CHEVRON USA

REMEDIATION WORK PLAN
AND
CLOSURE REPORT

FOR THE
PRODUCTION FLUID RELEASE
ASSOCIATED WITH THE

HUGH #12 FLOW LINE
New Mexico Oil Conservation Division Case #

NE¼ SECTION 14, T22S, R37E
~4 miles southeast of Eunice
Lea County, New Mexico
Latitude 32°23'37.5"N Longitude 103° 07'43.5"W

JUNE 2001

Prepared by

Environmental Plus, Inc.
1324 North Main Street
P.O. Box 1558
Eunice, New Mexico 88231
Tele 505•394•3481 FAX 505•394•2601

(Midland)
ChevronUSA - 21942S
API# 3002525739000O
Incident - nPAC0607238847
Application pPAC0607239231

ENVIRONMENTAL PLUS, INC. Micro-Blaze Micro-Blaze Out™
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

July 11, 2001

Mr. Paul Sheeley
1625 North French
Hobbs, New Mexico 88240

Subject: Final C-141 submittal for the Chevron USA Hugh #12 Flow Line Site

Dear Mr. Sheeley,

Environmental Plus, Inc. (EPI), on behalf of Chevron USA, submits the attached New Mexico Oil Conservation Division (NMOCD) "Final Form C-141" for the Chevron Hugh #12 Flow Line Remediation site located in the NE¼ of Section 14, T22S, R37E, Lea County, New Mexico. Enclosed herewith are two copies of the report titled, **"Chevron USA Remediation Work Plan and Closure Report for the Hugh #12 Flow Line, June 2001,"** that documents work plan strategy, implementation, and closure justification in accordance with the NMOCD guideline remedial goals. EPI, on behalf of Chevron USA, therefore requests that the NMOCD grant closure to the site requiring "no further action."

If there are any questions please call Mr. Ben Miller or myself at the office or at 505.390.0288 and 505.390.7864, respectively or Mr. Rick Massey, at 505.394.1237.

All official communication should be addressed to:

Chevron USA
Att: Mr. Rick Massey
P.O. Box 1949
Eunice, New Mexico 88231

Sincerely,

Pat McCasland
EPI Technical Services Manager

cc: Rick Massey, Chevron USA
Nathan Mouser, Chevron USA
Ben Miller, EPI Vice President and General Manager
Sherry Miller, EPI President
file

ENVIRONMENTAL PLUS, INC.

P.O. BOX 1558 ••• 1324 NORTH MAIN ••• EUNICE, NEW MEXICO 88231
TELEPHONE 505•394•3481 FAX 505•394•2601

Table of Contents

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-141
Revised March 17, 1999

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☑ Final Report

Name: CHEVRON USA	Contact: NATHAN MOUSER
Address: P.O. Box 1949, Eunice, NM	Telephone No.: (505) 394-1247
Facility Name: HUGH Well No. 12	Facility Type: PRODUCTION FLOWLINE

Surface Owner: Tom & Winnie Keenan	Mineral Owner: Elk Corp	Lease No.:

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	14	22S	37E	2310	North	330	East	LEA

NATURE OF RELEASE

Type of Release: OIL & WATER	Volume of Release: 20 (10BO & 10BW)	Volume Recovered: 5
Source of Release: PARTED FLOWLINE	Date and Hour of Occurrence: 05/19/01, 9:00 am	Date and Hour of Discovery: 05/19/01, 12:00 pm
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Broken Threads on 4" flowline at hammer union; Well Shut In, 5/21/01 Worn threads cut to good pipe, rethreaded & installed new nipple & union

Describe Area Affected and Cleanup Action Taken.*
Sandy Pasture; Vacuum Truck Dispatched to area, approximately 3 Bbls BS&W recovered & 2 Bbls oil; Soils Pushed Up; Area will be remediated to OCD levels

Describe General Conditions Prevailing (Temperature, Precipitation, etc.)*
Hot & Dry

Disposed of 942 yd³ of soil in the Rhino Env. Landfarm. Attached report Documents Remediation

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: Brenda K. Parker

Printed Name: Brenda K Parker

Title: FIELD SPECIALIST

Date: 05-29-01 Phone: 390-7166

OIL CONSERVATION DIVISION

Approved by District Supervisor:

Approval Date: Expiration Date:

Conditions of Approval: Attached ☐

* Attach Additional Sheets If Necessary

SPILL EVENT Event No. ENV – 140 MP2

GENERAL EVENT INFO.

Date of Spill: 05-19-01 **Time (HH:MM) :** 0900 **(24 Hrs.)**

Location: Desc. (i.e. HSA Well #544 - Oil &/or Water Spill)

Supervisor: Hugh Well No. 12 - Oil & Water Spill

Spill Levels: (Select One) ☐ <L1> Level 1 ☐ <L2> Level 2 ☒ <L3> Level 3

Agency Notified? ☒ Y ☐ N

(<L1> = Oil < 1 bbl, Water < 100 bbls | <LII>= Oil 1 bbl to < 10 bbl, Water 100 to 500 bbls | <LIII> Everything else)

Location:
Lat
Long

Unique Code: (Lease and/or Facility Unique Code) UCU 523000 UCU 521800

(OA's have print out of Unique Codes by Facility)

Equip. Process Unit

(Select One)

☒ <FF> Field Flowline	☐ <AG> Above Ground Tank	☐ <FS> Flare Stack
☐ <IN> Injection Unit	☐ <PE> Pumping Equipment	☐ <HT> Heater Treater
☐ <WC> Well Casing	☐ <WH> Well Head	☐ <AS> API Separator

Equip. Component

(Select One)

☐ <GU> Gauge	☐ <PO> Plug	☐ <PU> Pump
☐ <F> Fitting	☐ <WS> Welded Seam	☐ <SB> Stuffing Box
☐ <CA> Clamp	☐ <PK> Packing	☐ <GA> Gasket
☐ <VL> Valve	☐ <PD> Pipe Body <	
☒ <PC> Pipe Conn.	☐ <FL> Flange	☐ <F> Fittings
☐ <CR> Collar	☐ <IL> Injection Line	☐ <CP> Coupling
☐ <NI> Nipple	☐ <NZ> Nozzle	☐ <OT> Other (Specific)

Cause

(Select Items that apply)

☒ <CI> Internal Corr.	☐ <DE> Design	☐ <PR> Procedural
☐ <WE> Weather	☐ <CX> External Corr.	☐ <HU> Human Error
☐ <TP> Third Party	☐ <ME> Mechanical	☐ <VA> Intentional Act/Vandalism

Describe Event:

Witness Info.

