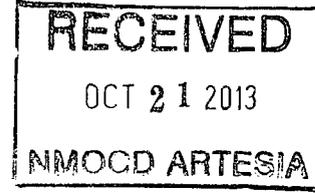




October 18, 2013



Mr. Mike Bratcher  
NMOCD District 22  
811 S. 1<sup>st</sup> Street  
Artesia, NM 88210

AMARILLO  
921 North Bivins  
Amarillo, Texas 79107  
Phone 806.467.0607  
Fax 806.467.0622

ARTESIA  
408 West Texas Ave.  
Artesia, New Mexico 88210  
Phone 575.746.8768  
Fax 575.746.8905

Subject: **Soil Assessment and Remediation Work Plan**  
Apache Corporation  
Tony Federal #27  
30-015-32753

Dear Mr. Bratcher

HOBBS  
318 East Taylor Street  
Hobbs, New Mexico 88240  
Phone 575.393.4261  
Fax 575.393.4658

Apache Corporation (Apache) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities consist of the following.

**Background Information**

MIDLAND  
2901 State Hwy 349  
Midland, Texas 79706  
Phone 432.522.2133  
Fax 432.522.2180

The Apache Tony Fed #27 is located approximately thirty (30) miles East of Artesia, New Mexico. The legal location for this site is Unit H, Section 19, Township 17 South, Range 31 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.82274 North and -103.90375 West. A site plan is attached in Appendix I.

OKLAHOMA CITY  
7700 North Hudson Avenue  
Suite 10  
Oklahoma City, Oklahoma 73116  
Phone 405.486.7030  
Fax 806.467.0622

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of the Largo loam with 1 to 5 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources the local surface and shallow geology is Holocene to middle Pleistocene in age and is comprised of eolian and piedmont deposits. Drainage courses in this area are normally dry. The New Mexico Office of the State Engineer shows that all water wells in the project area are currently dry. According to the 2006 Chevron Texaco ground water trend map, ground water in the project area is approximately 200-feet below ground surface (bgs). See Appendix II for the referenced groundwater data.

SAN ANTONIO  
11 Commercial Place  
Schertz, Texas 78154  
Phone 210.265.8025  
Fax 210.568.2191

The ranking for this site is **0** based on the 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

On July 1, 2013 Apache personnel discovered a release at the Tony Federal #27. A total of 4 barrels of oil and 15 barrels of produced water was released from the stuffing box. A vacuum truck was used to recover 1 barrel of oil and 10 barrels of produced water. The fluid from the release flowed off of the location into the pasture, across another location, lease road and back into the pasture. The impacted area was excavated down to a depth of 0.5-feet bgs as part of the initial spill response. All of the impacted material was hauled to an NMOCD approved solid waste disposal facility. A backhoe was utilized to delineate the impacted area. The results of these sampling activities are summarized below.

## Laboratory Results

See Appendix III for complete report of laboratory results.

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	1	ND	1880	ND	ND
S-1	2	ND	320	ND	ND
S-1	3	--	192	--	--
S-2	0.5	ND	32	ND	88.4
S-2	1	ND	48	ND	ND
S-2	2	--	64	--	--
S-3	0	ND	816	ND	39.2
S-3	2	ND	336	ND	ND
S-3	4	--	256	--	--
S-4	0.5	4.21	32	101	1500
S-4	2	ND	ND	ND	ND
S-4	3	--	ND	--	--

(ND) Analyte not detected

(--) Analyte not tested

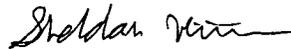
Based upon the site ranking of 0, NMOCD Recommended Remedial Action Levels (RRAL's) are 50 mg/kg for BTEX, 10 mg for Benzene, and 5,000 mg/kg for TPH. The chloride remediation standard is considered to be 1,000 mg/kg.

## Proposed Remedial Actions

- The impacted area on the location in the vicinity of sample location S-1 will be excavated to a depth of 2-feet bgs.
- The excavated area on the location(s) will be backfilled with caliche. The excavated area in the pasture will be backfilled with sand from a local borrow pit.
- The excavated areas will be contoured to match the surrounding terrain.
- Berms will be constructed around the location to prevent runoff of any future releases.
- The backfilled area(s) in the pasture will be seeded using BLM seed mixture #2.

