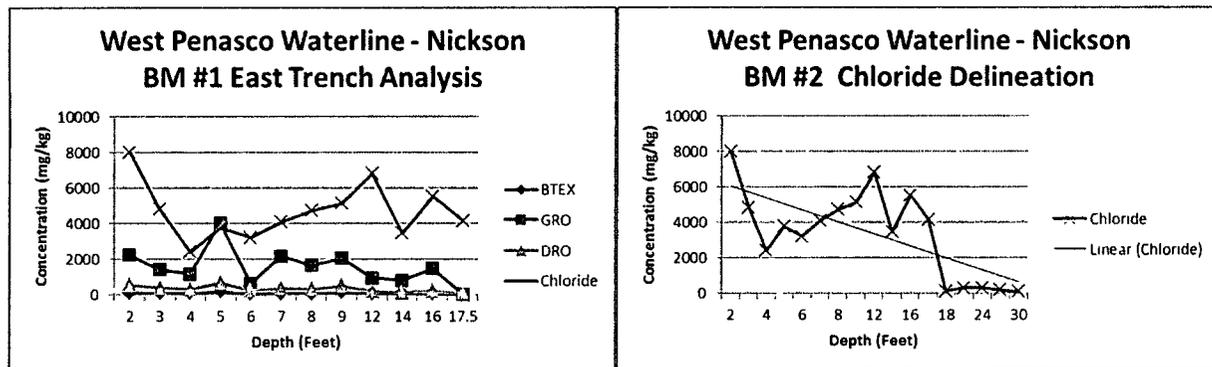


Mr. Bratcher,

As per our conversation July 14, 2012, you requested further delineation of Chlorides past 17.5 feet of depth. Analysis indicated RRALs, per NM OCD Guidelines for Remediation of Leaks, Spills and Releases, were reached at 16' of depth. Please see attached lab analysis. Excavated material was disposed of at an OCD approved facility. Further delineation of chlorides past 16 feet is indicated by the graph below.

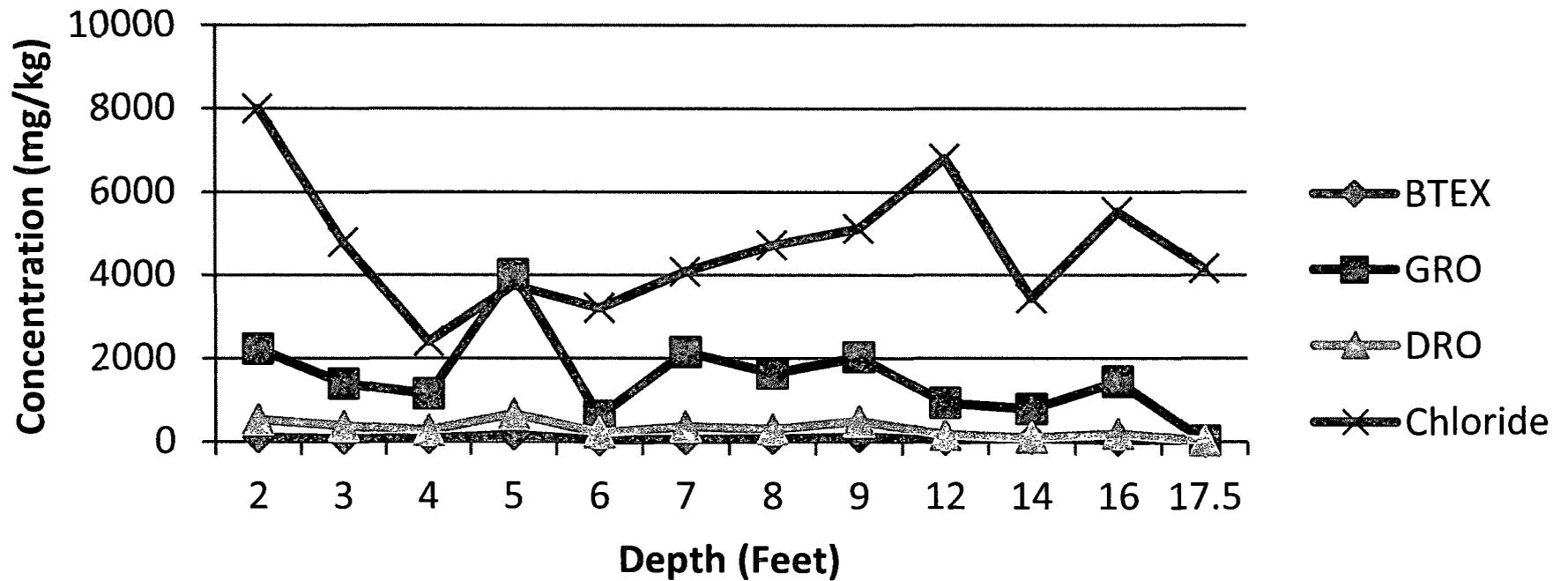


I am requesting closure to the site at this time.

