

#### SOIL AND GROUNDWATER ASSESSMENT REPORT

CHEVRON PARDUE FARMS 27-12 WELLSITE REMEDIATION PLAN 2RP-1395 NE/4, SW/4, SECTION 27, TOWNSHIP 23 SOUTH, RANGE 28 EAST LATITUDE: N 32.27358 LONGITUDE: W 104.07818 EDDY COUNTY, NEW MEXICO

**Prepared For:** 

Mr. Kegan Boyer
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
Upstream Business Unit
1400 Smith Street
Room 07086
Houston, Texas 77002

Prepared by: Conestoga-Rovers & Associates

2135 South Loop 250 West Midland, Texas 79703

Office: (432) 686-0086 Fax: (432) 686-0186

web: www.CRAworld.com

NOVEMBER, 2012 REF. NO. 076323 (2)

#### TABLE OF CONTENTS

		PAGE
1.0	INTRODUCTION	1
2.0	REGULATORY FRAMEWORK	3
3.0	SOIL AND GROUNDWATER ASSESSMENT ACTIVITIES  3.1 FIELD METHODOLOGIES	5 6
4.0	3.3 GROUNDWATER ASSESSMENT RESULTS SUMMARY OF FINDINGS	
5.0	REFERENCES	Q

#### LIST OF FIGURES

FIGURE 1	SITE LOCATION MAP
FIGURE 2	LEASE PLAT
FIGURE 3	RELEASE LOCATION MAP
FIGURE 4	SOIL ANALYTICAL RESULTS MAP
FIGURE 5	GROUNDWATER GRADIENT MAP
FIGURE 6	GROUNDWATER CHLORIDE AND TDS CONCENTRATION MAP

#### LIST OF TABLES

TABLE 1	SOIL ANALYTICAL DATA SUMMARY
TABLE 2	GROUNDWATER GAUGING SUMMARY
TABLE 3	GROUNDWATER ANALYTICAL SUMMARY

#### LIST OF APPENDICIES

APPENDIX A	MONITOR WELL PERMITS
APPENDIX B	BORING LOGS AND MONITORING WELL CONSTRUCTION DIAGRAMS
APPENDIX C	INVESTIGATIVE DERIVED WASTE DISPOSAL MANIFESTS
APPENDIX D	LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY DOCUMENTATION
APPENDIX E	TOPOGRAPHIC SURVEY
APPENDIX F	NEW MEXICO OIL CONSERVATION DIVISION C-141 FORM

#### 1.0 INTRODUCTION

This Soil and Groundwater Assessment Report presents data collected at the Chevron Pardue Farms 27-12 Wellsite (hereafter referred to as the "Site") by Conestoga-Rovers & Associates (CRA) on behalf of Chevron Environmental Management Company (CEMC). The Site is currently owned and operated by CEMC, who acquired the Site in association with the 2005 Pure Resources acquisition.

#### 1.1 SITE DESCRIPTION

The Site is an active well location situated approximately one mile southeast of Loving in Eddy County, New Mexico (see Figure 1, Site Location Map and Figure 2, Lease Plat). It is located in the northeast quarter of the southwest quarter of Section 27, Township 23 South, Range 28 East. CEMC personnel who were interviewed indicated that the 27-12 Pardue Farms well produces approximately 12 barrels of oil and 140 barrels of water per day. These fluids are transmitted via flowline to a central tank battery on the Pardue Farms lease.

The surface property is owned by private interests. The surrounding area is primarily developed for oil and gas extraction and agricultural purposes. A salt lake is located approximately 3.35 miles to the northeast of the Site (see Figure 1). The former U.S. Borax and Chemical Company refinery was located approximately 3.5 miles northeast of the Site. The property is situated within the Pecos River floodplain. The Pecos River is located approximately 2.5 miles east of the Site.

Currently, an excavation that is three feet (ft.) deep, three ft. wide, and 30 ft. in length is present on the site. An exposed four-inch diameter polyethylene flowline is present within the excavation. Light brownish-green surface stained soil was observed on the side of a small hill extending in a northeast direction from the flowline excavation. The surface stained soil is approximately 100 feet in length and varies in width from 10 to 30 feet. Surface soils are sandy and loose. The 27-12 Pardue Farms pump-jack and a shed structure are located north and east of the release area.

#### 1.2 SITE HISTORY

On August 30, 2011, Mr. Tom Larson with CRA visited the well location along with Mr. Andy Roblez, with the CEMC Eunice Field Management Team. Mr. Roblez provided some history of the flowline leak that occurred on the property. The leak reportedly occurred in the spring of 2010 from a flowline (see Figure 3, Release Location Map). Based on the size of the surface expression of the leak, the volume was initially estimated at less than five barrels of oil and water. This volume is below New Mexico Oil Conservation Division (NMOCD) reporting requirements and consequently the District 2 office in Artesia was not notified.

A contractor, Ron's Welding, Inc., was hired to perform the initial repair to the flow-line and to excavate several small trenches to evaluate the magnitude of the release. Under the direction of environmental staff from the CEMC office in Midland, two soil borings

(BH-1 and BH-2) were advanced to depths ranging from 21 to 26 ft below ground surface (bgs) in July 2010 (see Figure 3 for approximate borehole locations). Soil samples were collected from the borings and analyzed for total petroleum hydrocarbons (TPH) and chlorides at selected intervals.

Results of the analytical soil data (See Table 1, Soil Analytical Data Summary) indicated TPH concentrations above regulatory levels were limited to the upper five feet in the two borings. However, chloride impacts above regulatory limits were noted in each of the two borings at depths ranging from 21 to 26 ft. bgs.

#### 2.0 REGULATORY FRAMEWORK

The NMOCD guidelines require groundwater to be analyzed for constituents of concern (COC) as defined by the New Mexico Water Quality Control Commission (NMWQCC) Standards. Soil is to be analyzed for COCs as defined by the NMOCD Recommended Remediation Action Levels (RRALs).

#### 2.1 REGULATORY LIMITS

The COCs in soil and groundwater at the Site are chloride, total dissolved solids (TDS), benzene, ethylbenzene, toluene, xylene, TPH-diesel range organics (TPH-DRO), and TPH-gasoline range organics (TPH-GRO). Analytical results for COCs in soil and groundwater were compared to the NMOCD RRALs and NMWQCC standards, respectively. These regulatory limits are presented in the following table:

Contaminate of Concern	NMOCD Recommended Remediation Action Levels for Soil (mg/kg)	NMWQCC Standards for Groundwater (mg/L)		
Chloride 1,2	250	250		
TDS2		1,000		
Benzene1	0.2	0.01		
Ethylbenzene2		0.75		
Toluene2	****	0.75		
Xylene2		0.62		
BTEX, Total1	50			
TPH-DRO/GRO1	500			

#### Notes

- 1) NMOCD Guidance for Release Reporting and Corrective Actions Under Rule 29 (19.15.29 NMAC) and Rule 30 (19.15.30 NMAC) of the Oil & Gas Regulations (DRAFT)
- 2) NMWQCC Other Standards for Domestic Water Supply per NMAC 20.6.2.3103B

#### 2.2 <u>HISTORICAL GROUNDWATER INFORMATION</u>

Several studies of groundwater quality were performed in the vicinity of the Site to support local water use planning and Project Gnome. Project Gnome was the first nuclear test of the Plowshare Program and consisted of detonating a nuclear device approximately 1200 ft. bgs (Cooper, 1962). The Project Gnome detonation occurred December 1961 and the site is located approximately 13 miles east of the Site.

Groundwater found west of the Pecos River is typically located within the Cenozoic Alluvium, is typically unconfined, and is believed to be in communication with water found in the underlying Rustler Formation (Cooper, 1962). Groundwater ranges in depth from 10 ft. bgs near the river to approximately 100 ft. bgs west of the town of Loving, New Mexico (Cooper 1962). Groundwater typically flows to the east/southeast towards the Pecos River.

Water quality within the Cenozoic Alluvium is highly variable. Concentrations of total dissolved solids (TDS) range from 188 to 15,000 milligrams per liter (mg/l) and chlorides range from five to 7400 mg/l (Richey, et. al., 1985). To assess groundwater concentrations local to the site, a table of water chemistry data obtained from wells located within the same township (23 south) and range (28 east) was compiled:

Section >>	Pepth (Feet)	TDS	Chlorides.
20	250	5780	1620
5	210	4133	731
7	195	N/A	1120
11	100	5841	1243
23	148	2900	720
24	96	3272	664
31	93	N/A	400
33	225	N/A N/A	794

Notes
Data obtained from (Richey, et. al., 1985)
Concentrations in mg/l
N/A indicates no data available

Based on this data, naturally occurring concentrations of dissolved solids and chlorides generally exceed NMWQCC regulatory limits in wells located in the vicinity of the Site.

#### 3.0 SOIL AND GROUNDWATER ASSESSMENT ACTIVITIES

Six additional soil borings (SB-1 through SB-3 and MW-1 through MW-3) were installed at the Site on April 9 and 10, 2012. Three of these borings (MW-1 through MW-3) were converted to groundwater monitor wells (See Figure 4, Soil Analytical Results Map for boring and well locations). These borings and monitor wells were installed to further assess the nature and magnitude of the flow-line spill in an area northeast of the release point.

#### 3.1 FIELD METHODOLOGY

Prior to mobilizing the drilling equipment to the Site, soil boring locations were staked in the field. A utility locate notification was made at least 48-hours prior to mobilization. A post-hole digger or similar borehole clearance tool was used to check for utilities at each boring location. Checking for utilities was performed by excavating by hand to a depth of approximately five-ft. bgs and approximately 10-inches (in.) in diameter.

An air-rotary drilling rig operated by a licensed State of New Mexico water well driller, White Drilling of Clyde, Texas, was used to advance the soil borings to depths ranging from 25 to 60-feet bgs. An application for permit to drill a well with no consumptive use of water was filed with the New Mexico Office of the State Engineer (NMOSE) for each monitor well. A copy of the NMOSE monitor well permit application and Well Records and Logs are provided in Appendix A. Boring logs and details of the monitoring wells are shown in Appendix B. Data from the borings was used to assess the nature and extent of chlorides, TDS and total petroleum hydrocarbons (TPH) in the subsurface.

#### 3.1.1 SOIL SAMPLING AND FIELD SCREENING

The field geologist recorded the subsurface lithology and field screening data on soil boring logs. One sample from each five-foot soil interval was field screened for the presence of volatile organic vapors with a photo-ionization detector (PID). Selected soil samples were collected for additional hydrocarbon analysis by laboratory methods. Three soil samples from each of the six soil borings were collected, preserved on ice and submitted to Lancaster Laboratories (Lancaster) in Lancaster, Pennsylvania for analyses of Chlorides by EPA Method 300, TPH by EPA Method 8015 (modified) and BTEX by EPA Method 8021B, respectively.

#### 3.1.2 MONITOR WELL CONSTRUCTION

The three monitor wells (MWs 1, 2, and 3) were constructed of four-inch diameter polyvinyl chloride (PVC) casing. Monitor wells were constructed with 35 to 40 feet of 0.020" slot screen PVC well screen. Each screened interval was constructed to intersect the groundwater interface. An 8/16 silica sand pack was placed in the annular space surrounding the well screen. The sand pack extended from approximately two feet above the well screen to the bottom of each borehole. A three-ft. thick bentonite seal was placed above the sand pack in each well. The remainder of the borehole annular space was

backfilled with cement grout. Above-ground (temporary) surface completions with concrete pads were constructed to protect each monitoring well.

Drill cuttings were temporarily stockpiled onsite until disposal occurred. A composite waste characterization sample was collected from the drill cuttings and analyzed for disposal. See Appendix C for investigation derived waste (IDW) disposal manifests.

#### 3.1.3 MONITOR WELL DEVELOPMENT AND SAMPLING

The monitor wells were developed by bailing and pumping. Gauging activities were conducted using an oil/water interface probe to measure static water levels and LNAPL thicknesses (if present) to the nearest hundredth of a foot. Three well volumes were bailed from each well using a disposable hand bailer. Measurements for temperature and conductivity were recorded until three consecutive readings indicated stabilization of parameters (i.e., variation <10%). Development and purge water was mixed with the drill cuttings after being placed in a water tight roll-off container. Both the water and cuttings were disposed of at a regulated facility (see Appendix C for disposal documentation).

Once the field parameters stabilized in each of the monitor wells, groundwater samples were collected using disposable bailers. The samples were placed in laboratory prepared containers, preserved on ice, and submitted to Lancaster Laboratories in Lancaster, Pennsylvania. Groundwater samples were analyzed for chlorides by EPA Method 300, TDS by Method SM20 2540C, TPH, gasoline range organics (GRO) and diesel range organics (DRO) by EPA Method 8015 modified, and benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method 8021B, respectively.

Two trip blank samples were collected during the April 2012 soil and groundwater assessment. Trip blank concentrations did not result in any detection for constituents analyzed. Copies of the certified analytical reports and chain-of-custody documentation are attached in Appendix D.

#### 3.2 SOIL ASSESSMENT RESULTS

Subsurface soils generally consist of loose silty sand in the top 25 feet with increasing gravel at depth. Logs of the soil borings and construction details of the groundwater monitoring wells are presented as Appendix B. Soil borings not converted to monitoring wells were plugged from ground surface to the total drill depth with bentonite pellets.

Table 1 presents a summary of analytical data from soil samples collected from each boring. Some observations from this data includes:

- Soil samples exceeded the NMOCD RRAL for chloride
- Results from SB-1 and SB-2 exceeded the NMOCD RRAL for TPH-GRO/DRO at
   5 ft. bgs. Sample results from SB-3 exceeded NMOCD RRAL for TPH-GRO/DRO at 5 and 10 ft. bgs

- The majority of the TPH concentrations consisted of DRO
- Concentrations of BTEX were below NMOCD RRALs

Based on the data, it appears that the majority of hydrocarbon-impacted soils are located within 5 feet of ground surface. The TPH and chloride analytical results are presented on Figure 4, Soil Analytical Results Map. Analytical laboratory reports for the soil samples are provided in Appendix D.

#### 3.3 GROUNDWATER ASSESSMENT RESULTS

A topographic survey was performed to calculate the top of casing (TOC) and depth to groundwater elevations for each monitor well. The topographic survey is presented in Appendix E. The survey was performed by West Company of Midland, Inc. on June 7, 2012.

Depth to groundwater measurements were collected on April 11, 2012 and April 20, 2012. Data from the gauging events are presented in Table 2, Groundwater Gauging Summary. The Groundwater Gradient Map (See Figure 5) depicts groundwater direction and elevation information based on data collected from the April 11, 2012 groundwater monitoring event. The data indicates that the groundwater flows toward the northeast at gradient of approximately 0.0003 foot/foot.

Table 3, Groundwater Analytical Summary, presents the analytical results obtained from the groundwater sampling event. Analytical results of the groundwater samples collected from the monitor wells indicate Chloride and TDS concentrations exceeded the NMWQCC Standards. Concentrations of TPH were not observed above the practical quantification limit and Concentrations of BTEX were not observed above laboratory reporting limits (See Figure 6, Groundwater Chloride and TDS Concentration Map Laboratory analytical reports and chain-of-custody documentation for the groundwater samples are presented in Appendix D.

Based on the analytical results a NMOCD Release Notification and Corrective Action Notice, Form C-141 was submitted to Mr. Mike Bratcher on November 7, 2012. See Appendix F for a copy of this form.

#### 4.0 SUMMARY OF FINDINGS

Based on the soil and groundwater assessment at the Site, CRA presents the following summary:

- Petroleum hydrocarbon concentrations in the soil appear to be predominately localized within 5 five feet of ground surface. The petroleum hydrocarbons that are present are predominately diesel range organics.
- Soil concentrations of chlorides exceed NMOCD RRALs. The results of the soil assessment indicate maximum chloride concentrations in soil are located at 5 ft. bgs and diminish with depth.
- The observed depth to groundwater ranged from 26.03 to 29.35 ft. bgs and the gradient was to the north. This is contrary to the regional historical groundwater direction which is to the south-southeast towards the Pecos River. It is possible that the gradient is a localized feature.
- Petroleum hydrocarbon concentrations were not detected in groundwater above the laboratory reporting limit.
- Background TDS and chloride water quality data obtained from wells in the vicinity of the Site exceed NMWQCC regulatory limits.
- Elevated chloride and TDS concentrations were observed in groundwater samples collected from wells at the Site. These concentrations exceeded NMWQCC regulatory limits.

#### 5.0 REFERENCES

Cooper, James B, "Groundwater Investigations of the Project Gnome Area, Eddy and Lea Counties, New Mexico," United States Department of the Interior Geologic Survey, March 1962.

Richey, Stephen F.; Wells, Jane G.; and Stephens, Kathleen T.; "Geohydrology of the Delaware Basin and Vicinity, Texas and New Mexico," US Geological Survey, Water Resources Investigation Report 84-4077, 1985.

All of Which is Respectfully Submitted,

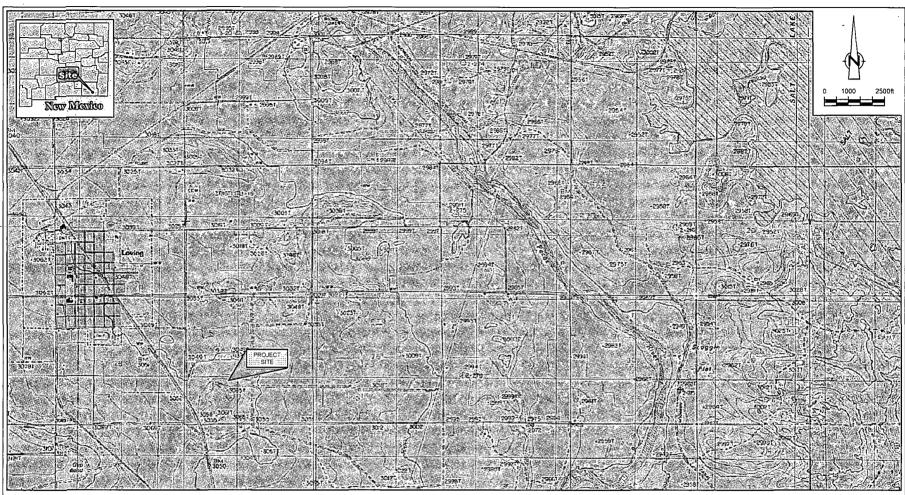
Thomas C. Larson, PG

Midland Operations Manager

Thomas Clayer

Bernard Bockisch, PMP Senior Project Manager

# Figures



SOURCE: USGS 7,5 MINUTE QUAD "LOVING, NEW MEXICO"

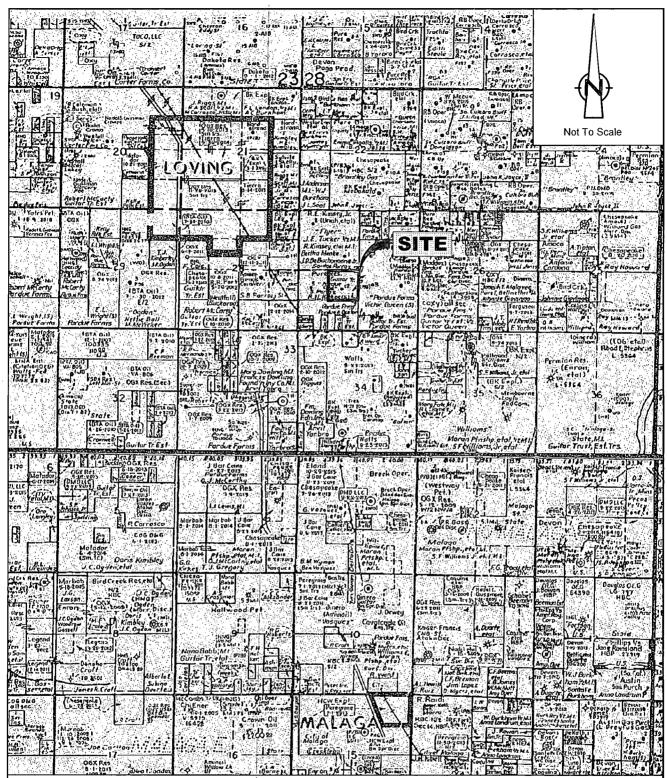
LAT/LONG: 32,27358° NORTH, 104,07818° WEST COORDINATE: NAD83 DATUM, U.S. FOOT STATE PLANE ZONE - NEW MEXICO EAST

Figure 1

SITE LOCATION MAP PARDUE FARMS SOIL AND GROUNDWATER ASSESSMENT LOVING, NEW MEXICO

Chevron Environmental Management Company



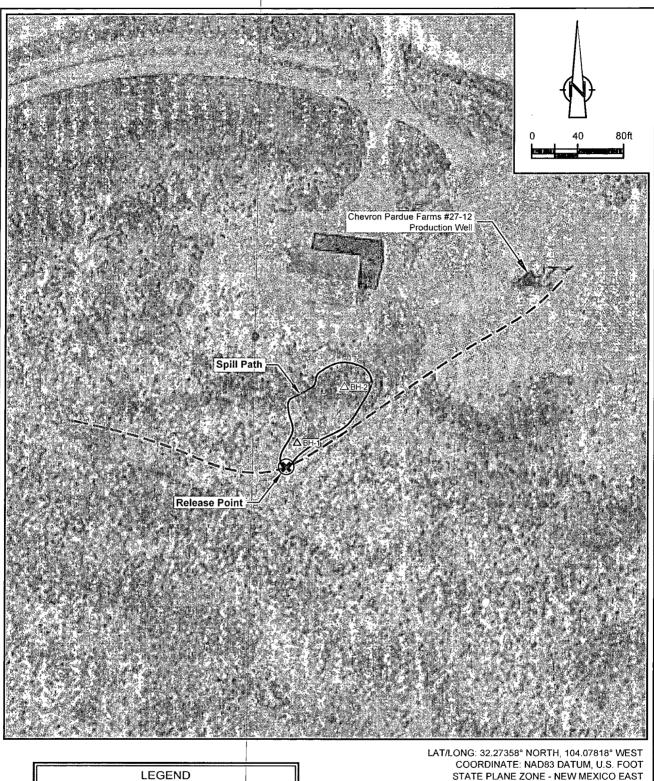


RE: Lease Plat by Midland Map Company.

