R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

RECEIVED
By OCD District 1 at 1:28 pm, Sep 17, 2015

September 10, 2015

Ms. Kellie Jones
NMOCD District 1
1625 French Drive
Hobbs, NM 88240
Via E-Mail

RE: Temporary Pit Closure Report
Murchison – Mogi 9 St Com #11H, API #30-025-41787, Pit Permit #P1-06562
Unit P, Section 9, T24S, R33E, Lea County

Dear Ms. Jones:

On behalf of Murchison Oil and Gas, R.T. Hicks Consultants submits this closure report for the above-referenced temporary pit in accordance with the approved C-144 closure plan. This report includes the following information listed in Part 21 of the C-144 form:

Requirements	Location in this Submission
Proof of Closure Notice (to surface owner and Division)	Attachment 1
Proof of Deed Notice (on-site closure on private land only)	Not applicable; State Land (no deed)
Plot Plan, C-105 form (for on-site closures and temporary pits)	Attachment 2
Confirmation Sampling Analytical Results	Not applicable
Waste Material Sampling Analytical Results (required for on-site closure)	Attachment 3
Disposal Facility Name and Permit Number	Not applicable; on-site closure
Soil Backfilling and Cover Installation	Attachment 4
Re-vegetation Application Rates and Seeding Technique	Attachment 5
Site Reclamation (photo documentation)	To follow
Updated C-144 form	Attachment 6

R.T. Hicks Consultants will notify NMOCD and provide photo-documentation when re-vegetation obligations described in subsection H of 19.15.17.13 NMAC are met.

Sincerely,
R.T. Hicks Consultants

Kristin Pope

Kristin Pope
Project Geologist

Copy: Murchison Oil and Gas
NM State Land Office, Ed Martin

ATTACHMENT 1

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

June 26, 2015

Ms. Kellie Jones
NMOCD District 1
1625 French Drive
Hobbs, New Mexico 88240
VIA EMAIL

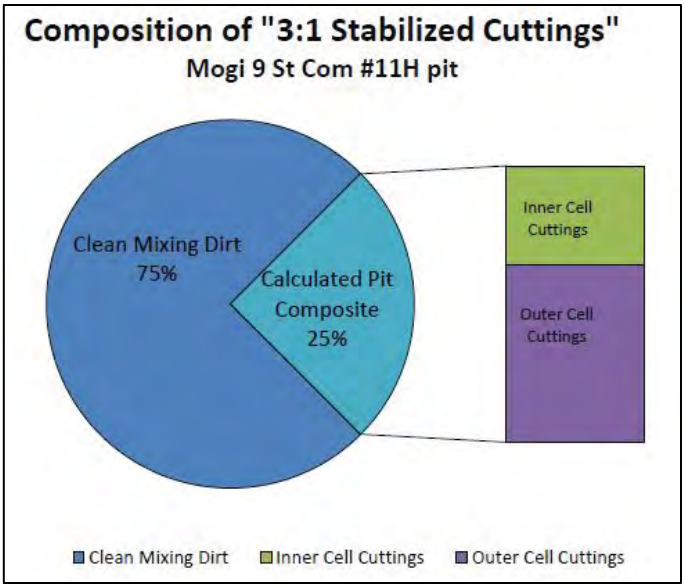
RE: Mogi 9 State Com #11H Temporary Pit, In-place Burial Notice
API #30-025-41787, Permit #P1-06562
Unit P, Section 9, T24S, R33E, Lea County

Ms. Jones:

On behalf of Murchison Oil and Gas, Inc., R. T. Hicks Consultants provides this notice to NMOCD with a copy to the State Land Office (email return receipt in lieu of US Mail per approved variance request) that closure operations at the above-referenced pit is scheduled to begin on **Monday, June 29, 2015**. Please note that we enclose a previously-approved variance to substitute TPH via 8015 method (GRO+DRO+extDRO) in lieu of method 418.1. The closure process should require about two weeks, depending on the weather and the availability of machinery.

The "In-place Burial" closure plan for the pit was approved by NMOCD on October 9, 2014 with the C-144 temporary pit application. The rig was released from the well on November 21, 2014 and the pit was then used to contain flow-back fluids to complete the well. A second well sharing the same location was staked and scheduled and OCD approved a variance on December 11, 2014 to use the pit to contain solids from the second well. Market conditions, however, caused the release of the rig and the second well was not drilled as originally planned. NMOCD granted a 45-day closure extension on May 22, 2015 to sample the pit contents.

