

APPROVED

By Olivia Yu at 1:47 pm, Dec 07, 2017

NMOCD approves of the delineation completed for 1RP-4761 and proposed remediation. All confirmation samples must be within permissible levels and demarcated on an appropriately scaled map with GPS coordinates.

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Soil Assessment and Remediation Work Plan

Billiken 6 Federal #1H Battery
API # 30-025-42685 – **1RP-4761**
Talon Project No. 700794.233.01

Prepared For:

Devon Energy Production
6488 Seven Rivers Hwy
Artesia, New Mexico 88210

Prepared By:

Kimberly M. Wilson
TALON/LPE
408 W. Texas Avenue
Artesia, New Mexico 88210

September 8, 2017

Ms. Olivia Yu
NMOCD District I
1625 N. French Dr.
Hobbs, NM 88240

Subject: **Soil Assessment and Remediation Work Plan**
Billiken 6 Federal #1H Battery

Dear Ms. Yu,

Devon Energy 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.

Site Information and Soil Survey

The Billiken 6 Federal #1H Battery is located approximately one hundred eight (108) miles southeast of Artesia, New Mexico. The legal location for this site is Unit Letter M, Section 6, Township 26 South, and Range 35 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.065941 North and -103.414039 West. A site map is presented in Appendix I.

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service (NRCS), the soil in this area is made up of Pyote and Maljamar fine sands. 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 sands and piedmont deposits. Drainage courses in this area are normally dry.

Ground Water and Site Ranking

According to the New Mexico State Engineer web site there is no published groundwater information in this area. However, according to the Chevron Texaco Groundwater Map, the groundwater in this area is greater the 200-feet below ground surface (BGS).

Therefore the ranking for this site is a **0** based on the following:

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

Based upon the site ranking of **0**, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 5,000 mg/kg for TPH and 600 mk/kg for total chlorides is the recommended guideline.

Incident Description and Initial Remedial Actions

On July 4, 2017 lightning struck two 500 BBL fiberglass water tanks at the facility causing 255 barrels of produced water to be released into the secondary containment ring. Due to the lightening strike and fire the east sidewall was damaged causing 3.4 BBLS to be released onto the well pad surface. No fluids left the location and the remaining 251 BBLS of fluid remained in the lined SPCC containment ring. A vacuum truck was dispatched and approximately 251 BBLS were recovered. Once the fluids were removed, the liner was visually inspected by Devon field staff for any pinholes or punctures. The liner was not breached and no damage was found. A site plan is presented in [Appendix I](#) which illustrates the impacted area.

On August 2, 2017 Talon mobilized personnel to begin the site assessment and soil sampling activities for the construction of a work plan. Grab soil samples were collected utilizing a hand auger to a depth of 4-feet below land surface (BGS).

Laboratory Results

See [Appendix III](#) for complete report of laboratory results.

August 8, 2017

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO C6-C10	TPH (mg/kg) DRO >C10-C28	TPH (mg/kg) EXT DRO >C28-C36
S-1	0'	<0.300	15600	<10	<10	<10
	1'	<0.300	10600	<10	<10	<10
	2'	<0.300	1840	<10	<10	<10
	3'	<0.300	224	<10	<10	<10
	4'	<0.300	112	<10	<10	<10
S-2	0'	<0.300	6600	<10	<10	<10
	1'	<0.300	2400	<10	<10	<10
	2'	<0.300	64	<10	<10	<10
	3'	<0.300	48	<10	<10	<10
	4'	<0.300	32	<10	<10	<10
S-3	0'	<0.300	17200	<10	<10	<10
	1'	<0.300	5600	<10	<10	<10
	2'	<0.300	64	<10	<10	<10
	3'	<0.300	80	<10	<10	<10
	4'	<0.300	32	<10	<10	<10