Figure 2

LEASE PLAT
PARDUE FARMS SOIL AND GROUNDWATER ASSESSMENT
LOVING, NEW MEXICO
Chevron Environmental Management Company





LEGEND
June 2010 Soil Boring Location

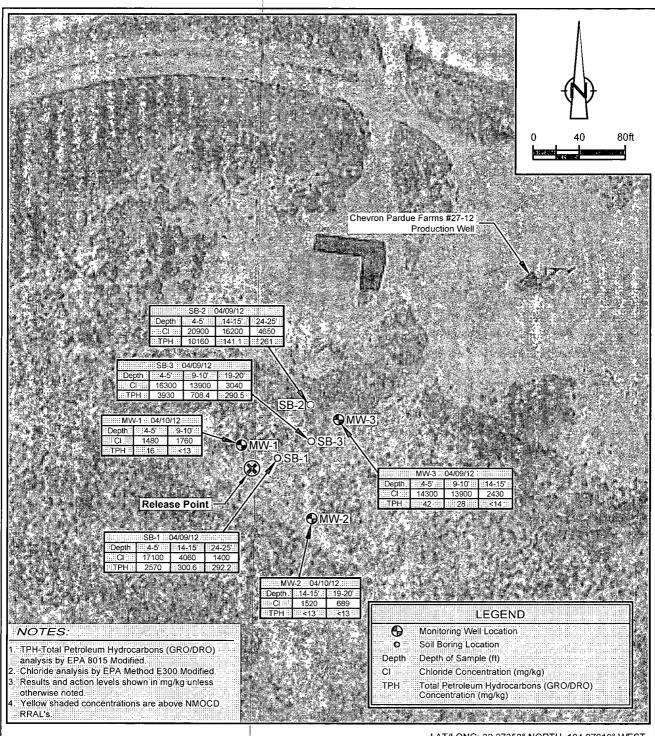
Flowline Release Point (Approximate)

Flowline Location (Approximate)

Figure 3

PARDUE FARMS SOIL AND GROUNDWATER ASSESSMENT LOVING, NEW MEXICO Chevron Environmental Management Company





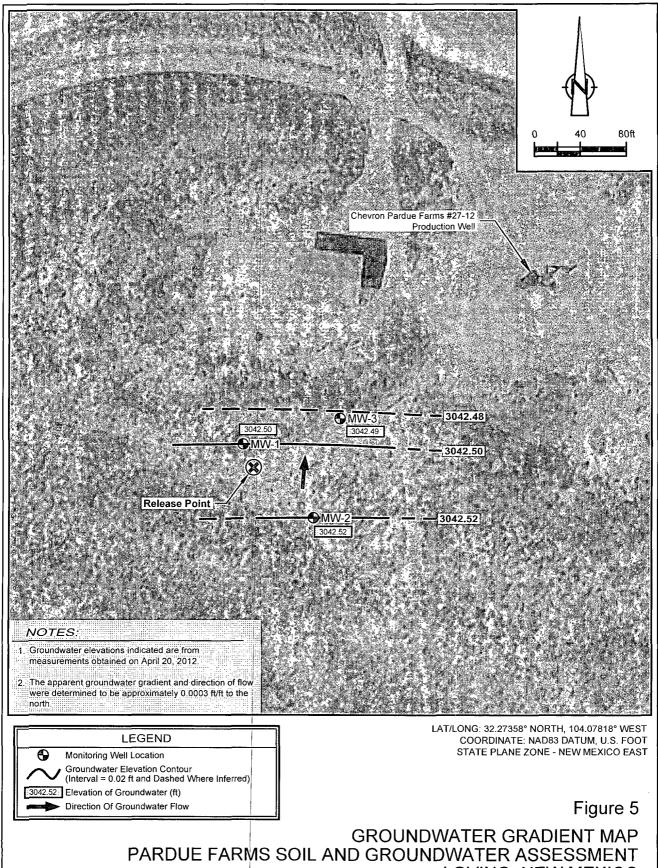
LAT/LONG: 32.27358° NORTH, 104.07818° WEST COORDINATE: NAD83 DATUM, U.S. FOOT STATE PLANE ZONE - NEW MEXICO EAST

#### Figure 4

SOIL ANALYTICAL RESULTS MAP PARDUE FARMS SOIL AND GROUNDWATER ASSESSMENT LOVING, NEW MEXICO

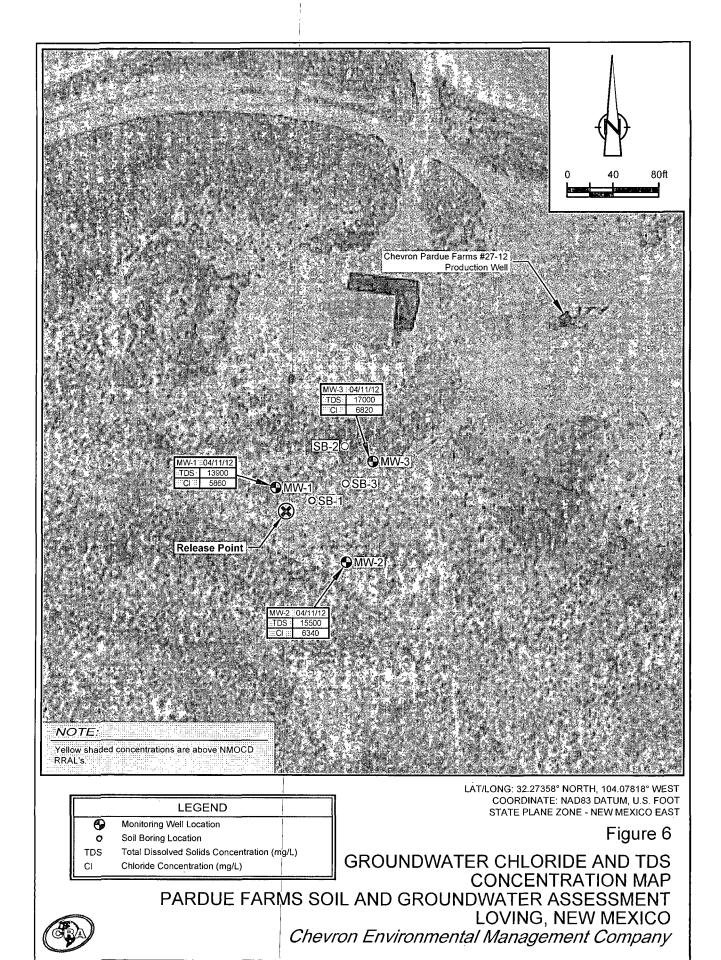


Chevron Environmental Management Company



LOVING, NEW MEXICO

Chevron Environmental Management Company



# Tables

#### TABLE 1

## SUMMARY OF SOIL ANALYTICAL DATA CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY PARDUE FARMS 27-12 EDDY COUNTY, NEW MEXICO

		Depth			Ethyl-		Total	Percent			ТРН	
Sample 1D		(fcet)	Benzene	Toluene	Benzene	Xylenes	i I	Moisture (%)	Chloride	GRO	DRO	Total (GRO/DRO)
I	New Mexico (	Dil Conser	vation Divisio	n Recommen	ded Remedia	tion Action	Levels (Ve	ertical separatio	n from grou	ndwater le	ss than 50')	
			0.2				50		250			500
BH-1	6/21/10	0-1	NA	NA	NA	NA	NA	ŇA	20,000	3,960	11,700	15,660
BH-1	6/21/10	5-6	NA	NA	NA	NA	NA	NA	18,400	346	1,270	1,616
BH-1	6/21/10	10-11	NA	NA	NA	NA	NA	NA	8,000	<10	<10	<10
BH-1	6/21/10	15-16	NA	NA	NA	NA	NA	NA	2,920	<10	61.4	61.4
BH-1	6/21/10	20-21	NA	NA	NA	NA	NA	NA	2,120	NA	NA	NA
BH-1	6/21/10	25-26	NA	NA	NA	NA	NA	NA	1,960	NA	NA	NA
BH-2	6/21/10	0-1	NA	NA	NA	NA	NA	NA	14,400	1,560	13,200	14,760
BH-2	6/21/10	5-6	NA	NA	NA	NA	NA	NA	16,800	<10	14.6	14.6
BH-2	6/21/10	10-11	NA	NA	NA	NA	NA	NA	4,320	<10	<10	<10
BH-2	6/21/10	15-16	NA	NA	NA	NA	NA	NA	2,600	<10	<10	<10
BH-2	6/21/10	20-21	NA	NA	NA	NA	NA	NA	2,360	NA	NA	NA
SB-1 5'	4/9/12	4-5	<0.020	0.33	0.62	3.9	4.9	8.4	17,100	170	2,400	2,570
SB-1 15'	4/9/12	14-15	<0.0053	< 0.0053	<0.0053	<0.016	<0.016	11.2	4,060	0.6 J	300	300.6
SB-1 25'	4/9/12	24-25	< 0.0054	< 0.0054	0.0040 J	0.028	0.032	13	1,400	2.2	290	292.2
SB-2 5'	4/9/12	4-5	0.027 J	3.4	3.7	20	27	10.3	20,900	660	9,500	10,160
SB-2 15'	4/9/12	14-15	< 0.0054	< 0.0054	< 0.0054	.<0.016	< 0.016	9.9	16,200	1.1 J	140	141.1
SB-2 25'	4/9/12	24-25	< 0.0054	< 0.0054	< 0.0054	<0.016	<0.016	11.6	4,650	1.0 J	260	261
SB-3 5'	4/9/12	4-5	< 0.021	0.36	0.81	5.1	6.3	9.3	16,300	230	3,700	3,930
SB-3 10'	4/9/12	9-10	0.0030 J	< 0.0055	0.0092	0.079	0.091	7.5	13,900	8.4	700	708.4
SB-3 20'	4/9/12	19-20	< 0.0057	<0.0057	< 0.0057	< 0.017	< 0.017	10.7	3,040	0.5 J	290	290.5
MW-1 5'	4/10/12	4-5	< 0.0052	<0.0052	<0.0052	<0.016	< 0.016	6.4	1,480	<1:0	16	16
MW-1 10'	4/10/12	9-10	< 0.0057	<0.0057	< 0.0057	< 0.017	< 0.017	7.7	1,760	<1.1	<13	<13
MW-2 15'	4/10/12	14-15	< 0.0051	<0.0051	< 0.0051	<0.015	< 0.015	9.2	1,520	<1.0	<13	<13
MW-2 20'	4/10/12	19-20	<0.0057	<0.0057	< 0.0057	< 0.017	< 0.017	11.1	689	<1.1	<13	<13
MW-3 5'	4/9/12	4-5	0.0023 J	0.0023 J	0.0029 J	0.011 J	0.019	9.7	14,300	<1.1	42	42
MW-3 10'	4/9/12	9-10	< 0.0054	< 0.0054	< 0.0054	<0.016	<0.016	9.5	13,900	<1.1	28	28
MW-3 15'	4/9/12	14-15	<0.0054	< 0.0054	< 0.0054	<0.016	<0.016	11.9	2,430	<1.1	<14	<14

#### Notes

- 1) Results that are bold and highlighted exceed the New Mexico Oil Conservation Division Recommended Remediation Action Levels
- 2) Results that are bold exceed the laboratory reporting limit (RL)  $\,$
- 3) BTEX analysis by EPA Method 8021B
- 4) TPH (GRO/DRO) analysis by EPA Method 8015 Modified
- 5) Results and Action Levels shown in mg/kg, unless otherwise noted
- 6) Soil borings BH-1 and BH-2 were sampled by CONSULTANT on June 21, 2010
- 7) <= Not detected at or above the laboratory reporting limit
- 8) J = estimated value between RL & MDL
- 9) NA = Not Analyzed

#### TABLE 3

# GROUNDWATER ANALYTICAL SUMMARY CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY PARDUE FARMS 27-12 EDDY COUNTY, NEW MEXICO

			Fd					ТРН			
Sample ID	Sample Date	Benzene	Тоіиепе	Ethyl- Benzene	Xylenes	TDS	TDS	Chloride	GRO	DRO	Total (GRO/DRO)
	New Mexico Water Quality Control Commission Standards										
		0.01	0.75	0.75	0.62	1,000	250				
MW-1	4/11/12	<0.0010	<0.0010	<0.0010	<0.0030	13,900	5,860	<0.050	0.035 J	0.035	
MW-2	4/11/12	<0.0010	<0.0010	<0.0010	<0.0030	15,500	6,340	<0.050	0.050 J	0.050	
MW-3	4/11/12	<0.0010	<0.0010	<0.0010	<0.0030	17,000	6,820	<0.050	0.094 J	0.094	

#### Notes:

- 1) Results that are bold exceed the laboratory reporting limit (RL)
- 2) BTEX analysis by EPA Method 8021B
- 3) TPH (GRO/DRO) analysis by EPA Method 8015 Modified
- 4) Results and standards shown in mg/L
- 5) <= Not detected at or above the reporting limit
- 6) J = estimated value between RL & MDL

# Appendices

A



2135 South Loop, 250 West Midland, Texas 79703

Telephone: (432) 686-0086

Fax: (432) 686-0186

http://www.craworld.com

April 4, 2012

Reference No. 076323

Mr. Greg Alvorado New Mexico Office of the State Engineer Water Rights Division, District II 1900 West Second Street Roswell, NM 88201-1712

Re: Application to Drill Three Monitor Wells with No Consumptive Use of Water Eddy County, Texas

Dear Mr. Alvorado:

Please find enclosed an Application to Drill Three Monitor Wells with No Consumptive Use of Water in triplicate (3) and a money order for \$15.00 (\$5.00 fee per monitor well) to the NMOSE.

If more information is needed, please contact me at the numbers shown above.

Thank You,

CONESTOGA-ROVERS & ASSOCIATES

Thomas C. Larson Midland Operations Manager

Enclosures Include:

Application to Drill a Well with No Consumption Use of Water (3) with original signature. Money Order for \$15.00.

Equal Employment Opportunity Employer

,	 -				•		
File No.							
	 	 	11 11 2	_		_	

## e Stole

#### **NEW MEXICO OFFICE OF THE STATE ENGINEER**

### APPLICATION FOR PERMIT TO DRILL A WELL WITH NO CONSUMPTIVE USE OF WATER



(check applicable box):

	For fees, see State Engineer w	ebsite: http://www.ose.state.nm.us/		
Purpose:	☐ Pollution Control And / Or Recover	y Geo-Thermal		
☐ Exploratory	☐ Construction Site De-Watering	Other (Describe):		
Monitoring	☐ Mineral De-Watering			
-	<b>;</b>			
A separate permit will I	be required to apply water to beneficial use.			
☐ Temporary Reques	t - Requested Start Date:	Requested End Date:		
Plugging Plan of Opera	ations Submitted?  Yes  No			
	<u> </u>			
1. APPLICANT(S)				
Name: Chevron Envir Hudson (Houston) Pr	onmental Management Company - Matt oject Manager	Name:		
Contact or Agent:	check here if Agent 🛛	Contact or Agent: check here if Agent □		
Tom Larson with Con	estoga Rovers and Associates			
Mailing Address: 2135	S Loop 250 West	Mailing Address:		
City: Midland		City:		
State: TX	Zip Code: <b>79703</b>	State: Zip Code:		
Phone: 432-553-1681	☐ Home ⊠ Cell	Phone:		
Phone (Work): 432-686	<del></del>	Phone (Work):		
E-mail (optional): tlarso	on@craworld.com	E-mail (optional):		
		4		
,				
	FOR OSE INTERN	IAL USE Application for Permit, Form wr-07, Rev 8/25/11		
	File Number:	Trn Number:		
	Trans Description (	(optional):		
	Sub-Basin:			
	PCW/LOG Due Da	te:		

#### 2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordin (Lat/LongWGS84)	nate location must	be reported in NM S	tate Plane (NAD 83), L	JTM (NAD 83), <u>or</u> Latitude/Longitude
NM State Plane (NAD83) NM West Zone NM East Zone NM Central Zone		UTM (NAD83) (Mete ☐Zone 12N ☐Zone 13N	rs) D	Lat/Long (WGS84) (to the nearest //10 <sup>th</sup> of second)
Well Number (if known):	X or Easting or Latitude:	Y or Northing or Longitude:	PLSS (Public Land township, Range);	boxes labeled "Other" below with Survey System, I.e. Quarters, Section, Hydrographic Survey Map & Tract; Lot, n; OR Land Grant Name if known.
MW-1			32 deg 16', 25.10" N	
			104 deg 4', 42.06"W	_
MW-2			32 deg 16', 24.25"N	
			104 deg 4, 41.07"W	
MVV-3			32 deg 16' 25.23"N	
			104 deg 4' 41.03''W	
			Note: all 3 MWs loca	ated in NE/4 of SW/4 section 27, T-23-S,
			R-28-E	
NOTE: If more well location	s need to be descr	ibed, complete form	WR-08 (Attachment 1	- POD Descriptions)
Additional well descriptions	are attached: 🗌	]Yes ☐ No	If yes, how man	У
Other description relating well	to common landma	rks, streets, or other:	<del></del>	
		,		
•				
Well is on land owned by: Billy	/ Melton			
Well Information: NOTE: If m		vell needs to be desc	ribed, provide attach	ment, Attached? 🗌 Yes 🗵 No
<u> </u>	A). 65.00	10	West the attended to the second	Sanian (insthau), 400
Approximate depth of well (fee	<u>.</u>		utside diameter of well	
Driller Name: White Drilling C	Company, Inc.	Dı	riller License Number: 1	1456
, ADDITIONAL STATEMENTS	OR EXPLANATIO	NS		
		FOR OSE INTERNAL U	SE	Application for Permit, Form wr-07
		File Number:		Trn Number:

Page 2 of 3

	QUIREMENTS: The applicant must include the information has been included and/or		th well type. Please check the appropriate
Exploratory:	Pollution Control and/or Recovery:	Construction	Mine De-Watering:
Include a	Include a plan for pollution	De-Watering:	Include a plan for pollution
description of	control/recovery, that includes the	☐ Include a description of the	control/recovery, that includes the following
any proposed	following:	proposed dewatering	A description of the need for mine
pump test, if applicable.	A description of the need for the pollution control or recovery operation.	operation,  The estimated duration of	dewatering.  The estimated maximum period of time
applicable.	The estimated maximum period of	the operation,	for completion of the operation.
	time for completion of the operation.	The maximum amount of	The source(s) of the water to be diverted
	☐ The annual diversion amount.	water to be diverted.	The geohydrologic characteristics of the
	☐ The annual consumptive use	☐ A description of the need	aquifer(s).
	amount.	for the dewatering operation,	☐The maximum amount of water to be
	☐ The maximum amount of water to be	and,	diverted per annum.
	diverted and injected for the duration of	A description of how the	☐The maximum amount of water to be
	the operation.	diverted water will be disposed	diverted for the duration of the operation.
B/lowitovinos	☐ The method and place of discharge.☐ The method of measurement of	of. Geo-Thermal:	☐The quality of the water. ☐The method of measurement of water
Monitoring:  ☑ Include the	water produced and discharged.	☐ Include a description of the	diverted.
reason for the	The source of water to be injected.	geothermal heat exchange	☐ The recharge of water to the aquifer.
monitoring	The method of measurement of	project,	Description of the estimated area of
well, and,	water injected.	The amount of water to be	hydrologic effect of the project.
☐ The	☐ The characteristics of the aquifer.	diverted and re-injected for the	The method and place of discharge.
duration	☐ The method of determining the	project,	An estimation of the effects on surface
of the planned	resulting annual consumptive use of	☐ The time frame for	water rights and underground water rights
monitoring.	water and depletion from any related	constructing the geothermal	from the mine dewatering project.
	stream system.  Proof of any permit required from the	heat exchange project, and,  The duration of the project.	A description of the methods employed to estimate effects on surface water rights and
	New Mexico Environment Department.	Preliminary surveys, design	underground water rights.
	☐ An access agreement if the	data, and additional	☐Information on existing wells, rivers,
	applicant is not the owner of the land on	information shall be included to	springs, and wetlands within the area of
	which the pollution plume control or	provide all essential facts	hydrologic effect.
	recovery well is to be located.	relating to the request.	
I, We (name of a	applica <u>nt(s)),</u> Poregoing statements are true to the best of	rint Name(s) (my, our) knowledge and belief.	
Applicant Signal	ure	Applicant Signature	
	ACTION	OF THE STATE ENGINEER	
		This application is:	
	☐ approved		denied
provided it is n			ontrary to the conservation of water in New
Mexico nor det	rimental to the public welfare and further s	ubject to the <u>attached</u> conditions of	f approval.
Witness my han	d and seal this day of	20,	for the State Engineer,
<del>10 10 10 10 10 10 10 10 10 10 10 10 10 1</del>	<del> </del>	, State Engineer	
Ву:			
Signature	,	Print	and the state of t
Fitle:			
Print			
	FOR OS	E INTERNAL USE	Application for Permit, Form wr-07
	File Nun	nher:	Trn Number



-	1	ABER (WE	LL NUMBER)					OSE FILE NU	MBER(S)			
GENERAL AND WELL LOCATION	MW-1						<u>.                                </u>					
13	t .	VNER NAI		agament Ca				713-372-	•			
3			ironmental Mai	lagement Co.				<u> 1</u>	<del>3</del> 201	na rain		ZID
1 1			it., Room 0707	e				Houston		STATE TX	77	ZIP 7002
\$	1400 3	onnur O	it., Room oror	<u> </u>				Houston		17		1002
	WE	LL		DEGREES	MINUTES	SECO				· · · · · · · · · · · · · · · · · · ·		
A.	LOCA	L	LATITUDE	32	16 24		4.90 N	i	REQUIRED: ONE TE	NTH OF A SE	COND	
ER	(FROM	GPS)	LONGITUDE	104	4	4	2.50 W	* DATUM REQUIRED: WGS 84				4
Na	DESCRIP	TION REL	ATING WELL LOCAT	ION TO STREET ADDRE	SS AND COMMON	LANDA	IARKS			***************************************		
<u>-</u>	Chevro	n Parc	lue Farms 27-1	12								
	<u> </u>										,	
ĺ	(2.5 AC	1	(10 ACRE)	(40 ACRE)	(160 ACRE	3)	SECTION	07	TOWNSHIP	NORTH	RANGE	Z EAST
OPTIONAL		1/4	1/4	14	1/4			27	23	√ воіли	28	☐ west
ĝ	SUBDIVIS	ION NAM	8		•		LOT NUM	IBER	BLOCK NUMBER		UNITATRA	CT
l e												
7	HYDROG	RAPHIC SI	URVEY		1				MAP NUMBER		TRACT NU	JMBER
	<u> </u>					· 		<u> </u>				
	LICENSE		i i	INSED DRILLER		NAME OF WELL DI	•					
	WD	-1456	John W. W	/hite					White Drilling		-	
	DRILLING				PLETED WELL (FT	)		E DEPTH (FT)	DEPTH WATER FIF			
Z	4/1	1/12	4/11/12		55.0			8.0		45.0		
DRILLING INFORMATION	COMPLET	ED WELL	IS: ARTESIAN	DRYHOLE	SHALLOV	V (UNCO	NFINED)		STATIC WATER LE	vel in com 26.7		LL (FT)
ORI	· · · · · · · · · · · · · · · · · · ·				· -		•				<del>-</del>	
N.F.	DRILLING	FLUID:	✓ AIR	MUD	ADDITIV	ES - SPE	CIFY:				<del></del>	
Š	DRILLING	METHOD	: ROTARY	HAMMER								
רבו	DEPT	TH (FT)	BORE HOL	I.	CASING			IECTION	INSIDE DIA.		WALL	SLOT
DRI	FROM	то	DIA. (IN)	MA	TERIAL		TYPE (	(CASING)	CASING (IN)	THICKN	IESS (IN)	SIZE (IN)
m,	0.0	15.0			1. 40 PVC			reads	4.0	<del></del>	4"	
	15.0	55.0	7 7/8	Sch	1. 40 PVC		Th	reads	4.0	1,	4"	.020
		ļ										
				<u> l</u>						<u> </u>		
	DEPT	H (FT)	THICKNES	s FC	PRMATION DE	SCRIPT	TON OF P	RINCIPAL W	ATER-BEARING S	TRATA		YIELD
TA	FROM	TO	(FT)		(INCLUDE W	ATER-I	BEARING	CAVITIES OF	R FRACTURE ZON	IES)	,	(GPM)
18	45.0	58.0	13.0			Br	own silly	sand w/gra	vel.			
SS												
E E				**	1							
ĬĔĀ		,							1, 3	<u> </u>		
- <u>R</u>					<u> </u>				A STATE OF THE STA	e e e e e e e e e e e e e e e e e e e		)
4. WATER BEARING STRA	METHOD U	SED TO E	STIMATE YIELD OF	VATER-BEARING STRA	ŤΛ		<u> </u>		TOTAL ESTIMATED	WELL YIEL	D (GPM)	'
À.					1							
					<u> </u>							
	FOR OSE	INTER	NALUSE						WELL RECO	RD & LOG	(Version 6/	9/081
[	FILE NU				POD N	UMBEI	₹		TRN NUMBE		, ,	
	LÓCATIO				1			PAGE LOF 2				

