

RECEIVED: 7-25-2017	REVIEWER: MAM	TYPE: SWD	APP NO: PKSC 1720832902
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND
 REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: RKI Exploration and Production, LLC **OGRID Number:** 246289
Well Name: Rustler Breaks SWD 1 **API:** TBD
Pool: SWD; Devonian **Pool Code:** 20352 ? 96101

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION
 INDICATED BELOW**

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]
 A. Location – Spacing Unit – Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD
- B. Check one only for [I] or [II]
 [I] Commingling – Storage – Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
 [II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

2) **NOTIFICATION REQUIRED TO:** Check those which apply.

- A. ☒ Offset operators or lease holders
 B. ☒ Royalty, overriding royalty owners, revenue owners
 C. ☒ Application requires published notice
 D. ☒ Notification and/or concurrent approval by SLO
 E. ☐ Notification and/or concurrent approval by BLM
 F. ☒ Surface owner
 G. ☒ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

FOR OCD ONLY

- ☐ Notice Complete
☐ Application
 Content
 Complete

- 3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Ashlee Fechino

Print or Type Name

Signature

7/14/2017
 Date

539.573.0212

Phone Number

ashlee.fechino@wpenergy.com

e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: RKI Exploration and Production, LLC
ADDRESS: 3500 One Williams Center, MD 35 Tulsa, OK 74172
CONTACT PARTY: Ashlee Fechino PHONE: 539-573-0212
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? Yes X No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Ashlee Fechino TITLE: Regulatory Specialist
SIGNATURE: *Ashlee Fechino* DATE: 7/14/2017
E-MAIL ADDRESS: ashlee.fechino@wpenergy.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted.
Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: RKI Exploration and Production, LLC

WELL NAME & NUMBER: Rustler Breaks SWD 1

WELL LOCATION: 100' FSL 1960' FWL N 9 23S 27E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

Formation	Top	Hole Size / Casing
	0	
	450'	26" Surface Hole 20" 94# J-55 STC Casing 17.5" Intermediate 1 Hole
Bell Canyon (Lamar Lime)	1977'	13-3/8" 54.5# J-55 LTC Casing
Cherry Canyon	2869'	
Brushy Canyon	3941'	
Bone Spring	5471'	
Avalon	5578'	
1st Bone Spring Sand	6580'	
2nd Bone Spring Sand	7062'	
3rd Bone Spring Sand	8587'	
Wolfcamp Top	8937'	
Wolfcamp A	9078'	
Wolfcamp B	9265'	
Wolfcamp C	9457'	
		12-1/4" Intermediate 2 Hole
Wolfcamp D	9653'	9-5/8" 43.5# HCL-80 LTC Casing
Penn Top	10497'	
Strawn	10683'	
Atoka	11053'	
Morrow	11356'	
Barnett	12171'	
Mississippian	12601'	
Woodford	12957'	
		8-3/4" Longstring Hole
Devonian	13053'	7" 29# L/N80 LTC Casing
TD	14053'	6-1/8" Open Hole

13,000' 4-1/2" IPC/Duoli
grip retrievable packerWELL CONSTRUCTION DATASurface Casing

Hole Size: 26" Casing Size: 20"
 Cemented with: 847 sx. or ft³
 Top of Cement: 0-450" Method Determined: Circ to surface

Intermediate Casing

Int 1 - 17-1/2" Int 1 - 13-3/8"
 Int 2 - 12-1/4" Int 2 - 9-5/8"
 Hole Size: Casing Size: Int 1 - 1033
 Cemented with: Int 2 - 841 sx. or ft³
 Int 1 - 0-1977'
 Top of Cement: Int 2 - 0-9653' Method Determined: Circ to surface

Longstring Production Casing

Hole Size: 8-3/4" Casing Size: 7"
 Cemented with: 622 sx. or ft³
 Top of Cement: 8937' Method Determined: Log
 Total Depth: 13053'

Injection Interval - Open Hole

13053' feet to 14053'

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 4 1/2" Lining Material: IPC/Duoline

Type of Packer: Retrievable packer

Packer Setting Depth: 13,000'

Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

1. Is this a new well drilled for injection? ☒ Yes ☐ No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Devonian - Open Hole Completion

3. Name of Field or Pool (if applicable): SWD; Devonian

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No

Age Group	18-24	25-34	35-44	45-54	55+
18-24	100%	100%	100%	100%	100%
25-34	100%	100%	100%	100%	100%
35-44	100%	100%	100%	100%	100%
45-54	100%	100%	100%	100%	100%
55+	100%	100%	100%	100%	100%

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Overlying producing zones: Wolfcamp 9798' to 9872'

Morrow 11752' to 11931' and 12022' to 12152'

Underlying producing zones: N/A

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 & 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

¹ API Number	² Pool Code 90352	³ Pool Name SWD; DEVONIAN
⁴ Property Code	⁵ Property Name RUSTLER BREAKS SWD	⁶ Well Number 1
⁷ OGRID No. 246289	⁸ Operator Name RKI EXPLORATION & PRODUCTION, LLC	⁹ Elevation 3137'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	9	23 S	27 E		100	SOUTH	1,960	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

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.

<p>¹⁶</p> <p>SECTION 9 TOWNSHIP 23 SOUTH, RANGE 27 EAST NEW MEXICO PRIME MERIDIAN</p> <p>RUSTLER BREAKS SWD #1 SHL NMSP-E (NAD83) N (Y) = 477,479.7' E (X) = 583,380.3' LAT = 32.312591°N LONG = 104.197242°W NMSP-E (NAD27) N (Y) = 477,420.8' E (X) = 542,198.7' LAT = 32.322472°N LONG = 104.198741°W</p>	<p>¹⁷ 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.</p> <p>Signature: <i>Justin Barnore</i> Date: 06/23/2017 Printed Name: Justin Barnore E-mail Address: justin.barnore@gmail.com</p> <p>¹⁸ SURVEYOR CERTIFICATION 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 belief.</p> <p>6-23-2017 Date of Survey Signature and Seal of Professional Surveyor: <i>Mark Dillon</i> MARK DILLON HARP 23786 Certificate Number AI 2017060830</p>
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COORDINATES

A.
NW COR SEC 9
NMSP-E (NAD83)
N (Y) = 482,621.6
E (X) = 581,392.9
LAT. = 32.326732°N
LONG. = 104.203655°W
NMSP-E (NAD27)
N (Y) = 482,562.6
E (X) = 540,211.4
LAT. = 32.326613°N
LONG. = 104.203153°W

B.
N 1/4 COR SEC 9
NMSP-E (NAD83)
N (Y) = 482,673.5
E (X) = 584,002.1
LAT. = 32.326866°N
LONG. = 104.195208°W
NMSP-E (NAD27)
N (Y) = 482,614.4
E (X) = 542,820.6
LAT. = 32.326747°N
LONG. = 104.194706°W

C.
NE COR SEC 9
NMSP-E (NAD83)
N (Y) = 482,725.4
E (X) = 586,811.3
LAT. = 32.326999°N
LONG. = 104.186761°W
NMSP-E (NAD27)
N (Y) = 482,666.3
E (X) = 545,429.8
LAT. = 32.326880°N
LONG. = 104.186259°W

D.
W 1/4 COR SEC 9
NMSP-E (NAD83)
N (Y) = 479,969.0
E (X) = 581,407.0
LAT. = 32.319440°N
LONG. = 104.203620°W
NMSP-E (NAD27)
N (Y) = 479,910.1
E (X) = 540,225.5
LAT. = 32.319322°N
LONG. = 104.203118°W

SECTION 9
TOWNSHIP 23 SOUTH,
RANGE 27 EAST
NEW MEXICO PRIME
MERIDIAN

E.
E 1/4 COR SEC 9
NMSP-E (NAD83)
N (Y) = 480,130.4
E (X) = 586,620.6
LAT. = 32.319866°N
LONG. = 104.186742°W
NMSP-E (NAD27)
N (Y) = 480,071.4
E (X) = 545,439.0
LAT. = 32.319747°N
LONG. = 104.186241°W

F.
SW COR SEC 9
NMSP-E (NAD83)
N (Y) = 477,316.5
E (X) = 581,421.1
LAT. = 32.312149°N
LONG. = 104.203585°W
NMSP-E (NAD27)
N (Y) = 477,257.6
E (X) = 540,239.5
LAT. = 32.312030°N
LONG. = 104.203083°W

G.
S 1/4 COR SEC 9
NMSP-E (NAD83)
N (Y) = 477,401.8
E (X) = 584,067.3
LAT. = 32.312375°N
LONG. = 104.195019°W
NMSP-E (NAD27)
N (Y) = 477,342.9
E (X) = 542,885.7
LAT. = 32.312256°N
LONG. = 104.194518°W

H.
SE COR SEC 9
NMSP-E (NAD83)
N (Y) = 477,486.4
E (X) = 586,707.4
LAT. = 32.312598°N
LONG. = 104.186473°W
NMSP-E (NAD27)
N (Y) = 477,427.4
E (X) = 545,525.7
LAT. = 32.312478°N
LONG. = 104.185972°W

SECTION 9, T 23 S., R 27 E, N.M.P.M.

COUNTY: EDDY STATE: NM

OPERATOR: RKI EXPLORATION & PRODUCTION, LLC.



550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

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0 600' 1200'
1" = 1200 FEET



2017060830

V. Wells within 2-mile radius with ½ mile radius AOR

Leases within 2-mile radius

Maps attached.

8

9

 $\frac{1}{2}$ Mile Radius

+ REDDY COM-1
30015208730000

* CYPRESS-5
30015363130000

+ MARQUESS-1
30015223330000

+ CYPRESS 001H
30015440460000

★ Rustler Breaks SWD

+ CASS 16 STATE-1H
30015427300000

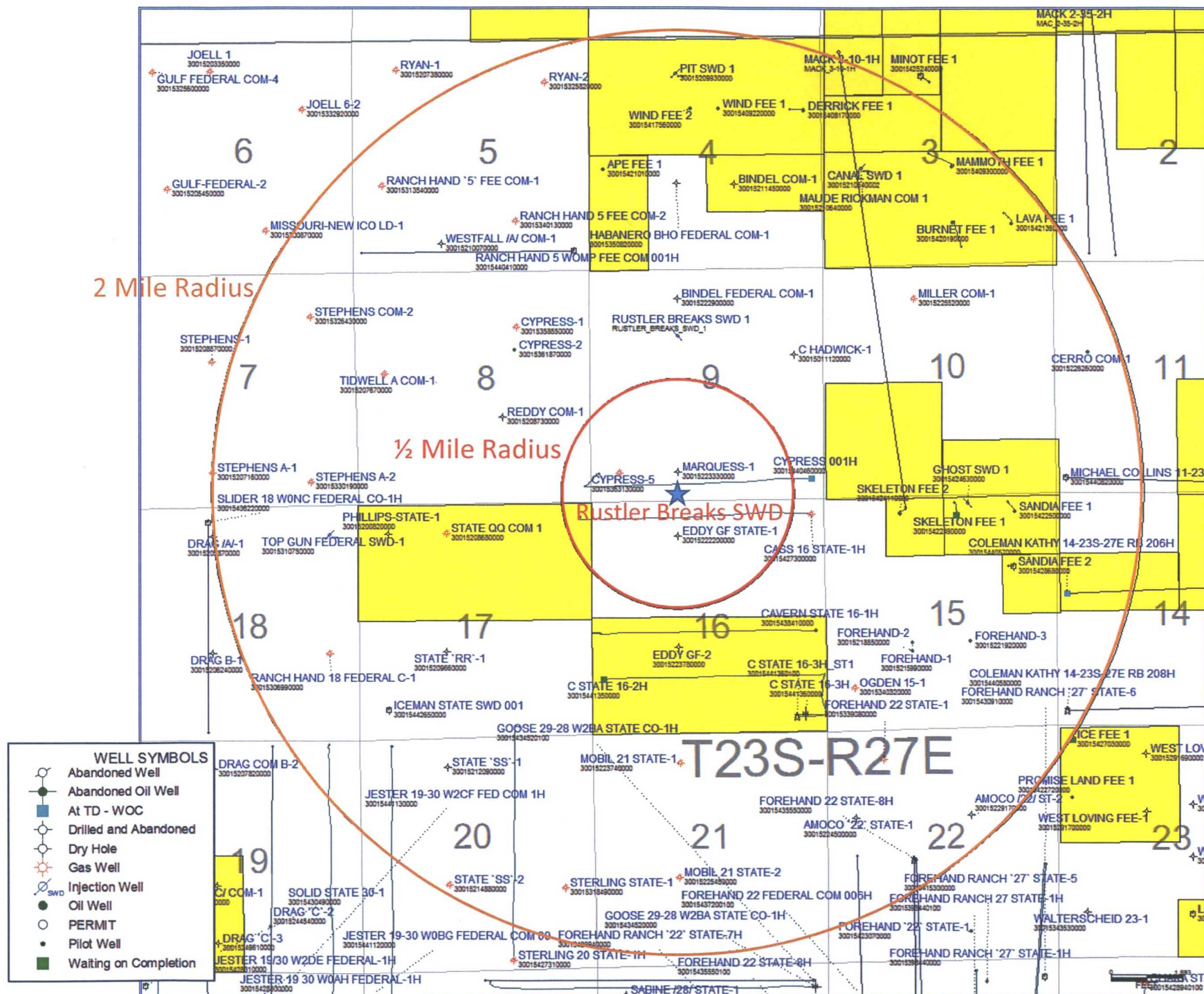
+ EDDY GF STATE-1
30015222200000

16

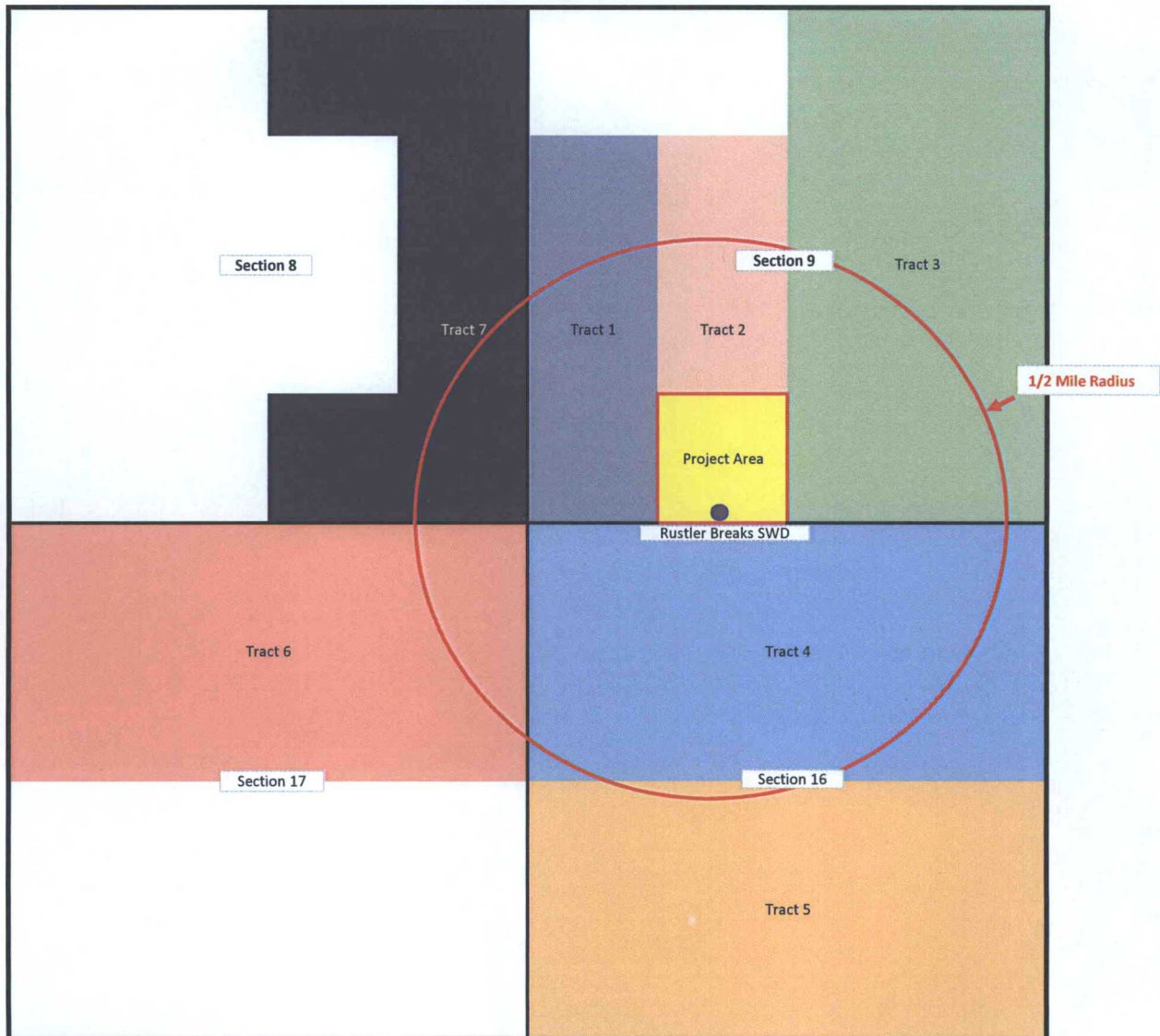
+ CAVERN STATE 16-1H
30015438410000

WELL SYMBOLS

- Abandoned Well
- Abandoned Oil Well
- At TD - WOC
- Drilled and Abandoned
- Dry Hole
- ⊙ Gas Well
- ⊙_{SWD} Injection Well
- Oil Well
- PERMIT
- Pilot Well
- Waiting on Completion



Rustler Breaks SWD - Notice Plat
SE/4SW/4 of Section 9
Township 23 South, Range 27 East, NMPPM
Eddy County, New Mexico



Affected Parties

Rustler Breaks SWD - Notice Plat
SE/4SW/4 of Section 9
Township 23 South, Range 27 East, NMPM
Eddy County, New Mexico

Project Area – SE/4SW/4 of Sec. 9*

*Same as Tract 1

Surface Owners:

Robert E. Jacobi, Richard L. Jacobi, & Jennie Lou Needham**
C/O Hunter M. Lewis
9425 San Rafael NE
Albuquerque, New Mexico

**Following notices, property was purchased by RKI Exploration & Production, LLC

Operators:

Black Mountain Operating LLC***
500 Main Street Suite 1200
Fort Worth, TX 76102

***Following notices, property was purchased by Marathon Oil Permian

Tract 1 – SW/4NW/4, NW/4SW/4, & S/2SW/4 of Sec. 9

See above

Tract 2 – SE/4NW/4 & NE/4SW/4 of Sec. 9

Surface Owners:

Branson Properties LLC
1501 Mountain Shadow
Carlsbad, NM 88220

Operators:

Black Mountain Operating LLC***
500 Main Street Suite 1200
Fort Worth, TX 76102

***Following notices, property was purchased by Marathon Oil Permian

Tract 3 – E/2 of Sec. 9

Less and except parcel #4-159-134-494-239 located partially in the NE/4SE/4 & SE/4NE/4 on the east side of the canal. This parcel is not within the ½ mile radius of the SWD.

