

TALON

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Soil Assessment and Remediation Work Plan

Grandi 22-3 * 30-015-33922 * **2RP-3647** Talon Project No. 700794.186.01

Prepared For:

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

Prepared By:

Kimberly M. Wilson Talon/LPE 408 West Texas Artesia, New Mexico 88210

May 12, 2016

Mr. Mike Bratcher **NMOCD District 2** 811 S. 1st Street Artesia, NM 88210

Subject:

Soil Assessment and Remediation Work Plan

Devon Energy

Grandi 22-3 * 30-015-33922 * 2RP-3647

Dear Mr. Bratcher,

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.

Incident Date

April 20, 2016

Site Information

The Grandi 22-3 is located approximately four (4) miles southeast of Carlsbad, New Mexico. The legal location for the site is Section A, Township 22 South and Range 27 East in Eddy County, New Mexico. More specifically the latitude and longitude for the location are 32.3835716 North and 104.17298 west. See site plan in Appendix I.

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of up of Reagan-Upton association with 0 to 9 percent slopes. Drainage courses in this area are normally dry.

Groundwater and Site Ranking

The New Mexico State Engineer web site indicates the nearest ground water data to be in S23-T22S-R27E. The ground water in the area is reported to be a depth of 40-feet below ground surface (bgs). The referenced groundwater data is presented in Appendix II.

Therefore the ranking for this site is a 20 based on the following:

Depth to ground water <50'
Wellhead Protection Area >1000'
Distance to surface water body >1000'

Based upon the site ranking of **20**, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 100 mg/kg for TPH and 1000 mg/kg for total chlorides.

Table 1

Incident Description

On July 2, 2015 Blue Wally Construction submitted a OneCall ticket for installing a sprinkler system for a private home owner. Devon Energy's line locating department responded with a positive response by flagging the line and requesting in the notes that the construction company was to contact Devon so that a representative could be present at the time of the installation of the sprinklers. Blue Wally Construction failed to contact Devon Energy as requested and installed the sprinkler system. In March 2016, the home owner contacted Devon Energy believing that the line had developed a leak due to staining in his yard. Devon pressured the line on March 18, 2016 to identify exactly where the leak was located. On March 21, 2016 Devon excavated a small area around the line to identify how the line had failed. A cut into the line was identified right underneath the sprinkler system line that was routed over the top of the line. The coordinates are 32.383947, -104.168534. A site plan is presented in Appendix I which illustrates the impacted areas.

On April 20, 2016, Talon mobilized personnel to begin the preliminary site assessment and to collect initial soil samples from the impacted area with a hand auger to a depth of 0.5 feet deep, where refusal was encountered. Laboratory results are presented below in Table 1.

Talon returned to the site with a backhoe for further vertical delineation as requested by the NMOCD was carried out May 4, 2016. Sample location S-8 was advanced at a location where a dead tree was removed. (The trees planted along the tree line were placed into holes drilled through the rock shelf.) Laboratory results are presented below in Table 2.

Laboratory Results

April 22, 2016

See Appendix III for complete report of laboratory results.

Sample ID	Depth	BTEX	Chlorides	TPH (mg/kg)	TPH (mg/kg)
	(feet)	(mg/kg)	(mg/kg)	GRO	DRO
S-1	0'	< 0.300	8260	10.4	1050
Refusal	0.5	< 0.300	3480	<10	24.4
S-2	0,	< 0.300	14000	< 50	3270
Refusal	0.5'	< 0.300	6930	<10	180
S-3	0'		1840		
S-4	0'		448	2	
Refusal	0.25'		592		
S-5	0'		3360		(
Refusal	0.25'		3280		,
S-6	0'		592		
Refusal	0.25'		1280		
S-7	0,		400		

Refusal --Analyte Not Tested

0.25'

576

May 6, 2016

Table 2

Sample ID	Depth	BTEX	Chlorides	TPH (mg/kg)	TPH (mg/kg)
	(feet)	(mg/kg)	(mg/kg)	GRO	DRO
S-8	0.5'	< 0.300	400	<10	<10
	1'	< 0.300	2640	<10	<10
	2'	< 0.300	4880	<10	<10
	3'	< 0.300	4160	<10	11.7
	4'	< 0.300	1920	<10	21.3
	5'	< 0.300	2080	<10	21.5
	6'	< 0.300	2400	<10	<10
	7'	< 0.300	2760	<10	<10
	8'	< 0.300	3240	<10	34.7