MP	TYPE O	F PUMP:	☐ SUBME		☐ JET	☐ NO PUMP – WELL NOT EC	QUIPPED					
SEAL AND PUMP			DEPTI FROM	i (FT)	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZ	E AMOUNT (CUBIC FT)		OD OF EMENT			
AE.		ULAR AND	58.0	13.0	7 7/8	8/16 Sand.	23 sacks	Han	d Mix			
SE		L PACK	13.0	10.0	7 7/8	Bentonite Pellets	1 sacks		d Mix			
iń	İ	•	10.0	0.0	7 7/8	Cement	2.278		d Mix			
	DEPT	H (FT)	ТНІСК (F1		(INC	COLOR AND TYPE OF MATERIAL E		WA BEAL	TER RING?			
					1,11		Flyre	☑ NO				
ľ	0.0	10.0	10.			Brown silty sand w/small		☐ YES				
ľ	10.0	45.0	35.	·	ļ	Brown clayey silty sa		☐ YES	☑ NO			
	45.0	58.0	13.	.0		Brown silty sand w/gr	avel.	☑ YES	Пио			
	- 						9-30-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	☐ YES	□ №			
占								☐ YES	□ио			
¥ E							•	☐ YES	□ио			
OF								☐ YES	□.ио			
8				<del></del>	i			☐ YES	□NO			
[ ]								☐ YES	□NO			
GEOLOGIC LOG OF WELL			<del></del>					☐ YES	□ №			
EOI				<del></del>			<del></del>	☐ YES	□ио			
6. G			·	<del></del>		بديد شنور شيد جدتها والمناب بالهجر بالمسية مشدد كالمتاب والمساب	<del>arangigi ang pangangan pangangan pangan</del>	☐ YES	□NO			
į.				<del></del>	ļ <u>-</u> -							
	-		:					☐ YES	□ NO			
					· · · · · · · · · · · · · · · · · · ·		·····	☐ YES	Пио			
					<del></del>			☐ YES	ОИ			
		· 	<del></del>					☐ YES	□NO			
								☐ YES	ОИ			
			ATTACH	ADDITION	AL PAGES AS N	EEDED TO FULLY DESCRIBE THE GI	EOLOGIC LOG OF THE WEL	L .				
	METHOD: ☐ BAILER ☐ PUMP ☐ AIR LIFT ☐ OTHER SPECIFY:											
ONAL INFO	WELL	TEST'	TEST RESUL	TS - ATTA	CH A COPY OF	DATA COLLECTED DURING WELL TO	ESTING, INCLUDING STAR	TIME, END T	IME,			
YAL.	AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.											
	ADDITION.	AL STATEM	ENTS OR EXPLA	NATIONS:				•				
<u>8</u>									. [			
. કુ જ				i	ĺ				٠,			
15	•				1							
7. ТЕЅТ & АВВІТІ												
							···					
H	THE UND	ERSIGNE	D HEREBY C	ERTIFIES T	HAT, TO THE B	EST OF HIS OR HER KNOWLEDGE AT	nd Belief, the Foregoin	G IS A TRUE A	ND			
8. SIGNATURE	THE PERI	I KECOKI MIT HÖLF	OF THE ABO DER WITHIN 2	OPAYS AF	TER COMPLET	D THAT HE OR SHE WILL FILE THIS ION OF WELL DRILLING:	WELL-RECORD WITH THE	STATE ENGIN	EK AŅD			
NA.		ď							ŀ			
SIG		,,				5/10/2012						
∞			SIGNATURE	OF DRILL	ĔŔ	DATE			ŀ			
	<del></del>		<del></del>									
	FOR OSE	INTERNA	L ÚSE				WELL RECORD & LO	G (Version 6/9/	)8)			
F	FILE NUN	· · · · · · · · · · · · · · · · · · ·				POD NUMBER	TRN NUMBER					
1	LOCATIO	N	***************************************					PAGE 2 OF	2			



### RECEIVED

MAX 1 9 2017

## Midland

		1 1 1 1 1 1 1 1 1 1		1 N 1 N 1 N 1 N 1 N 1 N 1 N 1 N 1 N 1 N	substitute of the control of the con			At the large of the life of the first	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4			
NO	MW-2	ng maya sara Malaka 1997	LL NUMBER)	and the second second	And Property Comments	er i kultur. H	OSE FILE NU	MBER(S)	igangga	entry years	e di saci deli dan. Seci deli deli e saci		
LOCATION	Chevro		ronmental Mana	gement Co.	er det de la	rjen de rivingij Geraal da ri	713-372-9	* A	ere i je da stoj	y na sa ayanga la na sa na sa sa	en er fager andere. Tallet er		
WELL			LING ADDRESS L., Room 07076	alang dan pelanggan sandan sanggan dan pelanggan	Hous			enganosa en elektros Direktrosaan ka	STATE TX	7	zir 7002		
ALAND	WE LOCA	ΓΙΟΝ	LATITUDE	DEGREES 32	32 16 24.20 N ACC			ACCURACY REQUIRED: ONE TENTH OF A SECOND					
ÉR.	(FROM	GPS)	LONGITUDE	104	4 4	1.80 W	• DATUM REC	QUIRED: WGS 84	e Kanton e per en en	trusti i etak	and Market and the second		
1. GENE	DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS Chevron Pardue Farms 27-12												
1/1/2	(2.5 Λ	RE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	yya e grandyy.	TOWNSHIP	is diamegalian	RANGE			
<u></u>	3.0	<b>y</b>	74	4	Z		27	23	☐ HORTH	28	Z fast □ west		
NO.	SUBDIVIS	ION NAM	Control of the control of	am Lake Same All Lake	LOT NUMBER			BLOCK NUMBER	- 100 in	UNIT/TRA	.,		
OPTIONAL		ig in the second Andreas		ing and the second of the seco	AND WERENING								
2.0	HYDROG	RAPHIC SL	IRVEY	<u>, princepality of the contract of the contrac</u>		MAR NUMBER TRAC			TRACT N	JAIDER			
			-11.5 848 DOB 446	Andreas and the first	The state of the second two	د . کا رحاد کی جی	a de Ali X	na dana mendebada Tangkan	r en en	respective to	in and the second		
	LICENSE		NAME OF LICENS	ED DRILLER	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	H33 (4 15)		NAME OF WELL DR	ILLING CON	PANY	र्वत्रहरू वर्ष		
	WD	-1456	John W. Whi	te	A Same of the	The second	and the second of the second o	White Drilling	Compan	y, Inc.			
N		STARTED	DRILLING ENDED 4/11/12	DEPTH OF COM	LETED WELL (F1) 55.0		е рерти (1/1) 8.0	DEPTH WATER FIR	ST ENCOUN 42.0	40.4 \$15.445.45 131.			
NFORMATION	COMPLET	ED WELL	IS: ARTESIAN	DRY HOLE	SHALLOW (UNC	ONFINED)	er indekalende.	STATIC WATER LE	VEL IN COME 29.26		L (PI)		
FOR	DRILLING FLUID: AND ADDITIVES SPECIFY:												
	DRILLING METHOD:												
DRILLING		H(FT)		CASING CONNE			Adam Co. t.	INSIDE DIA.	CASING	WALL	SLOT		
E I	FROM	ciro.		MATERIAL		TYPE (	CASING)	CASING (IN)	THICKN		SIZE (IN)		
	0.0	15.0	7,7/8	Sch	. 40 PVC	, Thr	eads	4.0	1/	4"	A Property Services		
	15.0	55.0	7 7/8	Sch	40 PVC	Thr	eads	4.0	23.34	<b>4</b> ". (3)	.020		
. 4					and the second of the second o	, has placed in the Color of th	er en	TAKE IN THE INTERNAL WAS A SECOND OF THE SEC	Street, Nobel St.	Billing Mit 1999. Little Grand Stand	A RIVAGAM CATAL		
	1 4 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7							Para tita kapangan		3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			
ŢĀ	DEP1	H (FT) TO	THICKNESS (F1)	FO	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)						YIELD (GPM)		
₽[	42.0	44.0	2.0		de la capación de la Capación de la capación de la	Gr	avel.		er Korte in der Seine Degree se		About 1		
S	44.0	58.0	the state of the control of the state of the state of	FRIDAS.		Tight pac	ked gravel.		r gyrenwegen. Wyskie b <u>il</u> ges	t in graphical Contragation	protesting and the second		
M.	Tale to the co	garagas Talahas	S. 12 36 16 3 2 2 5 6 6 7				in in the second of the second	A menggi Pitting Kitika Ang Balandan Kitalah, Terlah	gradia e de la Responsación		W SA AND		
BEA		44 42 50 16 35 1	e de la marie de la	त्रिक्षा विकास स्थापना विकास स्थापना १ - कार्यस्थान स्थापना विकास स्थापना		restriction of the second	Telegija in 1927 Storate (Sec. 1)	THE SHAPE SHAPE Share Shape Sh	Maria ya Majili Maria kata da ili		Markey Mark		
ER		3 43 4,134					a y was year in Carasa in Cara		21 - 22 - 7 - 140 - 1 21 - 24 - 1 - 1 - 1				
4. WATER BEARING STRAT	METLIOD	ISED TO E	STIMATE YIELD OF WAT	ER-BEARING STRAT				TOTAL ESTIMATED	WELLYJELF	(GFVI)			
a sy May	N SPESSOR	table of their		. 818° 20 3000 0	इ.स.च्यासकार व्यवस्थान	4 4 7 14 5 14 7	The factor of the factor of the	4 . 7 . 7	e prematici	7 1 9 7 7 P 3 1	gy y in the same of the same and the same		
ř	FOR OSI		IAL USE	The state of the s	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	ere of the second s	2 14 42 14 1 8V 000 25 15 15	WELL RECOR		Version 6/	9/08)		
- }	FILE NU		ne înterezio în la compania de  compania de la compania de la compania del compania de la compania del compa		POD NUMBE	R		TRN NUMBE	<b>?</b>				

<u>4</u>	TYPEO	F РИМР:	☐ SUBME		☐ JET ☐ CYLINDER	☐ NO PUMP WELL NOT EQUIPPE ☐ OTHER SPECIFY:	D			
SEAL AND PUMP			DEPTI	L(FT)	BORE HOLE	I	AMOUNT	МЕТИ	OD OF	
AM	ANN	ÜLAR	FROM	10	DIA. (IN)	MATERIAL TYPE AND SIZE	(CUBIC FT)		EMENT	
EAL	SEAL	AND	56.0	13.0	7 7/8	8/16 Sand.	25 sacks	Hand	d Mix	
S. S.	GRAVE	L PACK	13.0	10.0	7 7/8	Bentonite Pellets	1 sacks	Hand	d Mix	
			10.0	0.0	7 7/8	Cement	1.997	Han	d Mix	
	DEPT	H (FT)	THICK	NESS	<u> </u>	COLOR AND TYPE OF MATERIAL ENCOU	NTERED	WA	TER	
]	FROM	то	(F1	r)	(INCL	UDE WATER-BÉARING CAVITIES OR FRA	CTURE ZONES)		RING?	
	0.0	13.0	13.	0		Tan silty sand w/small grave	l <b>.</b>	☐ YES	☑ NO	
1	13.0	23,0	10.	0	L	Light brown silty clayey sand w/small gravel.				
	23.0	32.0	9.0	0		Tan silty clayey sand w/small gr	avel.	☐ YES	ИО [☑	
	32.0	2.0 42.0 10.0				Brown silty clayey sand.	•	. □ YES	<b>☑</b> NO	
13	42.0	44.0	2.0	)		Gravel.		✓ YES	□ио	
WE	44.0	58.0	14.0			Tight packed gravel.		☑ YES	□ NO	
GEOLOGIC LOG OF WELL								☐ YES	□ио	
Š								☐ YES	□ио	
Jic.							The state of the s	☐ YES	□ №	
Į.			· · · · · · · · · · · · · · · · · · ·					☐ YES	Ои	
035		:						☐ YES	□ NO	
9								☐ YES	□ио	
								☐ YES	□ио	
								☐ YES	□ио	
							•	☐ YES	□ио	
ŀ								☐ YES	□ио	
<u> </u>	:					·		☐ YES	□NO	
			ATTACH.	VDDLLION	AL PAGES AS NE	EDED TO FULLY DESCRIBE THE GEOLOG	IC LOG OF THE WELL			
0			METHOD:	BAILE	R □ PUMP	☐ AIR LIFT ☐ OTHER – SPECIFY:		<del></del>		
TIONAL INFO	WELL	TEST	TEST RESUL	TS - ATTA	CH A COPY OF D	ATA COLLECTED DURING WELL TESTING	, INCLUDING START	TIME, END TI	ме,	
NAL	Abbreon		ENTS OR EXPLA		IG DISCHARGE F	ND DRAWDOWN OVER THE TESTING PE	KIÓĐ	······································		
OE I	ADDITION	VITZIVIEVI	enis or expla	NATIONS:	i i					
ADDI					•					
જ							•		ŀ	
7. TEST										
-										
	THEUND	ERSIGNEI	) HERERY CE	PTIFIFS T	HAT TO THE RE	ST OF HIS OR HER KNOWLEDGE AND BEL	IED THE FOREGOING	IS A TRIES AT	VID.	
SIGNATURE	CORRECT	RECORD	OF THE ABO	VE DESCR	IBED HOLE AND	THAT HE OR SHE WILL FILE THIS WELL ON OF WELL DRILLING:	RECORD WITH THE S	TATÉ ENGIÑE	ER AND	
IAT	THETEK	MIT HOPD	EK WILHIN Z	DAYSAL	TER COMPLETIC					
ji Si	•	<b>*</b> . ,	- A	5/10/2012						
80	SIGNATURE OF DRILLER DATE								-	
<u>.</u>	FOR OSE	INTERNAL	LUSE	<del></del>			WELL RECORD & LOG	(Version 6/9/0	8)	
1	FILE NUM	1BER				POD NUMBER	RN NUMBER			
1	LOCATIO	N						PAGE 2 OF	2	



	POD NUMBER (WELL NUMBER)									MBER(S)			
ĕ	MW-3					1							
Ě	WELL OV	NER NAI	ME(S)	·	· · · · · · · · · · · · · · · · · · ·	<del></del>			PHONE (OPT	ONAL)	<del></del>		
GENERAL AND WELL LOCATION	Chevro	n Envi	iron	mental Mai	nagement Co.				713-372-	9207			
Ä	WELL ON	NER MA	ILING	ADDRESS					CITY		STATE		ZIP
EL	1400 S	mith S	t F	Room 0707	6	Housto			Houston		ΤX	77	7002
110			<u> </u>				4000						
AN	WEI				DEGREES	MINUTES	SECC						
AL	FOCV	- 1	LAT	ITUDE	32	16		5.10 N		-	HHOP A SE	COND	
ER	(FROM	GPS)	LON	GITUDE	104	4	4	1.60 W	DATUM RE	QUIRED; WGS 84			
SEN	DESCRIP	TION REL	ATIN	G WELL LOCAT	ION TO STREET ADDR	ESS AND COMMON	LANDA	4ARKS					
ŭ	Chevro	n Parc	due i	Farms 27-1	12								
											·		
	(2.5 AC	RE)		(10 ACRE)	(40 ACRE)	(160 ACRE)		SECTION		TOWNSHIP	NORTH	RANGE	<b>☑</b> EAST
4		1/4		1/4	1/4	1/4		}	27	23	Amos 💽	28	WEST
OPTIONAL	SUBDIVIS	MAN NO	E			• •		LOT NUM	BER	BLOCK NUMBER		UNIT/I'RA	CT
ITA													
2.0	HYDROGI	APHIC S	URVE	Y		<del></del>	•	<del>1</del>		MAP NUMBER		TRACT NO	JMBER
							ľ						
	LICENSE 1	((AARED		NAMEOFICE	NSED DRILLER		NAME OF WELL DR	III I INO CON	(PANY	<del> </del>			
		-1456		John W. W									
	DRILLING			DRILLING ENI		PLETED WELL (FT)		L PORE HOL	E DEPTH (FT)	White Drilling			
		9/12	ו	4/11/12		54.0	1	1	ж регін (ғ.) 54.0	DEPTH WATER PIR	45.(		
NO.	4/0	3/12		4/11/12	<u> </u>			<u> </u>					
F	COMPLET	ED WELL	10.	ARTESIAN	DRY HOLE	SHALLOW	a Nice	MEINEDI		STATIC WATER LE	vel in сом 26.0		LL(FT)
RM	COMPLET	DID WELL	. 13.	L VKITSINI		- 1 SINCEON	(Once			L	20.0		
Ę,	DRILLING	FĻUID:		<b>✓</b> AIR	☐ MUD	ADDITIVE	S - SPE	CIFY:					
DRILLING INFORMATION	DRILLING METIIOD: V ROTARY HAMA					CABLE TO	01,	ОТНЕ	R - SPECIFY:				
3	DEPT	H (FT)	Ī	BORE HOL	rc l	CASING CONNI				INSIDE DIA,	CACINI	G WALL	SLOT
	FROM	TO	$\dashv$	DIA. (IN)	E .	MATERIAL			(CASING)	CASING (IN)		IESS (IN)	SIZE (IN)
3.0	0.0	19.0		7 7/8		Sch. 40 PVC		Th	reads	4.0	1	/4"	
1	19.0	54.0		7 7/8		h. 40 PVC			reads	4.0	ļ	14"	.020
ŀ	10.0	04.0	-	- 7 770		1 701 40	<del></del>		-	-1.0	<del> </del>	•	.020
f		<u> </u>				<del></del>					<del></del>		
<u></u>											<u> </u>		
ار		H (FT)	_	THICKNES	S F	ORMATION DESCRIPTION OF PRINCIPAL W.							YIELD
ATA	FROM	TO	_	(FT)		(INCLUDE WA	TER-			R FRACTURE ZON	ES)		(GPM)
E L	45.0	54.0		9.0		. !		Silty sai	nd & gravel.	•	<del></del>		
S													
2										2.5			
ž [										· · · · · · · · · · · · · · · · · · ·			· · · · · ·
4. WATER BEARING STRA						[							
\$ 6	METHOD L	SED TO E	STIM	ATE YIELD OF V	VATER-BEARING STRA	ATA				TOTAL ESTIMATED	WELL YIEL	D (GPM)	
*						1				:			
4						<u> </u>		<del></del>			·		
	11011-05-				, <u>, , , , , , , , , , , , , , , , , , </u>					111171			20/00>
Г	FOR OSE	~	NAL	USE		WELL RECORD & LOG (Version 6/9/08) POD NUMBER TRN NUMBER							
Ĺ	LOCATION LOCATION					FOD NO	WBE			TRN NUMBE	· · · · · · · · · · · · · · · · · · ·	PAGE 1 C	
												- PACE 10	าหาว ไ

				<del></del>		· · · · · · · · · · · · · · · · · · ·			
JMP	ТҮРЕС	F PUMP:	□ SUBMEI □ TURBIN		☐ JET ☐ CYLINDER	☐ NO PUMP – WELL NOT EQUIPPI ☐ OTHER – SPECIFY:	ED		
SEAL AND PUMP	ANN	IÚLAR	DEPTI FROM	Í (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)		OD OF EMENT
EAL	SEA	L AND	54.0	16.0	7 7/8	8/16 Sand.	24 sacks	Hand	d Mix
5.5	GRAVE	EL PACK	16.0	10.0	7 7/8	Bentonite Pellets	2 sacks	Hand	d Mix
	<u> </u>		10.0	0.0	7 7/8	Cement	2.278	Hand	d Mix
į.	DEPT	H (FT)	THICK (F1		1:	COLOR AND TYPE OF MATERIAL ENCOU			TER RING?
	0.0	2.0	2.0	0		Brown silty sand.	☐ YES	☑.NO.	
ŀ	2.0	45.0	43.	·	i	Light brown silty clayey sand	· · · · · · · · · · · · · · · · · · ·	☐ YES	Ø NO
	45.0	54.0	9.0	·	**********	Silty sand & gravel.	<u> </u>	☑ YES	□ NO
]	40.0	34.0			<del> </del>	Oilty Sand & graver.	<del></del>	YES	□ NO
	<b> </b>	<u> </u>				· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		□ NO
6. GEOLOGIC LOG OF WELL	-		- 		-			YES	
¥.	ļ				ļ			☐ YES	□ NO
05	,	ļ						☐ YES	□ №
Š					,			YES	□ NO
Cic						Note that the second se		☐ YES	Ои
Ğ								☐ YES	□ио
98	ŀ							☐ YES	□ NO
6				:		<del></del>		☐ YES	□ №
Ì				;				☐ YES	□ NO
								YES	□ №
:			<del>,</del>				<del></del>	☐ YES	□ NO
					<u> </u>		<del></del>	☐ YES	□ио
;			110				<del></del>	☐ YES	□ио
			ATTAOU	41207/0101	11 04050 40315	EDED TO FULL V DESCRIPTION OF A POLY	201000000000000000000000000000000000000	11:3	LINO.
			ATTACH.			EDED TO FULLY DESCRIBE THE GEOLOG	HC TOO OF THE METE		
ဝ့			METHOD:	BAILE	R PUMP	☐ AIR LIFT ☐ OTHER—SPECIFY:			
7. TEST & ADDITIONAL INFO	WELL	TEST				ATA COLLECTED DURING WELL TESTING PE IND DRAWDOWN OVER THE TESTING PE		MĒ, ĒNĎ TI	ме,
No.	ADDITION	ALSTATEM	ENTS OR EXPLA	NATIONS:					
ΠŒ					1				
Q		•			:				
T &					1				
Ĕ			,		ļ				
7.					!				
	THE UNI	DERSIGNE	D HEREBY CI	ERTIFIES TI	HAT, TO THE BES	ST OF HIS OR HER KNOWLEDGE AND BE	LIEF, THE FOREGOING IS	A TRUE A	ND
CE.	CORREC	T RECORE	OF THE ABO	VE DESCR	IBED HOLE AND	THAT HE OR SHE WILL FILE THIS WELL ON OF WELL DRILLING:	RECORD WITH THE STA	TE ENGINE	ER AND
₹A7	i i i iz i i izi	MIL HÖPE	ZK WITTE	Synis y	TER COMPLETIC				
8. SIGNATURE		•			sect.	5/10/2012			
86	\ <del></del>		SIGNATURE		DATÉ				
<u> </u>	· · · · · · · · · · · · · · · · · · ·							<del>1</del> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<del>*</del>
	FOR OSE	INTERNA	L USE				WELL RECORD & LOG (	Jersion 6/0/0	(8)
F	FILE NUN		- **	<u>iniana ka nilatiya</u>		· · · · · · · · · · · · · · · · · · ·	TRN NUMBER	10101011 0/ 7/0	<del>"</del>
Ī	LOCATIO	N N						PAGE 2 OF	2
L					<del></del>		<del>,1</del>		



1 7	POD NUMBER (W	ELL NUMBER)			, <del>-</del>	OSE FILE NU	MBER(S)		<u> </u>			
TIO	SB-1 WELL OWNER N	AMF(S)	·	·		PHONE (OPTI	ONAL	··				
OCA	I .	vironmental Manag	gement Co.			713-372-9	=					
GENERAL AND WELL LOCATION	1	AILING ADDRESS				CITY.		STATE		ZIP		
WE	1400 Smith	St., Room 07076	<u> </u>			Houston	Houston TX 77					
AND	WELL		DEGREES	MINUTES SECONDS		ACCURACY REQUIRED; ONE TENTH OF A SECOND						
RAL	LOCATION (FROM OPS)	LATITUDE	32		4.70 N		EQUIRED: WGS 84					
ENE		LONGITUDE  LATING WELL LOCATION	104	<del></del>	2.00			<del></del>				
1.6	Chevron Pardue Farms 27-12											
	(2.5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	<u> </u>	TOWNSHIP	HORTH	RANGE	✓ teast		
AL	. 4	1/4	-1/4	<b>%</b>		27	23	SOUTH	28	☐ WEST		
OPTIONAL	AN NOIZIVIDBUZ	ME		•	LOT NUM	BER	BLOCK NUMBER		UNITATRA	er 		
2. OF	HYDROGRAPHIC	SURVEY		<del>-  </del>	<u> </u>		MAP NUMBER	<u> </u>	TRACT NU	MBER		
									i			
	LICENSE NUMBE		NAME OF WELL DRILLING COMPANY White Drilling Company, Inc.									
	WD-1456			LETED WELL (FT)	ROPE HOL	E DEPTH (FT)	VVNITE Drilling		•			
3. DRILLING INFORMATION	4/09/12	4/09/12	DEPTH OF COMP	PELED AFFP(LI)		5.0	:	Dry	-			
	COMPLETED WEL	LIS: ARTESIAN	DRY HOLE	SILALLOW (UNC	ONFINED)		STATIC WATER LE	VEL IN COM	PLETED WEI	L (FT)		
FOR	DRILLING FLUID:	✓ AIR	MUD	ADDITIVES - SPECIFY:								
2	DRILLING METHOD:		HAMMER	HAMMER CABLE TOOL OTHER - SPECIFY:								
LLIN	DEPTH (FT	BORE HOLE	T	CASING		ECTION	INSIDE DIA.	CASING	WALL	SLOT		
- <del></del>				MATERIAL T								
ä	FROM TO			TERIAL	TYPE (	CASING)	CASING (IN)	THICKN		SIZE (IN)		
3. DR	FROM TO			TERIAL	TYPE	CASING)		THICKN		SIZE (IN)		
3. DR	FROM TO			TERIAL	TYPE	CASING)		THICKN		SIZE (IN)		
3. DR	FROM TO			TERIAL	TYPE	CASING)		THICKN		SIZE (IN)		
	DEPTH (FT)	DIA (IN)  THICKNISS	FO	RMATION DESCRIP	TION OF PI	RINCIPAL W	CASING (IN)  ATER-BEARING S	TRATA		YIELD		
v.		DIA (IN)  THICKNISS	FO		TION OF PI	RINCIPAL W	CASING (IN)  ATER-BEARING S	TRATA				
v.	DEPTH (FT)	DIA (IN)  THICKNISS	FO	RMATION DESCRIP	TION OF PI	RINCIPAL W	CASING (IN)  ATER-BEARING S	TRATA		YIELD		
v.	DEPTH (FT)	DIA (IN)  THICKNISS	FO	RMATION DESCRIP	TION OF PI	RINCIPAL W	CASING (IN)  ATER-BEARING S	TRATA		YIELD		
v.	DEPTH (FT)	DIA (IN)  THICKNISS	FO	RMATION DESCRIP	TION OF PI	RINCIPAL W	CASING (IN)  ATER-BEARING S' R FRACTURE ZON	TRATA ES)		YIELD		
v.	DEPTH (FT) FROM TO	THICKNESS (FT)	FO	RMATION DESCRIP (INCLUDE WATER-	TION OF PI	RINCIPAL W	CASING (IN)  ATER-BEARING S' R FRACTURE ZON	TRATA ES)	ESS (IN)	YIELD		
	DEPTH (FT) FROM TO	DIA (IN)  THICKNISS	FO	RMATION DESCRIP (INCLUDE WATER-	TION OF PI	RINCIPAL W	CASING (IN)  ATER-BEARING S' R FRACTURE ZON	TRATA ES)	ESS (IN)	YIELD		
v.	DEPTH (FT) FROM TO	THICKNESS (FT)	FO	RMATION DESCRIP (INCLUDE WATER-	TION OF PI	RINCIPAL W	CASING (IN)  ATER-BEARING S' R FRACTURE ZON	TRATA ES)	ESS (IN)	YIELD		
v.	DEPTH (FT) FROM TO	THICKNESS (FT)	FO	RMATION DESCRIP (INCLUDE WATER-	TION OF PI BEARING	RINCIPAL W	CASING (IN)  ATER-BEARING S' R FRACTURE ZON	TRATA ES)  WELL YIELL  RD & LOG	ESS (IN)	YIELD (GPM)		