Samples collected on June 2, 2015 consisted of a 4-point composite from the inner horseshoe cell, a 4-point composite from the outer horseshoe cell, and a 5-point composite from the clean soil of the berms (beneath the liner) that will be used for stabilization mixing. The table on page 2 of this notice demonstrates the calculated concentration for "3:1 stabilized" material that results when the pit contents are combined with available mixing soil during the closure process. The calculated value mathematically mixes 3 parts clean soil (mixing dirt) with 1 part of the weighted pit composite calculation, as depicted in the adjacent chart. The pit composite consists of 36% solids from the



inner cell of the drilling pit and 64% of the solids from the outer cell, representative of the volume of cuttings in each cell.

Mogi 9 St Com #11H pit Sample Name	Sample Type	Sample Date	Chloride *80,000*	Benzene *10*	BTEX *50*	GRO+ DRO *1000*	TPH GRO+DRO +extDRO *2500*
Inner Composite	4-pt field comp.	6/2/2015	196,000	0.849	24.21	72.7	92.5
Outer Composite	4-pt field comp.	6/2/2015	8,800	1.46	26.08	698.7	821.7
Mixing Dirt	5-pt field comp.	6/2/2015	128	ND	ND	ND	ND
3:1 Stabilized CALCULATED *(3 parts mixing dirt, 1 part weighted pit cuttings)*			***19,144***	***0.310***	***6.35***	***118.3***	***139.8***

ND = Not detected at the laboratory's reporting limit

All values are mg/kg

The formula used in the table:

$$\text{3:1 Stabilized Solids} = \frac{[(\text{Outer Composite}*0.64)+(0.36*\text{Inner Composite})+(3*\text{Mixing Dirt})]}{4}$$

Laboratory analyses of the component samples and the calculation of 3:1 stabilized cuttings "demonstrate that, after the waste is solidified or stabilized with soil or other non-waste material at a ratio of no more than 3:1 soil or other non-waste material to waste, the concentration of any contaminant in the stabilized waste is not higher than the parameters listed in Table II of 19.15.17.13 NMAC." Thank you for your consideration of this notice of in-place closure. I will follow-up this notice to you with a phone call today as required by the Pit Rule.

Sincerely,

R.T. Hicks Consultants

Kristin Pope

Kristin Pope

Enclosure: variance approval for email to SLO, variance approval for TPH substitution

Copy: Murchison Oil and Gas, Ed Martin via email
New Mexico State Land Office

From: Oberding, Tomas, EMNRD
To: Kristin Pope
Cc: ccottrell@jdmii.com; Randy Hicks; gboans@jdmii.com; Chace Walls; Martin, Ed
Subject: RE: VARIANCE REQUEST: Email substitution for pit closure notices
Date: Wednesday, January 07, 2015 10:13:08 AM

Ms. Pope,

This email is fine for OCD documentation, for the current site closure.
Mahalo
-Doc

Tomáš 'Doc' Oberding, PhD
Senior Environmental Specialist
New Mexico Oil Conservation Division, District 1
Energy, Minerals and Natural Resources Department
(575) 393-6161 ext 111
E-Mail: tomas.oberding@state.nm.us

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

From: Kristin Pope [mailto:kristin@rthicksconsult.com]
Sent: Wednesday, December 31, 2014 1:35 PM
To: Oberding, Tomas, EMNRD
Cc: ccottrell@jdmii.com; Randy Hicks; gboans@jdmii.com; Chace Walls; Martin, Ed
Subject: VARIANCE REQUEST: Email substitution for pit closure notices

Dr. Oberding:

Please find the attached variance request for a substitution of email to SLO in lieu of temporary pit closure notices submitted via US Mail, return receipt requested. It is referenced for the Murchison – Jackson Unit #14H but I also submitted a closure report for the Jackson Unit #16H.

Please contact me with any questions about this upon your return to work. Thank you.

Kristin Pope
R.T. Hicks Consultants
Carlsbad Field Office
575.302.6755

From: Oberding, Tomas, EMNRD
To: Kristin Pope
Cc: ccottrell@jdmii.com; Chace Walls; gboans@jdmii.com; Randy Hicks; Griswold, Jim, EMNRD
Subject: RE: VARIANCE REQUEST: Murchison - Jackson Unit #17H
Date: Thursday, December 18, 2014 8:16:05 AM

Aloha Ms. Pope et al,

Thank you for sending in this variance request.
After discussions, OCD approves the substitution of 8015 B, C, or D for 418.1. Hydrocarbons between C6 and C36 must be included in the results.
As 8015M appears to cover GRO+DRO+MRO- this too is an appropriate alternate methodology.