Should you have any questions or if further information is required, please do not hesitate to contact our office at (575)-746-8768

Respectfully submitted,



Sheldon Hitchcock  
Environmental Scientist

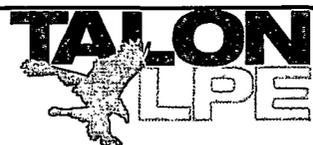
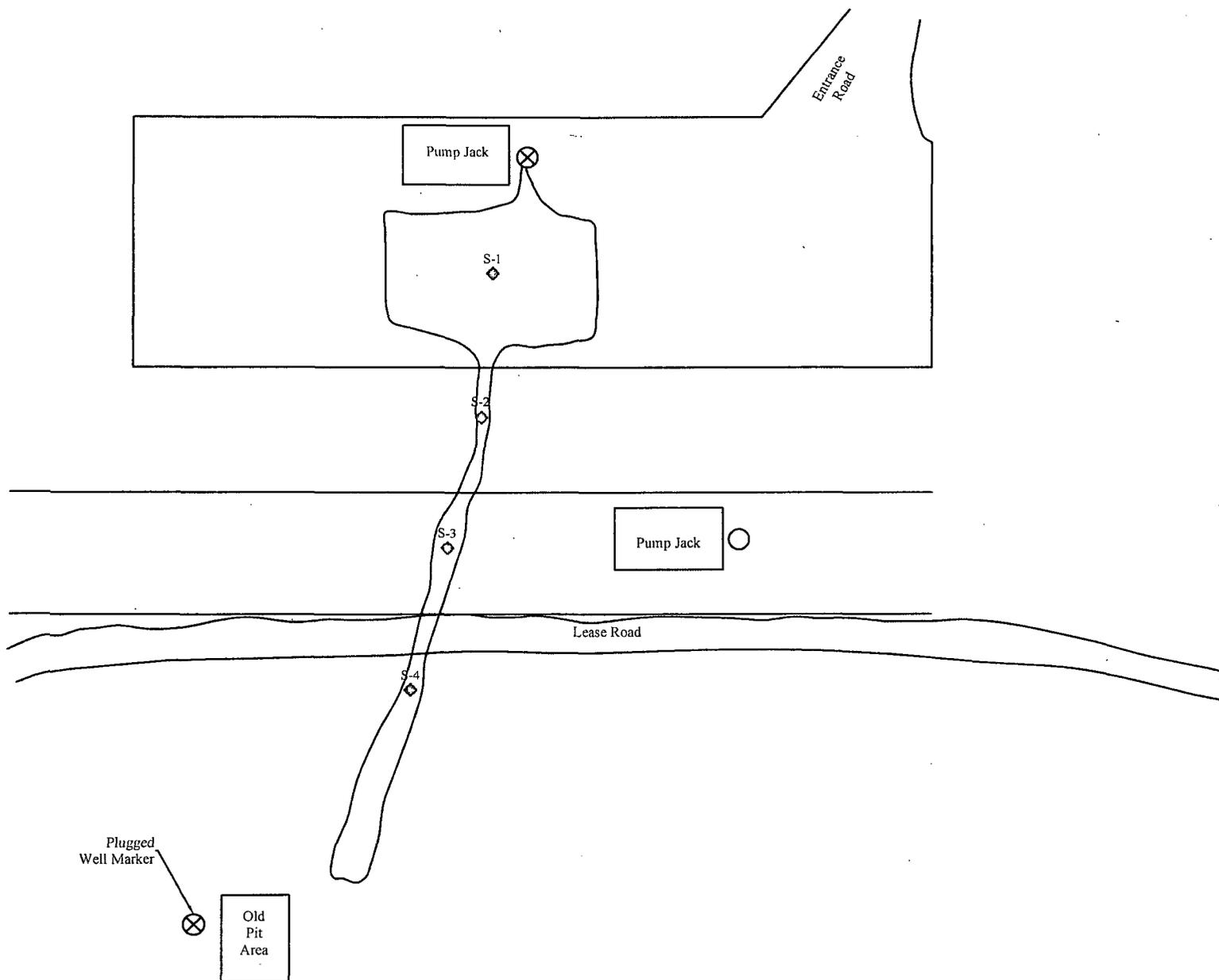