Ę.	ТҮРЕ ОГ РИМР:		☐ SUBMERSIBLE ☐ JET ☐ TURBINE ☐ CYLINI		☐ JET	☐ NO PUMP – WELL NOT E	QUIPPED				
SEAL AND PUMP	4.000		DEPTH	• • • • • • • • • • • • • • • • • • • •	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZ	ZE a	AMOUNT (CUBIC FT)		OD OF EMENT	
AE.	SEAL	ULAR LAND	25.0	0.0	6	Bentonite Pellets		6 sacks	Hand	xiM t	
s. SI	GRAVE	EL PACK									
<u></u>	<u> </u>	<del></del>	<u> </u>				الا	<del></del>			
ŀ	<del></del>	H (FT)	тніск			COLOR AND TYPE OF MATERIAL ENCOUNTERED					
	FROM	ТО	(Fi	·	(INC)	(INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)					
	0.0	2.0	2.0	· · ·		Brown silty sand w/gravel.					
	2.0	25.0	23.	0		Light brown silty clayer	y sand.		☐ YES	<u> □ №</u>	
				<del></del>	<u> </u>				☐ YES	□ NO	
	ļ			<del></del> -	ļ		<del></del>		☐ YES	□ NO	
ELL	<u> </u>		<u> </u>				<del></del>				
F W	<del></del>			·				· · · · · · · · · · · · · · · · · · ·	YES YES	ОИ	
6. GEOLOGIC LOG OF WELL	<del></del>								☐ YES	□ NO	
1 3					- <u></u>		· · · · · · · · · · · · · · · · · · ·		☐ YES	□ NO	
Ö					<u> </u>			<del></del>	☐ YES	Пио	
EQ.			:			· · · · · · · · · · · · · · · · · · ·			☐ YES	 □ NO	
9		Ĭ.					<del></del>	•	☐ YES	Пио	
	-		<u> </u>						☐ YES	□ NO	
	ļ								☐ YES	□ NO	
			<del>'a</del>		· · · · · · · · · · · · · · · · · · ·		<del></del>	<del>:</del>	☐ YES	□ NO	
						······································	<del></del> .	<del></del>	☐ YES	□ NO	
	-				:	····			☐ YES	□NO	
			ATTACH	ADDITION	AL PAGES AS N	EEDED TO FULLY DESCRIBE THE G	EOLOGIC L	OG OF THE WELL	1		
		<del></del>	METHOD:	BAILE		☐ AIR LIFT ☐ OTHER – SPEC					
IONAL INFO	WELL					DATA COLLECTED DURING WELL T		CHDING START	TIME END TI	ME.	
AL.II						AND DRAWDOWN OVER THE TEST			i iius isms in	, , , , , , , , , , , , , , , , , , ,	
	ADDITION	AI, STATEM	ENTS OR EXPLA	NATIONS:	<del></del>				···		
7. TEST & ADDIT				•							
& AL							,			ļ	
ST	:				 						
7. 1					ĺ						
					1						
æ	THE UND	ERSIGNE FRECORE	D HEREBY CE	RTIFIES TI	HAT, TO THE BE IBED HOLF AN	EST OF HIS OR HER KNOWLEDGE AT D THAT HE OR SHE WILL FILE THIS ON OF WELL DRILLING:	ND BELIEF,	THE FOREGOING	IS A TRUE AT	VD ER AND	
8. SIGNATURE	THE PER	MIT HOLD	ER WITHIN 2	ODAYS AF	TER COMPLETI	ON OF WELL DRILLING:	WEDE KEEK		7,722,701.70		
SN S		<b>《</b>	- Ld		r.	5/10/2012					
8. SI	SIGNATURE OF DRILLER DATE										
			DIGNATURE	OF DKILLI	>r\	DATE	· · · · · · · · · · · · · · · · · · ·				
						•		•			
	FÓR OGF	INTERNA	I. HSE				WEI	L RECORD & LOG	(Vareion 6/0/0	81	
[	FILE NUM					POD NUMBER		NUMBER	4 4 CLSION 0/9/0	,	
ļ	LOCATIO	N		·, · · · · · · · · · · · · · · · · · ·					PAGE 2 OF	2	

•



## WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

	L BOD MIN IDDD (II	ELL MINISTEN			1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	Lognennan	ADDRAGO.			
ž	POD NUMBER (W	ECC NUMBER)				OSE FILE NU	unėji((9)			
1 6	WELL OWNER N.	AME(S)				PHONE (OPTI	ONAL)			
GENERAL AND WELL LOCATION	1.		/lanagement Co.	İ		713-372-9				
1	WELL OWNER M	AILING ADDRESS		İ		CITY		STATE		ZIP
WEI	1400 Smith	St., Room 07	076			Houston		TX	77	2002
2	WELL		DEGREES	MINUTES SI	CONDS			<del>,</del>		
L A	LOCATION	LATITUDE	32	16	25.10 N	* ACCURACY	Y REQUIRED: ONE TENTH OF A SECOND			
ER	(FROM:GPS)	LONGITUDE	104	4	41.70 W	* DATUM RE	QUIRED: WOS 84			
E	DESCRIPTION RI	LATING WELL LO	CATION TO STREET ADDRI	SS AND COMMON LAN	IDMARKS			· · · · · · · · · · · · · · · · · · ·		
ï	Chevron Pardue Farms 27-12									
	(2.5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSTOP		NORTH	RANGE	EAST
구	1/4	1/4	1/4	1/4	ļ.	27	23	✓ south	28	west
Ž.	SUBDIVISION NA	ME			LOT NUM	BER	BLOCK NUMBER		UNIT/TRA	ĊТ.
2. OPTIONAL		- 11,7		1	<u> </u>	<u> </u>				
ี่ 4	HYDROGRAPHIC	SURVEY					MAP NUMBER	4	TRACT NU	IMBER
	:						NAME OF WELL DRILLING COMPANY			
	LICENSE NUMBER WD-1456	1	LICENSED DRILLER		* '-		White Drilling			
	DRILLING START	1: .		IPLETED WCLL (FT)	DODE NO	LE DEPTH (FT)	DEPTH WATER FIF			
سزا	4/09/12	4/09/		ii rėjen dein(t.1)		30.0	. DEITH WATER	Dry	i EKGO (i j)	
Ö				· · · · · · · · · · · · · · · · · · ·			STATIC WATER LE		LETED WEI	L (FT)
3. DRILLING INFORMATION	COMPLETED WEI	LIS: ARTES	SIAN DRY HOLE	SHALLOW (U	(CONFINED)			Dry	- h	
NFO	DRILLING FLUID:	<b>✓</b> AIR	☐ MUD	ADDITIVES -	SPECIFY:					
₹G I	DRILLING METHO	DD: ROTA	RY HAMMER	CABLE TOOL	ОТНЕ	R-SPECIFY:				·
LLD	DEPTH (FT	BORE	IOLE	CASING		IECTION	INSIDE DIA.	CASING		SLOT
DRI	FROM TO	DIA. (	IN) M	ATERIAL	TYPE	(CASING)	CASING (IN)	THICKN	ESS (IN)	SIZE (IN)
ω,			<u> </u>	<u> </u>				<u> </u>		<del> </del>
			· · · · · · · · · · · · · · · · · · ·							
		<del></del>	·				· · · · · · · · · · · · · · · · · · ·			
	DÉFTH (FT)				1	on tour to	AWOD DE LENGO Ó	l modern		
≾	FROM TO	(CT		ORMATION DESCR (INCLUDE WATE			A TEK-BEAKINGS R FRACTURE ZON			YIELD (GPM)
Σ								<u></u>		
SI							<del> </del>			
Š						· · · · · · · · · · · · · · · · · · ·		٠.,		
3EA								·		
ER							10 MT			· · · · · · · · · · · · · · · · · · ·
4. WATER BEARING STRAT	METHOD USED TO	ESTIMATE YIELD	ÖF WATER-BEARING STRA	AT'A	-		TOTAL ESTIMATED	WELL YIELD	O (GPM)	
λ.	W			***				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		·
	FOR OSE INTE	RNAL HSF					WELL BECO	RD & 1 ÖC 4	Voreinn 6	9/08)
1	FILE NUMBER			POD NUM	BER	<del> </del>	WELL RECORD & LÖG (Version 6/9/08) TRN NUMBER			
	·						PAGE I OF 2			

					1				
				٠	. !				
J. J. W.	TYPEO	F PUMP:	☐ SUBME		☐ JET ☐ CYLINDER	☐ NO PUMP – WELL NOT EQUIPPE ☐ OTHER – SPECIFY:	D		
AND PUMP	ANN	ULAR	DEPTI FROM	TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)		IOD OF EMENT
SEAL	SEAT	, AND L PACK	30.0	0.0	6	Bentonite Pellets	7 sacks	Hand	d Mix
16									
	DEPT FROM	H (FT)	THICK (FT		l'	COLOR AND TYPE OF MATERIAL ENCOU UDE WA'TER-BEARING CAVITIES OR FRAC			TER RING?
	0.0	2.0	2.0	j		Brown silty sand w/gravel.		☐ YES,	☑ NO
	2.0	30.0	28.	0		Light brown silty clayey sand	•	☐ YES	Ø NO
								☐ YES	□NO
	:						<u></u>	YES	□ NO
13	ļ							☐ YES	□ №
GEOLOGIC LOG OF WELL								YES	□ио
000	ļ.							☐ YES	□ио
3					<u> </u>	and a second control of the second control of the second control of the second control of the second control of	· · · · · · · · · · · · · · · · · · ·	YES	□ №
		<u></u>	<u> </u>	·				YES	□NÓ
100				<del>, , , , , , , , , , , , , , , , , , , </del>				☐ YES	□ NO
G								☐ YES	□ NO
								☐ YES	□ NO
	:				·			☐ YES	□ио
				Bud guller			. **	☐ YES	□ NO
		· · · · · · · · · · · · · · · · · · ·		<del></del>				☐ YES	□ №
					· 1			☐ YES	 □ NO
,			ATTACH	ADDITION	AL PAGES AS NE	EDED TO FULLY DESCRIBE THE GEOLOG	IC LÒG OF THE WELL	)	
	<u> </u>		METHOD:	BAILE	R 🔲 PUMP	☐ AIR LÌFT ☐ OTHER – SPECIFY:			
7. TEST & ADDITIONAL INFO	WELL	TEST	TEST RESUL	TS - ATTA	CH A COPY OF DA	ATA COLLECTED DURING WELL TESTING PEI		ME, END TI	IME,
ONA	ADDITION	AL STATEM	ENTS OR EXPLA	· · · · · · · · · · · · · · · · · · ·	Digonaliqui.				
Ě									
ADI						-			
ST &	ľ								
TE.									
병	THE UND	ERSIGNE	DHEREBY C	ERTIFIES T	HAT, TO THE BES	STOFHIS OR HER KNOWLEDGE AND BEL	HEF, THE FOREGOING IS	A TRUE A	ND ED AND
SIGNATURE	THE PERI	MIT HOLI	DER WITHIN 2	B DAY AF	TER COMPLETIO	THAT HE OR SHE WILL FILE THIS WELL ! ON OF WELL DRILLING:	KECOKO WIIII INESIA	.FIS ESTACITIVE	TIKAND
CS	I			The same of the sa		5/10/2012			
8. SI	<del></del>		SIGNATURE	OF DRILLI	ΕĎ	DATE			
			5. 5. (C) (C)	J. 17111111	**************************************	WORLD			***
_	FOR OSE	<u>INTERN</u> A	LUSE			**************************************	WELL RECORD & LOG (	Version 6/9/0	08)
	FILE NUN	······································				· · · · · · · · · · · · · · · · · · ·	TRN NUMBER		
	LOCATIO	N						PAGE 2 OF	2



## WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

7	POD NUMBER (W	/ELL NUMBER)				OSE FILE NU	MBER(S)				
TIO	WELL OWNER N.	AME(S)	<del></del>			PHONE (OPTI	IONAL)			<del></del>	
GENERAL AND WELL LOCATION	1	vironmental Mana	gement Co.	:		713-372-9	· ·			:	
11		AILING ADDRESS			*****	CITY		STATE	<del></del>	ZIP	
WEI	1400 Smith	St., Room 07076		Į.		Houston		TX	77	'002	
25	WELL		DEGREES	4	ONDS		· · · · · · · · · · · · · · · · · · ·				
AL.	LOCATION	LATITUDE	32	<del></del>	24.90 N	ļ.	/ REQUIRED: ONE TEN QUIRED: WGS 84	vth of ∧ se	COND		
NER	(FROM GPS)	LONGITUDÉ	104		11.70 W	- DATOM RE	QUIKED: WOS 84				
S		ELATING WELL LOCATIO									
	Chevron Pardue Farms 27-12										
	(2.5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION		TOWNSIEP	NORTH	RANGE	☑ EAST	
A.L.	1/4	1/4	1/4	1/4		27	23	✓ soum	28	west	
OPTIONAL	SUBDIVISION NA	ME		1	LOT NUM	IBER	BLOCK NUMBER		UNIT/TRA	СТ	
	HYDROGRAPHIC	SURVEY	<del></del>		<u> </u>	<del></del>	MAP NUMBER	····	TRACT NU	JMBER	
7		· · · · · · · · · · · · · · · · · · ·		İ							
-	LICENSE NUMBE	R NAME OF LICEN	SED DRILLER			<u> </u>	NAME OF WELL DI	RILLING CON	1PANY		
;	WD-1456	Professional Control of the Control		1 2			White Drilling	Compar	ıy, Inc.		
	DRILLING START		DEPTH OF COMP	LETED WELL (FT)	I.	LE DEPTH (FT)	DEPTH WATER FIL				
ő	4/09/12	4/09/12		* - <del>                                     </del>		25.0		Dry		F (FFF)	
DRILLING INFORMATION	COMPLÉTED WE	LLIS: ARTESIAN	✓ DRY HOLE	SHALLOW (UNC	ONFINED)		STATIC WATER LE	Dry		بد (۴۱)	
FOF	DRILLING FLUID:	<b>✓</b> AIR	Шмир	ADDITIVES - SP	ÉCIFY:		-				
G IP	DRILLING METHO	DD: 🔽 ROTARY	HAMMER	CABLETOOL	Отне	R - SPECIFY:					
LLD	DEPTH (FT			ASING		VECTION	INSIDE DIA.		3 WALL	SLOT	
	FROM T	O DIA. (IN)	MA	TERIAL	TYPE	(CASING)	CASING (IN)	THICKN	IESS (IN)	SIZE (IN)	
છ	<u> </u>			<u>;</u>				1		·	
:					<del>-}</del>	<del></del>				<del></del>	
				<u> </u>	1			1			
	DEPTH (FT	THICKNESS	FO	RMATION DESCRI	TION OF P	RINCIPAL W	ATER-BEARING S	TRATA		YIELD	
T.	FROM TO			(INCLUDE WATER						(GPM)	
\$											
CS				<del></del>							
ARI	<del></del>	<u> </u>		·				<del>,</del>			
BE				1 2 2 2		نابي	<u> </u>	.3			
4. WATER BEARING STRAT	MITHOD USED TO	DESTIMATE VIELD OF W	TED DEADING STRAT			<del></del>	TOTAL ESTIMATE	) WELL VIEL	D (GPM)		
WA	INCTION COLD TO	ESTIMATE (ILLED OF IT	TIER-BEAKING BIKA				i Totalia di initia	, W	D (01 iii)		
4											
	FOR OSE INTE	RNAL USE		WELL RECORD & J.OG (Version 6/9/08)						/9/08)	
	FILE NUMBER			EŖ		TRN NUMBE					
	LOCATION				PAGE 1 OF 2						

	TVDEA	E DUIAD.	SUBME	RSIBLE	□ JET	☐ NO PUMP – WELL NOT EQUIPPED		<del></del>		
UMP	TYPEO	F PUMP;	TURBIN	É	CYLINDER	OTHER - SPECIFY:				
SEAL AND PUMP	ANNI	JLAR	DEPTI FROM	1 (FT) 10	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT		
EAL	SEAL	AND L PACK	25.0	0,0	6	Bentonite Pellets	6 sacks	Hand	Mix	
. S.	UKAVE	LINCK								
			<u>[                                    </u>	<u> </u>	<u> </u>		<u>L</u>	<u> </u>		
ŀ	DEPT		THICK (F)		b :	COLOR AND TYPE OF MATERIAL ENCOUNT IDE WATER-BEARING CAVITIES OR FRACT	1	WA BEAR		
	FROM 0.0	70 2.0	2.0		(INCEX	<del> </del>	NG SQUES)	☐ YES	☑ NO	
	2.0	25.0	23			Brown silty sand w/gravel.  Light brown silty clayey sand.		☐ YES	☑ NO	
	2.0	20.0	20.	.0	· · · · · · · · · · · · · · · · · · ·	Light brown sity clayey saild.	· <del>·</del> ··································	☐ YES	□ NO	
						<del>nga ngangangangangangan katalan ngangangan katalan ngangangan na ngangangan na ngangangan na ngangangan na ngan</del>	<u> </u>	☐ YES	 □ NO	
J.						<del> </del>		☐ YES	□NO	
GEOLOGIC LOG OF WELL		1						☐ YES	□ио	
OF		:						☐ YES	□ио	
roc								☐ YES	□NO	
CIC		<u> </u>					•••	☐ YES	□ио	
OLO						· · · · · · · · · · · · · · · · · · ·	: <del></del>	☐ YES	□ио	
6. CE	:									
١			<u> </u>				7	☐ YES	□ NO	
				······································				☐ YES	□ NO	
			:	<del></del>				YES	Пио	
			:	<del></del>			<del></del>	☐ YES	□ NO	
	·					······································	. 1000	☐ YES	□ NO	
	<del>,</del>	<del>, _</del> !	ATTACH	ADDITION	AL PAGES AS NEI	EDED TO FULLY DESCRIBE THE GEOLOGIC	LOG OF THE WELL	1	.78.17 - 11	
			METHOD:	BAILE	R 🔲 PUMP	☐ AIR LIFT ☐ OTHER—SPECIFY:		· · · · · · · · · · · · · · · · · · ·		
ONAL INFO	WELL	TEST	TEST RESUL	LTS - ATTA	CH A COPY OF DA	ATA COLLECTED DURING WELL TESTING, I ND DRAWDOWN OVER THE TESTING PERIO	NČLÚDING START TÌ	ME, END TI	ме,	
NAI	ADDITION	AL STATEN	ENTS OR EXPLA		TO DISCHARGE A	HID DEAWDOWN OVER THE TESTING FERE	, , , , , , , , , , , , , , , , , , ,			
	110.011		, (10 01(2/11 2							
AD										
ST&					į	·				
7. TEST & ADDIT										
SIGNATURE	THE UNI CORREC THE PER	ERSIGNE TRECORI MITHOLI	D HEREBY C OF THE ABO DER WITHIN	ERTIFIES T DVE DESCR ODAYS AF	HAT, TO THE BES IBED HOLE AND TER COMPLETIO	T OF HIS OR HER KNOWLEDGE AND BELIË THAT HE OR SHE WILL FILE THIS WELL RE N OF WELL DRILLING:	F, THE FOREGOING IS CORD WITH THE STA	A TRUE A TE ENGINE	ND ER AND	
CS				Co.		5/10/2012		•		
8. S	.=		SIGNATURE	OF DRILL	ER	DATE				
	·			····						

POD NUMBER

WELL RECORD & LOG (Version 6/9/08)

PAGE 2 OF 2

TRN NUMBER

FOR OSE INTERNAL USE

FILE NUMBER

LOCATION

B

Project:

PARDUE FARMS

Sec 27, T-23-S, R-28-E Eddy Co, NM

|Client:

CHEVRON ENVIROMENTAL MANAGEMENT COMPANY

SOIL BORING LOG

No.

MW-1

File No.: Date:

76323

4/10/2012

WHITE DRILLING

Drilling Co.: Supervisor: Type Rig: Logged by:

**BO ATKINS** AIR ROTARY

T. LARSON

LABORATORY TEST DATA   FIELD DATA   Results Reported in mg/sq   Photo-lonization Detection   Photo-lonization Detection   Photo-lonization   Pho	V	MANAGE	MENT CO			Logged by: T. LARSON								
N.D.   N.D.														
N.D. N.D. N.D. N.D. N.D. 16 1480 11	Benzene					Chlorides	Photo- lonization Detection Reading (por	Sampling		Water Level	Screen Interva	Start Time: 1000 Finish Time: 1100		
2.4 — 15 — — — — — — — — — — — — — — — — —							1.1	X	5			1 .		
2.7 Silty sand: As above with increasing gravel content to 30%,	N.D.	N.D.	N.D.	N.D.	N.D.	1760	:	X				-		
Silty sand: As above with increasing gravel content to 30%,							2.4	X	20			-		
1.9		-			'			X				damp to moist.		
Silty sand with gravel: Light brown, loose, wet fine gravel.  - 35 - Silty sand with gravel: As above, saturated.														

Δ





Analyzed Sample



page 1 of 2

## **SOIL BORING LOG**

Project:

Client:

PARDUE FARMS

Sec 27, T-23-S, R-28-E

CHEVRON ENVIROMENTAL

Eddy Co, NM

MW-1 No.

File No.:

76323

4/10/2012 WHITE DRILLING

Date:
Drilling Co.:
Supervisor:
Type Rig:

BO ATKINS AIR ROTARY

page 2 of 2

Cilent.						Logged by:	T. LARSON						
	LABO	DRATORY	TEST DA	ATA		FIELD DATA					BORING	DATA	
	Results Reported in mg/kg								<u></u>				
Benzene	Toluene	Ethyl- benzene	Xylenes	Chlorides	Total TPH (C6-C35)	Photo- lonization Detection Reading (ppm)	Sampling	Depth (feet)	Water Leve	Screen	Start Time: 1000	Finish Time: 1100	
								— 45 — — 50 —			Silty sand with gravel:	As above, saturated.	