Name: Company:

Name: Company:

Recovery Method

Select One)

☐ <B> Berm Material	☐ <F> Fuel	☐ <R> Remediate
☐ <D> Disposal	☐ <P> Product Recovery	☐ <RM> Road Mix
☐ <E> Excavate	☒ <V> Vacuum Truck	

Corrective Recom. Action

Well Shut In 5/19/01 until 05/21/01 ; 5/21/01: Worn threads cut to good pipe, re-threaded and install new nipple & union

Date/Time, Start Date/Time, End

Prev. Meas. Curr. Status

Specific Chemicals (Please specify Measurement Units)

<B> Barrels, <G> Gallons, <X> MSCF, <T> Tons, <L> Pounds

	Quantity Spilled	Quantity Recovered	Quantity Lost
Crude Oil <PP>	10	2	8
Produced Water <PW>	10	3	7
Produced Gas <PG>			
	Length	Width	Depth
Spill Measurements	30'	50'	18"

Reportability (Select One)

Serious Event? ☒ Y ☐ N

Offsite? ☒ Y ☐ N

Cercla Reportable? ☐ Y ☒ N

Impacted Area (Select One)

- ☐ Rural (Fee Land)
- ☐ Private Land (inc. lse.)
- ☐ Urban
- ☐ State Land
- ☐ Federal Land

Receiving Medium (Select One)

- ☒ Permeable Surface
- ☐ Impermeable Surface
- ☐ Air
- ☐ Surface Waters
- ☐ Not Applicable

Containment (Select One)

- ☒ Un-Contained
- ☐ Contained

Cost: Est. Damages $ Lost Value $ 240.00 Clean-Up $

General Comments:

Agency Info. (If Y marked above)

(Select Code(s) that apply) Reason Notified:

- ☐ <GW> Good Will
- ☒ <RE> Required

(Select Code(s) that apply) Regulatory Category:

- ☐ <RG> Regulated Substances
- ☐ <PS> Public Safety

(Select Code(s) that apply) Agencies Notified:

- ☐ <TXRC> TX Railroad Commission
- ☐ <TNRC> TX Natural Resource Conservation Comm.

Agency (Code)	Agency Contact	Caller	Date	RRC Job No

Prepared by: PARKER (Last Name) BRENDA (First Name) K. (MI) Date: 05-23-01

Approved by: (Last Name) (First Name) (MI) Date:

Revised 1/3/01

EXECUTIVE SUMMARY

May 19, 2001, a production fluid leak consisting of crude oil, natural gas, and formation water occurred between the Chevron Hugh #12 pumping well and the tank battery and was apparently due to internal corrosion. Chevron contracted Environmental Plus, Inc. (EPI) of Eunice, New Mexico to delineate the vertical and horizontal extents of Total Petroleum Hydrocarbon EPA method 8015M (TPH) and BTEX, i.e., Benzene, Toluene, Ethyl Benzene, and Xylene, and soil Chloride to New Mexico Oil Conservation Division (NMOCD) remedial goals. Chevron chose to remove soil above the NMOCD remedial goals and replace with clean soil. Acceptable levels of TPH and BTEX were encountered at the 15'bgs interval and resulted in the excavation and disposal of 942 yd^3 of soil at NMOCD approved and permitted Rhino Environmental Facility south of Hobbs, New Mexico. A similar volume of clean soil was purchased from the landowner and used as backfill.

1 HUGH #12 FLOW LINE REMEDIATION WORK PLAN

This plan will restore the impacted surface area to an acceptable agricultural state and remove or isolate soil contaminated above New Mexico Oil Conservation Division (NMOCD) guidelines by historical oil and gas production and handling activities. The Constituents of Concern (CoCs) will be Total Petroleum Hydrocarbon using EPA method 8015M (TPH), Benzene, BTEX, i.e., the sum of Benzene, Toluene, Ethyl Benzene, and m, p, & o Xylene, and soil Chloride. This Site Specific Remediation Work Plan will provide quality analytical information and document remediation activities necessary to receive a "no further action" declaration from the NMOCD.

1.1 Remediation Strategy and Objective

The site will be delineated concurrent with excavation with soil disposal as the remediation strategy. The objectives of the plan will be to;

- Document final achievement of acceptable environmental thresholds established by the NMOCD and
- Restore the impacted surface area to an acceptable agricultural state.

1.2 Site Description

The site is located in open sandy range land and is traversed north to south with three main line crude oil pipelines owned by E.O.T.T. Energy Pipeline. A site map is included as Attachment I.

1.2.1 Historical Use

This land surface is owned by Sims/Kennann and used for livestock grazing, caliche sales, and oil and gas production facilities access.

1.2.2 Legal Description

The site is located approximately 4 miles southeast of Eunice, Lea County, New Mexico. The legal description is NE¼ S14 T22S R37E, Latitude 32°23'37.5"North and Longitude 103° 07'43.5"West.

1.2.3 Photographic documentation

Photographs of the site are included as Attachment II.

1.2.4 Ecological Description

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of hummocky sand hills covered with Harvard Shin Oak (Querqus harvardi) interspersed with Honey Mesquite (Prosopis glandulosa) along with typical desert grasses and weeds.

Mammals present, 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 has not been conducted.

1.2.5 Environmental Media Characterization

Chemical parameters of the soil were characterized consistent with the New Mexico Oil Conservation Division (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 "Site Specific" thresholds for contaminants of concern, i.e., Chloride, TPH and BTEX, were determined based on the following;

- 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.

1.2.5.1 Ground Water Level

According to the Office of the New Mexico State Engineer ground water level database, there are three water wells with known levels in section 14 of T22S R37E, i.e., 60.76, 68, 54.06 feet below ground surface (bgs). This averages to 60.94'bgs or 61'bgs. On going environmental surveillance by another company at a site ~.2 mile north records the ground water level at 60'bgs.

1.2.5.2 Depth to Ground Water Calculation

Depth to ground water, i.e., "the vertical distance from the lowermost contaminants to the seasonal high water elevation of the ground water." For the hydrocarbon source term, i.e., TPH, Benzene, and BTEX, this was determined to be 45'bgs.

1.2.5.3 Ground Water Gradient

According to the USGS (Nicholson & Clbesch), the gradient is to the southeast.

1.2.5.4 Wellhead Protection Area

There are no domestic use wells located within a 1000' radius of the site.

1.2.5.5 Distance to Nearest Surface Water Body

There are no naturally occurring surface water bodies located within a 1 mile radius of the site.

1.2.5.6 Soil Assessment

For field delineation purposes only, the VOC headspace threshold of 200 ppm was used to determine when samples should be ascensioned to the laboratory for analysis. A 5-point composite sample was collected from the excavation side walls and bottom.

1.2.5.7 Ground Water Assessment

The ground water level is conservatively estimated to occur at ~60 feet bgs. The soil assessment did not indicate that the ground water had been impacted by the hydrocarbon source term.

1.2.6 NMOCD Site Ranking and Remedial Goals

The Site information and Metrics form in Attachment IV summarizes the information about the site, shows a site ranking of >19 and sets the following remedial goals for the CoCs.

Benzene[1]	**10 ppm**
BTEX[1]	**50 ppm**
TPH	**100 ppm**

1.3 Data Quality

All laboratory analytical results were within the data quality objectives listed below.

- Laboratory data must have > 85% recovery for TPH and BTEX and >75% recovery for general chemistry parameters.
- Laboratory data must have <15% Relative Percent Difference
- Field headspace analyses must be supported with instrument calibration data and calibration gas certification.

Duplicates or blanks were not submitted to the laboratory.

1.4 Project Safety

Hazards that will be encountered at this site include the following;

- Moving equipment
- Buried pipelines
- Highway ingress/egress
- Excavation
- Potential Hydrogen Sulfide Gas

Employees and subcontractors will be required to confirm current training in these hazards. Standard personal protective equipment will include;

- Personal H_2S Monitor
- Hard-hat
- Safety Glasses
- Excavation Safety
- Steel Toed Boots/Shoes

1.5 Process/Procedure

The following sequence was used to guide project implementation.

