# **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.





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

# 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 1

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 1 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

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO	TPH (mg/kg) EXT DRO
пD	(ieci)	(mg/kg)	(ing/kg)	C6-C10	>C10-C28	>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

See Appendix III for complete report of laboratory results.

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' 3'	< 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

m. Welson here

Kimberly M. Wilson Project Manager

David J. Adkins District Manager

Attachments:

Appendix ISite PlanAppendix IIGroundwater Data & Initial C-141Appendix IIILaboratory Results

APPENDIX I

# SITE MAP



# 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.



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

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

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

1220 S. St. Flan	eis Dr., Sant	a re, inivi 8750.	,	S	anta Fe	e, NM 875	05					
			Rela	ease Notifi	cation	and Co	orrective A	ction	1.			
						OPERA'	FOR		🛛 Initi	al Report	🔲 Final Re	
				ion Company		Contact Randall Gladden, Production Foreman						
and the second se	and the second se	Rivers Hwy	a horacle shared and an	VM 88210		Telephone No. 575-513-9463						
Facility Na	me Billike	n 6 Federal	1H			Facility Ty	oe Oil					
Surface Ov	vner Fede	ral		Mineral	Owner	Federal			APIN	0 30-025-4	2685	
				LOC	ATIO	N OF REI	EASE					
Unit Letter	Section	Township	Range	Feet from the		/South Line	Feet from the	East/W	est Line	County		
М	6	26S	35E	265		South	1295	W	/est	Lea		
			1	Latitude: 32.00 NAT		Longitud OF REL	e: -103.410947 EASE	72				
Type of Rela	ease Fire				-	Volume of	Release 255 BB	LS	Volume	Recovered 2	251.6 BBLS PW	
	Source of Release Produced Water Tanks					Date and 1 7/4/2017 @	Iour of Occurre			Hour of D @ 11:38pm		
Was Immediate Notice Given?					If YES, Te BLM-Shel OCD-Oliv	Whom? y Tucker			0			
By Whom? Hubert Perry, Assistant Production Foreman					Date and Hour BLM - 7/5/2016 @1:31am OCD - 7/5/2016 @1:36am							
Was a Wate	rcourse Re		Yes 🛛	l No			lume Impacting	the Wat	tercourse	_		
If a Watawas			- 6			IN/A	RECEIN	<b>VED</b>				
n a wateret	ourse was i	mpacted, Des	eribe Ful	IY," IN/A					at 1.1	5 nm	Jul 24, 20	
	tning strike	elem and Ren at the facility			ater tank	s were damag	ed which allowed					
Approximate wall was dan vacuum truch Devon field I hereby certi regulations a public health should their o or the enviro	ly 255 BBI aged as a r c was dispar- staff for a ify that the ll operators or the envi- operations h nment. In a	esult of the structure	d water wa rike and w roximately or punctu iven above o report ar acceptanc adequately OCD accep	s lost from the ta as released to the 251.6 BBLS we tres and none w is true and comp ad/or file certain the of a C-141 rep- investigate and the	well pace re recovere four plete to the release n ort by the remediat	d surface, All ered. Once th nd. he best of my otifications as e NMOCD m e contaminati	ased from the tank additional fluids e fluids were rem knowledge and u ud perform correc arked as "Final R on that pose a thr e the operator of r	remained noved the understand ctive action eport" do reat to gro	l in the lin liner wa d that pur- ons for rel bes not rel bound wate	ed SPCC co s visually i suant to NM eases which ieve the ope r, surface wa	OCD rules and may endanger rator of liability ater, human healt	
States and the					T		OIL CON	SERV	ATION	DIVISIO	ON	
Signature: $\lambda$	líchael	Shoemak	er						9	y		
Printed Name	e: Michael S	Shoemaker				Approved by	Environmental S		-	0	_	
Title: Enviro	nmental Sp	ecalist				Approval Dat	e: 7/24/201	7 <sub>E</sub>	xpiration	Date:		
E-mail Addre	ess: mike,sh	oemaker@dv	n.com			Conditions of	and the second			Attached		
Date:7/18/20	17 Pb	one: 575.748.	3371			see attac	ched directiv	/e		. truched		
Attach Addi	the second s	and some of the strength of a strength on the strength of the	and a state of the		N	MOCD with	t liner in ques a concise rep ith affirmation	ort of t	he	1RP-4	761	

has and will continue to contain liquids.