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO C6-C10	TPH (mg/kg) DRO >C10-C28	TPH (mg/kg) EXT DRO >C28-C36
S-4	0'	<0.300	7330	<10	<10	<10
	1'	<0.300	560	<10	<10	<10
	2'	<0.300	80	<10	<10	<10
	3'	<0.300	80	<10	<10	<10
	4'	<0.300	48	<10	<10	<10
S-5	0'	<0.300	13200	<10	<10	<10
	1'	<0.300	976	<10	<10	<10
	2'	<0.300	240	<10	<10	<10
	3'	<0.300	80	<10	<10	<10
	4'	<0.300	64	<10	<10	<10

Proposed Remedial Actions

- Please note that the impacted area is vertically delineated.
- The impacted area in the vicinity of sample location S-1 will be excavated to a depth of 2.5-feet deep and the impacted area at sample location S-4 will be excavated to a depth of 1-foot deep.
- The contaminated soil within the impacted area between sample locations S-2, S-3 and S-5 will be excavated to a depth of 1.5-feet deep.
- Field titration screening for chlorides will be used to determine horizontal delineation extent and to guide the excavation activities.
- Sidewall confirmation samples will be obtained and the results forwarded to NMOCD for permission to backfill the excavated area.
- All contaminated soil will be transported to Lea Land, LLC, a NMOCD approved disposal facility.
- The excavated area will be backfilled with new caliche. Once the backfilling activities are complete the work area will be contoured to match the surrounding location.
- A final closure report documenting all remedial actions will be provided to the NMOCD Artesia Office along with a Final C-141 Form.

