

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

**State of New Mexico**  
**Energy Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 South St. Francis Dr.**  
**Santa Fe, NM 87505**

Form C-101  
Revised July 18, 2013

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address Cambrian Management, Ltd PO Box 272 Midland, TX 79702		<sup>2</sup> OGRID Number 198688
		<sup>3</sup> API Number 30-005-61865
<sup>4</sup> Property Code 317444	<sup>5</sup> Property Name R.C. Graves	<sup>6</sup> Well No. 001

**<sup>7</sup> Surface Location**

UL - Lot K	Section 15	Township 8S	Range 28E	Lot Idn	Feet from 1980	N/S Line South	Feet From 1980	E/W Line West	County Chaves
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**<sup>8</sup> Proposed Bottom Hole Location**

UL - Lot K	Section 15	Township 8S	Range 28E	Lot Idn	Feet from 1980	N/S Line South	Feet From 1980	E/W Line West	County Chaves
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**<sup>9</sup> Pool Information**

<sup>10</sup> Pool Name Twin Lake; San Andres (Assoc)	<sup>11</sup> Pool Code 61570
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**Additional Well Information**

<sup>12</sup> Work Type E	<sup>13</sup> Well Type O	<sup>14</sup> Cable/Rotary R	<sup>15</sup> Lease Type P	<sup>16</sup> Ground Level Elevation 4062
<sup>17</sup> Multiple No	<sup>18</sup> Proposed Depth 2650	<sup>19</sup> Formation San Andres	<sup>20</sup> Contractor	<sup>21</sup> Spud Date 02/24/2017
<sup>22</sup> Depth to Ground water		<sup>23</sup> Distance from nearest fresh water well		<sup>24</sup> Distance to nearest surface water

☐ We will be using a closed-loop system in lieu of lined pits

**<sup>25</sup> Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	14 3/4	13 3/8	48	350	125	Surface
Production	11	8 5/8	24	2800	500	1600'

**Casing/Cement Program: Additional Comments**

We will be using the existing casing with no changes made to it.

**<sup>26</sup> Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer

<sup>27</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> , if applicable. Signature: <i>Denise Jones</i>		<b>OIL CONSERVATION DIVISION</b>	
Printed name: Denise Jones		Approved by: <i>Raymond M. Padany</i>	
Title: Regulatory Analyst		Title: <i>Geologist</i>	
E-mail Address: djones@cambrianmgmt.com		Approved Date: <i>2-24-2017</i> Expiration Date: <i>2-24-2019</i>	
Date: 02/23/2017	Phone: 432-620-9181	Conditions of Approval Attached <i>Closed Loop or submit C 144 for P.E.</i>	

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088  
SANTA FE, NEW MEXICO 8750