-OVATODE ADDCC

# 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/qa/lab\_accred\_certif.html.

Cardinal Laboratories is accreditated 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,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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 Oldake
Project Location:	NOT GIVEN	And an and a start of the second second	

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

ment anala

BTEX 8021B	mg,	/kĝ	Analyze	d 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					

. . . . . . .

Chloride, SM4500CI-B	mg	/kg	Analyze	d 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		0.00				_
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-Chlorooctadecane 82.1 % 34.7-157

#### Cardinal Laboratories

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Constinuits liability and clent's exclusive remedy for any claim anising, whether based in contract or tort, shall be limited to the amount paid by clent for analyses. All claims, including those for negligence and any other zause whistoewe shall be deemed waived unless made in westing and received by Cardinal within thirty (30) days after competion of the applicable service. In no evant shall be deemed waived unless made in westing and received by Cardinal within thirty (30) days after competion of the applicable service. In no evant shall be deemed waived unless interarging on the service statement of the services device and cardinal be listed to the performance of the services the service statement or consequential damages, including, without listed upon any of the above stated resource of the services thereander by Cardinal, regardies and visibility report and not be reproduced except in Mil with writem approval of Cardinal Laboratories.

Celeg Di Keen



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	A CONTRACTOR OF A CONTRACTOR OF	

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

BTEX 8021B	mg/	/kg	Analyze	d 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		1.11					
Chloride, SM4500Cl-B	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	Analyze	d 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	% 28.3-16-	1						
Surrogate: 1-Chlorooctadecane	95.4	% 34.7-152	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Labulay and Damages. Cardnal's labity and client's exclusive remedy for any daim anising, whether based in contract or tort, shall be limited to the amount paid by client for analysis. All slains, including trace for negligence and any other cause whatseever shall be deemed waived unless made in writing and received by Cardinal whiting (20) days after completion at the applicable service. In no duent shall Cardinal be limited to the and in contract or tort, shall be limited to the amount paid by client for analysis. All slains, including trace for negligence and any other cause whatseever shall be deemed waived unless made in writing and received by Cardinal whitin (20) days after completion at the applicable service. In no duent shall Cardinal Cardinal be limited to the services including, without immation, butness interruptions, loss of use, or loss of profits incurred by client, its subvisioners, athlines or successors anising out of or related to the performance of the services lineurode by Cardinal, regardless of whether such client is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This record shall net be reproduced except in full with writen approval of Cardinal Laboratories.

Celeg D.Ke



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		Artige the section in the

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

BTEX 8021B	mg/	kg	Analyze	d 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	103 9	% 72-148		1. 1. 1					
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	Analyze	d 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	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	87.6	% 34.7-15	7						

#### **Cardinal Laboratories**

\*=Accredited Analyte

NERSE NOTE: Liability and Damages. Centinal's liability and client's exclusive remedy for any claim anising, whether based in contract or tort, shill be limited to the amount paid by client for analyses. All claims, including those for negligence and any other out-a what be deemed waived units made in writing and received by Candinal vitam thirry (3b) days after completion at the applicable service. In no event shall Cardinal be liable for incidental to consequential damoges, including, without limitation, business interruption, fors of use, or fors of use of profits incurred by client, its substantiants, inflited in successions exists and or successions exists and or successions exists and and or successions exists and or successions exists and or contract.

Celeg Ditree

Celey D. Keene, Lab Director/Quality Manager

Page 4 of 30



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:	Soll
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-1 3' (H702035-04)

BTEX 8021B	mg,	/kg	Analyze	d 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	5	1.111.					
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	101	% 34.7-15	7						

#### **Cardinal Laboratories**

\*=Accredited Analyte

PLEASE NOTE: Liability and Damiges. Candinal's liability and client's exclusive remedy for any client anising, whether based in contract or tort, shall be amount paid by client for enabyses. All claims, including those for negligence and any other cause whatsoever shall be denied waved unless made in writing and received by Cardinal whithis blinty (30) days after campletion of the applicable service. In no event shall cardinal be liable for incidental or consequential damages, including, without limitation, business indemugtions, loss of use, or loss of profits incurred by client, its sublicitienes, affiliates or successors anising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or observices. This report shall not be regradued except in full with writeen approval of Cardinal Laboratories.

