



August 22, 2011



Mr. Mike Bratcher  
NMOCD District 2  
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Artesia, NM 88210

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Amarillo, Texas 79107  
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Schertz, Texas 78154  
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TULSA  
525 South Main Street  
Suite 535  
Tulsa, Oklahoma 74103  
Phone 918.742 0871  
Fax 918.382.0232

Subject: **Soil Assessment and Remediation Work Plan**  
Cimerax Energy Corporation  
Penny Pincher Federal Com No.003H Tank Battery Release  
API # 30-015-38296 – 2RP-806

Dear Mr. Bratcher,

Cimerax Energy has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced Penny Pincher Federal Com 003H Tank Battery release. Our soil sampling results, completed actions and proposed remediation activities consist of the following:

**Incident Date**

June 25, 2011

**Background Information**

The Penny Pincher Federal Com 003H Tank Battery is located approximately forty-four (44) miles southeast of Artesia, New Mexico. The legal location for the site is Section 21, Township 19 South and Range 31 East in Eddy County, New Mexico. More Specifically the latitude and longitude for the release are 32.652292 North and -103.87328 West.

This site lies on undulating plains and low hills consisting of wind worked sandy deposits. Drainage courses in this area are normally dry. The local surface and shallow geology, Quaternary Age sedimentary deposits comprised of alluvium and eolian sands which includes silty soils underlain by sand stone and hard caliches. The New Mexico State Engineer web site indicates the nearest ground water data to be in S36-T19S-R31E. The ground water in Section 36 is reported to be at depth of 130' below ground surface (bgs). The referenced groundwater data is presented in Appendix I.

The ranking for this site is 0 based on the as following:

- Depth to ground water >100'
- Wellhead Protection Area >1000'
- Distance to surface water body >1000'

ENVIRONMENTAL CONSULTING  
ENGINEERING  
DRILLING  
CONSTRUCTION  
SPILL MANAGEMENT  
GENERAL CONTRACTING

## Incident Description

The vent back pressure valve malfunctioned blowing oil out of the thief hatch which caused over spray behind the tanks. Most of the oil was caught inside the lined containment of the tank battery and recovered by a vacuum truck. The fluids pooled in an area outside the containment behind the tank battery and as measured to be approximately 60-feet long by 11-feet wide. The area impacted by the overspray was measured to be approximately 180-feet long by 114-feet wide. A site plan illustrating the work area is attached.

## Actions Taken

On July 1, 2011 Talon/LPE mobilized personnel to begin assessment and soil sampling for the construction of a work plan. Grab soil samples were collected utilizing a hand auger. The soil samples S-1 were collected from the impacted area located in the pooling area behind the tank battery. The soil samples S-2 were collected from the impacted area from the overspray.

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were tested for TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M, and volatile organics (BTEX) using EPA Method 8021B. The chlorides were analyzed per method SM4500Cl-B. The complete laboratory report is attached as Appendix II.

## Analytical Results

Analytical results received from Cardinal Laboratories dated July 7, 2011 are summarized below:

<u>Sample, Depth</u>	<u>Chlorides</u>	<u>BTEX</u>	<u>TPH</u>
S-1 0'	32 mg/kg	149.5 mg/kg	15400 mg/kg
S-1 1'	32	707.4	16860
S-1 2'	<16	15.267	756
S-1 3'	<16	<50	50.7
S-1 4'	<16	<50	72.5
S-2 0'	32	<50	1140
S-2 1'	<16	<50	<10
S-2 2'	<16	<50	<10
Background	432		

For this site's ranking, New Mexico Oil Conservation District action level criterion for BTEX is 50 mg/kg, Benzene is 10 mg/kg and TPH is 5,000 mg/kg. The chloride remediation standard is considered to be 1,000 mg/kg.

### **Remedial Actions Taken:**

On July 15, 2011 Talon personnel remobilized to the subject facility to carry out remedial actions. The impacted area from the overspray was scraped/furrowed using pick axes and hand tools to enhance adsorption of the Micro Blaze solution into the location. A total of 500-gallons of fresh water and Micro Blaze were mixed according to manufacture specifications and spray applied to the impacted area.

