

# OCD-ARTESIA

MARTIN YATES, III  
1912-1985

FRANK W. YATES  
1936-1986

S.P. YATES  
1914-2008



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

www.yatespetroleum.com

JOHN A. YATES  
CHAIRMAN EMERITUS

JOHN A. YATES JR.  
CHAIRMAN OF THE BOARD  
PRESIDENT

JOHN D. PERINI  
EXECUTIVE VICE PRESIDENT  
CHIEF FINANCIAL OFFICER

JAMES S. BROWN  
CHIEF OPERATING OFFICER

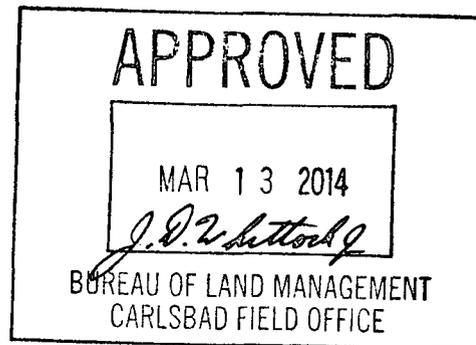
February 25, 2014

Mr. Mike Bratcher  
NMOCD District II  
811 South First Street  
Artesia, NM 88210

Mr. Duncan Whitlock  
BLM – Carlsbad Field Office  
620 East Greene Street  
Carlsbad, NM 88220

RE: Martha AIK Federal #1  
30-015-26549  
Section 11, T22S-R31E  
Eddy County, New Mexico

Mr. Bratcher and Mr. Whitlock,



**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

**SUBJECT TO LIKE  
APPROVAL BY STATE**

Yates Petroleum Corporation would like to submit the following plan of work to you regarding the two releases that occurred at the above mentioned facility on April 18, 2013 (2RP-1631) and April 27, 2013 (2RP-1643). The April 18, 2013 release was 850 barrels produced water and 33 barrels of oil, with 650 barrels of produced water and 20 barrels of oil recovered. The April 27, 2013 release was 250 barrels of produced water and 1 barrel of oil with no amounts recovered. Both releases occurred in the field to the south of the battery and inside the unlined bermed battery. After both releases Yates had excavated the visibly impacted soils, approximately 1'-2' from surface level in the field south of the battery, areas where the releases pooled had more soils excavated. Yates also excavated soils from within the battery to the extent that was practicable for safety reasons. All soils excavated were disposed of at a NMOCD approved facility.

Initial TPH/BTEX and Chloride delineation samples were taken and were sent to a NMOCD approved facility. The release area was split and sampled in four separate sections MB, MF1, MF2, and MF3, please see analytical report H301097. Analytical results in section MB were elevated, but due to safety and practicability reasons Yates could not complete further vertical delineation within this area. Analytical results also showed elevated chloride levels in the field to the south of the battery so Yates did further vertical delineation in sections MF1, MF2, and MF3, please see analytical report H302034. These analytical results still showed elevated chloride levels in the field and Yates was asked by NMOCD and BLM to complete further vertical delineation. At a meeting on September 23, 2013, NMOCD and BLM agreed that Yates could just do one sample point closest to section MF3. This further vertical delineation was completed by a core rig and the sample point was labeled MF4, please see analytical report H400167.

Based off of previous conversations with NMOCD and BLM, complete vertical delineation analytical results, and depth to ground water, Yates Petroleum Corporation proposes to leave all chloride impacted soils in place and use a natural caliche/top soil cap over the release area. Yates will create a cap over the entire release area with 2' of caliche and 2' of topsoil. The caliche would be packed as much as possible to create a good barrier over the chloride impacted soils. The 4' cap would allow a good root zone for the area to re-vegetate. Yates also feels that with this layer of caliche in the cap and other hard layers we encountered while completing vertical delineation sampling, it is unlikely that the chlorides left in place would reach groundwater that is greater than 100'. Due to the small amounts of rain the area sees, Yates also feels that the chlorides left in place would not be pushed further down and would therefore not reach groundwater.

When backfilling /creating the barrier over the release area, Yates will make sure the release area is above the surrounding surface levels to ensure that a pooling area is not created.

The site will be added to our seeding list for June 2014 and then monitored for re-vegetation.

If NMOCD or BLM has an objection to the proposed work, please respond with an email. If there are no objections from NMOCD or BLM, Yates would like to begin work no later than Tuesday, March 4, 2014.

