

Electronic Correspondence

January 5, 2015

Re: Corrective Action Plan

Mark L Shidler Inc., State 1-30 Battery (Nearest Well – State 1-30 001)

API No.: 30-025-08441

GPS: 33.25509, -103.54838

Legal: Unit B, Section 30, Township 12S, Range 34E – Lea County, NM
1RP-3465

To Whom It May Concern:

Viper Products and Services is pleased to submit the following
Corrective Action Plan on the aforementioned site for your review and approval.

Work to be Performed-

The scope of this project is for the remediation of a produced water and hydrocarbon release of an estimated 130 bbls (barrels) that occurred when a heater-treater obtained a hole through corrosion. The spill covered approximately 6,100 square feet contained within the secondary containment (firewall) of the battery. There was a spray that went off the location in the pasture but analytical shows that this area was not impacted (see attached Release Area Map).

4 sample points (SP) were set and surface samples were taken at the depth of the excavation that had previously been performed. Laboratory analytical shows that the 3 sample points within the firewall will require further delineation as well as excavation as per the New Mexico Oil Conservation Division (OCD), because of the Benzene and the chloride concentrations. SP 4 requires no further action (see attached Sample Summary).

Further delineation will occur utilizing a backhoe to determine the depth of the contamination. Because the ground water depth is between 50 and 100 feet, the concentration of chlorides must be below 500 parts per million (ppm) and one sample point must be at or below the Clean Drinking Water Standard of 250 ppm. Total Petroleum Hydrocarbons must be below 1000 ppm. Benzene, Toluene, Ethyl Benzene, Xylenes (BTEX) must be below 50 with no more than 10 ppm of Benzene. If an acceptable level of concentration of the contaminants cannot be reached using the backhoe, a drilling rig will be utilized.

Because this is an active location, the OCD has given verbal approval to only have to excavate down 2-3 feet as long as a plastic liner will be placed before backfilling. If the site cleans up to an acceptable level before the 3' benchmark, excavation will cease. The release location will be excavated down to the appropriate depth and impacted firewall will be removed and replaced with remediated soil being taken to an approved disposal facility once the Benzene levels have volatilized to below 10 ppm.. (See attached Excavation Diagram)

Confirmatory samples will be taken on the sidewalls at ½ of depth of the excavation and sent to an approved Laboratory to ensure affected area is fully remediated.

If the results of analyses determine that the contaminant levels are above regulatory threshold levels, additional expansion of the excavation will be performed until the remediation objectives are met.

A plastic liner will be placed at the bottom of the excavated area and compacted gypsum (caliche) will be placed on top to bring the excavated area up to grade.

The area around SP4, which is outside the firewall, will not be remediated as analytical shows the surface to be clean of actionable contaminants.

Thank you for your assistance on this matter. If you have any questions, need more information, or have any additional requirements for this site, please contact me at (940) 395-3308, fredramsey711@gmail.com

Respectfully:

Fred Ramsey
Project Manager
Viper Products and Services

State 1-30 Battery



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 29, 2014

FRED RAMSEY

VIPER PRODUCTS AND SERVICES

4702 COLLEGE AVENUE

SNYDER, TX 79549

RE: STATE 1-30 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 12/19/14 14:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:VIPER PRODUCTS AND SERVICES
FRED RAMSEY
4702 COLLEGE AVENUE
SNYDER TX, 79549
Fax To:Received: 12/19/2014
Reported: 12/29/2014
Project Name: STATE 1-30 BATTERY
Project Number: NONE GIVEN
Project Location: LEA COUNTYSampling Date: 12/19/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson**Sample ID: SP 1 @ 1' (H403895-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	12/22/2014	ND	400	100	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	30500	100	12/22/2014	ND	201	100	200	4.10		
DRO >C10-C28	40000	100	12/22/2014	ND	195	97.4	200	1.72		

Surrogate: 1-Chlorooctane 2600 % 47.2-157

Surrogate: 1-Chlorooctadecane 223 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

VIPER PRODUCTS AND SERVICES
FRED RAMSEY
4702 COLLEGE AVENUE
SNYDER TX, 79549
Fax To:

Received: 12/19/2014
Reported: 12/29/2014
Project Name: STATE 1-30 BATTERY
Project Number: NONE GIVEN
Project Location: LEA COUNTY

Sampling Date: 12/19/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 6" (H403895-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	34.5	20.0	12/23/2014	ND	1.87	93.4	2.00	4.37	
Toluene*	510	20.0	12/23/2014	ND	1.85	92.3	2.00	4.87	
Ethylbenzene*	147	20.0	12/23/2014	ND	1.68	83.9	2.00	8.18	
Total Xylenes*	1090	60.0	12/23/2014	ND	4.99	83.1	6.00	9.33	
Total BTEX	1780	120	12/23/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/22/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	21000	200	12/22/2014	ND	201	100	200	4.10	
DRO >C10-C28	25400	200	12/22/2014	ND	195	97.4	200	1.72	