### **Summary and Conclusions**

- Ground water in the project vicinity is greater than 100-feet below land surface per the New Mexico State Engineer Database.
- Based upon the results of the laboratory data obtained for this investigation, the vertical impacts of the hydrocarbon release have been documented to extend 2-feet below ground surface in the impacted pooling area outside of the tank battery.
- Based on the depth to groundwater and the contamination levels detected in the soil, it is unlikely that the impacts identified from this release will pose a threat to groundwater after the proposed remediation activities are complete.

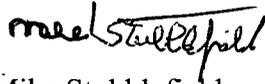
### **Proposed Remedial Actions**

- Completed remedial actions consisting of 500-gallons of Micro Blaze solution were applied to the over spray area.
- A 90-day soil sample will be done on the area in which Micro Blaze was applied.
- The containment area of the tank battery was lined and no further corrective actions are required.
- The impacted soil from this hydrocarbon release in the pooling area will be excavated to a depth of 2-feet deep. The excavated soil will be transported to a NMOCD approved solid waste disposal facility.
- The excavated area will be backfilled to grade using new material transported from a local borrow pit.
- A final report documenting all remedial actions and analytical results will be provided to the NMOCD Artesia Office utilizing Form C-141.

If we can provide additional information or be of further assistance please contact our office at 575.746.8768.

Respectfully submitted,

TALON/LPE

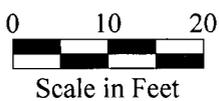
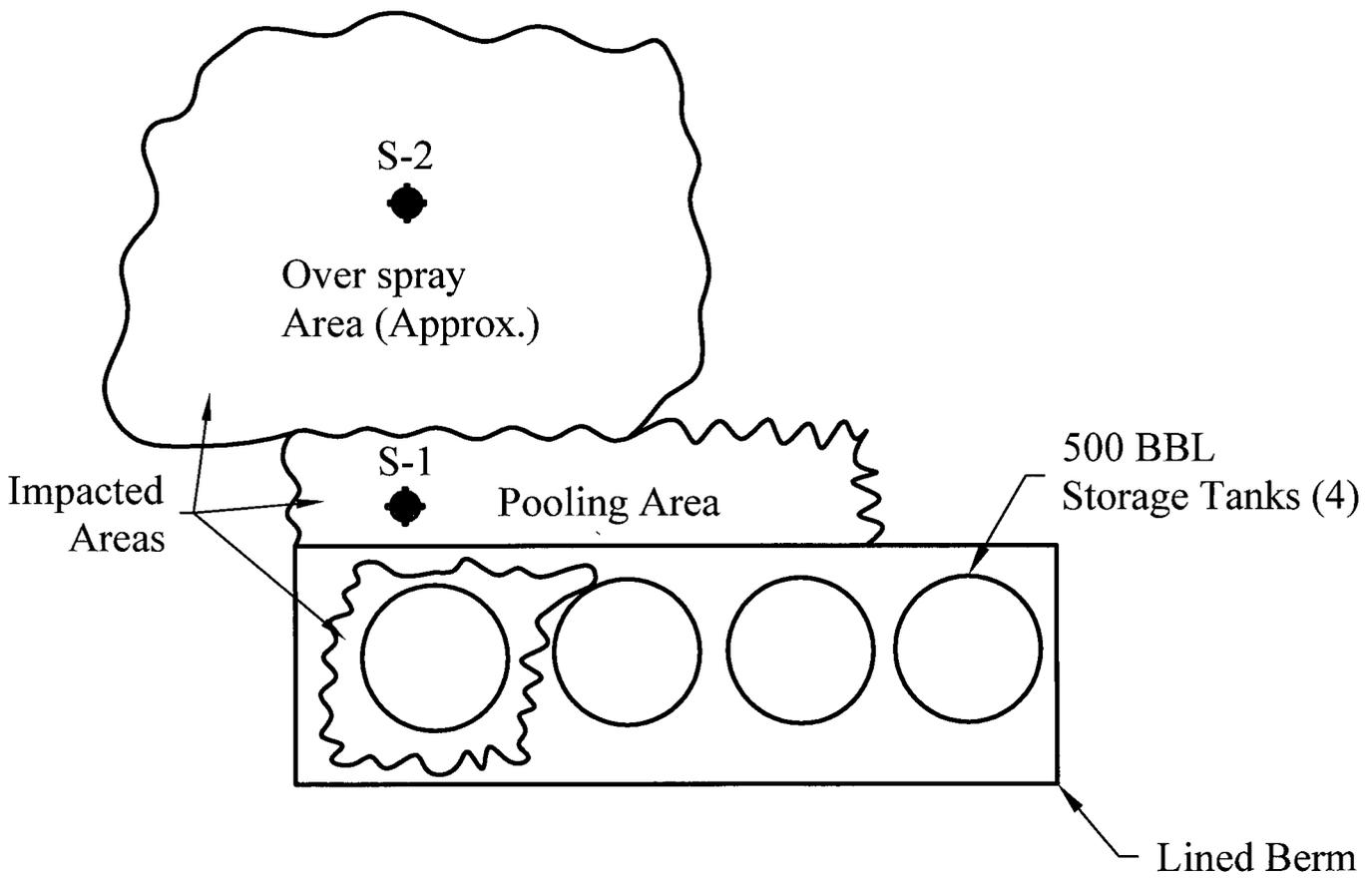
Handwritten signature of Mike Stubblefield in black ink.