David J. Adkins  
District Manager

# **SITE PLAN**



**Legend**  
◆ - Sample Location



Date: 09/26/2013

Scale: NTS

Drawn By: TJS

Tony Fed #27  
Apache Corporation  
Eddy County, New Mexico  
Figure 1 - Site Plan

**GROUNDWATER DATA**  
**INITIAL C-141**



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q Q Q				Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
				64	16	4	Sec							
RA 11590 POD4			ED	4	1	1	32	17S	31E	603308	3629253	2869	55	
RA 11590 POD3			ED	3	1	2	32	17S	31E	603932	3629260	3052	60	
RA 11590 POD1			ED	2	1	3	32	17S	31E	603315	3628545	3566	158	

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

**Record Count:** 3

**Basin/County Search:**

County: Eddy

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

Easting (X): 602723

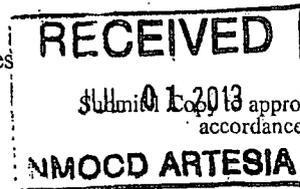
Northing (Y): 3632063

Radius: 5000

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.

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  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505



Form C-141  
Revised August 8, 2011

**Release Notification and Corrective Action**

**nJMW1319237133**

**OPERATOR**  Initial Report  Final Report

Name of Company <b>Apache Corporation 873</b>	Contact <b>George Rivera</b>
Address <b>2350 W. Marland Blvd., Hobbs, NM 88240</b>	Telephone No. <b>(575) 347-8708</b>
Facility Name <b>Tony Federal #27</b>	Facility Type <b>Stuffing Box Release</b>

Surface Owner <b>Federal</b>	Mineral Owner <b>Federal</b>	API No. <b>3001532753</b>
------------------------------	------------------------------	---------------------------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	19	17S	31E	1650	FNL	990	FEL	Eddy

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release. Oil and Produced water	Volume of Release 4 bbls oil/15 bbls water	Volume Recovered 1 bbl oil; 10 bbls water
Source of Release Stuffing box release	Date and Hour of Occurrence 7/1/13	Date and Hour of Discovery 7/1/13 8:00 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher	
By Whom? RECS per Apache Corp.	Date and Hour 7/1/13 2:00 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* The release occurred at the stuffing box on the well. A total of 4 barrels of oil and 15 barrels of produced water was released on the lease pad. A vacuum truck was called to the site and removed 1 barrel of oil and 10 barrels of produced water. The affected pad was scraped down to remove the wet soil and the site will be delineated for further action.		
Describe Area Affected and Cleanup Action Taken.*		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature:	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: George Rivera	Approved by Environmental Specialist: Signed By	
Title: EH&S Tech	Approval Date: <b>JUL 11 2013</b>	Expiration Date:
E-mail Address: Jorge.rivera@apachecorp.com	Conditions of Approval: Remediation per OCD Rule & Guidelines, & like approval by BLM. <b>SUBMIT REMEDIATION</b>	Attached <input type="checkbox"/>
Date: <b>7/1/13</b> Phone: (575) 347-8708	<b>PROPOSAL NO LATER THAN: August 11, 2013</b>	

\* Attach Additional Sheets If Necessary

2RP-1711

# **LABORATORY RESULTS**



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

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September 18, 2013

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: TONY FED #27

Enclosed are the results of analyses for samples received by the laboratory on 09/16/13 10:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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](http://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:**

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

 Received: 09/16/2013  
 Reported: 09/18/2013  
 Project Name: TONY FED #27  
 Project Number: 700745.027.01  
 Project Location: S19, T17S, R31E

 Sampling Date: 09/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S-1 1' (H302222-01)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/17/2013	ND	2.21	111	2.00	0.770		
Toluene*	<0.050	0.050	09/17/2013	ND	2.32	116	2.00	0.747		
Ethylbenzene*	<0.050	0.050	09/17/2013	ND	2.39	120	2.00	0.772		
Total Xylenes*	<0.150	0.150	09/17/2013	ND	7.27	121	6.00	0.00775		
Total BTEX	<0.300	0.300	09/17/2013	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1880	16.0	09/17/2013	ND	432	108	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	09/17/2013	ND	201	100	200	3.89		
DRO >C10-C28	<10.0	10.0	09/17/2013	ND	188	94.1	200	2.77		