Project:         PARDUE FARMS         File No.:         76323           Sec 27, T-23-S, R-28-E         Date:         4/10/2012           Eddy Co, NM         No. MW-1         Drilling Co.:         WHITE DRILLING           Supervisor:         BO ATKINS			N	ONITORING	G WELL	CONST	RUC	TION DETA	L	
Surface Completion: Above Ground  Slick Up: 3 ft  Surface Seal:  Well Casing  Well Casing  Annulus  Backfill Type: Cement/Bentonite Grout  Seal Type: 9.25-in. Bentonite Pellets  Top of Screen at 15 ft  Top of Screen at 55 ft  Total Well Depth (TOC) 58 ft  Total Well Depth (TOC) 58 ft  Screen Material: 3 stainless steel 7 PVC 7 other:  Screen Material: 40 ft 7 Screen Diameter: 4 inches 7 Screen Sol Size: 0.020-in.  Well Casing Material: 9 VC  Well Casing Diameter: 4 inches  Hole Diameter: 8 inches	Project: Client:	Sec 27, T-23 Eddy Co, NM CHEVRON E	RMS -S, R-28-E I :NVIROMENTAL		1		F C S T	File No.: Date: Drilling Co.: Supervisor: Type Rig:	76323 4/10/2012 WHITE DRILLING BO ATKINS AIR ROTARY	
Bottom of Seal at 13 ft  Top of Screen at 15 ft  Depth to Groundwater (TOC) 26.78 ft  Bottom of screen at 55 ft  Total Well Depth (TOC) 58 ft  Vell Casing Material: PVC  Development - Method: Bail and swab  Surface Seal:		To	o of Casing Elevation:	3,070.30 ft. AMS			_	_		
Bottom of Seal at 13 ft  Top of Screen at 15 ft  Bottom of Screen at 55 ft  Total Well Depth (TOC) 58 ft  Screen Material:			Surface Completion:	Above Groun	d •					
Bottom of Seal at 13 ft Top of Screen at 15 ft Depth to Groundwater (TOC) 26.78 ft Bottom of screen at 55 ft Total Well Depth (TOC) 58 ft  Very Screen Type: X slotted Figure Forested Screen Material: Screen Diameter: 4 inches Screen Slot Size: 0.020-in.  Well Casing Material: PVC Well Casing Material: Bail and swab  Bottom of Scal at 13 ft Pack Type: Sand, size 8/16 Brady Gravel Natural Note: All dimensions are below ground surface (bgs) except where noted.  Screen Type: X slotted Figure Forested Other: Other: Screen Material: Screen Diameter: 4 inches Screen Slot Size: 0.020-in.  Well Casing Material: PVC Well Casing Diameter: 4 inches Bail and swab  Hole Diameter: 8 inches	ground	surface —	Top of Seal at	10	<u>ft</u>					
Bottom of Seal at 13 ft  Top of Screen at 15 ft  Depth to Groundwater (TOC) 26.78 ft  Total Well Depth (TOC) 58 ft  Screen Type: X slotted   perforated   yellow   ye				1 1 1 1		•		Well Casing		
Top of Screen at 15 ft  Depth to Groundwater (TOC) 26.78 ft Bottom of screen at 55 ft Total Well Depth (TOC) 58 ft  Screen Type: X slotted   perforated   X PVC   Other:  Screen Material: Screen Diameter: 4 inches   Screen Slot Size: 0.020-in.  Well Casing Material: PVC   Well Casing Diameter: 4 inches   Bail and swab   Hole Diameter: 8 inches				! ! !			•		Cement/Bentonite Grout	
Depth to Groundwater (TOC)  26.78 ft  Bottom of screen at  Total Well Depth (TOC)  58 ft  Screen Type:  Sand, size  8/16 Brady  Note: All dimensions are below ground surface (bgs) except where noted.  Screen Type:  Screen Material:  Screen Material:  Screen Length:  40 ft  Screen Diameter:  4 inches  Screen Slot Size:  0.020-in.  Well Casing Material:  PVC  Well Casing Diameter:  4 inches  Hole Diameter:  8 inches			•					Seal Type:	0.25-in. Bentonite Pellets	i.
Total Well Depth (TOC) 58 ft Note: All dimensions are below ground surface (bgs) except where noted.  Screen Type: X slotted    perforated other:  Screen Material: Screen Diameter: 4 inches    Screen Slot Size: 0.020-in.  Well Casing Material: PVC     Well Casing Diameter: 4 inches  Development - Method: Bail and swab		Depth t					<b>-</b>	Sand, size Gravel	8/16 Brady	
Screen Material: Stainless steel X PVC other:  Screen Length: 40 ft Screen Diameter: 4 inches Screen Slot Size: 0.020-in.  Well Casing Material: PVC Well Casing Diameter: 4 inches  Development - Method: Bail and swab Hole Diameter: 8 inches		To	•		–			Note:		-
Screen Length: 40 ft Screen Diameter: 4 inches Screen Slot Size: 0.020-in.  Well Casing Material: PVC Well Casing Diameter: 4 inches  Development - Method: Bail and swab Hole Diameter: 8 inches	Screen	Туре:	×	slotted	Г	perforated		other:		ú- <u></u>
Well Casing Material:     PVC     Well Casing Diameter:     4 inches       Development - Method:     Bail and swab     Hole Diameter:     8 inches	Screen	Material:		stainless steel	×	PVC		other:		
Development - Method: Bail and swab Hole Diameter: 8 inches	Screen	Length:	40 ft	Screen Diameter	r: 4 in	ches		Screen Slot Size:	0.020-in	<u>.                                    </u>
	Well Ca	sing Material:	F	vc	_		Wel	l Casing Diameter:	4 inches	
Duration/Volume: 100 gallons	Develop	oment - Metho	od: Bail and swab		_			Hole Diameter:	8 inches	
		Duration/Volu	me: 100 gallons		<del></del>					
Page 1 of 1		)							Da	uge 1 of 1

**SOIL BORING LOG** Project: PARDUE FARMS

File No.:

76323

4/10/2012

I<sub>Client:</sub>

MW-2 No.

Date: Drilling Co.:

WHITE DRILLING

CHEVRON ENVIROMENTAL MANAGEMENT COMPANY

On hillside SE of release Supervisor:

**BO ATKINS** AIR ROTARY T. LARSON

Type Rig: Logged by:

Results   Reported in ma/kg   Price   Depth	LABORATORY TEST DATA	FIELD DATA	BORING DATA			
Photo-Indication   Photo-Indic						
Silty Sand: Tan, light brown, very fine grained, loose, dry with 10% fine gravel.		Photo- lonization Detection Reading (ppm)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Silty sand with gravel: tan, light brown, very fine grained, damp to moist with fine gravel.  1.9  30  Poorly Graded Gravel: Multicolor (black, gray, white), subangular to subrounded, loose to well consolidated, wet.		1.7	with 10% fine gravel.  Silty sand with gravel: tan, light brown, very fine grained, damp to moist with fine gravel.  Poorly Graded Gravel: Multicolor (black, gray, white), subangular to subrounded, loose to well consolidated, wet.			

Sampling Interval

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted



Analyzed Sample



page 1 of 2

### **SOIL BORING LOG** Project: PARDUE FARMS File No.: 76323 4/10/2012 Date: No. MW-2 **Drilling Co.:** WHITE DRILLING Supervisor: **BO ATKINS** Client: CHEVRON ENVIROMENTAL Type Rig: AIR ROTARY MANAGEMENT COMPANY Logged by: T. LARSON LABORATORY TEST DATA FIELD DATA **BORING DATA** Results Reported in mg/kg Photo-Water Level Screen Ionization Total TPH (C6-C35) Depth Ethyl-benzene Chlorides Detection Toluene Xylenes (feet) Reading (ppm) Start Time: 1345 Finish Time: 1425 Silty sand, as above. Soil density increasing to TD. 45 50 - 55 TD 58' Stratification is Inferred And May Not be Exact. Soil Classification Based on Visual-Manual Procedure



Project: Client:	PARDUE FARM CHEVRON ENV MANAGEMENT	/IS /IROMENTAL	MONITORING	No.	MW-2 SE of release	File No.: Date: Drilling Co.:	76323 4/10/2012 WHITE DRILLING BO ATKINS AIR ROTARY T. LARSON
	Тор о	f Casing Elevation	: 3071.87 ft AMSL	_			
	S	urface Completion	: Above Ground	<u>-</u>		Stick	∢Up:3 ft
ground	l surface ———	Top of Seal a	10 f	-		Surface S	Seal: 4'x4' Concrete Pad
						Well Ca	asing
							nulus <sup>-</sup> ype: <u>Cement/Bentonite Grout</u>
		Bottom of Seal at	13 fi			Seal T	ype: <u>0.25-in. Bentonite Pellets</u>
	Depth to G	Top of Screen at	15 ft 29.26 ft			← Pack T Sand,	
							tural
		Bottom of screen at				<u> </u>	Note: All dimensions are below ground surface (bgs) except where noted.
Screen	Туре:	×	slotted	Б	perforated	0	ther:
Screen	Material:	П	stainless steel	×	PVC	0	ther:
Screen	Length:	40 ft	Screen Diameter:	4 in	ches	Screen Slot S	Size: 0.020-in.
Well C	asing Material:		PVC	-		Well Casing Diam	eter: 4 inches
Develo	pment - Method:	Bail, swab, and	pump	-		Hole Diam	eter: 8 inches
	Duration/Volume	ə: <u>140</u>	gallons	-			

Project:

PARDUE FARMS

Sec 27, T-23-S, R-28-E

Eddy Co, NM

Client:

CHEVRON ENVIROMENTAL MANAGEMENT COMPANY

### **SOIL BORING LOG**

NE/4 of SW/4

MW-3

No.

File No.:

76323

Date:

4/9/2012 WHITE DRILLING

Drilling Co.:

**BO ATKINS** 

AIR ROTARY

Supervisor: Type Rig: Logged by:

T. LARSON

	LABO	RATORY	TEST DAT		FIELD DATA					BORING DATA			
Benzene	Resi Loinene	Ethyl- benzene benzene	Xylenes Xylenes	Total TPH (C6-C35)	Chlorides	Photo- Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level		Start Time: 1505 Finish Time: 1615		
						-					Silty Sand: Tan, It. brown, very fine grained, loose some firm seams, dry.		
, 0.0023 J	0.0023 J	0.0029 J	0.011 J	42	14300	16.2	X	5 —					
N.D.	N.D.	N.D.	N.D.	28	13900	8.2	×	— 10 —					
N.D.	N.D.	N.D.	N.D.	N.D.	2430	3.1	X	— 15 <del>—</del>					
	:			:		1.7	X	20					
						0.5	×	— 25 —			Silty sand: light brown, very fine grained, saturated.		
								— 30 —					
								25					
								35 —		i			

Sampling Interval

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted



Analyzed Sample



page 1 of 2

### **SOIL BORING LOG** Project: PARDUE FARMS File No.: 76323 Date: 4/9/2012 Sec 27, T-23-S, R-28-E WHITE DRILLING Eddy Co, NM No. MW-3 **Drilling Co.:** NE/4 of SW/4 Supervisor: **BO ATKINS** Client: CHEVRON ENVIROMENTAL Type Rig: AIR ROTARY MANAGEMENT COMPANY Logged by: T. LARSON LABORATORY TEST DATA FIELD DATA BORING DATA Results Reported in mg/kg Photo-Water Level İonization Fotal TPH (C6-C35) Depth Ethyl-benzene Chlorides Detection Benzene oluene (ylenes (feet) Reading (ppm) Start Time: 1505 Finish Time: 1615 Silty sand, as above. 45 Silty sand with gravel: Silty sand as above, with fine angular gravel. Logged cuttings with mud. 50 55 TD 60' 60

Stratification is Inferred And May Not be Exact. Soil Classification Based on Visual-Manual Procedure



Project	Eddy Co,	-23-S, R-28-E		!	No. MW- NE/4 of SW		File No.: Date: Drilling Co.: Supervisor: Type Rig: Logged by:	76323 4/9/2012 WHITE DRILLING BO ATKINS AIR ROTARY T. LARSON
		Top of Casing Eleva	ation: <u>3,0</u>	68.64 ft AMSL		— ]_,		
		Surface Compl	etion:	Above Ground	<b></b>		Stick Up:	3 ft
groui	nd surface	Top of So	eal at	13 ft			Surface Seal:	4'x4' Concrete Pad
				,			Well Casing	
							Annulus Backfill Type:	Cement/Bentonite Grout
		Bottom of Se	eal at	16 ft			Seal Type:	0.25-in. Bentonite Pellets
		Top of Scre	en at	19 ft		■ •	Pack Type:	
	De	oth to Groundwater (	TOC)	26.03 ft			Gravel	
		Bottom of scre	en at	54 ft		<b>=</b>	Natural	
		Total Well Depth (		I.			Note:	All dimensions are below ground surface (bgs) except where noted.
Scree	en Type:		× slotte	ed '	perfo	rated	other:	
Scree	en Material:		stain	less steel	× PVC		other:	
Scree	en Length:	35 ft	Scr	een Diameter: _	4 inches		Screen Slot Size:	0.020-in.
Well	Casing Mate	erial:	PVC			V	Vell Casing Diameter:	4 inches
Deve	lopment - N	Method: Bailed, swa	bbed, and	pumped			Hole Diameter:	8 inches
 	Duration/	Volume:	30 Gallor	s				

MONITORING WELL CONSTRUCTION DETAIL

**SOIL BORING LOG** PARDUE FARMS File No.: 76323 Project: Date: 4/9/2012 SB-1 **Drilling Co.:** WHITE DRILLING No. Supervisor: Closest to source SW **BO ATKINS** I<sub>Client:</sub> CHEVRON ENVIROMENTAL of 2&3 Type Rig: AIR ROTARY MANAGEMENT COMPANY T. LARSON Logged by: LABORATORY TEST DATA FIELD DATA **BORING DATA** Results Reported in mg/kg Water Level Screen Interval Photo-Total TPH (C6-C35) Ionization Depth Ethyl-benzene Chlorides Benzene oluene (ylenes Detection (feet) Reading (ppm) Finish Time: 1500 Start Time: 1430 Silty Sand: Tan, It. brown, very fine grained, loose, dry 245.6 2570 17100 N.D. 0.33 0.62 3.9 5 30.6 10 N.D. N.D. N.D. N.D. 300.6 4060 23.3 15 21.7 20 Silty sand: As above, becoming damp at 25' N.D. 0.0040 J 31.8 N.D. 0.028 292.2 1400 TD 25' 25 Water First Noted Stratification is Inferred And May Not be Exact. Sampling Interval Soil Classification Based on Visual-Manual Procedure Analyzed Sample

page 1 of 1

Project:

Client:

PARDUE FARMS

CHEVRON ENVIROMENTAL

MANAGEMENT COMPANY

**SOIL BORING LOG** 

File No.: Date:

76323

No.

SB-2

Date:
Drilling Co.:
Supervisor:
Type Rig:
Logged by:

4/9/2012 WHITE DRILLING BO ATKINS AIR ROTARY

T. LARSON

MANAGEMENT COMPANY	Logged by: 1. LARSON					
LABORATORY TEST DATA	FIELD DATA	BORING DATA				
Benzene Toluene Ethyl- benzene Xylenes Chlorides Chlorides	Photo- Ionization Detection Reading (ppm)  Photo- Ionization Detection Reading (ppm)  Start T	ime: 1320 Finish Time: 1345				
-		and: brown, tan, very fine grained, loose, dry				
-	105.2 10	- - - - - - - - - - -				
- N.D. N.D. N.D. 261 4650	42.2	and: As above, becoming wet at 30'  TD 30'				
		Water First Noted				

Sampling Interval

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted



Analyzed Sample



page 1 of 1

**SOIL BORING LOG** PARDUE FARMS File No.: 76323 Project: 4/9/2012 Date: **Drilling Co.:** WHITE DRILLING No. SB-3 SW of SB-2 Supervisor: **BO ATKINS** Iclient: CHEVRON ENVIROMENTAL Type Rig: AIR ROTARY MANAGEMENT COMPANY T. LARSON Logged by: LABORATORY TEST DATA FIELD DATA **BORING DATA** Results Reported in mg/kg Water Level Screen Interval Photo-Total TPH (C6-C35) Ionization Depth Ethyl-benzene Chlorides 3enzene Foluene (ylenes Detection (feet) Reading (ppm) Start Time: 1350 Finish Time: 1420 Silty Sand: brown, tan, very fine grained, loose, dry 16300 182.4 N.D. 0.36 0.81 5.1 3930 5 0.0030 J N.D. 0.0092 0.079 708.4 13900 118.2 10 59.2 15 N.D. N.D. N.D. N.D. 290.5 3040 34.7 20 Silty sand: As above becoming damp at 25' TD 25' 24.6 25 Water First Noted Stratification is Inferred And May Not be Exact. Sampling Interval Soil Classification Based on Visual-Manual Procedure Analyzed Sample page 1 of 1

**SOIL BORING LOG** Project: PARDUE FARMS File No.: 76323 4/9/2012 Date: No. SB-3 **Drilling Co.:** WHITE DRILLING SW of SB-2 Supervisor: **BO ATKINS** Client: CHEVRON ENVIROMENTAL Type Rig: AIR ROTARY MANAGEMENT COMPANY Logged by: T. LARSON LABORATORY TEST DATA FIELD DATA **BORING DATA** Results Reported in mg/kg Water Level Screen Interval Photo-Total TPH (C6-C35) Ionization Depth Ethyl-benzene Chlorides Toluene (ylenes Detection (feet) Reading (ppm) Finish Time: 1420 Start Time: 1350 Silty Sand: brown, tan, very fine grained, loose, dry 3930 N.D. 0.36 0.81 5.1 16300 182.4 5 118,2 0.0030 J N.D. 0.0092 0.079 708.4 13900 10 59.2 15 N.D. N.D. N.D. N.D. 290.5 3040 34.7 20 Silty sand: As above becoming damp at 25' 24.6 TD 25' 25 Water First Noted Stratification is Inferred And May Not be Exact, Sampling Interval Soil Classification Based on Visual-Manual Procedure Analyzed Sample page 1 of 1 C

i

# NON-HAZARDOUS WASTE MANIFEST

076323

anne

PART I: Generate	or it	me	
Áddress	2 The Court	A second	Spanish construction of the state of the sta
City/Stat	e:		Telephone No.
ORGINATION OF WA	∖STE:		
Operations Center	( Juniture		Permit No.
Property Name	100222	remarkants of a	
,	(Well; Timk Ba	tery, Plant, Facility)	The state of the s
			And the second s
WASTE DENTIFICATION	<u>ON AND AMOUN</u>	I (BARRELS, YARDS, TONS	CUFT, LBS, UNITS, ETC.)
Drilling Fluids		Tank Bottoms	Exempt Fluids
Completion Fluids	Be were a received to	Gas Plant Waste	C117 No.
Contaminated Soil	a series and a series of the	Öther Materials.	PitNo.
With the state of the same of the state of t	anami data seg		
	A programme	DESCRIPTION/NOTES	So So So So So So So So So So So So So S
Carl R 157		BEAMICALL	A 18 18 18 18 18 18 18 18 18 18 18 18 18
core/estates/		The state of the s	Authorities and the same than the same than the same than the same than the same than the same than the same than the same that the same than
The second of	a Toman	Lowesen	casidas actions and actions and actions are actions as a second action and actions are actions as a second action as a second action as a second action as a second action as a second action as a second action action as a second action actio
A.J. West M	12 JESK		
The state of the s			The second secon
CERTIFICATION:		ve is not hazardous pursuant to 40 CFR iat the foregoing is true and correct to th	Purt 26 Land was consigned to the transporter, ie best of my knowledge.
	<u>X</u>	for's Authorized Agent,	Date and Time of Shipinghi
Links - Absorbskeres very - namema. As amount on great his bown a Salada Est.	Signature of Ceneral	noi-s Annouzed Agents	Date and a fire of singularity
PART II: TRANSF	ÖŘTER: (To b	e completed in full by T	ransporter)
Name	777		3137759
Address	77.2	*	Telephone No.
Citŷ/Stat	e USLI	ENTAL	
	- 11 - 73K		Truck No.
CERTIFICATION:	Leefufy that the waste in	quantity above was received by me for	shipment to the destination below.
			and the second s
Samuel and the second of the s	Signature of T	ransporter's Agent	Date and Time Received
PART (III: DISPŌS)	AL OR REGLA	MATION SITE:	
White of which	المُعْلِينَ الْمُعْلِينِ الْمُعِلِينِ الْمُعْلِينِ الْمُعْلِينِ الْمُعْلِينِ الْمُعْلِينِ الْمُعِلِينِ الْمُعْلِينِ الْمُعْلِينِ الْمُعْلِيلِينِ الْمُعْلِينِ الْمُعِلِينِ الْمُعْلِينِ الْمُعْلِينِ الْمُعْلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِينِ الْمُعْلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِي الْمُعْلِيلِينِ الْمُعْلِيلِينِ الْمُعِلِيلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِينِ الْمُعِلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِيلِينِ الْمُعْلِيلِينِ الْمُعْلِيلِيلِيلِيلِيلِيلِيلِيلِيلِيلِيلِيلِيل	Recovery, Inc.	(575) 393-1079
Name .	AND THE STREET STREET	The . Bell-101 11 On . 14 150 20	Telephone No.
Address	2 TK 0-5- #	The state of the s	www.crihobbs.com
City/Staf	e	N.M. 88241-0388	(Banai)
<b>APPTIEIŽATIONI</b>	Section 1	Service Commence Comm	
CERTIFICATION:	Leeftify that the waste de	scribed in Part ( was received by me vil	The transporter/described in Pair II
* * * * * * * * * * * * * * * * * * *	Signature o	Facility Agent	Date and Time Received

## NON-HAZARDOUS WASTE MANIFEST

PART I:	Generator 716	
ST WEST IN TO	Äddress	( )
* · · · · · · · · · · · · · · · · · · ·	City/State	Telephone No.
ORGINATIO	ON OF WASTE:	
(Oparáticha	Conto	ermit No.
Operations	S. Germer	milliono.
Property N	ame landour francis as I alice la attention	dun Alat Hudson
in the second of	(Welly TankiBattery, Plant, Fracility)	COPES CHANGE - MICHES - OF H
WASTE IDI	ENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., L	BS. UNITS ETC.)
111,101,001	The second secon	A Company of the Comp
Drilling Fluid		empt Fluids
Completion I		17 No
Containinate	and the state of t	No
to pige the appropriate from	The second secon	The contract of the second of
m. Jan. N. k.	DESCRIPTION / NOTES	
	A B B B B B B B B B B B B B B B B B B B	The A. W.
	But the Bottle Soft Di	
		Assertance of the property of the second
	The state of the s	actions in registration and the second of th
CERTIFICA	named below. I certify that the foregoing is frue and correct to the best of my kr	ns consigned to the transporter nowledge.  Light American Time of Shipment
	Signature of Generator's Authorized Agent	Date and Time of Shipment
PART II:	TRANSPORTER: (To be completed in full by Transport	ΔN
,	Name (1)	373-1479
* ***	Address was the Cribated Hilly	Telephone No.
	City/State 1/0/Lis 1/1/1/2	Truck No.
CERTIFICA	TION	
Strining.	VIION: Legitify that the waste in quantity above was received by me for shipment to the	11-20-12 11 45
	Signature of Transporter sweett	Date and Time Received
PART III:	DISPOSAL OR RECLAMATION SITE:	
	Name Controlled Recovery, Inc.	(575) 393-1079
* *	Address P.O. Box 388	Telephone, No.
**************************************	City/State Hobbs, N.IVI. 88241-0388	www.crihobbs.com
CERTIFICA	TION:	The state of the s
Arm rate IOV	HON: I certify that the waste described in Part Lavas received by me via the transporter	Accepted in Latin to
	Signature of Facility Agent	Date and Time Received.