Form E-102  
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

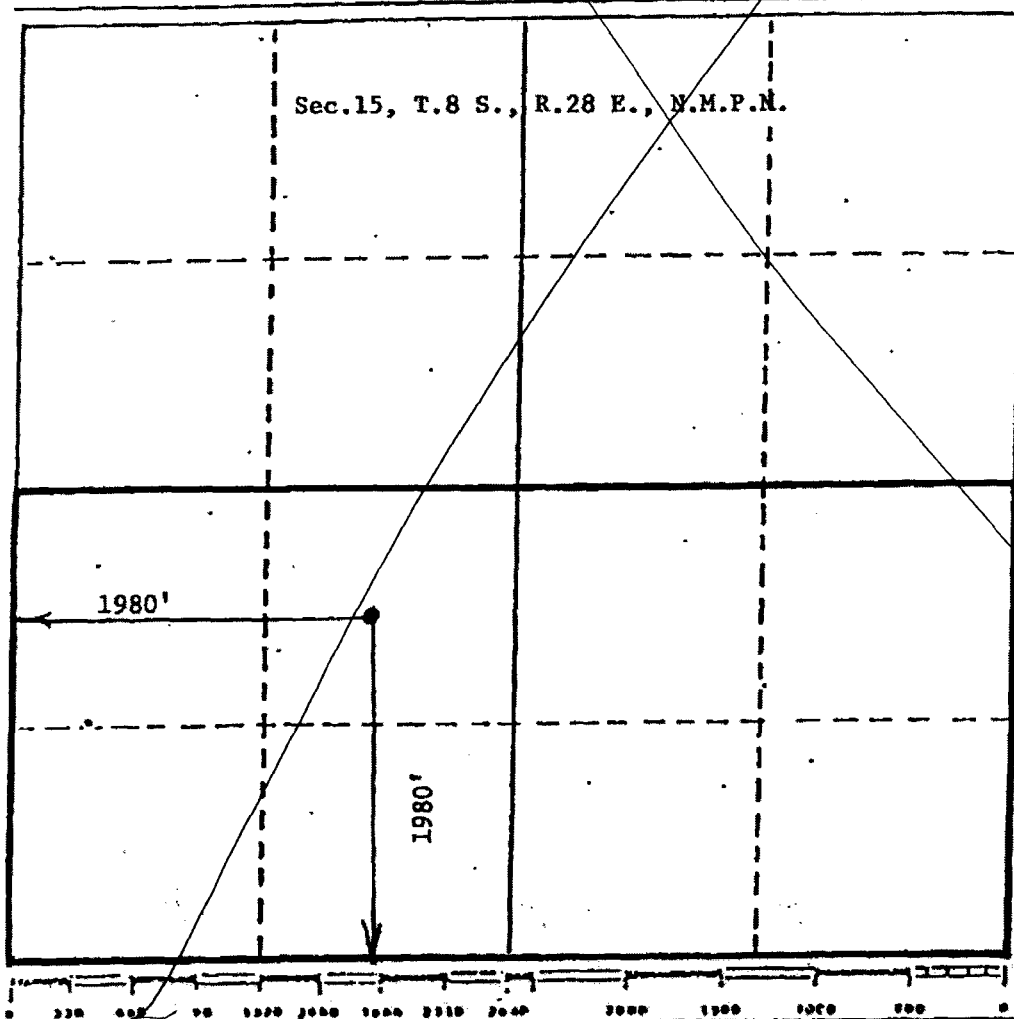
Operator <b>Rault Petroleum Corp</b>			Lease <b>R. C. Graves</b>		Well No. <b>#1</b>
Unit Letter <b>K</b>	Section <b>15</b>	Township <b>8 South</b>	Range <b>28 East</b>	County <b>Chaves</b>	
Actual Fastage Location of Well: <b>1980</b> feet from the <b>South</b> line and <b>1980</b> feet from the <b>West</b> line					
Ground Level Elev. <b>4062</b>	Producing Formation <b>Penn</b>	Pool <b>Wildcat - Penn</b>		Dedicated Acres <b>320</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name  
**J. W. Vidrine**  
Position  
**Manager**  
Company  
**Rault Petroleum Corporation**  
Date  
**December 1, 1982**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

**JOHN D. JACQUES**  
Date Surveyed  
**November 29, 1982**  
Registered Professional Engineer  
and Surveyor  
**John D. Jacques, P.E. & L.S.**  
Chillicothe, MO 64601

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State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-005-61865	<sup>2</sup> Pool Code 61570	<sup>3</sup> Pool Name Twin Lake; San Andres (Assoc)
<sup>4</sup> Property Code 317444	<sup>5</sup> Property Name R.C. Graves	<sup>6</sup> Well Number 001
<sup>7</sup> OGRID No. 198688	<sup>8</sup> Operator Name Cambrian Management, Ltd	<sup>9</sup> Elevation 4062

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot 1dn	Feet from the	North/South line	Feet from the	East/West line	County
K	15	8S	28E		1980	South	1980	West	Chaves

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1dn	Feet from the	North/South line	Feet from the	East/West line	County
K	15	8S	28E		1980	South	1980	West	Chaves

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<sup>14</sup> 	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  Signature _____ Date _____ Andrew Rickard Printed Name ajones@cambrianmgmt.com E-mail Address

Submit 1 Copy To Appropriate District Office  
District I - (575) 393-6161  
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State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised July 18, 2013

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO. 30-005-61865
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name R.C. Graves
8. Well Number 001
9. OGRID Number 198688
10. Pool name or Wildcat Twin Lake; San Andres (assoc)
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 4062

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>	
2. Name of Operator Cambrian Management, Ltd	
3. Address of Operator PO Box 272, Midland, TX 79702	
4. Well Location Unit Letter <u>K</u> : 1980 feet from the <u>South</u> line and 1980 feet from the West line Section <u>15</u> Township <u>8S</u> Range <u>28E</u> NMPM <u>Chaves</u> County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 4062	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐  
CLOSED-LOOP SYSTEM ☐  
OTHER: Re-enter plugged well ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐  
OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