Celeg Di Ke

Celey D. Keene, Lab Director/Quality Manager

Page 5 of 30



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-1 4' (H702035-05)

BTEX 8021B	mg,	/kg	Analyze	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	Analyze	d 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	Analyze	d By: MS	1.0				
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	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	100	% 34.7-15	7						

#### Cardinal Laboratories

# \*=Accredited Analyte

PLEASE NOTE: Liability and Damages, Cardinal's lability and clent's exclusive remedy for any claim asking, which're baied in contract or tort, shall be limited to the amount paid by clent for analyses. All claims, including those for negligence and any other cause unbasever shall be deemed waked unless made in writing and received by Cardinal whilin thirry (20) days after completion at the applicable service. In me event shall Cardinal he limite for incidental or consequential damages, including, without limitation, builts of use, or loss of profils incurred by clent, its weblicanies, affaintes or succession entiting out of or related to the performance of the services hereunder by Cardinal, regardless of vyhether such claim's based upon any of the above stated reasons or otherwise, feasues induced to be such claim approval of Cardinal Laborations.

Celeg D. Keen



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	Contraction Contraction of Con-	

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

BTEX 8021B	mg,	/kg	Analyze	d 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, SM4500CI-B	mg	/kg	Analyze	d 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	Analyze	d 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-Chlorooctadecane 102% 34.7-157

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Labelay and Davinages. Cardinal's faibility and cleart's exclusive remedy for any chain arising, whether based in contract or tort, shall be limited to the amount paid by cleant for analyses. All claims, including these for negligence and any other cause whatsever shall be demind whiled unless made in writing and received by Cardinal while thrity (30) days after camptailion of the appliciable service. In ne event shall Cardinal be finite for incidental or consequential damages, including, without bratation, business interruptions, loss of use, or loss of profits incurred by client, its subcidentes, antifilates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or observice. Resvits relate only to the samples identified above. This report shall not be reproduced events in full with writen approval of Cardinal Laboratories.

Celleg D. Keine.



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-2 1' (H702035-07)

BTEX 8021B	mg/l	kg	Analyze	d 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 (PIL	101 %	6 72-148		100					
Chloride, SM4500CI-B	mg/l	kg	Analyze	d 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/l	kg	Analyze	d 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 9	6 28.3-16	4						
Surrogate: 1-Chlorooctadecane	91.0 9	6 34,7-15	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages, Cardinal's liability and cliently exclusive remeinty for any claim anting, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other owne whatsoewer shall be idented waived unless mude in writing and received by Cardinal within thiny (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidential or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its sublicitantes, affiliates or successors anising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise, Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celleg D. Ke



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-2 2' (H702035-08)

BTEX 8021B	mg/	/kg	Analyze	d 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 (PIL	102	% 72-148		1414					
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	101	% 34.7-15	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Uability and Damagns. Cardinal's labelity and client's exclusive remedy for any chim arising, whether based in contract or tort, shall be limited to the amount paid by client for analysis. All claims, including those for negligence and any other cause whictsever shall be deemed valved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be labelit for incidential or consequential damagne, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laberatories.

Celeg Di Keen



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-2 3' (H702035-09) BTEX 80218

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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 102 % 72-148

Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d By: MS	1		_	_	_
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	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	94,5	% 34,7-15	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Utabley and Damages. Cardinal's fability and clieft's exclusive remedy for any claim anising, whether based is contract or tart, shall be finited to the amount pild by client for analyses. All claims, including base for negligence and any other cause whitsbeaver shall be deemed valued unlikes india in writing and received by clients intrinvy (20) days after campetions of the applicable service. In ne awark shall be deemed valued unlikes india in writing and received by client, its subdificance, affaites or successors anising out of or related to the performance of this services hereunder by client, its subdificance, affaites or successors anising out of or related to the performance of this services hereunder by client, regardless of viewether such claims based upon any of the above stated resonance or clientes.

Celeg D.K.