A	NON-HAZARDOUS WASTE MANIFEST . 1. Generator ID Number	2. Pag	e 1 of 3. Emergency Respon	3+þf)	4. Waste T		mber (IO)	1344	9
KRACONTO DEGLESS ELLISARESE	5. Generator's Name and Mailing Address  Chargaga Environmental Managaparana Ca 1406 Aprila 51 Florin 07069  Handden TY 77005  Generator's Phone: #13,322,4967 Addy Statistics and	· :	Sec 77, 9	iss (if different th. assum: 27 - 12 k lingt M1 2000 analy - 1404 - 404 analy - 1404 - 404	Vedision 1724F.	ess)			
	6. Transporter 1 Company Name  Continue of the			·····	U.S. EPA ID	Print	k tah ing		
	7. Transporter 2 Company Name				U.S. EPA ID	Number	_		
	8. Designated Facility Name and Site Address  1/Constrained Frequency Inc.  1/2011 West Constrained Minimizery  1/21 69/4 84/360  Facility's Phone: 474 487 74813	:			U.S. EPA ID		te 199 <b>0 1</b> (166		
	Waste Shipping Name and Description	!	19. Cor No.	Type	11. Total Quantity	12. Unit Wt./Vol.			
GENERATOR -	1. Note (xt) E Chaquinted Malerial	:	ì	ÇM.		ક			
- GEN	2.								
	3.	:							
	4.	,							
	(2) (3) (4) 14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the second	ne contents of this consignr	ment are fully and accurately d	escribed above b	y the proper sh	ipping name	e, and are classifie	d, packaged,	1 2003 2003
	marked and labeled/placarded, and are in all respects in proper condition Generator's/Offeror's Printed/Typed Name		Signature	alional governme	ntai regulations		Month	•	ear
NT'L A	15. International Shipments Import to U.S.  Transporter Signature (for exports only):			entry/exit:	क र <i>णो में से</i> स्वाइडस्ट्रर	न्तासम्बद्ध र ५५)	4-\$ 1977-1197	,. ·   !	4,
_	16. Transporter Acknowledgment of Receipt of Materials	1		aving U.S.:					
PORT	Transporter 1 Printed/Typed Name	!	Signature				Month	Day Yo	ear
TRANSPORTER	Transporter 2 Printed/Typed Name		Signature				Month	Day Ye	ear
<b>A</b>	17. Discrepancy  17a. Discrepancy Indication Space Quantity	Туре	Residue		Partial Re	jection	·	ull Rejection	•
	17b. Alternate Facility (or Generator)	!	Manifest Reference	Number:	U.S. EPA ID	Number			
FACILITY	Facility's Phone:				J.O. LITAID	. , um 1061			
NATED P	17c. Signature of Alternate Facility (or Generator)				l		Month	Day Y	ear
DESIGNATED									
	18. Designated Facility Owner or Operator: Certification of receipt of material Printed/Typed Name	Is covered by the manifest	except as noted in Item 17a Signature				Month	Day Ye	ear
¥							Month	Day 11	-181

1811035

WAYBILL

Production Services: Vacuum Trucks • Pump Trucks • Iransp					Mode w	<u> </u>	D.K.L.	W.H.P. 6
Truck No. 94-67555	Tank I	10 <del>93-</del> 10	ſ	Day of	Week: 5~	117	2-686-	-0081
Customer Chrecizon		T	Address	-10M		3		3226
Order No.		RRC#			4 WORLD.		Field	
From Lease/Well # JF 27.1	٣	Miles N S E	Wol		CARISIS			
To Lease/Well #		Miles N S E			CARISE			
TARIFF# ITEM#	COL TRUCK	# TIME:	START: S	7:30 A EN	10:12:00	HRS.	UNIT PRICE	AMOUNT
Starting Time <b>G</b> : 30 PM			HUCK			2/2	86.00	215,00
Arriyed PI, AM OI Origin PM			TRUCK		BBLS.			
Load & Left AM PM			TRUCK		BBLS.			
Arrived AM Destination PM								
Started Unloading AM PM		EXTRAI	MAN					
Released AM PM		50 1	_B.	100 LB.	S	ACKS KCL	]	
Quitting Time 12:00 CM		FRE	SH WATER			BBLS.		
Mileage Out 150 154 In 150 19	2		IGHTED FLUIDS	3		BBLS.		
Wiles Hauled Lu 38		-t	DISPOSAL		,	BBLS.		
Rate Per 100 #£ 2 Ø		WASTE	DISPOSAL			HRS.		
Weight ( /6		<del>                                     </del>	ATER DISPOSA	P.T. SW	<b>b</b> 2	BBLS.	11/	/
Chybie. Waiting Hrs. & J		MUI		211 . 70	<u>~</u>	BBLS.	701	<u></u>
Surcharges	·····		ANKS NO.			BBLS.		
TOTAL HOURS		<del> </del>		DAYS				
			CHARGE MIN.					
FANK MEASUREMENT		TRA	INSPORTATION	CHARGE H	RS. MILES			
Begin End		EXT	TA DAYS		<del></del>			
nches Of Oil								_ <del></del>
SWD Loc.								
GWD Ticket # RRC #						<del></del>		
op Gauge Bottom Gauge		<u> </u>						
Pate Set:		Date Pic	ked Uρ:			Subtotal		215,00
Vell Description: ☐ Oil	∐ Gas	П мі	en.		1	Tax-	7.4375	15,70
				P/F		Total		200
demarks: Lay Ty KonoFi	E Took	100	ic T	27	85 ws		281	315/
			<u>-</u>					
ATH MY INITIALS. I CONFIRM THAT THE TIME SHOY HOURS" COLUMN, ACCURATELY REFLECTS MY CON		***************************************						
moloyee Name (Print)	Hours	Initiars	NO.		SERVINE.	4446		
river	21/2	56					ejuge.	TOTAL O
wamper (7/16/25/15)	200	7 -7						
USTOMER AGREES to pay Nabors Well Serviall, within 20 days after receipt of invoice, it it inheld until settlement of dispute, but payment verse stop of this document. In the absence of UTHORIZED TO ENTER INTO THIS AGREEVERSE SIDE OF THIS DOCUMENT (WEDVINES). Pricing and extensions, if shown	otify the Company I of undisputed por If a separate writte EMENT ON BEH IICH INCLUDES	of the item(s) tion of invoice n contract, <u>CL</u> ALF OF CUS INDEMNITY	) disputed, spec o shall be made JSTOMER REF STOMER AND LANGUAGE T	ifying the reas without delay. PRESENTATIV ACCEPTS ALI HAT ALLOCAT	voice. If Custom on(s) therefor; p All payments sha E REPHESENT TERMS AND ES BISKS REL	er disputes ayment of all be made S AND WA	the disputed it at the address RRANTS THA	ced, Custome em(s) may be s shown on the AT HE/SHE IS TED ON THE
1/12. 1/	,			Tan 1	Larcas	, cle	AM	H Chara aff Had B5 Gods
	,		••	/ 1/ 1/ 1/ 1	and the same of the same of	, 3mm	Ini	ا من من الله

CUSTOMER REPRESENTATIVE # UWDPS - MI045 - 5F/4

GAUGE TICKET	0.4040408\$	Mark the straight of the
(LOCATION)		
(LOCATION)  DateTime		
Company Name		
Lease		
Tank No:		
Top Gaugein.		
Bottom GaugeIn.		
Comments 1/2/1/2017 F. T.,		
760/6576 7755 7650 1000 1000 1000 1000 1000 1000 1000 1		
Unit No <u>کا کا کا</u> Driver		
NAB0605 (7/09)		
	elles	

:

### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 Conestoga-Rovers & Associates 6320 Rothway, Suite 100 Houston TX 77040

April 25, 2012

Project: Chevron Pardue Farms Eddy County, NM

Submittal Date: 04/12/2012 Group Number: 1301809 PO Number: 4047851

Release Number: EDDY COUNTY, NM State of Sample Origin: NM

Client Sample Description	Lancaster Labs #	Collected
SB-2 5' Grab Soil	6614482	04/09/2012 13:25
Chevron Pardue Farms Eddy County, NM		
SB-2 15' Grab Soil	6614483	04/09/2012 13:30
Chevron Pardue Farms Eddy County, NM		
SB-2 25' Grab Soil	6614484	04/09/2012 13:35
Chevron Pardue Farms Eddy County, NM		
SB-3 5' Grab Soil	6614485	04/09/2012 13:55
Chevron Pardue Farms Eddy County, NM		
SB-3 10' Grab Soil	6614486	04/09/2012 14:00
Chevron Pardue Farms Eddy County, NM		
SB-3 20' Grab Soil	6614487	04/09/2012 14:10
Chevron Pardue Farms Eddy County, NM		
SB-1 5' Grab Soil	6614488	04/09/2012 14:35
Chevron Pardue Farms Eddy County, NM		
SB-1 15' Grab Soil	6614489	04/09/2012 14:45
Chevron Pardue Farms Eddy County, NM		
SB-1 25' Grab Soil	6614490	04/09/2012 14:55
Chevron Pardue Farms Eddy County, NM		
MW-3 5' Grab Soil	6614491	04/09/2012 15:15
Chevron Pardue Farms Eddy County, NM		
MW-3 10' Grab Soil	6614492	04/09/2012 15:20
Chevron Pardue Farms Eddy County, NM		
MW-3 15' Grab Soil	6614493	04/09/2012 15:25
Chevron Pardue Farms Eddy County, NM		
MW-1 5' Grab Soil	6614494	04/10/2012 10:05
Chevron Pardue Farms Eddy County, NM		
MW-1 10' Grab Soil	6614495	04/10/2012 10:10
Chevron Pardue Farms Eddy County, NM		
MW-2 15' Grab Soil	6614496	04/10/2012 14:00
Chevron Pardue Farms Eddy County, NM		

#### **ANALYTICAL RESULTS**

### Prepared by:

### Prepared for:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Conestoga-Rovers & Associates 6320 Rothway, Suite 100 Houston TX 77040

### April 25, 2012

MW-2 20' Grab Soil	6614497	04/10/2012 14:05
Chevron Pardue Farms Eddy County, NM Trip Blank Water	6614498	04/09/2012
Chevron Pardue Farms Eddy County, NM MW-1 Grab Water	6614499	04/11/2012 09:00
Chevron Pardue Farms Eddy County, NM MW-3 Grab Water	6614500	04/11/2012 09:30
Chevron Pardue Farms Eddy County, NM MW-2 Grab Water	6614501	04/11/2012 11:00
Chevron Pardue Farms Eddy County, NM Trip Blank Water	6614502	04/11/2012
Chevron Pardue Farms Eddy County, NM		

### METHODOLOGY

**ELECTRONIC COPY TO** 

The specified methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Conestoga-Rovers & Associates

ELECTRONIC COPY TO Conestoga-Rovers & Associates ELECTRONIC COPY TO LLI

Attn: Tom Larson Attn: EDD Group - Report Attn: Claudia Ramos

Respectfully Submitted,

-Wendy A. Kozma

Principal Specialist Group Leader

(717) 556-7257

Conestoga-Rovers & Associates Project: Chevron Pardue Farms Eddy County, NM SDG:

Report Date: 4/25/2012 14:53 Submit Date: 4/12/2012 10:20

		6614482		6614483		6614484	
Analysis Name	Units	SB-2 5'	Dry LOQ	SB-2 15'	Dry LOQ	SB-2 25'	Dry LOQ
Analysis Ivanic	Office	Dry Result	Diy Lou	Dry Result	Diy LOQ	Dry Result	DIYLOG
TPH-GRO soil C6-C10	mg/kg	660	41	1.1 J	1.1	1.0 J	1.1
Benzene	mg/kg	0.027 J	0.041	N.D.	0.0054	N.D.	0.0054
Ethylbenzene	mg/kg	3.7	0.041	N.D.	0.0054	N.D.	0.0054
Toluene	mg/kg	3.4	0.041	N.D.	0.0054	N.D.	0.0054
Total Xylenes	mg/kg	20	0.041	N.D.	0.0034	N.D.	0.0034
•		9,500	1,300	140	13	·260	
TPH-DRO soil C10-C28	mg/kg						14
Chloride by IC (solid)	mg/kg	20,900	11,000	16,200	11,100	4,650	2,830
Moisture	%	10.3	0.50	9.9	0.50	11.6	0.50
		6614485		6614486		6614487	
Analysis Name	Units	SB-3 5'	Dry LOQ	SB-3 10'	Dry LOQ	SB-3 20'	Dry LOQ
		Dry Result		Dry Result		Dry Result	
TPH-GRO soil C6-C10	mg/kg	230	10	8.4	1.1	0.5 J	1.1
Benzene	mg/kg	N.D.	0.021	0.0030 J	0.0055	N.D.	0.0057
Ethylbenzene	mg/kg	0.81	0.021	0.0092	0.0055	N.D.	0.0057
Toluene	mg/kg	0.36	0.021	N.D.	0.0055	N.D.	0.0057
Total Xylenes	mg/kg	5.1	0.062	0.079	0.017	N.D.	0.017
TPH-DRO soil C10-C28	mg/kg	3,700	330	700	64	290	13
Chloride by IC (solid)	mg/kg	16,300	10,900	13,900	10,800	3,040	2,800
Moisture	//////////////////////////////////////	9.3	0.50	7.5	0.50	10.7	0.50
Moisture	70	9.5	0.50	7.5	0.50	10.7	0.50
		6614488		6614489		6614490	
Analysis Name	Units	SB-1 5'	Dry LOQ	SB-1 15'	Dry LOQ	SB-1 25'	Dry LOQ
, u.a.yo.o . tamo	01110	Dry Result	21, 200	Dry Result	Diy Lou	Dry Result	Diy Lou
TPH-GRO soil C6-C10	mg/kg	170	10	0.6 J	1.1	2.2	1.1
Benzene	mg/kg	N.D.	0.020	N.D.	0.0053	N.D.	0.0054
Ethylbenzene	mg/kg	0.62	0.020	N.D.	0.0053	0.0040 J	0.0054
Toluene	mg/kg	0.33	0.020	N.D.	0.0053	N.D.	0.0054
Total Xylenes	mg/kg	3.9	0.061	N.D.	0.016	0.028	0.016
TPH-DRO soil C10-C28	mg/kg	2,400	320	300	13	290	14
Chloride by IC (solid)	mg/kg	17,100	10,900	4,060	2,820	1,400	1,140
Moisture	%	8.4	0.50	11.2	0.50		0.50
Wolstare	70	0.4	0.50	11.22	0.50	13.0	0.50
		6614491		6614492		6614493	
Analysis Name	Units	MW-3 5'	Dry LOQ	MW-3 10'	Dry LOQ	MW-3 15'	Dry LOQ
		Dry Result	,	Dry Result		Dry Result	
TPH-GRO soil C6-C10	mg/kg	N.D.	1.1	N.D.	1.1	N.D.	1.1
Benzene	mg/kg	0.0023 J	0.0057	N.D.	0.0054	N.D.	0.0054
Ethylbenzene	mg/kg	0.0029 J	0.0057	N.D.	0.0054	N.D.	0.0054
Toluene	mg/kg	0.0023 J	0.0057	N.D.	0.0054	N.D.	0.0054
Total Xylenes	mg/kg	0.011 J	0.017	N.D.	0.016	N.D.	0.016
TPH-DRO soil C10-C28	mg/kg	42	13	28	13	N.D.	14

Conestoga-Rovers & Associates
Project: Chevron Pardue Farms Eddy County, NM
SDG:

Report Date: 4/25/2012 14:53 Submit Date: 4/12/2012 10:20

Chloride by IC (solid) mg/kg 14.300 11,100 13.900 10.900 2.430 1.130 % 9.7 0.50 9.5 0.50 11.9 0.50 Moisture 6614494 6614495 6614496 MW-1 5' MW-1 10' MW-2 15' Units Dry LOQ Dry LOQ Dry LOQ Analysis Name Dry Result Dry Result Dry Result TPH-GRO soil C6-C10 mg/kg N.D. 1.0 N.D. 1.1 N.D. 1.0 0.0052 N.D. 0.0057 N.D. 0.0051 Benzene mg/kg N.D. Ethylbenzene 0.0052 0.0057 0.0051 mg/kg N.D. N.D. N.D. Toluene mg/kg N.D. 0.0052 N.D. 0.0057 N.D. 0.0051 mg/kg N.D. N.D. 0.017 N.D. 0.015 **Total Xylenes** 0.016 TPH-DRO soil C10-C28 mg/kg 16 13 N.D. N.D. 13 13 1,480 1,760 1,520 1,090 Chloride by IC (solid) mg/kg 532 542 Moisture % 6.4 0.50 7.7 0.50 9.2 0.50 6614497 Analysis Name Units MW-2 20' Dry Result Dry LOQ TPH-GRO soil C6-C10 mg/kg N.D. 1.1 mg/kg N.D. 0.0057 Benzene Ethylbenzene mg/kg N.D. 0.0057 Toluene mg/kg N.D. 0.0057 mg/kg N.D. Total Xylenes 0.017 TPH-DRO soil C10-C28 N.D. mg/kg 13 689 556 Chloride by IC (solid) mg/kg Moisture 11.1 0.50 6614498 6614499 6614500 Analysis Name Units Trip Blank LOQ MW-1 LOQ MW-3 LOQ Result Result Result TPH-GRO water C6-C10 50 ug/l 50 n.a. N.D. N.D. n.a. Benzene mg/l N.D. 0.0010 0.0010 N.D. 0.0010 N.D. Ethylbenzene mg/i N.D. 0.0010 N.D. 0.0010 N.D. 0.0010 Toluene mg/l N.D. 0.0010 N.D. 0.0010 N.D. 0.0010 Total Xylenes N.D. 0.0030 0.0030 mg/l 0.0030 N.D. N.D. TPH-DRO water C10-C28 ug/l n.a. n.a. 35 98 94 95 1,000 1,000 Chloride mg/l n.a. n.a. 5,860 6,820 **Total Dissolved Solids** 2,400 mg/l 13,900 2,400 17,000 n.a. n.a. 6614501 6614502 Units MW-2 Trip Blank Analysis Name Result LOQ Result LOQ TPH-GRO water C6-C10 ug/l N.D. 50 n.a. n.a. 0.0010 Benzene mg/l N.D. N.D. 0.0010 mg/l Ethylbenzene N.D. 0.0010 N.D. 0.0010 Toluene N.D. 0.0010 N.D. 0.0010 mg/l

Conestoga-Rovers & Associates
Project: Chevron Pardue Farms Eddy County, NM
SDG:

Report Date: 4/25/2012 14:53 Submit Date: 4/12/2012 10:20

Total Xylenes	mg/l	N.D.	0.0030	N.D.	0.0030
TPH-DRO water C10-C28	ug/l	50 J	96	n.a.	n.a.
Chloride	mg/l	6,340	1,000	n.a.	n.a.
Total Dissolved Solids	ma/l	15.500	2.400	n.a.	n.a.

CAT No.	Analysis Name	Method	Trial ID	Batch	Analysis Date/Time	Analyst	Dilution
661448	2 SB-2 5' Grab Soil						
01638	TPH-GRO soil C6-C10	SW-846 8015B modified	1	12107A31A	4/18/12 0800	Laura M Krieger	913.24
08179	BTEX by 8021	SW-846 8021B	1	12104A31B	4/16/12 2255	Carrie E Miller	182.65
01150	GC - Bulk Soil Prep	SW-846 5035A		201210427357	4/12/12 2334	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	Modified SW-846 8015B	1	121070031A	4/24/12 2053	Glorines Suarez-	100
07004	Extraction - DRO (Soils)	SW-846 3550B	1	121070031A	4/17/12 0840	Rivera Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPÀ 300.0	-	12108108201A	4/21/12 1447	Christopher D Meeks	1000
01352	Deionized Water Extraction	EPA 300.0	1	12108108201A	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G		12104820002B	4/13/12 0936	Scott W Freisher	1
661448	3 SB-2 15' Grab Soil						
01638	TPH-GRO soil C6-C10	SW-846 8015B modified	1	12104A31A	4/14/12 1332	Laura M Krieger	24.25
08179	BTEX by 8021	SW-846 8021B	1	12104A31A	4/14/12 1332	Laura M Krieger	24.25
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201210427357	4/12/12 2336	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B	1	121070031A	4/24/12 0256	Glorines Suarez- Rivera	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	121070031A	4/17/12 0840	Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPA 300.0	1	12108108201A	4/21/12 1603	Christopher D Meeks	1000
01352	Deionized Water Extraction	EPA 300.0	1	12108108201A	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	1	12104820002B	4/13/12 0936	Scott W Freisher	1
6614484	4 SB-2 25' Grab Soil						
01638	TPH-GRO soil C6-C10	SW-846 8015B modified	1	12104A31A	4/14/12 1408	Laura M Krieger	23.79
08179	BTEX by 8021	SW-846 8021B	1	12104A31A	4/14/12 1408	Laura M Krieger	23.79
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1.	201210427357	4/12/12 2338	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B	1	121070031A	4/24/12 0318	Glorines Suarez- Rivera	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	121070031A	4/17/12 0840	Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPA 300.0	2	12108108201A	4/24/12 1137	Christopher D Meeks	250
01352	Deionized Water Extraction	EPA 300.0	1	12108108201A	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	1	12104820002B	4/13/12 0936	Scott W Freisher	1
6614485	5 SB-3 5' Grab Soil						
01638	TPH-GRO soil C6-C10	SW-846 8015B modified	1	12104A31B	4/16/12 1836	Carrie E Miller	236.07
08179	BTEX by 8021	SW-846 8021B	1	12104A31B	4/16/12 2331	Carrie E Miller	94.43
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1 :	201210427357	4/12/12 2341	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B	1	121070031A	4/24/12 2032	Glorines Suarez- Rivera	25
07004	Extraction - DRO (Soils)	SW-846 3550B	1	121070031A	4/17/12 0840	Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPA 300.0	1	12108108201A	4/21/12 1633	Christopher D Meeks	1000
01352	Deionized Water Extraction	EPA 300.0	1	12108108201A	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	1	12104820002B	4/13/12 0936	Scott W Freisher	1