1. Site visit: Photograph and map
2. Issue "One Call" and notifying utilities
3. Complete the "Chevron Digging Permit" and signature approval process
4. Locate, hand spot, and mark buried lines or other structures
5. Overhead powerlines are not present and will not be a hazard.
6. Lockout/Tagout: Pipeline companies notified of activity but LO/TO unnecessary
7. Procedure: Equipment required will be: Backhoe, Excavator, Dump Trucks
    - Daily Tail gate safety meetings and PPE check
    - Excavation Safety Checklist Form
    - Excavate visibly contaminated soil and stockpile
    - Haul stockpiled soil to NMOCD approved facility
    - Conduct field VOC headspace analyses on selected samples
    - Collect Composite Sample of the selected areas for laboratory analysis
    - Review data and determine "Depth to Ground Water"
    - Backfill excavations with volume consistent with disposal volume
    - Photograph
    - Develop and issue site specific report
    - Reseed surface

2 Work Plan Implementation and Closure

The process of excavating and disposing of contaminated soil and field surveying began on June 7, 2001 with the disposal and backfilling phase completed on June 20, 2001.

2.1 Excavation and Composite Sampling

The E.O.T.T. pipelines traversing the site were in use during the project. The excavation span required that a pedestal of soil be left in place as a pipeline support while the north and south portions of the contamination was removed. The column was removed and disposed of only after the remedial goals had be achieved and the north and south sections had backfilled and capable of supporting the pipe. On June 6th and again on June 11th, composite samples of the sidewalls and bottom were collected and ascensioned to Cardinal Laboratories in Hobbs, New Mexico for analysis.

2.2 Discussion of Data

The June 11th results indicated achievement of the NMOCD remedial goals. The original laboratory analytical reports and data summary are included as Attachment III. Data Charts are provided below.

2.2.1 Bottom Composite Sample

TPH is 32.5 mg/Kg and is < the NMOCD 100 mg/Kg remedial goal. Benzene is not detectable and BTEX shows only a nominal detection for Toluene, both well below the respective remedial goals of 10 and 50 mg/Kg. The soil chloride concentration at this interval is 295 mg/Kg.

2.2.2 North Side Wall Composite Sample

TPH is <10 mg/Kg and is < the NMOCD 100 mg/Kg remedial goal. Benzene is not detectable and BTEX shows only a nominal detection for Toluene, both well below the respective remedial goals of 10 and 50 mg/Kg. The soil chloride at this location is 124 mg/Kg.

2.2.3 South Side Wall Composite Sample

TPH is <10 mg/Kg and is < the NMOCD 100 mg/Kg remedial goal. Benzene is not detectable and BTEX shows only a nominal detection for Toluene, both well below the respective remedial goals of 10 and 50 mg/Kg. The soil chloride at this location is 62 mg/Kg.

2.2.4 East Side Wall Composite Sample

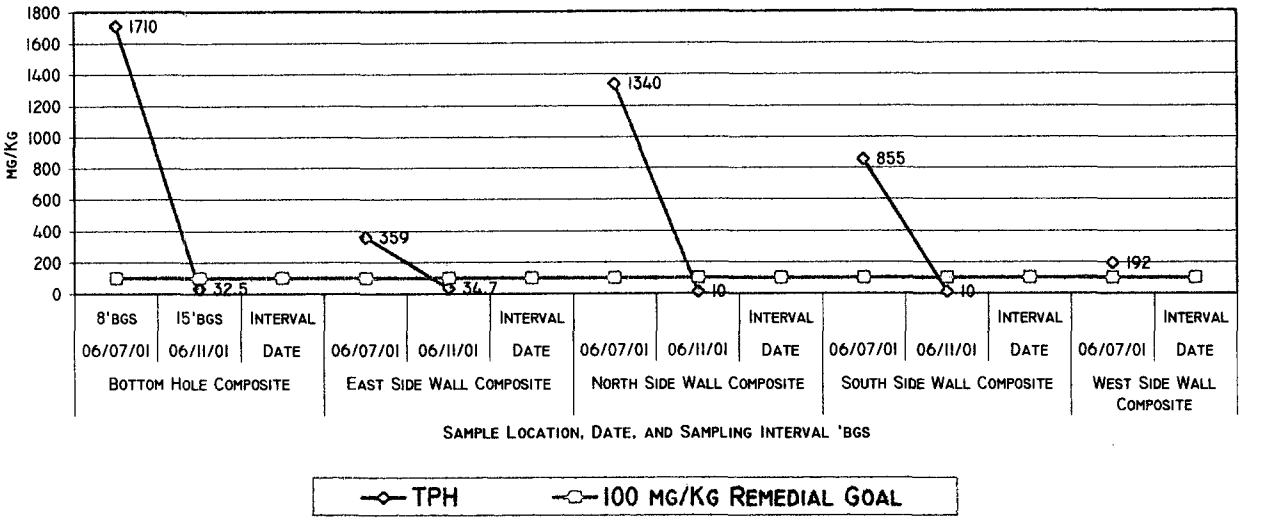
TPH is 34.7 mg/Kg and is < the NMOCD 100 mg/Kg remedial goal. Benzene is not detectable and BTEX shows only a nominal detection for Toluene, both well below the respective remedial goals of 10 and 50 mg/Kg. The soil chloride at this location is 746 mg/Kg.

2.2.5 West Side Wall Composite Sample

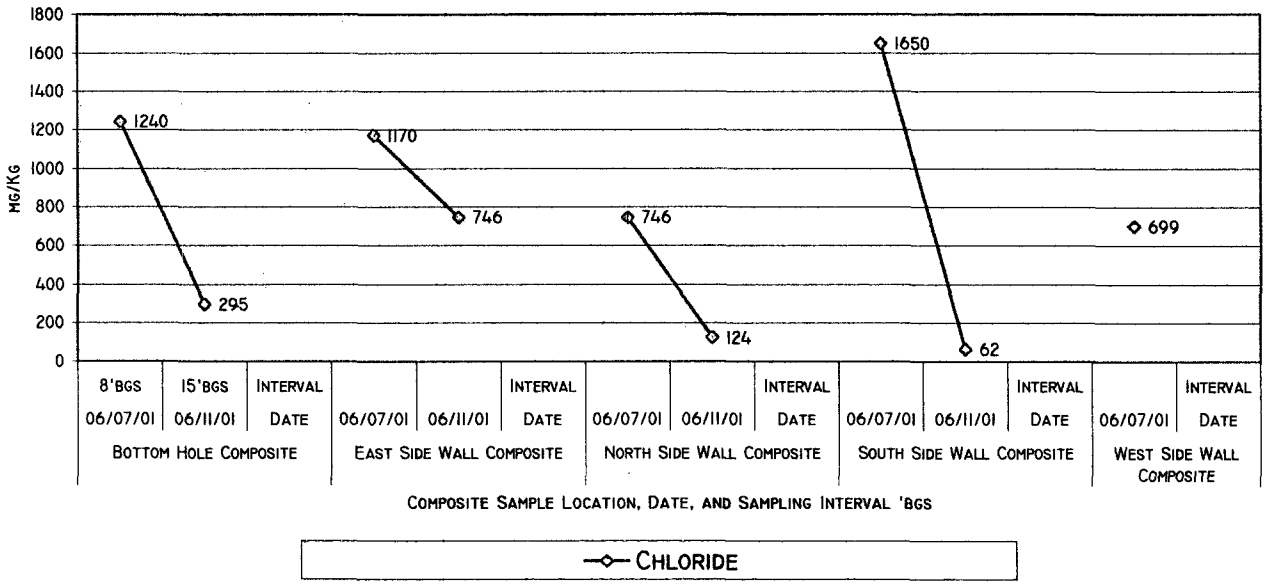
The Gasoline Range Organics (GRO) were not detected above 50 mg/Kg and the Diesel Range Organics (DRO) at 142 mg/Kg. If the GRO value of 50 mg/Kg is considered to be "de-minimus" and added to the DRO value the TPH is 192 mg/Kg. Even though this value is above the 100 mg/Kg NMOCD remedial goal it does not pose a legitimate risk to the environment. The soil chloride at this location is 699 mg/Kg.