Surrogate: 1-Chlorooctane 2800 % 47.2-157

Surrogate: 1-Chlorooctadecane 223 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

VIPER PRODUCTS AND SERVICES
FRED RAMSEY
4702 COLLEGE AVENUE
SNYDER TX, 79549
Fax To:

Received: 12/19/2014
Reported: 12/29/2014
Project Name: STATE 1-30 BATTERY
Project Number: NONE GIVEN
Project Location: LEA COUNTY

Sampling Date: 12/19/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ 1' (H403895-03)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1680	16.0	12/22/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1110	50.0	12/22/2014	ND	201	100	200	4.10	
DRO >C10-C28	10300	50.0	12/22/2014	ND	195	97.4	200	1.72	

Surrogate: 1-Chlorooctane 423 % 47.2-157

Surrogate: 1-Chlorooctadecane 178 % 52.1-176

Sample ID: SP 4 @ SURFACE (H403895-04)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/22/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/22/2014	ND	201	100	200	4.10	
DRO >C10-C28	78.7	10.0	12/22/2014	ND	195	97.4	200	1.72	

Surrogate: 1-Chlorooctane 96.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 114 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 VIPER PRODUCTS AND SERVICES
 FRED RAMSEY
 4702 COLLEGE AVENUE
 SNYDER TX, 79549
 Fax To:

 Received: 12/19/2014
 Reported: 12/29/2014
 Project Name: STATE 1-30 BATTERY
 Project Number: NONE GIVEN
 Project Location: LEA COUNTY

 Sampling Date: 12/19/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: PILE COMPOSITE (H403895-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3280	16.0	12/22/2014	ND	400	100	400	3.92		
TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	8860	200	12/23/2014	ND	192	95.9	200	0.542		
DRO >C10-C28	27400	200	12/23/2014	ND	186	93.1	200	0.738		

Surrogate: 1-Chlorooctane 1580 % 47.2-157

Surrogate: 1-Chlorooctadecane 273 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report



Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

[illegible]

September 23, 2015

GREG GREGSON

MARK L. SHIDLER

1313 CAMPBELL ROAD BLDG. D

HOUSTON, TX 77055

RE: NM STATE I-30

Enclosed are the results of analyses for samples received by the laboratory on 09/17/15 14:19.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

MARK L. SHIDLER
GREG GREGSON
1313 CAMPBELL ROAD BLDG. D
HOUSTON TX, 77055
Fax To:

Received:	09/17/2015	Sampling Date:	09/17/2015
Reported:	09/23/2015	Sampling Type:	Soil
Project Name:	NM STATE I-30	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	LEA		

Sample ID: FRONT WELL-HEAD (H502446-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	09/18/2015	ND	432	108	400	3.77	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/22/2015	ND	204	102	200	3.89	
DRO >C10-C28	56.7	10.0	09/22/2015	ND	215	107	200	7.00	
Surrogate: 1-Chlorooctane	62.8 %	47.2-157							
Surrogate: 1-Chlorooctadecane	76.7 %	52.1-176							

Sample ID: CENTER- LOCATION (H502446-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	09/18/2015	ND	432	108	400	3.77	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/22/2015	ND	204	102	200	3.89	
DRO >C10-C28	514	10.0	09/22/2015	ND	215	107	200	7.00	
Surrogate: 1-Chlorooctane	70.0 %	47.2-157							
Surrogate: 1-Chlorooctadecane	91.4 %	52.1-176							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

MARK L. SHIDLER
GREG GREGSON
1313 CAMPBELL ROAD BLDG. D
HOUSTON TX, 77055
Fax To:

Received:	09/17/2015	Sampling Date:	09/17/2015
Reported:	09/23/2015	Sampling Type:	Soil
Project Name:	NM STATE I-30	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	LEA		

Sample ID: S.E. DEADMAN (H502446-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	09/18/2015	ND	432	108	400	3.77	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	09/22/2015	ND	204	102	200	3.89	
DRO >C10-C28	500	50.0	09/22/2015	ND	215	107	200	7.00	
Surrogate: 1-Chlorooctane	50.2 %	47.2-157							
Surrogate: 1-Chlorooctadecane	95.6 %	52.1-176							