Mike Stubblefield  
Project Manager

Handwritten signature of David J. Adkins in black ink.

David J. Adkins  
District Manager

## **SITE MAP**



Legend	
◆	- Sample Location



Date: 08/17/2011  
 Scale: 1" = 20'  
 Drawn By: TJS

Penny Pincher #3  
 Cimarex  
 Eddy County, New Mexico  
 Figure 1 - Site Plan

**APPENDIX I**  
**GROUNDWATER DATA**  
**INITIAL C-141**



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y Distance	Depth Well	Depth Water	Water Column
CP 00829	STK	LE	LE	2	4	16	19S	31E	606165	3614009*	710	120		
CP 00642 EXPL	EXP	ED	ED	2	2	25	19S	31E	611025	3611657*	5216	250		
CP 00641 EXPL	EXP	ED	ED	4	1	36	19S	31E	610247	3609634*	5556	300	130	170
CP 00640 EXPL	EXP	LE	LE	2	2	19	19S	32E	612621	3613280*	6546	260	102	158
CP 00639 EXPL	EXP	LE	LE	3	1	20	19S	32E	613029	3612880*	6966	350	345	5
Average Depth to Water:												<b>192 feet</b>		
Minimum Depth:												<b>102 feet</b>		
Maximum Depth:												<b>345 feet</b>		

**Record Count: 5**

**UTMNAD83 Radius Search (in meters):**

Easting (X): 606075

Northing (Y): 3613304

Radius: 7000

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

**APPENDIX II**  
**LABORATORY RESULTS**

July 07, 2011

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: PENNY PINCHER NO 3

Enclosed are the results of analyses for samples received by the laboratory on 07/05/11 13:18.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (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:**

 TALON LPE  
 MIKE STUBBLEFIELD  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received:	07/05/2011	Sampling Date:	07/01/2011
Reported:	07/07/2011	Sampling Type:	Soil
Project Name:	PENNY PINCHER NO 3	Sampling Condition:	Cool & Intact
Project Number:	701162.004.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 21-T195-R31E		

**Sample ID: S - 1 0' (H101379-01)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<5.00	5.00	07/06/2011	ND	1.86	92.8	2.00	0.493		
Toluene*	49.0	5.00	07/06/2011	ND	1.99	99.6	2.00	1.06		
Ethylbenzene*	34.1	5.00	07/06/2011	ND	2.12	106	2.00	0.533		
Total Xylenes*	66.4	15.0	07/06/2011	ND	6.19	103	6.00	2.15		

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/06/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	1900	100	07/06/2011	ND	172	85.8	200	3.10		
DRO >C10-C28	13500	100	07/06/2011	ND	154	76.9	200	3.30		

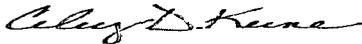
Surrogate: 1-Chlorooctane 129 % 70-130

Surrogate 1-Chlorooctadecane 118 % 70-130

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TALON LPE  
 MIKE STUBBLEFIELD  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received:	07/05/2011	Sampling Date:	07/01/2011
Reported:	07/07/2011	Sampling Type:	Soil
Project Name:	PENNY PINCHER NO 3	Sampling Condition:	Cool & Intact
Project Number:	701162.004.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 21-T195-R31E		