	CAT No.	Analysis Name	Method	Trial ID		Analysis Date/Time	Analyst	Dilution
Modified   Second Properation   Modified   SW-846 8021B   1 12104A31A   A/14/12 1444   Marie D John   25.48   Modified   SW-846 5035A   1 201210427357   A/12/12 2344   Scott W Freisher   n.a.   A/14/12 2344   Scott W Freisher   n.a.   Modified   Modif	661448	6 SB-3 10' Grab Soil						
Other   Column   Co	01638	TPH-GRO soil C6-C10		•	1 12104A31A	4/14/12 1444	Marie D John	25.48
Modified   Modified	08179	BTEX by 8021	SW-846 8021B		1 12104A31A	4/14/12 1444	Marie D John	25.48
O150   GC - Bulk Soil Prep   SW-846 5035A   3 201210427357   4/12/12 2343   Scott W Freisher   n.a.	01150	GC - Bulk Soil Prep			1 201210427357	4/12/12 2344	Scott W Freisher	n.a.
Modified   Modified	01150	GC - Bulk Soil Prep	SW-846 5035A	2	2 201210427357	4/12/12 2343	Scott W Freisher	n.a.
O1150   GC - Bulk Soil Prep   SW-846 5035A   Modified	01150	GC - Bulk Soil Prep		;	3 201210427357	4/12/12 2345	Scott W Freisher	n.a.
O1150   GC - Bulk Soil Prep   SW-846 5035A   5 201210427357   4/12/12 2347   Scott W Freisher   n.a.	01150	GC - Bulk Soil Prep	SW-846 5035A	4	4 201210427357	4/12/12 2346	Scott W Freisher	n.a.
OFFICIAL   Continue	01150	GC - Bulk Soil Prep	SW-846 5035A		5 201210427357	4/12/12 2347	Scott W Freisher	n.a.
New York   Secretarian   Sec	01150	GC - Bulk Soil Prep	SW-846 5035A	6	6 201210427357	4/12/12 2348	Scott W Freisher	n.a.
Delonized Water Extraction   EPA 300.0   1 12108108201A   4/12/112 1648   Meeks   Me	08270	TPH-DRO soil C10-C28		,	1 121070031A	4/24/12 1950		5
New Name	07004	Extraction - DRO (Soils)	SW-846 3550B	•	1 121070031A	4/17/12 0840	Kerrie A Freeburn	1
Delonized Water Extraction   SM20 2540 G	07333	Chloride by IC (solid)	EPA 300.0	•	1 12108108201A	4/21/12 1648	•	1000
Moisture   SM20 2540 G	01352	Deionized Water Extraction	EPA 300.0		1 12108108201A	4/17/12 0800		1
01638         TPH-GRO soil C6-C10 modified modified         SW-846 8015B modified         1 12104A31A         4/14/12 1744         Laura M Krieger         25.48 modified           08179         BTEX by 8021         SW-846 8021B         1 12104A31A         4/14/12 1744         Laura M Krieger         25.48 modified           01150         GC - Bulk Soil Prep         SW-846 5035A Modified         1 201210427357         4/12/12 0340         Glorines Suarez-Rivera         1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	00111	Moisture	SM20 2540 G	•	1 12104820002B	4/13/12 0936	-	1
01638         TPH-GRO soil C6-C10 modified modified         SW-846 8015B modified         1 12104A31A         4/14/12 1744         Laura M Krieger         25.48 modified           08179         BTEX by 8021         SW-846 8021B         1 12104A31A         4/14/12 1744         Laura M Krieger         25.48 modified           01150         GC - Bulk Soil Prep         SW-846 5035A Modified         1 201210427357         4/12/12 0340         Glorines Suarez-Rivera         1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	661448	7 SB-3 20' Grab Soil	•					
08179         BTEX by 8021         SW-846 8021B         1 12104A31A         4/14/12 1744         Laura M Krieger         25.48           01150         GC - Bulk Soil Prep         SW-846 5035A         1 201210427357         4/12/12 2350         Scott W Freisher         n.a.           08270         TPH-DRO soil C10-C28         SW-846 8015B         1 121070031A         4/24/12 0340         Glorines Suarez-Rivera         1           07004         Extraction - DRO (Soils)         SW-846 3550B         1 121070031A         4/17/12 0840         Kerrie A Freeburn         1           07333         Chloride by IC (solid)         EPA 300.0         2 12108108201A         4/17/12 0800         Nancy J Shoop         1           01352         Deionized Water Extraction         EPA 300.0         1 12104820002B         4/13/12 0936         Scott W Freisher         1           6614488         SB-1 5' Grab Soil         5 Grab Soil           01638         TPH-GRO soil C6-C10         SW-846 8015B         1 12104A31B         4/16/12 1912         Carrie E Miller         232.13           08179         BTEX by 8021         SW-846 8015B         1 121070031A         4/17/12 0307         Carrie E Miller         92.85           0150         GC - Bulk Soil Prep         SW-846 8015B         1 121070031A				1	1 12104A31A	4/14/12 1744	Laura M Krieger	25.48
01150         GC - Bulk Soil Prep         SW-846 5035A Modified Modified         1 201210427357         4/12/12 2350         Scott W Freisher n.a.           08270         TPH-DRO soil C10-C28         SW-846 8015B         1 121070031A         4/24/12 0340         Glorines Suarez-Rivera         1 Rivera           07004         Extraction - DRO (Soils)         SW-846 3550B         1 121070031A         4/17/12 0840         Kerrie A Freeburn         1 601469           07333         Chloride by IC (solid)         EPA 300.0         2 12108108201A         4/22/12 1116         Christopher D Christopher D Meeks         250 Meeks           01352         Deionized Water Extraction Moisture         EPA 300.0         1 12108108201A         4/17/12 0800         Nancy J Shoop         1           6614488         SB-1 5' Grab Soil         SM20 2540 G         1 12104820002B         4/16/12 1912         Carrie E Miller         232.13           08179         BTEX by 8021         SW-846 8015B         1 12104A31B         4/17/12 0007         Carrie E Miller         92.85           01150         GC - Bulk Soil Prep         SW-846 8015B         1 121070031A         4/12/12 2352         Scott W Freisher         n.a.           08270         TPH-DRO soil C10-C28         SW-846 3550B         1 121070031A         4/12/12 2011         Glorines Suarez-River	08179	RTEX by 8021			1 12104A31A	4/14/12 1744	Laura M Krieger	25.48
O7004   Extraction - DRO (Soils)   SW-846 3550B   1 121070031A   4/17/12 0840   Kerrie A Freeburn   1   1   1   1   1   1   1   1   1		•	SW-846 5035A				•	
O7004   Extraction - DRO (Soils)   SW-846 3550B   1 121070031A   4/17/12 0840   Kerrie A Freeburn   1 07333   Chloride by IC (solid)   EPA 300.0   2 12108108201A   4/22/12 1116   Christopher D   250   Meeks   Nancy J Shoop   1 00111   Moisture   SM20 2540 G   1 12104820002B   4/13/12 0936   Scott W Freisher   1 06614488   SB-1 5' Grab Soil   SW-846 8015B   1 12104A31B   4/16/12 1912   Carrie E Miller   232.13   Modified   SW-846 6035A   1 201210427357   4/12/12 2352   Scott W Freisher   1 07333   Chloride by IC (solid)   EPA 300.0   1 12108108201A   4/17/12 0840   Kerrie A Freeburn   1 07333   Chloride by IC (solid)   EPA 300.0   1 12108108201A   4/17/12 0840   Kerrie A Freeburn   1 07333   Chloride by IC (solid)   EPA 300.0   1 12108108201A   4/17/12 0840   Kerrie A Freeburn   1 07335   Deionized Water Extraction   EPA 300.0   1 12108108201A   4/17/12 0840   Kerrie A Freeburn   1 07335   Deionized Water Extraction   EPA 300.0   1 12108108201A   4/17/12 0840   Kerrie A Freeburn   1 07335   Deionized Water Extraction   EPA 300.0   1 12108108201A   4/17/12 0840   Kerrie A Freeburn   1 07335   Deionized Water Extraction   EPA 300.0   1 12108108201A   4/17/12 0840   Nancy J Shoop   1 00111   Moisture   SM20 2540 G   1 12104820002B   4/13/12 0936   Scott W Freisher   1 06614489   SB-1 15' Grab Soil   SW-846 8015B   1 12104A31A   4/14/12 1820   Laura M Krieger   23.39   Modified   SW-846 8015B   1 12104A31A   4/14/12 1820   Laura M Krieger   23.39   Modified   SW-846 8015B   1 12104A31A   4/14/12 1820   Laura M Krieger   23.39   Modified   SW-846 8015B   1 12104A31A   4/14/12 1820   Laura M Krieger   23.39   Modified   SW-846 8015B   1 12104A31A   4/14/12 1820   Laura M Krieger   23.39   Modified   SW-846 8015B   1 12104A31A   4/14/12 1820   Laura M Krieger   23.39   Modified   Modified   SW-846 8015B   1 12104A31A   4/14/12 1820   Laura M Krieger   23.39   Modified   SW-846 8015B   1 12104A31A   4/14/12 1820   Laura M Krieger   23.39   Modified   Modified   Modified   Modified   Modified   Modified   Modified   Mo	08270	TPH-DRO soil C10-C28	SW-846 8015B	1	1 121070031A	4/24/12 0340		1
.07333         Chloride by IC (solid)         EPA 300.0         2 12108108201A         4/22/12 1116         Christopher D Meeks         250 Meeks           .01352         Deionized Water Extraction 00111         EPA 300.0         1 12108108201A         4/17/12 0800         Nancy J Shoop         1           .00111         Moisture         SM20 2540 G         1 12104820002B         4/13/12 0936         Scott W Freisher         1           .0111         6614488         SB-1 5' Grab Soil         SW-846 8015B         1 12104A31B         4/16/12 1912         Carrie E Miller         232.13           .08179         BTEX by 8021         SW-846 8021B         1 12104A31B         4/17/12 0007         Carrie E Miller         92.85           .01150         GC - Bulk Soil Prep         SW-846 8015B         1 201210427357         4/12/12 2352         Scott W Freisher         n.a.           .08270         TPH-DRO soil C10-C28         SW-846 8015B         1 121070031A         4/24/12 2011         Glorines Suarez-Rivera         25           .07004         Extraction - DRO (Soils)         SW-846 3550B         1 121070031A         4/17/12 0840         Kerrie A Freeburn         1           .07333         Chloride by IC (solid)         EPA 300.0         1 12108108201A         4/17/12 0800         Nancy J Shoop         1 <td>07004</td> <td>Extraction - DRO (Soils)</td> <td>SW-846 3550B</td> <td>1</td> <td>1 121070031A</td> <td>4/17/12 0840</td> <td></td> <td>1</td>	07004	Extraction - DRO (Soils)	SW-846 3550B	1	1 121070031A	4/17/12 0840		1
00111         Moisture         SM20 2540 G         1 12104820002B         4/13/12 0936         Scott W Freisher         1           6614488         SB-1 5' Grab Soil         Freisher         1           01638         TPH-GRO soil C6-C10         SW-846 8015B         1 12104A31B         4/16/12 1912         Carrie E Miller         232.13           08179         BTEX by 8021         SW-846 8021B         1 12104A31B         4/17/12 0007         Carrie E Miller         92.85           01150         GC - Bulk Soil Prep         SW-846 5035A         1 201210427357         4/12/12 2352         Scott W Freisher         n.a.           08270         TPH-DRO soil C10-C28         SW-846 8015B         1 121070031A         4/24/12 2011         Glorines Suarez-Rivera         25           07004         Extraction - DRO (Soils)         SW-846 3550B         1 121070031A         4/17/12 0840         Kerrie A Freeburn         1           07333         Chloride by IC (solid)         EPA 300.0         1 12108108201A         4/21/12 1719         Christopher D Meeks           01352         Deionized Water Extraction         EPA 300.0         1 12104820002B         4/17/12 0800         Nancy J Shoop         1           6614489         SB-1 15' Grab Soil         SW-846 8015B         1 12104A31A         4/14/12	. 07333		EPA 300.0	2	2 12108108201A	4/22/12 1116		250
00111         Moisture         SM20 2540 G         1 12104820002B         4/13/12 0936         Scott W Freisher         1           6614488         SB-1 5' Grab Soil         Freisher         1           01638         TPH-GRO soil C6-C10         SW-846 8015B         1 12104A31B         4/16/12 1912         Carrie E Miller         232.13           08179         BTEX by 8021         SW-846 8021B         1 12104A31B         4/17/12 0007         Carrie E Miller         92.85           01150         GC - Bulk Soil Prep         SW-846 5035A         1 201210427357         4/12/12 2352         Scott W Freisher         n.a.           08270         TPH-DRO soil C10-C28         SW-846 8015B         1 121070031A         4/24/12 2011         Glorines Suarez-Rivera         25           07004         Extraction - DRO (Soils)         SW-846 3550B         1 121070031A         4/17/12 0840         Kerrie A Freeburn         1           07333         Chloride by IC (solid)         EPA 300.0         1 12108108201A         4/21/12 1719         Christopher D Meeks           01352         Deionized Water Extraction         EPA 300.0         1 12104820002B         4/17/12 0800         Nancy J Shoop         1           6614489         SB-1 15' Grab Soil         SW-846 8015B         1 12104A31A         4/14/12	01352	Deionized Water Extraction	EPA 300.0	1	1 12108108201A	4/17/12 0800	Nancy J Shoop	1
01638         TPH-GRO soil C6-C10         SW-846 8015B modified         1 12104A31B         4/16/12 1912         Carrie E Miller         232.13           08179         BTEX by 8021         SW-846 8021B         1 12104A31B         4/17/12 0007         Carrie E Miller         92.85           01150         GC - Bulk Soil Prep         SW-846 5035A Modified         1 201210427357         4/12/12 2352         Scott W Freisher         n.a.           08270         TPH-DRO soil C10-C28         SW-846 8015B         1 121070031A         4/24/12 2011         Glorines Suarez-Rivera         25           07004         Extraction - DRO (Soils)         SW-846 3550B         1 121070031A         4/17/12 0840         Kerrie A Freeburn         1           07333         Chloride by IC (solid)         EPA 300.0         1 12108108201A         4/21/12 1719         Christopher D Meeks           01352         Deionized Water Extraction         EPA 300.0         1 12108108201A         4/17/12 0800         Nancy J Shoop         1           00111         Moisture         SM20 2540 G         1 12104820002B         4/13/12 0936         Scott W Freisher         1           6614489         SB-1 15' Grab Soil         TPH-GRO soil C6-C10         SW-846 8015B modified         1 12104A31A         4/14/12 1820         Laura M Krieger         23.3	00111	Moisture	SM20 2540 G	1	1 12104820002B	4/13/12 0936		1
modified           08179         BTEX by 8021         SW-846 8021B         1 12104A31B         4/17/12 0007         Carrie E Miller         92.85           01150         GC - Bulk Soil Prep         SW-846 5035A         1 201210427357         4/12/12 2352         Scott W Freisher         n.a.           08270         TPH-DRO soil C10-C28         SW-846 8015B         1 121070031A         4/24/12 2011         Glorines Suarez-Rivera         25           07004         Extraction - DRO (Soils)         SW-846 3550B         1 121070031A         4/17/12 0840         Kerrie A Freeburn         1           07333         Chloride by IC (solid)         EPA 300.0         1 12108108201A         4/21/12 1719         Christopher D Meeks           01352         Deionized Water Extraction Moisture         EPA 300.0         1 12108108201A         4/17/12 0800         Nancy J Shoop         1           00111         Moisture         SM20 2540 G         1 12104820002B         4/13/12 0936         Scott W Freisher         1           6614489         SB-1 15' Grab Soil         SW-846 8015B         1 12104A31A         4/14/12 1820         Laura M Krieger         23.39	6614488	3 SB-1 5' Grab Soil						
08179         BTEX by 8021         SW-846 8021B         1 12104A31B         4/17/12 0007         Carrie E Miller         92.85           01150         GC - Bulk Soil Prep         SW-846 5035A         1 201210427357         4/12/12 2352         Scott W Freisher         n.a.           08270         TPH-DRO soil C10-C28         SW-846 8015B         1 121070031A         4/24/12 2011         Glorines Suarez-Rivera         25           07004         Extraction - DRO (Soils)         SW-846 3550B         1 121070031A         4/17/12 0840         Kerrie A Freeburn         1           07333         Chloride by IC (solid)         EPA 300.0         1 12108108201A         4/21/12 1719         Christopher D Meeks           01352         Deionized Water Extraction Moisture         EPA 300.0         1 12108108201A         4/17/12 0800         Nancy J Shoop         1           00111         Moisture         SM20 2540 G         1 12104820002B         4/13/12 0936         Scott W Freisher         1           6614489         SB-1 15' Grab Soil         SW-846 8015B         1 12104A31A         4/14/12 1820         Laura M Krieger         23.39				1	1 12104A31B	4/16/12 1912	Carrie E Miller	232.13
01150         GC - Bulk Soil Prep         SW-846 5035A Modified         1 201210427357         4/12/12 2352         Scott W Freisher n.a.         n.a.           08270         TPH-DRO soil C10-C28         SW-846 8015B         1 121070031A         4/24/12 2011         Glorines Suarez-Rivera         25 Rivera           07004         Extraction - DRO (Soils)         SW-846 3550B         1 121070031A         4/17/12 0840         Kerrie A Freeburn         1 1000 Meeks           07333         Chloride by IC (solid)         EPA 300.0         1 12108108201A         4/21/12 1719         Christopher D Meeks           01352         Deionized Water Extraction Moisture         EPA 300.0         1 12108108201A         4/17/12 0800         Nancy J Shoop         1 1000 Meeks           01111         Moisture         SM20 2540 G         1 12104820002B         4/13/12 0936         Scott W Freisher         1           6614489         SB-1 15' Grab Soil         TPH-GRO soil C6-C10         SW-846 8015B modified         1 12104A31A         4/14/12 1820         Laura M Krieger         23.39	08179	BTEX by 8021		1	1 12104A31B	4/17/12 0007	Carrie E Miller	92.85
08270         TPH-DRO soil C10-C28         SW-846 8015B         1 121070031A         4/24/12 2011 Rivera         Glorines Suarez-Rivera         25 Rivera           07004         Extraction - DRO (Soils)         SW-846 3550B         1 121070031A         4/17/12 0840         Kerrie A Freeburn         1 07333           Chloride by IC (solid)         EPA 300.0         1 12108108201A         4/21/12 1719         Christopher D Meeks           01352         Deionized Water Extraction Moisture         EPA 300.0         1 12108108201A         4/17/12 0800         Nancy J Shoop         1 0011           6614489         SB-1 15' Grab Soil         SM20 2540 G         1 12104A31A         4/14/12 1820         Laura M Krieger         23.39 modified	01150			1	1 201210427357	4/12/12 2352	Scott W Freisher	n.a.
07004         Extraction - DRO (Soils)         SW-846 3550B         1 121070031A         4/17/12 0840         Kerrie A Freeburn         1           07333         Chloride by IC (solid)         EPA 300.0         1 12108108201A         4/21/12 1719         Christopher D Meeks         1000 Meeks           01352         Deionized Water Extraction Moisture         EPA 300.0         1 12108108201A         4/17/12 0800         Nancy J Shoop         1           00111         Moisture         SM20 2540 G         1 12104820002B         4/13/12 0936         Scott W Freisher         1           6614489         SB-1 15' Grab Soil         TPH-GRO soil C6-C10         SW-846 8015B modified         1 12104A31A         4/14/12 1820         Laura M Krieger         23.39	08270	TPH-DRO soil C10-C28		1	1 121070031A	4/24/12 2011		25
07333         Chloride by IC (solid)         EPA 300.0         1 12108108201A         4/21/12 1719         Christopher D Meeks         1000 Meeks           01352         Deionized Water Extraction Moisture         EPA 300.0         1 12108108201A         4/17/12 0800         Nancy J Shoop         1 Scott W Freisher         1           6614489         SB-1 15' Grab Soil         TPH-GRO soil C6-C10         SW-846 8015B modified         1 12104A31A         4/14/12 1820         Laura M Krieger         23.39	07004	Extraction - DRO (Soils)	SW-846 3550B	1	1 121070031A	4/17/12 0840		1
01352 Deionized Water Extraction Moisture         EPA 300.0 SM20 2540 G         1 12108108201A 1/17/12 0800 4/17/12 0800 4/13/12 0936         Nancy J Shoop Scott W Freisher         1 1           6614489 SB-1 15' Grab Soil 01638         TPH-GRO soil C6-C10 SW-846 8015B modified         1 12104A31A 4/14/12 1820         Laura M Krieger 23.39		, ,					Christopher D	
01638 TPH-GRO soil C6-C10 SW-846 8015B 1 12104A31A 4/14/12 1820 Laura M Krieger 23.39 modified							Nancy J Shoop	
01638 TPH-GRO soil C6-C10 SW-846 8015B 1 12104A31A 4/14/12 1820 Laura M Krieger 23.39 modified		00 44710 -1 0 "						
				1	I 12104A31A	4/14/12 1820	Laura M Krieger	23.39
	08179	BTEX by 8021		1	I 12104A31A	4/14/12 1820	Laura M Krieger	23.39

CAT No.	Analysia Nama	Method	Trial ID Batch	Analysis	Amalicat	Dilution
NO.	Analysis Name	Wethod	ір васп	Date/Time	Analyst	Dilution
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1 201210427357	4/12/12 2353	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B	1 121070031A	4/24/12 0402	Glorines Suarez- Rivera	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1 121070031A	4/17/12 0840	Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPA 300.0	2 12108108201A	4/22/12 1131	Christopher D Meeks	250
01352	Deionized Water Extraction	EPA 300.0	1 12108108201A	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	1 12104820002B	4/13/12 0936	Scott W Freisher	1
661449	0 SB-1 25' Grab Soil					
01638	TPH-GRO soil C6-C10	SW-846 8015B modified	1 12104A31A	4/14/12 2008	Laura M Krieger	23.52
08179	BTEX by 8021	SW-846 8021B	1 12104A31A	4/14/12 2008	Laura M Krieger	23.52
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1 201210427357	4/12/12 2355	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B	1 121070031A	4/24/12 0424	Glorines Suarez- Rivera	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1 121070031A	4/17/12 0840	Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPA 300.0	3 12108108201A	4/24/12 1345	Christopher D Meeks	100
01352	Deionized Water Extraction	EPA 300.0	1 12108108201A	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	1 12104820002B	4/13/12 0936	Scott W Freisher	1
661449 <sup>2</sup>	1 MW-3 5' Grab Soil					
01638	TPH-GRO soil C6-C10	SW-846 8015B	1 12104A31A	4/14/12 2044	Laura M Krieger	25.56
		modified				
08179	BTEX by 8021	SW-846 8021B	1 12104A31A	4/14/12 2044	Laura M Krieger	25.56
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1 201210427357	4/12/12 2358	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B	1 121070031A	4/24/12 0234	Glorines Suarez- Rivera	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1 121070031A	4/17/12 0840	Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPA 300.0	1 12108108201A	4/21/12 1804	Christopher D Meeks	1000
01352	Deionized Water Extraction	EPA 300.0	1 12108108201A	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	1 12104820002B	4/13/12 0936	Scott W Freisher	1
	2 MW-3 10' Grab Soil					
01638	TPH-GRO soil C6-C10	SW-846 8015B modified	1 12104A31A	4/14/12 2120	Laura M Krieger	24.46
08179	BTEX by 8021	SW-846 8021B	1 12104A31A	4/14/12 2120	Laura M Krieger	24.46
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1 201210427357	4/13/12 0001	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B	1 121070031A	4/24/12 0212	Glorines Suarez- Rivera	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1 121070031A	4/17/12 0840	Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPA 300.0	1 12108108201B	4/21/12 1819	Christopher D Meeks	1000
01352	Deionized Water Extraction	EPA 300.0	1 12108108201B	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	1 12104820002B	4/13/12 0936	Scott W Freisher	1
6614493	3 MW-3 15' Grab Soil					
01638	TPH-GRO soil C6-C10	SW-846 8015B modified	1 12104A31A	4/14/12 2156	Laura M Krieger	23.67
08179	BTEX by 8021	SW-846 8021B	1 12104A31A	4/14/12 2156	Laura M Krieger	23.67

CAT			Trial		Analysis		
No.	Analysis Name	Method	ID	Batch	Date/Time	Analyst	Dilution
01150	GC - Bulk Soil Prep	SW-846 5035A Modified		1 201210427357	4/13/12 0004	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B	2	2 121070031A	4/24/12 0128	Tracy A Cole	1
07004	Extraction - DRO (Soils)	SW-846 3550B	•	1 121070031A	4/17/12 0840	Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPA 300.0	(	3 12108108201A	4/24/12 1401	Christopher D Meeks	100
01352	Deionized Water Extraction	EPA 300.0	•	1 12108108201B	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	•	1 12104820002B	4/13/12 0936	Scott W Freisher	1
6614494	I MW-1 5' Grab Soil						
01638	TPH-GRO soil C6-C10	SW-846 8015B modified	•	1 12104A31A	4/14/12 2232	Laura M Krieger	24.18
08179	BTEX by 8021	SW-846 8021B		1 12104A31A	4/14/12 2232	Laura M Krieger	24.18
01150	GC - Bulk Soil Prep	SW-846 5035A Modified		1 201210427357	4/13/12 0006	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B	•	1 121070031A	4/24/12 0150	Glorines Suarez- Rivera	1
07004	Extraction - DRO (Soils)	SW-846 3550B	•	1 121070031A	4/17/12 0840	Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPA 300.0	2	2 12108108201B	4/24/12 1000	Christopher D Meeks	50
01352	Deionized Water Extraction	EPA 300.0		1 12108108201B	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	•	1 12104820002B	4/13/12 0936	Scott W Freisher	, 1
	5 MW-1 10' Grab Soil						
01638	TPH-GRO soil C6-C10	SW-846 8015B modified	1	1 12104A31A	4/14/12 2308	Laura M Krieger	26.21
08179	BTEX by 8021	SW-846 8021B		1 12104A31A	4/14/12 2308	Laura M Krieger	26.21
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	1 201210427357	4/13/12 0008	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B		2 121070031A	4/24/12 0022	Tracy A Cole	1
07004	Extraction - DRO (Soils)	SW-846 3550B		1 121070031A	4/17/12 0840	Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPA 300.0		2 12108108201B	4/24/12 1015	Christopher D Meeks	50
01352	Deionized Water Extraction	EPA 300.0		1 12108108201B	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	1	1 12104820002B	4/13/12 0936	Scott W Freisher	1
6614496	6 MW-2 15' Grab Soil						
01638	TPH-GRO soil C6-C10	SW-846 8015B modified	1	1 12104A31A	4/14/12 2344	Laura M Krieger	23.21
08179	BTEX by 8021	SW-846 8021B	1	1 12104A31A	4/14/12 2344	Laura M Krieger	23.21
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	1 201210427357	4/13/12 0011	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B		2 121070031A	4/24/12 0044	Tracy A Cole	1
07004	Extraction - DRO (Soils)	SW-846 3550B		1 121070031A	4/17/12 0840	Kerrie A Freeburn	1
07333	Chloride by IC (solid)	EPA 300.0		2 12108108201B	4/24/12 1031	Christopher D Meeks	100
01352	Deionized Water Extraction	EPA 300.0		1 12108108201B	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	1	1 12104820002B	4/13/12 0936	Scott W Freisher	1
6614497	MW-2 20' Grab Soil						
01638	TPH-GRO soil C6-C10	SW-846 8015B modified	1	1 12104A31A	4/15/12 0020	Laura M Krieger	25.25
08179	BTEX by 8021	SW-846 8021B	1	1 12104A31A	4/15/12 0020	Laura M Krieger	25.25
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	1 201210427357	4/13/12 0013	Scott W Freisher	n.a.
08270	TPH-DRO soil C10-C28	SW-846 8015B	2	2 121070031A	4/24/12 0106	Tracy A Cole	1

CAT			Trial	Analysis		
No.	Analysis Name	Method	ID Batch	Date/Time	Analyst	Dilution
07004	Extraction - DRO (Soils)	SW-846 3550B	1 121070031A	4/17/12 0840	Kerrie A Freeburn	. 1
07333	Chloride by IC (solid)	EPA 300.0	3 12108108201B	4/25/12 0409	Christopher D Meeks	50
01352	Deionized Water Extraction	EPA 300.0	1 12108108201B	4/17/12 0800	Nancy J Shoop	1
00111	Moisture	SM20 2540 G	1 12104820002B	4/13/12 0936	Scott W Freisher	1
	3 Trip Blank Water					
02102	Method 8021 Water Master	SW-846 8021B	1 12104A94A	4/16/12 1521	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1 12104A94A	4/16/12 1521	Catherine J Schwarz	. 1
6614499	MW-1 Grab Water					
01636	TPH-GRO water C6-C10	SW-846 8015B modified	1 12104A53A	4/16/12 1939	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1 12104A53A	4/16/12 1939	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1 12104A53A	4/16/12 1939	Marie D John	1
08269	TPH-DRO water C10-C28	SW-846 8015B	1 121070008A	4/17/12 1206	Tracy A Cole	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1 121070008A	4/16/12 1330	Kelli M Barto	1
00224	Chloride	EPA 300.0	1 12111987121A	4/21/12 0017	Clinton M Wilson	2500
00212	Total Dissolved Solids	SM20 2540 C	1 12107021202A	4/16/12 1408	Bronson L Cole	10
	MW-3 Grab Water					
01636	TPH-GRO water C6-C10	SW-846 8015B modified	1 12104A53A	4/16/12 2005	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1 12104A53A	4/16/12 2005	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1 12104A53A	4/16/12 2005	Marie D John	1
08269	TPH-DRO water C10-C28	SW-846 8015B	1 121070008A	4/17/12 1229	Tracy A Cole	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1 121070008A	4/16/12 1330	Kelli M Barto	1
00224	Chloride	EPA 300.0	1 12111987121A	4/21/12 0032	Clinton M Wilson	2500
00212	Total Dissolved Solids	SM20 2540 C	1 12107021202A	4/16/12 1408	Bronson L Cole	10
	MW-2 Grab Water					
01636	TPH-GRO water C6-C10	SW-846 8015B modified	1 12104A53A	4/16/12 2032	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1 12104A53A	4/16/12 2032	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1 12104A53A	4/16/12 2032	Marie D John	1
08269	TPH-DRO water C10-C28	SW-846 8015B	1 121070008A	4/17/12 1252	Tracy A Cole	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1 121070008A	4/16/12 1330	Kelli M Barto	1
00224	Chloride	EPA 300.0	1 12111987121A	4/21/12 0046	Clinton M Wilson	2500
00212	Total Dissolved Solids	SM20 2540 C	1 12107021202A	4/16/12 1408	Bronson L Cole	10
	Trip Blank Water					
02102	Method 8021 Water Master	SW-846 8021B	1 12104A53A	4/16/12 1417	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1 12104A53A	4/16/12 1417	Marie D John	1

Client Name: Conestoga-Rovers & Associates

Group Number: 1301809

## **Laboratory Compliance Quality Control**

Analysis Name	Blank Result	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	Max RPI	D
Batch number: 12104A31A	nber: 12104A31A Sample number(s): 6614483-6614484,6614486-6614487,6614489-6614497								
Benzene	N.D.	0.0050	mg/kg	90		76-118			
Ethylbenzene	N.D.	0.0050	mg/kg	91		77-115			
Toluene	N.D.	0.0050	mg/kg	89		80-120			
TPH-GRO soil C6-C10	N.D.	1.0	mg/kg	90		67-119			
Total Xylenes	N.D.	0.015	mg/kg	90		78-115			
Batch number: 12104A31B	Sample number(s): 6614482,6614485,6614488								
Benzene	N.D.	0.0050	mg/kg	90		76-118			
Ethylbenzene	· N.D.	0.0050	mg/kg	91		77-115			
Toluene	N.D.	0.0050	mg/kg	89		80-120			
TPH-GRO soil C6-C10	N.D.	1.0	mg/kg	90		67-119			
Total Xylenes	N.D.	0.015	mg/kg	90		78-115			
Batch number: 12104A53A	S	Sample number(s): 6614499-6614502							
Benzene	N.D.	0.0010	mg/l	100		80-120			
Ethylbenzene	N.D.	0.0010	mg/l	105		80-120			
Toluene	N.D.	0.0010	mg/l	105		80-120			
TPH-GRO water C6-C10	N.D.	50.	ug/l	118		75-135			
Total Xylenes	N.D.	0.0030	mg/l	107		80-120			
Batch number: 12104A94A	Sample number(s): 6614498								
Benzene	N.D.	0.0010	mg/l	100	100	80-120	,	) 3	0
Ethylbenzene	N.D.	0.0010	mg/l	100	100			) 3	
Toluene	N.D.	0.0010	mg/l	95	95				0
Total Xylenes	N.D.	0.0030	mg/l	102	102			3	
Batch number: 12107A31A	s	ample numbe	er(s): 66144	82					
TPH-GRO soil C6-C10	N.D.	1.0	mg/kg	76		67-119			

<sup>\* -</sup> Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Batch number: 121070008A	Samp	le number	(s): 6614499-	6614501				
TPH-DRO water C10-C28	N.D.	100.	ug/l	88		56-122		
Batch number: 121070031A	Samp	le number	(s): 6614482-	6614497				
TPH-DRO soil C10-C28	N.D.	12.	mg/kg	78		76-117		
Batch number: 12108108201A	Samp	le number	(s): 661 <b>4482</b> -	6614491,66	14493			
Chloride by IC (solid)	N.D.	10.0	mg/kg	99		90-110		
Batch number: 12108108201B	Samp	le number	(s): 6614492,	6614494-66	14497			
Chloride by IC (solid)	N.D.	10.0	mg/kg	99		90-110		
Batch number: 12111987121A	Samp	le number	(s): 6614499-	6614501				
Chloride	N.D.	0.40	mg/l	101		90-110		
Batch number: 12107021202A	Samp	le number	(s): 6614499-	6614501				
Total Dissolved Solids	N.D.	30.0	mg/l	101	87	80-120	15*	9
Batch number: 12104820002B	Samp	le number	(s): 6614482-	6614497				
Moisture		;		100		99-101		
	01							

Sample Matrix Quality Control
Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name		ISD REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP <b>RPD</b>	DUP RPD <b>Max</b>
Batch number: 12104A31A	Samp	ole numbe	r(s): 661448	3-6614484	,6614486-6	614487,66	14489-6614	497 UNSF	PK: 6614486
Benzene	109	109	52-135	5	30				

\* - Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.

Ethylbenzene Toluene	114 113	116 115	56-132 59-129	4 3	30 30				
	118	128*							
TPH-GRO soil C6-C10			39-118	7	30				
Total Xylenes	113*	114*	66-112	4	30				
Batch number: 12104A31B	Samp	ole numbe	er(s): 661 <b>44</b> 82	:,6614485,6 <del>6</del>	614488 UI	NSPK: 6614	486		
Benzene	109	) i 109	52-135	5	30				
Ethylbenzene	114	1116	56-132	4	30				
Toluene	113		59-132	3	30				
		115							
TPH-GRO soil C6-C10	118	128*	39-118	7	30				
Total Xylenes	113*	114*	66-112	4	30				
Batch number: 12104A53A	Samp	ole numbe	r(s): 6614499	-6614502 U	NSPK: P6	14533, P61	4540		
Benzene	105	110	80-130	5	30				
Ethylbenzene	110	110	80-133	0	30				
Toluene	110	1115	80-133	4	30				
TPH-GRO water C6-C10	109	118	75-135	8	30				
Total Xylenes	110	113	80-132	3	30				
Total Ayleries	110	1113	00-132	3	30				
Batch number: 12107A31A	Samp	ole 'numbe	r(s): 6614482	UNSPK: P6	316689				
TPH-GRO soil C6-C10	4*	102	39-118	35*	30				
Batch number: 121070008A	Samp	leinumbe	r(s): 6614499	-6614501 U	NSPK: P6	15748			
TPH-DRO water C10-C28	88	93	19-173	0	20				
Batch number: 121070031A	Samp	le numbe	r(s): 6614482	-6614497 U	NSPK: 66	14482 BKG	6614482		
		1							
TPH-DRO soil C10-C28	3 (2)		30-159			8,500	9,800	14	20
Batch number: 12108108201A	Samp	lenumbe	r(s): 6614482	-6614491,66	614493 UN	NSPK: 6614	482 BKG: 6	614482	
Chloride by IC (solid)	-18556 (2)	ı	90-110			18,700	18,400	2 (1)	20
								` ,	
Batch number: 12108108201B	Samp	le numbe	r(s): 6614492	,6614494-66	314497 UN	ISPK: 6614	492 BKG: 6	614492	
		1							
Chloride by IC (solid)	-8413 (2)		90-110			12,600	10,500	17 (1)	20
Batch number: 12111987121A	Samo	le numbei	r(s): 6614499	-6614501 UI	NSPK: P6	14674 BKG	P614674		

<sup>\* -</sup> Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chloride	100		90-110			2.0	2.1	3	20
Batch number: 12107021202A	Sample i	 number 	(s): 6614499-66	14501 UN	NSPK: P614	674 BKG: F	P614674		
Total Dissolved Solids	104	104	62-135	0	12	157	159	1	9
Batch number: 12104820002B	Sample	number	(s): 6614482-66	14497 BI	KG: 661448	9			r
Moisture						11.2	10.3	8	15

## Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Method 8021 Soil Master

Batch number: 12104A31A

_	Trifluorotoluene-F	Trifluorotoluene-P	
6614483	95	92	
6614484	92	90	
6614486	102	93	
6614487	96	91	
6614489	98	95	
6614490	90	88	
6614491	96	94	
6614492	94	98	
6614493	92	90	
6614494	95	95	·
6614495	96	94	
6614496	92	94	
6614497	89	91	
Blank	93	92	
LCS	95	90	
MS	96	86	
MSD	99	85	
Limits:	61-122	73-117	

Analysis Name: Method 8021 Soil Master

\* - Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.(2) The unspiked result was more than four times the spike added.

Batch number: 12104A31B

	Trifluorotoluene-F	Trifluorotoluene-P	
6614482		70*	
6614485	90	72*	
6614488	90	70*	
Blank	83	95	
LCS	95	90	
MS	96	86	
MSD	99	. 85	
Limits:	61-122	73-117	

Analysis Name: Method 8021 Water Master

Batch number: 12104A53A

	Trifluorotoluene-F	Trifluorotoluene-P	
6614499	76	80	
6614500	76	81	
6614501	76	80	
6614502		80	
Blank	76	79	
LCS	81	80	
MS	79	80	
MSD	81	80	
Limits:	63-135	51-120	

Analysis Name: Method 8021 Water Master

Batch number: 12104A94A

	Trifluorotoluene-P	
6614498	84	
Blank	84	
LCS	85	
LCSD	84	
Limits:	51-120	

Analysis Name: TPH-GRO soil C6-C10

\* - Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Batch number: 12107A31A

	Trifluorotoluene-F	p-F
6614482	87	,
Blank	77	
LCS	83	
MS	88	
MSD	87	
Limits:	61-122	<u> </u>

Analysis Name: TPH-DRO water C10-C28

Batch number: 121070008A

	Orthoterphenyl		
6614499	88		
6614500	60		
6614501	41*	1	
Blank	89		
LCS	91	1	•
MS	91		
MSD	91		
Limits:	50-154		

Analysis Name: TPH-DRO soil C10-C28

Batch number: 121070031A

Baton namber, 12 101 000 17	•	
	Orthoterphenyl	
6614482	198*	
6614483	93	,
6614484	82	ı
6614485	118	i
6614486	80	:
6614487	87	
6614488	106	
6614489	85	
6614490	84	1
6614491	86	1
6614492	89	
6614493	87	
6614494	89	
6614495	89	İ
6614496	104	

- \* Outside of specification
- (1) The result for one or both determinations was less than five times the LOQ.(2) The unspiked result was more than four times the spike added.

6614497	110 '
Blank	89
Blank DUP	230*
LCS MS	91
MS	207*
Limits:	50-143

<sup>\* -</sup> Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

#### QC Comment

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### 6614482 SB-2 5' Grab Soil

00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

08179 Method 8021 Soil Master

Reporting limits were raised due to interference from the sample matrix.

6614483 SB-2 15' Grab Soil

00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

6614484 SB-2 25' Grab Soil

00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

6614485 SB-3 5' Grab Soil

00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

08179 Method 8021 Soil Master

Reporting limits were raised due to interference from the sample matrix.

#### 6614486 SB-3 10' Grab Soil

00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

#### 6614487 SB-3 20' Grab Soil

00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

#### 6614488 SB-1 5' Grab Soil

00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

08179 Method 8021 Soil Master

Reporting limits were raised due to interference from the sample matrix.

#### 6614489 SB-1 15' Grab Soil

00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

#### 6614490 SB-1 25' Grab Soil

#### 00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

#### 6614491 MW-3 5' Grab Soil

#### 00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

#### 6614492 MW-3 10' Grab Soil

#### 00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

#### 6614493 MW-3 15' Grab Soil

#### 00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

#### 6614494 MW-1 5' Grab Soil

#### 00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

#### 6614495 MW-1 10' Grab Soil

00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

6614496 MW-2 15' Grab Soil

00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

6614497 MW-2 20' Grab Soil

00111 Moisture

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

6614498 Trip Blank Water

6614499 MW-1 Grab Water

6614500 MW-3 Grab Water

6614501 MW-2 Grab Water

08269 TPH-DRO water C10-C28

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

6614502 Trip Blank Water



Lancaster

## **Explanation of Symbols and Abbreviations**

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	: L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C - result confirmed by reanalysis.

J - estimated value - The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

#### U.S. EPA CLP Data Qualifiers:

	Organic Qualifiers		Inorganic Qualifiers
Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	Ε	Estimated due to interference
С	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
Ε	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
Y.Z	Defined in case narrative		

#### Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

3768.08

L-2012-1018 Y = 463.700**⊘**\*C−1\* Chevron: Pardue Farms: #27-12 MW-3 ⊕ (0 "P-1" MW-619,900 = 463.100

THIS IS NOT A BOUNDARY SURVEY Apparent property corners and property lines, if shown, are for information only.

		GEODETIC PO	SITIONS .		STATE PLANE	COORDINATES	ELEVATION NAVO '88 (US FL)			
DESCRIPTION		NORTH AMERICAN D	ATUM OF 1983		NAD '83 - New Mexic	o East Zone (US Ft)				
	Latitude (D.M.S.)	Longitude (D.M.S.)	Latitude (D.D.)	Longitude (D.D.)	Northing (Y)	Easting (X)	Top of Casing	* Concrete Pad	Natural Ground	
MW-1	32"16'24.66" N	104*04'42,44" W	32.27352	-104.07846	463,331.95	620,111.34	3,070.30	3,067.69	3,067.4	
MW-2	32*16'24,03" N	104*04*41.73" W	32.27334	-104.07826	463,268.71	620,172.25	3,071.87	3,069,30	3,068.8	
MW-3	32"16'24.88" N	104*04'41.46" W	32,27358	-104.078181	463,353.84	620,195.54	3,068.64	3,066.15	3,065.8	
C-1_	32*16'26.84" N	104°04'38.76" W	32.27412	-104.07743	463,552.62	620,427.00			3,061.6	
P-1	32°16'24.91" N	104°04'41.25" W	32.27359	-104,07812	463,357.47	620,213.48			3,065.5	

Date Surveyed: May 25, 2012 Weather: Hot & Breezy

#### NOTE:

- Plane Coordinates shown hereon are Transverse Mercator-Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1983.
- 2) Elevations shown hereon reference the North American Vertical Datum of 1988.
- Geodetic Coordinates shown hereon references the North American Datum of 1983 (GRS '80). Reference Stations "ANDREWS" CORS (DM4149), "KERMIT" CORS (DM4161) and "PECOS" CORS (DM4167).

I HEREBY CERTIFY THAT THIS PLAT WAS MADE, FROM NOTES TAKEN IN THE FIELD IN A BONA PIDE SURVEY MADE UNDER MY SUPERVISION ME

MACON McDONALD

# WEST COMPAN LAFESSIONAL OF Midland, Inc.

110 W. LOUISIANA, STE. 110 MIDLAND TEXAS, 79701 (432) 687-0868 FAX

LEGEND

Denotes Producing Well Location

Denotes Monitoring Well

Denotes Static GPS Control Station

100 100 200 Graphic Scale in Feet

### CONESTOGA-ROVERS & ASSOCIATES

Topographic Survey of

#### MONITOR WELLS

Located at Pardue Farms Section 27, Township 23 South, Range 28 East New Mexico Principal Meridian Eddy County, New Mexico

Drawn By: LVA	Date: June 7, 2012
Scale: 1" = 100'	Field Book: 410 / 76-78
Revision Date:	Quadrangles: Angel Draw
W.O. No: 2012-1018	Dwg. No.: L-2012-1018

Copyright 2012 Rights Reserved

F

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8-2011 ubmit 1 Copy to appropriate District Office in

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

		•	. Wei	esse laoi	nican	on and Co	drrective A	retion.		,		j.
						OPERA'	<b>TOR</b>	Þ	İ İnitia	l Report	. T	Final Repor
Name of Company: Chevron						Contact: Ms. Donna Burt						
Address: 2401 Avenue O, P.O. Box 1949, Eunice, NM 88231						Telephone No.: (575) 631-2151						
Facility Name	Pardue	Farms 27-1	2	ر را در استان اوردی دورد در از در در استان وردی دورد	<u></u>	Facility Typ	oë: Oil Well,	ir Berling programmed ar	i inga tau	, 1.3	ging that A	(#
Surface Owne	Dilly R	Anlton Anton	un toganierina	TO A STATE OF THE		ar Ollishaan	er en en en en en en en en en en en en en	j A. Skultin <u>Graniwa in Ja</u>	A TAN A 195	termination of the	5,140 - 140 5,140 - 140	The state of the s
L Durrace Owne	a. Dilly i	vierron!	Her a kan sammen	L'ivilie	rai Owne	r: Chevron	<u></u>	<u> </u>	API No	<u> 4</u>	<u>. 1864</u>	*************
						ON OF RE	LEASE	; i			j:	د گورس دیاس
Tale to the control of the control o			Range	Feet from t	he Noi	th/South Line	Feet from the	East/We	it Line"	County	1.	*:
12 2	27	23 S	28 W			•		:		Eddy "	4	:
		3 73-75 1901 100	] [	<u> </u>	4.4		<u>ll </u>	<u> </u>	<u> </u>	NO. 14172.4 11	<u> </u>	<u>;</u>
			Latitud	e <u>r</u> N 32:273	58 I	ongitude	W 104.07818		e.		3	
					מוניורים	E OF RELI	E A CIT	الماسهان فيور فالمؤرم البار				:
Type of Release	Produce	d water with	oil .	1.4	AIUM		Release: Initial	Lav.	ALISS D	ecovered - N	di	na na libera y kanada kanada ka sa sa sa sa sa sa sa sa sa sa sa sa sa
Type of recicase	ov ji rogadee	u water, with	On.				3.617 bbls.	, Y	ðiniliê k	recovered in	OHC.	
Source of Relea	se: Flowli	ne:	erioter Recei	Orac Systematics	्री - 15.50 स		lour of Occurrence	œ D	ate and	Hour of Dis	covery	: Jûne 7
		***			<u> </u>	May 2010			010, 12:0		119 77 5	ing the state of the second second second second second second second second second second second second second
Was Immediate	Notice G	ven?	· 3.5	i štroka sa		If YES, To	Whom?				ř.	
		لنار	YCS. L	No 🔯 No	or Rednire		<u> </u>			<u> </u>	\$	
By Whom?	34745,7166	Secultary of the first	Control of the Control	androus many contracts	1		lour.		21.00 to 10.00			
Was a Watercou	urse Reach		Yes 🗵	i kiz	†	ii YES, Yo	lume Impacting	the Waterco	ourse.		3	
<u> </u>			×	**		· .	<u>.,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, </u>				₽ .	
If a Watercourse	e was Imp	acted, Descri	be Fully.∜	No impact to	o a watere	ourse occurred.			•	· · · · · · · · · · · · · · · · · · ·		• • • • • •
											:: ;;	
											¥.	•
Describe Cause					- 13 Tel. 13.	A Transport	1 - 22 - 22 - 22 - 22		31 Fa	4	· · · · · · · ·	The second secon
Flowline had a p	oin hole or	i the top side	of the pip	e caused by	internal co	prosion. The lea	k was stopped ur	on discove	ry and a	subcontrac	or was	called to
remediate impac	cted soil ai	id replace the	e ilowline	. The release	was initia	lly estimated at	less than 5 bbls a	ind an inten	nal repoi	t was produ	ced.	. :
<u>.</u>					1		`. 				<u> </u>	:
	<u>তিক্তাল কৈ কাল চ</u>	e esperato per proper de la compansión de la compansión de la compansión de la compansión de la compansión de l				and the constant of the	<u>(</u>	1 4 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	tra sua	<u> </u>	). Ji	a
Describe Arca A	Affected ar	id Cleanup A	ction l'ak	en.*	production of the second	e mengala salah perdaman salah salah salah salah salah salah salah salah salah salah salah salah salah salah s Reserve salah salah salah salah salah salah salah salah salah salah salah salah salah salah salah salah salah	kecak, selesist		en de la serie	i se a incidencia. In <sup>1</sup> diffundiciali in in	igginione Selection Melicipality	vita bizzi - i
The area surrounding the pin hole on the flow line appeared wet contractor excavated some impacted soil. However once excavate						contractor was c	alled to remediat	e the impac	ted soil	and replace	the flo	w line. The
that indicated the	at the rele	ise may be la	irger than	5 bbls. The e	xact amou	int of fluid lost i	has not been dete	as greater it	iaii 5 00	is. I wo boil	aioles	were drilled
doorston och fill and i filt.	196 x 402.04 41位	altainin 1994 ann ait àir àir eile ait.	4 At 100 8+200	ta disenso por la farra de la com	The state of the s	e to to may hall they be the part of	विकेश स्थाप । विकासिक स्थापित स्थापित स्थापित स्थापित स्थापित स्थापित स्थापित स्थापित स्थापित स्थापित स्थापित स्थापित स्थापित al and the second	in.		). }.	<u>;</u>	
					1						); ;}	:
I hereby certify t	that the in	ormation on	rén abôvo	ic this and a	moleje to	The Rack of Edit	language and it	are reason in Dalah dalah d	e de production de la company de la company de la company de la company de la company de la company de la comp La company de la company de la company de la company de la company de la company de la company de la company d	tone to KRA	ole one	earwater is the St. St.
regulations all or												
public health or t	the enviro	nment. The	acceptanc	e of a C-141	report by	he NMOCD ma	arked as "Final R	eport" does	not relie	ve the oper	ator of	liability
should their oper												
or the environme federal, state, or				ance of a C-	41 report	does not relieve	the operator of i	responsibili	ty tor co	mpliance w	ith any	other .
rederal, state, or	iocai iavis	rantoror regul	tations.	e i gran estat cata	etaan terapitan a G		OIL CON	SERVA	PION I	DIVISIO	N	1 100 m m m m m m m m m m m m m m m m m
	2000	2/30		į	J.		OIL COM.	SLIX VA	TON	DTATOTO	100	
Signature: /8/	Why ().	AU	<u> </u>								::	
Printed Name:	ر طواه	<b>3</b> L	(3)			Approved by	Environmental Si	pecialist:				•
rinted ivame:		<u> </u>	<del>IN NA LEGI</del> PROGRAM	and the second	<del> </del>	The second second second	Productive Comparison of the second			· · · · · · · · · · · · · · · · · · ·	<u> </u>	
Title: Produc	CTION	TOAM	LOAD	en_		Approval Date	lin. 32	Exn	iration D	Date:		
terrore and the second	1 1 1	12. 33.	The state of the s			ាស្រាល់ មានក្រោយ ។ ។ ព្រះពេទ្ធ ព្រះពេទ្ធ ។ ។ ។ ។ ។ ។ ។ ។ ។ ។ ។ ។ ។ ។ ។ ។ ។ ។ ។		<del>- 151</del>	, · · · · · · · · · · · · · · · · · · ·			THE REST OF STREET
E-mail Address:	Do bor	A.11@C	2 الكونية	iai. LOM	<del> </del>	Conditions of	Approval:			Attached	15	·
Daic: (1) 7/12_ Phone: 575:631 9108											و لنه	; }-
Palo III	<del></del>		Luone:	-12.65	7108					i	•	1