

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

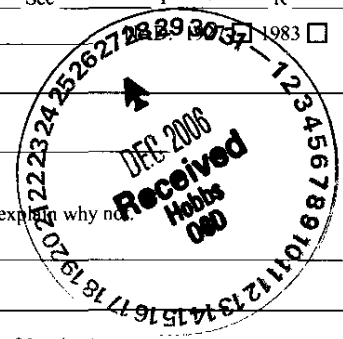
For drilling and production facilities, submit to
appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe
office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: <u>CHESAPEAKE OPERATING, INC.</u> Telephone: <u>432-687-2992</u> e-mail address: <u>SSTRICKLIN@CHKENERGY.CO</u>		
Address: <u>P. O. BOX 11050 MIDLAND, TEXAS 79702-8050</u>		
Facility or well name: <u>BUBBA 4 STATE COM WELL 1</u>	API #: <u>30-025-37420</u>	U/L or Qtr/Qtr <u>M</u> Sec <u>4</u> T <u>17S</u> R <u>37E</u>
County: <u>LEA</u>	Latitude _____	Longitude _____
Surface Owner: Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input checked="" type="checkbox"/> Indian <input type="checkbox"/>		
Pit Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/> Pit Volume <u>12,139</u> bbl	Below-grade tank Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not: _____	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) <u>60'</u>	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) 10 (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points) 0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) 0
Ranking Score (Total Points)		10



If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☒ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: A SIDE DEEP BURIAL TRENCH OF TEN FEET DEEP WAS EXCAVATED NEXT TO THE PIT. THE TRENCH WAS LINED WITH A 20 MIL SYNTHETIC LINER. THE PIT CONTENTS WERE THEN PLACED INTO THE LINED TRENCH. THE SIDES OF THE TRENCH WERE FOLDED OVER THE CONTENTS AND A TOP COVER OF 20 MIL SYNTHETIC LINER WAS SEWED IN PLACE. THREE FEET OF TOP SOIL WAS PLACED ON TOP OF THE LINED TRENCH AND COMPACTED. THE ORIGINAL PIT WAS BACKFILLED WITH CLEAN SOIL, COMPACTED, AND LEVELLED TO GRADE. CONFIRMATION SAMPLES WERE TAKEN FROM THE EXCAVATED PIT PRIOR TO BACKFILLING AND ARE ATTACHED. THE PIT CLOSURE WAS STARTED ON DECEMBER 4, 2006 AND COMPLETED ON DECEMBER 14, 2006.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines <input checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		
Date: <u>12/22/06</u>	CLIFF BRUNSON, PRESIDENT, BBC INTL.	
Printed Name/Title _____	Signature <u>Cliff P. Brunson</u>	FOR CHESAPEAKE OPERATING, INC. _____
Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or		
Approval:		
Printed Name/Title <u>CHRIS WILLIAMS / DIST. SUPV.</u>	Signature <u>Chris Williams</u>	Date: <u>12/27/06</u>



6701 Aberdeen Avenue, Suite 9
155 McCutcheon, Suite H

Lubbock, Texas 79424 800•378•1298
El Paso, Texas 79932 888•588•3443
E-Mail: lab@traceanalysis.com

806•794•1298 FAX 806•794•1298
915•585•3443 FAX 915•585•4944

Analytical and Quality Control Report

Cris Busby
New Mexico Environmental
P.O. Box 310
Carlsbad, NM, 88221

Report Date: December 21, 2006

Work Order: 6122121



Project Location: See 21, TL5S, R36E, APL30-025-37925 Lea Cty.

Project Name: Caudill South 21 Fee #2H

Project Number: Caudill South 21 Fee #2H

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
112453	#001 SE Corner 3'	soil	2006-12-20	14:00	2006-12-21
112454	#002 N.E. Corner 3'	soil	2006-12-20	14:30	2006-12-21
112455	#003 Center 3'	soil	2006-12-20	15:00	2006-12-21
112456	#004 S.W. Corner 3'	soil	2006-12-20	15:30	2006-12-21
112457	#005 N.W. Corner 3'	soil	2006-12-20	16:00	2006-12-21
112458	#006 Background	soil	2006-12-20	16:30	2006-12-21

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

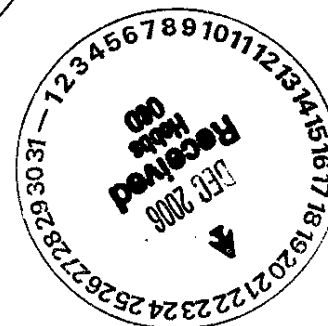
This report consists of a total of 5 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael M. L.
Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

OK to Close 12-21-06
OOD



Report Date: December 21, 2006
Caudill South 21 Fee #2HWork Order: 6122121
Caudill South 21 Fee #2HPage Number: 2 of 5
Sec 21, T15S, R36E, APL30-025-37925 Lea Cty.**Analytical Report****Sample: 112453 - #001 SE Corner 3'**Analysis: Chloride (Titration)
QC Batch: 33019
Prep Batch: 28710Analytical Method: SM 4500-Cl B
Date Analyzed: 2006-12-21
Sample Preparation: 2006-12-21Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		112	mg/Kg	2	2.00

Sample: 112454 - #002 N.E. Corner 3'Analysis: Chloride (Titration)
QC Batch: 33019
Prep Batch: 28710Analytical Method: SM 4500-Cl B
Date Analyzed: 2006-12-21
Sample Preparation: 2006-12-21Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		114	mg/Kg	2	2.00

Sample: 112455 - #003 Center 3'Analysis: Chloride (Titration)
QC Batch: 33019
Prep Batch: 28710Analytical Method: SM 4500-Cl B
Date Analyzed: 2006-12-21
Sample Preparation: 2006-12-21Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		396	mg/Kg	5	2.00

Sample: 112456 - #004 S.W. Corner 3'Analysis: Chloride (Titration)
QC Batch: 33019
Prep Batch: 28710Analytical Method: SM 4500-Cl B
Date Analyzed: 2006-12-21
Sample Preparation: 2006-12-21Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		439	mg/Kg	5	2.00

Sample: 112457 - #005 N.W. Corner 3'Analysis: Chloride (Titration)
QC Batch: 33019
Prep Batch: 28710Analytical Method: SM 4500-Cl B
Date Analyzed: 2006-12-21
Sample Preparation: 2006-12-21Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Report Date: December 21, 2006
Caudill South 21 Fee #2H

Work Order: 6122121
Caudill South 21 Fee #2H

Page Number: 3 of 5
Sec 21, T15S, R36E, APL30-025-37925 Lea Cty.

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		432	mg/Kg	5	2.00

Sample: 112458 - #006 Background

Analysis: Chloride (Titration)
QC Batch: 33019
Prep Batch: 28710

Analytical Method: SM 4500-Cl B
Date Analyzed: 2006-12-21
Sample Preparation: 2006-12-21

Prep Method: N/A
Analyzed By: SM
Prepared By: SM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		24.0	mg/Kg	2	2.00

Method Blank (1) QC Batch: 33019

QC Batch: 33019
Prep Batch: 28710

Date Analyzed: 2006-12-21
QC Preparation: 2006-12-21

Analyzed By: SM
Prepared By: SM

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Laboratory Control Spike (LCS-1)

QC Batch: 33019
Prep Batch: 28710

Date Analyzed: 2006-12-21
QC Preparation: 2006-12-21

Analyzed By: SM
Prepared By: SM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.7	mg/Kg	1	100	<0.500	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	98.3	mg/Kg	1	100	<0.500	98	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 112458

QC Batch: 33019
Prep Batch: 28710

Date Analyzed: 2006-12-21
QC Preparation: 2006-12-21

Analyzed By: SM
Prepared By: SM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	223	mg/Kg	2	200	24.039	99	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: December 21, 2006
Caudill South 21 Fee #2HWork Order: 6122121
Caudill South 21 Fee #2HPage Number: 4 of 5
Sec 21, T15S, R36E, APL30-025-37925 Lea Cty.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	225	mg/Kg	2	200	24.039	100	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 33019

Date Analyzed: 2006-12-21

Analyzed By: SM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2006-12-21

Standard (CCV-1)

QC Batch: 33019

Date Analyzed: 2006-12-21

Analyzed By: SM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.3	99	85 - 115	2006-12-21

Report Date: December 21, 2006
Caddill South 21 Fee #2HWork Order: 6122121
Caddill South 21 Fee #2HPage Number: 5 of 5
Sec 21, T15S, R36E, APL30-025-37925 Lea Co.

LAB Order ID #

6122121

Page of

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Akard Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1296
1 (800) 378-12965002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 369-6301
Fax (432) 639-6313200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4344
1 (888) 583-34436015 Harris Pkwy., Suite 110
Ft. Worth, Texas 76132
Tel (817) 201-5280

Company Name:

New Mexico Environmental Services

Phone #:

505-441-0408

Address: (Street, City, Zip)

P.O. Box 310 Hobbs N.M. 88241

Contact Person:

Cris Burgh

E-mail:

daniela.rogers@aol.com

Invoice to:

(If different from above)

Cemarex Energy

Project #:

Project Name:

Caddill South 21 Fee #2H

Project Location (including state):

Sec. 21, T15S, R36E, APL30-025-37925 Lea Co. Cris Burgh

Sampler Signature:

Cris Burgh

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING		MTBE 5021B / 6022B BTX 8021B / 602 / TPH 413.1 / TX1005 TPH 5015 GRO / DRI PAH 8270C / 625 Total Metals Ag As Ba Cd TC.P Metals Ag As E TC.P Volatiles TC.P Semi Volatiles TC.P Pesticides RCI GC/MS Vol. 8280B / GC/MS Semi. Vol. 82 PCB's 8092 / 608 Pesticides 8091A / 60 BOD, TSS, pH Moisture Content	Turn Around Time if d
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE		
110453	#201 SE Corner 3'	1	4oz	X								9/30	2:00		
54	#202 N.E. Corner 3'			X									2:30		
55	#203 Center 3'			X									3:00		
56	#204 S.W. Corner 3'			X									3:30		
67	#205 N.W. Corner 3'			X									4:00		
58	#206 Background			X									4:30		

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

Relinquished by:

Date:

Time:

Received at Laboratory by:

Date:

Time:

LAB USE ONLY

Inject:

Headspace:

Temp:

In Review:

Carrier #

REMARKS:

- ☐ Dry Weight Basis Required
☐ TRRP Report Required
☐ Check if Special Reporting Limits Are Needed

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

12/21/2006 THU 02:43 LTX/RX NO 68901 006