Celey D. Keene, Lab Director/Quality Manager

Page 10 of 30

Laboratories

# 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-2 4' (H702035-10)

BTEX 8021B	mg/	kg	Analyze	d By: MS	_				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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 9	6 72-148	1						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	6 28.3-16	4						
Surrogate: 1-Chloroociadecane	101 9	% 34.7-15	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PECASE MOTE: Liabitaty and Damages. Cardinal's fability and client's exclusive remedy for any claim ansing, whether bailed in contract or tart, shall be limited to the amount paid by client for analysis. All claims, including tases for negligance and any client cause whitiseever shall be deviced walved unless mude in writing and received by Cardinal within thinty (30) days after completion of the applicable vertice. In no event shall be deviced walved unless mude in writing and received by Cardinal within thinty (30) days after completion of the applicable vertice. In no event shall be deviced to the services hereunder by claims, including, whether such data data of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg Zite



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-3 0' (H702035-11)

ecovery True Value Ç	C RPD	Qualifier
		Scounce
113 2.00	1.36	
105 2.00	0.0527	
110 2.00	1,11	
109 6.00	0,942	
1	105 2.00 110 2.00	105 2.00 0.0527 110 2.00 1.11

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

Chloride, SM4500CI-B	mg.	/kg	Analyze	d 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	Analyze	d 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-Chlorooctadecane 95.6 % 34.7-157

#### **Cardinal Laboratories**

# \*=Accredited Analyte

PLEASE INOTE: Liability and Danuages. Cardinal's liability and client's exclusive remedy for any claim ani/ing, whether based in contract or tort, shall be limited to the annount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in suming and received by Cardinal within thitly (3b) days after competion of the applicable service. In ne event shall Cardinal be liable for incidental demages, including, where this studies interruption, loss of posts incurred by client, its suballates, affiliates or successors aniling out of related to the performance of the services thereinder by Cardinal, regardless of whether such clients based upor any of the above stated resource of the services thereinder by Cardinal, regardless of whether such clients based upor any of the above stated resource in the analysis effective to be analysis effective.

Celez Ditie

Celey D. Keene, Lab Director/Quality Manager

Page 12 of 30



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:	Soll
Project Name:	BILLIKEN 6 FED 1H	Sampling Condition:	** (See Notes)
Project Number:	700794.233.01	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN	1.00.00.000.000.000.000	

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

BTEX 8021B	mg/	/kg	Analyze	d 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 3	% 72-148							
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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 9	28.3-16	4						
Surrogate: 1-Chlorooctadecane	1149	% 34.7-15	7						

#### **Cardinal Laboratories**

\*=Accredited Analyte

PLEASE NOTE: Liability and Daniages. Cardinal's liability and clent's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by clent for analyses. All daims, including those for negligence and any other cause whatsoever shall be limited to the amount paid by clent for analyses. All daims, including those for negligence and any other cause whatsoever shall be limited to the applicable service. In no event shall Cardinal be limited or consequences including, without limitation, business interruption, loss of use, or loss of profits incurred by clent, its subsidiaries, affiliates or subcessors arising out of or related to the performance of the services flereunder by Cardinal, regendess of whether such clinin is based upon any of the above stated reasons or observices. Results relave only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratones.

Celleg Di Keine

Celey D. Keene, Lab Director/Quality Manager



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-3 2' (H702035-13)

BTEX 8021B	mg,	/kg	Analyze	d 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	103	% 72-148		1.01 m					
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	
трн 8015м	mg,	/kg	Analyze	d 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	

ND

08/04/2017

 Surrogate:
 1-Chlorooctane
 97.9 %
 28.3-164

 Surrogate:
 1-Chlorooctadecane
 97,5 %
 34,7-157

<10.0

10.0

#### **Cardinal Laboratories**

EXT DRO >C28-C36

#### \*=Accredited Analyte

PLEASE NOTE: Lizbity and Damages. Cardinal's liability and client's including these for negligence and any other cause whitsoever shall be deemed waived unless made in writing and received by Cardinal within thinty (3i) days after candidation of the applicable service. In no event shall Cardinal be light for including those for negligence and including, without finitation, business interruptions, loss of use, or lass of profits incurred by client, its subsidiaries, affliables or successors arising out of or relisted to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise, Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories:

Celleg Di Ka



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-3 3' (H702035-14)

BTEX 8021B	mg/	kg	Analyze	d 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 9	6 72-148		Te in					
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	28.3-164							
Surrogate: 1-Chlorooctadecane	96.8 9	6 34.7-157							

#### **Cardinal Laboratories**

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages, Cardinatis lability and clent's exclusive remedy for any daim anising, whether based in contract or tort, shall be limited to the amount paid by clent for analyses. All claims, including those for negligence and any other cause whatsoever shall be clemed winned unless made in writing and received by Cardinal within twiny (30) days after cause whatsoever shall be limited to the amount paid by clent for analyses. All claims, including those for negligence and any other cause whatsoever shall be clemed winned unless made in writing and received by Cardinal within twiny (30) days after cause whatsoever shall be limited to the porternance of the services hareunder by Cardinal regardless of vinetities such claims, and of use, or loss of profits incurred by client, its subsidiaries, affiliates or successor ensing out of or related to the porternance of the services hareunder by Cardinal, regardless of whether such claims shall be reproduced except in full with writen approval of Cardinal Laboratories.

Celling Ditherno



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	ACTIVITY ACTUATION OF A	

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

BTEX 8021B	mg/	kg	Analyze	d 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 9	6 72-148	-						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	6 28.3-164							
Surrogate: 1-Chlorooctadecane	95.7 9	6 34.7-157							

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE HOTE: Liabity and Danlages. Cardinal's labity and clerk's exclusive remedy for any cleim arising, whether based in contract or tort, shall be limited to the annount paid by cleant for analyses. All claims, including these for negligence and any other cause whetever shall be deeped valued unless made in writing and received by Cardinal within thiny (30) days after completion of the applicable service. In no event shall Cardinal be lable for incidental or consequential damages, indusing, without limitation, builness interruptions, loss of use, or loss of profits incurred by cleant, its subsidiaries, ambients or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the 30xve stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with unitern approval of Cardinal Laboratories.

Celey Di Ke



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

08/02/2017	Sampling Date:	08/02/2017
08/08/2017		Soil
BILLIKEN 6 FED 1H	Sampling Condition:	** (See Notes)
700794.233.01	Sample Received By:	Tamara Oldaker
NOT GIVEN		Turnara alganar
	08/08/2017 BILLIKEN 6 FED 1H 700794.233.01	08/08/2017Sampling Type:BILLIKEN 6 FED 1HSampling Condition:700794.233.01Sample Received By:

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

BTEX 8021B	mg/l	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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	103 %	5 .72-148	1000	1					
Chloride, SM4500Cl-B	mg/l	(g	Analyze	d 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/l	¢g	Analyze	d By: MS		_	100	1	
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 %	6 28.3-16	1						
Surrogate: 1-Chlorooctadecane	96.0 %	34.7-157	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Labitay and Damages. Cardinal's liability and client's exclusive remedy for any claim ansard, whether based in contract or tort, shall be limited to the amount paid by diant for analyses. All claims, including those for negligance and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within theiry (30) days after completion of the applicable service. In no event shall Cardinal be limited for incidental or rensequential dawages, including, without aminason, business interruptions, loss of use, or loss of profits incurred by claims, it's subjicialies, affinites or successors arising out of or related to the performance of the services hereinder by Cardinal, regeridess of whether such chilm is based upon any of the above stated easies to observice. Results relate only to the samples (devolted above, This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celling D. Keine



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	and a second second second	

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

BTEX 8021B	mg/	kg	Analyze	d By: MS	_				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifie
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	102 9	6 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d By: MS	14				
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	97.69	6 28.3-16-	1						
Surrogate: 1-Chlorooctadecane	97.3 9	% 34.7-15	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and clent's exclusive remody for any daim anising, whether based in contract or tart, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thiny (30) days after contraction of the applicable service. In no evint shall Cardinal be liable for incidential or consequential damages, including, whout imitation, pushess interruptions, loss of use, or loss of profits incurred by claims, its sublidiantes, iffliness or successors ansing out of or related to the performance of the services hareunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall net be reproduced everyst in full with written approaci of Cardinal Laboratories.

Celez D.K.



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	and the second	

#### Sample ID: S-4 2' (H702035-18) BTEX 80218

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, SM4500CI-B	mg	/kg	Analyze	d 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	Analyze	d 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	% 28.3-16	4						

Surrogate: 1-Chlorooctadecane 101 % 34.7-157

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEXSE MOTE: Liability and Damages, Cardinal's lability and client's exclusive remedy for any client ansing, whether balad in contract or tort, shall be limited to the amount paid by client for analyses. All clients inclients including those for negligence and any other rause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thiny (3b) days after completion of the applicable service. In no event shall Cardinal be lability including, without kinication, business interruptions, loss of use, or loss of profits incurred by client, its subsidieries, affiliates or successions ansign out of or related to the performance of the services incrunder by Cardinal, regardless of whether such client is subsidieries, and not event shall be reproduced except in fail with writen approval of Cardinal Laboratories.