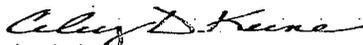
Surrogate: 1-Chlorooctane 86.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 90.2 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 09/16/2013  
 Reported: 09/18/2013  
 Project Name: TONY FED #27  
 Project Number: 700745.027.01  
 Project Location: S19, T17S, R31E

 Sampling Date: 09/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S-1 2' (H302222-02)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/17/2013	ND	2.21	111	2.00	0.770		
Toluene*	<0.050	0.050	09/17/2013	ND	2.32	116	2.00	0.747		
Ethylbenzene*	<0.050	0.050	09/17/2013	ND	2.39	120	2.00	0.772		
Total Xylenes*	<0.150	0.150	09/17/2013	ND	7.27	121	6.00	0.00775		
Total BTEX	<0.300	0.300	09/17/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 115 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	09/17/2013	ND	432	108	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	09/17/2013	ND	201	100	200	3.89		
DRO >C10-C28	<10.0	10.0	09/17/2013	ND	188	94.1	200	2.77		

Surrogate: 1-Chlorooctane 104 % 65.2-140

Surrogate: 1-Chlorooctadecane 110 % 63.6-154

**Sample ID: S-1 3' (H302222-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	09/17/2013	ND	432	108	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 09/16/2013  
 Reported: 09/18/2013  
 Project Name: TONY FED #27  
 Project Number: 700745.027.01  
 Project Location: S19, T17S, R31E

 Sampling Date: 09/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S-2 0.5' (H302222-04)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/17/2013	ND	2.21	111	2.00	0.770		
Toluene*	<0.050	0.050	09/17/2013	ND	2.32	116	2.00	0.747		
Ethylbenzene*	<0.050	0.050	09/17/2013	ND	2.39	120	2.00	0.772		
Total Xylenes*	<0.150	0.150	09/17/2013	ND	7.27	121	6.00	0.00775		
Total BTEX	<0.300	0.300	09/17/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 115 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/17/2013	ND	432	108	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	09/17/2013	ND	201	100	200	3.89		
DRO >C10-C28	88.4	10.0	09/17/2013	ND	188	94.1	200	2.77		

Surrogate: 1-Chlorooctane 94.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 96.9 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 09/16/2013  
 Reported: 09/18/2013  
 Project Name: TONY FED #27  
 Project Number: 700745.027.01  
 Project Location: S19, T17S, R31E

 Sampling Date: 09/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S-2 1' (H302222-05)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/17/2013	ND	2.21	111	2.00	0.770		
Toluene*	<0.050	0.050	09/17/2013	ND	2.32	116	2.00	0.747		
Ethylbenzene*	<0.050	0.050	09/17/2013	ND	2.39	120	2.00	0.772		
Total Xylenes*	<0.150	0.150	09/17/2013	ND	7.27	121	6.00	0.00775		
Total BTEX	<0.300	0.300	09/17/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 115 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/17/2013	ND	432	108	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	09/17/2013	ND	201	100	200	3.89		
DRO >C10-C28	<10.0	10.0	09/17/2013	ND	188	94.1	200	2.77		

Surrogate: 1-Chlorooctane 111 % 65.2-140

Surrogate: 1-Chlorooctadecane 115 % 63.6-154

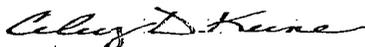
**Sample ID: S-2 2' (H302222-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	09/17/2013	ND	432	108	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 09/16/2013  
 Reported: 09/18/2013  
 Project Name: TONY FED #27  
 Project Number: 700745.027.01  
 Project Location: S19, T17S, R31E

 Sampling Date: 09/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S-3 0' (H302222-07)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/17/2013	ND	2.21	111	2.00	0.770		
Toluene*	<0.050	0.050	09/17/2013	ND	2.32	116	2.00	0.747		
Ethylbenzene*	<0.050	0.050	09/17/2013	ND	2.39	120	2.00	0.772		
Total Xylenes*	<0.150	0.150	09/17/2013	ND	7.27	121	6.00	0.00775		
Total BTEX	<0.300	0.300	09/17/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 117 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	816	16.0	09/17/2013	ND	432	108	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	09/17/2013	ND	201	100	200	3.89		
DRO >C10-C28	39.2	10.0	09/17/2013	ND	188	94.1	200	2.77		