**Sample ID: S - 1 1' (H101379-02)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Benzene*</b>	<b>11.4</b>	1.00	07/06/2011	ND	1.86	92.8	2.00	0.493		
<b>Toluene*</b>	<b>290</b>	1.00	07/06/2011	ND	1.99	99.6	2.00	1.06		
<b>Ethylbenzene*</b>	<b>155</b>	1.00	07/06/2011	ND	2.12	106	2.00	0.533		
<b>Total Xylenes*</b>	<b>251</b>	3.00	07/06/2011	ND	6.19	103	6.00	2.15		

Surrogate: 4-Bromofluorobenzene (PIL) 111 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	07/06/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ab							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
<b>GRO C6-C10</b>	<b>4860</b>	50.0	07/06/2011	ND	172	85.8	200	3.10			
<b>DRO &gt;C10-C28</b>	<b>12000</b>	50.0	07/06/2011	ND	154	76.9	200	3.30			

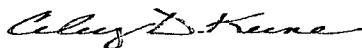
Surrogate: 1-Chlorooctane 156 % 70-130

Surrogate: 1-Chlorooctadecane 110 % 70-130

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TALON LPE  
 MIKE STUBBLEFIELD  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received:	07/05/2011	Sampling Date:	07/01/2011
Reported:	07/07/2011	Sampling Type:	Soil
Project Name:	PENNY PINCHER NO 3	Sampling Condition:	Cool & Intact
Project Number:	701162.004.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 21-T195-R31E		

**Sample ID: S - 1 2' (H101379-03)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Benzene*</b>	<b>0.077</b>	0.050	07/06/2011	ND	1.86	92.8	2.00	0.493		
<b>Toluene*</b>	<b>2.47</b>	0.050	07/06/2011	ND	1.99	99.6	2.00	1.06		
<b>Ethylbenzene*</b>	<b>4.24</b>	0.050	07/06/2011	ND	2.12	106	2.00	0.533		
<b>Total Xylenes*</b>	<b>8.48</b>	0.150	07/06/2011	ND	6.19	103	6.00	2.15		

Surrogate 4-Bromofluorobenzene (PIL) 121 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/06/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>150</b>	10.0	07/06/2011	ND	172	85.8	200	3.10		
<b>DRO &gt;C10-C28</b>	<b>606</b>	10.0	07/06/2011	ND	154	76.9	200	3.30		

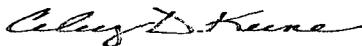
Surrogate 1-Chlorooctane 116 % 70-130

Surrogate 1-Chlorooctadecane 118 % 70-130

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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 MIKE STUBBLEFIELD  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received:	07/05/2011	Sampling Date:	07/01/2011
Reported:	07/07/2011	Sampling Type:	Soil
Project Name:	PENNY PINCHER NO 3	Sampling Condition:	Cool & Intact
Project Number:	701162.004.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 21-T195-R31E		

**Sample ID: S - 1 3' (H101379-04)**

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/06/2011	ND	1.86	92.8	2.00	0.493	
Toluene*	<0.050	0.050	07/06/2011	ND	1.99	99.6	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/06/2011	ND	2.12	106	2.00	0.533	
Total Xylenes*	<0.150	0.150	07/06/2011	ND	6.19	103	6.00	2.15	

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/06/2011	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/06/2011	ND	172	85.8	200	3.10	
<b>DRO &gt;C10-C28</b>	<b>50.7</b>	10.0	07/06/2011	ND	154	76.9	200	3.30	

Surrogate: 1-Chlorooctane 96.6 % 70-130

Surrogate: 1-Chlorooctadecane 105 % 70-130

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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 Fax To: (575) 745-8905

Received:	07/05/2011	Sampling Date:	07/01/2011
Reported:	07/07/2011	Sampling Type:	Soil
Project Name:	PENNY PINCHER NO 3	Sampling Condition:	Cool & Intact
Project Number:	701162.004.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 21-T195-R31E		

**Sample ID: S - 1 4' (H101379-05)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/06/2011	ND	1.86	92.8	2.00	0.493		
Toluene*	<0.050	0.050	07/06/2011	ND	1.99	99.6	2.00	1.06		
Ethylbenzene*	<0.050	0.050	07/06/2011	ND	2.12	106	2.00	0.533		
Total Xylenes*	<0.150	0.150	07/06/2011	ND	6.19	103	6.00	2.15		