Cellery Thean



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	Shine Processing Street Street Street	

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

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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 9	72-148							
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d 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	Analyze	d 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	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	95.6	% 34.7-15	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE MOTE: Liability and Damagais. Cardinal's lability and client's exclusive remedy for any client anison, whither based in contract or tort, shall be limited to this amount paid by client for analyses. All claims, including these for negligence and any client cause vihibsever shall be deemed valved unless, made in variting and received by Cardinal within thiny (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use or loss of profits inclured by client, its subvisienter, affiliates or successors arising out of or related to the performance of the services for business including treas of unletter such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in All with written approval of Cardinal Laboratories.

Colleg D. Kenne-



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

Received:	08/02/2017	Compling Date:	00/02/2017
		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	for the state of the for the state of the	

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

BTEX 8021B	mg	/kg	Analyze	d 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		1.1					
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	92,0	% 34.7-15	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE MOTE: Liability and Damages. Cardinal's fability and client's exclusive remedy for any client artigo, whether based in contract or tort, shall be limited to the annual paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed valved unless made in writing and received by Cardinal within thiny (30) days after completion or the applicable service. In no event shall Cardinal be liable for incidential or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profils incurred by client, its subsidiaries, affiliates or successors arising out of or reliated to the performance of the services heraundor by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise, Results relate only to the samples identified above. This report shall not be reproduced evcept in full with written approval of Cardinal Cardinal cardinas.

Celeg Di Kee



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:	Soll
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-5 0' (H702035-21)

BTEX 8021B	mg/	kg	Analyze	d 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	103 %	6 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	6 28.3-164	(						
Surrogate: 1-Chlorooctadecane	89.4 9	6 34.7-157	,						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damiges. Candinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tart, shall be limited to the anoune paid by client for analyses. All claims, including those for negligence and any other cause whatseover shall be demide waived unless made in verting and received by Cardinal within thiny (30) days after cause whatseover shall be demide waived unless made in verting and received by Cardinal within thiny (30) days after cause whatseover shall be demide by client for analyses. All claims, including those for negligence and any other cause whatseover shall be demide waived unless made in verting and received by Cardinal within thiny (30) days after cause whatseover shall be be for inclient be lable for incliential or consequential damages; including, without fimitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affliates or successors aniling out of or related to the performance of the services hereinder by Cardinal, regardless of unletter such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples/demined above. This report shall not be reproduced everyt in full with written approal of Cardinal Laboratories.

Celleg D. Keena



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 Oldake
Project Location:	NOT GIVEN	Content Chaptering Mate	

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

BTEX 80218	mg,	/kg	Analyze	d 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					
			THE ALL YEST AND						

Surrogate: 4-Bromofluorobenzene (PIE 104 % 72-148

Chloride, SM4500CI-B	mg	/kg	Analyze	d 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	Analyze	d 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	% 28.3-16	4						

Surrogate: 1-Chlorooctadecane 109 % 34.7-157

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Uibbility and Damages, Cardinal's liability and clent's inclusive remody for any claim alking, whether bailed in contract or text, shall be limited to the amount paid by clent for analysis. All claims, including bose for negligence and any other cities whitsoever shall be deemed walved unless made in writing and received by Cardinal (within thirly (30) days after completion of the applicable service. In no event shall Cardinal be latte for incidental or consequential damages, including, when thirdbar, business interruptions, loss of use, or loss of profits incurred by dant, its subiclaims, affiliates a successions aming out of or related in the performance of the services hereunder by Cardinal, regardless of whether such claims based upon any of the store stated reasons or otherwise. Reality relates the services in full with interruption approval of Cardinal Laboratories.