Surrogate: 1-Chlorooctane 115 % 65.2-140

Surrogate: 1-Chlorooctadecane 124 % 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 09/16/2013  
 Reported: 09/18/2013  
 Project Name: TONY FED #27  
 Project Number: 700745.027.01  
 Project Location: S19, T17S, R31E

 Sampling Date: 09/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S-3 2' (H302222-08)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/17/2013	ND	2.21	111	2.00	0.770		
Toluene*	<0.050	0.050	09/17/2013	ND	2.32	116	2.00	0.747		
Ethylbenzene*	<0.050	0.050	09/17/2013	ND	2.39	120	2.00	0.772		
Total Xylenes*	<0.150	0.150	09/17/2013	ND	7.27	121	6.00	0.00775		
Total BTEX	<0.300	0.300	09/17/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 117 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	09/17/2013	ND	432	108	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	09/17/2013	ND	201	100	200	3.89		
DRO >C10-C28	<10.0	10.0	09/17/2013	ND	188	94.1	200	2.77		

Surrogate: 1-Chlorooctane 107 % 65.2-140

Surrogate: 1-Chlorooctadecane 118 % 63.6-154

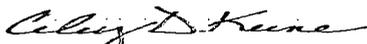
**Sample ID: S-3 4' (H302222-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	09/17/2013	ND	432	108	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 09/16/2013  
 Reported: 09/18/2013  
 Project Name: TONY FED #27  
 Project Number: 700745.027.01  
 Project Location: S19, T17S, R31E

 Sampling Date: 09/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S-4 0.5' (H302222-10)**

BTEX 8021B		mg/kg		Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/17/2013	ND	2.21	111	2.00	0.770		
Toluene*	<b>0.088</b>	0.050	09/17/2013	ND	2.32	116	2.00	0.747		
Ethylbenzene*	<b>0.659</b>	0.050	09/17/2013	ND	2.39	120	2.00	0.772		
Total Xylenes*	<b>3.46</b>	0.150	09/17/2013	ND	7.27	121	6.00	0.00775		
<b>Total BTEX</b>	<b>4.21</b>	0.300	09/17/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 164 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<b>32.0</b>	16.0	09/17/2013	ND	432	108	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	<b>101</b>	10.0	09/17/2013	ND	201	100	200	3.89		
DRO >C10-C28	<b>1500</b>	10.0	09/17/2013	ND	188	94.1	200	2.77		

Surrogate: 1-Chlorooctane 122 % 65.2-140

Surrogate: 1-Chlorooctadecane 130 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 09/16/2013  
 Reported: 09/18/2013  
 Project Name: TONY FED #27  
 Project Number: 700745.027.01  
 Project Location: S19, T17S, R31E

 Sampling Date: 09/11/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S-4 2' (H302222-11)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/17/2013	ND	2.21	111	2.00	0.770		
Toluene*	<0.050	0.050	09/17/2013	ND	2.32	116	2.00	0.747		
Ethylbenzene*	<0.050	0.050	09/17/2013	ND	2.39	120	2.00	0.772		
Total Xylenes*	<0.150	0.150	09/17/2013	ND	7.27	121	6.00	0.00775		
Total BTEX	<0.300	0.300	09/17/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 118 % 89.4-126

Chloride, SM4500CI-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	09/17/2013	ND	432	108	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	09/17/2013	ND	201	100	200	3.89		
DRO >C10-C28	<10.0	10.0	09/17/2013	ND	188	94.1	200	2.77		

Surrogate: 1-Chlorooctane 85.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 88.7 % 63.6-154

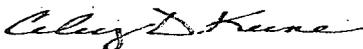
**Sample ID: S-4 3' (H302222-12)**

Chloride, SM4500CI-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	09/17/2013	ND	432	108	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

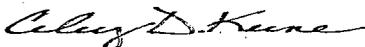
- S-04            The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND             Analyte NOT DETECTED at or above the reporting limit
- RPD            Relative Percent Difference
- \*\*             Samples not received at proper temperature 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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Celest 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

Company Name: <b>Talon / LPE</b>		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>														
Project Manager: <b>D. Adkins</b>		P.O. #:																
Address: <b>408 W. Texas Ave.</b>		Company: <b>Talon / LPE</b>																
City: <b>Artesia</b> State: <b>NM</b> Zip: <b>88210</b>		Attn:																
Phone #: <b>575-746-8768</b> Fax #: <b>575-746-8905</b>		Address:																
Project #: <b>700746.027.01</b> Project Owner: <b>Apache</b>		City:																
Project Name: <b>TONY 27</b>		State: Zip:																
Project Location: <b>S 19, T 17S, R 31E</b>		Phone #:																
Sampler Name: <b>Sheldon Hitchcock</b>		Fax #:																
FOR LAB USE ONLY																		
Lab I.D.	Sample I.D.	(GRAB OR C) COMP.	# CONTAINERS	MATRIX					PRESERV.		SAMPLING							
		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	TPH	BTEX	Chlorides			
<b>H302222</b>																		
1	5-11'	6	1	/				/			4/11/13	10:23	/	/	/			
2	5-12'	6	1	/				/				10:22	/	/	/			
3	5-13'	6	1	/				/				10:21	/	/	/			
4	5-20.5'	6	1	/				/				9:40	/	/	/			
5	5-21'	6	1	/				/				9:41	/	/	/			
6	5-22'	6	1	/				/				9:50	/	/	/			
7	5-30'	6	1	/				/				9:27	/	/	/			
8	5-32'	6	1	/				/				9:26	/	/	/			
9	5-34'	6	1	/				/				9:25	/	/	/			
10	5-40.5'	6	1	/				/				9:01	/	/	/			

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Relinquished By: <i>Sheldon Hitchcock</i>	Date: <i>4/11/13</i>	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: <i>[Signature]</i>	Date: <i>4/16/13</i>	Received By: <i>[Signature]</i>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Time: <i>10:50</i>	Time: <i>10:50</i>	REMARKS:	
	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	CHECKED BY: (Initials) <i>HP</i>		

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

#54 7.8°C



**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

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

Company Name: <b>Talon / LPE</b>		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																		
Project Manager: <b>D. Adkins</b>		P.O. #:																				
Address: <b>408 W. Texas Ave</b>		Company: <b>Talon / LPE</b>																				
City: <b>Artesia</b> State: <b>NM</b> Zip: <b>88210</b>		Attn:																				
Phone #: <b>575-746-8768</b> Fax #: <b>575-746-8905</b>		Address:																				
Project #: <b>700746.027.01</b> Project Owner: <b>Apache</b>		City:																				
Project Name: <b>Tony 27</b>		State: Zip:																				
Project Location: <b>S 19, T 12S, R 31E</b>		Phone #:																				
Sampler Name: <b>Sheldon Hitchcock</b>		Fax #:																				
FOR LAB USE ONLY																						
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					ACID/BASE	ICE/COOL	OTHER	DATE	TIME	TPH			BTEX			Chlorides		
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER													
<b>H302222</b>																						
<b>1) 6-42'</b>		<b>G</b>	<b>1</b>			<b>/</b>					<b>/</b>	<b>9/11/13</b>	<b>9:10</b>	<b>/</b>	<b>/</b>	<b>/</b>						
<b>12) 3-43'</b>		<b>G</b>	<b>1</b>			<b>/</b>					<b>/</b>	<b>9/11/13</b>	<b>9:11</b>	<b>/</b>	<b>/</b>	<b>/</b>						

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Relinquished By: <b>Sheldon Hitchcock</b>	Date: <b>9/16/13</b>	Received By: <b>[Signature]</b>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: <b>[Signature]</b>	Date: <b>9/16/13</b>	Received By: <b>[Signature]</b>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: <b>(Circle One)</b>	Time: <b>10:50</b>	Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact	REMARKS:	
Sampler: <input type="checkbox"/> UPS <input type="checkbox"/> Bus <input type="checkbox"/> Other:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: <b>KP</b>	

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

#54 7.8°C