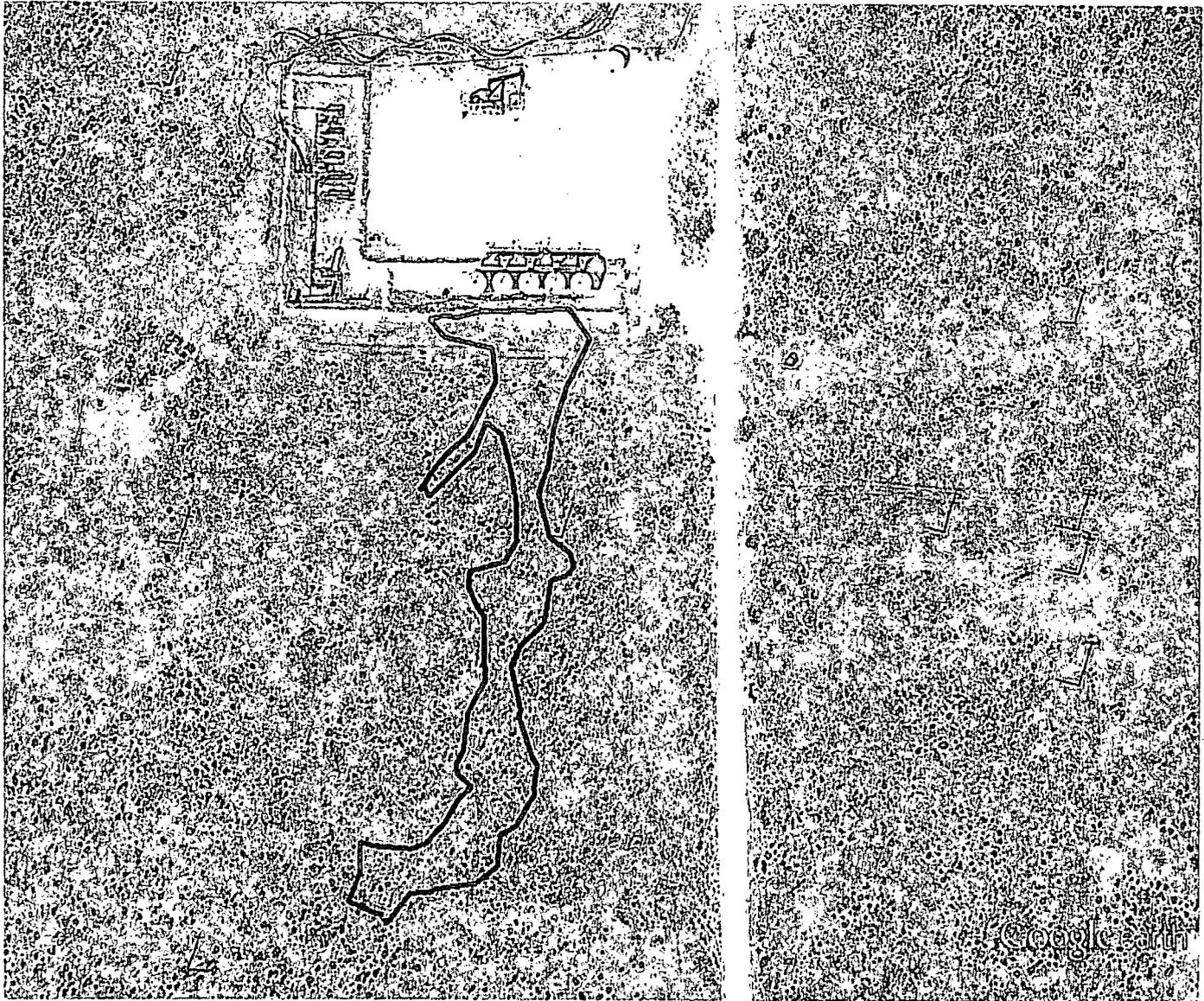
If you have any questions or concerns, I can be reached at (575) 748-4111 or by email at [acannon@yatespetroleum.com](mailto:acannon@yatespetroleum.com).

Thank You,

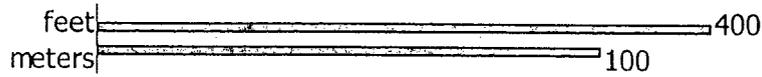


Amber Cannon  
Environmental Regulatory Agent  
Yates Petroleum Corporation

Enclosure(s)



Google earth



Martha AIK Federal #1 Battery

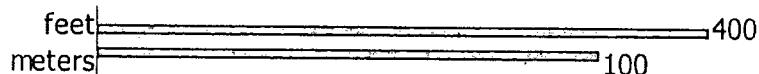
GPS of release area:

4/18/2013 (ZRP-1631)

4/27/2013 (ZRP-1643)



Google earth



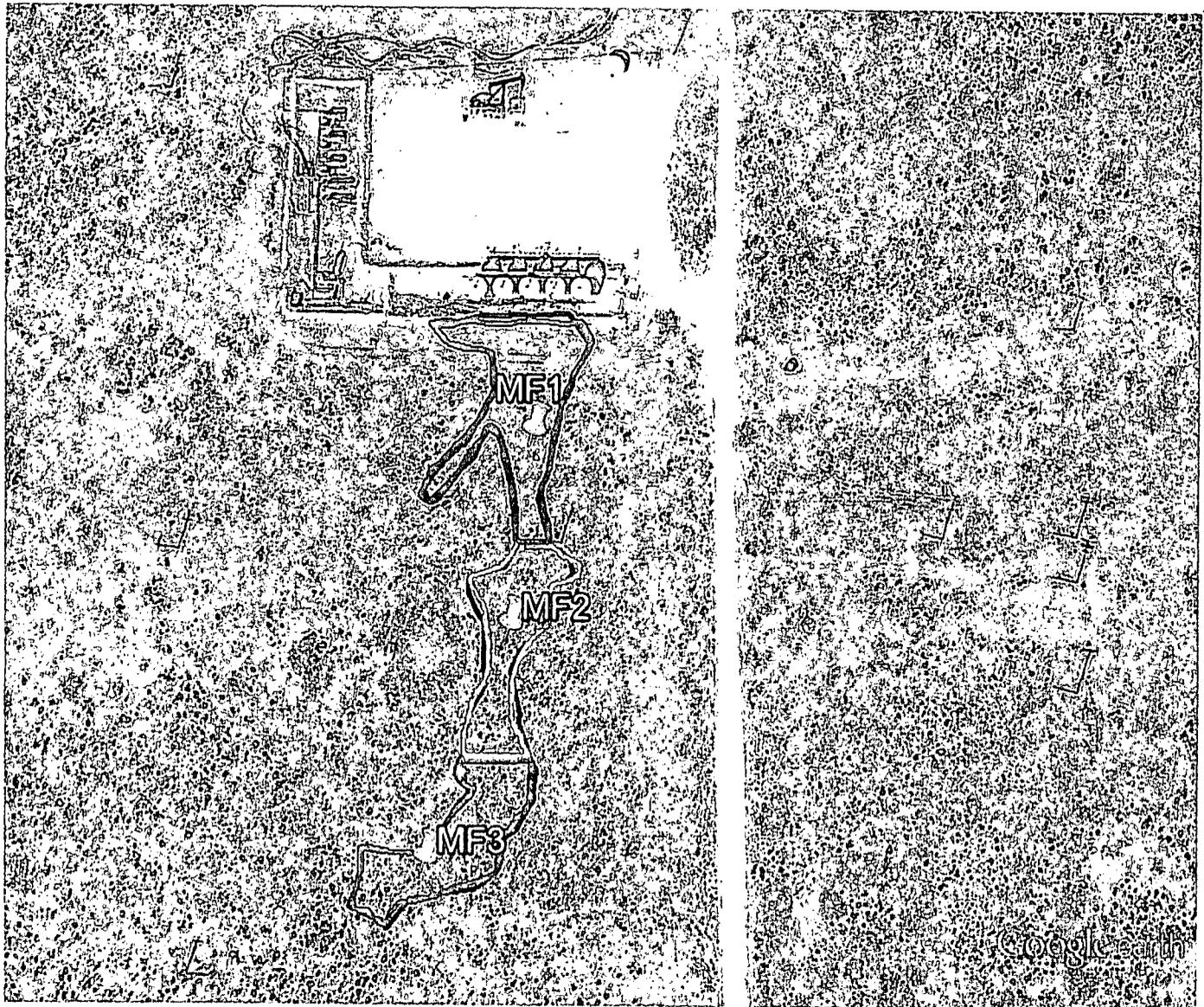
Martha Aik Federal #1 Battery

Sampling Event:

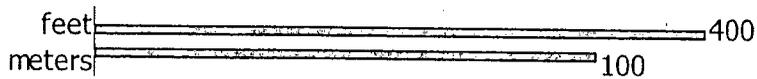
5/6/2013

H301097

\*NOTE: Sampling Points shown are not to scale



Google earth



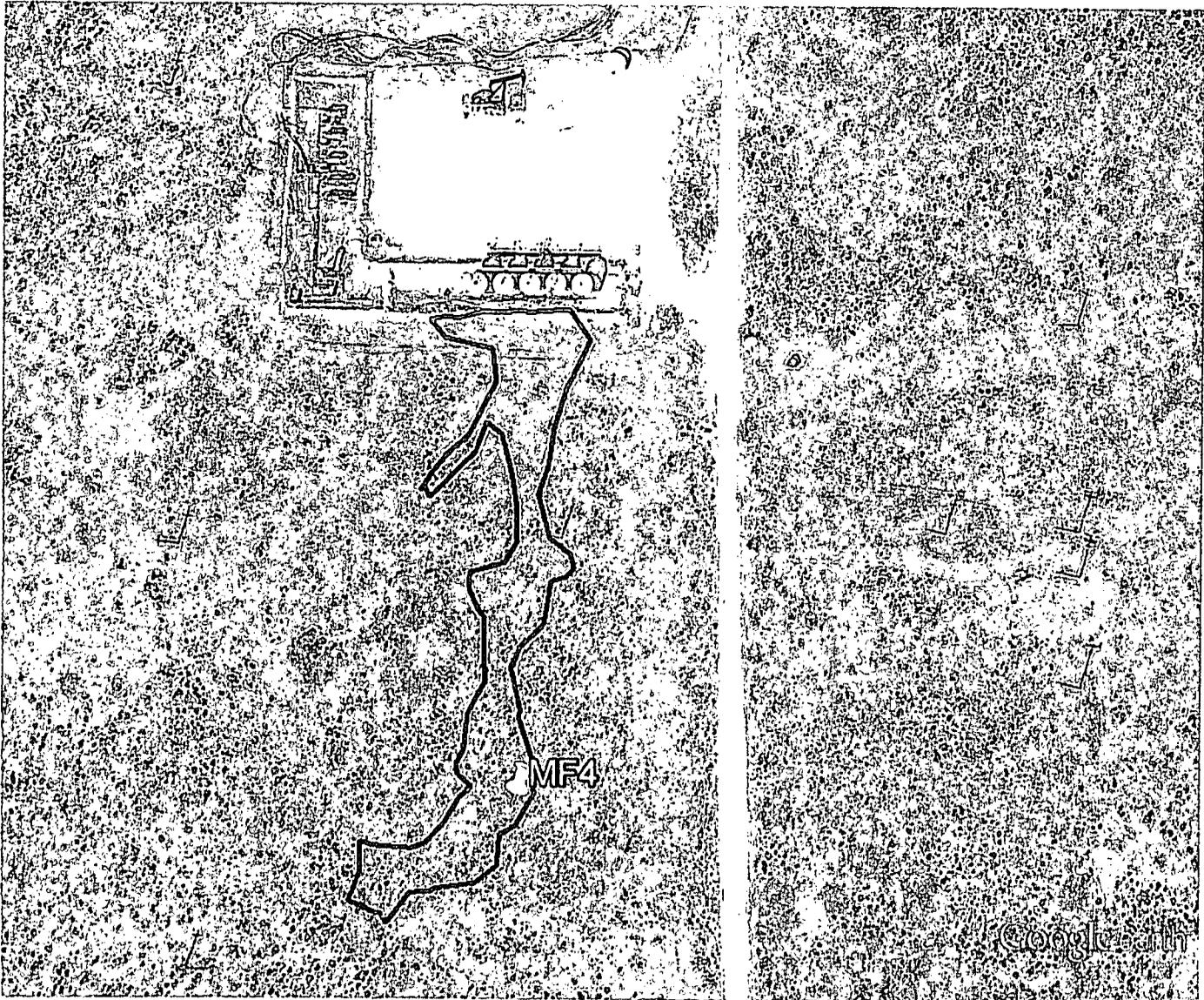
Martha Aik Federal #1 Battery

Sampling Event:

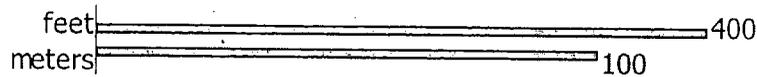
8/22/2013

H302034

\*NOTE: Sampling points shown are not to scale\*



Google earth



Martha AK Federal + 1 Battery

Sampling Event:

1/17/2014

H400167

\*NOTE: SAMPLING POINTS shown are not to scale\*

# Martha AIK Federal #1

## Cardinal Laboratories

Analytical Report- H301097	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
MB-1'	Release Area	5/6/2013	Grab/Backhoe	1'	ND	ND	ND	ND	5,120
MB-2'	Release Area	5/6/2013	Grab/Backhoe	2'	ND	ND	ND	ND	8,240
MB-3'	Release Area	5/6/2013	Grab/Backhoe	3'	ND	ND	ND	ND	6,000
MB-4'	Release Area	5/6/2013	Grab/Backhoe	4'	ND	ND	ND	ND	6,000
MB-5'	Release Area	5/6/2013	Grab/Backhoe	5'	ND	ND	ND	ND	5,440
MB-6'	Release Area	5/6/2013	Grab/Backhoe	6'	ND	ND	ND	ND	6,080
MF1-1'	Release Area	5/6/2013	Composite/Backhoe	1'	ND	ND	28.3	28.3	5,840
MF1-2'	Release Area	5/6/2013	Composite/Backhoe	2'	ND	ND	41.1	41.1	5,760
MF1-3'	Release Area	5/6/2013	Composite/Backhoe	3'	ND	ND	ND	ND	7,520
MF1-4'	Release Area	5/6/2013	Composite/Backhoe	4'	ND	ND	ND	ND	10,600
MF1-5'	Release Area	5/6/2013	Composite/Backhoe	5'	ND	ND	ND	ND	15,600
MF1-6'	Release Area	5/6/2013	Composite/Backhoe	6'	ND	ND	ND	ND	12,200
MF2-1'	Release Area	5/6/2013	Composite/Backhoe	1'	ND	ND	189	189	6,000
MF2-2'	Release Area	5/6/2013	Composite/Backhoe	2'	ND	ND	ND	ND	6,160
MF2-3'	Release Area	5/6/2013	Composite/Backhoe	3'	ND	ND	ND	ND	8,000
MF2-4'	Release Area	5/6/2013	Composite/Backhoe	4'	ND	ND	ND	ND	21,000
MF2-5'	Release Area	5/6/2013	Composite/Backhoe	5'	ND	ND	ND	ND	21,000
MF2-6'	Release Area	5/6/2013	Composite/Backhoe	6'	ND	ND	ND	ND	22,000
MF3-1'	Release Area	5/6/2013	Composite/Backhoe	1'	ND	ND	ND	ND	6,320
MF3-2'	Release Area	5/6/2013	Composite/Backhoe	2'	ND	ND	ND	ND	5,840
MF3-3'	Release Area	5/6/2013	Composite/Backhoe	3'	ND	ND	ND	ND	15,200
MF3-4'	Release Area	5/6/2013	Composite/Backhoe	4'	ND	ND	ND	ND	18,800
MF3-5'	Release Area	5/6/2013	Composite/Backhoe	5'	ND	ND	ND	ND	7,680
MF3-6'	Release Area	5/6/2013	Composite/Backhoe	6'	ND	ND	ND	ND	6,800

Analytical Report- H302034	Sample Area	Sample Date	Sample Type	Depth	Chlorides
MF1-7	Release Area	8/22/2013	Grab/Backhoe	7'	6,240
MF1-8	Release Area	8/22/2013	Grab/Backhoe	8'	28,400
MF1-9	Release Area	8/22/2013	Grab/Backhoe	9'	30,800
MF1-10	Release Area	8/22/2013	Grab/Backhoe	10'	24,600
MF1-11	Release Area	8/22/2013	Grab/Backhoe	11'	14,600
MF1-12	Release Area	8/22/2013	Grab/Backhoe	12'	11,800
MF2-7	Release Area	8/22/2013	Grab/Backhoe	7'	25,200
MF2-8	Release Area	8/22/2013	Grab/Backhoe	8'	22,200
MF2-9	Release Area	8/22/2013	Grab/Backhoe	9'	17,000
MF3-7	Release Area	8/22/2013	Grab/Backhoe	7'	23,200
MF3-8	Release Area	8/22/2013	Grab/Backhoe	8'	13,900
MF3-9	Release Area	8/22/2013	Grab/Backhoe	9'	28,400

Analytical Report- H400167	Sample Area	Sample Date	Sample Type	Depth	Chlorides
MF4-10	Release Area	1/17/2014	Core Rig Grab	10'	16,400
MF4-15	Release Area	1/17/2014	Core Rig Grab	15'	544
MF4-20	Release Area	1/17/2014	Core Rig Grab	20'	224

Site Ranking is Zero (0). Depth to Ground Water >100' (approx. 150', Section 11-22S-31E, per Trend Map).

All results are ppm.Chlorides for documentation.

Released: 850 B/PW, 33 B/O; Recovered: 650 B/PW, 20 B/O. Release Date: 4/18/2013 (2RP-1631)

Released: 250 B/PW, 1 B/O; Recovered: 0 B/PW, 0 B/O. Release Date: 4/27/2013 (2RP-1643).



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

May 13, 2013

AMBER CANNON

Yates Energy Petroleum Corp

105 S 4th Street

Artesia, NM 88210

RE: MARTHA AIK FEDERAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/08/13 11:00.

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/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 1' (H301097-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6000	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MF2 - 2' (H301097-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6160	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MF2 - 3' (H301097-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8000	16.0	05/10/2013	ND	432	108	400	0.00		

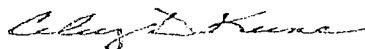
**Sample ID: MF2 - 4' (H301097-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	21000	16.0	05/10/2013	ND	432	108	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 5' (H301097-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	21000	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MF2 - 6' (H301097-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	22000	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MF3 - 1' (H301097-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6320	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MF3 - 2' (H301097-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5840	16.0	05/10/2013	ND	432	108	400	0.00		

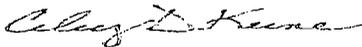
**Sample ID: MF3 - 3' (H301097-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	15200	16.0	05/10/2013	ND	432	108	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim 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 whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 4' (H301097-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	18800	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MF3 - 5' (H301097-11)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7680	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MF3 - 6' (H301097-12)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6800	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MB - 1' (H301097-13)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5120	16.0	05/10/2013	ND	432	108	400	0.00		

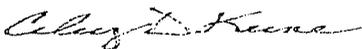
**Sample ID: MB - 2' (H301097-14)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8240	16.0	05/10/2013	ND	432	108	400	0.00		

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 3' (H301097-15)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6000	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MB - 4' (H301097-16)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6000	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MB - 5' (H301097-17)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5440	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MB - 6' (H301097-18)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6080	16.0	05/10/2013	ND	432	108	400	0.00		

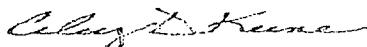
**Sample ID: MF1 - 1' (H301097-19)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5840	16.0	05/10/2013	ND	432	108	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF1 - 2' (H301097-20)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5760	16.0	05/10/2013	ND	416	104	400	3.77		

**Sample ID: MF1 - 3' (H301097-21)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7520	16.0	05/10/2013	ND	416	104	400	3.77		

**Sample ID: MF1 - 4' (H301097-22)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10600	16.0	05/10/2013	ND	416	104	400	3.77		

**Sample ID: MF1 - 5' (H301097-23)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	15600	16.0	05/10/2013	ND	416	104	400	3.77		

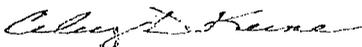
**Sample ID: MF1 - 6' (H301097-24)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12200	16.0	05/10/2013	ND	416	104	400	3.77		

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim 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 whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

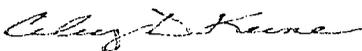
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

---

Cardinal Laboratories

\*= Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager







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

---

May 13, 2013

AMBER CANNON

Yates Energy Petroleum Corp

105 S 4th Street

Artesia, NM 88210

RE: MARTHA AIK FEDERAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/08/13 11:00.

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/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 1' (H301097-01)**

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	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIE) 110% 89.4-126*

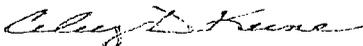
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/09/2013	ND	210	105	200	0.918		
DRO >C10-C28	189	10.0	05/09/2013	ND	205	102	200	0.533		

*Surrogate: 1-Chlorooctane 109% 65.2-110*
*Surrogate: 1-Chlorooctadecane 105% 63.6-154*

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 2' (H301097-02)**

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	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIE) 108 % 89.4-126*

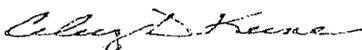
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/09/2013	ND	210	105	200	0.918		
DRO >C10-C28	<10.0	10.0	05/09/2013	ND	205	102	200	0.533		

*Surrogate: 1-Chlorooctane 99.6 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 105 % 63.6-154*

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 3' (H301097-03)**

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	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PTE) 109 % 89.4-126

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	05/09/2013	ND	210	105	200	0.918		
DRO >C10-C28	<10.0	10.0	05/09/2013	ND	205	102	200	0.533		

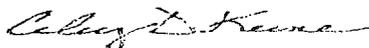
Surrogate: 1-Chlorooctane 99.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 4' (H301097-04)**

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	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 108 % 89.4-126

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	05/09/2013	ND	210	105	200	0.918		
DRO >C10-C28	<10.0	10.0	05/09/2013	ND	205	102	200	0.533		

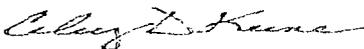
Surrogate: 1-Chlorooctane 92.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.4 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 5' (H301097-05)**

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	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PID 110 % 89.4-126)*

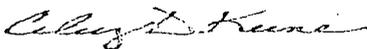
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

*Surrogate: 1-Chlorooctane 90.4 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 92.3 % 63.6-154*

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 6' (H301097-06)**

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	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

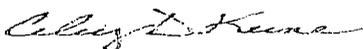
Surrogate: 1-Chlorooctane 97.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 98.1 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruption, 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 1' (H301097-07)**

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	05/10/2013	ND	2.16	108	2.00	4.05	
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61	
Total BTEX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 108 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684	
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51	

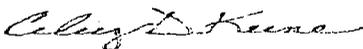
Surrogate: 1-Chlorooctane 100 % 65.2-140

Surrogate: 1-Chlorooctadecane 107 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 2' (H301097-08)**

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	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

Surrogate: 4-Bromofluorobenzene (PIE) 108 % 89.4-126

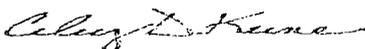
Surrogate: 1-Chlorooctane 93.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 97.5 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 3' (H301097-09)**

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	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

Surrogate: 1-Chlorooctane 85.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 88.4 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 4' (H301097-10)**

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	05/10/2013	ND	2.16	108	2.00	4.05	
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61	
Total BTEX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684	
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51	

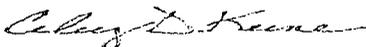
Surrogate: 1-Chlorooctane 86.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 91.8 % 63.6-154

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 5' (H301097-11)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIE) 108 % 89.4-126*

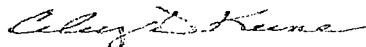
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

*Surrogate: 1-Chlorooctane 90.3 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 96.4 % 63.6-154*

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 6' (H301097-12)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIL) 109 % 89.4-126*

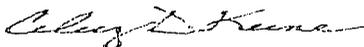
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

*Surrogate: 1-Chlorooctane 91.0 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 95.7 % 63.6-154*

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All clients, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 1' (H301097-13)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

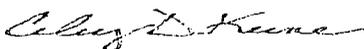
Surrogate: 1-Chlorooctane 98.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 63.6-154

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable services. In no event shall Cardinal be liable for incidental or consequential damages, 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 2' (H301097-14)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PFD) 109 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

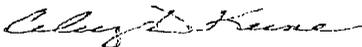
Surrogate: 1-Chlorooctane 93.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 97.9 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 3' (H301097-15)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

Surrogate: 1-Chlorooctane 99.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 107 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 4' (H301097-16)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

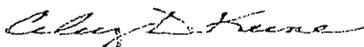
Surrogate: 1-Chlorooctane 105 % 65.2-140

Surrogate: 1-Chlorooctadecane 114 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 5' (H301097-17)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

Surrogate: 4-Bromofluorobenzene (PIE) 108 % 89.4-126

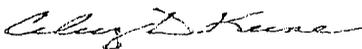
Surrogate: 1-Chlorooctane 103 % 65.2-140

Surrogate: 1-Chlorooctadecane 110 % 63.6-154

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 4' (H301097-16)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

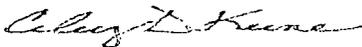
Surrogate: 1-Chlorooctane 105 % 65.2-140

Surrogate: 1-Chlorooctadecane 114 % 63.6-154

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 5' (H301097-17)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 108 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

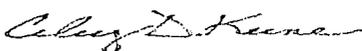
Surrogate: 1-Chlorooctane 103 % 65.2-140

Surrogate: 1-Chlorooctadecane 110 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 6' (H301097-18)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

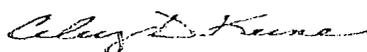
Surrogate: 1-Chlorooctane 96.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF1 - 1' (H301097-19)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	28.3	10.0	05/10/2013	ND	181	90.7	200	1.51		

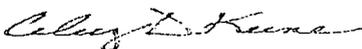
Surrogate: 1-Chlorooctane 106 % 65.2-140

Surrogate: 1-Chlorooctadecane 116 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF1 - 2' (H301097-20)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 108 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	41.1	10.0	05/10/2013	ND	181	90.7	200	1.51		

Surrogate: 1-Chlorooctane 100 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF1 - 3' (H301097-21)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126*

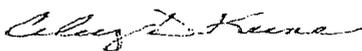
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

*Surrogate: 1-Chlorooctane 102 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 103 % 63.6-154*

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF1 - 4' (H301097-22)**

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	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 1-Bromofluorobenzene (PIE) 109% 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

Surrogate: 1-Chlorooctane 107% 65.2-140

Surrogate: 1-Chlorooctadecane 114% 63.6-154

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF1 - 5' (H301097-23)**

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	05/10/2013	ND	2.08	104	2.00	4.33	
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21	
Total BTEX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PFB) 109 % 89.4-126

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	05/10/2013	ND	194	96.9	200	0.684	
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51	

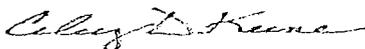
Surrogate: 1-Chlorooctane 96.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 105 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF1 - 6' (H301097-24)**

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	05/10/2013	ND	2.08	104	2.00	4.33	
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21	
Total BTEX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PJE) 108 % 89.4-126

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	05/13/2013	ND	213	107	200	0.896	
DRO >C10-C28	<10.0	10.0	05/13/2013	ND	209	104	200	1.12	

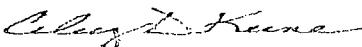
Surrogate: 1-Chlorooctane 110 % 65.2-140

Surrogate: 1-Chlorooctadecane 118 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



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

---

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager







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

August 29, 2013

AMBER CANNON  
YATES PETROLEUM CORPORATION  
105 S 4th Street  
Artesia, NM 88210

RE: MARTHA AIK FEDERAL #1 FIELD

Enclosed are the results of analyses for samples received by the laboratory on 08/23/13 12:45.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene  
Lab Director/Quality Manager

**Analytical Results For:**

 YATES PETROLEUM CORPORATION  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	08/23/2013	Sampling Date:	08/22/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL #1 FIELD	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MARTHA 1 FIELD 1-7 (H302034-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6240	16.0	08/29/2013	ND	448	112	400	3.64	

**Sample ID: MARTHA 1 FIELD 1-8 (H302034-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	28400	16.0	08/29/2013	ND	448	112	400	3.64	

**Sample ID: MARTHA 1 FIELD 1-9 (H302034-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	30800	16.0	08/29/2013	ND	448	112	400	3.64	

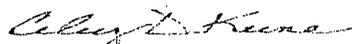
**Sample ID: MARTHA 1 FIELD 1-10 (H302034-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	24600	16.0	08/29/2013	ND	448	112	400	3.64	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 YATES PETROLEUM CORPORATION  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	08/23/2013	Sampling Date:	08/22/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL #1 FIELD	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MARTHA 1 FIELD 1-11 (H302034-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14600	16.0	08/29/2013	ND	448	112	400	3.64	

**Sample ID: MARTHA 1 FIELD 1-12 (H302034-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11800	16.0	08/29/2013	ND	448	112	400	3.64	

**Sample ID: MARTHA 1 FIELD 2-7 (H302034-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	25200	16.0	08/29/2013	ND	448	112	400	3.64	

**Sample ID: MARTHA 1 FIELD 2-8 (H302034-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	22200	16.0	08/29/2013	ND	448	112	400	3.64	

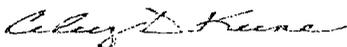
**Sample ID: MARTHA 1 FIELD 2-9 (H302034-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	17000	16.0	08/29/2013	ND	448	112	400	3.64	

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 YATES PETROLEUM CORPORATION  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	08/23/2013	Sampling Date:	08/22/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL #1 FIELD	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MARTHA 1 FIELD 3-7 (H302034-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	23200	16.0	08/29/2013	ND	448	112	400	3.64		

**Sample ID: MARTHA 1 FIELD 3-8 (H302034-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	13900	16.0	08/29/2013	ND	448	112	400	3.64		

**Sample ID: MARTHA 1 FIELD 3-9 (H302034-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	28400	16.0	08/29/2013	ND	448	112	400	3.64		

Cardinal Laboratories

\*==Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

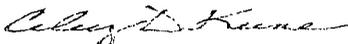
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received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

---

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 refer only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager





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

January 21, 2014

AMBER CANNON

YATES PETROLEUM CORPORATION

105 S 4th Street

Artesia, NM 88210

RE: MARTHA AIK FEDERAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 01/20/14 12:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 YATES PETROLEUM CORPORATION  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	01/20/2014	Sampling Date:	01/17/2014
Reported:	01/21/2014	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	** (See Notes)
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF 4-10 (H400167-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16400	16.0	01/21/2014	ND	416	104	400	3.92		

**Sample ID: MF 4-15 (H400167-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	544	16.0	01/21/2014	ND	416	104	400	3.92		

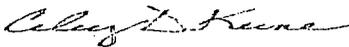
**Sample ID: MF 4-20 (H400167-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	01/21/2014	ND	416	104	400	3.92		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analytes. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

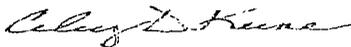
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received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

---

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 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 Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager



Condition of Approval  
Martha AIK Federal #1, 3001526549  
Sec. 11, T22S-R31E, NM65417

Your work plan dated February 25, 2014 is approved subject to like approval by the NMOCD for the Martha AIK Federal #1 spill. These spills were off the location and occurred on April 18, 2013 and April 27, 2013 (NMOCD # 2RP-1631 & 2RP-1643).

1. Yates has or will excavate down to 4' then will place 2' compacted caliche barrier and 2' of like soil material back on top of spill area.
2. If area does not support vegetation growth Yates will be required to do additional work.
3. It may be beneficial to fence area to prevent livestock from damaging new growth once area is seeded in June 2014.

APPROVED J.D. Whitlock, Jr.



**Bratcher, Mike, EMNRD**

---

**From:** Amber Cannon <ACannon@yatespetroleum.com>  
**Sent:** Tuesday, February 25, 2014 2:23 PM  
**To:** Bratcher, Mike, EMNRD; Duncan Whitlock  
**Cc:** Bob Asher  
**Subject:** Martha AIK Federal #1  
**Attachments:** MarthaAIKFederal1Field\_Workplan022414.pdf

**Importance:** High

Mike/Duncan,

Please find attached a work plan for the two releases that occurred on April 18, 2013 and April 27, 2013 (2RP-1631) at the Martha AIK Federal #1.

If either of you object to Yates' proposal, please let me know. Yates would like to get started on or before March 4, 2014.

Thanks,

**Amber Cannon**

Environmental Regulatory Agent  
Yates Petroleum Corporation  
Office: (575) 748-4111  
Cell: (575) 513-8799