Proposed Remedial Actions

- The impacted area within the yard at sample locations S-1 thru S-7 will be excavated down to the rock shelf and backfilled using new topsoil and contoured to match the surrounding yard.
- The dead trees will be removed and the impacted area will be excavated approximately 75-feet long by 6-feet deep and 3-feet wide.
- A 2-foot clay liner will be installed into the bottom of the excavation at the tree line and will be backfilled with new top soil (locally obtained) and contoured to match the surrounding tree line.
- A final closure report documenting all remedial actions and analytical results 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 Kimberly M. Wilson

Project Manager

9

David J. Adkins District Manager

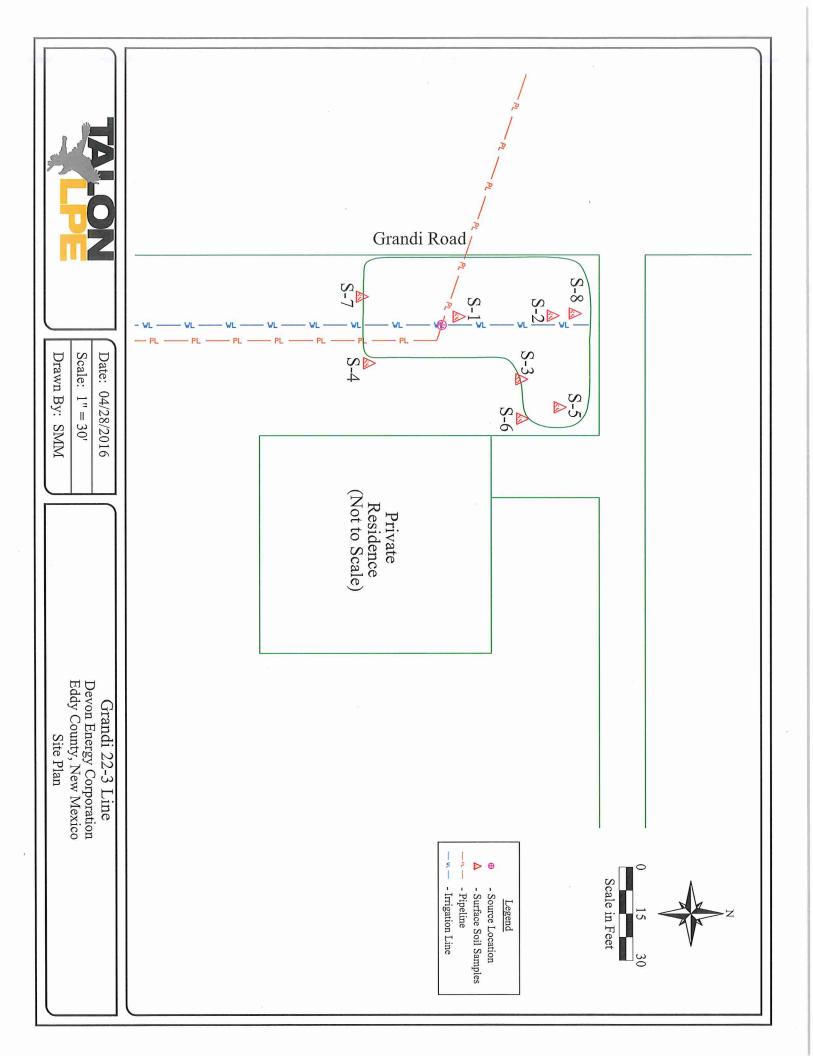
Attachments:

Appendix I Site Plan

Appendix II Groundwater Data & Initial C-141

Appendix III Laboratory Results

APPENDIX I SITE MAP



APPENDIX II GROUNDWATER DATA INITIAL C-141



New Mexico Office of the State Engineer Water Column/Average Depth to Water

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

(R=POD has been replaced, O=orphaned,

(quarters are 1=NW 2=NE 3=SW 4=SE) C=the file is closed)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

	POD Sub-		Q	Q	Q							Denth	Denth	Water
POD Number	Code basin	County	64	16	4	Sec	Tws	Rng	Х	Υ	Distance			Column
C 00043	С	ED	3	3	3	14	228	27E	578256	3583557*	206	120		
C 01776	С	ED		3	1	23	228	27E	578361	3582846*	515	157	40	117
C 00231 A		ED	1	4	1	23	228	27E	578666	3582951*	571	178	45	133
C 03063		ED	1	4	1	23	228	27E	578666	3582951*	. 571	163	40	123

Average Depth to Water:

41 feet

Minimum Depth:

40 feet

Maximum Depth:

45 feet

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 578258

Northing (Y): 3583351

Radius: 1000

NM OIL CONSERVATION

ARTESIA DISTRICT

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II
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

APR 1 4 2016 Form C-141
Revised August 8, 2011

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

Submit I Copy to appropriate District Office in RECEDIMENCE with 19.15.29 NMAC.