Surrogate. 4-Bromofluorobenzene (PIL) 107 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/06/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/06/2011	ND	172	85.8	200	3.10		
<b>DRO &gt;C10-C28</b>	<b>72.5</b>	10.0	07/06/2011	ND	154	76.9	200	3.30		

Surrogate. 1-Chlorooctane 109 % 70-130

Surrogate. 1-Chlorooctadecane 119 % 70-130

Cardinal Laboratories

\*=Accredited Analyte

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Caley D. Keene, Lab Director/Quality Manager

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Received:	07/05/2011	Sampling Date:	07/01/2011
Reported:	07/07/2011	Sampling Type:	Soil
Project Name:	PENNY PINCHER NO 3	Sampling Condition:	Cool & Intact
Project Number:	701162.004.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 21-T195-R31E		

**Sample ID: S - 2 0' (H101379-06)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Benzene*</b>	<b>0.203</b>	0.050	07/06/2011	ND	1.86	92.8	2.00	0.493		
<b>Toluene*</b>	<b>0.545</b>	0.050	07/06/2011	ND	1.99	99.6	2.00	1.06		
<b>Ethylbenzene*</b>	<b>0.183</b>	0.050	07/06/2011	ND	2.12	106	2.00	0.533		
<b>Total Xylenes*</b>	<b>0.434</b>	0.150	07/06/2011	ND	6.19	103	6.00	2.15		

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	07/06/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<50.0	50.0	07/06/2011	ND	172	85.8	200	3.10		
<b>DRO &gt;C10-C28</b>	<b>1140</b>	50.0	07/06/2011	ND	154	76.9	200	3.30		

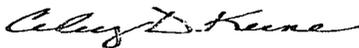
Surrogate: 1-Chlorooctane 106 % 70-130

Surrogate 1-Chlorooctadecane 111 % 70-130

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TALON LPE  
 MIKE STUBBLEFIELD  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received:	07/05/2011	Sampling Date:	07/01/2011
Reported:	07/07/2011	Sampling Type:	Soil
Project Name:	PENNY PINCHER NO 3	Sampling Condition:	Cool & Intact
Project Number:	701162.004.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 21-T195-R31E		

**Sample ID: S - 2 1' (H101379-07)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/06/2011	ND	1.86	92.8	2.00	0.493		
Toluene*	<0.050	0.050	07/06/2011	ND	1.99	99.6	2.00	1.06		
Ethylbenzene*	<0.050	0.050	07/06/2011	ND	2.12	106	2.00	0.533		
Total Xylenes*	<0.150	0.150	07/06/2011	ND	6.19	103	6.00	2.15		

Surrogate 4-Bromofluorobenzene (PIL) 109 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/06/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/06/2011	ND	172	85.8	200	3.10		
DRO >C10-C28	<10.0	10.0	07/06/2011	ND	154	76.9	200	3.30		

Surrogate: 1-Chlorooctane 104 % 70-130

Surrogate: 1-Chlorooctadecane 121 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 TALON LPE  
 MIKE STUBBLEFIELD  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received:	07/05/2011	Sampling Date:	07/01/2011
Reported:	07/07/2011	Sampling Type:	Soil
Project Name:	PENNY PINCHER NO 3	Sampling Condition:	Cool & Intact
Project Number:	701162.004.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 21-T195-R31E		

**Sample ID: S - 2 2' (H101379-08)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/06/2011	ND	1.86	92.8	2.00	0.493		
Toluene*	<0.050	0.050	07/06/2011	ND	1.99	99.6	2.00	1.06		
Ethylbenzene*	<0.050	0.050	07/06/2011	ND	2.12	106	2.00	0.533		
Total Xylenes*	<0.150	0.150	07/06/2011	ND	6.19	103	6.00	2.15		

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/06/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/06/2011	ND	172	85.8	200	3.10		
DRO >C10-C28	<10.0	10.0	07/06/2011	ND	154	76.9	200	3.30		

Surrogate: 1-Chlorooctane 91.4 % 70-130

Surrogate: 1-Chlorooctadecane 99.8 % 70-130

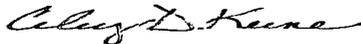
**Sample ID: BACKGROUND (H101379-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	07/06/2011	ND	448	112	400	3.64		

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

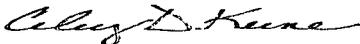
- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 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