Thank you for continuing to work with the OCD.
Please let me know if you have any questions.
-Doc

Tomáš 'Doc' Oberding, PhD
Senior Environmental Specialist
New Mexico Oil Conservation Division, District 1
Energy, Minerals and Natural Resources Department
(575) 393-6161 ext 111
E-Mail: tomas.oberding@state.nm.us

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

From: Kristin Pope [mailto:kristin@rthicksconsult.com]
Sent: Tuesday, December 16, 2014 7:51 AM
To: Oberding, Tomas, EMNRD
Cc: ccottrell@jdmii.com; Chace Walls; gboans@jdmii.com; Randy Hicks; Griswold, Jim, EMNRD
Subject: VARIANCE REQUEST: Murchison - Jackson Unit #17H

Dr. Oberding:

Please find the attached variance request we discussed over the phone last week. During our phone call, I was mistaken on the closure deadline for this site; the closure deadline for this is January 14, 2015. Per our discussion, note that I've copied Jim Griswold on this submission.
Please let me know if we can assist NMOCD's review in any way. Thank you.

Kristin Pope
R.T. Hicks Consultants

From: Martin, Ed on behalf of "Martin, Ed"@swcp.com
To: Kristin Pope
Subject: Not read: CLOSURE NOTICE: Murchison - Mogi 9 St Com #11H temporary pit
Date: Friday, June 26, 2015 8:49:51 AM

Your message
To: Martin, Ed
Subject: CLOSURE NOTICE: Murchison - Mogi 9 St Com #11H temporary pit
Sent: Friday, June 26, 2015 8:10:09 AM (UTC-07:00) Mountain Time (US & Canada)
was deleted without being read on Friday, June 26, 2015 8:33:08 AM (UTC-07:00) Mountain Time (US & Canada).

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

May 21, 2015

Ms. Kellie Jones
NMOCD District 1
1625 French Drive
Hobbs, NM 88240
VIA EMAIL

RE: Murchison – Mogi 9 State Com #11H Temporary Pit
Extension Request for Closure, Permit #P1-06562
Unit P, Section 9, T24S, R33E, API #30-025-41787

Dear Ms. Jones:

On behalf of Murchison Oil and Gas, R.T. Hicks Consultants respectfully requests a 45-day extension for the closure of the above-referenced temporary pit. The rig was released from the well on November 21, 2014 and the pit was then used to contain flow-back fluids to complete the well. The pit was constructed to contain solids for the drilling of two wells and a second well at the same location was staked; thus, the pit contents were not sampled. Market conditions, however, caused the release of the rig and the second well was not drilled as originally planned.

Fluids were promptly removed and the pit is fenced. The liner has been inspected regularly and demonstrates sufficient integrity. The pit contents will be sampled for closure next week and laboratory analyses require up to 3 weeks to return. The original deadline for closure is May 21, 2015. We request this extension to allow time to sample the cuttings and for the return of the laboratory analyses.

Current liner condition on 5/20/2015; rainwater in pit from previous day

Thank you for your consideration of this request.

Sincerely,

R.T. Hicks Consultants

Kristin Pope

Kristin Pope
Project Geologist

Copy: Murchison Oil and Gas, NM State Land Office (Ed Martin)

From: Jones, Kellie, EMNRD
To: Kristin Pope
Subject: RE: Extension Request: Murchison - Mogi 9 St Com #11H temporary pit
Date: Friday, May 22, 2015 2:20:32 PM

Ms. Pope,

OCD approves the 45 day extension request.

If you have any questions, please feel free to contact me.

Thank you!

Kellie Jones
Environmental Specialist, District 1
Oil Conservation Division, EMNRD
(575) 393-6161 ext. 111
575-370-3180 (emergency-cell)
E-Mail: kellie.jones@state.nm.us

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

Please note:
-The OCD is no longer granting "risk-based," or standard closure of events/RPs with remediation deferred to site abandonment/sale/closure. The RP will remain open until such time as historic contamination is addressed.
-Photographic documentation is stipulated for all events involving liquids.

If you have any questions or concerns, and for notification, please contact me.

From: Kristin Pope [mailto:kristin@rthicksconsult.com]
Sent: Thursday, May 21, 2015 1:13 PM
To: Jones, Kellie, EMNRD
Cc: Oberding, Tomas, EMNRD; gboans@jdmii.com; Chace Walls; Randy Hicks; Martin, Ed
Subject: Extension Request: Murchison - Mogi 9 St Com #11H temporary pit

Ms. Jones:

On behalf of Murchison Oil and Gas, please find the attached request for an extension of the closure of the Mogi 9 St Com #11H temporary pit. If the rain relents, I plan to sample the pit next week. Thank you for your attention to this project.