		,	Rele	ease Notific	ation	and Co	rrective A	ction	1			
DABIU					7	OPERA'	ror			l Report		Final Report
Name of Co				ion Company			rett Fulks, EHS		sional			
Facility Nat			Artesia, i	NIVI 88210		acility Ty	No. 432.301.322 pe Gas	23				
Surface Ow	ner			Mineral C					APINO	30-015-3	1022	
Surrace O'							DACE) AU LIVO	30-013-3	3722	
Unit Letter	Section	Township	Range	Feet from the	North/	OF REI	Feet from the		West Line	County		
Α	22	22S	27E	660		FNL	1210		FEL	Eddy		
		*.		Latitude			ongitude:				•	
Type of Relea				NAT	URE	OF RELI			1 11.1		^	
Produced Wat						Volume of Unknown			Volume F	lecovered:	0	
Source of Re Produced water	er fine to S'	WD was dame	ged by th	ird party 121	15/15	Date and I 12/15/2016	lour of Occurrent 12:00PM	nce		Hour of Di 12:00PM	scove	ry
Was Immedi	ate Notice		Yes 🏻	No ☐ Not Re	,	If YES, To	Whom?					
By Whom?						Date and I	Tour					
Was a Water	course Res		Yes 🛛	No		If YES, Vo	lume Impacting	the Wa	atercourse			
If a Watercon	ırse was İr	npacted, Des	cribe Full	y.*								
locating depar so that a repre system at som the home own 3/18/16 to ide	2015, Blue timent responsentative contacte point. In the contacte intify if and ne was iden	e Wally Const onded with po ould be preser December of d Devon Ener exactly where tified right un	ruction su sitive resp it to witne 2015, Dev gy, believ the leak	ion Taken.* bmitted a One Cal bonse by flagging t ss the dig. Blue W on Energy produc ing that the line ha was. Then on 3/21 he sprinkler syster	the line a ally Coned through ad developed 16, Des	and requesting the struction fairs the line to oped a leak down excavate	ig in the notes that led to contact Der to a commercial SV lue to staining in I d a small area aro	t Blue Von End WD for his yard and the	Wally Const ergy as requ a short duri l. Devon En cline to ider	truction con ested and in ation of time ergy pressui tify how the	tact D stalle . In M red th e line	Devon Energy and the sprinkler March of 2016, we line on had failed. A
Describe Are The area affecompany will	cted is a pri	ivate residenti	al yard at	the approximate co	oordinat	e of: Lat:32.	383947 Lon:104.1	168534	in WGS84.	An environ	menta	al remediation
regulations all public health of should their of	operators to or the envir perations ha ment. In ac	are required to onment. The ave failed to a dition, NMO	report an acceptanc dequately CD accept	is true and comple d/or file certain re e of a C-141 repor investigate and re tance of a C-141 re	lease no t by the mediate	tifications an NMOCD ma contamination	nd perform correct arked as "Final Re on that pose a thre	tive acti zport" d zat to gr	ions for rele loes not reli round water	ases which eve the oper , surface wa	may e ator c ter, h	endanger of liability uman health
Signature: 7	1	44					OIL CONS	SERV	ATION	DIVISIO	N	
		~~~			$\neg$		Signed I	By_	1/4 /	v )Krotlides	<u></u>	
Printed Name:	Brett Full				A	pproved by	Environmental Sp	ecialist	<u>!:</u>			
Title: EHS Pr	ofessional					pproval Dat	e: 4/15/14	P 1	Expiration I	Date: N	Pr	
E-mail Addres	s: brett.ful	ks@dvn.com	ı		c	onditions of	Approval;			Attached		
Attach Additi	onal Shee	ts If Necessa	ıry		• รบ		MEDIATION F	ROP			2R	P-3447

LATER THAN: 5/15/10

# APPENDIX III LABORATORY RESULTS



April 22, 2016

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: GANDI #22

Enclosed are the results of analyses for samples received by the laboratory on 04/21/16 12:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited 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.

Celey D. Keene

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



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

Received:

04/21/2016

Reported:

04/22/2016 GANDI #22

Project Name: Project Number: Project Location:

700794.186.01 EDDY COUNTY, NM

Sampling Date:

04/20/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

## Sample ID: S - 1 0' (H600871-01)

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	04/22/2016	ND	2.14	107	2.00	2.41	
Toluene*	< 0.050	0.050	04/22/2016	ND	2.06	103	2.00	2.59	
Ethylbenzene*	< 0.050	0.050	04/22/2016	ND	1.87	93.6	2.00	3.31	
Total Xylenes*	<0.150	0.150	04/22/2016	ND	5.74	95.6	6.00	3.02	