Sample ID: S- WELL-HEAD (H502446-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	880	16.0	09/18/2015	ND	432	108	400	3.77	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/22/2015	ND	204	102	200	3.89	
DRO >C10-C28	329	10.0	09/22/2015	ND	215	107	200	7.00	
Surrogate: 1-Chlorooctane	67.9 %	47.2-157							
Surrogate: 1-Chlorooctadecane	86.3 %	52.1-176							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

MARK L. SHIDLER
GREG GREGSON
1313 CAMPBELL ROAD BLDG. D
HOUSTON TX, 77055
Fax To:

Received:	09/17/2015	Sampling Date:	09/17/2015
Reported:	09/23/2015	Sampling Type:	Soil
Project Name:	NM STATE I-30	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	LEA		

Sample ID: N.E. DEADMAN (H502446-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	09/18/2015	ND	432	108	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	09/22/2015	ND	204	102	200	3.89		
DRO >C10-C28	129	10.0	09/22/2015	ND	215	107	200	7.00		

Surrogate: 1-Chlorooctane 71.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 83.0 % 52.1-176

Sample ID: N-WELL-HEAD (H502446-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1860	16.0	09/18/2015	ND	432	108	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<50.0	50.0	09/22/2015	ND	204	102	200	3.89		
DRO >C10-C28	3500	50.0	09/22/2015	ND	215	107	200	7.00		

Surrogate: 1-Chlorooctane 78.6 % 47.2-157

Surrogate: 1-Chlorooctadecane 131 % 52.1-176

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



Page 6 of 6

(575) 393-2326 FAX (575) 393-2476

[illegible]

+ Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

SAMPLE**PROJECT****State 1-30 Battery**

<u>Sample #</u>	<u>Depth/FT</u>	<u>CHLORIDES</u>	<u>TPH</u>	<u>BTEX</u>
SP1	1	96	70500	N/A
SP2	0.5	80	46400	3561.5
SP3	1	1680	11410	N/A
SP4	SURFACE	80	78.7	N/A



Above Regulatory Limit

Below Clean Drinking Water Standard

Below Regulatory Limit

State 1-30 Battery

Release Area - approximately 6100 ft²

Legend





- Sample Points
- Heater Treater
- Release Area



Excavation Diagram

Approximately 4,500 ft²

Legend

-  Area to be sprayed with VREW
-  Heater Treater
-  Excavation Area
-  Sample Points

SP4

SP1

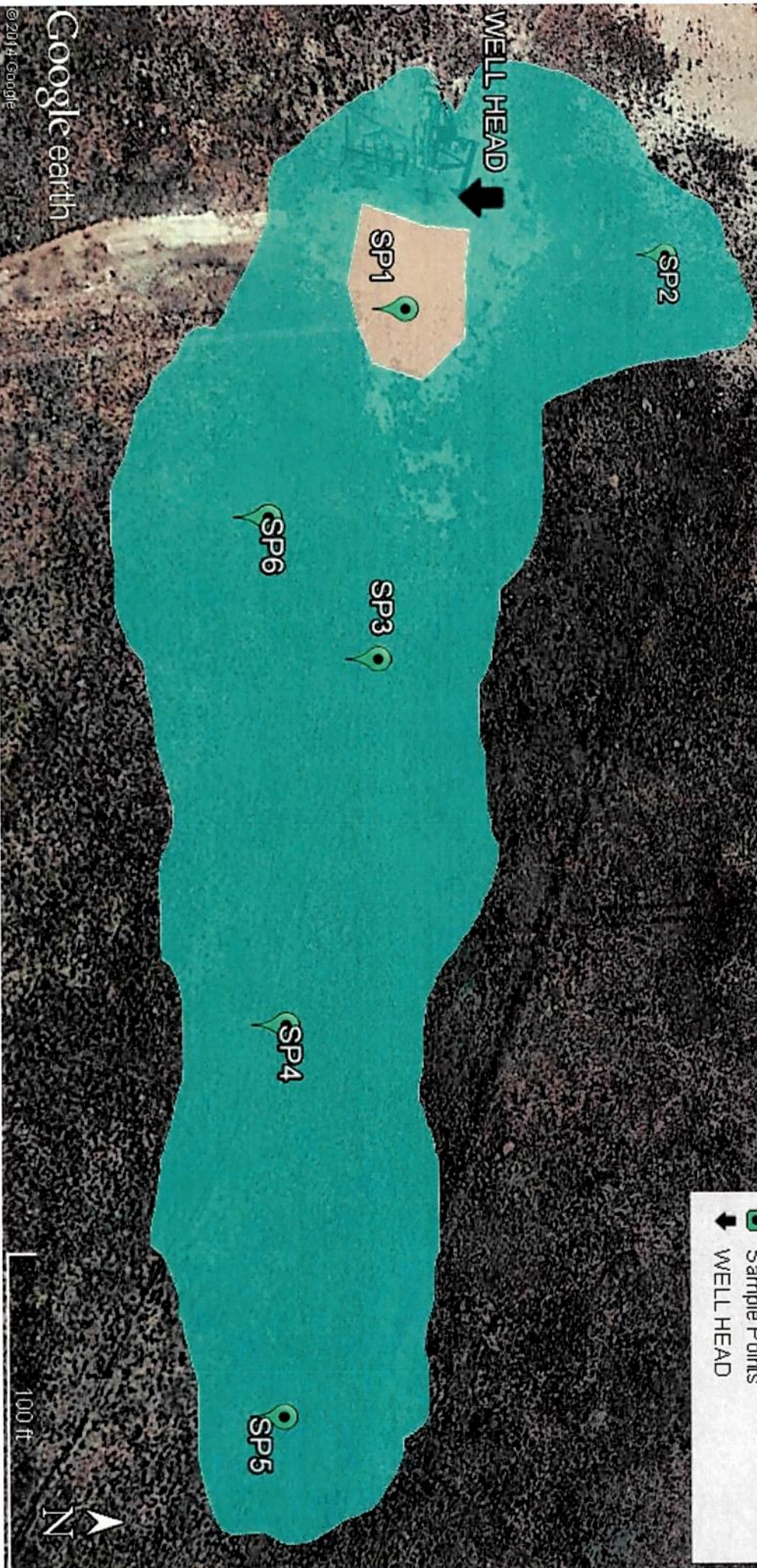
SP2

Heater Treater

SP3

Excavation Diagram

Approximately 2,350 ft²



Legend

- Excavation Area
- Area to be sprayed with VREW
- Sample Points
- WELL HEAD

Google earth

© 2014 Google



MARK L. SHIDLER, INC.

Site Map of Soil Samples

Not to scale Sample Date: 09/23/2015















MARK L. SHIDLER, INC.
NM State No. 1-30
Lea Co., NM

Dec. 8, 2014 Release Area (Around Wellhead)

Further delineation of oil saturated soils north and south of Wellhead
occurring on Oct. 28 and 29, 2015

Northside



Southside



November 09, 2015

GREG GREGSON

MARK L. SHIDLER

1313 CAMPBELL ROAD BLDG. D

HOUSTON, TX 77055

RE: NM STATE I-30

Enclosed are the results of analyses for samples received by the laboratory on 11/04/15 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

MARK L. SHIDLER
GREG GREGSON
1313 CAMPBELL ROAD BLDG. D
HOUSTON TX, 77055
Fax To:

Received: 11/04/2015
Reported: 11/09/2015
Project Name: NM STATE I-30
Project Number: NONE GIVEN
Project Location: LEA

Sampling Date: 11/03/2015
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

Sample ID: SE WELL HEAD (H502915-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/05/2015	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2015	ND	207	103	200	0.927	
DRO >C10-C28	99.1	10.0	11/05/2015	ND	211	105	200	0.0565	
Surrogate: 1-Chlorooctane		85.6 %	35-147						
Surrogate: 1-Chlorooctadecane		94.7 %	28-171						

Sample ID: NW WELL HEAD (H502915-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/05/2015	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2015	ND	207	103	200	0.927	
DRO >C10-C28	122	10.0	11/05/2015	ND	211	105	200	0.0565	
Surrogate: 1-Chlorooctane	83.9 %	35-147							
Surrogate: 1-Chlorooctadecane	93.3 %	28-171							

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

MARK L. SHIDLER
GREG GREGSON
1313 CAMPBELL ROAD BLDG. D
HOUSTON TX, 77055
Fax To:

Received: 11/04/2015
Reported: 11/09/2015
Project Name: NM STATE I-30
Project Number: NONE GIVEN
Project Location: LEA

Sampling Date: 11/03/2015
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

Sample ID: SW WELL HEAD (H502915-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/05/2015	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2015	ND	207	103	200	0.927	
DRO >C10-C28	127	10.0	11/05/2015	ND	211	105	200	0.0565	
Surrogate: 1-Chlorooctane		70.9 %	35-147						
Surrogate: 1-Chlorooctadecane		79.4 %	28-171						

Sample ID: NE WELL HEAD (H502915-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/05/2015	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2015	ND	207	103	200	0.927	
DRO >C10-C28	161	10.0	11/05/2015	ND	211	105	200	0.0565	
Surrogate: 1-Chlorooctane		90.7 %	35-147						
Surrogate: 1-Chlorooctadecane		105 %	28-171						

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



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