Data Illustrations

CHEVRON USA
HUGH #12 FLOW LINE
TOTAL PETROLEUM HYDROCARBON (TPH) CONCENTRATIONS



CHEVRON USA
HUGH #12 FLOW LINE SITE
SOIL CHLORIDE CONCENTRATIONS



2.3 Soil Disposal and Backfilling

942 yd^3 were disposed of at the NMOCD approved Rhino Environmental Facility. A similar volume of clean backfill was used to bring the excavation to grade and purchased from Sims/Kennann, the landowner.

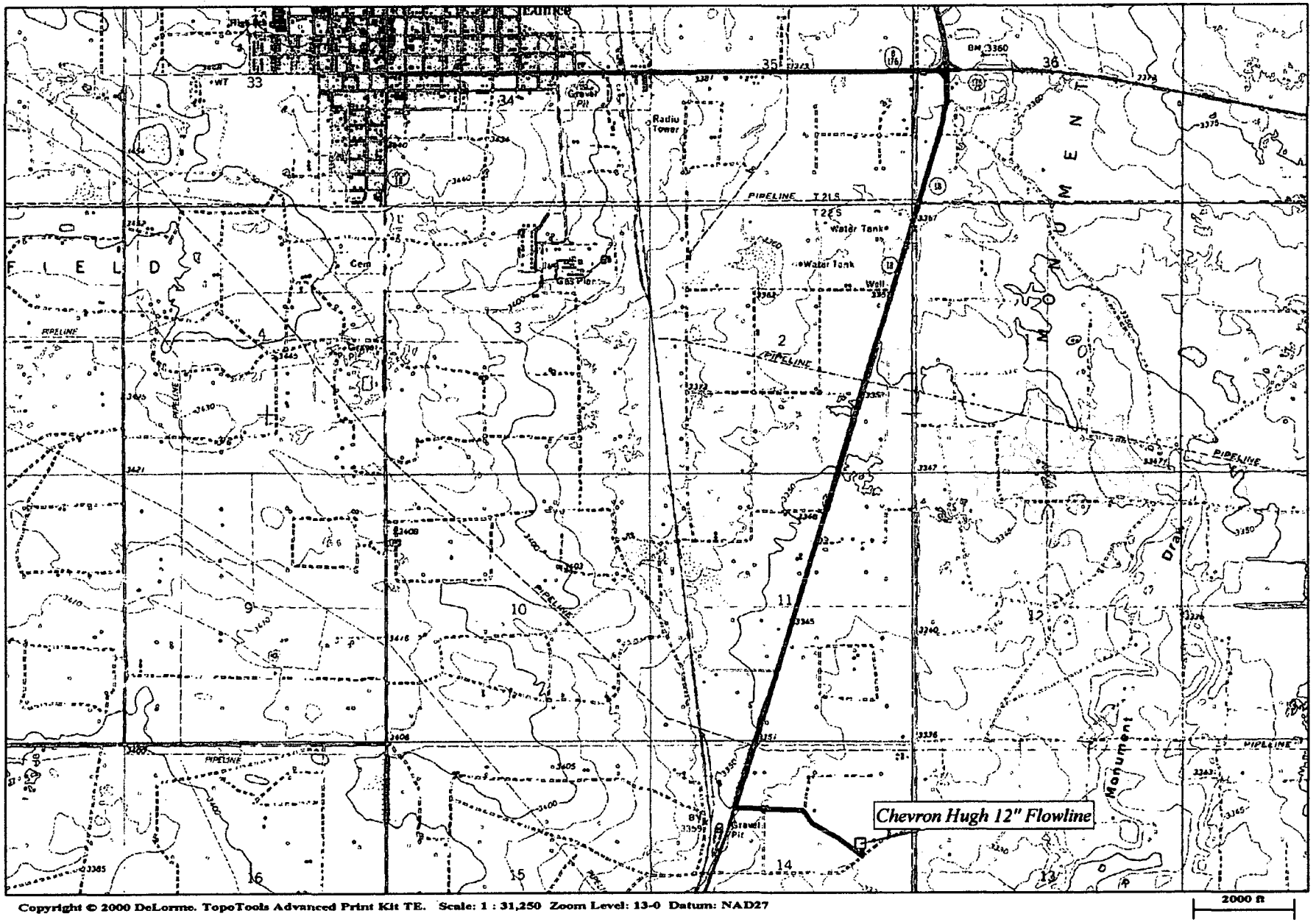
2.4 Conclusion

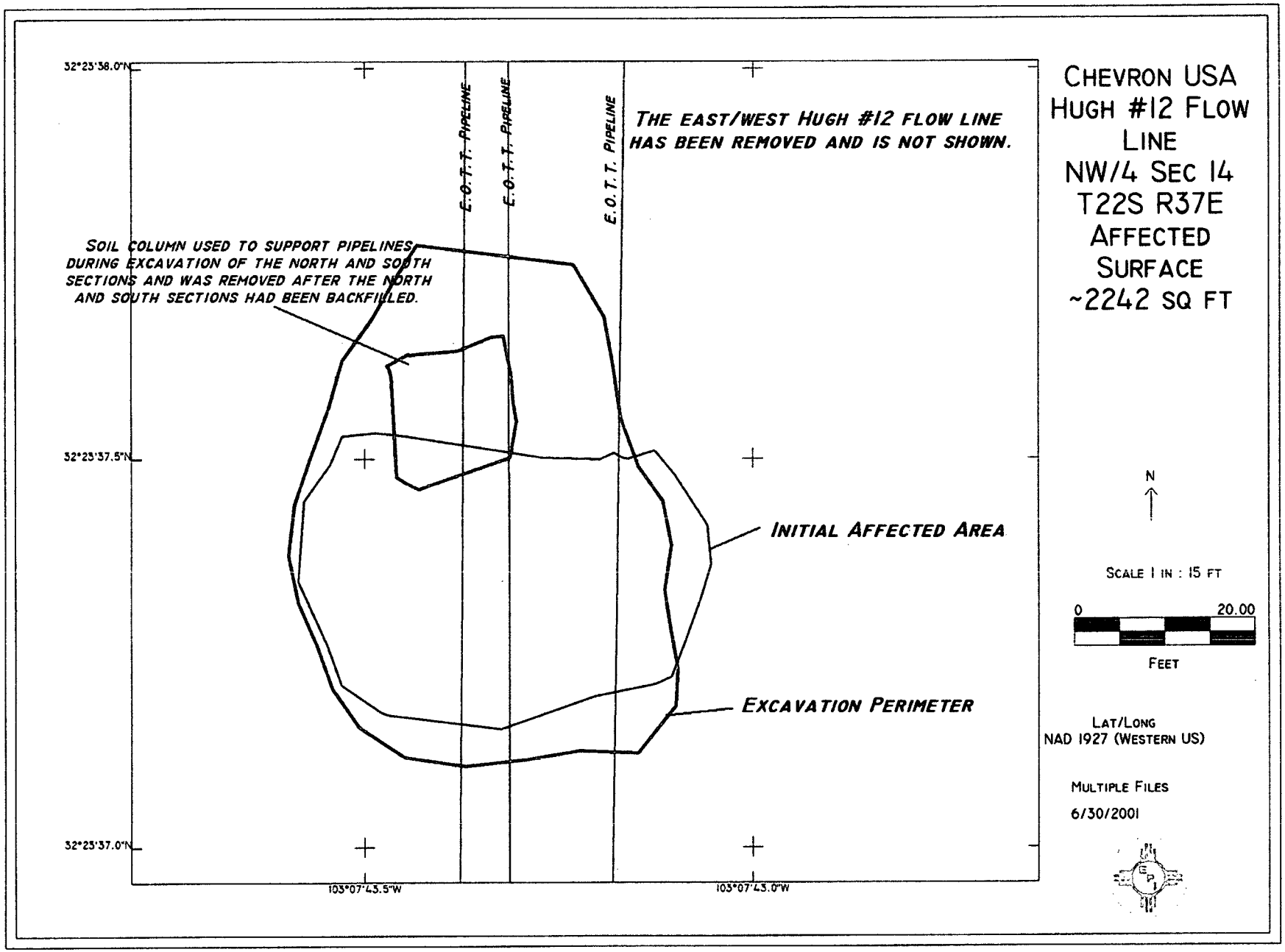
Production fluid contamination at this site resulted in hydrocarbon contamination above the NMOCD remedial guidelines. The data support the conclusion that the site has been remediated to acceptable levels for the hydrocarbon CoCs and as such justifies seeking a "no further action" declaration from the NMOCD.

2.5 Follow Up

The site will be reseeded with native grasses at a time amenable to germination.

Attachment I: Site Map




32°25'38.0"N
32°25'37.5"N
32°25'37.0"N
103°07'43.5"W
103°07'43.0"W
E.O.T.T. PIPELINE
E.O.T.T. PIPELINE
E.O.T.T. PIPELINE
THE EAST/WEST HUGH #12 FLOW LINE HAS BEEN REMOVED AND IS NOT SHOWN.
SOIL COLUMN USED TO SUPPORT PIPELINES DURING EXCAVATION OF THE NORTH AND SOUTH SECTIONS AND WAS REMOVED AFTER THE NORTH AND SOUTH SECTIONS HAD BEEN BACKFILLED.
INITIAL AFFECTED AREA
EXCAVATION PERIMETER
CHEVRON USA
HUGH #12 FLOW LINE
NW/4 SEC 14
T22S R37E
AFFECTED SURFACE
~2242 SQ FT
N
SCALE 1 IN : 15 FT
0
20.00
FEET
LAT/LONG
NAD 1927 (WESTERN US)
MULTIPLE FILES
6/30/2001

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 22S Range: 37E Sections: 11,12,13,14,15,,22,23,24

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) C Non-Domestic C Domestic
C All

Well Data Report | Avg Depth to Water Report | Water Column Report
Clear Form | WATERS Menu | Help

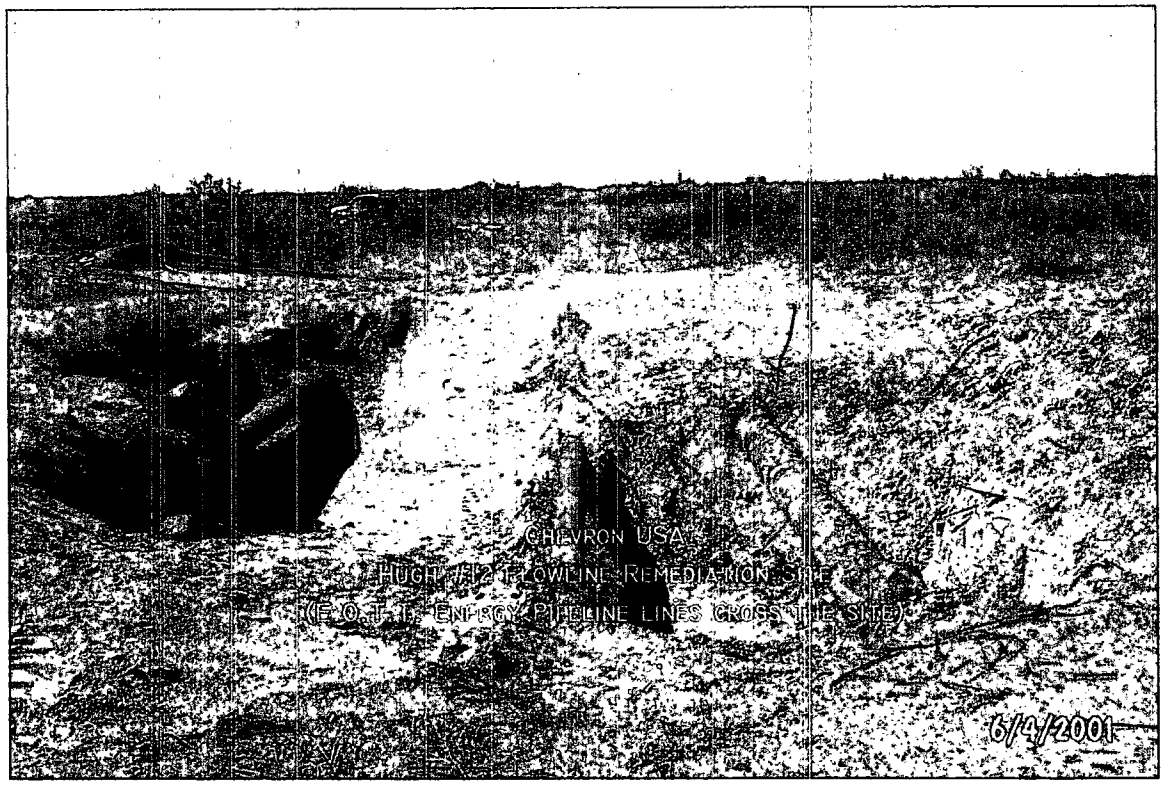
AVERAGE DEPTH OF WATER REPORT 06/30/2001

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

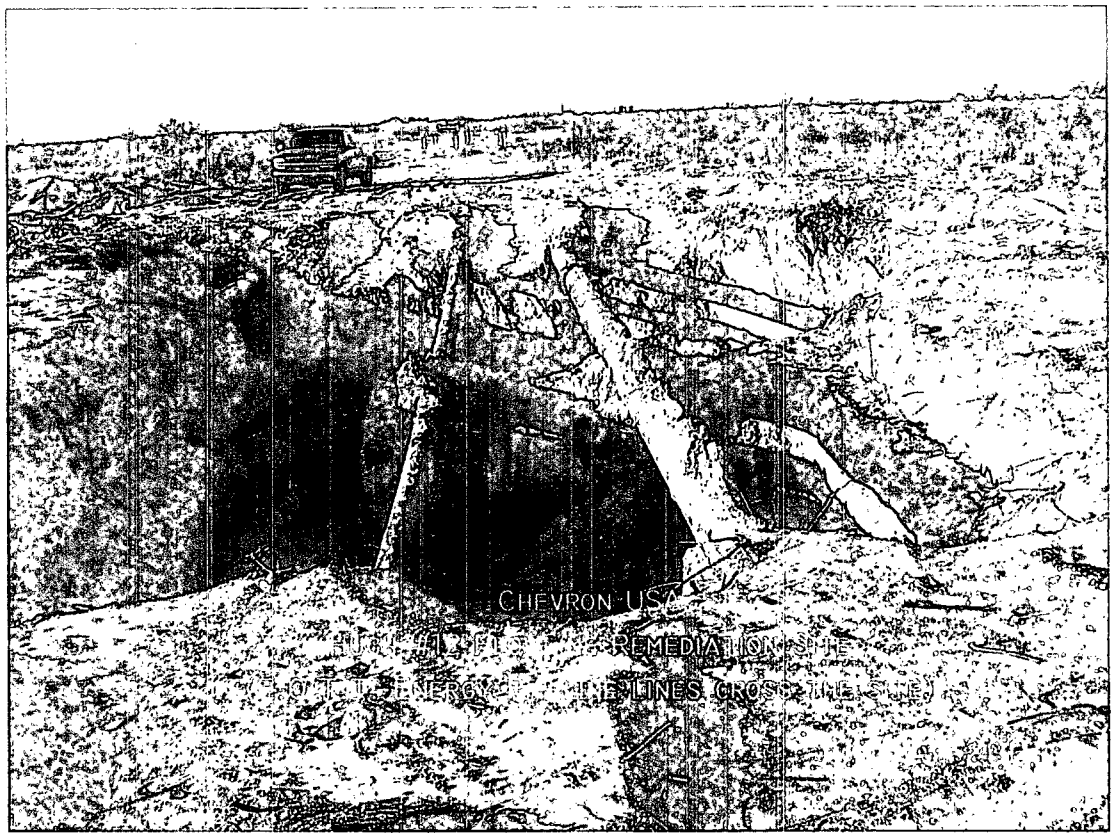
No Records found, try again

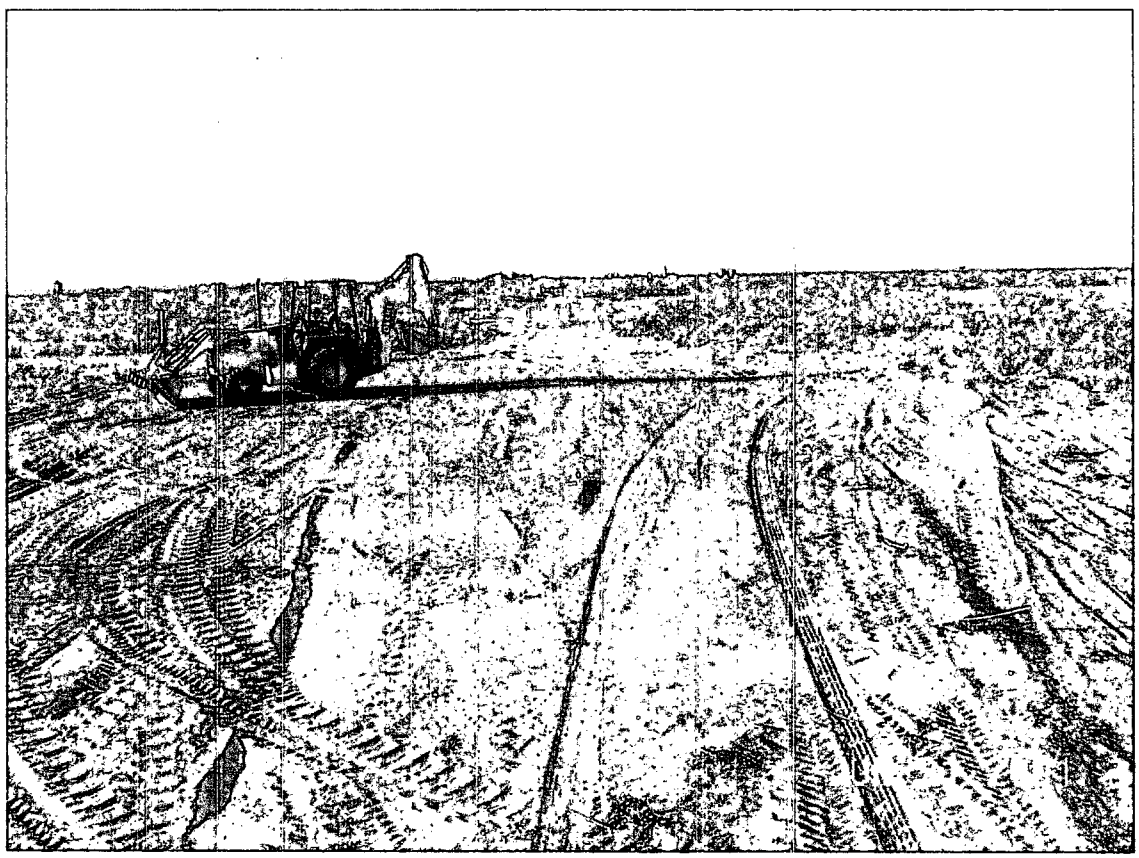
http://www.seo.state.nm.us/awdProd/awd.html?email_address=enviplus1@aol.com&tws=2... 6/30/2001

Attachment II: Photographs


CHEVRON USA
HUGH #12 FLOWLINE REMEDIATION SITE
(E.O.T. ENERGY PIPELINE LINES CROSS THE SITE)
6/4/2001


CHEVRON USA
HUGH #12 FLOWLINE REMEDIATION SITE
(E.O.T. ENERGY PIPELINE LINES CROSS THE SITE)
JUN 13 2001





Chevron Hugh #12 Flow Line Final Contour

Attachment III: Analyses

Chevron USA

Hugh #12 Flow Line Data Summary

Sample Description	Date	Sampling Interval bgs[1]	SAMPLE ID#	VOC[4] - Headspace ppm	Chloride mg/Kg	TPH (GRO)[5] mg/Kg	TPH (DRO)[6] mg/Kg	TPH (DRO+GRO) mg/Kg	TPH[3] 418.1 mg/Kg	BTEX[7] mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ethyl Benzene mg/Kg	Total Xylene mg/Kg
Bottom Hole Composite	06/07/01	8	CHS60701BH	62.5	1240	*50*	1660	1710	na	0.055	*0.005*	0.013	*0.005*	0.032
Bottom Hole Composite	06/11/01	15	CHS61101BH-15'	na	295	na	na	na	32.5	0.031	*0.005*	0.006	*0.005*	*0.015*
East Side Wall Composite	06/07/01	na	CHS60701ESW	20.0	1170	*50*	309	359	na	0.036	*0.005*	0.011	*0.005*	*0.015*
East Side Wall Composite	06/11/01	na	CHS61101ESW	na	746	na	na	na	34.7	0.032	*0.005*	0.007	*0.005*	*0.015*
North Side Wall Composit	06/07/01	na	CHS60701NSW	50.0	746	*50*	1290	1340	na	0.035	*0.005*	0.007	*0.005*	0.018
North Side Wall Composit	06/11/01	na	CHS61101NSW	na	124	na	na	na	*10*	0.031	*0.005*	*0.006*	*0.005*	*0.015*
South Side Wall Composit	06/07/01	na	CHS60701SSW	88.0	1650	*50*	805	855	na	0.033	*0.005*	0.008	*0.005*	*0.015*
South Side Wall Composit	06/11/01	na	CHS61101SSW	na	62	na	na	na	*10*	0.032	*0.005*	0.007	*0.005*	*0.015*
West Side Wall Composite	06/07/01	na	CHS60701WSW	9.5	699	*50*	142	192	na	0.032	*0.005*	*0.007*	*0.005*	*0.015*

[1]"bgs - feet below ground surface

[2]*Italicized values are < the instrument detection limit.*

[3]TPH - Total Petroleum Hydrocarbon

[4]VOC - Volatile Orgainc Constituents/Contaminants

[5]GRO - Gasoline Range Organics (C_6-C_{12})

[6]DRO - Diesel Range Organics (C_{12}-C_{38})

[7]BTEX - The sum of Benzene, Toluene, Ethyl Benzene, and Xylene. Values reported below the instrument detection limit are considered "de-minimus" and are included in the sum.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 06/11/01
Reporting Date: 06/13/01
Project Number: NOT GIVEN
Project Name: HUGH
Project Location: NOT GIVEN

Sampling Date: 06/11/01
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	TPH (mg/Kg)	Cl* (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		06/12/01	06/12/01	06/12/01	06/12/01	06/12/01	06/12/01
H5919-1	CHS61101BH 15'	32.5	295	<0.005	0.006	<0.005	<0.015
H5919-2	CHS61101NSW	<10	124	<0.005	0.006	<0.005	<0.015
H5919-3	CHS61101SSW	<10	62	<0.005	0.007	<0.005	<0.015
H5919-4	CHS61101ESW	34.7	746	<0.005	0.007	<0.005	<0.015
Quality Control		240	971	0.108	0.102	0.105	0.301
True Value QC		240	1000	0.100	0.100	0.100	0.300
% Recovery		100	97.1	108	102	105	100
Relative Percent Difference		7.2	2.1	0.9	1.0	2.9	0.39

METHODS: TRPHC-EPA 600/4-79-020 418.1;Cl-Std. Methods 4500-ClˉB; BTEX-EPA SW-846 8260

*Analyses performed on 1:4 w:v aqueous extracts.

Burgess J. A. Cooke, Ph. D.

6/13/01
Date

CARDINAL LABORATORIES, INC.

CHAIN OF CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Page 1 of 1

Company Name:	CHEVRON
Project Manager:	P MCCASLAND
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	Project Owner:
Project Name:	Hugh
Project Location:	
Sampler Name:	

BILL TO

P.O. #:	EPI
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	TPH 418.1 8015	BTEX	Chloride
H5919-1	CHS61101BH 15'	✓	1			✓					✓		6-11-01	~~2:45~~	✓	✓	✓
-2	CHS61101NSW	✓	1			✓					✓		6-11-01	3:10	✓	✓	✓
-3	CHS61101SSW	✓	1			✓					✓		6-11-01	3:15	✓	✓	✓
-4	CHS61101ESW	✓	1			✓					✓		6-11-01	3:20	✓	✓	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 6-11-01	Received By:	
Roger Beaver	Time: 3:50	Cody Miller	
Relinquished By:	Date: 6-11-01	Received By: (Lab Staff)	
Cody Miller	Time:	Burgess J. Cooley	
Delivered By: (Circle One)		Sample Condition: Cool ☒ Yes ☐ No; Intact ☒ Yes ☐ No	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:			

Phone Result:	☐ Yes	☐ No	Add'l Phone #:
Fax Result:	☐ Yes	☐ No	Add'l Fax #:
REMARKS:			

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO:

Receiving Date: 06/07/01
Reporting Date: 06/11/01
Project Owner: RICK MASSEY
Project Name: HUGH
Project Location: NOT GIVEN

Sampling Date: 06/07/01
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC/HM

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		06/09/01	06/09/01	06/08/01
H5913-1	CHS60701SSW	<50	805	1650
H5913-2	CHS60701ESW	<50	309	1170
H5913-3	CHS60701NSW	<50	1290	746
H5913-4	CHS60701WSW	<50	142	699
H5913-5	CHS60701BH	<50	1660	1240
Quality Control		719	833	991
True Value QC		800	800	1000
% Recovery		89.9	104	99.1
Relative Percent Difference		0.1	7.7	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl^-: Std. Methods 4500-Cl^-B
*Analyses performed on 1:4 w:v aqueous extracts.

Chemist

6/11/01
Date

H5913A.XLS

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO:

Receiving Date: 06/07/01
Reporting Date: 06/11/01
Project Owner: RICK MASSEY
Project Name: HUGH
Project Location: NOT GIVEN

Sampling Date: 06/07/01
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NO.	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		06/08/01	06/08/01	06/08/01	06/08/01
H5913-1	CHS60701SSW	<0.005	0.008	<0.005	<0.015
H5913-2	CHS60701ESW	<0.005	0.011	<0.005	<0.015
H5913-3	CHS60701NSW	<0.005	0.007	<0.005	0.018
H5913-4	CHS60701WSW	<0.005	0.007	<0.005	<0.015
H5913-5	CHS60701BH	<0.005	0.013	<0.005	0.032
Quality Control		0.107	0.100	0.102	0.289
True Value QC		0.100	0.100	0.100	0.300
% Recovery		107	100	102	96.4
Relative Percent Difference		0.4	4.5	2.7	3.1

METHOD: EPA SW-846 8260

Chemist

6/11/01
Date

H5913B.XLS

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020

101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN OF CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company:	ENVIRONMENTAL PLUS INC.	BILL TO	
Project Manager:	PAT McCASLAND	P.O. #:	EPI
Address:	1324 M.	Company:	EPI
City:	EUNICE State: NM Zip: 88231	Attn:	Pat McCasland
Phone #:	394-3481 Fax #: 394-2601	Address:	SEE LEFT
Project #:	Project Owner: Rick Massey	City:	SEE LEFT
Project Name:	Hugh	State:	Zip:
Project Location:		Phone #:	
Sampler Name:	Roger Boone	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TPH 8015	BTEX	Chlorides
NS713-1	CHS60701 SSW	G	1			X					X		6-7-01	1:50 pm	X	X	X
-2	CHS60701 ESW	G	1			X					X		6-7-01	1:55 pm	X	X	X
-3	CHS60701 NSW	G	1			X					X		6-7-01	1:58 pm	X	X	X
-4	CHS60701 WSW	G	1			X					X		6-7-01	2:00 pm	X	X	X
-5	CHS60701 BH	G	1			X					X		6-7-01	3:30 pm	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Roger Boone	Date:	6-7-01
		Time:	4:15
Relinquished By:	Cody Miller	Date:	6-7-01
		Time:	4:30 pm
Delivered By: (Circle One)	Sampler - UPS - Bus - Other:		
Received By:	Cody Miller		
Received By: (Lab Staff)	Burney Hallock		
Sample Condition	Cool: Yes / No; Intact: Yes / No	CHECKED BY: (Initials)	

Phone Result:	☐ Yes ☐ No	Add'l Phone #:	
Fax Result:	☑ Yes ☐ No	Add'l Fax #:	
REMARKS:	FAX TO P. McCASLAND		

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Attachment IV: Site Metrics and Information Form

Attachment V: Chevron Digging Permit

CHEVRON U.S.A. INC.

WEST ASSET TEAM / DIGGING PERMIT

PERMIT FOR DIGGING, TRENCHING, OR EXCAVATING WITH ANY TYPE OF POWERED TOOL OR MECHANIZED EQUIPMENT

Supervisor: ROGER BOONE EPI Date Authorized: JUNE 6, 2001
Field Location: HUGH LEASE NE/4 SW/4 T22S R37E
Type Work: EXCAVATE CONTAMINATED SOIL PLACE ON PLASTIC LOAD AND HAUL TO RHINO LAND FARM
Specific Restrictions:
Other:

Mechanical digging equipment should not be used within 12" of an underground line.

PERMIT REQUIREMENTS:

Basic Precautions:	Yes	No	N/A
1. Has an underground line map been reviewed? ..... *Piping plan must be used when work is performed within a facility.*			✓
2. Has the person operating the digging equipment isolated the energy source and performed LOTO? ..... *If electrical energy source cannot be accurately located, utilize electrical contractor with electric line locating equipment.*			✓
3. Have digging operations been discussed w/ an employee familiar with the area?	✓		
4. Has a metal detecting line finder been used in the area to be excavated?	✓		
5. Are there any line markers near the excavation area?	✓		
6. Is there a visible right-of-way where the digging will be done?	✓		
7. Are there special concerns with any equipment, i.e., tank batteries, satellites, wells, buildings, power poles, etc., within 150' of the excavation area?	✓		
8. Are there special concerns with overhead power lines within 100' of the excavation?		✓	
9. Will digging exceed 16" in depth? *If yes, see Special Precaution below.*			
10. Have you discussed the importance of not creating a spill and what to do if one occurs?	✓		

If contact with a line results in a release of oil and or produced water contact Chevron Representative at Emergency Phone # listed below immediately.

Special Precaution:

If work is to be performed within a 3rd party right-of-way, location near a populated area, designated area, or if underground utilities are in the vicinity then 1-800-545-6005 (TX) or 1-800 321-2537 (NM) (One-Call Notification) **MUST** be made 48 hours in advance of any excavation work.

1. Has One-Call Notification been called? YES Date of call: JUNE 4th Time of call: 11:38 Am
2. Permitted start date and time: JUNE 6 11:30 am Estimated duration of job:
3. One-Call Notification confirmation # 2001230445

THIS PERMIT MUST BE COMPLETED PRIOR TO MECHANICAL DIGGING AND AVAILABLE FOR REVIEW AT THE WORKSITE.

If contact is made with an underground line or cable, this permit will be attached to the accident report, otherwise, it should be attached to the work ticket.

Chevron Representative / Emergency Phone # Contractor Date

REVISED
02/05/01

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-141
Revised March 17, 1999

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☑ Final Report

Name: CHEVRON USA	Contact: NATHAN MOUSER
Address: P.O. Box 1949, Eunice, NM	Telephone No.: (505) 394-1247
Facility Name: HUGH WELL No. 12	Facility Type: PRODUCTION FLOWLINE

Surface Owner	Mineral Owner	Lease No.
Tom & Winnie Keenan	Elk Corp	

LOCATION OF RELEASE

API # 30025257390000

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	14	22S	37E	2310	North	330	East	LEA

NATURE OF RELEASE

Type of Release: OIL & WATER	Volume of Release: 20 (10BO & 10BW) / Volume Recovered: 5
Source of Release: PARTED FLOWLINE	Date and Hour of Occurrence: 05/19/01, 9:00 am / Date and Hour of Discovery: 05/19/01, 12:00 pm
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?
By Whom?	Date and Hour
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Broken Threads on 4" flowline at hammer union; Well Shut In, 5/21/01 Worn threads cut to good pipe, rethreaded & installed new nipple & union

Describe Area Affected and Cleanup Action Taken.*
Sandy Pasture; Vacuum Truck Dispatched to area, approximately 3 Bbls BS&W recovered & 2 Bbls oil; Soils Pushed Up, Area will be remediated to OCD levels

Describe General Conditions Prevailing (Temperature, Precipitation, etc.)*
Hot & Dry

Disposed of 942 yd³ of soil in The Rhino Env. Landfarm, Attached report Documents Remediation

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: Brenda K. Parker

Printed Name: Brenda K Parker

Title: FIELD SPECIALIST

Date: 05-29-01 Phone: 390-7166

OIL CONSERVATION DIVISION

Approved by District Supervisor:

Approval Date: Expiration Date:

Conditions of Approval: Attached ☐

* Attach Additional Sheets If Necessary

Site Metrics and Information Form

SITE: Chevron Hugh #12 Flow Line	Assigned Site Reference #:
Company: Chevron USA	
Company Street Address: 2401 Avenue O	
Company Mailing Address: P.O. Box 1949	
Company City, State, Zip: Eunice, New Mexico	
Company Representative: Rick Massey	
Company Representative Telephone: 505.390.7188	
Company Telephone: 505.394.1237 Fax:	
Fluid volume released (bbls) = 20 with 5 recovered	
>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: Hugh #12 Flow Line	
Source of contamination: Production Pipeline	
Land Owner, i.e., BLM, ST, Fee, Other: Sims/Kennann	
LSP Dimensions: affected area leak origin pooling area = 40' x 20' Flow path =	
LSP Area = ~2,242 ft^2	
Location of Reference Point (RP):	
Location distance and direction from RP:	
Latitude: 32° 23'37.5" N	
Longitude: 103° 07'43.5"W	
Elevation above mean sea level: ~ 3450 amsl	
Feet from South Section Line	
Feet from West Section Line	
Location- Unit or ¼¼ =NE¼	
Location- Section = 14	
Location- Township = 22S	
Location- Range = 37E	
Surface water body within 1000 ' radius of site: None	
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): ~60'bgs	
Depth of contamination (DC): 15'bgs	
Depth to ground water (DG – DC = Calculated Depth to GW) 45'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*		200-100 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 =20	*Wellhead Protection Area Score= 0*	*Surface Water Score= 0*

Site Rank (1+2+3) = = 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