Total BTEX	<0.300	0.300	04/22/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.9 9	% 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8260	16.0	04/22/2016	ND	416	104	400	3.77	
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	10.4	10.0	04/22/2016	ND	188	93.9	200	8.09	
DRO >C10-C28	1050	10.0	04/22/2016	ND	217	109	200	11.4	
Surrogate: 1-Chlorooctane	81.7 %	% 35-147	č						9 F
Surrogate: 1-Chlorooctadecane	148 %	6 28-171							

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*=Accredited Analyte

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Celey D. Keens



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

04/21/2016

Reported: 04/22/2016

Project Name: GANDI #22
Project Number: 700794.186.01
Project Location: EDDY COUNTY, NM

Sampling Type: Soil

Sampling Condition: Cool & Intact

Sample Received By:

Sampling Date:

Jodi Henson

04/20/2016

Sample ID: S - 1 0.5' (H600871-02)

Received:

DTCV 0024 D

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	04/22/2016	ND	2.14	107	2.00	2.41	
Toluene*	<0.050	0.050	04/22/2016	ND	2.06	103	2.00	2.59	
Ethylbenzene*	<0.050	0.050	04/22/2016	ND	1.87	93.6	2.00	3.31	
Total Xylenes*	<0.150	0.150	04/22/2016	ND	5.74	95.6	6.00	3.02	
Total BTEX	<0.300	0.300	04/22/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103 %	6 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3480	16.0	04/22/2016	ND	416	104	400	3.77	
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	04/22/2016	ND	188	93.9	200	8.09	
DRO >C10-C28	24.4	10.0	04/22/2016	ND	217	109	200	11.4	
Surrogate: 1-Chlorooctane	75.9 9	% 35-147	,						
Surrogate: 1-Chlorooctadecane	92.8 9	% 28-171							

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

04/21/2016 04/22/2016 Reported:

GANDI #22 Project Name: 700794.186.01 Project Number:

Project Location: EDDY COUNTY, NM Sampling Date:

04/20/2016

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact Jodi Henson

Sample ID: S - 2 0' (H600871-03)

Received:

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	04/22/2016	ND	2.14	107	2.00	2.41	
Toluene*	<0.050	0.050	04/22/2016	ND	2.06	103	2.00	2.59	
Ethylbenzene*	<0.050	0.050	04/22/2016	ND	1.87	93.6	2.00	3.31	
Total Xylenes*	0.174	0.150	04/22/2016	ND	5.74	95.6	6.00	3.02	
Total BTEX	<0.300	0.300	04/22/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	106 9	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14000	16.0	04/22/2016	ND	416	104	400	3.92	QM-07
TPH 8015M	mg/	'kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	04/22/2016	ND	188	93.9	200	8.09	
DRO >C10-C28	3270	50.0	04/22/2016	ND	217	109	200	11.4	
Surrogate: 1-Chlorooctane	91.8	% 35-147	,						-
Surrogate: 1-Chlorooctadecane	173 9	% 28-171	t						

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Celeg & treens



TALON LPE KIMBERLY WILSON 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received: Reported: 04/21/2016

04/22/2016

Project Name:

GANDI #22

Project Number:

700794.186.01

Project Location:

EDDY COUNTY, NM

Sampling Date:

04/20/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

## Sample ID: S - 2 0.5' (H600871-04)

Carolina Car	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	04/22/2016	ND	2.14	107	2.00	2.41	
Toluene*	<0.050	0.050	04/22/2016	ND	2.06	103	2.00	2.59	
Ethylbenzene*	<0.050	0.050	04/22/2016	ND	1.87	93.6	2.00	3.31	
Total Xylenes*	<0.150	0.150	04/22/2016	ND	5.74	95.6	6.00	3.02	
Total BTEX	<0.300	0.300	04/22/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 9	% 73.6-14	0						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Analyte  Chloride	Result	Reporting Limit 16.0	Analyzed 04/22/2016	Method Blank ND	BS 416	% Recovery	True Value QC 400	RPD 3.92	Qualifier
		16.0	04/22/2016			and a common and a company	III. LONGOUS AND AND THE TO		Qualifier
Chloride	6930	16.0	04/22/2016	ND		and a common and a company	III. LONGOUS AND AND THE TO		Qualifier  Qualifier
Chloride TPH 8015M	6930 mg/	16.0 'kg	04/22/2016 Analyze	ND d By: MS	416	104	400	3.92	
Chloride TPH 8015M Analyte	6930 mg/	16.0 'kg Reporting Limit	04/22/2016 Analyze Analyzed	ND d By: MS  Method Blank	416 BS	104 % Recovery	400 True Value QC	3.92 RPD	
Chloride TPH 8015M  Analyte GRO C6-C10	6930 mg/ Result <10.0	16.0  Reporting Limit  10.0  10.0	04/22/2016  Analyze  Analyzed  04/22/2016  04/22/2016	ND d By: MS  Method Blank  ND	416 BS 188	% Recovery 93.9	400  True Value QC 200	3.92 RPD 8.09	