Thank you,

Amanda N. Trujillo  
Environmental Scientist  
Yates Petroleum Corporation  
Office 575-748-4310  
Cell 575-703-6537  
Email atrujillo@yatespetroleum.com

# West Penasco Waterline - Nickson BM #1 East Trench Analysis





East Trench

(Feet)	BTEX	GRO	DRO	Chloride
2	112.29	2230	532	8000
3	77.48	1400	382	4800
4	87.44	1150	285	2400
5	171.1	4020	668	3760
6	37.54	616	217	3200
7	65.89	2150	364	4080
8	70.37	1640	306	4720
9	125.7	2030	499	5120
12	52.73	930	174	6800
14	86.73	787	102	3440
16	37.12	1440	196	5520
17.5	0.151	19	25.5	4160

West Trench

12	0	10	10	6080
14	0	10	10	4880
16	0	19.5	10	880
17.5	0	10	10	9300

Stockpile

East	30.259	456	323	8100
West	0	27	0	5920

Flow Path

Section 1	1.136	28	10	16
Section 2	0.776	11.3	10	6240
Section 3	0	16.6	13.7	8160
Section 4	0	19.6	28.7	3360

April 23, 2012

AMANDA TRUJILLO

Yates Energy Petroleum Corp

105 S 4th Street

Artesia, NM 88210

RE: NICKSON BM #2

Enclosed are the results of analyses for samples received by the laboratory on 04/17/12 11:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 04/17/2012  
 Reported: 04/23/2012  
 Project Name: NICKSON BM #2  
 Project Number: NONE GIVEN  
 Project Location: 30 T18S R26E

 Sampling Date: 04/12/2012  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: PA 3' (H200885-02)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.500	0.500	04/20/2012	ND	2.08	104	2.00	1.18		
Toluene*	6.28	0.500	04/20/2012	ND	2.19	109	2.00	0.904		
Ethylbenzene*	13.4	0.500	04/20/2012	ND	2.24	112	2.00	1.61		
Total Xylenes*	57.8	1.50	04/20/2012	ND	6.96	116	6.00	2.14		

Surrogate: 4-Bromofluorobenzene (PIL) 147% 64.4-134

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	1400	10.0	04/18/2012	ND	162	80.8	200	4.12		
DRO >C10-C28	382	10.0	04/18/2012	ND	156	78.0	200	8.10		

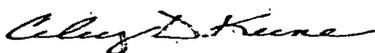
Surrogate: 1-Chlorooctane 113% 55.5-154

Surrogate: 1-Chlorooctadecane 92.5% 57.6-158

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 04/17/2012  
 Reported: 04/23/2012  
 Project Name: NICKSON BM #2  
 Project Number: NONE GIVEN  
 Project Location: 30 T18S R26E

 Sampling Date: 04/12/2012  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: PA 5' (H200885-04)**

BTEX 8021B		mg/kg		Analyzed By: AP					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.500	0.500	04/23/2012	ND	2.16	108	2.00	0.605		
Toluene*	18.6	0.500	04/23/2012	ND	2.29	114	2.00	1.16		
Ethylbenzene*	26.5	0.500	04/23/2012	ND	2.32	116	2.00	1.72		
Total Xylenes*	126	1.50	04/23/2012	ND	7.28	121	6.00	2.24		

Surrogate 4-Bromofluorobenzene (PIL) 169 % 64 4-134

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	4020	10.0	04/18/2012	ND	162	80.8	200	4.12		
DRO >C10-C28	668	10.0	04/18/2012	ND	156	78.0	200	8.10		

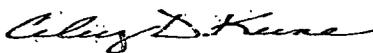
Surrogate 1-Chlorooctane 127 % 55 5-154

Surrogate 1-Chlorooctadecane 87 4 % 57 6-158

Cardinal Laboratories

\*=Accredited Analyte

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 Fax To: (505) 748-4635

 Received: 04/17/2012  
 Reported: 04/23/2012  
 Project Name: NICKSON BM #2  
 Project Number: NONE GIVEN  
 Project Location: 30 T18S R26E

 Sampling Date: 04/12/2012  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: PA 7' (H200885-06)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	04/23/2012	ND	2.16	108	2.00	0.605	
Toluene*	6.69	0.500	04/23/2012	ND	2.29	114	2.00	1.16	
Ethylbenzene*	7.40	0.500	04/23/2012	ND	2.32	116	2.00	1.72	
Total Xylenes*	51.8	1.50	04/23/2012	ND	7.28	121	6.00	2.24	

Surrogate: 4-Bromofluorobenzene (PIL) 142 % 64.4-134

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2150	10.0	04/18/2012	ND	162	80.8	200	4.12	
DRO >C10-C28	364	10.0	04/18/2012	ND	156	78.0	200	8.10	

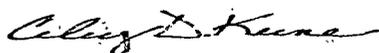
Surrogate: 1-Chlorooctane 110 % 55.5-154

Surrogate: 1-Chlorooctadecane 86.4 % 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 04/17/2012  
 Reported: 04/23/2012  
 Project Name: NICKSON BM #2  
 Project Number: NONE GIVEN  
 Project Location: 30 T18S R26E

 Sampling Date: 04/12/2012  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: PA 9' (H200885-08)**
*BTex*

BTEx 8021B		mg/kg		Analyzed By: AP					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.500	0.500	04/23/2012	ND	2.16	108	2.00	0.605		
Toluene*	23.7	0.500	04/23/2012	ND	2.29	114	2.00	1.16		
Ethylbenzene*	19.5	0.500	04/23/2012	ND	2.32	116	2.00	1.72		
Total Xylenes*	82.5	1.50	04/23/2012	ND	7.28	121	6.00	2.24		

Surrogate: 4-Bromofluorobenzene (PIL) 150% 64 4-134

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	2030	10.0	04/18/2012	ND	162	80.8	200	4.12		
DRO >C10-C28	499	10.0	04/18/2012	ND	156	78.0	200	8.10		

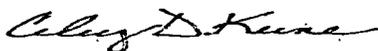
Surrogate: 1-Chlorooctane 113% 55.5-154

Surrogate: 1-Chlorooctadecane 84.8% 57 6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 04/17/2012  
 Reported: 04/23/2012  
 Project Name: NICKSON BM #2  
 Project Number: NONE GIVEN  
 Project Location: 30 T18S R26E

 Sampling Date: 04/12/2012  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: FLOWLINE 2 (H200885-10)**

BTX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/23/2012	ND	2.16	108	2.00	0.605		
Toluene*	<b>0.126</b>	0.050	04/23/2012	ND	2.29	114	2.00	1.16		
Ethylbenzene*	<b>0.105</b>	0.050	04/23/2012	ND	2.32	116	2.00	1.72		
Total Xylenes*	<b>0.545</b>	0.150	04/23/2012	ND	7.28	121	6.00	2.24		

Surrogate: 4-Bromofluorobenzene (PIL) 107% 64 4-134

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<b>11.3</b>	10.0	04/18/2012	ND	162	80.8	200	4.12		
DRO >C10-C28	<10.0	10.0	04/18/2012	ND	156	78.0	200	8.10		

Surrogate: 1-Chlorooctane 79.0% 55 5-154

Surrogate: 1-Chlorooctadecane 76.0% 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 04/17/2012  
 Reported: 04/23/2012  
 Project Name: NICKSON BM #2  
 Project Number: NONE GIVEN  
 Project Location: 30 T18S R26E

 Sampling Date: 04/12/2012  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: FLOWLINE 4 (H200885-12)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/23/2012	ND	2.16	108	2.00	0.605		
Toluene*	<0.050	0.050	04/23/2012	ND	2.29	114	2.00	1.16		
Ethylbenzene*	<0.050	0.050	04/23/2012	ND	2.32	116	2.00	1.72		
Total Xylenes*	<0.150	0.150	04/23/2012	ND	7.28	121	6.00	2.24		

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 64.4-134

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	19.6	10.0	04/18/2012	ND	162	80.8	200	4.12		
DRO >C10-C28	28.7	10.0	04/18/2012	ND	156	78.0	200	8.10		

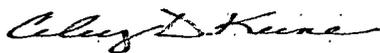
Surrogate: 1-Chlorooctane 84.6 % 55.5-154

Surrogate: 1-Chlorooctadecane 83.0 % 57.6-158

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





April 23, 2012

AMANDA TRUJILLO

Yates Energy Petroleum Corp

105 S 4th Street

Artesia, NM 88210

RE: NICKSON BM #2

Enclosed are the results of analyses for samples received by the laboratory on 04/17/12 11:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	04/17/2012	Sampling Date:	04/12/2012
Reported:	04/23/2012	Sampling Type:	Soil
Project Name:	NICKSON BM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	30 T18S R26E		

**Sample ID: PA 2' (H200885-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8000	16.0	04/19/2012	ND	432	108	400	0.00		

**Sample ID: PA 3' (H200885-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4800	16.0	04/19/2012	ND	432	108	400	0.00		

**Sample ID: PA 4' (H200885-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2400	16.0	04/19/2012	ND	432	108	400	0.00		

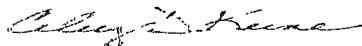
**Sample ID: PA 5' (H200885-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3760	16.0	04/19/2012	ND	432	108	400	0.00		

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	04/17/2012	Sampling Date:	04/12/2012
Reported:	04/23/2012	Sampling Type:	Soil
Project Name:	NICKSON BM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	30 T18S R26E		

**Sample ID: PA 6' (H200885-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3200	16.0	04/19/2012	ND	432	108	400	0.00		

**Sample ID: PA 7' (H200885-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4080	16.0	04/19/2012	ND	432	108	400	0.00		

**Sample ID: PA 8' (H200885-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4720	16.0	04/19/2012	ND	432	108	400	0.00		

**Sample ID: PA 9' (H200885-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5120	16.0	04/19/2012	ND	432	108	400	0.00		

**Sample ID: FLOWLINE 1 (H200885-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/19/2012	ND	432	108	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	04/17/2012	Sampling Date:	04/12/2012
Reported:	04/23/2012	Sampling Type:	Soil
Project Name:	NICKSON BM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	30 T18S R26E		

**Sample ID: FLOWLINE 2 (H200885-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6240	16.0	04/19/2012	ND	432	108	400	0.00		

**Sample ID: FLOWLINE 3 (H200885-11)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8160	16.0	04/19/2012	ND	432	108	400	0.00		

**Sample ID: FLOWLINE 4 (H200885-12)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3360	16.0	04/19/2012	ND	432	108	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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---

Celey D. Keene, Lab Director/Quality Manager





June 12, 2012

AMANDA TRUJILLO

Yates Energy Petroleum Corp

105 S 4th Street

Artesia, NM 88210

RE: NICKSON - PENASCO WATERLINE

Enclosed are the results of analyses for samples received by the laboratory on 06/07/12 10:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	06/07/2012	Sampling Date:	06/05/2012
Reported:	06/12/2012	Sampling Type:	Soil
Project Name:	NICKSON - PENASCO WATERLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	30 T18S R26E		

**Sample ID: EAST TRENCH 12' (H201273-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6800	16.0	06/08/2012	ND	432	108	400	0.00		

**Sample ID: EAST TRENCH 14' (H201273-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3440	16.0	06/08/2012	ND	432	108	400	0.00		

**Sample ID: EAST TRENCH 16' (H201273-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5520	16.0	06/08/2012	ND	432	108	400	0.00		

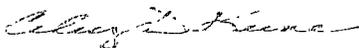
**Sample ID: EAST TRENCH 17.5' (H201273-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4160	16.0	06/08/2012	ND	432	108	400	0.00		

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





June 12, 2012

AMANDA TRUJILLO

Yates Energy Petroleum Corp

105 S 4th Street

Artesia, NM 88210

RE: NICKSON - PENASCO WATERLINE

Enclosed are the results of analyses for samples received by the laboratory on 06/07/12 10:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	06/07/2012	Sampling Date:	06/05/2012
Reported:	06/12/2012	Sampling Type:	Soil
Project Name:	NICKSON - PENASCO WATERLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	30 T18S R26E		

**Sample ID: EAST TRENCH 12' (H201273-01)**

BTEX 82608		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<2.00	2.00	06/08/2012	ND	1.73	86.6	2.00	0.654		
Toluene*	18.6	2.00	06/08/2012	ND	2.18	109	2.00	0.861		
Ethylbenzene*	5.13	2.00	06/08/2012	ND	2.12	106	2.00	1.41		
Total Xylenes*	29.0	6.00	06/08/2012	ND	7.31	122	6.00	1.41		

Surrogate Dibromofluoromethane 90.0 % 61.3-142

Surrogate Toluene-d8 110 % 71.3-129

Surrogate 4-Bromofluorobenzene 102 % 65.7-141

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	930	10.0	06/07/2012	ND	182	91.1	200	4.54		
DRO >C10-C28	174	10.0	06/07/2012	ND	184	92.2	200	7.32		

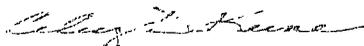
Surrogate 1-Chlorooctane 98.2 % 65.2-140

Surrogate 1-Chlorooctadecane 90.7 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	06/07/2012	Sampling Date:	06/05/2012
Reported:	06/12/2012	Sampling Type:	Soil
Project Name:	NICKSON - PENASCO WATERLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	30 T18S R26E		

**Sample ID: EAST TRENCH 14' (H201273-02)**

BTEX 8260B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Benzene*</b>	<b>2.37</b>	2.00	06/08/2012	ND	1.73	86.6	2.00	0.654		
<b>Toluene*</b>	<b>36.8</b>	2.00	06/08/2012	ND	2.18	109	2.00	0.861		
<b>Ethylbenzene*</b>	<b>7.46</b>	2.00	06/08/2012	ND	2.12	106	2.00	1.41		
<b>Total Xylenes*</b>	<b>40.1</b>	6.00	06/08/2012	ND	7.31	122	6.00	1.41		

*Surrogate Dibromofluoromethane* 89.8 % 61.3-142

*Surrogate Toluene-d8* 111 % 71.3-129

*Surrogate 4-Bromofluorobenzene* 102 % 65.7-141

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>787</b>	10.0	06/07/2012	ND	182	91.1	200	4.54		
<b>DRO &gt;C10-C28</b>	<b>102</b>	10.0	06/07/2012	ND	184	92.2	200	7.32		

*Surrogate 1-Chlorooctane* 95.9 % 65.2-140

*Surrogate 1-Chlorooctadecane* 101 % 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	06/07/2012	Sampling Date:	06/05/2012
Reported:	06/12/2012	Sampling Type:	Soil
Project Name:	NICKSON - PENASCO WATERLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	30 T18S R26E		

**Sample ID: EAST TRENCH 16' (H201273-03)**

BTEX 8260B

mg/kg

Analyzed By: CMS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	06/08/2012	ND	1.73	86.6	2.00	0.654	
Toluene*	15.1	2.00	06/08/2012	ND	2.18	109	2.00	0.861	
Ethylbenzene*	3.52	2.00	06/08/2012	ND	2.12	106	2.00	1.41	
Total Xylenes*	18.5	6.00	06/08/2012	ND	7.31	122	6.00	1.41	

Surrogate Dibromofluoromethane 88.9 % 61.3-142

Surrogate Toluene-d8 109 % 71.3-129

Surrogate 4-Bromofluorobenzene 100 % 65.7-141

TPH 8015M

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1440	10.0	06/07/2012	ND	182	91.1	200	4.54	
DRO >C10-C28	196	10.0	06/07/2012	ND	184	92.2	200	7.32	

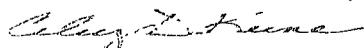
Surrogate 1-Chlorooctane 101 % 65.2-140

Surrogate 1-Chlorooctadecane 99.5 % 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	06/07/2012	Sampling Date:	06/05/2012
Reported:	06/12/2012	Sampling Type:	Soil
Project Name:	NICKSON - PENASCO WATERLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	30 T18S R26E		

**Sample ID: EAST TRENCH 17.5' (H201273-04)**

BTEX 8260B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	06/08/2012	ND	1.73	86.6	2.00	0.654		
Toluene*	<0.025	0.025	06/08/2012	ND	2.18	109	2.00	0.861		
Ethylbenzene*	<0.025	0.025	06/08/2012	ND	2.12	106	2.00	1.41		
<b>Total Xylenes*</b>	<b>0.151</b>	<b>0.075</b>	<b>06/08/2012</b>	<b>ND</b>	<b>7.31</b>	<b>122</b>	<b>6.00</b>	<b>1.41</b>		

*Surrogate Dibromofluoromethane* 83.9% 61.3-142

*Surrogate Toluene-d8* 108% 71.3-129

*Surrogate 4-Bromofluorobenzene* 118% 65.7-141

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>19.0</b>	<b>10.0</b>	<b>06/07/2012</b>	<b>ND</b>	<b>182</b>	<b>91.1</b>	<b>200</b>	<b>4.54</b>		
<b>DRO &gt;C10-C28</b>	<b>25.5</b>	<b>10.0</b>	<b>06/07/2012</b>	<b>ND</b>	<b>184</b>	<b>92.2</b>	<b>200</b>	<b>7.32</b>		

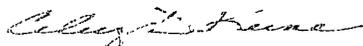
*Surrogate 1-Chlorooctane* 86.6% 65.2-140

*Surrogate 1-Chlorooctadecane* 104% 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	06/07/2012	Sampling Date:	06/05/2012
Reported:	06/12/2012	Sampling Type:	Soil
Project Name:	NICKSON - PENASCO WATERLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	30 T18S R26E		

**Sample ID: WEST TRENCH 12' (H201273-05)**
**BTEX 8260B**
**mg/kg**
**Analyzed By: CMS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	06/08/2012	ND	1.73	86.6	2.00	0.654	
Toluene*	<0.025	0.025	06/08/2012	ND	2.18	109	2.00	0.861	
Ethylbenzene*	<0.025	0.025	06/08/2012	ND	2.12	106	2.00	1.41	
Total Xylenes*	<0.075	0.075	06/08/2012	ND	7.31	122	6.00	1.41	

*Surrogate Dibromofluoromethane* 82.3% 61.3-142

*Surrogate Toluene-d8* 113% 71.3-129

*Surrogate 4-Bromofluorobenzene* 108% 65.7-141

**TPH 8015M**
**mg/kg**
**Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/07/2012	ND	182	91.1	200	4.54	
DRO >C10-C28	<10.0	10.0	06/07/2012	ND	184	92.2	200	7.32	

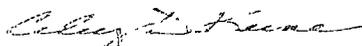
*Surrogate 1-Chlorooctane* 82.4% 65.2-140

*Surrogate 1-Chlorooctadecane* 97.0% 63.6-154

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	06/07/2012	Sampling Date:	06/05/2012
Reported:	06/12/2012	Sampling Type:	Soil
Project Name:	NICKSON - PENASCO WATERLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	30 T18S R26E		

**Sample ID: WEST TRENCH 14' (H201273-06)**

BTEX 8260B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	06/08/2012	ND	1.73	86.6	2.00	0.654		
Toluene*	<0.025	0.025	06/08/2012	ND	2.18	109	2.00	0.861		
Ethylbenzene*	<0.025	0.025	06/08/2012	ND	2.12	106	2.00	1.41		
Total Xylenes*	<0.075	0.075	06/08/2012	ND	7.31	122	6.00	1.41		

*Surrogate Dibromofluoromethane* 83.2% 61.3-142

*Surrogate Toluene-d8* 118% 71.3-129

*Surrogate 4-Bromofluorobenzene* 109% 65.7-141

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/08/2012	ND	182	91.1	200	4.54		
DRO >C10-C28	<10.0	10.0	06/08/2012	ND	184	92.2	200	7.32		

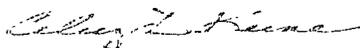
*Surrogate 1-Chlorooctane* 88.2% 65.2-140

*Surrogate 1-Chlorooctadecane* 99.9% 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	06/07/2012	Sampling Date:	06/05/2012
Reported:	06/12/2012	Sampling Type:	Soil
Project Name:	NICKSON - PENASCO WATERLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	30 T18S R26E		

**Sample ID: WEST TRENCH 16' (H201273-07)**

BTEX 8260B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/08/2012	ND	1.73	86.6	2.00	0.654		
Toluene*	<0.050	0.050	06/08/2012	ND	2.18	109	2.00	0.861		
Ethylbenzene*	<0.050	0.050	06/08/2012	ND	2.12	106	2.00	1.41		
Total Xylenes*	<0.150	0.150	06/08/2012	ND	7.31	122	6.00	1.41		

Surrogate Dibromofluoromethane	84.1 %	61.3-142
Surrogate Toluene-d8	115 %	71.3-129
Surrogate 4-Bromofluorobenzene	104 %	65.7-141

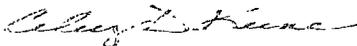
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	19.5	10.0	06/08/2012	ND	182	91.1	200	4.54		
DRO >C10-C28	<10.0	10.0	06/08/2012	ND	184	92.2	200	7.32		

Surrogate 1-Chlorooctane	92.5 %	65.2-140
Surrogate 1-Chlorooctadecane	106 %	63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	06/07/2012	Sampling Date:	06/05/2012
Reported:	06/12/2012	Sampling Type:	Soil
Project Name:	NICKSON - PENASCO WATERLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	30 T18S R26E		

**Sample ID: WEST TRENCH 18' (H201273-08)**

BTEX 8260B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	06/08/2012	ND	1.73	86.6	2.00	0.654		
Toluene*	<0.025	0.025	06/08/2012	ND	2.18	109	2.00	0.861		
Ethylbenzene*	<0.025	0.025	06/08/2012	ND	2.12	106	2.00	1.41		
Total Xylenes*	<0.075	0.075	06/08/2012	ND	7.31	122	6.00	1.41		

*Surrogate Dibromofluoromethane*      81.2 %      61.3-142

*Surrogate Toluene-d8*                      115 %      71.3-129

*Surrogate 4-Bromofluorobenzene*      102 %      65.7-141

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/08/2012	ND	182	91.1	200	4.54		
DRO >C10-C28	<10.0	10.0	06/08/2012	ND	184	92.2	200	7.32		

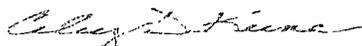
*Surrogate 1-Chlorooctane*                84.1 %      65.2-140

*Surrogate 1-Chlorooctadecane*        101 %      63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMANDA TRUJILLO  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	06/07/2012	Sampling Date:	06/05/2012
Reported:	06/12/2012	Sampling Type:	Soil
Project Name:	NICKSON - PENASCO WATERLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	30 T18S R26E		

**Sample ID: STOCKPILE 1 - EAST (H201273-09)**

BTEX 8260B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.200	0.200	06/11/2012	ND	1.73	86.6	2.00	0.654		
Toluene*	<b>0.819</b>	0.200	06/11/2012	ND	2.18	109	2.00	0.861		
Ethylbenzene*	<b>2.24</b>	0.200	06/11/2012	ND	2.12	106	2.00	1.41		
Total Xylenes*	<b>27.2</b>	0.600	06/11/2012	ND	7.31	122	6.00	1.41		

*Surrogate Dibromofluoromethane* 90.8 % 61.3-142

*Surrogate Toluene-d8* 101 % 71.3-129

*Surrogate 4-Bromofluorobenzene* 135 % 65.7-141

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<b>456</b>	10.0	06/08/2012	ND	182	91.1	200	4.54		
DRO >C10-C28	<b>323</b>	10.0	06/08/2012	ND	184	92.2	200	7.32		

*Surrogate 1-Chlorooctane* 104 % 65.2-140

*Surrogate 1-Chlorooctadecane* 103 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	06/07/2012	Sampling Date:	06/05/2012
Reported:	06/12/2012	Sampling Type:	Soil
Project Name:	NICKSON - PENASCO WATERLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	30 T18S R26E		

**Sample ID: STOCKPILE 2 - WEST (H201273-10)**

BTEX 8260B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	06/08/2012	ND	1.73	86.6	2.00	0.654		
Toluene*	<0.025	0.025	06/08/2012	ND	2.18	109	2.00	0.861		
Ethylbenzene*	<0.025	0.025	06/08/2012	ND	2.12	106	2.00	1.41		
Total Xylenes*	<0.075	0.075	06/08/2012	ND	7.31	122	6.00	1.41		

Surrogate Dibromofluoromethane 83.6% 61.3-142

Surrogate Toluene-d8 112% 71.3-129

Surrogate 4-Bromofluorobenzene 106% 65.7-141

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	27.6	10.0	06/08/2012	ND	182	91.1	200	4.54		
DRO >C10-C28	<10.0	10.0	06/08/2012	ND	184	92.2	200	7.32		

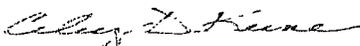
Surrogate 1-Chlorooctane 92.2% 65.2-140

Surrogate 1-Chlorooctadecane 107% 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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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