

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

NM OIL CONSERVATION State of New Mexico
ARTESIA DISTRICT Energy Minerals and Natural Resources

Form C-101
Revised July 18, 2013

MAY 27 2016

Oil Conservation Division

☐ AMENDED REPORT

1220 South St. Francis Dr.

Santa Fe, NM 87505

RECEIVED

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

| | | |
|---|--|-----------------------------|
| Operator Name and Address Black River Water Management Company, LLC 5400 LBJ Freeway, Suite 1500 Dallas TX 75240 (972) 371-5420 | | UGRID Number 371287 |
| Property Code 316272 | | API Number 30-015- 43807 |
| Property Name Black River SWD | | Well No. 1 |

7. Surface Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet from | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| C | 31 | 23S | 28E | | 250 | N | 2461 | W | Eddy |

8. Proposed Bottom Hole Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet from | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| | | | | | | | | | |

9. Pool Information

| | |
|----------------------------|--------------------|
| Pool Name SWD; Devonian | Pool Code 96101 |
|----------------------------|--------------------|

Additional Well Information

| | | | | |
|---|---|--|--|---|
| ¹¹ Work Type N | ¹² Well Type S | ¹³ Cable/Rotary R | ¹⁴ Lease Type P | ¹⁵ Ground Level Elevation 3126' |
| ¹⁶ Multiple N | ¹⁷ Proposed Depth TD:15000' PBTD:14700' | ¹⁸ Formation Montoya | ¹⁹ Contractor to be determined | ²⁰ Spud Date upon approval |
| Depth to Ground water 15' (in C 01648) | Distance from nearest fresh water well 5369' NE to C 01648 | Distance to nearest surface water ≈1600' NE to Southern Canal | | |

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

21. Proposed Casing and Cement Program

| Type | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|------------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surface | 26" | 20" | 94 or 106.5 | 575' | 850 | GL |
| Intermed.1 | 17.5" | 13.375" | 61 or 68 | 2400' | 1225 | GL |
| Intermed.2 | 12.25" | 9.625" | 53.5 | 9300' | 1775 | GL |
| Production | 8.5" | 7" | 32 | 13700' | 525 | 7800' |

Casing/Cement Program: Additional Comments

| |
|--|
| Will complete open (6") hole 13700' - 14700' |
|--|

22. Proposed Blowout Prevention Program

| Type | Working Pressure | Test Pressure | Manufacturer |
|----------------|------------------|---------------|------------------|
| Annular & rams | 5000 psi | 5000 psi | to be determined |

| | | | |
|--|---------------------|---|--|
| ²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> , if applicable. Signature: <i>B. Wood</i> | | OIL CONSERVATION DIVISION Approved By: <i>[Signature]</i> Title: <i>Geologist</i> Approved Date: <i>05/31/2016</i> Expiration Date: <i>05/31/2018</i> | |
| Printed name: Brian Wood | | | |
| Title: Consultant | | | |
| E-mail Address: brian@permitswest.com | | | |
| Date: 5-23-16 | Phone: 505 466-8120 | Conditions of Approval Attached <i>By 6-2-16</i> | |

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

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|--|---|---|
| ¹ API Number 30-015- 43807 | ² Pool Code 96101 | ³ Pool Name SWD; Devonian |
| ⁴ Property Code 316272 | ⁵ Property Name Black River SWD | ⁶ Well Number #1 |
| ⁷ OGRID No. 371287 | ⁸ Operator Name Black River Water Management Company, LLC | ⁹ Elevation 3126' |

¹⁰Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| C | 31 | 23-S | 28-E | - | 250' | NORTH | 2461' | WEST | EDDY |

| 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>SURFACE LOCATION NEW MEXICO EAST NAD 1927 X=563809 Y=461279 LAT.: N 32.2680049 LONG.: W 104.1268910 NAD 1983 X=604991 Y=461337 LAT.: N 32.2681252 LONG.: W 104.1273869</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 undivided 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><i>Brian Wood</i> 5-23-16 Signature Date Printed Name brian@permitswest.com E-mail Address</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 to the best of my belief.</p> <p>01/15/2016 Date of Survey Signature and Seal of Professional Surveyor MICHAEL BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR Certificate Number</p> |

| WELL: Devonian SWD #1 | PROSPECT: Devonian SWD | | | AFE No: | | | | |
|--|-----------------------------|--|----------------|------------------------|---------|---|---|--|
| GL ELEV : RKB ELEV :+KB | | SURFACE LOCATION: | | BOTTOM HOLE LOCATION : | | | | |
| Formation Tops (TVD) | Mud Weight | Logs | CASING DIAGRAM | Depth | Hole | Casing & Cement Details 30" Conductor @ ± 120' | BHA Details | |
| Rustler Anhydrite @ xx' | 8.4-8.5 PPG FW | | | 575' | 26" | Surf. Csg Cmt: Lead: Circulate to surface Tail: 20% critical 20", 94# or #106.5, K-55, BTC | | |
| Top of Salt @ 555' Lamar @ 2400' Bell Canyon @ 2450' Cherry Canyon @ 3270' Brushy Canyon @ 4465' Bone Spring Lime @ 5974' | 10.0 PPG saturated brine | • Inc / Azi measurement | | | 17 1/2" | 1st Int. Csg Cmt: Lead: Circulate to surface Tail: 20% critical 13 3/8", 61# or 68# K55, BTC | | |
| 1st Bone Spring Sand @ 6990' 2nd Bone Spring Carb @ 7204' 2nd Bone Spring Sand @ 7614' 3rd Bone Spring Carb @ 7829' 3rd Bone Spring Sand @ 8974' Wolfcamp @ 9294' | 8.4-9.0 PPG cut brine | • Inc / Azi measurement | | | 2400' | 12-1/4" | 2nd Int. Csg Cmt: Lead: Circulate to surface Tail: 20% critical Possible DV @ 2400' 9 5/8", 53.5#, P110HC Alternative Dift BTC | |
| Blair Shale @ 10431' Wolfcamp D @ 10814' Strawn @ 11279' Atoka @ 11528' Morrow @ 12104' Barnett @ 12883' Miss Lime @ 13241' Woodford Shale @ 13594' Devonian Carb @ 13694' | 9.6-12 PPG mud | • Inc / Azi measurement • Open hole Wireline logs | | | 9300' | 8-1/2" | Prod Csg Cmt: Top of Lead: 7800" Top of Tail: 20% critical 7", 32#, P110HC, Alternative Drift BTC | |
| Devonian Dolomite @ 13844' Montoya @ 14704' | 9.0-9.5 PPG mud | • Inc / Azi measurement • Open hole Wireline logs | | 13,700' | 6" | Tubing: 4 1/2" P110 13.5 #, LTC - 13,650' | | |

TD @ 15,000' TVD

Prepared By: JL - 12/29/15

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

Form APD Conditions

PERMIT CONDITIONS OF APPROVAL

| | |
|--|---|
| Operator Name and Address: <i>Black River Water Mgmt Co LLC</i> | API Number: 30-015- <i>43807</i> Well: <i>Black River SWD #1</i> |
|--|---|

| OCD Reviewer | Condition |
|--------------|--|
| kjones | Will require a directional survey with the C-104 |
| kjones | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string |
| kjones | If cement does not circulate to surface, must run temperature survey or other log to determine top of cement |

Witnessed MIT must be performed
 prior to initial injection. Contact
 Richard Inge 575-748-1283x107 to
 schedule test.

10

Must have approved C-108, MIT, and all regulatory
 requirements in place prior to injecting

16