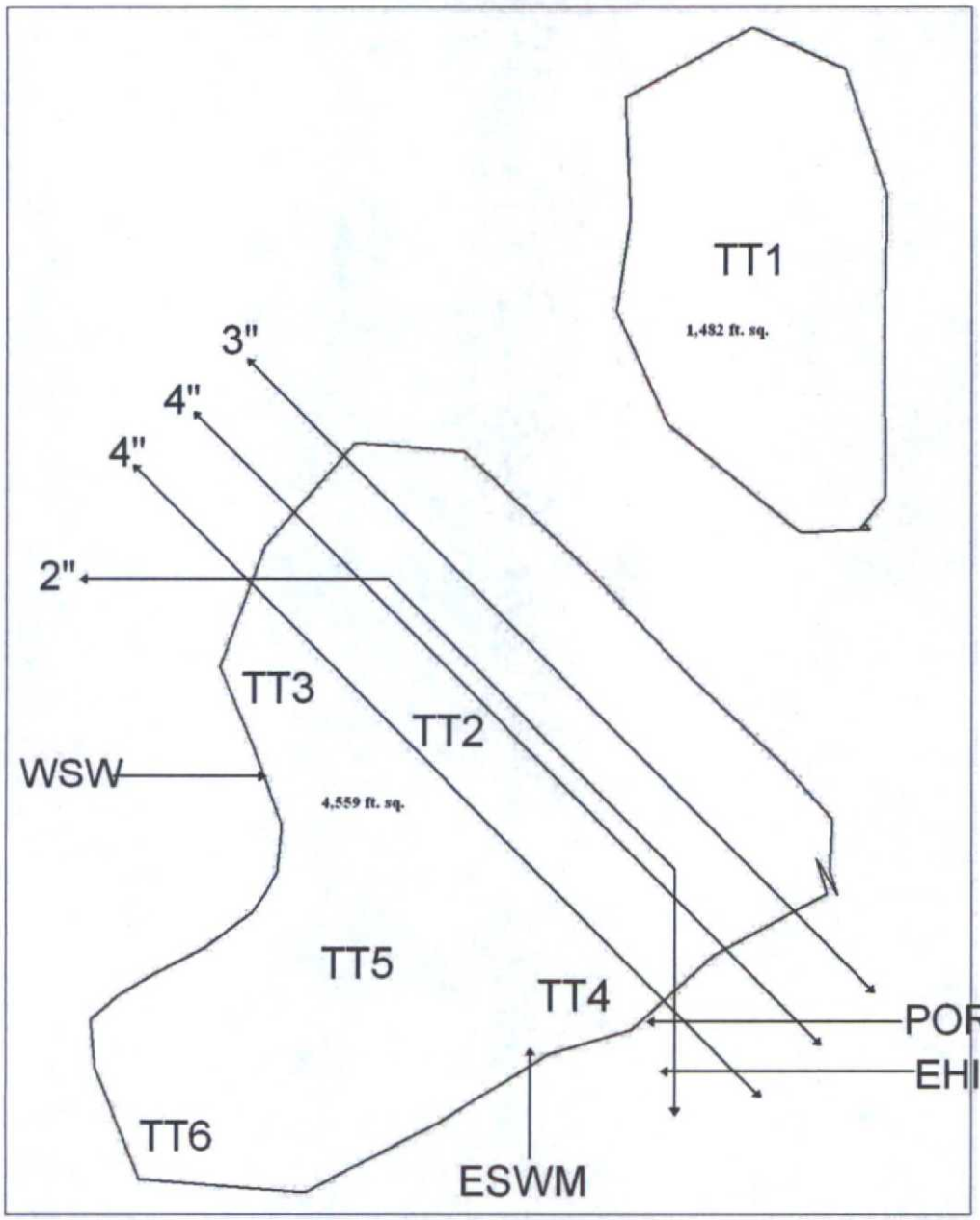

Lat/Long
WGS 1984

N

Scale 1:250
0 30.00
Feet

R032416A.ssf
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