Celeg Di Kee



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	the state of the state of the state	

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

BTEX 8021B	mg,	/kg	Analyze	d 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, SM4500CI-B	mg	/kg	Analyze	d 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	Analyze	d By: MS				100	
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-Chlorooctadecane 77.9 % 34.7-157

#### Cardinal Laboratories

#### \*=Accredited Analyte

PLEME MOTE: Lististry and Demogras. Gardinal's justility and clearts exclusive remedy for any claim anising, whether based in contract or tort, shall be limited to the anoisint paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waved unless made in writing and received by Cardinal water think think (30) days after completion of the applicable service. In no event shall Cardinal be limited to under a consequential damages, including, without limitation, business interruptions, loss of yrights included by client, its substantiants, affaites or successors arising out of or related to the performance of the services hereinder by Cardinal, regardless of volume is based upon any of the above stated ecoust of the services. Results relate only to be sample difficulted above. This reports included ecopit in full with written approval of Cardinal Laberatories.

Celeg Dite



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	Construction of the second second	

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

BTEX 8021B	mg,	/kg	Analyze	d By: MS				_	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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	Analyze	d 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	Analyze	d 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	% 28.3-16	4						

Surrogate: 1-Chlorooctadecane 98.6 % 34.7-157

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinit's liability and clients exclusive remody for any claim anising, whether based in contract or text, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed walked unitss made in writing and received by Cardinal within (thirty (33) days after competion of the applicable service. In no event shall be lable for incidental or consequential damages, including, when imitation, builass interruption, loss of use, or leas of profits incurred by client, its subidialies, affiliance or successors animing out of or related to the performance of the services harounder by Cardinal, regardless or whether such claims based upon any of the above stated reasons or observes. Results relate only the sample client to expect and not negotable corport in full with writem approval of Cardinal Industrations.

Celez Dike



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	- ACADA VALIDADI CAL	

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

BTEX 8021B	mg/	lkg	Analyze	d By: MS					_
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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 9	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	87.4	% 34.7-15	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEXE NOTE: Lability and Damages, Cardinal's liability and client's rectainive remeety for any claim ansing, whether based in contrast or tort, shall be timble to the amount paid by client for analysis. All dama, including those for negligence and any other cause whatsoever shall be deemed walved unless made in weiting and received by Cardinal within thirty (36) days after conjuction of the applicable service. In no event shall be timble to including those for negligence and including, without limitation, business interruptions, loss of use, or loss

Celling D. Keens



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

# 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,
4	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Libbility and Damages. Cardinal's liability and client's exclusive remarky for any claim anting, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and env other cause vhattabener shall be deemed werked unless marks in writing and received by Cardinal within Univy (30) days after competion of the applicable service. In no event shall be deemed werked unless marks in uniting and received by Cardinal wathin Univy (30) days after competion of the applicable service. In no event shall Cardinal be lable for incidental or consequential damages, including, without limitability, bulaness inkerniptions, loss of uses of profits incurred by client, its subsidiaries, aviliates arising out of or related to the performance of the service thereunder by Cardinal, regardless of whether such chim is based upon any of the above stated reasons or otherwise. Results relative relative limits based in following the above stated reason or otherwise. Inclusion the sample element is the performance of the service function of the sample element.

Celleg D. Frene

I Caroinal cant	Sampler - UPS - B	Delivered By: (Circle One)		Relinquished By:	A	Relinguished By:	PLEASE NOTE: Looky and Dar Invigens All dama including the	10	20	2	16	S	4	20	2	-	Lab I.D.	FOR CHE USE CMUY	Sampler Name:	Project Location:	Project Name:	Project #:	THOUGH,	Diono #	City An	Address.	Project Manager:	Company Name:			
not accept verbal changes.	Bus - Other: Dynastid	ircle One) ZU 20	Date:	Lines.	uate:	of or related to the portormance of services re-	nages. Cardinars listing and cliphts exclusive se for negligence and any cliner cause whoese	512 47	100	5-2	5.5 0	5-1 41	5-1 3	5-1 21	5-1 11	0	Sample I.D.		DATOKEUS !!	700794	RELITIKEN	1 1 1	Fax #:	Sta Sta	0 00.	1100 - Walls	17thon	101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476		aborat	ARDI
Caroinal cannot accept verbal changes. Please fax written changes to (575) 393-2326	3505 Cool Integration	Sample Con	Received By:	0	-17 Received By:	221									0 0		(G)RAB OR (C)ON # CONTAINERS GROUNDWATER WASTEWATER SOIL	MP. MATRIX	112- Williams	1233.01	6 red 14	Project Owner:	井	State: /U/U/ Zip:	eves	SON	C 015	s, NM 88240 5) 393-2476		ories	DINAL
to (575) 393-2326	No TOTATS		J	Culladall	1111	mixing and inscrived by Cardinal within 30 days alto idemuticane, keas of use, of lask of profits incurred by a fluich dailin is biosphypon any of the annual moved on	rt, anali be limited to th								1/198		OIL SLUDGE OTHER ACID/BASE: ICE / COOL OTHER :	RIX PRESERV. SAMPLING	Fav #	Phone #		City:	SS:	5	Company: TCO	P.O. #:	BILL TO				
	Brownets	5 1010	2100		Phone Result: Yes	alter completion of the applicable by client, its subsidiaries,	d by the client to the	11	11	11	11	///	11	11	2 / /	Ť.	BTRX TP14		30	51	5.	e,	1	KING	3	_	0		CHAIN-OF-CU		
and my my	Strain +t.			1.1.1.1	No Add'I Phone #:												TotAL	C	L	10	N/	1.0	e.	2		1010101010	ANAI YSIS		CHAIN-OF-CUSTODY AND ANALYSIS REQUEST		
the word com	lab har "																		* 1							IL WUEDI			VALYSIS REQU		
Same	0.																												IEST		