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,

TALON/LPE



Kimberly M. Wilson
Project Manager



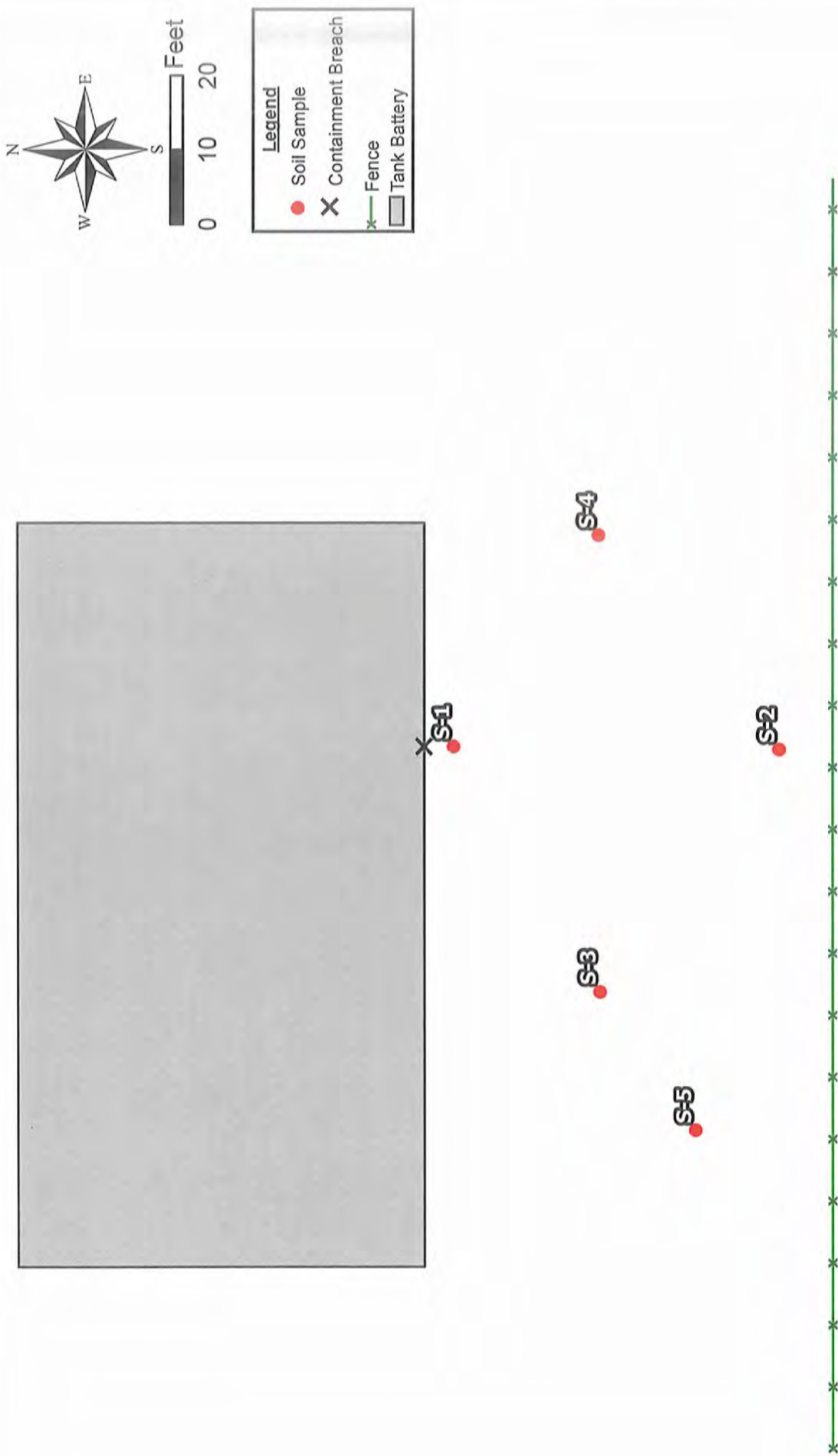
David J. Adkins
District Manager

Attachments:

- Appendix I Site Plan
- Appendix II Groundwater Data & Initial C-141
- Appendix III Laboratory Results

APPENDIX I

SITE MAP



Drafted: 9/14/2017
 1 in = 20 ft
 Drafted By: IJM

Devon Energy
 Billiken 6 Fed1H
 Lea County, NM
 Figure 1 - Site Plan

APPENDIX II
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)

No records found.

UTMNA83 Radius Search (in meters):

Easting (X): 649702

Northing (Y): 3548850

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.

9/8/17 10:46 AM

WATER COLUMN/ AVERAGE
DEPTH TO WATER

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

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Devon Energy Production Company	Contact Randall Gladden, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No. 575-513-9463
Facility Name Billiken 6 Federal 1H	Facility Type Oil

Surface Owner Federal	Mineral Owner Federal	API No 30-025-42685
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LOCATION OF RELEASE

Unit Letter M	Section 6	Township 26S	Range 35E	Feet from the 265	North/South Line South	Feet from the 1295	East/West Line West	County Lea
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Latitude: 32.0658503 Longitude: -103.4109472

NATURE OF RELEASE

Type of Release Fire	Volume of Release 255 BBLS PW	Volume Recovered 251.6 BBLS PW
Source of Release Produced Water Tanks	Date and Hour of Occurrence 7/4/2017 @ 11:15pm	Date and Hour of Discovery 7/4/2017 @ 11:38pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? BLM-Shelly Tucker OCD-Olivia Yu	
By Whom? Hubert Perry, Assistant Production Foreman	Date and Hour BLM - 7/5/2016 @1:31am OCD - 7/5/2016 @1:36am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*

Due to a lightning strike at the facility two 500 BBL fiberglass water tanks were damaged which allowed fluid to escape causing the spill. The well was shut in by the pumper.

Describe Area Affected and Cleanup Action Taken.*

Approximately 255 BBLS of produced water was lost from the tanks. Of the total released from the tanks 3.4 BBLS left the containment where the side wall was damaged as a result of the strike and was released to the well pad surface. All additional fluids remained in the lined SPCC containment ring. A vacuum truck was dispatched and approximately 251.6 BBLS were recovered. Once the fluids were removed the liner was visually inspected by Devon field staff for any pinholes or punctures and none were found.

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: Michael Shoemaker	OIL CONSERVATION DIVISION	
Printed Name: Michael Shoemaker	Approved by Environmental Specialist: 	
Title: Environmental Specialist	Approval Date: 7/24/2017	Expiration Date:
E-mail Address: mike.shoemaker@dvn.com	Conditions of Approval: see attached directive	Attached <input checked="" type="checkbox"/>
Date: 7/18/2017 Phone: 575.748.3371		

* Attach Additional Sheets If Necessary

Please inspect liner in question. Provide NMOCD with a concise report of the inspection with affirmation the liner has and will continue to contain liquids.