Surface Owners:

James H & Susie Bindel
1212 W. Ural Drive
Carlsbad, NM 88220

Operators:

Black Mountain Operating LLC***
500 Main Street Suite 1200
Fort Worth, TX 76102

***Following notices, property was purchased by Marathon Oil Permian

Tract 4 – N/2 of Sec. 16

Surface Owners:

State of New Mexico
310 Old Santa Fe Trail
Santa Fe, N.M. 87504

Operators:

Marathon Oil Permian
5555 San Felipe Street
Houston, TX 77056

Tract 5 – S/2 of Sec. 16

Surface Owners:

State of New Mexico
310 Old Santa Fe Trail
Santa Fe, N.M. 87504

Operators:

RKI Exploration & Production, LLC
3500 One Williams Center
Tulsa, OK 74172

Tract 6 – N/2 of Sec. 17

Surface Owners:

State of New Mexico
310 Old Santa Fe Trail
Santa Fe, N.M. 87504

Operators:

RKI Exploration & Production, LLC
3500 One Williams Center
Tulsa, OK 74172

Tract 7 – N/2NE/4, SE/4NE/4, NE/4SE/4 & S/2SE/4 of Sec. 8

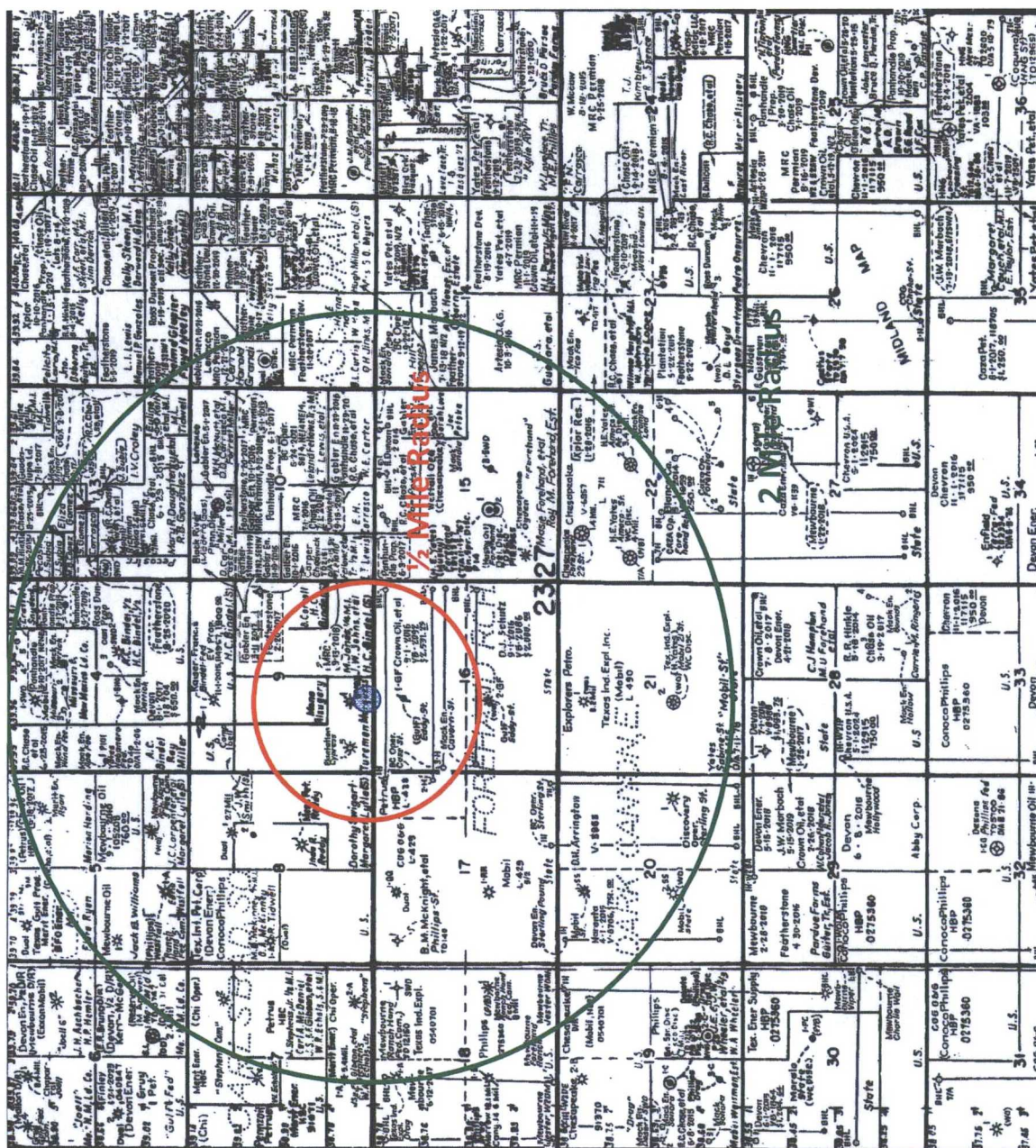
Surface Owners:

E BAR Z LLC
8210 E. Garfield Street, K-116
Scottsdale, AZ 85257

Operators:

Black Mountain Operating LLC***
500 Main Street Suite 1200
Fort Worth, TX 76102

***Following notices, property was purchased by Marathon Oil Permian



VI. ½ mile AOR

Tabulation of data attached.

Wells within ½ mile AOR:

- Marquess 1
- Eddy GF State 1
- Cypress 5
- Cypress 1H
- Cass 16 1H

Wells within 1/2 Mile Radius of Rustler Breaks SWD							
API	Well	Well Type	TD [TVD]	TD [MD]	Perforations	Formation	Ft. From Rustler Breaks SWD
3001522333	Marquess 1	Dry Hole	12,208'		9,798' - 12,152'	Morrow	490
3001522220	Eddy GF State 1	Dry Hole	12,269'		7,061' - 12,162'	Morrow/Bonesprings	972
3001536313	Cypress 5	Gas Well	12,260'		11,968' - 12,129'	Morrow	1,403
3001544046	Cypress 1H	Gas Well	9,101'	13,922'	9,640' - 13,862'	Wolfcamp	3035 (from toe)
3001542730	Cass 16 1H	Gas Well	9,500'	14,642'	10,030' - 14,550'	Wolfcamp	3071 (from toe)

Submit 3 Copies
to Appropriate
District Office

DISTRICT I

P.O. Box 1908 Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Gallup, NM 87301

DISTRICT III

1000 Rio Brazos Rd., Lordsburg, NM 88050

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-103

Revised 1-1-89

JUL 2003

RECEIVED

UCD - ARTESIA

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

WELL API NO.
30-015-22333

5. Indicate Type of Lease

STATE ☐

FEE ☒

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Marquess Com

8. Well No.

1

9. Pool name or Wildcat

Carlsbad, South (Wolfcamp)

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 ☐

GAS

WELL ☒

OTHER

2. Name of Operator

Kaiser-Francis Oil Company

3. Address of Operator

P.O. Box 21468, Tulsa, OK 74121-1468

4. Well Location

Unit Corner N : 660 Feet From The South Line and 1980 Feet From The West Line

Section 9 Township 23S Range 27E NMPM Eddy County

10. Elevation (Show whether DF, RCB, RT, GR, etc.)

n/a

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

REMEDIAL WORK ☐

ALTERING CASING ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

COMMENCE DRILLING OPNS. ☐

PLUG AND ABANDONMENT ☒

PULL OR ALTER CASING ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Well was plugged back to 9870'.

6-30-03 Set 4-1/2" CIBP @ 9775' w/ 35' cmt. on top. TOC @ 9740'.
Circ. w/ 9.5# mud gel.

7-01-03 Spot 25 sx cmt. from 8970' to 8608'.

Spot 60 sx cmt. from 5650' to 5419', WOC & tag @ 5423'.

7-02-03 Spot 60 sx cmt. from 2110' to 1912'.

Spot 60 sx cmt. from 1845' to 1647', WOC & tag @ 1638'.

Spot 125 sx cmt. from 430' to surface, circulated.

RDMO. Cut off wellhead, install dry hole marker, & cleaned location.

Note: Found free-point on 4 1/2" casing @ 5600'. Cut casing @ 5601' & POOH.

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

SIGNATURE

TITLE

Agent

DATE

7/02/03

TYPE OR PRINT NAME

TELEPHONE NO.

(This space for State Use)

APPROVED BY

TITLE

Field Supervisor

DATE

NOV 16 2005

EXTENT OF APPROVAL, IF ANY:



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop
Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

30 July 2003

Kaiser-Francis Oil Co.
P.O. Box 21468
Tulsa, OK. 74121

Form C-103 Report of Plugging for your Marquez Com # 1 N-9-23-27 API 30-015-22333
Cannot be approved until an NMOCD representative has made an inspection of the location and found it to
be cleared to comply with OCD rules and regulations. Please check each item in the space provided to
indicate that the work has been accomplished and the location is ready for final inspection.

- ☒ 1. All pits have been filled and leveled.
- ☒ 2. Rat hole and cellar have been filled and leveled.
- ☒ 3. A steel marker 4" in diameter and approximately 4' above mean ground level has been set in
concrete to mark the exact location of the plugged well. (Marker must have operator name, lease name,
well number and location including quarter/quarter section or unit letter, section, township, range and API
well ID number permanently welded, stamped or otherwise engraved into the metal marker.)
- ☒ 4. The location has been leveled as nearly as possible to original top ground contour and has been
cleared of all junk and equipment.
- ☒ 5. The dead men and tie downs have been cut and removed.
- ☒ 6. If a one well lease or last remaining well on lease, the battery and burn pit locations have been
leveled and cleared of all junk & equipment.
- ☒ 7. All environmental concerns have been addressed as per OCD guidelines.

The above are minimum requirements and no plugging bond will be cancelled until all locations for
plugged and abandoned wells have been inspected and Form C-103 approved.

When all of the work outlined above has been done, please notify this office by completing, signing and
returning this letter to us so that our representative will not have to make more than one trip to the location.

I certify that the above work has been done and the above-mentioned lease is ready for OCD inspection and
approval.

Name _____

Title _____

[Signature]

Field Rep. II

Submit 3 Copies
to Appropriate
District Office

RECEIVED

JAN 28 2004

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OCD-ARTESIA OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO. 30-015-22220

5. Indicate Type of Lease
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.
L-00187-003

7. Lease Name or Unit Agreement Name
EDDY GF STATE

8. Well No.
1

9. Pool name or Wildcat

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 ☒ GAS WELL ☐ OTHER ~~INJECTION~~

2. Name of Operator
XERIC OIL & GAS CORP.

3. Address of Operator
P. O. Box 352, Midland, TX 79782

4. Well Location
Unit Letter C 810 Feet From The North Line and 1980 Feet From The East Line
Section 16 Township 23S Range 27E NMPM Eddy County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐
OTHER: ☐

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☒
CASING TEST AND CEMENT JOB ☐
OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

10-27-03 SPOT 50 SKS @ 7060' W.O.C. & TAG @ 6896'
10-29-03 CUT PIPE @ 4000' NOT LOOSE SPOT 25 SKS @ 4050-3950
CUT & PULL PIPE @ 2120 TIH & SPOT 50 SKS W.O.C. & TAG @ 1930
10-31-03 SPOT 60 SKS @ 1080 W.O.C. & TAG @ 970'
PERF @ 450 SQUEEZE 60 SKS W.O.C. & TAG @ 345
SPOT 20 SKS 63-SURFACE

INSTALL P & A MARKER
CIRC MUD

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

SIGNATURE Jeff Kester TITLE CEMENTER DATE 10-31-03

TYPE OR PRINT NAME JEFF KESTER TELEPHONE NO. 432-547-2926

(This space for State Use)

APPROVED BY [Signature] TITLE DFI DATE 12-05-05

CONDITIONS OF APPROVAL, IF ANY:

Tuesday, November 08, 2005

Well Selection Criteria Quick Print

Page 1

(tblWellMaster.api_wellno Like '30015222200000')

API Well #	Well Name and No.		Operator Name	Typ	Stat	County	Surf	UL	Se	Twp	Rng	Ft N/S	Ft E/W	UICPrmt	Lst Insp
30-015-22220-00-00	EDDY GF STATE	001	XERIC OIL & GAS CORP	G	A	Eddy	S	C	16	23 S	27 E	810 N	1980 W		10/20/2005
30-015-22220-00-00	EDDY GF STATE	001	XERIC OIL & GAS CORP	G	A	Eddy	S	C	16	23 S	27 E	810 N	1980 W		10/20/2005

Please inspect to see if well/location can be released for P&A.

well P/A

OK to Release.

Location Clean

11/21/05

[Signature]

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(505) 393-6161 Fax:(505) 393-0720

District II

1301 W. Grand Ave., Artesia, NM 88210
Phone:(505) 748-1283 Fax:(505) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
Permit 78497

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.)		WELL API NUMBER 30-015-36313
1. Type of Well: G		5. Indicate Type of Lease P
2. Name of Operator PLANTATION OPERATING LLC		6. State Oil & Gas Lease No.
3. Address of Operator 4700 W. SAM HOUSTON PKWY N., SUITE 140 HOUSTON, TX 77041		7. Lease Name or Unit Agreement Name CYPRESS
4. Well Location Unit Letter M : 660 feet from the S line and 660 feet from the W line Section 9 Township 23S Range 27E NMPM Eddy County		8. Well Number 005
11. Elevation (Show whether DR, KB, BT, GR, etc.) 3155 GR		9. OGRID Number 237788
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>		10. Pool name or Wildcat
Pit Type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____ Pit Liner Thickness: _____ mil Below-Grade Tank Volume _____ bbls; Construction Material _____		

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 OF PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
Other: _____

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTER CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDON ☐
CASING/CEMENT JOB ☐
Other: Drilling/Cement ☒

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 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.
6/1/2008 - 7/11/2008: Drill 12-1/4" hole to 5615'. TD 12-1/4" hole at 0100 hrs 6/9/2008 at 5615'. Run logs. Run 82 jts 9-5/8" 40# J-55 LT&C csg and 50 jts 9-5/8" 40# HCK-55 LT&C csg. Set at 5595'. FC @ 5502'. Cement 9-5/8" csg w/1900 sx C (35.65:6) + 5% salt + 1/4# cello flake + 5# LCM-1 (Yield-2.05 cu ft, Wt-12.5 #/gal). Tail w/ 400 sx Class "C" + 1% CaCl2 (Yield-1.34 cu ft, Wt-14.8#/gal). Bump plug w/1971 psi. Check floats - OK. Circulate 182 sx to the surface. Notified NMOCOD-Artesia of running csg and cmt. WOC 10.5 hrs. NU 13-5/8" 10M BOP. Continued.....
See Attached
5/29/2008 Spudded well.

Casing and Cement Program

Date	String	Fluid Type	Hole Size	Csg Size	Weight lb/ft	Grade	Est TOC	Dpth Set	Sacks	Yield	Class	1" Dpth	Pres Held	Pres Drop	Open Hole
05/29/08	Surf	Air	17.5	13.375	48	H-40	0	360	360	1.34	C		600	0	Y
06/10/08	Int1	Brine	12.25	9.825	40	J55	0	5595	1900	2.05	BJ Lite		3000	0	Y
06/10/08	Int1	Brine	12.25	9.825	40	J55	0	5595	400	1.34	C		3000	0	Y
07/10/08	Prod	CutBrine	8.75	5.5	17	P110	0	12280	1500	1.31	H		5000	0	Y
07/10/08	Prod	CutBrine	8.75	5.5	17	P110	0	12280	1300	2.45	H		5000	0	Y
07/10/08	Prod	CutBrine	8.75	5.5	17	P110	0	12280	100	1.18	H		5000	0	Y

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCOD guidelines ☐ , a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Electronically Signed

TITLE Engineering Tech

DATE 7/29/2008

Type or print name Kimberly K Faldyn

E-mail address kfaldyn@plantationpetro.com

Telephone No. 281-598-7551

For State Use Only:

APPROVED BY: Tim Gum

TITLE District Supervisor

DATE 8/4/2008 7:36:09 AM

Cypress #5 – Intermediate & Prod Csg Work Description
Continued:

Test BOP to 3000 psi—OK. TIH and tag cmt at 5465'. Drill cmt, float and shoe joint.
CIT to 2000 psi – OK. Drill out at 0900 hrs on 6/12/2008.

Drill 8-3/4" hole from 5615' to 12,260'. TD 8-3/4" hole at 0300 hrs 7/1/2008. Run logs.
Run 93 joints 5 1/2" 17# P-110 LTC casing. Install Davis 5-1/2" DV tool. Run 217 jts 5-
1/2" same to 12,260'. Float shoe @ 12,260', Float collar @ 12,215', DV tool @ 8507'.
1st stage cmt w/1500 sx (50/50/2/H) +4/10FL-52A+5/10%FL-25+5/10%BA-10A+0.45%
CD-32 + 0.45% SMS + 5% salt. (Yield—1.31 cu ft, Weight—14.2#/ gal). Pump 2nd
stage cmt job, lost returns while circ between stages. Got returns back while cmt 2nd
Stage. 2nd stage Lead Cement: 1300 sx (50/50/10/H) + 5/10% FL-52A + 5% salt +
5#/sx. LCM-1+1/8#/sx CF. (Yield—2.45 cu ft. Weight--11.8#/ gal) Tail Cement: 100
sx ("H") neat. (Yield 1.18 cu ft. Weight 15.6 #/ gal). Circ 265 sx off DV tool then turn
back to mud. Just beginning to see some cmt on 2nd stage when bumped plug. Cmt was
not good enough cmt to actually call circulated cmt. Notified NMOCD--Artesia of
running csg and cmt. ND BOP and set slips w/195K. Lay out BOP and nipple up tubing
head and test to 5000 psi – OK. Rig released at 1030 hrs 7/11/2008.

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(505) 393-6161 Fax:(505) 393-0720

District II

1301 W. Grand Ave., Artesia, NM 88210
Phone:(505) 748-1283 Fax:(505) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Permit 79437

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

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.)		WELL API NUMBER 30-015-36313
1. Type of Well: <u>G</u>		5. Indicate Type of Lease P
2. Name of Operator PLANTATION OPERATING LLC		6. State Oil & Gas Lease No.
3. Address of Operator 4700 W. SAM HOUSTON PKWY N., SUITE 140 HOUSTON, TX 77041		7. Lease Name or Unit Agreement Name CYPRESS
4. Well Location Unit Letter <u>M</u> : <u>660</u> feet from the <u>S</u> line and <u>660</u> feet from the <u>W</u> line Section <u>9</u> Township <u>23S</u> Range <u>27E</u> NMPM Eddy County		8. Well Number 005
11. Elevation (Show whether DR, KB, BT, GR, etc.) 3155 GR		9. OGRID Number 237788
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/> Pit Type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____ Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____		10. Pool name or Wildcat See Area 13

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTER CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE OF PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
Other: _____		Other: <u>Perforations/Tubing</u> <input checked="" type="checkbox"/>	

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 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.
 7/17/2008 - 8/21/2008: RIH and tag DV tool at 8507' and drill out. Continue in hole to PSTD at 12,202'. RIH w/4" csg gun loaded with 39 gram charges, 2 SPF (.41" hole size) and perforate from 12,125 - 12,129' w/10 holes. Swab well. Acidized Morrow perms from 12,125-12,129 w/1500 gals 7.5% Morrow acid containing 20% Methanol dropping 8 ball sealers. Swabbed well. Flow back. RIH w/3-3/8" csg guns loaded w/29 gram charges, 2 SPF (.38" hole size) and perforate 12,012-12,017 w/2 JSPP, 12 holes and perforate 11,968-11,975' w/2 JSPP, 16 holes. Continued....
 See Attached

Perforations

Pool: CARLSBAD;MORROW, SOUTH (GAS), 73960 Location: M-9-23S-27E 660 S 660 W

TOP	BOT	Open Hole	Shots/ft	Shot Size	Material	Stimulation	Amount
12125	12129	N	2	0.41		Acid	1500
12012	12017	N	2	0.38		Acid	1050
11968	11975	N	2	0.38		Acid	1050
11968	12129	N	2			Frac	65000

Tubing

CARLSBAD;MORROW, SOUTH (GAS), 73960

Tubing Size	Type	Depth Set	Packer Set
2.375	L-80	11902	11902

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOC guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Electronically Signed _____ TITLE Engineering Tech _____ DATE 9/4/2008
 Type or print name Kimberly K Faldyn E-mail address kfaldyn@plantationpetro.com Telephone No. 281-598-7551

For State Use Only:

APPROVED BY: Tim Gum TITLE District Supervisor DATE 9/8/2008 8:13:49 AM

Cypress #5 – Completion Work Description

Continued....

Acidized perfs 11,968-11,975' w/1050 gals 7.5% HCL acid. Acidized perfs 12,012-12,017' w/1050 gals 7.5% HCL acid. Swabbed well. Frac Morrow perfs 12,125-29', 12,012-017', and 11,968-75' w/ 65,000 gals Quality CO2 Foam 40# Linear gel + 45,000# 20/40 Carbolite Sand. Flow back well. RIH w/375 jts 2-7/8" 4.7# L80 EUE tbg and packer set at 11,902'. Flow back well. Placed well on production.

Tubing Comments

OGRID: [237788] PLANTATION OPERATING LLC
Permit Number: 79437
Permit Type: Tubing

Created By	Comment	Comment Date
kdaldyn	An original C-104, C-105 (front), Logs, and Deviation Survey will be sent today via overnight mail.	8/4/2008

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources
NM OIL CONSERVATION
ARTESIA DISTRICT
OIL CONSERVATION DIVISION
JUN 05 2017
1220 South St. Francis Dr.
Santa Fe, NM 87505
RECEIVED

Form C-103
Revised July 18, 2013

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.)		WELL API NO. 30-015-44046
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
2. Name of Operator Black Mountain Operating LLC		6. State Oil & Gas Lease No.
3. Address of Operator 500 Main Street Suite 1200, Fort Worth, TX 76102		7. Lease Name or Unit Agreement Name Cypress
4. Well Location Unit Letter <u>M</u> : <u>655</u> feet from the <u>South</u> line and <u>190</u> feet from the <u>West</u> line Section <u>9</u> Township <u>23S</u> Range <u>27E</u> NMPM Eddy County		8. Well Number 1H
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3146' GL		9. OGRID Number 371127
		10. Pool name or Wildcat Purple Sage, Wolfcamp

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: ☒

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.

Black Mountain Operating, LLC is requesting a temporary tubing exception for the Cypress #1H well. This well is our first horizontal Wolfcamp well and is being evaluated for maximum potential flow rates and pressures. Installing tubing immediately would introduce a downhole choke point and affect the data we plan to gather over the coming months. The well is currently flowing up the production casing string.

Well control is currently achieved via two 7-1/16" 10k gate valves, flow cross w/two 4-1/16" 10k gate valves and flowing through two 2-9/16" 10k gate valves, 10k iron and a 10k choke manifold.

Flowing wellhead pressure is currently 2150 psi.

Fire control - currently flaring gas until battery is complete. Delays on vessel delivery slowing construction completion.

Black Mountain plans to install tubing within the next 120 days.

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 [Signature] TITLE Operations Manager DATE 5/31/2017

Type or print name John Wierzowiecki E-mail address: john.wierzowiecki@blackmntn.com PHONE: (817) 698-9901

For State Use Only

APPROVED BY [Signature] TITLE Geologist DATE 6-6-17
Conditions of Approval (if any):

Black Mountain Operating, LLC

500 Main Street, Suite 500
Fort Worth, Texas 76102

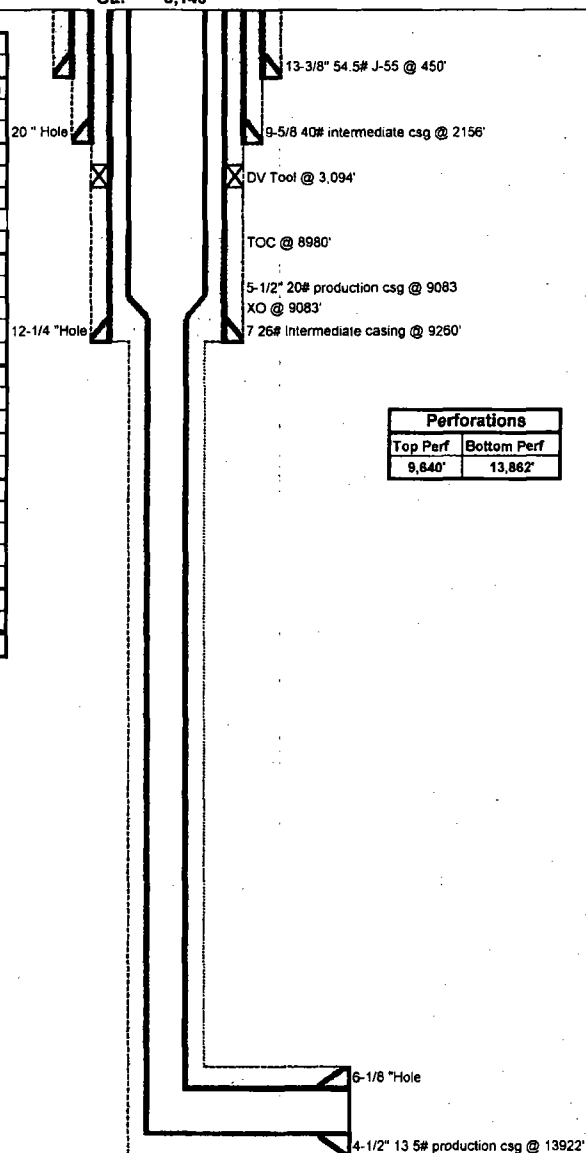
Actual Wellbore

Lease: Cypress 1H		OH Information					
County/Parish:	Eddy	Section	Size	Seg. Depth	End Depth	MW	Comments
State:	NM, M-09-23S-27E	Surface	20	0	450	8.6	
API:	30-015-44046	Intermediate	12-1/4	0	2,160	10.2	
State ID#:	316287	Intermediate	8-3/4	0	9,260	9.2	
SHL	Lat-Long: 32.313848, -104.202477	Production	6-1/8	0	13,922	11.7	
	Legal: 655' FSL & 190' FWL	Casing Information					
BHL	Lat-Long: 32.313552, -104.186944	Size	Weight	Grade	Thread	Depth	ID
	Legal: 400' FSL & 294' FEL	13-3/8	54.50	J-55	STC	450'	12.459
Spud Date:	4/6/2017	9-5/8	40.00	J-55	BTC	2,156'	8.835
Rig Release:	4/30/2017	7	26.00	P-110	TMK BPN	9,260'	6.276
AFE:	BMO14007	5-1/2"	20.00	P-110 HC	ULT-FJ	9,083'	4.778
Notes:		4-1/2"	13.50	P-110 HC	CDC HTQ	13,922'	3.920
		Comments: TOC 8,980' from CBL					

Datum

KB: 3,174'
GL: 3,146'

Cement Information				
	Surf.	9-5/8" Int.	7" Int.	Prod.
Spacer	Mud Flush	Mud Flush	Mud Flush	Mud Flush
Volume, bbl	30	40	?	100
Density, lb/gal	8.4	8.4	?	8.4
Lead Cement 1				
Sacks	420	320	381	472
Yield, ft ³ /sk	1.6	2.61	2.61	2.29
Volume, ft ³	672	835	994	1081
Density, lb/gal	13.8	12.8	11.6	13.5
Tail Cement 1				
Sacks		220	225	
Yield, ft ³ /sk		1.6	1.69	
Volume, ft ³		352	380	
Density, lb/gal		13.8	13.1	
Lead Cement 2				
Sacks			130	
Yield, ft ³ /sk			2.61	
Volume, ft ³			339	
Density, lb/gal			11.60	
Tail Cement 2				
Sacks			60	
Yield, ft ³ /sk			1.33	
Volume, ft ³			80	
Density, lb/gal			14.80	
Est TOC, ft	Surf.	Surf.	Surf.	0
Calc or Actual	Actual	Actual	Actual	
CBL TOC				8980



PBTD = 13,918'
MD = 13,922'
TVD = 9,116'

Directions to Location:

Take US 285 toward Carlsbad. At E. Derrick Road and US 285 turn west and drive ~2.7 mi to the intersection with Thomason Rd. Turn left (south) on Thomason Rd and drive 1 mile until it dead ends into E Harkness rd. Turn right and drive 0.3 mi on E Harkness Rd to lease road on the Left. Take the lease road from Harkness Rd and follow to location. Don't take Thomason Rd through the double gates. Our authorized access is the cattle guard on Harkness Rd. Attached photo shows lease road from Harkness Rd.

Last Update: 5/31/2017

Updated By: J. Wierzowiecki

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources
NEW OIL CONSERVATION
ARTESIA DISTRICT
CONSERVATION DIVISION
JUN 05 2017 220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO. 30-015-44046
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 Cypress
8. Well Number 1H
9. OGRID Number 371127
10. Pool name or Wildcat Purple Sage, Wolfcamp

RECEIVED

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 ☒ Gas Well ☐ Other ☐

2. Name of Operator
Black Mountain Operating LLC

3. Address of Operator
500 Main Street Suite 1200, Fort Worth, TX 76102

4. Well Location
Unit Letter M : 655 feet from the South line and 190 feet from the West line
Section 9 Township 23S Range 27E NMPM Eddy County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3146' GL

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: ☐

SUBSEQUENT REPORT OF:

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

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.

5/5/17 - MIRU Titan 2" CT Unit. RIH CT. motor. mill. Tag cmt @ 12,070' and wash/drill cmt.
5/6/17 - Cont. drilling cmt. Tag csg shoe @ 13,942' CTM (csg tally has TD at 13,922'). POOH CT. Establish injection rate through shoe. MIRU WL and RIH CBL. Log well and POOH. Show cmt top @ 8,980'. RDMO WL. RDMO CT. WO toe prep.
5/11/17 - MIRU Elite pumps & API WL. Test iron & WH to 7k. Test good. Open well @ 1250 psi. Open WH and test injection. 2 bpm @ 3122 psi. Pump 500 bbl acid to clear any remaining cmt stringers from wellbore and flush to TD. RIH WL. plug and guns and pump down to depth. Set solid composite bridge plug @ 13,865'. Test plug to 7000 psi. Test good. Perforate stage 1 frac. POOH WL. RDMO WL & pump trucks. Shut well in. WO frac.

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 [Signature] TITLE Operations Manager DATE 5/31/2017

Type or print name John Wierzowiecki E-mail address: john.wierzowiecki@blackmtn.com PHONE: (817) 698-9901

For State Use Only

APPROVED BY: [Signature] TITLE Staff Mgr DATE 6-6-17
Conditions of Approval (if any):

Submit 1 Copy To Appropriate District Office

State of New Mexico

Form C-103

Revised July 18, 2013

Oil Conservation Minerals and Natural Resources
DISTRICT II - (575) 748-1283
811 S. First St., Artesia, NM 88210
DISTRICT III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

MAY 22 2017

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

RECEIVED

WELL API NO. 30-015-44046
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 Cypress
8. Well Number 1H
9. OGRID Number 371127
10. Pool name or Wildcat Purple Sage, Wolfcamp

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 Black Mountain Operating LLC	
3. Address of Operator 500 Main Street Suite 1200, Fort Worth, TX 76102	
4. Well Location Unit Letter <u>M</u> : <u>655</u> feet from the <u>South</u> line and <u>190</u> feet from the <u>West</u> line Section <u>9</u> Township <u>23S</u> Range <u>27E</u> NMPM Eddy County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3146' GL	

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: ☐

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.

4/06/2017: Spud well. Surface Csg - Drill 17.5" Hole to 450'. RIH 450' 13-3/8" J-55 STC. CMT with 420 sks Class C, 13.8 ppg, 1.6 Yield. 35 sks circulated to surface. Tested csg to 900 psi for 30 minutes. Held ok.
4/10/2017: Intermediate Csg - Drill 12-1/4" hole to 2,160'. Run 2,156' of 9-5/8" J-55 BTC. CMT with Lead - 320 sks Class C, 12.8 ppg, 2.61 yield; Tail - 220 sks Class C, 13.8 ppg, 1.6 yield. Test csg to 1400 psi for 30 minutes. Held ok.
4/16/2017: Intermediate Csg - Drill 8-3/4" hole to 9,260'. Run 9,260' 7" 26# P-110 csg. CMT stage 1 lead with 381 sks Class C, 11.6 ppg, 2.61 yield. Stage 1 Tail with 225 sks class C, 13.1 ppg, 1.69 yield. CMT stage 2 lead with 130 sks Class C, 11.6 ppg, 2.61 yield. Stage 2 tail with 60 sks class C, 14.8 ppg, 1.33 yield. Test csg to 15000 psi for 30 minutes. Held ok.
4/28/2017: Production Csg - Drill 6-1/8" hole to 13,922'. Run tapered production string 9,083' 5.5" 20# P-110 ULT-FJ- BK then XO to 4,839' 4.5" 13.5# P-110 CDC-HTQ to total string depth of 13,922'. CMT with 472 sks Class H cmt, 13.5" g, 2.29 yield. Floats did not hold during cmt job. SWI and WO cmt. No pressure test.
4/29/2017: Bleed csg and ND BOP, Make cut and install csg hanger and tbq head.
4/30/2017: Rig Release. WO Coil Tubing cleanout and prep.

Date	String	Fluid Type	Hole Size	Csg Size	Weight	Grade	Est TOC	Depth Set	Sacks	Yield	Class	Pressure Held	Pressure Drop	OH
4/6/2017	Surf	Fresh Water	17.5	13-3/8"	54.50	J-55	0	450'	420	1.6	C	900	0	N
4/10/2017	Int1	Brine	12.25	9-5/8"	40.00	J-55	0	2,156'	540	2.81	C	1400	0	N
4/16/2017	Int2	Cut Brine	8.75	7"	26.00	P-110	0	9,260'	796	2.81	C	1500	0	N
4/28/2017	Prod	Oil Based Mud	6.125	5-1/2"	20.00	P-110 HC	0	9,083'	472	2.29	H	n/a	n/a	N
4/29/2017	Prod	Oil Based Mud	6.125	4-1/2"	13.50	P-110 HC	8980	13,922'	472	2.29	H	n/a	n/a	N

Spud Date:

4/06/2017

Rig Release Date:

4/30/2017

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

SIGNATURE [Signature] TITLE Operations Manager DATE 5/21/2017

Type or print name John Wierzowiecki E-mail address: john.wierzowiecki@blackmtn.com PHONE: (817) 698-9901

For State Use Only

APPROVED BY [Signature] TITLE Staff Mgr DATE 6-6-17

Conditions of Approval (if any):

Csg Test 5-11-17

Submit 1 Copy To Appropriate District Office

District I (575) 393-6161

1625 N. French Dr., Hobbs, NM 88240

District II - (575) 748-1283

811 S. First St., Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Rd., Aztec, NM 87410

District IV - (505) 476-3460

1220 S. St. Francis Dr., Santa Fe, NM

87505

NM OIL CONSERVATION
State of New Mexico
Natural Resources

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-103

Revised July 18, 2013

WELL API NO. 30-015-44046
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 Cypress
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11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3146' GL	

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: ☐

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.

5/15/2017 - MIRU Elite Well Service. Begin frac ops on well via 5.5"x4.5" tapered long string. Monitor 5.5" x 7" annular pressures. Showing 0 psi.

5/19/2017 - Annular pressure showing 2500 psi. Make decision to RDMO Elite Well Service frac fleet after completing 24 frac stages. Monitoring annular pressure through the night.

5/20/2017 - Annular pressure now down to 2000 psi. During previous week of frac work annular pressure increased during day and usually went down to 0 psi over night. MIRU 2-3/8" CT and drill out 23 frac plugs to PBTD @ 13,865'.

5/21/2017 - RDMO Coil Tubing unit. RU flow back equipment. Annular pressure still at ~2000 psi. Open well to flow back at 17:37 hrs. Monitoring annular pressures.

5/22/2017 - Annular pressure increased to 3000 psi. Made decision to bleed pressure. Moved grate to access 7" csg valve. Bled pressure down to 0 psi immediately. Some drilling mud present in valves.

5/31/2017 - Annular pressure remains at 0 psi. Assume trapped pressure was increasing due to solar heat, casing swelling, and during flowing high temperature well fluids.

Top Perf: 9,640'
Bottom Perf: 13,862'
Total Fluid: 6,808,830 gal fresh water
Total Sand: 8,996,897 lbs (1,623,544 lbs 100 mesh, 7,373,353 lbs 40/70)

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 [Signature] TITLE Operations Manager DATE 5/31/2017

Type or print name John Wierzowiecki E-mail address: john.wierzowiecki@blackmtn.com PHONE: (817) 698-9901

For State Use Only

APPROVED BY: [Signature] TITLE Staff Mgr DATE 6-6-17
Conditions of Approval (if any):

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 Oil Conservation Division Minerals and Natural Resources ARTESIA DISTRICT 1220 South St. Francis Dr. Santa Fe, NM 87505 <div style="position: absolute; top: 0; left: 0; font-size: 2em; opacity: 0.5;">JAN 23 2017</div> <div style="position: absolute; top: 0; left: 0; font-size: 1.5em; opacity: 0.5;">RECEIVED</div>				Form C-105 Revised August 1, 2011	
		1. WELL API NO. 30-015-42730		2. Type of Lease <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/> FED/INDIAN			
		3. State Oil & Gas Lease No.		5. Lease Name or Unit Agreement Name CASS 16 STATE			
				6. Well Number: 1H			
WELL COMPLETION OR RECOMPLETION REPORT AND LOG							
4. Reason for filing: <input checked="" type="checkbox"/> COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) <input type="checkbox"/> 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)							
7. Type of Completion: <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> WORKOVER <input type="checkbox"/> DEEPENING <input type="checkbox"/> PLUGBACK <input type="checkbox"/> DIFFERENT RESERVOIR <input type="checkbox"/> OTHER							
8. Name of Operator BC OPERATING, INC.				9. OGRID 160825			
10. Address of Operator P.O. BOX 50820 MIDLAND, TX 79710				11. Pool name or Wildcat FOREHAND RANCH; WOLFCAMP (GAS)			
12. Location	Unit Ltr	Section	Township	Range	Lot		
Surface:	A	17	23S	27E			
BH:	A	16	23S	27E			
					Feet from the N/S Line		
					Feet from the E/W Line		
					County		
					EDDY		
					EDDY		
13. Date Spudded 8/19/2016	14. Date T.D. Reached 9/7/2016	15. Date Rig Released 9/10/2016	16. Date Completed (Ready to Produce)		17. Elevations (DF and RKB, RT, GR, etc.) 3,159'		
18. Total Measured Depth of Well 14,643	19. Plug Back Measured Depth 14,549	20. Was Directional Survey Made? YES		21. Type Electric and Other Logs Run CBL ONLY			
22. Producing Interval(s), of this completion - Top, Bottom, Name 10,140' - 14,550', WOLFCAMP							
23. CASING RECORD (Report all strings set in well)							
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED		
13.375"	48	430'	17.5"	600 SX			
9.625"	40	2,124'	12.25"	660 SX			
7"	26	9,766'	8.75"	910 SX			
4.5"	13.5	14,642'	6.125"	440 SX			
24. LINER RECORD							
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN			
			25. TUBING RECORD				
			SIZE	DEPTH SET	PACKER SET		
			2-7/8"	9,000'	9,120'		
26. Perforation record (interval, size, and number) *SEE JOB SUMMARY* 10,030' - 14,550'			27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED *SEE JOB SUMMARY*				
28. PRODUCTION							
Date First Production 12/17/2016		Production Method (Flowing, gas lift, pumping - Size and type pump) PUMPING		Well Status (Prod. or Shut-in) PROD			
Date of Test 1/11/2017	Hours Tested 24	Choke Size 30/36"	Prod'n For Test Period	Oil - Bbl 520	Gas - MCF 2927		
				Water - Bbl. 1893	Gas - Oil Ratio		
Flow Tubing Press. 1300	Casing Pressure 0	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 CBL LOG							
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.							
33. If an on-site burial was used at the well, report the exact location of the on-site burial:							
		Latitude		Longitude			
				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 <i>Sarah Presley</i>		Printed Name SARAH PRESLEY		Title REGULATORY ANALYST Date 1/17/2017			
E-mail Address spresley@bcoperating.com							

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen	T. Silurian	T. Menefee	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinbry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand	T. Morrison	
T. Drinkard	T. Bone Springs	T. Todilto	
T. Abo	T.	T. Entrada	
T. Wolfcamp	T.	T. Wingate	
T. Penn	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

OIL OR GAS SANDS OR ZONES

No. 3, from.....to.....

No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....

No. 2, from.....to.....feet.....

No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology

From	To	Thickness In Feet	Lithology

Cass 16 State #1H

* Job Summary *

Stage	Plug Depth	Cluster Depth			
		1	2	3	4
1	14,550'	14,530'	14,490'	14,450'	14,410'
2	14,390'	14,370'	14,330'	14,290'	14,245'
3	14,230'	14,208'	14,172'	14,129'	14,090'
4	14,070'	14,053'	14,023'	13,978'	13,930'
5	13,910'	13,890'	13,850'	13,810'	13,780'
6	13,750'	13,730'	13,690'	13,650'	13,610'
7	13,590'	13,560'	13,510'	13,480'	13,445'
8	13,430'	13,410'	13,370'	13,330'	13,290'
9	13,270'	13,250'	13,210'	13,170'	13,130'
10	13,110'	13,095'	13,060'	13,030'	12,970'
11	12,950'	12,930'	12,890'	12,845'	12,810'
12	12,790'	12,775'	12,740'	12,705'	12,655'
13	12,630'	12,610'	12,578'	12,535'	12,490'
14	12,470'	12,455'	12,417'	12,367'	12,330'
15	12,310'	12,290'	12,254'	12,210'	12,170'
16	12,150'	12,130'	12,090'	12,050'	12,010'
17	11,990'	11,975'	11,935'	11,895'	11,855'
18	11,830'	11,812'	11,772'	11,725'	11,695'
19	11,674'	11,655'	11,610'	11,575'	11,510'
20	11,490'	11,470'	11,430'	11,395'	11,350'
21	11,330'	11,312'	11,270'	11,230'	11,190'
22	11,175'	11,145'	11,110'	11,045'	10,990'
23	10,970'	10,945'	10,905'	10,865'	10,825'
24	10,810'	10,790'	10,743'	10,700'	10,657'
25	10,640'	10,625'	10,590'	10,550'	10,510'
26	10,480'	10,455'	10,425'	10,380'	10,340'
27	10,320'	10,300'	10,260'	10,220'	10,185'
28	10,160'	10,140'	10,110'	10,065'	10,030'

NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 23 2017

RECEIVED

Proppant 5,991,775 lbs
Acid 1,104 bbls
Fluid 151,428 bbls

Tubing 2 7/8" 9,000'
2 3/8" 120'
Packer 9,120'

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) 748-1293 Fax: (575) 748-9720 District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462	State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505	Form C-103 August 1, 2011 Permit 225550 WELL API NUMBER 30-015-42730 5. Indicate Type of Lease F 6. State Oil & Gas Lease No. 7. Lease Name or Unit Agreement Name CASS 16 STATE 8. Well Number 001H 9. OGRID Number 160825 10. Pool name or Wildcat																																																
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11. Elevation (Show whether DR, KB, BT, GR, etc.) 3159 GR																																																		
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/> Pit Type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____ Pit Liner Thickness _____ mil Below-Grade Tank Volume _____ bbls; Construction Material _____																																																		
12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data <table style="width:100%;"> <tr> <td colspan="2">NOTICE OF INTENTION TO:</td> <td colspan="2">SUBSEQUENT REPORT OF:</td> </tr> <tr> <td>PERFORM REMEDIAL WORK <input type="checkbox"/></td> <td>PLUG AND ABANDON <input type="checkbox"/></td> <td>REMEDIAL WORK <input type="checkbox"/></td> <td>ALTER CASING <input type="checkbox"/></td> </tr> <tr> <td>TEMPORARILY ABANDON <input type="checkbox"/></td> <td>CHANGE OF PLANS <input type="checkbox"/></td> <td>COMMENCE DRILLING OPNS. <input type="checkbox"/></td> <td>PLUG AND ABANDON <input type="checkbox"/></td> </tr> <tr> <td>PULL OR ALTER CASING <input type="checkbox"/></td> <td>MULTIPLE COMPL <input type="checkbox"/></td> <td>CASING/CEMENT JOB <input type="checkbox"/></td> <td></td> </tr> <tr> <td colspan="2">Other: _____</td> <td colspan="2">Other: Drilling/Cement <input checked="" type="checkbox"/></td> </tr> </table>			NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:		PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTER CASING <input type="checkbox"/>	TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE OF PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>		Other: _____		Other: Drilling/Cement <input checked="" type="checkbox"/>																													
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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 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion. 8/15/2016 - SURFACE CASING - DRILL 17.5' HOLE TO 430'. RUN 430' OF 13-3/8" 48# J-55 STC. CEMENT WITH 450 SACKS CLASS C, 14.8 PPG, 1.33 YIELD. CIRCULATED 150 SACKS TO SURFACE. TESTED CASING TO 575 PSI FOR 30 MINS. HELD OK. 8/21/2016 - INTERMEDIATE CASING - DRILL 12.25' HOLE TO 2,124'. RUN 2,124' OF 9-5/8" J-55 LTC. CEMENT WITH LEAD 500 SACKS CLASS C, 12.8 PPG, 1.67 YIELD. TAIL WITH 160 SACKS CLASS C, 13.8 PPG, 1.33 YIELD. CIRCULATED 218 SACKS TO SURFACE. TESTED CASING TO 1350 PSI FOR 30 MINS. HELD OK. 8/19/2016 Spudded well.																																																		
Casing and Cement Program <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>String</th> <th>Fluid Type</th> <th>Hole Size</th> <th>Csg Size</th> <th>Weight lb/ft</th> <th>Grade</th> <th>Est TOC</th> <th>Dpth. Set</th> <th>Sacks</th> <th>Yield</th> <th>Class</th> <th>1" Dpth</th> <th>Pres Held</th> <th>Pres Drop</th> <th>Open Hole</th> </tr> </thead> <tbody> <tr> <td>08/15/16</td> <td>Surf</td> <td>FreshWater</td> <td>17.5</td> <td>13.375</td> <td>48</td> <td>J55</td> <td>0</td> <td>430</td> <td>600</td> <td>1.33</td> <td>C</td> <td>90</td> <td>575</td> <td>0</td> <td>N</td> </tr> <tr> <td>08/21/16</td> <td>Int1</td> <td>Brine</td> <td>12.25</td> <td>9.625</td> <td>40</td> <td>J55</td> <td>0</td> <td>2124</td> <td>660</td> <td>1.6</td> <td>C</td> <td></td> <td>1350</td> <td>0</td> <td>N</td> </tr> </tbody> </table>			Date	String	Fluid Type	Hole Size	Csg Size	Weight lb/ft	Grade	Est TOC	Dpth. Set	Sacks	Yield	Class	1" Dpth	Pres Held	Pres Drop	Open Hole	08/15/16	Surf	FreshWater	17.5	13.375	48	J55	0	430	600	1.33	C	90	575	0	N	08/21/16	Int1	Brine	12.25	9.625	40	J55	0	2124	660	1.6	C		1350	0	N
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I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOC guidelines <input type="checkbox"/> a general permit <input type="checkbox"/> or an (attached) alternative OCD-approved plan <input type="checkbox"/> .																																																		
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For State Use Only: APPROVED BY: <u>Paul Kautz</u> TITLE <u>Geologist</u> DATE <u>8/29/2016 2:51:24 PM</u>																																																		

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 Rd., Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3470 Fax: (505) 476-3462

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

Comments

Permit: 225559

DRILLING COMMENTS

Operator: BC OPERATING, INC. P O Box 50820 Midland, TX 79710	OGRID:	160825
	Permit Number:	225559
	Permit Type:	Drilling

Comments

Created By	Comment	Comment Date
------------	---------	--------------

There are no Comments for this Permit

Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
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-103
Revised July 18, 2013

WELL API NO. 30-015-42730
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name CASS 16 STATE
8. Well Number 1H
9. OGRID Number 160825
10. Pool name or Wildcat FOREHAND RANCH; WOLFCAMP (GAS)

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	
2. Name of Operator BC OPERATING, INC.	
3. Address of Operator P.O. BOX 50820, MIDLAND, TX 79710	
4. Well Location Unit Letter <u>A</u> : <u>330</u> feet from the <u>NORTH</u> line and <u>240</u> feet from the <u>EAST</u> line Section <u>17</u> Township <u>23S</u> Range <u>27E</u> NMPM <u>EDDY</u> County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.)	

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: AMENDED COMPLETION <input checked="" type="checkbox"/>	

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.

10/14/2016 - SHOOT PERFS @ 14,530'-14,532', 42 HOLES. PUMP ON PERFS @ 3BPM 6200 PSI. SHOOT REMAINING PERFS @ 14,490' -14,492', 14,450'-14,452' & 14,410' - 14,412'. TOTAL OF 48 HOLES. STOPPED TO TEST CASING

11/9/2016 - TEST CASING TO 9,900 PSI FOR 15 MINS.

11/17/2016 TO 11/25/2016 - CONTINUED TO SHOOT PERFS AND FRAC WELL

* See Attached Job Summary the rest of the perfs*

11/29/2016 - CLEAN OUT W/ COIL TUBING TO 14,408'

12/2/2016 - RAN 2-7/8" TUBING IN WELL. SET @ 9,000

- COMMENCED FLOWBACK. WELL ON PRODUCTION.

Spud Date: 8/19/2016

Rig Release Date: 9/10/2016

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

SIGNATURE Sarah Presley TITLE REGULATORY ANALYST DATE 1.25.2017

Type or print name SARAH PRESLEY E-mail address: SPRESLEY@BCOPERATING.COM PHONE: (432) 684-9696

For State Use Only

APPROVED BY: Boyle TITLE DII SUPERVISOR DATE 25 JAN 17

Cass 16 State #1H

* Job Summary *

Stage	Plug Depth	Cluster Depth			
		1	2	3	4
1	14,550'	14,530'	14,490'	14,450'	14,410'
2	14,390'	14,370'	14,330'	14,290'	14,245'
3	14,230'	14,208'	14,172'	14,129'	14,090'
4	14,070'	14,053'	14,023'	13,978'	13,930'
5	13,910'	13,890'	13,850'	13,810'	13,780'
6	13,750'	13,730'	13,690'	13,650'	13,610'
7	13,590'	13,560'	13,510'	13,480'	13,445'
8	13,430'	13,410'	13,370'	13,330'	13,290'
9	13,270'	13,250'	13,210'	13,170'	13,130'
10	13,110'	13,095'	13,060'	13,030'	12,970'
11	12,950'	12,930'	12,890'	12,845'	12,810'
12	12,790'	12,775'	12,740'	12,705'	12,655'
13	12,630'	12,610'	12,578'	12,535'	12,490'
14	12,470'	12,455'	12,417'	12,367'	12,330'
15	12,310'	12,290'	12,254'	12,210'	12,170'
16	12,150'	12,130'	12,090'	12,050'	12,010'
17	11,990'	11,975'	11,935'	11,895'	11,855'
18	11,830'	11,812'	11,772'	11,725'	11,695'
19	11,674'	11,655'	11,610'	11,575'	11,510'
20	11,490'	11,470'	11,430'	11,395'	11,350'
21	11,330'	11,312'	11,270'	11,230'	11,190'
22	11,175'	11,145'	11,110'	11,045'	10,990'
23	10,970'	10,945'	10,905'	10,865'	10,825'
24	10,810'	10,790'	10,743'	10,700'	10,657'
25	10,640'	10,625'	10,590'	10,550'	10,510'
26	10,480'	10,455'	10,425'	10,380'	10,340'
27	10,320'	10,300'	10,260'	10,220'	10,185'
28	10,160'	10,140'	10,110'	10,065'	10,030'

Proppant 5,991,775 lbs
 Acid 1,104 bbls
 Fluid 151,428 bbls

Tubing 2 7/8" 9,000'
 2 3/8" 120'
 Packer 9,120'

VII. Data on Proposed Operation

1. Proposed average and maximum daily rate and volume of fluids to be injected:

20,000 BWPD and 25,000 BWPD

2. The system is: closed

3. Proposed average and maximum injection pressure:

- Max Injection Pressure @ surface = $13,053 \text{ ft.} \times 0.2 \text{ (psi/ft)} = 2,610.6 \text{ psi}$
- Average Injection Pressure = 2,510 psi

Pressures are based on maximum surface injection pressure gradient per OCD's agreement with the EPA.

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water:

RKI Exploration and Production, LLC will be re-injecting produced water. Analysis attached for Delaware, Bone Spring and Wolfcamp formations.

5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water

Devonian analytical will be submitted to OCD after stimulation program. The well will be swabbed to collect formation analytical at that time.



Apex Resources Inc.
WPX Energy
Mack Area

WPX ENERGY SM

A large, solid black graphic element consisting of two overlapping, jagged, horizontal shapes that resemble stylized mountain peaks or a series of connected 'V' shapes.

Mack Area
(Wolfcamp/Bone Springs)

Eddy Co, NM

Water Analysis Report

Apex Resources Inc.
549 Stonegate Drive
Katy, Texas 77494
Tel: (832) 786-7492 Fax: (832) 786-7497



Apex Resources Inc.
WPX Energy
Mack Area

Test Procedures:

Water Analysis:

The cations were determined by analyzing the water sample via Induced Coupled Plasma (ICP) and Ion Chromatography (IC). A portion of the water was digested using nitric acid and analyzed by ICP to determine the complete water chemistry. The anions were determined by standard titration methods.

Apex Resources Inc. collected 2 produced water samples from surrounding wells (5 gal each) from WPX's Carlsbad, NM office on 20th Dec, 2016.

Water Analysis Results: The results are shown in Table below:

Cations	Test Method	MW	Wolfcamp (Mg/Kg)	Bone Springs (Mg/Kg)
Barium	ICP	137.3	2.7	< 0.1
Boron	ICP	10.8	49.1	29.4
Calcium	ICP	40.1	4,589.8	4,750.6
Iron (Total)	ICP	55.8	5.2	< 0.5
Magnesium	ICP	24.3	710.9	745.3
Potassium	ICP	39.1	687.0	783.4
Silicon	ICP	28.1	8.3	5.6
Sodium	ICP	23.0	31,605.7	47,855.7
Strontium	ICP	87.6	806.9	526.1

Anions	Test Method	MW		
Bicarbonate	IC	61.02	144.0	283
Carbonate	IC	60.02	0.0	0.0
Chloride	IC	35.50	62,151.70	89,342.3
Hydroxide	IC	17.00	0.0	0.0
Sulphate	IC	96.06	231.2	376.6

pH	6.83	6.89
Conductivity, mS/cm @ 25C	145.50	191.70
Hardness, ppm	14,375	14,920
Salinity, g/Kg	101	145
Density (g/cm3 @ 20C)	1.0827	1.1189
TDS (Calculated), mg/Kg	100,993	144,698
TDS (Gravimetric), mg/Kg	125,846	177,178
Resistivity, Ohm-cm @ 25C	6.87	5.22
Total Alkalinity, mg CaCo3/L	118	232

Note: Apex Resources Inc. utilizes a reputed 3rd Party independent testing lab for the above testing.

Apex Resources Inc.
549 Stonegate Drive
Katy, Texas 77494
Tel: (832) 786-7492 Fax: (832) 786-7497



Martin Water Laboratories, Inc.

Analysts & Consultants since 1953
Bacterial & Chemical Analysis

Addendum Copy

TO:	Josh Shannon	LABORATORY NO.	17-01-153
ADDRESS:	5315 Buena Vista, Carlsbad, NM 88220	SAMPLE RECEIVED:	1/17/17
COMPANY:	WPX Energy	RESULTS REPORTED:	1/18/17
LEASE:	Wind Fee #2-Delaware	COUNTY, STATE:	
Notes:		FIELD OR POOL:	

DESCRIPTION OF SAMPLES

No. 1 Submitted water sample - taken 1/17/17 from Wind Fee #2- Delaware.

Chemical and Physical Properties (milligrams per liter)	No. 1		
Specific Gravity @ 60°F.	1.1795		
pH When Received	5.60		
Bicarbonate as HCO ₃	0		
Total Hardness, as CaCO ₃	87,000		
Calcium, as Ca	29,200		
Magnesium, as Mg	3,402		
Sulfate, as SO ₄	398		
Chloride, as Cl	164,720		
Iron, as Fe	43		
Barium, as Ba	0		
Total Dissolved Solids, Calculated	197,720		
Total Dissolved Solids, Gravimetric	266,240		
Hydrogen Sulfide	0.00		
Resistivity, ohms/m @ 77°F.	0.049		
Conductivity	354,000		
Silica	0.109		
Boron	19.20		
Carbonate	0.0		
Hydroxide	0		
Alkalinity	0.00		
Sodium	110,000		
Strontium	819		
Potassium	1,380		

REMARKS: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

By: Greg Ogden, B.S.

(432) 683-4521 * 709 W. Indiana, Midland, Texas 79701 * (fax) 682-8819

Remit to Address: P.O. Box 98, Midland, Texas 79702

Email: martinwaterlabs@nts-online.net



VIII. Geologic Data

- 1. Lithologic Detail:** Dolomite
- 2. Geological Name:** Devonian
- 3. Thickness:** 1000'
- 4. Depth:** 13053'-14053'
- 5. Oil or gas zones overlying proposed injection zone:**
 - a. Wolfcamp – 9798' to 9872'
 - b. Morrow – 11752' to 11931' and 12022' to 12152'
- 6. Oil or gas zones underlying proposed injection zone:** None



IX. Proposed Stimulation Program

See attached.



Rustler Breaks SWD

API

Completion Procedure

Devonian: 13,053' – 14,053'
Eddy County New Mexico

OBJECTIVE: Acidize open hole completion.

WPX REQUIRES THAT HARD HATS, STEEL TOE BOOTS, FIRE RETARDANT CLOTHING, AND SAFETY GLASSES BE WORN ON LOCATION

HOLD SAFETY MEETING PRIOR TO COMMENCING PERFORATING, WIRE LINE AND PUMPING OPERATIONS

NO IGNITION SOURCES WITHIN 100 FT OF THE WELLHEAD, FLOWBACK TANKS OR MANIFOLD.

PROCEDURE:

- 1) MI RU Pump Truck. NU 5K# BOP.
- 2) MIRU WLU. Run GR/JB/CCL.
- 3) Swab on well to collect and test water sample from Devonian formation.
- 4) PU logging tools. Run CBL from TD to surface. POOH. Lay down logging tools.
 - Please log from 0' – TD.
- 5) MIRU acid trucks and pump trucks. – Pump 50,000 gal 15% HCL. Flush.
- 6) Flowback well
- 7) PU TIH w/ 4-1/2" IPC/Duoline TBG & Nickel plated double grip retrievable packer. Set packer @ ~13,000' (not in collar).
- 8) Once packer is set hang off tubing in tubing hanger.
- 9) Perform injection MIT on annulus.
 - Close annulus and apply 500 psi at surface and hold for 30 minutes.
 - Make sure to chart the pressure test with a recorder that has a maximum two hour clock and maximum 1000 pound spring.
 - Insure the unit has been calibrated within the last six months.
 - Please Ensure to have both the Consultant on location and Rig Tool Pusher sign the chart.
 - Note any flow during test
 - If the well drops below 450 psi (10%) within the 30 minutes then it is considered to have failed the test.
 - In the event of a failed test please notify WPX Engineer so the NMOCD can be notified and proper actions taken.
 - If the well does not drop below 450 psi (10%) within the 30 minutes, then it is considered a successful test. The signed chart can be turned into the WPX field office.

- 10) Please scan pressure recording chart and e-mail to Heather Stephens, Scott Armstrong, Steve Bernhardt, Ashlee Fechoino & Debbie Kilgore

WPX Energy Contact List:

WPX	Title	Office	Cell
Justin Warren	Production Sr. Foreman		701-421-7324
Heather Stephens	Production Engineer	539-573-8961	303-898-3918
Steve Bernhardt	Production Engineer	539-573-3548	918-671-0683
Scott Armstrong	Lead Production Engineer	539-573-0162	918-557-9944
Curt Heckman	Production Foreman	575-885-7522	505-320-4642
Mark Trent	Workover Consultant		575-602-6221

Emergency Contacts – New Mexico:

Hospital: Carlsbad Medical Center (575) 887-4100
2430 W. Pierce St., Carlsbad, NM 88220

Sheriff's Office: Lea County Sheriff Dept (575) 396-3611
Eddy County Sheriff Dept (575) 887-7551

Emergency Contacts – Texas:

Hospital: Reeves County Hospital (432) 447-3551
2323 Texas St, Pecos TX 79772

Sheriff's Office: Reeves County Sheriff Dept (432) 445-4901
Loving County Sheriff Dept (432) 377-2411



X. Logs and Test Data

Quad combo will be submitted to OCD Santa Fe, NM with completion report.

XI. Analysis of Freshwater Wells

Analytical and map of sample attached.

The following wells were found within the 1 mile radius of Rustler Breaks SWD #1:

- W1 was the only water well that could be sampled within the 1 mile radius.
- W1 is believed to be C 00098 which was sampled on 6/13/2017.
- The other wells were not sampled due to, not at location or were not a viable well.
 - o These wells include: C 02824, C01260, C00195 , 00098 C00420, C00068, C02932, C00508, 00626

Background Groundwater Quality for Rustler Breaks SWD #1

Overview

This study was performed to determine the background groundwater quality adjacent to The Rustler Breaks SWD #1 located in Eddy County, New Mexico, Section 9 T23S R27E. Below is a summary of the regional and local geology and hydrology in the area. Also included is a site map (Figure 1) and a water quality analysis report prepared by Hall Environmental Analysis Laboratory summarizing the results of a well sampled near the facility.

Protectable Groundwater is estimated to be 72 feet below ground surface (bgs (3,117 feet amsl) at this site, the following wells are found within the 1 mile radius of Rustler Breaks SWD #1:

- W1 was the only water well that could be sampled within the 1 mile radius.
- W1 is believed to be C 00098 which was sampled on 6/13/2017.
- The other wells were not sampled due to; not at location or were not a viable well. These wells include: C 02824, C01260, C00195 , C00420, C00068, C02932 C00508, 00626

Regional Geology and Hydrology

The study area is located within the Delaware Basin, a large geological feature located in the Southeast New Mexico and West Texas area. This basin is roughly 135 miles long and 75 miles wide making an oval shape. The basin is composed of several formations primarily deposited during the Permian Period of the Paleozoic Era. During this period, Southeastern New Mexico and adjacent parts of Texas were submerged beneath a shallow sea, and the pre-Permian rocks were buried beneath an accumulation of sediments. The irregular floor of the sea was characterized by structural basins, platforms, and broad shelves. Fine sand and limestone accumulated in the basins; reefs formed on the margins of the shelves and platforms; limestone and sand accumulated immediately behind the landward side of the reefs; and gypsum, anhydrite, other evaporite rocks, and silt and clay accumulated in the shallow waters of the shelves. One of the major Formations within the Delaware Basin is the Capitan Reef. This unit is comprised of reef limestone of the Late Permian age, bounds the west side of the Delaware Basin around Carlsbad, New Mexico. West and southwest of Carlsbad, the Capitan Reef is at the surface and forms La Barrera del Guadalupe and El Capitan Peak. Large caverns, including Carlsbad Caverns, were formed in the reef limestone through the solvent action of circulating ground water. Eventually, the reef growth was halted by increasing salinity of the sea water, and evaporite sediments (Castile, Salado, and Rustler Formations) were deposited in the Delaware basin. Evaporite deposition was interrupted during two intervals of time, during which the water was less saline and limestone was deposited. Toward the end of Permian time, deposition of the evaporite rocks ceased and deposition of terrestrial red beds (Dewey Lake Redbeds) began. Terrestrial deposition continued during parts of Triassic time. Additional thin deposits of sediments accumulated in Quaternary time. A total of 18,500 feet of sedimentary material, including pre-Permian sedimentary rocks, was deposited in places in the Delaware basin.

Local Geology and Hydrology

The Rustler Breaks SWD #1 is located in Eddy County, New Mexico, Section 9 T23S R27E. Within the area of the studied site, two stratigraphic members contain groundwater; the Cenozoic Alluvium and the Rustler Formation. The Rustler Formation contains the major regional aquifer in the area.

The youngest and exposed strata on surface is the Alluvium which consists of Alluvium, stream and floodplain deposits, gravels in pediments and terraces, soils, aeolian sands, and caliche. The facility is located on top of Qagm2-alluvial gravel mainstem (Pleistocene). This formation consists of Pecos River gravel and sand, composed of medium to coarse-grained sand with lesser granules and pebbles (3-6 cm in diameter, average). The sediments are moderately sorted, well rounded, and moderately to well cemented by calcite. The sand fraction is mostly quartz and chert; pebbles are composed of red, tan, and gray quartzite, variegated cherts, gray limestone, yellow limestone, yellow siltstone, light gray and yellow dolomite, petrified wood, light tan and gray volcanic porphyry, bull quartz, and schist, yet dominated by locally derived carbonates and siliciclastics. The formation is capped by calcrete (1.5 to 2 m thick), autobrecciated, laminar at top. Qagm2-alluvial gravel mainstem forms low mesas along Pecos River valley. Thickness $\sim \leq 70$ m. Wells completed within the alluvium in this area typically yield less than 30 gallons per minute. The water is fresh to moderately saline and locally very saline to brine within the alluvium.

Below the Alluvium Qagm2 is the Prlu-Permian Rustler Formation (lower, undifferentiated, Ochoan). The formation consists of irregular masses of gypsum, dolomite, and salt in large blocks scattered on the ground surface and within outcrops with chaotic bedding orientations. The formation may include blocks of strata from the underlying Salado Formation. Thickness unknown. The water in the Rustler Formation is mostly used for irrigation, some stock watering, and enhanced recovery of oil. Wells completed within the Rustler Formation yield about 10 to 100 gallons per minute. The water within the Rustler is often saline to brine.

If there are any questions regarding this report, please contact myself or Reid Allan at 505-325-7535.

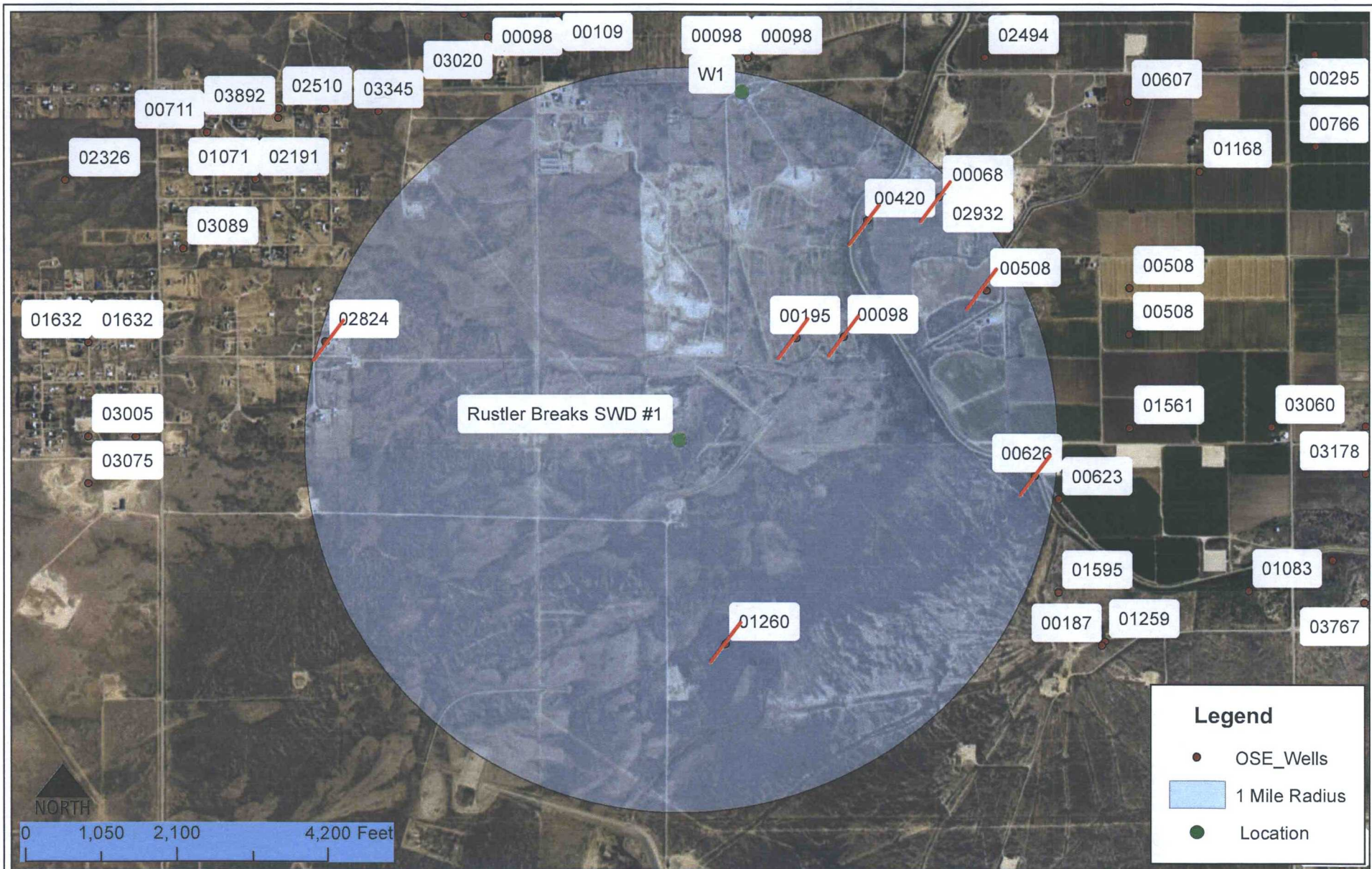
Sincerely,
Lucas Middleton
Staff Scientist
Souder, Miller & Associates



Cass 16 State #1H
30-015-42730

Geologic Tops:

1. Surface: Quaternary Alluvium
2. Rustler: 110'
3. Salado: 250'
4. Castile: 450'
5. Base Salt: 1800'
6. Lamar: 1975'
7. Delaware Sands (Bell Canyon): 2100'
8. Cherry Canyon: 2815'
9. Brushy Canyon: 3975'
10. Bone Spring Lime: 5450'
11. FBSG Sand: 6575'
12. 2nd Carbonate: 6750'
13. SBSG Sand: 7050'
14. 3rd Carbonate: 7225'
15. TBSG Sand: 8550'
16. Wolfcamp: 8950'



Detailed Site and Sample Map
WPX Rustler Breaks SWD 1
Loving, New Mexico

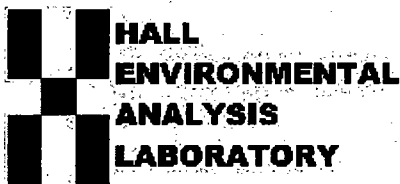
Figure 1

Date Saved: 6/20/2017	By: _____	Date: _____	Revisions	Descr: _____
	By: _____	Date: _____		Descr: _____
	Copyright 2015 Souder, Miller & Associates - All Rights Reserved			

Drawn	<u>Lucas Middleton</u>
Checked	_____
Approved	_____



201 South Halaguena Street
Carlsbad, New Mexico 88221
(575) 689-7040
www.soudermiller.com
Serving the Southwest & Rocky Mountains



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 19, 2017

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Breaks Rustler W1

OrderNo.: 1706847

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/15/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706847

Date Reported: 6/19/2017

CLIENT: Souder, Miller & Associates

Client Sample ID: Rustler W1

Project: Breaks Rustler W1

Collection Date: 6/13/2017 2:00:00 PM

Lab ID: 1706847-001

Matrix: AQUEOUS

Received Date: 6/15/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
CARBON DIOXIDE							Analyst: JRR
Total Carbon Dioxide	160	1.0	H	mg CO2/L	1	6/15/2017 8:38:53 PM	R43555
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.001	0			1	6/16/2017 11:37:00 AM	R43561
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	1100	50	*	mg/L	100	6/16/2017 1:37:57 PM	R43573
Sulfate	1500	50	*	mg/L	100	6/16/2017 1:37:57 PM	R43573
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	173.2	20.00		mg/L CaCO3	1	6/15/2017 8:38:53 PM	R43555
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	6/15/2017 8:38:53 PM	R43555
Total Alkalinity (as CaCO3)	173.2	20.00		mg/L CaCO3	1	6/15/2017 8:38:53 PM	R43555
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	3850	100	*D	mg/L	1	6/19/2017 10:54:00 AM	32342
SM4500-H+B: PH							Analyst: JRR
pH	7.78		H	pH units	1	6/15/2017 8:38:53 PM	R43555
EPA METHOD 200.7: METALS							Analyst: TES
Barium	0.020	0.0020		mg/L	1	6/15/2017 5:14:58 PM	A43537
Calcium	470	10		mg/L	10	6/15/2017 5:16:52 PM	A43537
Iron	ND	0.020		mg/L	1	6/16/2017 4:54:01 PM	A43557
Magnesium	140	10		mg/L	10	6/15/2017 5:16:52 PM	A43537
Manganese	0.0053	0.0020		mg/L	1	6/15/2017 5:14:58 PM	A43537
Potassium	6.2	1.0		mg/L	1	6/15/2017 5:14:58 PM	A43537
Sodium	590	10		mg/L	10	6/15/2017 5:16:52 PM	A43537
Strontium	6.8	0.50		mg/L	50	6/15/2017 5:40:54 PM	A43537

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706847

19-Jun-17

Client: Souder, Miller & Associates

Project: Breaks Rustler W1

Sample ID	MB-A	SampType	MBLK	TestCode	EPA Method 200.7: Metals					
Client ID	PBW	Batch ID	A43537	RunNo	43537					
Prep Date:		Analysis Date	6/15/2017	SeqNo	1372194	Units	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Calcium	ND	1.0								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								
Strontium	ND	0.010								

Sample ID	LLCS-A	SampType	LCSLL	TestCode	EPA Method 200.7: Metals					
Client ID	BatchQC	Batch ID	A43537	RunNo	43537					
Prep Date:		Analysis Date	6/15/2017	SeqNo	1372195	Units	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020	0.002000	0	92.0	50	150			
Calcium	ND	1.0	0.5000	0	104	50	150			
Magnesium	ND	1.0	0.5000	0	104	50	150			
Manganese	ND	0.0020	0.002000	0	96.0	50	150			
Potassium	ND	1.0	0.5000	0	106	50	150			
Sodium	ND	1.0	0.5000	0	105	50	150			
Strontium	ND	0.010	0.005000	0	97.6	50	150			

Sample ID	LCS-A	SampType	LCS	TestCode	EPA Method 200.7: Metals					
Client ID	LCSW	Batch ID	A43537	RunNo	43537					
Prep Date:		Analysis Date	6/15/2017	SeqNo	1372196	Units	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.48	0.0020	0.5000	0	95.3	85	115			
Calcium	49	1.0	50.00	0	97.8	85	115			
Magnesium	49	1.0	50.00	0	98.7	85	115			
Manganese	0.47	0.0020	0.5000	0	93.8	85	115			
Potassium	48	1.0	50.00	0	95.0	85	115			
Sodium	49	1.0	50.00	0	97.4	85	115			
Strontium	0.094	0.010	0.1000	0	93.8	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706847

19-Jun-17

Client: Souder, Miller & Associates

Project: Breaks Rustler W1

Sample ID	MB	SampType	mblk	TestCode	EPA Method 300.0: Anions					
Client ID	PBW	Batch ID	R43573	RunNo	43573					
Prep Date		Analysis Date	6/16/2017	SeqNo	1372929	Units	mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit
Chloride		ND	0.50							
Sulfate		ND	0.50							

Sample ID	LCS	SampType	lcs	TestCode	EPA Method 300.0: Anions					
Client ID	LCSW	Batch ID	R43573	RunNo	43573					
Prep Date		Analysis Date	6/16/2017	SeqNo	1372930	Units	mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit
Chloride		4.8	0.50	5.000	0	97.0	90	110		
Sulfate		9.7	0.50	10.00	0	97.5	90	110		

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	R RPD outside accepted recovery limits
RL Reporting Detection Limit	S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706847

19-Jun-17

Client: Souder, Miller & Associates

Project: Breaks Rustler W1

Sample ID	mb-1	SampType:	mbk	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R43555	RunNo:	43555					
Prep Date:		Analysis Date:	6/15/2017	SeqNo:	1371844	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-1	SampType:	ics	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R43555	RunNo:	43555					
Prep Date:		Analysis Date:	6/15/2017	SeqNo:	1371845	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.32	20.00	80.00	0	97.9	90	110			

Sample ID	mb-2	SampType:	mbk	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R43555	RunNo:	43555					
Prep Date:		Analysis Date:	6/15/2017	SeqNo:	1371868	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-2	SampType:	ics	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R43555	RunNo:	43555					
Prep Date:		Analysis Date:	6/15/2017	SeqNo:	1371869	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.68	20.00	80.00	0	98.4	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706847

19-Jun-17

Client: Souder, Miller & Associates

Project: Breaks Rustler W1

Sample ID	1706847-001ADUP	SampType:	DUP	TestCode:	Specific Gravity					
Client ID:	Rustler W1	Batch ID:	R43561	RunNo:	43561					
Prep Date:		Analysis Date:	6/16/2017	SeqNo:	1372315	Units:				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Gravity	1.001	0						0.0200	20	

Qualifiers:

- | | |
|--|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | R RPD outside accepted recovery limits |
| RL Reporting Detection Limit | S % Recovery outside of range due to dilution or matrix |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706847

19-Jun-17

Client: Souder, Miller & Associates

Project: Breaks Rustler W1

Sample ID	MB-32342	SampType:	MBLK	TestCode:	SM2540C	MOD:	Total Dissolved Solids			
Client ID:	PBW	Batch ID:	32342	RunNo:	43600					
Prep Date:	6/17/2017	Analysis Date:	6/19/2017	SeqNo:	1373460	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-32342	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	32342	RunNo:	43600					
Prep Date:	6/17/2017	Analysis Date:	6/19/2017	SeqNo:	1373461					
				Units:	mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1706847

RcptNo: 1

Received By: Erin Melendrez

6/15/2017 9:30:00 AM

Completed By: Ashley Gallegos

6/15/2017 10:47:04 AM

Reviewed By: *aj*

6/15/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: 2
(≤ 2 or >12 unless noted)
Adjusted? NO
Checked by: ENM

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.5	Good	Yes			

Client: SMA

Mailing Address:**Phone #:**

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: 24 hour Turn

☒ Standard ☐ Rush

Project Name:

Rustler ^{Breaks} WI

Project #:

Project Manager:

Austin Weyant

Sampler: LCM

On Ice ☒ No ☐

Sample Temperature 55

[illegible]

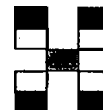
Date:	Time:	Relinquished by:
06/14	10:30	M. L. L. L.

Date:	Time:	Relinquished by:
6/14/17	1200	[Signature]

Received by:	Date	Time
	6/14/17	1500

Received by:	Date	Time
<i>WAG</i>	06/15/17	0930

Remarks:



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (8021)
BTEX + MTBE + TPH (Gas only)
TPH 8015B (GRO / DRO / MRO))
TPH (Method 418.1)
EDB (Method 504.1)
PAH's (8310 or 8270 SIMS)
RCRA 8 Metals
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)
8081 Pesticides / 8082 PCB's
8260B (VOA)
8270 (Semi-VOA)
See Attached.
Air Bubbles (Y or N)

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-8727
Fax: (432) 224-1038

Water Analysis Report

Customer:	Mack Energy Corporation	Sample #:	20554
Area:	Arlasia	Analysis ID #:	19863
Lease:	Ghost		
Location:	FW #2		0
Sample Point:	pit		

Sampling Date:	8/28/2014	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	9/8/2014	Chloride:	3408.4	68.08	Sodium:	1165.0	50.87
Analyst:	Catalyst	Bicarbonate:	43.0	0.72	Magnesium:	368.4	30.14
TDS (mg/l or g/m ³):	7170	Carbonate:			Calcium:	637.8	41.81
Density (g/cm ³):	1.017	Sulfate:	1300.0	27.07	Potassium:	35.2	0.9
					Strontium:	16.8	0.38
Hydrogen Sulfide:	0				Barium:	0.0	0.
Carbon Dioxide:	0				Iron:	0.0	0.
					Manganese:	0.009	0.
Comments:		pH at time of sampling:		7			
		pH at time of analysis:					
		pH used in Calculation:		7			
		Temperature @ lab conditions (F):		78	Conductivity (micro-ohm/cm):		10370
					Resistivity (ohm meter):		.9285

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	-0.41	0.00	-0.21	0.00	-0.28	0.00	-0.19	0.00	0.00	0.00
100	-0.30	0.00	-0.22	0.00	-0.22	0.00	-0.18	0.00	0.00	0.00
120	-0.17	0.00	-0.21	0.00	-0.13	0.00	-0.18	0.00	0.00	0.00
140	-0.04	0.00	-0.20	0.00	-0.03	0.00	-0.13	0.00	0.00	0.00
160	0.09	0.70	-0.17	0.00	0.10	103.01	-0.09	0.00	0.00	0.00
180	0.23	1.39	-0.14	0.00	0.24	223.07	-0.05	0.00	0.00	0.00
200	0.38	2.44	-0.11	0.00	0.39	323.04	0.00	0.00	0.00	0.00
220	0.50	3.83	-0.08	0.00	0.58	408.22	0.05	1.39	0.00	0.00

XII. Affirmative statement

Attached.



June 26, 2017

Mr. Phillip Goetze, PG
NM Oil Conservation District
Engineering Department
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Rustler Breaks SWD 1 (API # TBD)

Dear Mr. Goetze,

RKI Exploration and Production, LLC has examined the available geologic and engineering data and finds no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.

Thank you for your time reviewing our request.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Flourney". The signature is fluid and cursive, with the first name "Greg" and last name "Flourney" clearly distinguishable.

Greg Flourney
Geology Team Lead

cc Richard Inge (OCD Artesia)

XIV. Proof of Notice and Publication

AFFECTED PARTIES

Surface Owners

Robert E. Jacobi, Richard L. Jacobi, & Jennie Lou Needham
C/O Hunter M. Lewis
9425 San Rafael NE
Albuquerque, NM 87109

Branson Properties LLC
1501 Mountain Shadow
Carlsbad, NM 88220

James H & Susie Bindel
1212 W. Ural Drive
Carlsbad, NM 88220

E BAR Z LLC
8210 E. Garfield Street, K-116
Scottsdale, AZ 85257

State of New Mexico
310 Old Santa Fe Trail
Santa Fe, N.M. 87504

Operators

Black Mountain Operating LLC
500 Main Street Suite 1200
Fort Worth, TX 76102

Marathon Oil Permian
5555 San Felipe Street
Houston, TX 77056

RKI Exploration & Production, LLC
3500 One Williams Center
Tulsa, OK 74172

Black Mountain Operating LLC
500 Main Street, Suite 1200
Fort Worth, TX 76102

COPY

WPXENERGY

July 14, 2017

Sent via Certified Mail, Return Receipt Requested

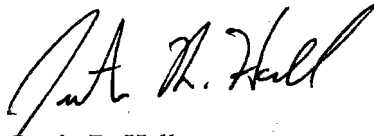
Sir or Madam:

Enclosed for your review, is a copy of RKI Exploration & Production, LLC's application for a Devonian Salt Water Disposal (SWD) well. Produced water will be injected at a proposed depth of 13,053'-14,053'. The Rustler Breaks SWD #1 will be located 100 FSL & 1960 FWL, Sec. 9 T23S R27E, Eddy County, NM.

This letter will serve as notice that RKI Exploration & Production, LLC has requested administrative approval from the New Mexico Oil Conservation District (OCD) to use this well as a water disposal well. If you have any objections, you must notify the OCD in Santa Fe in writing at 1220 South St. Francis Drive, Santa Fe, NM 87505 within fifteen (15) days of receiving this letter.

Sincerely,

RKI Exploration & Production, LLC



Justin R. Hall

Senior Landman - Permian Basin

Enclosure – Rustler Breaks SWD 1 administrative SWD application

7014 1820 0001 6670 6537

U.S. Postal ServiceTM
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Postage	\$	Justin Hall Postmark Here Rustler Breaks SWD #1 Notice Letter
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To: Robert E. Jacobi, Richard L. Jacobi, &
 Jennie Lou Needham
 C/O Hunter M. Lewis
 9425 San Rafael NE
 Albuquerque, NM 87109

PS Form 3800, July 2014 See Reverse for Instructions.

7014 1820 0001 6670 6544

U.S. Postal ServiceTM
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Postage	\$	Justin Hall Postmark Here Rustler Breaks SWD #1 Notice Letter
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To: Branson Properties LLC
 1501 Mountain Shadow
 Carlsbad, NM 88220

PS Form 3800, July 2014 See Reverse for Instructions.

7014 1820 0001 6670 6513

U.S. Postal ServiceTM
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Postage	\$	Justin Hall Postmark Here Rustler Breaks SWD #1 Notice Letter
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To: State of New Mexico
 310 Old Santa Fe Trail
 Santa Fe, N.M. 87504

PS Form 3800, July 2014 See Reverse for Instructions.

7014 1820 0001 6670 6520

U.S. Postal ServiceTM
CERTIFIED MAIL® RECEIPT
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OFFICIAL USE

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Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To: James H & Susie Bindel
 1212 W. Ural Drive
 Carlsbad, NM 88220

PS Form 3800, July 2014 See Reverse for Instructions.

7014 1820 0001 6670 6551

U.S. Postal ServiceTM
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

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Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To: E BAR Z LLC
 8210 E. Garfield Street, K-116
 Scottsdale, AZ 85257

PS Form 3800, July 2014 See Reverse for Instructions.

7014 1820 0001 6670 6575

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$
Justin Hall	
Postmark Here	
Rustler Breaks	
SWD #1	
Notice Letter	
Sent To	
Marathon Oil Permian	
Street or PO Box	5555 San Felipe Street
City, State	Houston, TX 77056
PS Form 3800, July 2014	
See Reverse for Instructions	

7014 1820 0001 6670 6582

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$
Justin Hall	
Postmark Here	
Rustler Breaks	
SWD #1	
Notice Letter	
Sent To	
Black Mountain Operating LLC	
Street or PO Box	500 Main Street Suite 1200
City, State	Fort Worth, TX 76102
PS Form 3800, July 2014	
See Reverse for Instructions	

7014 1820 0001 6670 6599

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$
Justin Hall	
Postmark Here	
Rustler Breaks	
SWD #1	
Notice Letter	
Sent To	
RKI Exploration & Production, LLC	
Street or PO Box	Attn: Steve Hicks
City, State	3500 One Williams Center
	Tulsa, OK 74172
PS Form 3800, July 2014	
See Reverse for Instructions	

Rustler Breaks SWD#1 Notice Letters

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature X <u>Brittany Carnell</u> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <u>B. Carnell</u> C. Date of Delivery <u>2-17-17</u></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>RKI Exploration & Production, LLC Attn: Steve Hicks 3500 One Williams Center Tulsa, OK 74172</p>	<p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number <u>Febru</u> <u>7014 1820 0001 6670 6599</u> <small>(Transfer from service label)</small></p>	

PS Form

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature X <u>Jordan Meyer</u> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery <u>2/17/17</u></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>Black Mountain Operating LLC 500 Main Street Suite 1200 Fort Worth, TX 76102</p>	<p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number <u>7014 1820 0001 6670 6582</u></p>	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature X <u>Marcos Camacho</u> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <u>Marcos Camacho</u> C. Date of Delivery <u>2-17-17</u></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>Marathon Oil Permian 5555 San Felipe Street Houston, TX 77056</p>	<p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number <u>7014 1820 0001 6670 6575</u> <small>(Transfer from service label)</small></p>	

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Robert E. Jacobi, Richard L. Jacobi, &
Jennie Lou Needham
C/O Hunter M. Lewis
9425 San Rafael NE
Albuquerque, NM 87109

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *[Signature]*

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

8/2/17

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail ☐ Express Mail

☐ Registered ☐ Return Receipt for Merchandise

☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

2. Article Number

(Transfer from service label)

7014 1820 0001 6670 6537

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

State of New Mexico
310 Old Santa Fe Trail
Santa Fe, N.M. 87504

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *[Signature]*

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

7-18-17

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail ☐ Express Mail

☐ Registered ☐ Return Receipt for Merchandise

☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

2. Article Number

(Transfer from service label)

7014 1820 0001 6670 6513

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

E BAR Z LLC
8210 E. Garfield Street, K-116
Scottsdale, AZ 85257

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *[Signature]*

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

SHERYL M WARE

7-18-17

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail ☐ Express Mail

☐ Registered ☐ Return Receipt for Merchandise

☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

2. Article Number

(Transfer from service label)

7014 1820 0001 6670 6551

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

Affidavit of Publication

No. 24363

State of New Mexico

County of Eddy:

Danny Scott

being duly sworn says: that she is the

Publisher

of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Ad

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for
1 Consecutive weeks/day on the same

day as follows:

First Publication

July 19, 2017

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Sixth Publication

Seventh Publication

Subscribed and sworn before me this

20th

day of

July

2017



OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires:

5/12/2019

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

Legal Notice

RKI Exploration & Production, LLC, 3500 One Williams Center, Tulsa, OK 74172, has filed an Application with the New Mexico Oil Conservation Division seeking authorization to Inject produced water into the Rustler Breaks SWD #1 100' FSL & 1960' FWL of Section 9, T23S R27E, NMPM, Eddy County, New Mexico. The water will be Injected into the Devonian formation at a disposal depth of 13,053'-14,053'. Water will be Injected at a maximum surface pressure of 2,610.6 psig and a maximum injection rate of 25,000 BWPD. Any interested party with questions or comments may contact Justin Hall at RKI Exploration & Production, LLC, 3500 One Williams Center, Tulsa, OK 74172 or call (539) 573-8967. Objections to this application or requests for a hearing must be filed with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within fifteen (15) days of the date of the publication of this notice. Published in the Artesia Daily Press, Artesia, NM.

Published in the Artesia Daily Press, Artesia, N.M., July 19 2017 Legal No. 24363.

Fechino, Ashlee

From: Fechino, Ashlee
Sent: Tuesday, July 25, 2017 11:56 AM
To: 'Goetze, Phillip, EMNRD'
Cc: 'Podany, Raymond, EMNRD'; 'Klein, Ranell, EMNRD'; P. E. William Jones - NMOCD (WilliamV.Jones@state.nm.us)
Subject: RE: RKI Exploration and Production, LLC - Rustler Breaks SWD 1 (Operator 246289)
Attachments: Rustler Breaks SWD 1.pdf

Hi Phillip,

Hope you are having a nice week.

I wanted to let you know we are FedExing the permit application to your attention today.

Please find the electronic version of our SWD application attached.

We have received USPS green cards back for all parties, with the exception of Branson Properties LLC, and James H & Susie Bindel. A notice was left that delivery was attempted.

We have rescheduled each delivery again. If no one is there to accept the package, it will be returned to us on August 1st.

Please let me know if you have any questions.

Thank you,

Ashlee Fechino
Regulatory Specialist
WPX Energy – Permian Assets
RKI Exploration and Production, LLC
3500 One Williams Center MD 35 | Tulsa, OK 74172
W: 539.573.0212 | C: 970.404.5031
ashlee.fechino@wpxenergy.com
www.wpxenergy.com

WPXENERGY.

From: Fechino, Ashlee
Sent: Wednesday, July 19, 2017 1:38 PM
To: 'Goetze, Phillip, EMNRD' <Phillip.Goetze@state.nm.us>
Cc: Podany, Raymond, EMNRD <Raymond.Podany@state.nm.us>; 'Klein, Ranell, EMNRD' <Ranell.Klein@state.nm.us>
Subject: RKI Exploration and Production, LLC - Rustler Breaks SWD 1 (Operator 246289)

Hi Phillip,

I hope this message finds you well.

We have sent notices to affected persons for our proposed Devonian SWD well located 100 FSL, 1960 FWL, Sec 9, T23S, R27E.

We are just waiting on the affidavit of publication to send the entire SWD application package your way with proof of notice and publication.

I wanted to give you a heads up in case your department receives any mail.

Thank you for your review and approval on our application.

Talk to you soon.

Ashlee Fechino

Regulatory Specialist

WPX Energy – Permian Assets

RKI Exploration and Production, LLC

3500 One Williams Center MD 35 | Tulsa, OK 74172

W: 539.573.0212 | C: 970.404.5031

ashlee.fechino@wpxenergy.com

www.wpxenergy.com

WPXENERGY.



RKI Exploration and Production, LLC

OGRID # 246289

Rustler Breaks SWD 1

New Drill Injection – Devonian

API - TBD

Section 9, T23S, R27E

100' FSL 1960' FWL

Eddy County, NM

July 2017



Forms

Administrative Checklist attached

C-108 attached

C-102 attached

Goetze, Phillip, EMNRD

From: Fechino, Ashlee <Ashlee.Fechino@wpxenergy.com>
Sent: Friday, July 28, 2017 3:16 PM
To: Goetze, Phillip, EMNRD
Cc: Jones, William V, EMNRD; McMillan, Michael, EMNRD
Subject: RE: [EXTERNAL] RE: RKI Exploration and Production, LLC - Rustler Breaks SWD 1 (Operator 246289)
Attachments: FW: [EXTERNAL] USPS Item Delivered, To Agent for Shipment 70141820000166706544;
FW: [EXTERNAL] USPS Item Delivered for Shipment 70141820000166706520

Hello Phillip,

The remaining 2 notifications were delivered for:

- Branson Properties LLC
- James H. and Susie Bindel

The e-mails attached are the delivery confirmations.

Thank you,

Ashlee Fechino
Regulatory Specialist
WPX Energy – Permian Assets
RKI Exploration and Production, LLC
3500 One Williams Center MD 35 | Tulsa, OK 74172
W: 539.573.0212 | C: 970.404.5031
ashlee.fechino@wpxenergy.com
www.wpxenergy.com

WPXENERGY.

From: Fechino, Ashlee
Sent: Thursday, July 27, 2017 3:03 PM
To: 'Goetze, Phillip, EMNRD' <Phillip.Goetze@state.nm.us>
Cc: Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>; McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Subject: RE: [EXTERNAL] RE: RKI Exploration and Production, LLC - Rustler Breaks SWD 1 (Operator 246289)

Phillip,

Thank you for the email.

Look forward to hearing from you.

Ashlee Fechino
Regulatory Specialist
WPX Energy – Permian Assets

RKI Exploration and Production, LLC
3500 One Williams Center MD 35 | Tulsa, OK 74172
W: 539.573.0212 | C: 970.404.5031
ashlee.fechino@wpxenergy.com
www.wpxenergy.com

WPXENERGY.

From: Goetze, Phillip, EMNRD [<mailto:Phillip.Goetze@state.nm.us>]
Sent: Thursday, July 27, 2017 2:48 PM
To: Fechino, Ashlee <Ashlee.Fechino@wpxenergy.com>
Cc: Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>; McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Subject: [EXTERNAL] RE: RKI Exploration and Production, LLC - Rustler Breaks SWD 1 (Operator 246289)

CAUTION: This email was sent from an EXTERNAL source. Use caution when clicking links or opening attachments.

Ashlee:

We have the hard copy of the application and it has been entered into the database. We will take a look for administrative completeness, then proceed with the more technical review. We will contact you should there be any questions. PRG

Phillip Goetze, PG
Engineering Bureau, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive, Santa Fe, NM 87505
Direct: 505.476.3466
E-mail: phillip.goetze@state.nm.us



From: Fechino, Ashlee [<mailto:Ashlee.Fechino@wpxenergy.com>]
Sent: Tuesday, July 25, 2017 10:57 AM
To: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Cc: Podany, Raymond, EMNRD <Raymond.Podany@state.nm.us>; Klein, Ranell, EMNRD <Ranell.Klein@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Subject: RE: RKI Exploration and Production, LLC - Rustler Breaks SWD 1 (Operator 246289)

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Please let me know if you have any questions.

Thank you,

Ashlee Fecho

Regulatory Specialist

WPX Energy – Permian Assets

RKI Exploration and Production, LLC

3500 One Williams Center MD 35 | Tulsa, OK 74172

W: 539.573.0212 | C: 970.404.5031

ashlee.fecho@wpxenergy.com

www.wpxenergy.com

WPXENERGY.

From: Fecho, Ashlee

Sent: Wednesday, July 19, 2017 1:38 PM

To: 'Goetze, Phillip, EMNRD' <Phillip.Goetze@state.nm.us>

Cc: Podany, Raymond, EMNRD <Raymond.Podany@state.nm.us>; 'Klein, Ranell, EMNRD' <Ranell.Klein@state.nm.us>

Subject: RKI Exploration and Production, LLC - Rustler Breaks SWD 1 (Operator 246289)

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We have sent notices to affected persons for our proposed Devonian SWD well located 100 FSL, 1960 FWL, Sec 9, T23S, R27E.

We are just waiting on the affidavit of publication to send the entire SWD application package your way with proof of notice and publication.

I wanted to give you a heads up in case your department receives any mail.

Thank you for your review and approval on our application.

Talk to you soon.

Ashlee Fecho

Regulatory Specialist

WPX Energy – Permian Assets

RKI Exploration and Production, LLC
3500 One Williams Center MD 35 | Tulsa, OK 74172
W: 539.573.0212 | C: 970.404.5031
ashlee.fechino@wpxenergy.com
www.wpxenergy.com



Goetze, Phillip, EMNRD

From: Weindorf, Mallory <Mallory.Weindorf@wpenergy.com>
Sent: Friday, July 28, 2017 2:38 PM
To: Fechino, Ashlee
Subject: FW: [EXTERNAL] USPS Item Delivered for Shipment 70141820000166706520

James H. and Susie Bindel

Mallory Weindorf
Senior Land Data Tech
Permian Basin
Phone (539) 573-3525
mallory.weindorf@wpenergy.com

WPXENERGY.

From: auto-reply@usps.com [mailto:auto-reply@usps.com]
Sent: Friday, July 28, 2017 1:43 PM
To: Weindorf, Mallory <Mallory.Weindorf@wpenergy.com>
Subject: [EXTERNAL] USPS Item Delivered for Shipment 70141820000166706520

CAUTION: This email was sent from an EXTERNAL source. Use caution when clicking links or opening attachments.



Tracking Number: 70141820000166706520

Hello Mallory Weindorf,

**Thank you for using
USPS.com.**

This is a post-only message. Please do not respond.

Mallory Weindorf has requested that you receive a USPS Tracking® delivery or delivery attempt update, as shown below.

USPS Tracking® e-mail update information provided by the U.S. Postal Service.

Tracking Number: 70141820000166706520

Service Type: Certified Mail™

Shipment Activity

Location

**Date &
Time**

**With
Partner**

Delivered	CARLSBAD, NM 88220	July 28, 2017 11:34 am
Notice Left (No Authorized Recipient Available)	CARLSBAD, NM 88220	July 27, 2017 10:52 am
Redelivery Scheduled	CARLSBAD, NM 88220	July 24, 2017
Redelivery Scheduled	CARLSBAD, NM 88220	July 24, 2017
Reminder to Schedule Redelivery of your item		
Notice Left (No Authorized Recipient Available)	CARLSBAD, NM 88220	July 17, 2017 1:52 pm
Out for Delivery	CARLSBAD, NM 88220	July 17, 2017 8:03 am
Sorting Complete	CARLSBAD, NM 88220	July 17, 2017 7:53 am
Arrived at Unit	CARLSBAD, NM 88220	July 17, 2017 6:03 am
Departed USPS Regional Facility	LUBBOCK TX DISTRIBUTION CENTER	July 16, 2017 4:48 am
Arrived at USPS Regional Facility	LUBBOCK TX DISTRIBUTION CENTER	July 15, 2017 8:46 pm
Departed USPS Regional Facility	TULSA OK DISTRIBUTION CENTER	July 14, 2017 9:00 pm
Arrived at USPS Regional Facility	TULSA OK DISTRIBUTION CENTER	July 14, 2017 7:19 pm

Reminder: USPS Tracking® by email

Date of email request: July 24, 2017

Future activity will continue to be emailed for up to 2 weeks from the Date of Request shown above. If you need to initiate the USPS Tracking® by email process again at the end of the 2 weeks, please do so at the USPS Tracking® site at <http://www.usps.com/shipping/uspstrackingfaqs.htm>

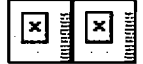
Results provided by the U.S. Postal Service.

Want to Track on the go?

You can track your packages using USPS Text Tracking™ by texting your tracking number to 28777 (2USPS™) or selecting the Text Update option on our USPS Tracking® site. Standard Message and Data Rates may apply.

For more information go to <https://www.usps.com/text-tracking/welcome.htm>

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Goetze, Phillip, EMNRD

From: Weindorf, Mallory <Mallory.Weindorf@wpxenergy.com>
Sent: Friday, July 28, 2017 2:38 PM
To: Fechino, Ashlee
Subject: FW: [EXTERNAL] USPS Item Delivered, To Agent for Shipment 70141820000166706544

Branson Properties LLC

Mallory Weindorf
Senior Land Data Tech
Permian Basin
Phone (539) 573-3525
mallory.weindorf@wpxenergy.com

WPXENERGY.

From: auto-reply@usps.com [mailto:auto-reply@usps.com]
Sent: Thursday, July 27, 2017 7:04 PM
To: Weindorf, Mallory <Mallory.Weindorf@wpxenergy.com>
Subject: [EXTERNAL] USPS Item Delivered, To Agent for Shipment 70141820000166706544

CAUTION: This email was sent from an EXTERNAL source. Use caution when clicking links or opening attachments.



Tracking Number: 70141820000166706544

Hello Mallory Weindorf,

**Thank you for using
USPS.com.**

This is a post-only message. Please do not respond.

Mallory Weindorf has requested that you receive a USPS Tracking® delivery or delivery attempt update, as shown below.

USPS Tracking® e-mail update information provided by the U.S. Postal Service.

Tracking Number: 70141820000166706544

Service Type: Certified Mail™

Shipment Activity

Location

**Date &
Time**

**With
Partner**

Delivered, To Agent	CARLSBAD, NM 88221	July 27, 2017 5:17 pm
Notice Left (No Authorized Recipient Available)	CARLSBAD, NM 88220	July 26, 2017 11:37 am
Redelivery Scheduled	CARLSBAD, NM 88220	July 24, 2017
Redelivery Scheduled	CARLSBAD, NM 88220	July 24, 2017
Reminder to Schedule Redelivery of your item		
Notice Left (No Authorized Recipient Available)	CARLSBAD, NM 88220	July 17, 2017 2:20 pm
Out for Delivery	CARLSBAD, NM 88220	July 17, 2017 8:03 am
Sorting Complete	CARLSBAD, NM 88220	July 17, 2017 7:53 am
Arrived at Unit	CARLSBAD, NM 88220	July 17, 2017 6:03 am
Departed USPS Regional Facility	LUBBOCK TX DISTRIBUTION CENTER	July 16, 2017 4:48 am
Arrived at USPS Regional Facility	LUBBOCK TX DISTRIBUTION CENTER	July 15, 2017 8:46 pm
Departed USPS Regional Facility	TULSA OK DISTRIBUTION CENTER	July 14, 2017 9:00 pm
Arrived at USPS Regional Facility	TULSA OK DISTRIBUTION CENTER	July 14, 2017 7:19 pm

Reminder: USPS Tracking® by email

Date of email request: July 24, 2017

Future activity will continue to be emailed for up to 2 weeks from the Date of Request shown above. If you need to initiate the USPS Tracking® by email process again at the end of the 2 weeks, please do so at the USPS Tracking® site at <http://www.usps.com/shipping/uspstrackingfaqs.htm>

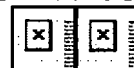
Results provided by the U.S. Postal Service.

Want to Track on the go?

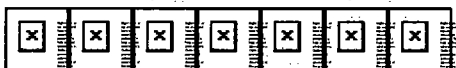
You can track your packages using USPS Text Tracking™ by texting your tracking number to 28777 (2USPSTM) or selecting the Text Update option on our USPS Tracking® site. Standard Message and Data Rates may apply.

For more information go to <https://www.usps.com/text-tracking/welcome.htm>

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Goetze, Phillip, EMNRD

From: McGowen, Matthew (MRO) <mmcgowen@marathonoil.com>
Sent: Monday, July 31, 2017 3:10 PM
To: Goetze, Phillip, EMNRD
Cc: Brown, Matthew D. (MRO); justin.hall@wpxenergy.com
Subject: Rustler Breaks SWD 1 Application; Section 9, Township 23S, Range 27E, NMPPM; Devonian Pool
Attachments: MOP SWD App Protest.pdf; WPX Proposal.pdf

Mr. Goetze:

Pursuant to our conversation this afternoon, Marathon Oil Permian's protest to the Rustler Breaks SWD 1 Application is attached to this e-mail. A hard copy of this protest will follow in the mail. I have also attached a copy of the application to this e-mail for your convenience.

Should you have any questions, concerns, or need anything else, please do not hesitate to contact me.

Thank you,

Matt McGowen

Matthew H. McGowen

Senior Counsel
Marathon Oil Company
5555 San Felipe
Houston, Texas 77056
Office: 713-296-3623
Mobile: 281-740-6013
Email: mmcgowen@marathonoil.com

Matthew H. McGowen
Senior Counsel

RECEIVED OGD



Marathon Oil Company
5555 San Felipe Street
Houston, Texas 77056
Telephone: 713-296-3623
mmcgowen@marathonoil.com

2017 AUG -4 P 2: 21

July 31, 2017

Via Email and Regular Mail

Mr. Phillip Goetze
New Mexico Oil Conservation District
1220 South St. Francis Drive
Santa Fe, NM 87505
Phillip.goetze@state.nm.us

Re: Rustler Breaks SWD 1 Application; Section 9, Township 23S, Range 27E,
NMPM; Devonian Pool

Dear Mr. Goetze:

Marathon Oil Permian LLC was notified as an interested party in the above referenced Application for Saltwater Disposal Well, and this letter is a response to said application. As Marathon has current and planned future operations in the same section as the disposal well proposed in the above referenced application, Marathon hereby protests this application due to concerns about the potential impact to current and future operations.

Should you have any questions or concerns, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in black ink, appearing to be 'M. McGowen', written over a horizontal line.

Matthew H. McGowen

Cc: Matthew Brown (MOP internal), via e-mail
Justin R. Hall, Senior Landman, RKI Exploration & Production, LLC, via e-mail
at Justin.Hall@wpenergy.com

Goetze, Phillip, EMNRD

From: Brown, Matthew D. (MRO) <mbrown3@marathonoil.com>
Sent: Wednesday, November 22, 2017 6:34 AM
To: Jones, William V, EMNRD; Goetze, Phillip, EMNRD; Dawson, Scott, EMNRD; McMillan, Michael, EMNRD
Cc: Hall, Justin; McGowen, Matthew (MRO); Pohl, Nancy B. (MRO)
Subject: RKI/WPX SWD Well Application - Section 9, T23S, 29E, Eddy County

Gentlemen,

Reference is made to the subject SWD Application that WPX filed on behalf RKI Exploration & Production, LLC. Marathon previously filed a protest of the Application with the OCD. RKI has satisfied Marathon's concerns regarding their planned SWD. As a result Marathon, as evidenced by the transmittal of this email, would like to withdrawal its protest of the subject SWD Application.

Please advise if you need any additional information from Marathon with respect to its desire to withdrawal its protest.

Happy Thanksgiving.

Matt Brown, CPL
Marathon Oil Corporation
Land – Permian
Ph# 713.296.3408 / Cell# 281.468.8833
5555 San Felipe St. / Houston, TX 77056

McMillan, Michael, EMNRD

From: McMillan, Michael, EMNRD
Sent: Thursday, December 7, 2017 1:26 PM
To: 'Fechino, Ashlee'
Cc: Sanchez, Daniel J., EMNRD
Subject: RE: [EXTERNAL] RKI Rustler Breaks SWD Well No. 1 Eddy Co.

Ashlee:

RKI is out of 5.9 compliance. RKI operates 393 wells and has 7 inactive wells. It is allowed a maximum of 5 inactive wells. I included Daniel Sanchez (phone number 505-476-3493) in this e-mail, because he is the Bureau Chief for Enforcement who is in charge of Compliance for the OCD.

Thank You

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448
Michael.mcmillan@state.nm.us

From: Fechino, Ashlee [mailto:Ashlee.Fechino@wpxenergy.com]
Sent: Thursday, December 7, 2017 11:44 AM
To: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Subject: RE: [EXTERNAL] RKI Rustler Breaks SWD Well No. 1 Eddy Co.

Michael,

Please find an updated tract map for your review.

Thank you,

Ashlee Fechino
Regulatory Team Lead
WPX Energy – Permian Assets
RKI Exploration & Production, LLC
3500 One Williams Center MD 35 | Tulsa, OK 74172
W: 539.573.0212 | C: 970.404.5031
ashlee.fechino@wpxenergy.com
www.wpxenergy.com

WPXENERGY.

From: McMillan, Michael, EMNRD [<mailto:Michael.McMillan@state.nm.us>]
Sent: Tuesday, November 28, 2017 10:28 AM
To: Fechino, Ashlee <Ashlee.Fechino@wpenergy.com>
Subject: [EXTERNAL] RKI Rustler Breaks SWD Well No. 1 Eddy Co.

CAUTION: This email was sent from an EXTERNAL source. Use caution when clicking links or opening attachments.

Ashlee:

I am reviewing your Rustler Breaks SWD Well No. 1 Eddy Co. Administrative SWD application.

I need to know who are the affected parties, and which tract they are in. I could not tell this from your drawing.

Call me with questions

Mike

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448
Michael.mcmillan@state.nm.us

McMillan, Michael, EMNRD

From: Jordan L. Kessler <JLKessler@hollandhart.com>
Sent: Thursday, December 7, 2017 3:02 PM
To: Sanchez, Daniel J., EMNRD; McMillan, Michael, EMNRD
Subject: Fwd: [EXTERNAL] RKI Rustler Breaks SWD Well No. 1 Eddy Co.
Attachments: 20171207_031743.xlsx; ATT00001.htm

Daniel, please see below and attached. After you review, could you let me know if RKI is ok to proceed? Thank you!

Begin forwarded message:

From: "Hall, Justin" <Justin.Hall@wpenergy.com>
Date: December 7, 2017 at 2:25:25 PM MST
To: "Jordan L. Kessler" <JLKessler@hollandhart.com>
Cc: "Walker, Josh" <Josh.Walker@wpenergy.com>
Subject: RE: [EXTERNAL] RKI Rustler Breaks SWD Well No. 1 Eddy Co.

Jordan – Below is the status of each well on the list. We moved a rig onto the Electrolux 21 State Com #1 to P&A on Monday, 12/5. The Holly Federal #2 resumed production on 11/2 and the Toro 27 #6 resumed production in October. Daily production reports for both wells are included on the attached spreadsheet.

#	Well Name	Plan forward	Status
1	ROSS DRAW UNIT #008	HOLD	TA expired 5/8/2017. Acre-holding issue. Land wants to keep on list.
2	ELECTROLUX 21 STATE COM #001	P&A	Rig onsite to P&A as of 12/5.
3	GULF STATE #001	P&A	NMOCD approved to P&A 6/19. AFE created, waiting on partner approval (no estimated date, no timeframe to return AFE).
4	SANTA FE FEDERAL #002	TA	MIT'd on 11/3 rd . Submitted paperwork to put into TA status 11/6 th .
5	HOLLY FEDERAL #001	P&A	Submitted Intent to P&A on 10/31.
6	HOLLY FEDERAL #002	PR	Back online as of 11/2
7	TORO 27 #006	PR	Back online as of October (23 bbls of oil produced for the entire month)

Thanks,

Justin R. Hall
Staff Landman - Permian Basin

WPX ENERGY
3500 One Williams Center, MD 35
Tulsa, OK 74172
(539) 573-8967 (O)

HOLLY FED 2

RecordDate	HoursFlowed	OIL BEG INV	OIL END INV	OIL PROD	GAS PROD	WATER PROD	DailyDownTime
01-Nov-17	24	7.48	7.48	0.00	0.00	60.00	0
02-Nov-17	24	7.48	88.64	81.16	0.00	40.00	0
03-Nov-17	24	88.64	88.64	0.00	0.00	0.00	0
04-Nov-17	24	88.64	88.64	0.00	0.00	0.00	0
05-Nov-17	24	88.64	88.64	0.00	0.00	0.00	0
06-Nov-17	24	88.64	88.64	0.00	0.00	0.00	0
07-Nov-17	24	88.64	166.82	78.17	0.00	109.00	0
08-Nov-17	24	166.82	180.78	13.96	0.00	20.00	0
09-Nov-17	24	180.78	193.34	12.56	0.00	18.00	0
10-Nov-17	24	193.34	203.11	9.77	0.00	18.00	0
11-Nov-17	24	203.11	217.07	13.96	0.00	18.00	0
12-Nov-17	24	217.07	225.45	8.38	0.00	12.00	0
13-Nov-17	24	225.45	242.20	16.75	0.00	25.00	0
14-Nov-17	24	242.20	258.95	16.75	0.00	16.00	0
15-Nov-17	24	258.95	272.91	13.96	0.00	25.00	0
16-Nov-17	24	272.91	284.08	11.17	0.00	12.00	0
17-Nov-17	24	284.08	289.66	5.58	0.00	16.00	0
18-Nov-17	0	289.66	294.80	5.13	0.00	0.00	24
19-Nov-17	0	294.80	294.80	0.00	0.00	0.00	24
20-Nov-17	0	294.80	294.80	0.00	0.00	0.00	24
21-Nov-17	0	294.80	294.80	0.00	0.00	0.00	24
22-Nov-17	0	294.80	294.80	0.00	0.00	0.00	24
23-Nov-17	0	294.80	294.80	0.00	0.00	0.00	24
24-Nov-17	0	294.80	294.80	0.00	0.00	0.00	24
25-Nov-17	0	294.80	294.80	0.00	0.00	0.00	24
26-Nov-17	0	294.80	294.80	0.00	0.00	0.00	24
27-Nov-17	0	294.80	294.80	0.00	0.00	0.00	24
28-Nov-17	24	294.80	294.80	0.00	0.00	0.00	0
29-Nov-17	24	294.80	339.47	44.67	0.00	13.00	0
30-Nov-17	24	339.47	361.80	22.34	0.00	16.00	0
01-Dec-17	24	361.80	384.14	22.34	0.00	18.00	0
02-Dec-17	24	384.14	395.31	11.17	0.00	16.00	0
03-Dec-17	24	395.31	406.48	11.17	0.00	14.00	0
04-Dec-17	24	406.48	417.64	11.17	0.00	13.00	0
05-Dec-17	24	417.64	423.23	5.58	0.00	0.00	0
06-Dec-17	24	423.23	423.23	0.00	0.00	0.00	0

McMillan, Michael, EMNRD

From: Sanchez, Daniel J., EMNRD
Sent: Thursday, December 7, 2017 3:12 PM
To: McMillan, Michael, EMNRD
Subject: RKI Exploration

Michael,

I have spoken with RKI's legal council and they have provided production data for two of the wells on their IWL. C-115's showing this production will be due this month. The production will remove these wells from the IWL and RKI will be in compliance with Rule 5.9. Thanks for your assistance in this matter.

Daniel Sanchez
NMOCD Compliance & Enforcement Manager

FORM C-108 Technical Review Summary [Prepared by reviewer and included with application; V16.2]

DATE RECORD: First Rec:

Admin Complete:

or Suspended:

Add. Request/Reply:

ORDER TYPE: WFX / PMX / SWD Number:

Order Date:

Legacy Permits/Orders:

Well No. 1 Well Name(s): RUSTLER BR-AKS SHO

API : 30-0 HS-Pending Spud Date: 7/8/80 New or Old (EPA): NO (UIC Class II Primacy 03/07/1982)

Footages 1460 F42 Lot or Unit N Sec 9 Tsp 235 Rge 27E County Edl

General Location: 2.6 miles NW/Louisa Pool: S4D, Decuria Pool No.: SC/O

BLM 100K Map: Carlsbad Operator: RK L Production UGRIID: 246289 Contact: Fechin

COMPLIANCE RULE 5.9: Total Wells: 393 Inactive: X Fincl Assur: OK Compl. Order? NA IS 5.9 OK? X Date: #

WELL FILE REVIEWED ☐ Current Status: Proposed Setback/Seal/EZ

WELL DIAGRAMS: NEW: Proposed ☒ or RE-ENTER: Before Conv. ☐ After Conv. ☐ Logs in Imaging: _____

Planned Rehab Work to Well: _____

Well Construction Details		Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Size or Cft	Cement Top and Determination Method
Planned ___ or Existing ___	Surface	26" / 20"	450	847	Surface / Visually
Planned ___ or Existing ___	Interm/Prod	17" / 13 3/8"	1977	1033	Surface / Visually
Planned ___ or Existing ___	Interm/Prod	12 1/4" / 4 5/8"	9653	841	Surface / Visually
Planned ___ or Existing ___	Prod/Liner	8 3/4" / 7"	13053	622	8937 / C-B-L
Planned ___ or Existing ___	Liner				
Planned ___ or Existing ___	OH / PERF	13053 / 14053			
			Inj Length		
			100'		
Injection Lithostratigraphic Units:		Depths (ft)	Injection or Confining Units	Tops	
Adjacent Unit: Litho. Struc. Por.			well	1245'	
Confining Unit: Litho. Struc. Por.			DV	14053	
Proposed Inj Interval TOP:					
Proposed Inj Interval BOTTOM:					
Confining Unit: Litho. Struc. Por.					
Adjacent Unit: Litho. Struc. Por.					
AOR: Hydrologic and Geologic Information POTASH: R-111-P <u>MA</u> Noticed? ___ BLM Sec Ord <u>111-111-111</u> WIPP <u>111-111-111</u> Noticed? ___ Salt/Salado T: <u>111</u> B: <u>111</u> NW: Cliff House fm ___ FRESH WATER: Aquifer <u>Butterfly / 111-111-111</u> Max Depth <u>350'</u> HYDRO AFFIRM STATEMENT By Qualified Person <input checked="" type="checkbox"/> NMOSE Basin: <u>Carlsbad</u> CAPITAN REEF: thru ___ adj ___ NA <input checked="" type="checkbox"/> No. GW Wells in 1-Mile Radius? <u>1</u> FW Analysis? <u>X</u> Disposal Fluid: Formation Source(s) <u>WLF CAMP</u> Analysis? <u>X</u> On Lease <u>Operator Only</u> <input checked="" type="checkbox"/> or Commercial <input type="checkbox"/> Disposal Interval: Inject Rate (Avg/Max BWPD): <u>204/254</u> Protectable Waters? <u>MA</u> Source: ___ System: <u>Closed</u> or Open <input type="checkbox"/> HC Potential: Producing Interval? <u>MA</u> Formerly Producing? ___ Method: Logs/DST/P&A/Other <u>regions</u> 2-Mile Radius Pool Map <input type="checkbox"/> AOR Wells: 1/2-M Radius Map and Well List? <u>Y</u> No. Penetrating Wells: <u>0</u> [AOR Horizontals: ___ AOR SWDs: <u>0</u>] Penetrating Wells: No. Active Wells <u>0</u> Num Repairs? ___ on which well(s)? ___ Diagrams? ___ Penetrating Wells: No. P&A Wells <u>0</u> Num Repairs? ___ on which well(s)? ___ Diagrams? <u>7NW</u> NOTICE: Newspaper Date <u>July 14, 2007</u> Mineral Owner <u>Robert Jacob</u> Surface Owner <u>Richard Jacob</u> Date <u>7/14/07</u> RULE 26.7(A): Identified Tracts? <u>Y</u> Affected Persons: <u>Robert Jacob, Richard Jacob, Jennie & Lou Jacob</u> N. Date <u>7/14/07</u>					

Order Conditions: Issues: _____

Additional COAs: C-B-2 → 500' for 12th base line