0

0

Page 28 of 30

Sampler - UPS - Bus - Other: Relinquished By: Relinquished By: Delivered By: (Circle One) Sampler Name: Project Location: 17102035 Project Name: Project #: 760794 Phone 共: City: Address: Project Manager: Lab I.D. Company Name: FOR LABUSE ONLY Induced to 200 SAWAN 6 5 (575) 393-2326 FAX (575) 393-2476 5 101 East Marland, Hobbs, NM 88240 5 R×11 J. 6 (1) Sample I.D. 0 R 10 34.80  $A_{\alpha}$ à orrelect 42 ONE Date: Time:SU 1 Time: 0 0 Date: 8-2-1 Sov Project Owner: Fax 井: State: tod 4 Sample Condition Cool Intact SS. C. I Yes Tres Received By: Received By: ß (G)RAB OR (C)OMP Zip # CONTAINERS È GROUNDWATER HUDA WASTEWATER 1000 SOIL MATRIX OIL SLUDGE OTHER Phone #: State: 見る時 代育時 見口言語 Fax #: City: A.C. HAS Attn: P.O. #: Address: Company: ACID/BASE PRESERV CHECKED BY: 1 ICE / COOL 1 1 1 1 0 OTHER BILL TO きっ Statu TANCIN 11/08 Zip #OKINS DATE SAMPLING Phone Result: Fax Result: REMARKS: clent is subsidiaries ind by the client for the an completion of the applic CHAIN-OF-CUSTODY AND ANALYSIS REQUEST Trought TIME BTAX and a □ Yes N 801 8 Straight to Jab from TOTA C Add'l Phone #: Add'l Fax #: ANALYSIS REQUEST

† Cardinal cannot accept verbal changes, Please fax written changes to (575) 393-2326

Page 29 of 30

Laboratories

Relinquished By: Sampler - UPS - Bus - Other: Relinguished By: Delivered By: (Circle One) H702035 Sampler Name: Project Location: Project Name: City: Project#: 700 Phone #: Project Manager: Company Name: DA 10 40 Address: Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 Lab I.D FOR USE DRE DALY 2012020 8 NA 222 M 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 204 to Sample I.D. 34.82 de ONDON PLAI Date: Date: Time: Reiz Project Owner: Fax 共 State: 5 50 to 1 8coss Received By: Received By: h (G)RAB OR (C)OMP. Zip: 1 # CONTAINERS 2 Sample Condition Cool Intact Yes Tyes GROUNDWATER WASTEWATER SOIL MATRIX OIL SLUDGE Phone #: OTHER State: City: Fax #: Address: Attn: P.O. #: Company: CHECKED BY: (Initials) ACID/BASE PRESERV. ICE / COOL OTHER BILL TO いうち との 日本 日本 Zip DATE SAMPLING 12/117 Phone Result: Fax Result: REMARKS: CHAIN-OF-CUSTODY AND ANALYSIS REQUEST TIME p.36 subsidiaries in of the applicable hought shraight to lab from CV Yes 0 I No TOTAL ch Add'l Phone #: Add'l Fax #: ANALYSIS REQUEST

**CARDINAL** Laboratories

Page 30 of 30