1RP-4761

nOY1720547847

50Y1720547847

APPENDIX III
LABORATORY RESULTS

August 08, 2017

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: BILLIKEN 6 FED 1H

Enclosed are the results of analyses for samples received by the laboratory on 08/02/17 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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/ga/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:

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

 Received: 08/02/2017
 Reported: 08/08/2017
 Project Name: BILLIKEN 6 FED 1H
 Project Number: 700794.233.01
 Project Location: NOT GIVEN

 Sampling Date: 08/02/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S-1 0' (H702035-01)

BTX 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	08/04/2017	ND	2.27	113	2.00	1.36		
Toluene*	<0.050	0.050	08/04/2017	ND	2.10	105	2.00	0.0527		
Ethylbenzene*	<0.050	0.050	08/04/2017	ND	2.19	110	2.00	1.11		
Total Xylenes*	<0.150	0.150	08/04/2017	ND	6.57	109	6.00	0.942		
Total BTX	<0.300	0.300	08/04/2017	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	15600	16.0	08/07/2017	ND	448	112	400	3.64		

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	08/04/2017	ND	190	95.0	200	1.88		
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00		
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND						

Surrogate: 1-Chlorooctane 84.0 % 28.3-164

Surrogate: 1-Chlorooctadecane 82.1 % 34.7-157

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-1 1' (H702035-02)

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	08/04/2017	ND	2.27	113	2.00	1.36	
Toluene*	<0.050	0.050	08/04/2017	ND	2.10	105	2.00	0.0527	
Ethylbenzene*	<0.050	0.050	08/04/2017	ND	2.19	110	2.00	1.11	
Total Xylenes*	<0.150	0.150	08/04/2017	ND	6.57	109	6.00	0.942	
Total BTEX	<0.300	0.300	08/04/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10600	16.0	08/07/2017	ND	448	112	400	3.64	

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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 97.0 % 28.3-164

Surrogate: 1-Chlorooctadecane 95.4 % 34.7-157

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 08/02/2017
 Reported: 08/08/2017
 Project Name: BILLIKEN 6 FED 1H
 Project Number: 700794.233.01
 Project Location: NOT GIVEN

 Sampling Date: 08/02/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S-1 2' (H702035-03)

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	08/04/2017	ND	2.27	113	2.00	1.36	
Toluene*	<0.050	0.050	08/04/2017	ND	2.10	105	2.00	0.0527	
Ethylbenzene*	<0.050	0.050	08/04/2017	ND	2.19	110	2.00	1.11	
Total Xylenes*	<0.150	0.150	08/04/2017	ND	6.57	109	6.00	0.942	
Total BTEX	<0.300	0.300	08/04/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 72-148

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1840	16.0	08/07/2017	ND	448	112	400	3.64	

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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 89.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 87.6 % 34.7-157

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

 Received: 08/02/2017
 Reported: 08/08/2017
 Project Name: BILLIKEN 6 FED 1H
 Project Number: 700794.233.01
 Project Location: NOT GIVEN

 Sampling Date: 08/02/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S-1 3' (H702035-04)

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	08/04/2017	ND	2.27	113	2.00	1.36	
Toluene*	<0.050	0.050	08/04/2017	ND	2.10	105	2.00	0.0527	
Ethylbenzene*	<0.050	0.050	08/04/2017	ND	2.19	110	2.00	1.11	
Total Xylenes*	<0.150	0.150	08/04/2017	ND	6.57	109	6.00	0.942	
Total BTEX	<0.300	0.300	08/04/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	08/07/2017	ND	448	112	400	3.64	

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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 102 % 28.3-164

Surrogate: 1-Chlorooctadecane 101 % 34.7-157

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* = Accredited Analyte

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Fax To: (575) 745-8905

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-1 4' (H702035-05)

BTX 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	08/04/2017	ND	2.27	113	2.00	1.36	
Toluene*	<0.050	0.050	08/04/2017	ND	2.10	105	2.00	0.0527	
Ethylbenzene*	<0.050	0.050	08/04/2017	ND	2.19	110	2.00	1.11	
Total Xylenes*	<0.150	0.150	08/04/2017	ND	6.57	109	6.00	0.942	
Total BTX	<0.300	0.300	08/04/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/07/2017	ND	448	112	400	3.64	

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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					


Surrogate: 1-Chlorooctane 102 % 28.3-164

Surrogate: 1-Chlorooctadecane 100 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-2 0' (H702035-06)

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	08/04/2017	ND	2.27	113	2.00	1.36	
Toluene*	<0.050	0.050	08/04/2017	ND	2.10	105	2.00	0.0527	
Ethylbenzene*	<0.050	0.050	08/04/2017	ND	2.19	110	2.00	1.11	
Total Xylenes*	<0.150	0.150	08/04/2017	ND	6.57	109	6.00	0.942	
Total BTEX	<0.300	0.300	08/04/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 72-148

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6600	16.0	08/07/2017	ND	448	112	400	3.64	

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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

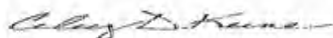
Surrogate: 1-Chlorooctane 102 % 28.3-164

Surrogate: 1-Chlorooctadecane 102 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 08/02/2017
 Reported: 08/08/2017
 Project Name: BILLIKEN 6 FED 1H
 Project Number: 700794.233.01
 Project Location: NOT GIVEN

 Sampling Date: 08/02/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S-2 1' (H702035-07)

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	08/04/2017	ND	2.27	113	2.00	1.36	
Toluene*	<0.050	0.050	08/04/2017	ND	2.10	105	2.00	0.0527	
Ethylbenzene*	0.051	0.050	08/04/2017	ND	2.19	110	2.00	1.11	
Total Xylenes*	<0.150	0.150	08/04/2017	ND	6.57	109	6.00	0.942	
Total BTEX	<0.300	0.300	08/04/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 101 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2400	16.0	08/07/2017	ND	448	112	400	3.64	

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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 93.3 % 28.3-164

Surrogate: 1-Chlorooctadecane 91.0 % 34.7-157

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Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-2 2' (H702035-08)

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	08/04/2017	ND	2.27	113	2.00	1.36	
Toluene*	<0.050	0.050	08/04/2017	ND	2.10	105	2.00	0.0527	
Ethylbenzene*	0.051	0.050	08/04/2017	ND	2.19	110	2.00	1.11	
Total Xylenes*	<0.150	0.150	08/04/2017	ND	6.57	109	6.00	0.942	
Total BTEX	<0.300	0.300	08/04/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 72-148

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/07/2017	ND	448	112	400	3.64	

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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

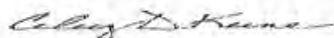
Surrogate: 1-Chlorooctane 102 % 28.3-164

Surrogate: 1-Chlorooctadecane 101 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-2 3' (H702035-09)

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	08/04/2017	ND	2.27	113	2.00	1.36	
Toluene*	<0.050	0.050	08/04/2017	ND	2.10	105	2.00	0.0527	
Ethylbenzene*	<0.050	0.050	08/04/2017	ND	2.19	110	2.00	1.11	
Total Xylenes*	<0.150	0.150	08/04/2017	ND	6.57	109	6.00	0.942	
Total BTEx	<0.300	0.300	08/04/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 72-148

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/07/2017	ND	448	112	400	3.64	

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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 94.2 % 28.3-164

Surrogate: 1-Chlorooctadecane 94.5 % 34.7-157

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Analytical Results For:

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

 Received: 08/02/2017
 Reported: 08/08/2017
 Project Name: BILLIKEN 6 FED 1H
 Project Number: 700794.233.01
 Project Location: NOT GIVEN

 Sampling Date: 08/02/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S-2 4' (H702035-10)

BTX 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	08/04/2017	ND	2.27	113	2.00	1.36	
Toluene*	<0.050	0.050	08/04/2017	ND	2.10	105	2.00	0.0527	
Ethylbenzene*	<0.050	0.050	08/04/2017	ND	2.19	110	2.00	1.11	
Total Xylenes*	<0.150	0.150	08/04/2017	ND	6.57	109	6.00	0.942	
Total BTX	<0.300	0.300	08/04/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 72-148

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/07/2017	ND	448	112	400	3.64	

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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 101 % 28.3-164

Surrogate: 1-Chlorooctadecane 101 % 34.7-157

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Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-3 0' (H702035-11)

BTX 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	08/04/2017	ND	2.27	113	2.00	1.36	
Toluene*	<0.050	0.050	08/04/2017	ND	2.10	105	2.00	0.0527	
Ethylbenzene*	0.050	0.050	08/04/2017	ND	2.19	110	2.00	1.11	
Total Xylenes*	<0.150	0.150	08/04/2017	ND	6.57	109	6.00	0.942	
Total BTX	<0.300	0.300	08/04/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 103 % 72-148

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	17200	16.0	08/07/2017	ND	448	112	400	3.64	

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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 96.8 % 28.3-164

Surrogate: 1-Chlorooctadecane 95.6 % 34.7-157

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Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-3 1' (H702035-12)

BTX 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	08/07/2017	ND	2.04	102	2.00	1.80	
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29	
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78	
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12	
Total BTX	<0.300	0.300	08/07/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5600	16.0	08/07/2017	ND	448	112	400	0.00	QM-07

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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 103 % 28.3-164

Surrogate: 1-Chlorooctadecane 114 % 34.7-157

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Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-3 2' (H702035-13)

BTX 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	08/07/2017	ND	2.04	102	2.00	1.80	
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29	
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78	
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12	
Total BTX	<0.300	0.300	08/07/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 97.9 % 28.3-164

Surrogate: 1-Chlorooctadecane 97.5 % 34.7-157

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Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-3 3' (H702035-14)

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	08/07/2017	ND	2.04	102	2.00	1.80	
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29	
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78	
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12	
Total BTEX	<0.300	0.300	08/07/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					


Surrogate: 1-Chlorooctane 98.4 % 28.3-164

Surrogate: 1-Chlorooctadecane 96.8 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-3 4' (H702035-15)

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	08/07/2017	ND	2.04	102	2.00	1.80	
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29	
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78	
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12	
Total BTEX	<0.300	0.300	08/07/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 97.1 % 28.3-164

Surrogate: 1-Chlorooctadecane 95.7 % 34.7-157

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Analytical Results For:

TALON LPE
KIMBERLY WILSON
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ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-4 0' (H702035-16)

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	08/07/2017	ND	2.04	102	2.00	1.80	
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29	
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78	
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12	
Total BTEX	<0.300	0.300	08/07/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7330	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 97.4 % 28.3-164

Surrogate: 1-Chlorooctadecane 96.0 % 34.7-157

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Analytical Results For:

TALON LPE
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ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-4 1' (H702035-17)

BTX 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	08/07/2017	ND	2.04	102	2.00	1.80	
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29	
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78	
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12	
Total BTX	<0.300	0.300	08/07/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	190	95.0	200	1.88	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	192	95.9	200	2.00	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 97.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 97.3 % 34.7-157

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Analytical Results For:

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Fax To: (575) 745-8905

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-4 2' (H702035-18)

BTX 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	08/07/2017	ND	2.04	102	2.00	1.80	
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29	
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78	
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12	
Total BTX	<0.300	0.300	08/07/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 72-148

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	188	94.2	200	2.39	QM-07, QR-03
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	194	97.0	200	2.57	QR-03
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 98.3 % 28.3-164

Surrogate: 1-Chlorooctadecane 101 % 34.7-157

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Analytical Results For:

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ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-4 3' (H702035-19)

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	08/07/2017	ND	2.04	102	2.00	1.80	
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29	
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78	
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12	
Total BTEX	<0.300	0.300	08/07/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	188	94.2	200	2.39	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	194	97.0	200	2.57	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 90.0 % 28.3-164

Surrogate: 1-Chlorooctadecane 95.6 % 34.7-157

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Analytical Results For:

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

Received:	08/02/2017	Sampling Date:	08/02/2017
Reported:	08/08/2017	Sampling Type:	Soil
Project Name:	BILLIKEN 6 FED 1H	Sampling Condition:	** (See Notes)
Project Number:	700794.233.01	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: S-4 4' (H702035-20)

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	08/07/2017	ND	2.04	102	2.00	1.80	
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29	
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78	
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12	
Total BTEX	<0.300	0.300	08/07/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	188	94.2	200	2.39	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	194	97.0	200	2.57	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 88.0 % 28.3-164

Surrogate: 1-Chlorooctadecane 92.0 % 34.7-157

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Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-5 0' (H702035-21)

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	08/07/2017	ND	2.04	102	2.00	1.80	
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29	
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78	
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12	
Total BTEX	<0.300	0.300	08/07/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 72-148

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13200	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	188	94.2	200	2.39	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	194	97.0	200	2.57	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					


Surrogate: 1-Chlorooctane 88.3 % 28.3-164

Surrogate: 1-Chlorooctadecane 89.4 % 34.7-157

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Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-5 1' (H702035-22)

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	08/07/2017	ND	2.04	102	2.00	1.80	
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29	
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78	
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12	
Total BTEX	<0.300	0.300	08/07/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 72-148

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	976	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	188	94.2	200	2.39	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	194	97.0	200	2.57	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

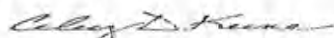
Surrogate: 1-Chlorooctane 107 % 28.3-164

Surrogate: 1-Chlorooctadecane 109 % 34.7-157

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Analytical Results For:

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

 Received: 08/02/2017
 Reported: 08/08/2017
 Project Name: BILLIKEN 6 FED 1H
 Project Number: 700794.233.01
 Project Location: NOT GIVEN

 Sampling Date: 08/02/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S-5 2' (H702035-23)

BTX 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	08/07/2017	ND	2.04	102	2.00	1.80		
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29		
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78		
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12		
Total BTX	<0.300	0.300	08/07/2017	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	188	94.2	200	2.39	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	194	97.0	200	2.57	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					


Surrogate: 1-Chlorooctane 74.9 % 28.3-164

Surrogate: 1-Chlorooctadecane 77.9 % 34.7-157

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-5 3' (H702035-24)

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	08/07/2017	ND	2.04	102	2.00	1.80		
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29		
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78		
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12		
Total BTEX	<0.300	0.300	08/07/2017	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 101 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	191	95.4	200	3.04	
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	196	97.8	200	2.61	
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND					

Surrogate: 1-Chlorooctane 96.5 % 28.3-164

Surrogate: 1-Chlorooctadecane 98.6 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 08/02/2017
Reported: 08/08/2017
Project Name: BILLIKEN 6 FED 1H
Project Number: 700794.233.01
Project Location: NOT GIVEN

Sampling Date: 08/02/2017
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S-5 4' (H702035-25)

BTX 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	08/07/2017	ND	2.04	102	2.00	1.80		
Toluene*	<0.050	0.050	08/07/2017	ND	1.90	95.1	2.00	1.29		
Ethylbenzene*	<0.050	0.050	08/07/2017	ND	1.99	99.3	2.00	1.78		
Total Xylenes*	<0.150	0.150	08/07/2017	ND	5.89	98.1	6.00	2.12		
Total BTX	<0.300	0.300	08/07/2017	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/07/2017	ND	448	112	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	08/04/2017	ND	191	95.4	200	3.04		
DRO >C10-C28	<10.0	10.0	08/04/2017	ND	196	97.8	200	2.61		
EXT DRO >C28-C36	<10.0	10.0	08/04/2017	ND						


Surrogate: 1-Chlorooctane 89.4 % 28.3-164

Surrogate: 1-Chlorooctadecane 87.4 % 34.7-157

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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.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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