## Sample ID: S - 3 0' (H600871-05)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1840	16.0	04/22/2016	ND	416	104	400	3.92	

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TALON LPE KIMBERLY WILSON 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

04/21/2016

Reported:

04/22/2016

Project Name: Project Number: GANDI #22 700794.186.01

Project Location:

EDDY COUNTY, NM

Sampling Date:

04/20/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

## Sample ID: S - 4 0' (H600871-06)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	04/22/2016	ND	416	104	400	3.92	
Sample ID: S - 4 0.25' (Ho	600871-07)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	04/22/2016	ND	416	104	400	3.92	
Sample ID: S - 5 0' (H600	871-08)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3360	16,0	04/22/2016	ND	416	104	400	3.92	
Sample ID: S - 5 0.25' (Ho	600871-09)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3280	16.0	04/22/2016	ND	416	104	400	3.92	
									•
Sample ID: S - 6 0' (H600	,								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	04/22/2016	ND	416	104	400	3.92	

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Celey 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:

04/21/2016

Reported:

04/22/2016 GANDI #22

Project Name: Project Number:

700794.186.01

Project Location:

EDDY COUNTY, NM

Sampling Date:

04/20/2016

Sampling Type:

BS

416

BS

416

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S - 6 0.25' (H600871-11)

Chloride, SM4500CI-B

Chloride

Chloride

mg/kg

Analyzed By: AP

Analyte

Result

1280

Reporting Limit 16.0

Analyzed 04/22/2016

Analyzed

04/22/2016

Method Blank ND

% Recovery 104

True Value QC 400

RPD

3.92

Qualifier

Sample ID: S - 7 0' (H600871-12)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Analyte Result Reporting Limit

Method Blank

ND

% Recovery

104

True Value QC 400

**RPD** Qualifier

3.92

Sample ID: S - 7 0.25' (H600871-13)

Chloride, SM4500CI-B

16.0

Analyzed By: AP

Analyte Result Reporting Limit Analyzed Chloride 576 16.0 04/22/2016

400

Method Blank ND

BS 416 % Recovery 104

True Value QC 400

RPD 3.92 Qualifier

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



## **Notes and Definitions**

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or

matrix interference's.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

ecovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey & Keine



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Sampler - UPS - Bus - Other: 5 70		Tim Wilden Pine: 110	Relinquished By:	imilyes. Al ciding these for people one and any other cause whatsoever shall be deemed walved unless made in willing and received you calculate which do days after completion et des peoples between in no event shall Cardinal be liable for incidental or consequented damages, installing without limitation, business interruptions, loss of use, or loss of profile incurred by cilent, its substitution, officials or eucoscopication of for relabels for incidental or consequented and any other people of the consequence of the con	PLEASE NOTE: Liability and Omingos. Cominate is infolling and client's acclusive remedy for any fall manifold weekling the control of the con	9 5-5 0.25'	5-5 0'	75-40.25'	65-401	5 5-3 0	4 5-20.5	5520:	2 5-1 0.5'	10-10	HL600871	Lab I.D. Sample I.D.		COR USE ONLY	Sampler Name: Kin Wilson	Project Location: Eddy Cty	Project Name: Sond, 32	Project #: 110794, 186, 01 Project Owner:	Fax 件	City: Artesia state: NM	Address: 408 W. Texas Ave.	Project Manager: Xin Wisch	company name: Talon/LPE	101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476
Sample Condition CHECKED BY: Cool Intact (Mittalia)	Referred By: MUNION	BOO Kin	Received By:	be deemed walved unless made in writing and received by Cardinal within 30 a ling without limitation, business interruptions, loss of use, or loss of profits incu	or any daily a signary whether he end to construct the little with the signary of	7			6	7	6	6	6 . / / /	5	# CON GROL WAST SOIL OIL SLUD OTHE ACID/I ICE / C	R: BASE: COOL	RS TER	MATRIX PRESERV.	Fax#:	Phone #:	Stafe: Zip:	mer: (DeV/17) City:	575-746-8905 Address:	Zip: 88210 Attn:	Company: Talon/L	P.O.#:		88240 
	· Kush!	Fax Result:	]Yes □ No	wan, yaar y kie eigot, jor njo Ays after earpjelein of the spplicable Ted by eilent, its subskillantes,							9.25	9,23	11/6/6	11/10 1/18 Mar	DATE TIME	BU PH TE,	7	SAMPLING	2.						in/LPE		70 ANALYSIS	
																·											'REQUEST	12/0/2

Page 9 of 10

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



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

PLEASE NOTE: Lability and Damagus. Continuits fability and elleriff excitative termety for any stain arising whether based in contrast or test the finited in the amount paid by the ellerifor the applicable analysis. All colors in the contrast and continuits to the test inclination of the registration of the registration of the religions and the received and contrast and contrast to lable for inclination of the religionship whether the received in the application of the religionship of the religionship whether the religionship whether the problem of the registration of the religionship of the religionship of the religionship of the problem of the religionship	Lab I.D.  Sample I.D.  Sample I.D.  Sample I.D.  GROUNDWATER  WASTEWATER  SOIL  OIL	Company Name: Talon/LPE Project Manager: Km M 1800 Address: 408 W. Texas Ave. State: NM 2ip: 88210 City: Artesia Phone #: 575-746-8768 Project #: 700794 / 86, 0 / Project Owner: Dolan Project Name: 6000 A 2 Project Location: Edition (A) Project Location: Edition (A) Project Name: Matrix	101 East Mariand, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476
nontract or text, shall be limited to the amount past by the client for the diffig and reschied by Cardinal within 30 days after completion of the applicable within 10 days after completion of the	SLUDGE OTHER: ACID/BASE: ICE / COOL. OTHER:  TIME  ACID/BASE: ICE / COOL. OTHER:  ICE / COOL. OTHE	ides .	ANALYSIS REQUEST

 $_{\rm f}$  Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-8826



May 06, 2016

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: GRANDI 22-3

Enclosed are the results of analyses for samples received by the laboratory on 05/04/16 15:22.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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 <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> 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.

Celey D. Keine

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



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

Received:

05/04/2016

Reported:

05/06/2016

Project Name:

GRANDI 22-3

Project Number: Project Location: 700794.186.01 EDDY COUNTY, NM Sampling Date:

05/04/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

## Sample ID: S-8 0.5' (H600978-01)

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	05/05/2016	ND	1.88	93.8	2.00	0.797	
Toluene*	<0.050	0.050	05/05/2016	ND	1.79	89.5	2.00	3.11	
Ethylbenzene*	<0.050	0.050	05/05/2016	ND	1.62	81.1	2.00	2.52	
Total Xylenes*	<0.150	0.150	05/05/2016	ND	5.05	84.2	6.00	2.67	
Total BTEX	<0.300	0.300	05/05/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.3 %	6 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	05/05/2016	ND	400	100	400	3.92	
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	05/05/2016	ND	177	88.5	200	6.25	
DRO >C10-C28	<10.0	10.0	05/05/2016	ND	176	87.8	200	0.0182	
Surrogate: 1-Chlorooctane	66.3 %	% 35-147	,						
Surrogate: 1-Chlorooctadecane	75.0 %	6 28-171							

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Fax To:

(575) 745-8905

Received:

05/04/2016

Reported:

05/06/2016

Project Name:

GRANDI 22-3

Project Number: Project Location:

700794.186.01

EDDY COUNTY, NM

Sampling Date:

05/04/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-8 1' (H600978-02)

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	05/05/2016	ND	1.88	93.8	2.00	0.797	
Toluene*	<0.050	0.050	05/05/2016	ND	1.79	89.5	2.00	3.11	
Ethylbenzene*	<0.050	0.050	05/05/2016	ND	1.62	81.1	2.00	2.52	
Total Xylenes*	<0.150	0.150	05/05/2016	ND	5.05	84.2	6.00	2.67	
Total BTEX	<0.300	0.300	05/05/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.4	% 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2640	16.0	05/05/2016	ND	400	100	400	3.92	
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	05/05/2016	ND	177	88.5	200	6.25	
DRO >C10-C28	<10.0	10.0	05/05/2016	ND	176	87.8	200	0.0182	
Surrogate: 1-Chlorooctane	74.6	% 35-147	,						
Surrogate: 1-Chlorooctadecane	80.6	% 28-171							

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Celeg D. Kreens



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

Γαλ

Received: 05/04/2016 Reported: 05/06/2016

Project Name: GRANDI 22-3
Project Number: 700794.186.01

Project Location: EDDY COUNTY, NM

Sampling Date:

05/04/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

## Sample ID: S-8 2' (H600978-03)

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	05/05/2016	ND	1.88	93.8	2.00	0.797	
Toluene*	<0.050	0.050	05/05/2016	ND	1.79	89.5	2.00	3.11	
Ethylbenzene*	<0.050	0.050	05/05/2016	ND	1.62	81.1	2.00	2.52	
Total Xylenes*	<0.150	0.150	05/05/2016	ND	5.05	84.2	6.00	2.67	
Total BTEX	<0.300	0.300	05/05/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	98.8	% 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4880	16.0	05/05/2016	ND	400	100	400	3.92	
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	05/05/2016	ND	177	88.5	200	6.25	
DRO >C10-C28	<10.0	10.0	05/05/2016	ND	176	87.8	200	0.0182	
Surrogate: 1-Chlorooctane	78.9	% 35-147							
Surrogate: 1-Chlorooctadecane	80.8	% 28-171							

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Fax To:

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Received:

05/04/2016

Reported:

05/06/2016

05/04/2016

Project Name:

Sampling Type:

Soil

GRANDI 22-3

Sampling Condition:

Cool & Intact

Project Number:

700794.186.01

Sample Received By:

Sampling Date:

Jodi Henson

Project Location:

EDDY COUNTY, NM

Sample ID: S-8 3' (H600978-04)

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	05/05/2016	ND	1.88	93.8	2.00	0.797	
Toluene*	<0.050	0.050	05/05/2016	ND	1.79	89.5	2.00	3.11	
Ethylbenzene*	0.077	0.050	05/05/2016	ND	1.62	81.1	2.00	2.52	
Total Xylenes*	<0.150	0.150	05/05/2016	ND	5.05	84.2	6.00	2.67	
Total BTEX	<0.300	0.300	05/05/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103 %	6 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4160	16.0	05/05/2016	ND	400	100	400	3.92	
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	05/05/2016	ND	177	88.5	200	6.25	
DRO >C10-C28	11.7	10.0	05/05/2016	ND	176	87.8	200	0.0182	
Surrogate: 1-Chlorooctane	72.9	% 35-147	5						
Surrogate: 1-Chlorooctadecane	75.3	% 28-171							

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Received:

05/04/2016

Reported:

05/06/2016 GRANDI 22-3

Project Name: Project Number:

700794.186.01

Project Location:

EDDY COUNTY, NM

Sampling Date:

05/04/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S-8 4' (H600978-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS				•	V
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/05/2016	ND	1.88	93.8	2.00	0.797	
Toluene*	<0.050	0.050	05/05/2016	ND	1.79	89.5	2.00	3.11	
Ethylbenzene*	<0.050	0.050	05/05/2016	ND	1.62	81,1	2.00	2,52	
Total Xylenes*	<0.150	0.150	05/05/2016	ND	5.05	84.2	6.00	2.67	
Total BTEX	<0.300	0.300	05/05/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIE	101 9	% 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1920	16.0	05/05/2016	ND	400	100	400	3.92	
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	05/05/2016	ND	177	88.5	200	6.25	
DRO >C10-C28	21.3	10.0	05/05/2016	ND	176	87.8	200	0.0182	
Surrogate: 1-Chlorooctane	86.6	% 35-147	,						

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

Received:

05/04/2016

Reported:

05/06/2016

Project Name:

GRANDI 22-3

Project Number: Project Location:

700794.186.01 EDDY COUNTY, NM Sampling Date:

05/04/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

## Sample ID: S-8 5' (H600978-06)

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	05/05/2016	ND	1.88	93.8	2.00	0.797	
Toluene*	<0.050	0.050	05/05/2016	ND	1.79	89.5	2.00	3.11	
Ethylbenzene*	0.057	0.050	05/05/2016	ND	1.62	81.1	2.00	2.52	
Total Xylenes*	<0.150	0.150	05/05/2016	ND	5.05	84.2	6.00	2.67	
Total BTEX	<0.300	0.300	05/05/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	102 5	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2080	16.0	05/05/2016	ND	400	100	400	3.92	
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	05/05/2016	ND	177	88.5	200	6.25	
DRO >C10-C28	21.5	10.0	05/05/2016	ND	176	87.8	200	0.0182	
Surrogate: 1-Chlorooctane	68.5	% 35-147	,						

## Cardinal Laboratories

*=Accredited Analyte

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

Fax ⁻

05/04/2016

Reported: 05/06/2016

Project Name: GRANDI 22-3 Project Number: 700794.186.01

Project Location: EDDY COUNTY, NM

Sampling Date:

05/04/2016

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact Jodi Henson

Sample ID: S-8 6' (H600978-07)

Received:

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	05/05/2016	ND	1.88	93.8	2.00	0.797	
Toluene*	<0.050	0.050	05/05/2016	ND	1.79	89.5	2.00	3.11	
Ethylbenzene*	<0.050	0.050	05/05/2016	ND	1.62	81.1	2.00	2.52	
Total Xylenes*	<0.150	0.150	05/05/2016	ND	5.05	84.2	6.00	2.67	
Total BTEX	<0.300	0.300	05/05/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	98.8	% 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2400	16.0	05/05/2016	ND	400	100	400	3.92	
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	05/05/2016	ND	177	88.5	200	6.25	
DRO >C10-C28	<10.0	10.0	05/05/2016	ND	176	87.8	200	0.0182	
Surrogate: 1-Chlorooctane	76.4	% 35-147	e						
Surrogate: 1-Chlorooctadecane									

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Celey 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:

05/04/2016

Sampling Date:

05/04/2016

Reported:

05/06/2016

Sampling Type:

Soil

Project Name:

Cool & Intact

GRANDI 22-3

Sampling Condition: Sample Received By:

Jodi Henson

Project Number: Project Location: 700794.186.01

EDDY COUNTY, NM

Sample ID: S-8 7' (H600978-08)

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	05/06/2016	ND	1.88	93.8	2.00	0.797	
Toluene*	<0.050	0.050	05/06/2016	ND	1.79	89.5	2.00	3.11	
Ethylbenzene*	<0.050	0.050	05/06/2016	ND	1.62	81.1	2.00	2.52	
Total Xylenes*	<0.150	0.150	05/06/2016	ND	5.05	84.2	6.00	2.67	
Total BTEX	<0.300	0.300	05/06/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	100 %	6 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2760	16.0	05/05/2016	ND	400	100	400	3.92	
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	05/05/2016	ND	177	88.5	200	6.25	
DRO >C10-C28	<10.0	10.0	05/05/2016	ND	176	87.8	200	0.0182	
Surrogate: 1-Chlorooctane	81.9	% 35-147	,						
Surrogate: 1-Chlorooctadecane	86.7	% 28-171							

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

Received:

05/04/2016

05/06/2016

Sampling Date:

05/04/2016

Reported:

Sampling Type:

Soil

Project Name:

GRANDI 22-3

Sampling Condition:

Cool & Intact

Project Number: Project Location: 700794.186.01 EDDY COUNTY, NM Sample Received By:

Jodi Henson

Sample ID: S-8 8' (H600978-09)

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	05/05/2016	ND	1.88	93.8	2.00	0.797	
Toluene*	<0.050	0.050	05/05/2016	ND	1.79	89.5	2.00	3.11	
Ethylbenzene*	0.059	0.050	05/05/2016	ND	1.62	81.1	2.00	2.52	
Total Xylenes*	<0.150	0.150	05/05/2016	ND	5.05	84.2	6.00	2.67	
Total BTEX	<0.300	0.300	05/05/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103 9	% 73.6-14	0						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3240	16.0	05/05/2016	ND	400	100	400	3.92	
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	05/05/2016	ND	177	88.5	200	6.25	
DRO >C10-C28	34.7	10.0	05/05/2016	ND	176	87.8	200	0.0182	
Surrogate: 1-Chlorooctane	78.1	% 35-147	7						

28-171

59.6%

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Surrogate: 1-Chlorooctadecane

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Celley D. Keene



## **Notes and Definitions**

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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 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

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



101 East Warland, Hobbs, NW 88240 (575) 393-2326 FAX (575) 393-2476

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(575) 393-2326 Company Name: Talon/LPE	-	0/47-20	9)		-	ANALYSIS REQUEST	
Project Manager:	Kimberly Wilson Taxas Ava	7	Company: Talon/LPE	PE	,		
Giv: Arteria	State: NM	NM zip: 88210	Affn:				tor-nec
Phone #: 575-746-8768		11-	Address:				nyrigenista
	18	Project Owner: Drom	City:				n de propriet
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Sampler Name:	Kini Wilson		Fax #:	וכי			anners to
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† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393/236