Kristin Pope
R.T. Hicks Consultants

ATTACHMENT 2

Submit To Appropriate District Office
Two Copies
District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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-105
Revised August 1, 2011

1. WELL API NO.
30-025-41787

2. Type of Lease
☒ STATE ☐ FEE ☐ FED/INDIAN

3. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

4. Reason for filing:

☐ **COMPLETION REPORT** (Fill in boxes #1 through #31 for State and Fee wells only)

☒ **C-144 CLOSURE ATTACHMENT** (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)

5. Lease Name or Unit Agreement Name
Mogi 9 State Com

6. Well Number:
#11H

7. Type of Completion:
☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER _____

8. Name of Operator
MURCHISON OIL & GAS, INC.

9. OGRID
15363

10. Address of Operator

11. Pool name or Wildcat

12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:										
BH:										

13. Date Spudded	14. Date T.D. Reached	15. Date Rig Released	16. Date Completed (Ready to Produce)	17. Elevations (DF and RKB, RT, GR, etc.)
		11/21/2014		

18. Total Measured Depth of Well	19. Plug Back Measured Depth	20. Was Directional Survey Made?	21. Type Electric and Other Logs Run

22. Producing Interval(s), of this completion - Top, Bottom, Name

23. **CASING RECORD** (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET

26. Perforation record (interval, size, and number)

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

28. **PRODUCTION**

Date First Production	Production Method *(Flowing, gas lift, pumping - Size and type pump)*	Well Status *(Prod. or Shut-in)*

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - *(Corr.)*

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*

30. Test Witnessed By

31. List Attachments

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.
PLATE 1 ATTACHED

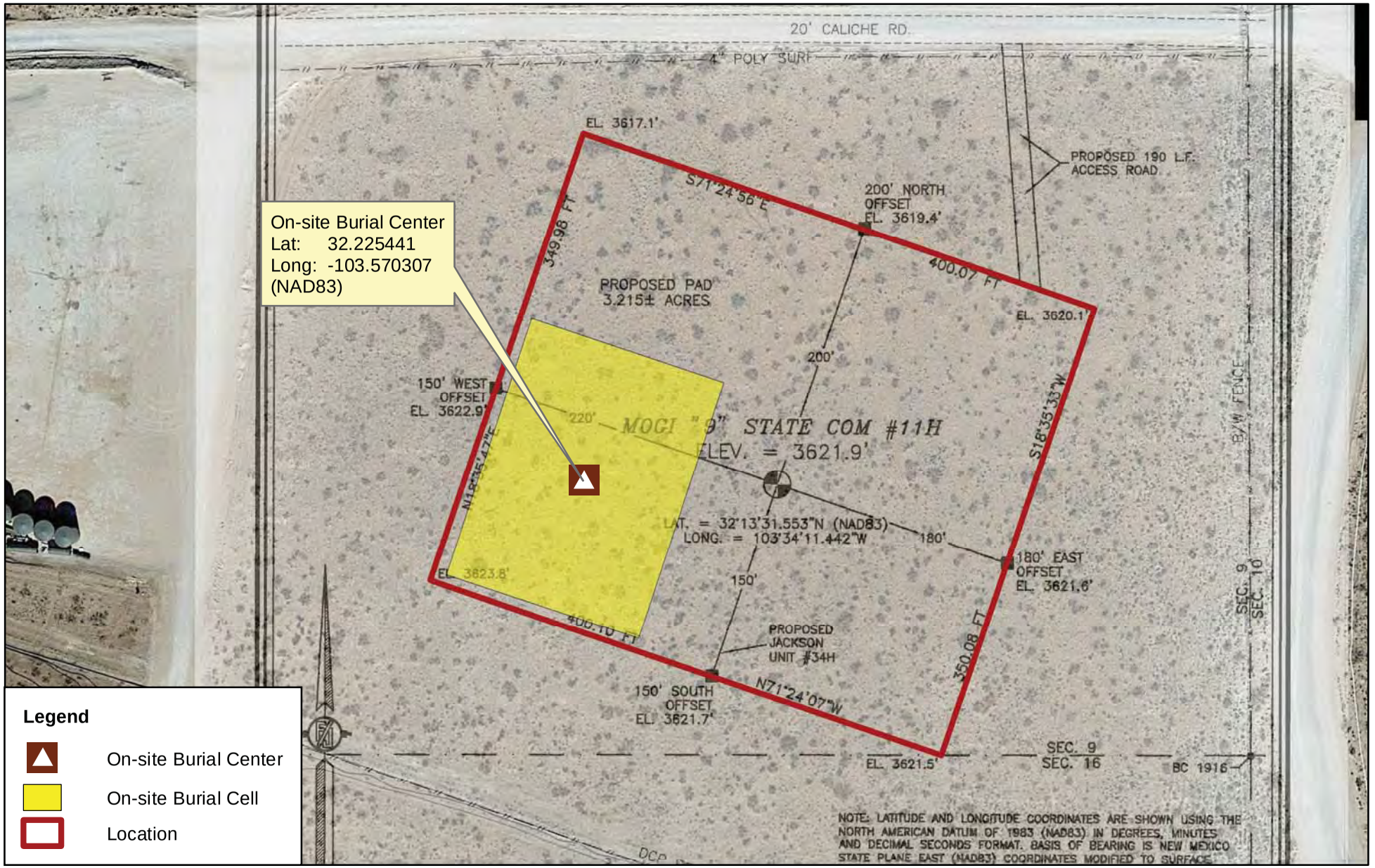
33. If an on-site burial was used at the well, report the exact location of the on-site burial:

Latitude N 32.225441° Longitude W 103.570307° NAD 1927 **1983**

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature Kristin Pope Printed Name KRISTIN POPE Title PROJECT GEOLOGIST, AGENT FOR MURCHISON Date 9/10/2015

E-mail Address kristin@rthicksconsult.com



R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

On-Site Burial Location of Temporary Pit

in relation to well pad

Murchison Oil and Gas, Inc.

Mogi 9 State Com #11H

Plate 1

C-105 form

September 2015

ATTACHMENT 3

Waste Material Sampling Analytical Results

Sampling Pit Contents 6/2/2015

On June 2, 2015, 4-point composite samples were collected from the contents of the outer and inner cells of the temporary pit. A 5-point composite sample was also collected from the clean soil of the berms beneath the liner. The composite samples were submitted to Cardinal Laboratories of Hobbs for BTEX (8021B), GRO+DRO (8015M), TPH (8015M), and Chloride (SM4500) analyses. These component samples were used to determine a calculated concentration for the "3:1 stabilized cuttings" by mathematically combining 1 part pit contents and 3 parts clean soil (mixing dirt). The weighted pit composite calculation consists of 36% solids from the inner cell of the drilling pit and 64% of the solids from the outer cell, representative of the volume of cuttings in each cell.

As shown in the table below, laboratory analyses of the component samples and the calculation of the "3:1 Stabilized Cuttings" concentration "demonstrate that, after the waste is solidified or stabilized with soil or other non-waste material at a ratio of no more than 3:1 soil or other non-waste material to waste, the concentration of any contaminant in the stabilized waste is not higher than the parameters listed in Table II of 19.15.17.13 NMAC."

Mogi 9 St Com #11H pit Sample Name	**Sample Type**	**Sample Date**	**Chloride** *80,000*	**Benzene** *10*	**BTEX** *50*	**GRO+ DRO** *1000*	**TPH GRO+DRO +extDRO** *2500*
Inner Composite	4-pt field comp.	6/2/2015	196,000	0.849	24.21	72.7	92.5
Outer Composite	4-pt field comp.	6/2/2015	8,800	1.46	26.08	698.7	821.7
Mixing Dirt	5-pt field comp.	6/2/2015	128	ND	ND	ND	ND
3:1 Stabilized CALCULATED ***(3 parts mixing dirt, 1 part weighted pit cuttings)***			***19,144***	***0.310***	***6.35***	***118.3***	***139.8***

ND = Not detected at the laboratory's reporting limit

All values are mg/kg

The formula used in the table:

3:1 Stabilized Solids = [(Outer Composite*0.64)+(0.36*Inner Composite)+(3*Mixing Dirt)]

CARDINAL Laboratories

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

June 12, 2015

KRISTIN POPE

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: MOGI 9 ST. COM #11 H PIT

Enclosed are the results of analyses for samples received by the laboratory on 06/04/15 8:17.

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.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	06/04/2015	Sampling Date:	06/02/2015
Reported:	06/12/2015	Sampling Type:	Soil
Project Name:	MOGI 9 ST. COM #11 H PIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: INNER COMPOSITE (H501441-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	**0.849**	0.050	06/08/2015	ND	2.37	119	2.00	0.939	
Toluene*	**9.36**	0.050	06/08/2015	ND	2.15	107	2.00	1.69	
Ethylbenzene*	**3.50**	0.050	06/08/2015	ND	2.04	102	2.00	1.16	
Total Xylenes*	**10.5**	0.150	06/08/2015	ND	5.97	99.4	6.00	1.66	
Total BTEX	**24.3**	0.300	06/08/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *61-154*

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**196000**	16.0	06/09/2015	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS A-01

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/08/2015	ND	180	90.1	200	1.74	
DRO >C10-C28	**72.7**	10.0	06/08/2015	ND	191	95.5	200	3.53	
EXT DRO >C28-C35	**19.8**	10.0	06/08/2015	ND					

Surrogate: 1-Chlorooctane *110 %* *47.2-157*

Surrogate: 1-Chlorooctadecane *131 %* *52.1-176*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	06/04/2015	Sampling Date:	06/02/2015
Reported:	06/12/2015	Sampling Type:	Soil
Project Name:	MOGI 9 ST. COM #11 H PIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: OUTER COMPOSITE (H501441-02)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	**1.46**	0.050	06/08/2015	ND	2.37	119	2.00	0.939	
Toluene*	**5.98**	0.050	06/08/2015	ND	2.15	107	2.00	1.69	
Ethylbenzene*	**3.44**	0.050	06/08/2015	ND	2.04	102	2.00	1.16	
Total Xylenes*	**15.2**	0.150	06/08/2015	ND	5.97	99.4	6.00	1.66	
Total BTEX	**26.1**	0.300	06/08/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *61-154*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8800**	16.0	06/09/2015	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS** **A-01**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	**70.7**	10.0	06/08/2015	ND	180	90.1	200	1.74	
DRO >C10-C28	**628**	10.0	06/08/2015	ND	191	95.5	200	3.53	
EXT DRO >C28-C35	**123**	10.0	06/08/2015	ND					

Surrogate: 1-Chlorooctane *111 %* *47.2-157*

Surrogate: 1-Chlorooctadecane *132 %* *52.1-176*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	06/04/2015	Sampling Date:	06/02/2015
Reported:	06/12/2015	Sampling Type:	Soil
Project Name:	MOGI 9 ST. COM #11 H PIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: MIXING DIRT COMPOSITE (H501441-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2015	ND	2.37	119	2.00	0.939	
Toluene*	<0.050	0.050	06/08/2015	ND	2.15	107	2.00	1.69	
Ethylbenzene*	<0.050	0.050	06/08/2015	ND	2.04	102	2.00	1.16	
Total Xylenes*	<0.150	0.150	06/08/2015	ND	5.97	99.4	6.00	1.66	
Total BTEX	<0.300	0.300	06/08/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID *109 %* *61-154*

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	06/09/2015	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/08/2015	ND	180	90.1	200	1.74	
DRO >C10-C28	<10.0	10.0	06/08/2015	ND	191	95.5	200	3.53	
EXT DRO >C28-C35	<10.0	10.0	06/08/2015	ND					

Surrogate: 1-Chlorooctane *94.0 %* *47.2-157*

Surrogate: 1-Chlorooctadecane *120 %* *52.1-176*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

A-01	Method modification of 100 g sample / 100 mL pentane used as per client request.
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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	R.T. Hicks Consultants
Project Manager:	Kristin Pope
Address:	901 Rio Grande Blvd NW, Suite F-142
City:	Albuquerque State: NM Zip: 87104
Phone #:	505-266-5004 Fax #:
Project #:	Project Owner: Murchison
Project Name:	Mogi 9 St. Com #11H pit
Project Location:	Lea Co.
Sampler Name:	RTH

BILL TO

P.O. #:	
Company:	R.T. Hicks
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	BTEX	Chloride	TPH (GRO + DRO + MRO) 8015M		Bas. only Prepare using 100 grams								
H501441																										
1	Inner composite	C	1			X					X		6.2.15	1533	X	X	X		X							
2	Outer Composite	C	1			X					X		6.2.15	1522	X	X	X		X							
3	Mixing Dirt Composite	C	1			X					X		6.2.15	1520	X	X	X									

Relinquished By:	Date: 6-4	Received By:	
	Time: 917		
Relinquished By:	Date:	Received By:	
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 5.2°C

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials)

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

Email to kristin@rthicksconsult.com, R@ "

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

#154

ATTACHMENT 4

SOIL BACKFILLING & COVER INSTALLATION

In accordance with the requirements listed in paragraph D of 19.15.17.13 NMAC, the operator employed the following steps for in-place burial of the waste material from the temporary pit:

1. Siting criteria and operations of the pit complied with the C-144 application and the Pit Rule under which it was submitted to the NMOCD on September 29, 2014 and approved on October 9, 2014. The rig was released on November 21, 2014 and fluids in the pit were removed while the cuttings were allowed to dry. NMOCD granted an extension of the closure on May 22, 2015.

2. On June 2, 2015, prior to the initiation of closure activities, samples of the inner and outer cells and clean soil from the berms of the pit below the liner were recovered from the pit. These component samples were analyzed for Chloride, TPH, GRO, DRO, MRO, Benzene, and BTEX at Cardinal Laboratories in Hobbs, New Mexico. The resultant calculations of 3:1 stabilized cuttings, as noted in the subsequent closure notice and Attachment 3 of this report, demonstrated that the stabilized pit contents would not exceed the concentration limits of the parameters listed in Table II of the Pit Rule.

3. A closure notice was submitted to the NMOCD, District 1 office in Hobbs and to the State Land Office (via email) on June 26, 2015. Verbal notice in the form of a phone call to NMOCD was placed on the same day.

4. On June 29, 2015, closure activities commenced and stabilization of the pit contents was achieved by mixing the pit contents with the dry soil beneath the liner of the pit and the dividing berms. Summer rains delayed the completion of this closure. On August 13, 2015, a paint filter test was performed by R.T. Hicks Consultants that confirmed that the process was complete and that the stabilized cuttings were located at least 4 feet below grade.

5. Following inspection, having achieved all applicable stabilization requirements associated with in-place burial, a geomembrane liner was installed to completely cover the stabilized cuttings on August 18, 2015. The pit contents and liner were shaped to shed infiltrating water, slightly higher in the center.

6. Once the geomembrane cover was in place, approximately 4 feet or more of non-waste containing, uncontaminated, earthen material and the reserved topsoil were replaced to their relative positions in accordance with Subsection (3) of Paragraph H of 19.15.17.13

NMAC. The soil cover consists of at least four feet of compacted, non-waste containing, earthen material. The uppermost topsoil is equal to the background thickness at least one foot. The surface was contoured to blend with the surrounding topography and to prevent erosion and the ponding of water over the on-site closure. This work was completed on August 19, 2015.

Paint Filter Test on Stabilized Cuttings 8/13/2015

Staging stabilized cuttings 8/13/2015

Geomembrane liner over stabilized cuttings 8/18/2015

ATTACHMENT 5

RE-VEGETATION PROCEDURES

There were no roads or surface drainage features nearby that required restoration or preservation.

1. On September 3, 2015, Storm Construction seeded the topsoil of the on-site burial area using a seed drill pulled by a tractor that prepared the seedbed in the same pass using discs. The seed furrows were oriented perpendicular to the prevailing western wind to minimize erosion.

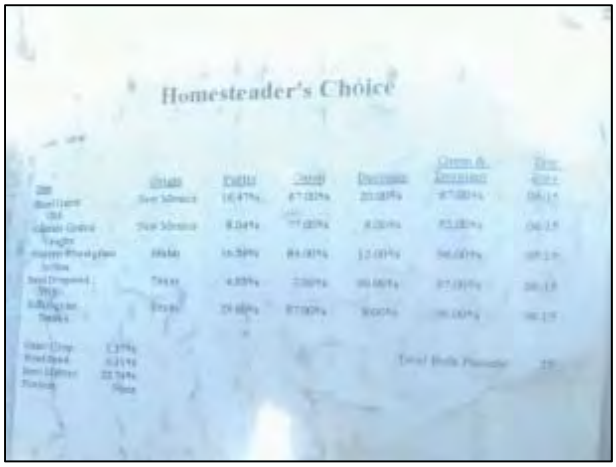
2. Approximately 48 pounds of a seed mixture consisting of 50% BLM #2 seed blend and 50% Homesteader's Choice blend was applied to approximately 1 acre of disturbance in accordance with the supplier's instructions to the former temporary pit area. Species constituents of each blend are listed below and are appropriate for the soil type and conditions at this site.

BLM #2	***Homesteader's Choice***
Sideoats Grama	Blue Grama
Plains Bristlegrass	Buffalograss
Sand Dropseed	Sideoats Grama
Little Bluestem	Western Wheatgrass
Plains Coreopsis	Sand Dropseed

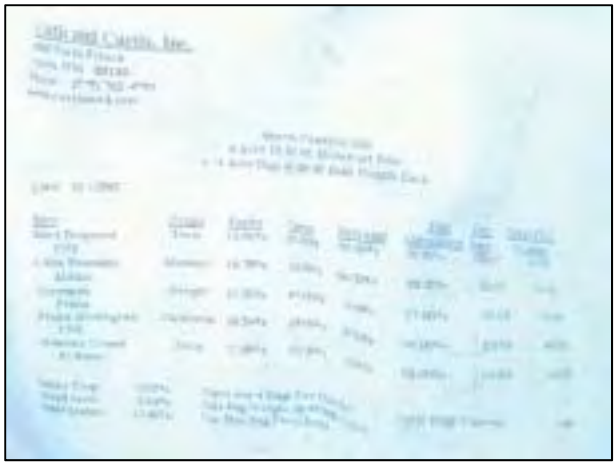
3. A steel plate marking the site as an in-place pit closure has been placed on the surface at the center of the former pit location in accordance with Subsection (3) of Paragraph F of 19.15.17.13 NMAC.

4. The seeded area will be monitored for growth and the operator will repeat seeding until a successful vegetative cover is achieved as outlined in Subsection (5) of Paragraph H of 19.15.17.13 NMAC.

5. If conditions are not favorable for the establishment of vegetation, such as periods of drought, the operator may request that the division allow a delay in additional seeding until soil moisture conditions become favorable. The operator will notify the division and provide photo-documentation when it successful re-vegetation is achieved.



Homesteader's Choice seed mix 9/3/2015



BLM #2 seed mix 9/3/2015

ATTACHMENT 6

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:
- ☐ Below grade tank registration
- ☒ Permit of a pit or proposed alternative method
- ☑ Closure of a pit, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit/or registration
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

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Instructions: ***Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request***

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Murchison Oil & Gas, Inc. OGRID #: 15363
Address: 1100 Mira Vista Blvd., Plano, TX 75093-4698
Facility or well name: Mogi 9 State Com #11H
API Number: 30-025-41787 OCD Permit Number: PI - 06562
U/L or Qtr/Qtr P Section 9 Township 24S Range 33E County: Lea
Center of Proposed Design: Latitude 32° 13' 31.553" N Longitude 103° 34' 11.442" W NAD: ☐ 1927 ☒ 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☒ no
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other
☒ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☐ Other Volume: 23,712 bbl Dimensions: L 150 x W 170 x D 6-10 ft

3.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: bbl Type of fluid:
Tank Construction material:
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thickness mil ☐ HDPE ☐ PVC ☐ Other

4.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*
☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*
☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet
☐ Alternate. Please specify

OCT 09 2014

6.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

7.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☒ Signed in compliance with 19.15.16.8 NMAC

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8.

Variances and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. **Siting criteria does not apply to drying pads or above-grade tanks.**

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells	☐ Yes ☐ No ☒ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit . NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells **See Figures 1 & 2**	☐ Yes ☒ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks) See Figure 5** - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within the area overlying a subsurface mine. **(Does not apply to below grade tanks) See Figure 7** - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. **(Does not apply to below grade tanks) See Figure 8** - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. **(Does not apply to below grade tanks) See Figure 9** - FEMA map	☐ Yes ☒ No
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

Within 100 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). **See Figure 3** - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image. **See Figure 4**	☐ Yes ☒ No
Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site **See Figures 1 & 2**	☐ Yes ☒ No
Within 300 feet of a wetland. **See Figure 6** - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Permanent Pit or Multi-Well Fluid Management Pit	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

10.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☒ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

11.
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ A List of wells with approved application for permit to drill associated with the pit.
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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13.

Proposed Closure: 19.15.17.13 NMAC

Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Multi-well Fluid Management Pit ☐ Alternative

Proposed Closure Method:
- ☐ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- ☒ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☒ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method

14.

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☒ Yes ☐ No ☐ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

16.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☒ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☒ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Greg Boans Title: Production Superintendent

Signature: [signature] Date: September 29, 2014

e-mail address: gboans@jdmii.com Telephone: (575) 361-4962

18.
OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: [signature] Approval D: 10-6-14

Title: Environtal Specialist **OCD Permit Number:** P1-06562

19.
Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☑ **Closure Completion Date:** August 19, 2015

20.
Closure Method:

☐ Waste Excavation and Removal ☑ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

21.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

- ☑ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure for private land only) n/a (State Land)
- ☑ Plot Plan (for on-site closures and temporary pits)
- ☐ Confirmation Sampling Analytical Results (if applicable) n/a (on-site closure)
- ☑ Waste Material Sampling Analytical Results (required for on-site closure)
- ☐ Disposal Facility Name and Permit Number n/a (on-site closure)
- ☑ Soil Backfilling and Cover Installation
- ☑ Re-vegetation Application Rates and Seeding Technique
- ☐ Site Reclamation (Photo Documentation) to follow

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On-site Closure Location: Latitude N 32.225441° Longitude W 103.570307° NAD: ☐ 1927 ☑ 1983

22.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Kristin Pope Title: Agent for Murchison Oil and Gas, Inc.

Signature: Kristin Pope Date: September 10, 2015

e-mail address: kristin@rthicksconsult.com Telephone: (575) 302-6755