We would like to begin work on 02/24/2017. The procedure is as follows:

1. Drill cement plug in 13 3/8" csg at surface and 300'-400'
2. Drill cmt plug at 1500' to the top of the 8 5/8" csg stub at 1600'
3. POOH, PU 4 3/4" bit and RIH
4. Drill pilot hole through cement plug into the 8 5/8" csg
5. POOH and LD 6" bit
6. PU 7 7/8" bit, RIH and drill out the remaining plug in the top of the 8 5/8" csg
7. RIH to 2530' +/- and drill out 100' cmt plug to 2630'
8. Circulate hole clean and TOOH laying down drill string
9. Perforate 8 5/8" csg 2650' to 2675'
10. Acidize with 2500 gal 15% HCL acid

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Denise Jones TITLE Regulatory Analyst DATE 2-23-17  
Type or print name Denise Jones E-mail address: djones@cambrianmgmt.com PHONE: 432-620-9181  
**For State Use Only**

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
Conditions of Approval (if any): \_\_\_\_\_



## Capstone

### R. C. Graves #1

2/22/2017

## Drilling & Completion Procedure (Re-entry)

API# 30-005-61865

1980' FSL & 1980' FWL Sec 15-T8S-R28E

Chavez County, New Mexico

**TOTAL DEPTH:** 7525'      **PBYD:** P&A      **KB:** 4074'      **GL:** 4062'

**CASING:**      13 3/8" 48# surface csg @ 348' cmt w/ 370 sx to surf  
8 5/8" 24# int. csg @ 2698' to cut at 1600' +/- Cem w/ 380 sx to 1600' est  
7 7/8" OH from 2700' to 7525'

The R.C. Graves #1 well is currently plugged and abandoned. We will re-enter this well and drill out four cement plugs, perforate the San Andres from 2650' to 2675', acidize and put on rod pump.

The surface cement plug and 2<sup>nd</sup> cement plug at 300' in the 13 3/8" casing will be drilled with a 12 1/4" bit. The 3<sup>rd</sup> cement plug will be drilled out to the top of the 8 5/8" csg stub at 1600'. A 4 3/4" bit will be used to drill a pilot hole through this plug and into the 8 5/8" csg. A 7 7/8" bit will be used to drill out the remaining plug in the top of the 8 5/8" csg and to drill the 4<sup>th</sup> cement plug from 2530'-2630'.

We will perforate the 8 5/8" casing from 2650' to 2675' and acidize with 2500 gallons of 15% HCl acid.

#### Procedure

1. Drill cement plug in 13 3/8" csg at surface and at 300'-400'
2. Drill cmt plug at 1500' to the top of the 8 5/8" csg stub at 1600'
3. POOH, PU 4 3/4" bit and RIH
4. Drill pilot hole through cmt plug into the 8 5/8" csg
5. POOH and LD 6" bit
6. PU 7 7/8" bit, RIH and drill out the remaining plug in the top of the 8 5/8" csg
7. RIH to 2530' +/- and drill out 100' cement plug to 2630'
8. Circulate hole clean and TOOH laying down drill string
9. Perforate 8 5/8" casing 2650' to 2675'
10. Acidize with 2500 gal 15% HCl acid

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State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit Original  
to Appropriate  
District Office

**GAS CAPTURE PLAN**

Date: 2-23-2017

☒ Original

Operator & OGRID No.: Cambrian Management, Ltd - 198688

☐ Amended - Reason for Amendment: \_\_\_\_\_

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

**Well(s)/Production Facility – Name of facility**

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
R.C. Graves	30-005-61865	K 15 8S 28E	1980 FSL 1980 FWL	< 1	< 1	

**Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Gas Transporter and will be connected to Gas Transporter low/high pressure gathering system located in Chaves County, New Mexico. It will require \_\_\_\_\_' of pipeline to connect the facility to low/high pressure gathering system. Operator provides (periodically) to Gas Transporter a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Operator and Gas Transporter have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Gas Transporter Processing Plant located in Sec. \_\_\_\_\_, Twn. \_\_\_\_\_, Rng. \_\_\_\_\_, \_\_\_\_\_ County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

**Flowback Strategy**

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Gas Transporter system at that time. Based on current information, it is Operator's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

**Alternatives to Reduce Flaring**

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines