| | | | | Revised March 23, 2017 |
|---|---|---|----------------------------------|---|
| RECEIVED: | REVIEWER: | TYPE: ABOVE THIS TABLE FOR OUT DIVISION | APP NO: PMAN | 1180885 135 |
| 1 | - Geolog | CO OIL CONSERVAT gical & Engineering E Francis Drive, Santa | 'ION DIVISION Bureau – | |
| | ADMINIST | RATIVE APPLICATION | N CHECKLIST | |
| | | ALL ADMINISTRATIVE APPLICATION REQUIRE PROCESSING AT THE DIV | | |
| Applicant: 3Bear Field Serv | ices, LLC | · · · · · · · · · · · · · · · · · · · | | RID Number: <u>372603</u> |
| Well Name: Cottonwood Fo | ee SWD 1 | | | 30-015-47 |
| Pool: SWD; Devonian-Siluriar | 1 | | Pool | Code: 97869 |
| 1) TYPE OF APPLICATIO | N: Check those cing Unit – Simu | INDICATED BELOW | | STHE TYPE OF APPLICATION Sugar |
| □DHC [] Injection – | ng – Storage – <i>N</i> | PLC □PC □OLS sure Increase – Enhanc | ced Oil Recov | MAR 29 2018 AM03:52 ery |
| C. Application D. Notification E. Surface owr | itors or lease ho irriding royalty of requires publish and/or concur and/or concur ner above, proof o | olders owners, revenue owne | | FOR OCD ONLY Notice Complete Application Content Complete |
| administrative appro | oval is accurate action will be to | | best of my kn | |
| Note: State | ment must be compl | leted by an individual with mo | ınagerial and/or su | pervisory capacity. |
| Brian Wood | | | 3-28-18 Date | |
| | | | | |
| Print or Type Name | 1/1 | | 505 466-8120 | |

Signature

Phone Number

e-mail Address

brian@permitswest.com

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

| I. | PURPOSE: Secondary Recovery Pressure Maintenance XXX Disposal Storage Application qualifies for administrative approval? XXX Yes No |
|-------|---|
| II. | OPERATOR: 3BEAR FIELD SERVICES, LLC |
| | ADDRESS: 1512 LARIMER ST., SUITE 540, DENVER CO 80202 |
| | CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: 505 466-8120 |
| 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 XXX 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: Cottonwood Fee SWD 1 30-015-44600 |
| | 1. Proposed average and maximum daily rate and volume of fluids to be injected; (Devonian-Silurian (97869) |
| *VIII | Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, 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.). Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and doubt. Give the geologic name, and doubt to better of all underground courses of deinbigon pages and doubt to better of all underground courses of deinbigon pages. |
| | 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: BRIAN WOOD TITLE: CONSULTANT |
| | SIGNATURE: DATE: MAR. 13, 2018 |
| ķ | E-MAIL ADDRESS: brian@permitswest.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.

OPERATOR:

3BEAR FIELD SERVICES, LLC

INJECTION WELL DATA SHEET



11,760 ft³ Ħ £ VISUAL RANGE VISUAL ω 56 CBL 13.375 ø Casing Size: 7.625" Casing Size: 9 . 625 " Method Determined: Method Determined: WELL CONSTRUCTION DATA Method Determined: TOWNSHIP 11,760 feet to 13,000' 26 S Casing Size: Intermediate Casing Production Casing Injection Interval Surface Casing 0 o 0 Liner SX. ŠX. SX. SECTION 19 13,000' SURFACE SURFACE ,005/ 8.75" 12.25" 1050 17.5" 1675 950 Cemented with: Top of Cement: Top of Cement: Cemented with: Top of Cement: Cemented with: Total Depth: UNIT LETTER Hole Size: Hole Size: Hole Size: 0 17.5" hole @ 1650' COTTONWOOD FEE SWD TOC (950 sx) = GLTOL (1050 sx) = 7500' (CBL)3.375" 54.5# in 12.25" hole @ 7965' TOC (1675 sx) = GL9.625" 43.5# in 12.25" hole @ 796; TOC (1675 sx) = Gl 7.625" 39# in 8.75" hole @ 11,760' TOL (1050 sx) = 7500' 330' FSL & 1662' FEL FOOTAGE LOCATION WELLBORE SCHEMATIC (not to scale) TD 13,000' WELL NAME & NUMBER: 4.5" IPC tbg @ ~11,760' packer @ ≈11,700° Devonian - Silurian 6.125" open hole 11,760' - 13,000' WELL LOCATION: NEW TOTAL PROPERTY OF THE PERSON OF THE PERS

(Perforated or Open Hole; indicate which)



INJECTION WELL DATA SHEET

| Tul | Tubing Size: 4.5 Lining Material: IPC |
|-----------|--|
| T_{y_1} | Type of Packer: STAINLESS STEEL &/OR NICKEL W/ TEFLON RING |
| Рас | Packer Setting Depth: ≈11,700' |
| Oth | Other Type of Tubing/Casing Seal (if applicable): |
| | Additional Data |
| <u></u> | 1. Is this a new well drilled for injection? XXX Yes No |
| | If no, for what purpose was the well originally drilled? |
| 7. | Name of the Injection Formation: DEVONIAN & SILURIAN |
| ω. | Name of Field or Pool (if applicable): SWD; DEVONIAN - SILURIAN (POOL CODE 97869) |
| 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 |
| 5. | Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: |
| | 1 |
| | UNDER: none |
| | |



3BEAR FIELD SERVICES, LLC COTTONWOOD FEE SWD 1 330' FSL & 1662' FEL SEC. 19, T. 26 S., R. 26 E. EDDY COUNTY, NEW MEXICO PAGE 1

30-015-44600

I. Goal is to drill a 13,000' deep commercial saltwater disposal well on fee surface. Proposed disposal interval will be 11,760' – 13,000' in the SWD; Devonian-Silurian (97869) pool. See Exhibit A for map and C-102.

II. Operator: 3Bear Field Services, LLC (OGRID 372603)

Operator phone number: (575) 626-7100

Operator address: 1512 Larimer St., Suite 540, Denver CO 80202

Contact for Application: Brian Wood (Permits West, Inc.)

Phone: (505) 466-8120

III. A. (1) Lease: fee Lease Size: 320 acres Closest Lease Line: 330' Lease Area: SE4 Sec. 19 et al, T. 26 S., R. 26 E.

A. (2) Conductor (20", 94#, H-40, buttress) will be set at 150' in a 26" hole and cemented to GL with 350 sacks Class C + KCl.

Surface casing (13.375", 54.5#, J-55, ST&C) will be set at 1650' in a 17.5" hole and cemented to GL. Lead with 775 sacks Class C + 2% KCl + cello flake + bentonite extender. Tail with 175 sacks Class C + 1% PF1 calcium.

Intermediate casing (9.625", 43.5#, HCL-80, LT&C) casing will be set at 7965' in a 12.25" hole and cemented to GL. Lead with 1380 sacks 50/50 P/H + 5% BWOW & salt + 10% bentonite gel + cello flake. Tail with 295 sacks Class 50/50 P/H + 2% PF20 gel + 3% fluid loss.

Production liner (7.625", 39#, HCP-110, UFJ) will be set at 11,760' in an 8.75" hole and tied-back and cemented to 7500' (i. e., 465' above intermediate shoe) with 1050 sacks Class H 50/50 + 2% bentonite gel + 5% fluid loss. CBL will be used to verify TOC.

Well will be completed open hole (6.125") from 11,760' to 13,000'.





3BEAR FIELD SERVICES, LLC COTTONWOOD FEE SWD 1 330' FSL & 1662' FEL SEC. 19, T. 26 S., R. 26 E. EDDY COUNTY, NEW MEXICO PAGE 2

30-015-44600

- A. (3) IPC tubing (4.5" 12.75#, P-110, with Teflon ring) will be set at ≈11,650'. (Disposal interval will be 11,760' to 13,000'.)
- A. (4) Packer assembly will be set at ≈11,700'. (Disposal interval will be 11,760' to 13,000'.) Packer will be a nickel plated 7", 28-32#, ASIX.
- B. (1) Disposal zone will be the SWD; Devonian Silurian (97869).
- B. (2) Disposal interval will be 11,760' to 13,000'.
- B. (3) This well will be drilled as a saltwater disposal well.
- B. (4) Well was has not yet been drilled.
- B. (5) No Devonian or Silurian producer is within a minimum radius of 7706'. Closest NM Devonian producer is 55 miles northeast in 27-18s-31e. Closest NM Silurian producer is 71 miles northeast in 32-21s-37e.

Bone Spring produces from above the Devonian in the area of review. Morrow was tested, but found to be dry. No zone produces from below the Silurian within the area of review.

- IV. This is not an expansion of an existing injection project. It is disposal only.
- V. Exhibit B shows and tabulates the two existing wells (1 P&A + 1 oil) within a half-mile. Exhibit C shows all 35 existing wells (11 oil or gas wells + 9 P & A wells + 15 water wells) within two-miles.

Exhibit D shows all leases and lessors (only BLM and fee) within a half-mile radius. Exhibit E shows all leases and lessors (fee, State, and BLM) within a two-mile radius. Details on the leases within a half-mile radius are:



3BEAR FIELD SERVICES, LLC COTTONWOOD FEE SWD 1 330' FSL & 1662' FEL SEC. 19, T. 26 S., R. 26 E. EDDY COUNTY, NEW MEXICO

30-015-44600

| Aliquot Parts in Area of Review (T26S, R26E) | Lessor | Lease | Lessee(s) of Record | Well Operator |
|--|--------|-------------|--|------------------|
| S2NE4, SENW, SW4 Sec. 19 | BLM | NMNM-103597 | Echo | COG |
| SE4 Sec. 19 | fee | fee | Chevron, Guadalupe, Marathon, MRC | N/A |
| W2SW4 Sec. 20 | fee | fee | Chevron, Guadalupe, Marathon, MRC | N/A |
| W2NW4 Sec. 29 | BLM | NMNM-113944 | Chisholm | Chisholm |
| N2NW4, & SENW Sec. 30 | BLM | NMNM-108461 | Echo | COG |
| NE4 Sec. 30 | BLM | not leased | N/A | N/A |

- VI. Deepest well within a 2640' radius is 10,797' TVD. Top of the proposed disposal interval is 11,760'.
- VII. 1. Average injection rate will be ≈20,000 bwpd. Maximum injection rate will be 25,000 bwpd.
 - 2. System will be open.
 - 3. Average injection pressure will be ≈ 2000 psi. Maximum injection pressure will be 2352 psi (= 0.2 psi/foot x 11,760' (top of open hole)).
 - 4. No problems have been reported disposing into the closest SWD; Devonian wells. To date 3,128,783 barrels have been disposed in 30-015-42348 (4 miles NW) and 5,360,289 barrels have been disposed in 30-015-42356 (5 miles NE). No active SWD; Silurian wells are nearby.

Main source of the disposal water will be produced water from Bone Spring wells. There are 243 active or new Bone Spring wells in T. 26 S., R. 26 E. and the five bordering or cornering townships in New Mexico.



3BEAR FIELD SERVICES, LLC COTTONWOOD FEE SWD 1 330' FSL & 1662' FEL SEC. 19, T. 26 S., R. 26 E. EDDY COUNTY, NEW MEXICO

30-015-44600

Main source of the disposal water will be produced water from Bone Spring wells. There are 243 active or new Bone Spring wells in T. 26 S., R. 26 E. and the five bordering or cornering townships in New Mexico. However, water produced from the Delaware, Wolfcamp, Pennsylvanian, deep gas zones, etc. could also be disposed. Water analyses from Go-Tech in T. 25 & 26 S., R. 27 E. are in Exhibit F.

5. No Devonian or Silurian producer is within ≥55 miles in New Mexico. Water analyses from Delaware, Bone Spring, and Morrow wells in T. 25 & 26 S., R. 27 E. are in Exhibit F. Eleven Devonian samples are also in Exhibit F. TDS for the eleven are ≥20,450.

VIII. The Devonian is a cherty limestone. Silurian has limestone and dolomite intervals. Closest possible underground source of drinking water above the proposed disposal interval is the Quaternary in the top 140'. Office of the State Engineer (Exhibit G) records show eight water wells within a mile. A water well and spring within a mile were sampled on January 17, 2018. Sample points and results are in Exhibit G. No underground source of drinking water is below the proposed disposal interval. Estimated tops are:



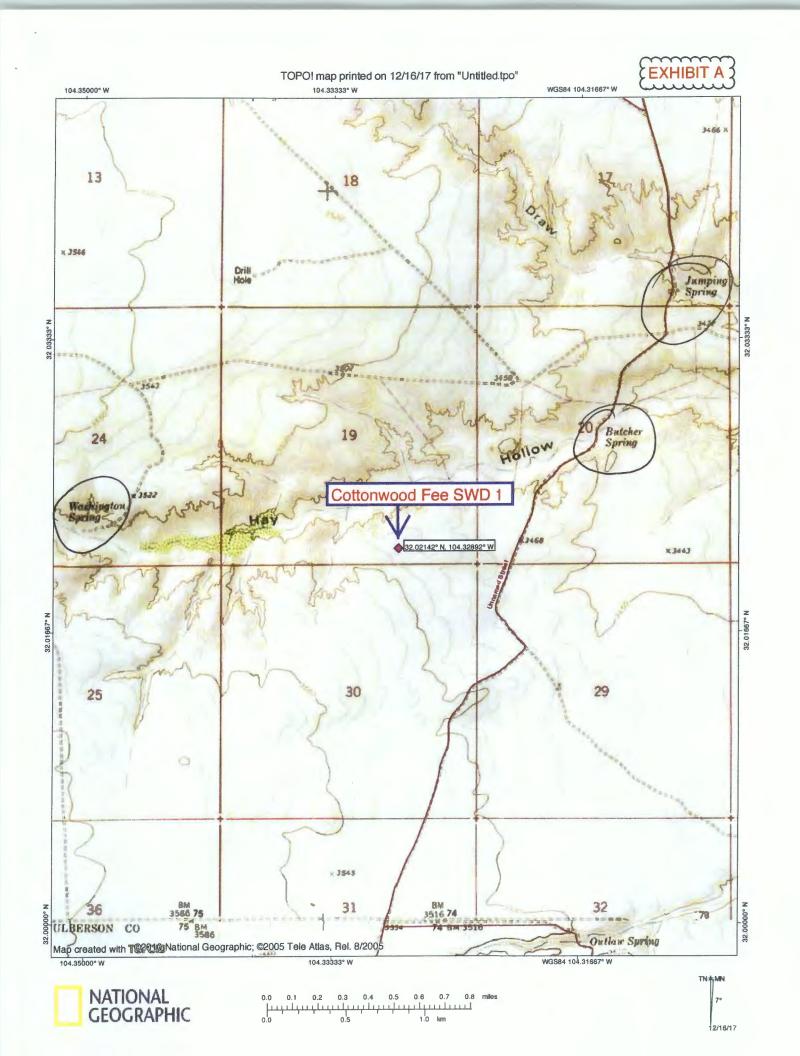
3BEAR FIELD SERVICES, LLC COTTONWOOD FEE SWD 1 330' FSL & 1662' FEL SEC. 19, T. 26 S., R. 26 E. EDDY COUNTY, NEW MEXICO

30-015-44600

There will be >2 miles of vertical separation and >1,000' anhydrite and salt between the bottom of the only likely underground water source within 2-miles and the top of the Devonian. The Capitan Reef is 11 miles northwest. Two Devonian wells are within 5 miles. A minimum of 3,128,783 barrels have been disposed in 30-015-42348 (4 miles NW) and 5,360,289 barrels have been disposed in 30-015-42356 (5 miles NE). No active SWD; Silurian wells are nearby.

- IX. Well will be stimulated with acid to clean out scale or fill.
- X. CBL will be run to check TOC.
- XI. A spring and a water well within a mile were sampled during a January, 2018 field inspection. See Exhibit G.
- XII. 3Bear Field Services, LLC (Exhibit H) is not aware of any geologic or engineering data that may indicate the Devonian is in hydrologic connection with any underground source of water. Over a thousand feet of evaporites prevent that from occurring. There are 190 active or new Devonian disposal wells and 19 active or new Silurian disposal wells in New Mexico. Closest Quaternary fault (Guadalupe) is ≈30 miles southwest (Exhibit H).
- XIII. A legal ad (see Exhibit I) was published on December 19, 2017. Notice (this application) has been sent (Exhibit J) to the surface owner (David & Laverne Maley), BLM, lessees (Chevron, Chisholm, Echo, Guadalupe Land & Minerals, Marathon, MRC), operating right holders (Abo, Chevron Midcontinent, COG, Concho, Marbob, MYCO, Nearburg, Oxy USA, Oxy USA WTP, Oxy Y-1, Strategic Energy, The Allar Co., Yates Pet.) and all well operators (COG) or other affected persons within a half-mile.







NM OIL CONSERVATIO

ARTESIA DISTRICT

Form C-102

1625 N. French Dr., Hobbs, NM 88240 Energy, Minerals & Natural Resources Department Phone. (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210 OIL CONSERVATION DIVISION ine: (575) 748-1283 Fax: (575) 748-9720 1220 South St. Francis Dr.

JAN 05 2018 ised August 1, 2011 Submit one copy to appropriate District Office

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

AMENDED REPORT

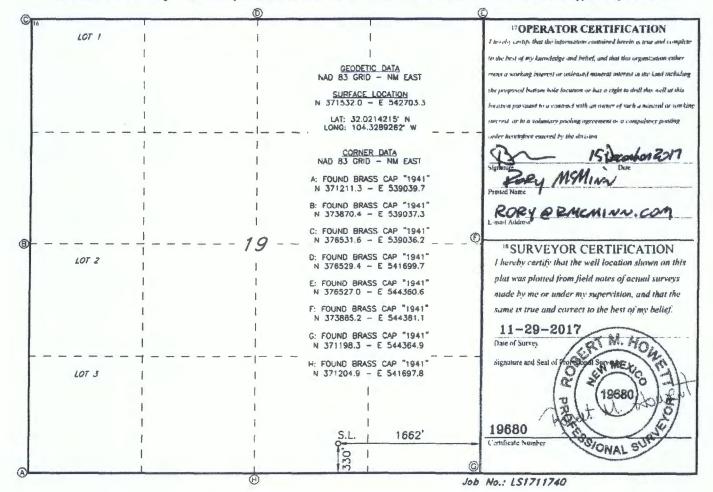
1220 S. St. Francis Dr., Santa Fe, NM 87503 Phone: (505) 476-3460 Fac: (505) 476-3462

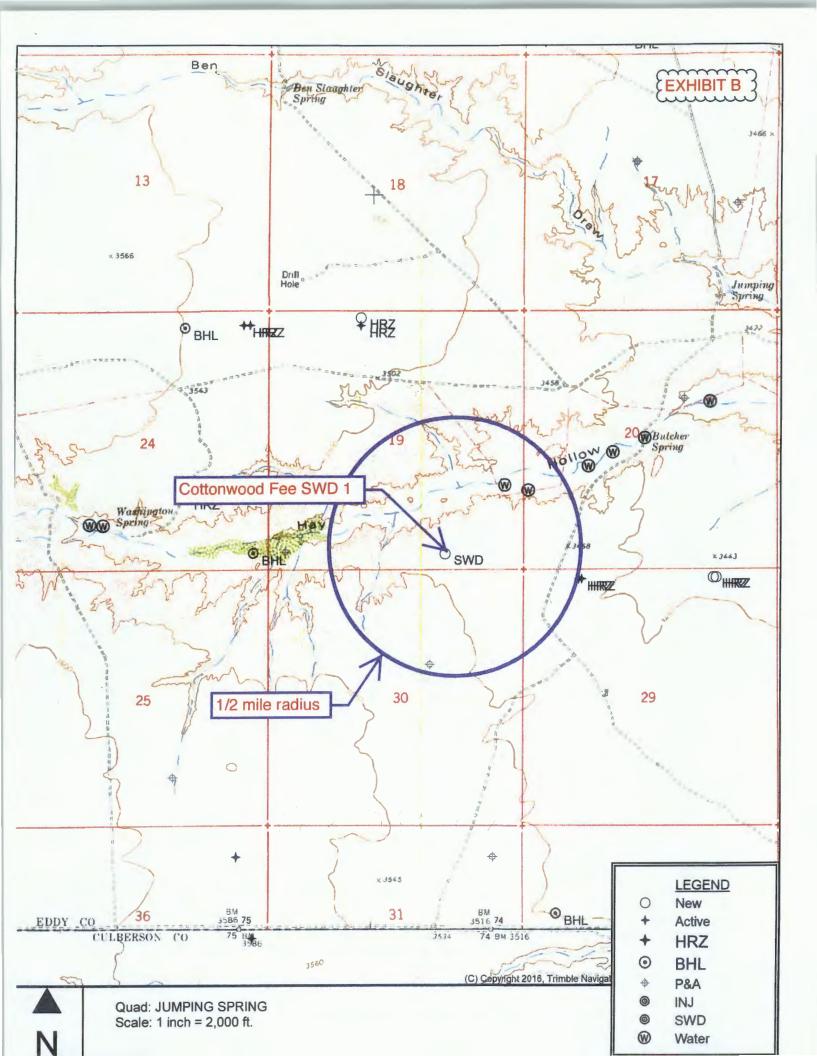
| 5- 4 | 14600 | | 9784 | 9 3 | 5WD; 5 | iluro - L | on a | | | | | |
|----------------------------------|-------------------------------|---|-----------------------------------|---|------------------|--|-------------------------------------|---|--|--|--|--|
| 320498 COTTONWOOD FEE SWD | | | | | | | | | | | | |
| 372603 3BEAR FIELD SERVICES, LLC | | | | | | | | | | | | |
| | | | | 10 Surface I | Location | | | | | | | |
| Section | Township | Range | Lot ldn | Feet from the | North/South line | Feet From the | East West line | County | | | | |
| 19 | 26S | 26E | | 330 | SOUTH | 1662 | EAST | EDDY | | | | |
| | | 11 E | Bottom H | ole Location | If Different Fro | m Surface | | | | | | |
| Section | Lownship | Range | Lot ldn | Feet from the | North/South line | Feet from the | East/West line | County | | | | |
| - | 8 0. 3 Section 19 | 5-44600 8 3 Section Township 19 26S | Section Township Range 19 26S 26E | Section Township Range Lot Idn 19 26S 26E | S | Section Township Range Lot Idn Feet from the North-South line 19 26S 26E 330 SOUTH | S- 44600 97869 Swb Situro - I | S- 44600 97869 Swb Situro - Deportual | | | | |

State of New Mexico

Santa Fe, NM 87505

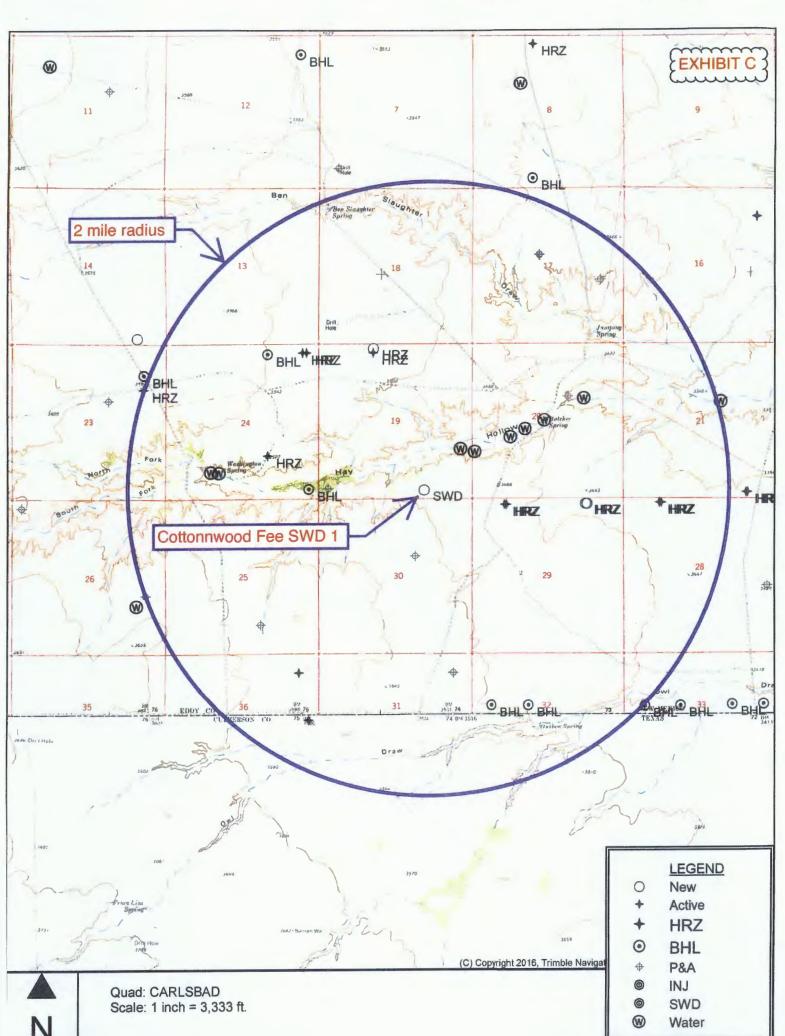
No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

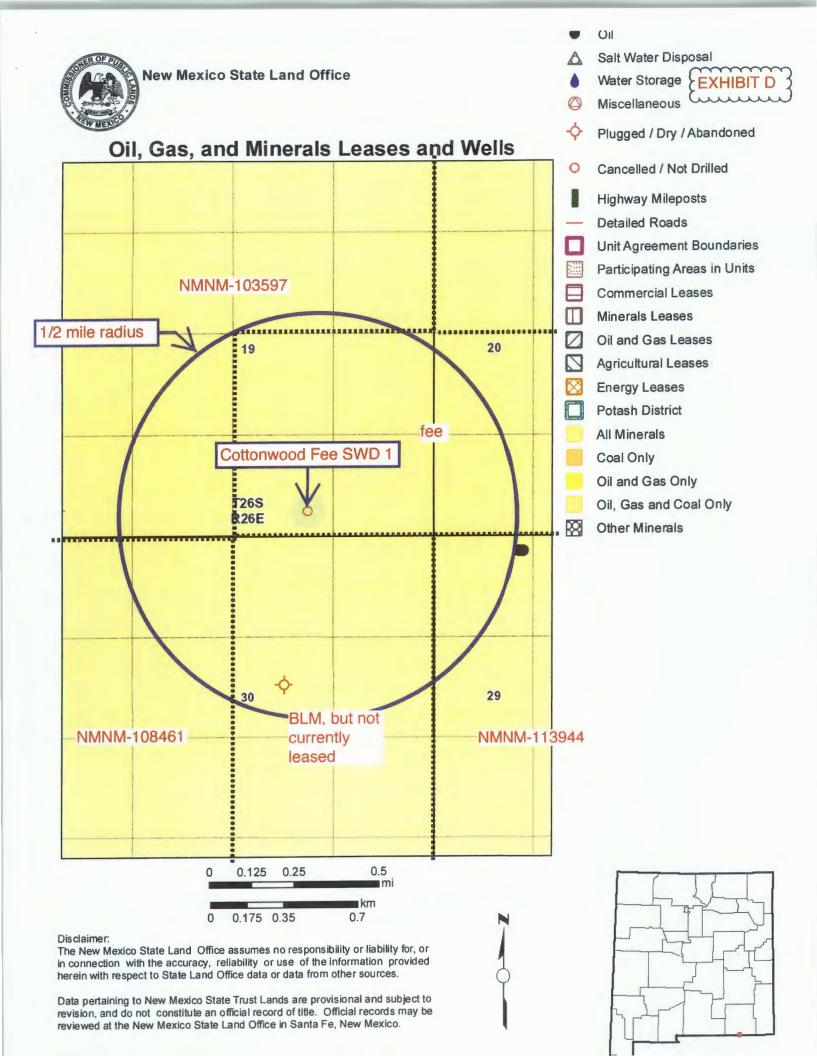


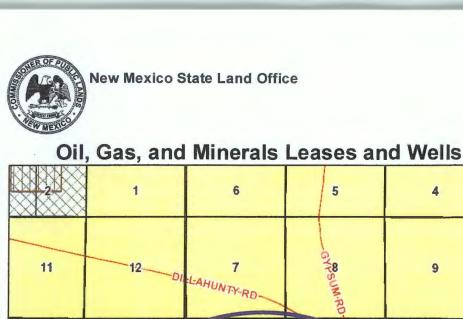


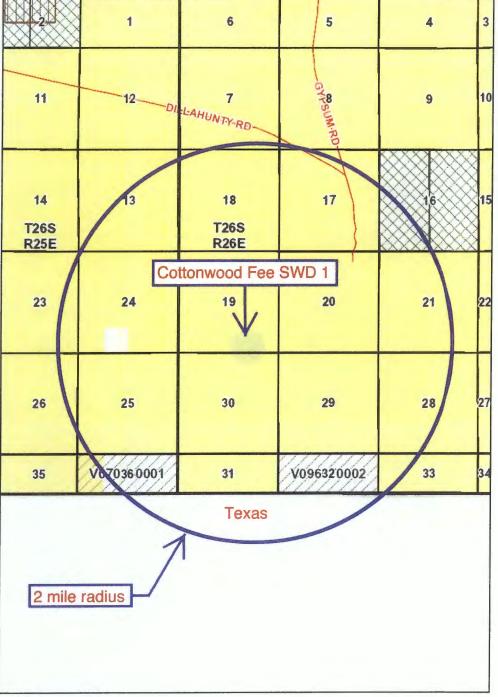
SORTED BY DISTANCE FROM COTTONWOOD FEE SWD 1

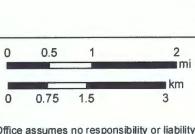
| API | WHO | WELL | TYPE | UNIT- SECTION- T26S-R26E | TVD | ZONE | FEET FROM COTTONWOOD FEE SWD 1 |
|------------|----------|--------------------------------------|------|--------------------------------|-------|-------------|--------------------------------------|
| 3001541129 | COG | Yellow Fin Federal Com 002H | 0 | C-19 | 7777 | Bone Spring | 1701 |
| 3001523490 | Exxon | Warfield Fed 001 | P&A | G-30 | 10797 | Morrow | 2313 |
| 3001543702 | Nearburg | Cottonwood 29 32 Federal Com 001H | 0 | D-29 | 6692 | Bone Spring | 2753 |







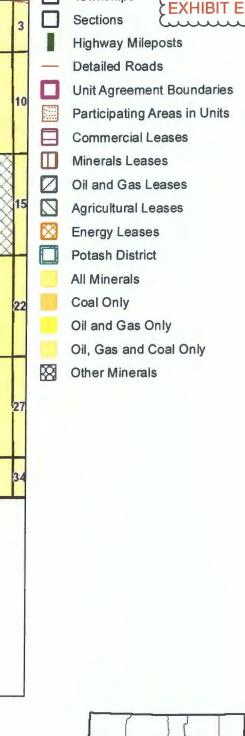




Disclaimer:

The New Mexico State Land Office assumes no responsibility or liability for, or in connection with the accuracy, reliability or use of the information provided herein with respect to State Land Office data or data from other sources.

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.



Larger Towns

State Boundary
Continental Divide
County Boundaries

Townships

Cities

PRODUCED WATER (all units in mg/l)

| | Sufate | 294 | 2 4 7 | 244 | 330 | 3600 | 790 | 3700 |
|---------------------|--|------------|------------|-------------|------------|------------|------------|------------|
| | Bicarbonate | 205 | | | 24 | 37 | 76 | 78 |
| | Chloride | 59225 | 10000 | 1132 100324 | 160000 | 158000 | 156000 | 157000 |
| | Iron Magnesium Chloride Bicarbonate Sufate | 388 | 1157 | 1132 | | | | |
| | Iron | 621 | | 43 | | | | |
| | Calcium | 2980 | 0707 | | | | | |
| 1/9, | TDS Sodium Calcium | 32968 | 73001 | 40207 | | | | |
| (all alles ill 8/1) | TDS | 92833 | 161007 | /00101 | 255599 | 265727 | 255336 | 263830 |
| | Formation | MORROW | BONE | SPRING | DELAWARE | DELAWARE | DELAWARE | DELAWARE |
| | Range | 27E | 376 | 2/2 | 27E | 27E | 27E | 27E |
| | Township | 255 | שבנ | 523 | 265 | 265 | 265 | 265 |
| | Section | 7 | 77 | 77 | 9 | 9 | 9 | 9 |
| | API | 3001523094 | 2001541250 | 2001241323 | 3001522471 | 3001522471 | 3001522471 | 3001522471 |



| Well Name | API | Lat | long | Sect | THAT | Range | County | 51 | field | Formation | samplesource | tels mgl | chloride mgl |
|-----------------------------|------------|--------|----------|------|--------------|-------|--------|----|--------------------|-----------|-----------------|----------|--------------|
| ANTELOPE RIDGE UNIT | 3002521082 | 32.259 | -103.461 | 34 | 23 5 | 34 E | tea | NM | ANTELOPE RIDGE | DEVONIAN | UNKNOWN | 80187 | 47900 |
| FARNSWORTH FEDERAL | 3002511950 | 32.078 | -103,162 | 4 | 26.5 | 37 E | Lea | NM | CROSEV | DEVONIAN | UNKNOWN | 31931 | 20450 |
| ARNOTT RAMSAY | 3002511863 | 32.092 | -103.178 | 32 | 255 | 37 E | Lea | NM | CROSBY | DEVONIAN | | | 100382 |
| COPPER | 3002511818 | 32.099 | -103,165 | 28 | 25 5 | 37€ | Lea | NM | CROSBY | DEVONIAN | UNKNOWN | 27506 | 15270 |
| STATE NJ A | 3002531398 | 32.165 | -103.127 | 2 | 2 5 5 | 37€ | Lea | ММ | JUSTIS NORTH | DEVONIAN | D5T | 105350 | 59300 |
| WEST DOLLARHIDE DEVONIAN | 3002512297 | 32.172 | -103.076 | 32 | 245 | 38 E | Lea | NM | DOLLARHIDE | DEVONIAN | WELLHEAD | 50858 | 30200 |
| STATE B COM | 3002509716 | 32.179 | -103.221 | 36 | 245 | 36 E | teo | NM | CUSTER | DEVONIAN | UNKNOWN | 175234 | 107400 |
| E CHILL D FEDERAL | 3002510950 | 32.265 | -103.144 | 34 | 73 S | 37 E | Lea | NM | TEAGUE | DEVONIAN | UNKNOWN | 236252 | 147000 |
| E CHILL B FEDERAL | 3002510945 | 32.266 | -103.144 | 34 | 23 \$ | 37 E | Lea | NM | TEAGUE | DEVONIAN | UNKNOWN | 112959 | 67390 |
| CLINE FEDERAL | 3002510717 | 32.302 | -103.136 | 14 | 235 | 37 E | Lea | NM | CLINE | DEVONIAN | PRODUCTION TEST | 118979 | 71780 |
| BETT LAKE UNIT | 3002508483 | 32.328 | -109.507 | 6 | 23 5 | 34 E | Lea | | BELL LAKE NORTH | DEVONIAN | HEATER/TREATER | 71078 | 42200 |
| | | | | | | | | - | | | Average | 101133 | 64434 |

From SWD-1620 30-015-43892



New Mexico Office of the State Engineer EXHIBIT G

Water Column/Average Depth to Water

POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is

closed)

(quarters are I=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

| | | POD | | | | | | | | | | | | | |
|-------------------|----------|-------|--------|----|----|---|-----|-------------|-----|--------|------------|-------------|-----------|------------|------|
| | | Sub- | | Q | Q | Q | | | | | | | | W | ater |
| POD Number | Code | basin | County | 64 | 16 | 4 | Sec | Tws | Rng | X | Y | DistanceDep | thWellDep | thWater Co | lumn |
| <u>C 01351</u> | | | ED | 4 | 2 | 4 | 19 | 26S | 26E | 563772 | 3543411* | 567 | 25 | | |
| C 03811 POD1 | | С | ED | 4 | 1 | 4 | 19 | 26S | 26E | 563746 | 3543436 | 569 | 46 | 15 | 31 |
| C 03810 POD1 | | С | ED | 3 | 1 | 3 | 20 | 26 S | 26E | 563896 | 3543406 | 657 | 100 | 15 | 85 |
| C 01351 X-2 | | | ED | 3 | 1 | 3 | 20 | 26S | 26E | 563978 | 3543413* | 728 | 25 | | |
| C 04041 POD1 | | С | ED | 2 | 1 | 3 | 20 | 26S | 26E | 564281 | 3543559 | 1063 | 100 | 60 | 40 |
| C 04046 POD1 | | CUB | ED | I | 2 | 3 | 20 | 26S | 26E | 564437 | 3543647 | 1241 | 140 | 100 | 40 |
| C 01351 X | | | ED | 4 | 4 | 1 | 20 | 26S | 26E | 564581 | 3543822* | 1457 | 25 | | |
| C 03812 POD1 | 1 mile = | С | ED | 4 | 4 | 1 | 20 | 26S | 26E | 564641 | 3543737 | 1463 | 96 | 15 | 81 |
| C 04048 POD1 | 1610 m | CUB | ED | 2 | 3 | 2 | 20 | 26S | 26E | 565061 | 3543969 | 1943 | 140 | 80 | 60 |
| C 04047 POD1 | | CUB | ED | 1 | 4 | 3 | 24 | 26S | 25E | 561202 | 3543172 | 2177 | 100 | 12 | 88 |
| C 03816 POD1 | | C | ED | 1 | 4 | 3 | 24 | 26S | 25E | 561116 | 3543 177 🍪 | 2263 | 80 | 10 | 70 |
| <u>C 02790</u> | | | ED | 3 | 2 | 1 | 25 | 26S | 25E | 561146 | 3542586* | 2266 | 100 | | |
| C 02791 | | | ED | | 4 | 4 | 17 | 26S | 26E | 565288 | 3544739* | 2582 | 100 | | |
| C 02370 | | CUB | ED | | 1 | 1 | 36 | 26S | 25E | 560846 | 3541060* | 3190 | 60 | 7 | 53 |
| | | | | | | | | | | | | | | | |

Average Depth to Water:

34 feet

Minimum Depth:

7 feet

Maximum Depth:

100 feet

Record Count: 14

UTMNAD83 Radius Search (in meters):

Easting (X): 563373

Northing (Y): 3543007

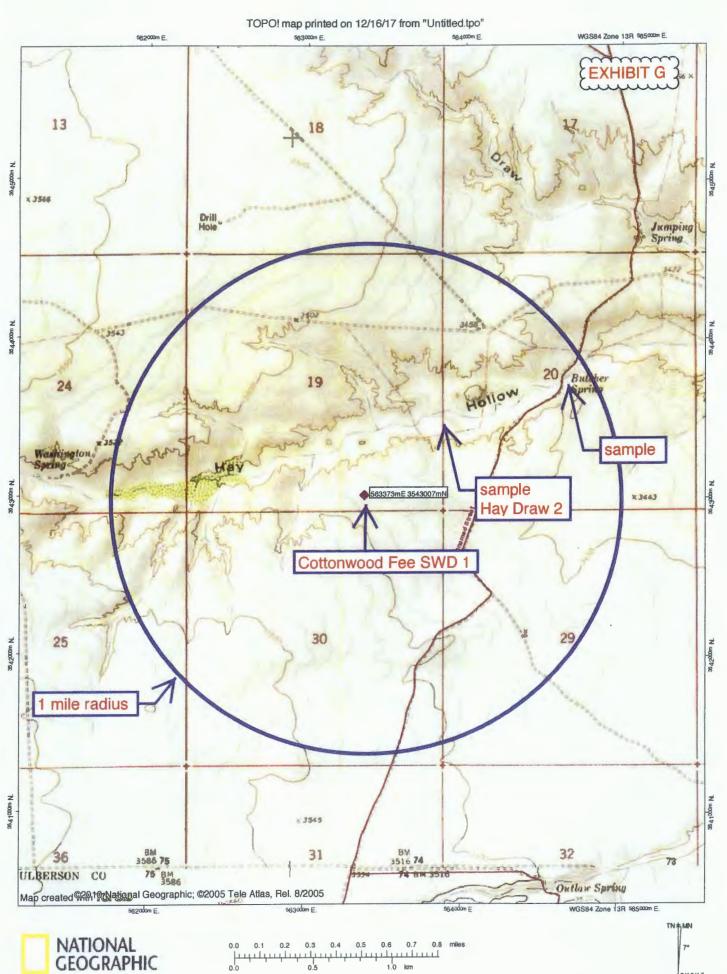
Radius: 3220

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/26/17 4:48 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER





12/16/17



Analytical Repor Lab Order 1801A73

Date Reported: 1/30/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Client Sample ID: Hay Draw #2

Project:

Vision 3 Bear Cottonwood

Collection Date: 1/17/2018 11:21:00 AM

Lab ID:

1801A73-001

Matrix: AQUEOUS

Received Date: 1/23/2018 11:26:00 AM

| Analyses | Result | PQL (| Qual Units | DF | Date Analyzed | Batch |
|-------------------------------|--------|-------|------------|----|----------------------|----------------|
| EPA METHOD 1664B | | | | | Analys | st: dbf |
| N-Hexane Extractable Material | ND | 11.5 | mg/L | 1 | 1/29/2018 4:00:00 PM | 36233 |
| EPA METHOD 300.0: ANIONS | | | | | Analys | st: CJS |
| Chloride | 110 | 10 | mg/L | 20 | 1/24/2018 4:02:34 AM | A48659 |
| SM2540C MOD: TOTAL DISSOLVE | SOLIDS | | | | Analys | t: KS |
| Total Dissolved Solids | 2920 | 20.0 | * mg/L | 1 | 1/25/2018 6:28:00 PM | 36172 |

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

| Q | u | a | Į | l | Į | I | e | r | S |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 4 J

Sample pH Not In Range P

Reporting Detection Limit

Sample container temperature is out of limit as specified



Lab Order 1801A73

Date Reported: 1/30/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Client Sample ID: Butcher Spring

Project: Vision 3 Bear Cottonwood

Collection Date: 1/17/2018 11:46:00 AM

Lab ID: 1801A73-002

Matrix: AQUEOUS

Received Date: 1/23/2018 11:26:00 AM

| Analyses | Result | PQL Qu | al Units | DF Date Analyzed | Batch |
|-------------------------------|--------|--------|----------|-------------------------|---------------|
| EPA METHOD 1664B | | | | Analys | t: dbf |
| N-Hexane Extractable Material | ND | 10.4 | mg/L | 1 1/29/2018 4:00:00 PM | 36233 |
| EPA METHOD 300.0: ANIONS | | | | Analys | t: CJS |
| Chloride | 270 | 10 | * mg/L | 20 1/24/2018 4:27:23 AM | A48659 |
| SM2540C MOD: TOTAL DISSOLVE | SOLIDS | | | Analys | t: KS |
| Total Dissolved Solids | 4370 | 20.0 | mg/L | 1 1/25/2018 6:28:00 PM | 36172 |

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

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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 4
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

1801A73

WO#:

30-Jan-18

Hall Environmental Analysis Laboratory, Inc.

Client:

Permits West

Project:

Client ID:

Analyte

Vision 3 Bear Cottonwood

Sample ID MB-36233

SampType: MBLK

TestCode: EPA Method 1664B

PBW

Batch ID: 36233

RunNo: 48769

Prep Date:

1/29/2018

Analysis Date: 1/29/2018

SeqNo: 1568947

Units: mg/L

HighLimit

%RPD **RPDLimit** Qual

N-Hexane Extractable Material

Sample ID LCS-36233

Result ND

10.0

PQL

SampType: LCS

TestCode: EPA Method 1664B

Client ID:

LCSW

Batch ID: 36233

RunNo: 48769

%REC

78

LowLimit

Prep Date: 1/29/2018

Analysis Date: 1/29/2018

SeqNo: 1568948

Units: mg/L

RPDLimit

Qual

Analyte N-Hexane Extractable Material Result 36.0 PQL 10.0

40.00

SPK value SPK Ref Val

SPK value SPK Ref Val %REC LowLimit

90.0

114

HighLimit

%RPD

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

Practical Quanitative Limit **PQL**

% Recovery outside of range due to dilution or matrix S

B Analyte detected in the associated Method Blank

Е

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Qualifiers:

Value above quantitation range

Page 3 of 4

QC SUMMARY REPORT



Hall Environmental Analysis Laboratory, Inc.

30-Jan-18

Client:

Permits West

Project:

Analyte

Vision 3 Bear Cottonwood

Result

Sample ID MB-36172

SampType: MBLK

TestCode: SM2540C MOD: Total Dissolved Solids

Client ID:

PBW

Batch ID: 36172

RunNo: 48704

Prep Date: 1/24/2018

Analysis Date: 1/25/2018

PQL

SeqNo: 1566557

%REC LowLimit

Units: mg/L

HighLimit

%RPD **RPDLimit**

Qual

Total Dissolved Solids

ND 20.0

Sample ID LCS-36172

SampType: LCS

TestCode: SM2540C MOD: Total Dissolved Solids

Client ID:

LCSW

Batch ID: 36172

RunNo: 48704

%REC

Prep Date: 1/24/2018

Analysis Date: 1/25/2018

SeqNo: 1566558

Units: mg/L

RPDLimit %RPD

Qual

Total Dissolved Solids

Result 1010

20.0

SPK value SPK Ref Val

SPK value SPK Ref Val

0

LowLimit 80

Analyte

PQL

1000

101

120

HighLimit

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Η

Not Detected at the Reporting Limit ND Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

В Analyte detected in the associated Method Blank

Value above quantitation range

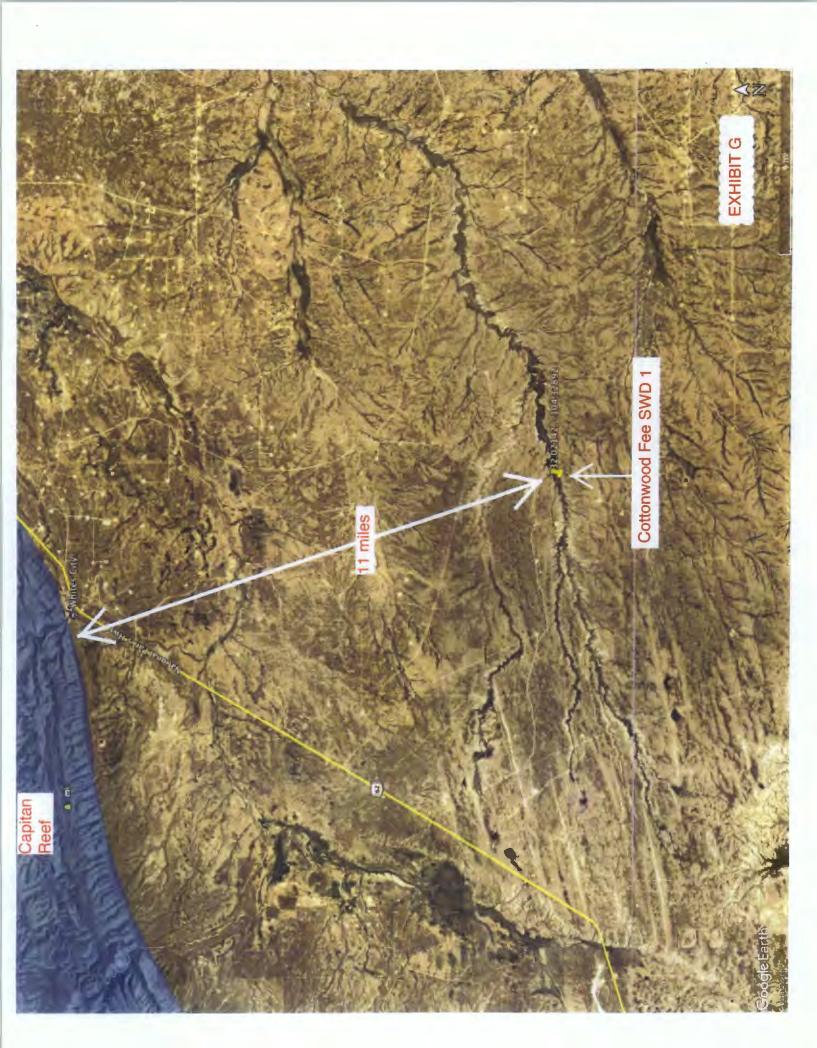
Analyte detected below quantitation limits

Page 4 of 4

Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified



ATTACHMENT TO

FORM C-108

3Bear Field Services, LLC

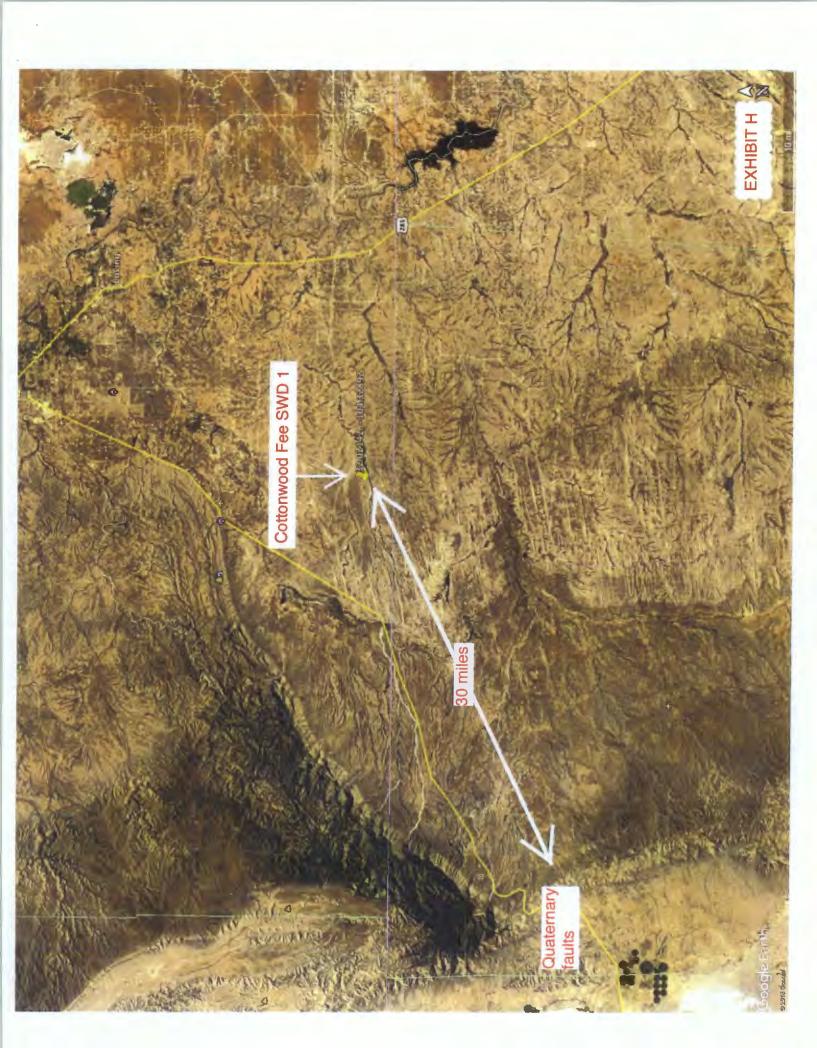
Cottonwood Fee SWD #1

Unit Letter O, Section 19, T26S, R26E, N.M.P.M. Survey

Eddy County, NM

Available geologic and engineering data has been examined and no evidence of open faults or hydrological connection between the injection zone and any underground sources of drinking water has been found.

Date: 1-11-2018



Affidavit of Publication

State of New Mexico, County of Eddy, ss.

Danny Fletcher, being first duly sworn, on oath says:

That he is the Publisher of the Carlsbad Current-Argus, newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices advertisements may published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

December 19

2017

That the cost of publication is \$50.15 and that payment thereof has been made and will be assessed as court costs.

My commission Expires

Notary Public



December 19, 2017

as a saltwater disposal well. Disposal will be in the Silurian and Devonian from 11,700' to 13,000'. The well will be located 20 miles southwest of Malaga, NM at 330 FSL & 1662 FEL Sec., 19, T. 26 S., R. 26 E., Eddy County. Maximum disposal rate will be 25,000 bwpd. Maximum injection pressure will be 2,340 psi. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days.

Additional information can be obtained by contacting: Brian Wood, Permits West, Inc., 37 Verano Loop, Santa Fe, NM 87508. Phone number is (505) 466-





March 13, 2018

David & Laverne Maley PO Box 519 Carlsbad NM 88220

TYPICAL LETTER

3Bear Field Services, LLC is applying (see attached application) to drill the Cottonwood Fee SWD 1 well as a saltwater disposal well. As required by NM Oil Conservation Division (NMOCD) rules, I am notifying you of the following proposed saltwater disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: Cottonwood Fee SWD 1 (fee lease)

TD = 13,000

Proposed Disposal Zones: Devonian & Silurian (11,760' – 13,000')

Location: 330' FSL & 1662' FEL Sec. 19, T. 26 S., R. 26 E., Eddy County, NM

Approximate Location: ≈20 air miles southwest of Malaga, NM Applicant Name: 3Bear Field Services, LLC

(575) 626-7100

Applicant's Address: 1512 Larimer St., Suite 540, Denver CO 80202

Submittal Information: Application for a saltwater disposal well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. NMOCD address is 1220 South St.

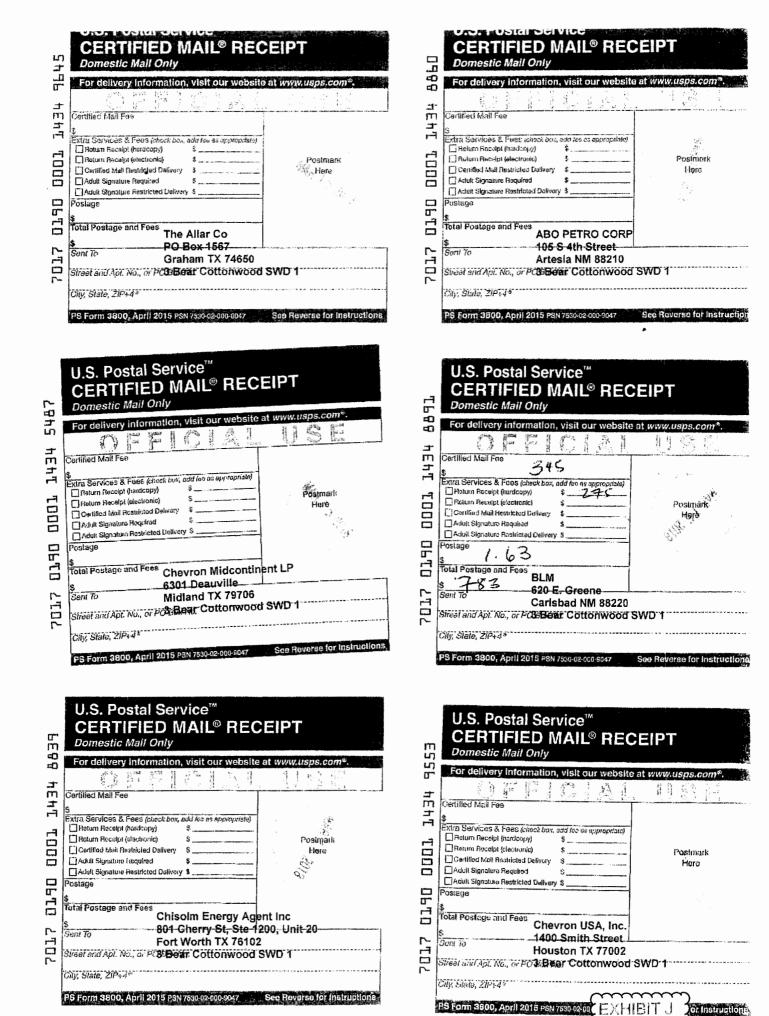
Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

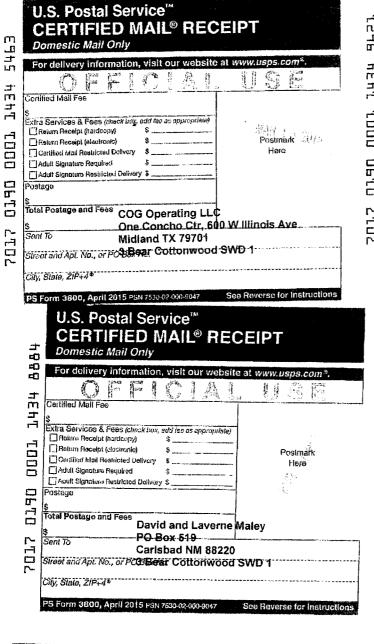
Please call me if you have any questions.

Sincerely,

Brian Wood







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EXHIBIT

| Complete items 1, 2, and 3. 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. Article Addressed to: | A. Signature A. Signature X. Addressee 3. Begalved by (Printed Name) C. Diate of Delivery | Attach this card to the back of the mailpiece, or on the front if space permits. | A. Signature X. A. Agent Addresse B. Réceived by Printed Name) C. Date of Deliver |
|--|--|--|---|
| ABO PETRO CORP 105 S 4th Street Artesia NM 88210 | D. Is delivery address different from item 17 ☐ /res if YES, enten delivery address below: ☐ . No | Article Addressed to: Concho Oil & Gas LLC 600 W Illinois Ave Midland TX 79701 | D. Is delivery address different from item 1? If YES, enter delivery address below: No |
| 3 Bear Cottonwood SWD 1 9590 9402 3732 7335 6369 88 Article Number (<i>Transfer from service label</i>) | Adult Signature Pastroted Delivery Priority Mail Express® Registered Mail* Redistricted Delivery Registered Mail* Restricted Delivery Registered Mail* Restricted Delivery Restricte | 3 Bear Cottonwood SWD 1 9590 9402 3732 7335 6668 34 2. Article Number (Transfer from service labell | 3. Service Type Adult Signature Pestricted Delivery Registered Mail** Certified Mail** Serviced Delivery Registered Mail** Coertified Mail** Serviced Delivery Return Receipt for Mail** Collect on Delivery Restricted Delivery Signature Confirmation Signature Confirmation |
| 017 0190 0001 1434 8860 Form 3811, July 2010 PSN 7530-02-000-0000 | □ Insured Mail □ Insured Mail □ Insured Mail Restricted Delivery ver \$500) □ Domestic Return Receipt | 7017 0190 0001 1434 9621 PS Form 3811, July 2015 PSN 7530-02-000-9053 | red Mail Restricted Delivery red Mail Restricted Delivery Domestic Return Receip |
| NDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY | SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY |
| Complete items 1, 2, and 3. 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. Article Addressed to: | A. Signature X. M. Addressee B. Received hy Printed Name). C. Date of Delivery D. Is delivery address different from Item 1? Yes | | A Signature A Agent A Address B. Received by (Printed Name). C. Date of Delive 3-20-6 D. is delivery address different from item 1? Yes |
| Chevron Midcontinent LP 6301 Deauville Midland TX 79706 3 Bear Cottonwood SWD 1 | If YES, enter delivery address below: ☐ No | Bruce Alan Macnaughton c/o Reserve Mgmt. Lin. PO Box 4469 Longview TX 75606 | it YES, enter delivery address below: □ No |
| 9590 9402 3732 7335 6669 02 Article Number (Transfer from service label) | S. Service Type Auth Signature Serviced Delivery Pricrity Mail Express® Pagistered Mail® Restricted Delivery Registered Mail® Restricted Delivery Return Receipt for Mail® Collect on Delivery Pestricted Delivery Signature Confirmation Restricted Delivery Return Receipt for Mail® Signature Confirmation Signature Confirmation Restricted Delivery Signature Confirmation Restricted Delivery Signature Confirmation Restricted Delivery Return Receipt for Mail® Restricted Delivery Signature Confirmation Restricted Delivery Restric | 2. Article Number (Transfer from service label) | S. Service Type Profity Mail Express® Adult Signature Profity Mail Express® Registered Mail* Registered Mail* Profit Signature Restricted Delivery Registered Mail* Restricted Delivery Return Receipt for Mail* Restricted Delivery Restricted Delivery |
| ² 017 0190 0001 1434 5487 Form 3811, July 2015 | er \$500) Domestic Return Receipt | 7017 0190 0001 1434 8990 | ud Maii Restricted Delivery Restricted Delivery \$500) Domestic Return Receip |
| The second secon | COMPLETE THIS SECTION ON DELIVERY | SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY |
| NDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. | A. Signature | ■ Complete items 1, 2, and 3. ■ Print your name and address on the reverse so that we can return the | A. Signatuje |
| Print your name and address on the reverse to that we can return the card to you. | X Addressee | Attach this card to the back of the | B. Received by (Printed Name) C. Date of Dalis |
| Attach this card to the back of the mailpiece, or on the front if space permits. | B. Received by (Printed Name) C. Date of Delivery | or on the front if space permits. 1. Article Addressed to: | |
| uticle Addressed to: Chevron USA, Inc. 1400 Smith Street Houston TX 77002 | D. Is delivery address address below: ☐ No | David and Laverne Maley PO Box 519 Carlsbad NM 88220 3 Bear Cottonwood SWD 1 | D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☐ No |
| 3 Bear Cottonwood SWD 1 9590 9402 3732 7335 6667 80 Viticle Number (Transfer from service label) | Service Type | 9590 9402 3732 7335 6670 08 2. Article Number (Transfer from service label) | 3. Service Type Adult Signature Restricted Delivery Propriet Mail Express® |
| 17 0190 0001 1434 9553 | Insured Mail Insured Mail Restricted Delivery (over \$500) Signature Confirmation Restricted Delivery | 7017 0190 0001 1434 8884 PS Form 3811, July 2015 PSN 7530-02-000-9053 | sured Mail Restricted Delivery ver \$500) Restricted Delivery |
| Form 3811duty 2015 PSN 7530-02-000-9053 | Domestic Return Receipt | | Domestic Return Receip: COMPLETE THIS SECTION ON DELIVERY |
| NDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY A. Bignature | SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. | A. Signature |
| Complete items 1, 2, and 3. Thirt your name and address on the reverse of that we can return the card to you. Ittach this card to the back of the mailpiece, or on the front if space permits. Itcle Addressed to: | B Received by (Printed Name) □ Agent □ Addressee □ C. Dater of Delivery □ -/ / □ D. Is delivery address different from item 1? □ Yes | ■ Complete learns 1, 2, and the reverse so that we can return the card to you. ■ Attach this card to the back of the rnailpiece, or on the front if space permits. 1. Article Addressed to: | X Color Address |
| Chisolm Energy Agent Inc 801 Cherry St, Ste 1200, Unit 20 Fort Worth TX 76102 | if YES, enter delivery address below: No | Marathon Oil Permian LLC 5555 San Felipe Street Houston TX 77056 3 Bear Cottonwood SWD 1 | 2 Sanica Tupe Priority Mail Expres |
| 3 Bear Cottonwood SWD 1 9590 9402 3732 7335 6669 33 ticle Number (Transfer from service label) | 3. Service Type | 9590 9402 3732 7335 6668 03 2. Article Number (Transfer from service label) | Service Type Adult Signature Adult Signature Restricted Delivery Coertified Mail Restricted Delivery Coefficied Mail Restricted Delivery Collect on Delivery Restricted Delivery Collect on Delivery Restricted Delivery Collect on Delivery Restricted Delivery In Insured Mail Restricted Delivery sured Mail |
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| OFR: COMPLETE THIS SECTION | Domestic Return Receipt : COMPLETE THIS SECTION ON DELIVERY | PS Form 30 1 1, July 2013 F319 7330-02 333 3335 | |
| omplete items 1, 2, and 3. | A. Signature | SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY |
| int your name and address on the reverse of that we can return the card to you. tach this card to the back of the mailpiece, on the front if space permits. | | Complete items 1, 2, and 3. 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. | A. Signature L. Agent Addresse B. Hockyd by (Pringed Name) C. Date of Deliver |
| COG Operating LLC One Concho Ctr, 600 W Illinois Ave Midland TX 79701 3 Bear Cottonwood SWD 1 | | Article Addressed to: Marbob c/o COG Concho 600 W. Illinois Ave. Midland TX 79701 | D. Is delivery address different from item 1? |
| S Bear Cottonwood SWD 1 | S. Service Type ☐ Priority Mail Express® ☐ Adult Signature ☐ Registered Mail™☐ Adult Signature Restricted Delivery ☐ Registered Mail Restricted | | Service Type U Priority Mail Expressi |
| 9590 9402 3732 7335 6668 89 | ☐ Certified Mail® Delivery ☐ Collect on Delivery ☐ Collect on Delivery ☐ Collect on Delivery ☐ Signature Confirmation™ | 0500 0400 3700 7725 6867 42 | 3. Service Type |

| NDER: COMPLETÉ THIS SECTION | COMPLETE THIS SECTION ON DELIVERY | SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY |
|--|--|---|---|
| Complete items 1, 2, and 3. Print your name and address on the reverse | A. Signature | Complete items 1, 2, and 3. | A. Signature |
| o that we can return the card to you. ttach this card to the back of the mailpiece, | B. fleeewed by (Printed Name) C. Date of Deliver | so that we can return the card to you. | B. Received by (Printed Name) C. Date of Deliver |
| r on the front if space permits. nicle Addressed to: | D. Is delivery address different from item 1? VES uniter delivery address below: | or on the front if space permits. 1. Article Addressed to: | D. is delivery address different from item 1? Yes if YES, enter delivery address before E No |
| MRC Permian Company | If YES, enter delivery address below: 🔲 No | OXY Y-1 Company | ।। 150, enter delivery address-patom : ४ 🛅 १४० |
| 5400 LBJ Freeway, Suite 1500 Dallas TX 75240 | | PO Box 27570 Houston TX 77227 | |
| 3 Bear Cottonwood SWD 1 | | = 3 Bear Cottonwood SWD 1 | |
| The state of the s | 3. Serviue Type ☐ Priority Mail Express® ☐ Registered Mail Petricted Delivery ☐ Pegristered Mail Restricted Delivery ☐ Delivery ☐ Delivery | | 3. Service Type ☐ Priority Mail Express® ☐ Registered Mail™ ☐ Registered Mail™ Restricted Delivery ☐ Registered Mail Restricted Delivery ☐ Del |
| 9590 9402 3732 7335 6667 97 | Continued Mail® Delivery D | 9590 9402 3732 7335 6669 95 | ☐ Certified Meil Restricted Delivery ☐ Return Receipt for Merchandise ☐ Collect on Delivery ☐ Collect on Delivery ☐ Signature Confirmation |
| licle Number (Transfer from service label) 7017 0190 0001 1434 역임 | ☐ Insured Mail ☐ Signature Confirmation | 2. Article Number (Transfer from service label) 7017 0170 0001 1434 88 | ☐ Insured Mail ☐ Signature Confirmation |
| orm 3811, July 2015 PSN 7530-02-000-9053 | Domestic Return Receipt | | Domestic Return Receip |
| DER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY | SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY |
| omplete items 1, 2, and 3. | A. Signature | Complete items 1, 2, and 3. | A. Signature |
| that we can return the card to you. | B. Received by (Printed Name) C. Date of Delivery | | X lawer Kalchak Addres B. Received by (Printed Name) C. Date of Deliv |
| on the front if space permits. | D. Is delivery address different from item 1? Yes | or on the front if space permits. 1. Article Addressed to: | D. (sidelivery address different from item 1? |
| MYCO INDUSTRIES INC | If YES, enter delivery address below: | Strategic Energy Income Fund IV LP | If YES, enter delivery address below: |
| PO Box 840 Artesia NM 88211 | | 2350 N Forest Rd Getzville NY 14068 | - No. 1217 / |
| 3 Bear Cottonwood SWD 1 | | = 3 Bear Cottonwood SWD 1 | 2 |
| | 3. Service Type □ Priority Mail Express® □ Rugistered Mail™ □ Adult Signature □ Adult Signature Restricted Delivery □ Registered Mail Restricte | an a michimi amar i ma a an an an an an i di lari. An a ana an i di lari | 3. Service Type |
| 9590 9402 3732 7335 6669 64 | Certified Mail® Delivery Certified Mail Restricted Delivery Receipt for Merchandise | 9590 9402 3732 7335 6668 27 | Certified Mail® Delivery Certified Mail Restricted Delivery Return Receipt for Merchandise Merchandise |
| icle Number (<i>Transier from service label</i>) | ☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation™☐ Signature Confirmation ☐ Signature Confirmation ☐ Signature Confirmation ☐ Restricted Delivery over \$500) | 2. Article Number (Transfer from service label) 7017 0190 0001 1434 9591 | ☐ Collect on Delivery Restricted Delivery ☐ Signature Confirms |
| rm 3811, July 2015 PSN 7530-02-000-9053 | over \$500) Domestic Return Receipt | PS Form 3811, July 2015 PSN 7530-02-000-9053 | Domestic Return Rec |
| | · - | | COMPLETE THIS SECTION ON DELIVERY |
| PER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY A. Signature | SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. | A. Signature |
| nplete items 1, 2, and 3. It your name and address on the reverse hat we can return the card to you. | X | Print your name and address on the reverse so that we can return the card to you. | X // Address B. Received by (Printed Name) C. Date of Deliv |
| that we carrietarn the card to you. Ich this card to the back of the mailpiece, In the front if space permits. | B. Received by (Printed Name) C. Date of Delivery | Attach this card to the back of the mailpiece, or on the front if space permits. | Melanic Barrett 5 72-1 |
| the Addressed to: | D. Is delively address different from item 1? Yes If YES enter delivery address below: | 1. Article Addressed to: | D. is delivery address different from item 1? Yes If YES, enter delivery address below: No |
| OXY USA INC PO Box 4294 | | The Allar Co PO Box 1567 | 1 Mary of |
| Houston TX 77210 | | Graham TX 74650 | ((and ssau) |
| 3 Bear Cottonwood SWD 1 | 3. Service Type Priority Mail Express® | 3 Bear Cottonwood SWD 1 | 3. Service Type Adult Signature 7 X Priority Mail Express Registered Mail* |
| | ☐ Adult Signature ☐ Adult Signature Restricted Delivery ☐ Adult Signature Restricted Delivery ☐ Certified Mail® ☐ Registered Mail Restricted Delivery ☐ Delivery | | ☐ Adult Signature Restricted Delivery ☐ Registered Mail Rest ☐ Certified Mail® ☐ Certified Mail Restricted Delivery ☐ Return Receipt for |
| 9590 9402 3732 7335 6668 41 | ☐ Certified Mail Restricted Delivery ☐ Return Receipt for ☐ Collect on Delivery ☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation™ | Article Number (Transfer from service label) | Collect on Delivery |
| 7 0190 0001 1434 9614 | ☐ Insured Mail Signature Confirmation Sured Mail Restricted Delivery yer \$500) | 7017 0190 0001 1434 9645 | |
| m 3811, July 2015 PSN 7530-02-000-9053 | Domestic Return Receipt | | |
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| replete items 1, 2, and 3. If your name and address on the reverse | A. Signature X Agent Addressee | Print your name and address on the reverse so that we can return the card to you | X TOUKE Adent |
| nat we can return the card to you. The this card to the back of the mailpiece, The front if space permits. | B. Received by Rinted Name C. Date of Delivery | Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: | 8. Received by (Printed Name) C. Date of Delive |
| e Addressed to: | D. Is delivery address different from that 1,50 , Types If YES, enter delivery address below: | Yates Petro Corp | D. Is delivery address different from item 1? Yes If YES, enter delivery address below: No |
| Oxy USA Inc 5 Greenway Piz #110 | | 105 S 4th Street | |
| Houston TX 77046 | | Artesia NM 88210 | |
| 3 Bear Cottonwood SWD 1 | 3. Service Type | 3 Bear Cottonwood SWD 1 | 3. Service Type |
| | ☐ Adult Signature ☐ Registered Mail™ ☐ Registered Mail™ ☐ Registered Mail™ ☐ Registered Mail Restricted Delivery ☐ Cartified Mail® | 9590 9402 3722 7225 0000 20 | ☐ Adult Signature Restricted Delivery ☐ Registered Mail™ ☐ Registered Mail Restricted Delivery ☐ Certified Mail® |
| 590 9402 3732 7335 6668 58 e Number (<i>Transfer from service label</i>) | Collect on Delivery Return Receipt for Merchandise Collect on Delivery Stricted Delivery Signature Confirmation | Article Number (Transfer from service label) | ☐ Collect on Delivery ☐ Collect on Delivery ☐ Signature Confirmation ☐ Insured Mail |
| 0190 0001 1434 9607 | ☐ Insured Mail | 7017_0190_0001_1434_5494 PS Form 3811, July 2015 PSN 753U-U2-UUU-9UU- | ar \$500) Restricted Delivery ar \$500) |
| 3811, July 2015 PSN 7530-02-000-9005 DER: COMPLETE THIS SECTION | | 2 22 200 0000 | Domestic Return Receip |
| mplete items 1, 2, and 3. | COMPLETE THIS SECTION ON DELIVERY A. Signature | | |
| nt your name and address on the reverse that we can return the card to you. | X | <u>_</u> | |
| ach this card to the back of the mailpiece, on the front if space permits. | B. Heceived by Printed Namer C. Date of Delivery | - | |
| WTP LP | D. Is delivery address different from them 1? Yes If YES, enter delivery address below: | - | |
| Bx 4294 ston TX 77210 | 18.02. | | |
| | | | |
| 지하다 (12년 1일 2년) 중 1일 시 1일 | 3. Service Type | : | |
| 9500 9403 3730 7035 0000 0 | □ Adult Signature □ Registered Mail* □ Registered | | |

<u>District 1</u> 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax. (575) 393-0720

District II 811 S. First St., Arresia, NM 88210 Phone: (\$75) 748-1283 Fax (\$75) 748-9720

District 111 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax. (505) 334-6170 District IV

State of New Mexico

Form C-101 Revised July 18, 2013

Energy Minerals and Natural Resources

RECEIVED

Oil Conservation Division

☐AMENDED REPORT

1220 South St. Francis Dr.

MAY 2 2 2018

Sonto En NIM 97505

| Phone: (505) 476-34 | | | | | Santa F | e, NIVI | 5/303 | DISTRICT | TII-ARTESI | A O.C. D. |
|---|---|---|-----------------------------|-------------------------|--|--|--|-------------------|---|--|
| 3Be | ar Field | Services | Operator Name a | O DRILL, and Address | RE-ENT | ER, DE | EPEN, | PLUGBA | CK, OR A OGRID N 37260 | ADD A ZONE lumber 03 |
| 1512 | 2 Larim iver, CO | er Street | , Suite 540 | | | | | | ² API Nu | mber |
| | ty Code | 1 | Cottonw | ood Fee S | Property Nam | ie . | | L | 1 | Well No. |
| | | | COLLOIN | | urface Loca | | | | | |
| UL+Lai O | Section 19 | Township 26 S | Range 26 E | Lot ldn | Feet from 330 | N | S Line DUTH | Feet From 1662 | EW Lin | |
| | | | | | ed Bottom H | | | | ~, | |
| UL · Lot | Section | Township | Range | Lot Ida | Feet from | N | S Line | Feet From | E/W Lin | e County |
| | | | | | col Informa | tion | | | | |
| | | | S | WD; Silur | ^{l Name} r o-Devoni | ian | | | | Poel Code |
| | *************************************** | *************************************** | | | nal Well Info | | ······································ | | | |
| " Work | 1 | | 12 Well Type S | 76911.5 | 13 Cable/Rotar R | У | | Lease Type P | | Ground Level Elevation 3483 |
| | YES 13,000 Siluro-Devonian Pat | | | | | Patri | riot Drilling June | | Ine 1, 2018 | |
| Depth to Groun | | | | nce from nearest | | | | | ce to nearest sur | |
| Турс | | : Size | Casing Size | Proposed Ca | eight/ft | Settin | g Depth | Sacks o | of Cement | Estimated TOC |
| Please see | attac | ched / | Addendum | to Drilli | ng | Pern | <u>iit</u> | | - 11 - 11 - 11 - 11 - 11 - 11 - 11 - 1 | |
| | | | Casin | g/Cement Pr | rooram: Add | riitional (| Comment | | | |
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| | | | 22. | Proposed Bi | awaut Prev | ention Pr | ocram | | | |
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| best of my kno | wledge an | d belief. | on given above is to | - | / | | OIL | CONSERV | ATION DI | VISION |
| I further certi 19.15.14.9 (B) Signature: | fy that I r | naye compii g, if applic | led with 19.15.14.9 able | 9 (A) NM AC 🗷 | and/or | Approved B | y: | | | |
| Printed name: | Rory | McMin | nn | | 7 | l'itle: | | | | arana arang mengentahan sebenjah dan mengentah beberapa dan sebenjah dan sebenjah dan sebenjah dan sebenjah da |
| Title: Ad | visor | | | | 1 | Approved D | late: | | Expiration Da | ile: |
| E-mail Addres | | @rmcm | inn.com | | | *************************************** | | | emanalis es | |
| Date: 20 M | | | | /626-7100 | | Conditions of | f Approval | Attached | | |
| | | | | | | | | | | |

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

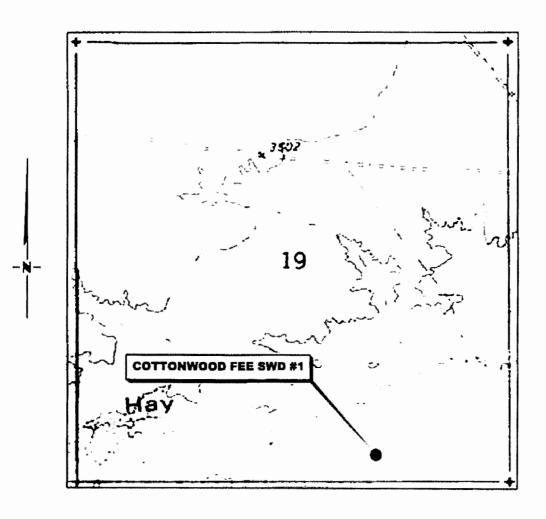
☐ AMENDED REPORT

| | I API Number | | | 2 Poo! Code | | | Pool Nan | ne. | . |
|--|---------------|---------------|---------------|-------------|-------------------------|-------------------|--|----------------|-------------|
| ⁴ Property Co | xde | | | CO | S Property Na | | ************************************** | 6 | Well Number |
| *OGRID NO. *Operator Name **Clevation 3BEAR FIELD SERVICES, LLC 3483 | | | | | | levation 3483' | | | |
| | | | | | ¹⁰ Surface I | ocation | | | |
| UL or lot no | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet From the | East West line | County |
| 0 | 19 | 265 | 26E | | 330 | SOUTH | 1662 | EAST | EDDY |
| | | | · · E | 3ottom H | ole Location | If Different Fro | m Surface | | |
| UL, or let na. | Section | Townstup | Range | Loi lán | Feet from the | North/South line | Feet from the | East-West line | County |
| Dedicated Acre | es 13 Joint o | pr Infiil 244 | Consolidation | Code 15 C | Order No. | | | | |

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division

| ~ | | o | © | |
|----------|--------|------------------------------------|---|---|
| | LOT I | | 17 OPERATOR CERTIFIC Therebs crease that the information continued here to the best of my knowledge and belief, and that th | rin is inser und complete |
| | ! ! | I GEODETIC I NAD 83 GRID - | NM EAST (19 48 at 340) king interest or unleased mineral interes | nt in the hand including |
| ١ | i | SURFACE LOC N 371932 0 - E | 842201 1 | |
| | 1 | LAT: 32.0214; | 215' N Interest or to a voluntary modeling agreement or a c | - |
| | | LONG: 104.328 | 9262" W wider beretajure executed by she dividua | |
| | ; } | CORNER D NAD 83 GRID - | NM EAST Segnature Date | E |
| | | A: FOUND BRASS (N 371211.3 - E | | *************************************** |
| | • | B FOUND BRASS (N 373870.4 - E | 539037.3 E-mail Address | |
| 6 | | C FOUND BRASS (| 539036.2 | |
| ٦ | LOT 2 | D: FOUND BRASS (N 376529,4 - E | I I handky comity that the well location | |
| | , 1 | E FOUND BRASS (N 376527.0 - E | CAP "1941" plat was plotted from field notes of | , |
| - [| 1 | F: FOUND BRASS (N 373865 2 - E | | of my belief |
| | | G: FOUND BRASS (N 371198.3 - E | CAP "1941" 544364.9 Tale of Survey Dale of Survey | HOME |
| | LOT 3 | H- FOUND BRASS (N 371204.9 - E | 100/2/ | 101-44 |
| | ! | 1 1 | 13 t 12. | 》 |
| | ; | S.L. | 1662' 19680 Certificate Number | 100 |
| | ı | 330. | JONAL | 30 |
| @ | | (A) | © | |

LOCATION VERIFICATION MAP



SECTION 19, TWP. 26 SOUTH, RGE. 26 EAST, N. M. P. M., EDDY COUNTY, NEW MEXICO

OPERATOR: 3Bear Field Services, LLC

LEASE: Cottonwood Fee SWD

WELL NO.: 1

ELEVATION: 3483'

LOCATION: 330' FSL & 1662' FEL

CONTOUR INTERVAL: 10'

USGS TOPO. SOURCE MAP:

Jumping Spring, NM (P. E. 1985)

Copyright 2017 — All Rights Reserved

| | | 1 | | | | | |
|--------------------|------------|--------|--|--|--|--|--|
| | | | | | | | |
| | | | | | | | |
| NO. | REVISION | DATE | | | | | |
| JOB NO.: LS1711740 | | | | | | | |
| nwc | NO - 17117 | 401144 | | | | | |

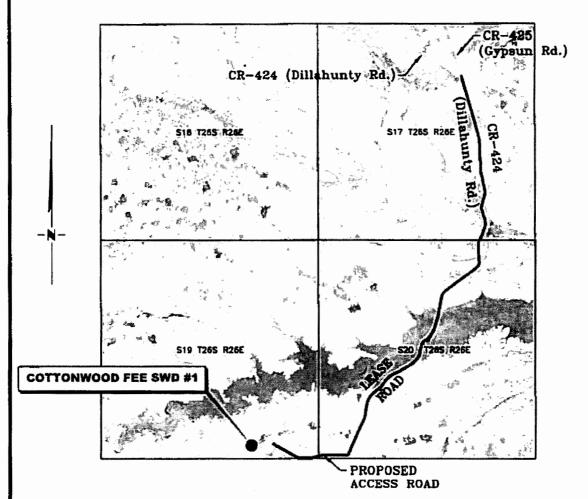


308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

| 7 | ni 2017 – Air Rights Reserved |
|---|-------------------------------|
| | SCALE: 1" = 1000' |
| | DATE: 11-29-2017 |
| | SURVEYED BY: BK/CG |
| | DRAWN BY: AIAC |
| | APPROVED BY: RMH |
| | SHEET: 1 OF 1 |

VICINITY MAP

NOT TO SCALE



SECTION 19, TWP. 26 SOUTH, RGE. 26 EAST, N. M. P. M., EDDY COUNTY, NEW MEXICO

| OPERAT | OF | ₹: | 3Bear | F | ield | Services | 5, | LLC | |
|---------------|----|----|-------|---|------|----------|----|-----|--|
| | _ | | | | _ | | | | |

LEASE: Cottonwood Fee SWD

WELL NO.: 1

LOCATION: 330' FSL & 1662' FEL

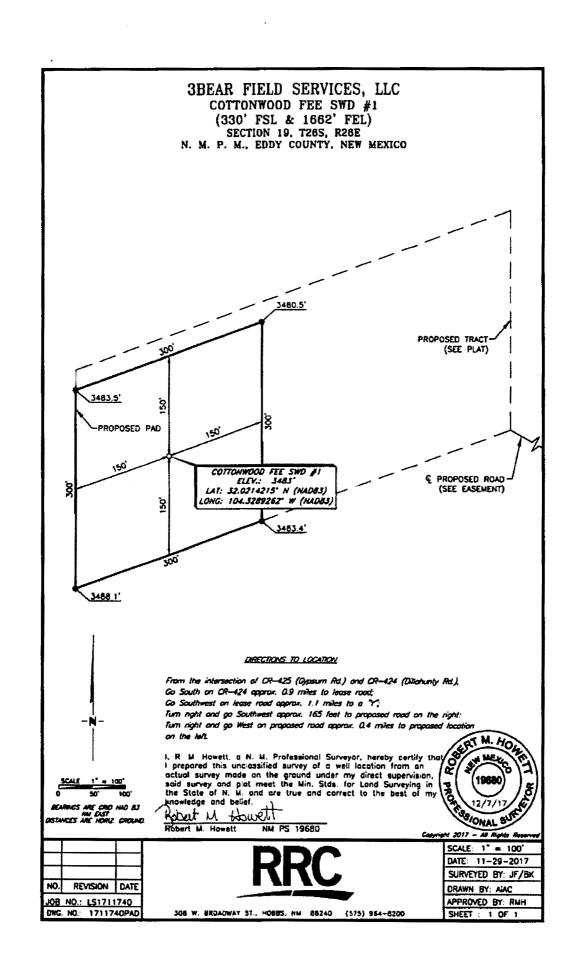
ELEVATION: 3483'

Copyright 2017 - All Rights Reserved

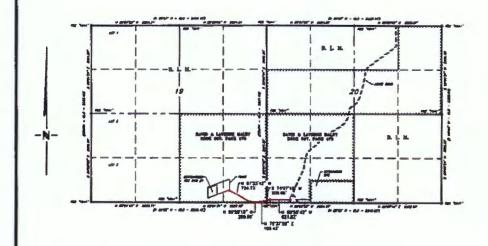
REVISION DATE JOB NO.: LS1711740 DWG. NO.: 1711740VM

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: N / A DATE: 11-29-2017 SURVEYED BY: BK/CG DRAWN BY: AIAC APPROVED BY: RMH SHEET: 1 OF 1



3BEAR FIELD SERVICES, LLC OVERALL OF PROPOSED ACCESS ROAD FOR THE COTTONWOOD FEE SWD #1 SECTIONS 19 AND 20, T26S, R26E N. M. F. M., EDDY COUNTY, NEW MEXICO



SCALE: 1" = 2000"

BEANINGS ARE GRO HAD BJ AM EAST DISTANCES ARE HORIZ, GROUND.

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/ / MECOND DATA - GLO

FOUND MONUMENT AS NOTED

PROPOSED ACCESS ROAD

| \vdash | | |
|----------|------------|--------|
| \vdash | - | |
| NO. | REVISION | DATE |
| JOB | NO.: LS171 | 1740 |
| DWG. | NO.:171174 | ORD1.1 |



308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

Copyright 2017 - All Rights Reserve

SCALE: 1" = 2000'

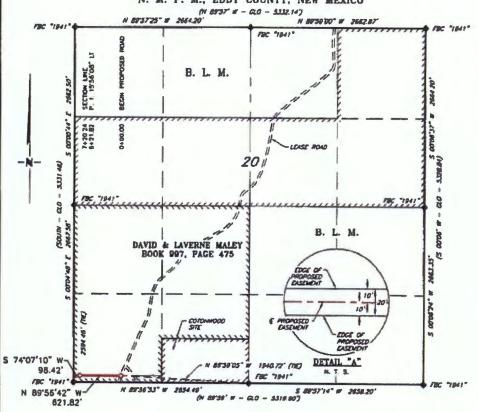
DATE: 11-29-2017

SURVEYED BY: BK/CG

DRAWN BY: AGAC

APPROVED BY: RMH SHEET: 1 OF 3

3BEAR FIELD SERVICES, LLC PROPOSED ACCESS ROAD FOR THE COTTONWOOD FEE SWD #1 SECTION 20, T26S, R26E N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 20 feet wide, being 720.24 feet or 43.651 rods in length, lying in Section 20, Township 26 South, Range 25 East, N. M. P. M., Eddy County, New Maxico, being 10 feet left and 10 feet right of the following described survey of a centerline across the lands of David & Laverne Maley, according to a deed filed for record in Book 997, Page 475, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. D+00, a point in the Southwest quarter of Section 20, which bears. N 86°59'05" W. 1,940.72 feet from a bress cop, stamped "1941", found for the South quarter corner of Section 20;

Thence, N 89'56'42" W, 621.82 feet, to Engr. Sta 6+21.82, a P. 1 of 15'56'08" left:

Thence, 5 74"07"10" W, 98.42 feet, to Engr. Sto. 7+20.24, a point on the West line of Section 20, which bears, 5 00"04"48" E, 2,594.46 feet from a brass cap, stamped "1941", found for the West quarter corner of Section

Said strip of land contains 0.331 acres, more or less, and is allocated by forties as follows.

1000

SW 1/4 SW 1/4

43.651 Rods

0.331 Acres

BEARINGS ARE GRED INIO BJ INI ELST DISTANCES ARE HORIZ. GROUND.

RECORD DATA - GLD

FOUND MONUMENT AS HOTEL PROPOSED ACCESS AGAD

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plot from an actual survey made on the ground under my direct supervision, said survey and plot meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best

of my knowledge and belief. Robert M. Howett

Robert M. Howett

NM PS 19680

1 2017 - AL AL

NO. REVISION DATE JOB NO.: LS1711740 DWG. NO.:1711740RD1.2

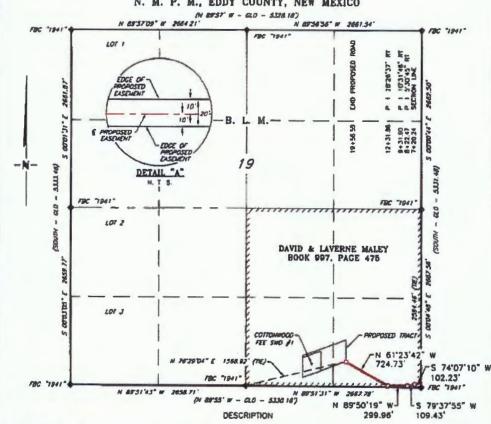


308 W. BROADWAY ST., HORBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000" DATE: 11-29-2017 SURVEYED BY: BK/CG DRAWN BY: ALAC APPROVED BY: RMH SHEET: 2 OF 3

3BEAR FIELD SERVICES, LLC PROPOSED ACCESS ROAD FOR THE COTTONWOOD FEE SWD #1 SECTION 19, T26S, R26E

N. M. P. M., EDDY COUNTY, NEW MEXICO



A strip of land 20 feet wide, being 1,235.35 feet or 74.930 rads in tength, lying in Section 19, Township 26 South, Range 26 East, N. M. P. M., Eddy County, New Mexico, being 10 feet left and 10 feet right of the following described survey of a centerline across the lands of David & Laverne Maley, according to a deed filed for record in Book 997, Page 475, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 7+20.24, a point on the East line of Section 19, which bears, S 00"04"48" E, 2.594.46 feet from a brass cap, stamped "1941", found far the East quarter corner of Section 19;

Thence, S 74"07"10" W, 102.23 feet, to Engr. Sto. 8+22.47, a P. I. of 5"30"45" right.

Thence, S 79"37"55" W, 109.43 feet, to Engr. Sta. 9+31.90, o P. I. of 10"31"46" right:

Thence, N 89'50'19" W, 299.96 feet, to Engr. Sto. 12+31.86, a P. I, of 28'26'37" right:

Thence, N 61°23'42" W. 724.73 feet, to Engr. Sto. 19+56.59, the End of Survey, a point in the Southeast quarter of Section 19, which bears, N 76'29'04" E. 1.568.92 feet from a bross cap, stamped "1941", found for the South quorter corner of Section 19.

Said strip of land contains 0.568 acres, more or less, and is allocated by forties as follows: SH MEXIC PE

SE 1/4 SE 1/4

SCALE: 1" = 1000" BEARINGS ARE GRO AND 83 AN EAST DISTANCES ARE HORZ GROUND

74.930 Rods

0.568 Acres

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey mode on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and carrect to the best of my knowledge and belief.

Robert M. Howett

NM PS 19680

Mt 2017 - At Rig

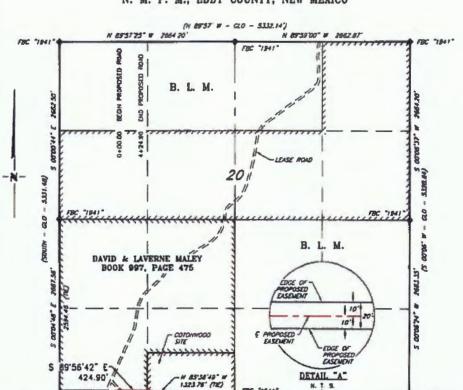
NO. REVISION DATE JOB_NO.: LS1711740 DWG. NO.:1711740RD1..



SCALE: 1" = 1000" DATE: 11-29-2017 SURVEYED BY. BK/CG DRAWN BY: ALAC APPROVED BY: RMH SHEET: 3 OF 3

300 W. BROADWAY ST., HOSES, NW 88240 (575) 964-8200

3BEAR FIELD SERVICES, LLC PROPOSED ACCESS ROAD TO THE COTTONWOOD SITE SECTION 20, T26S, R26E N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

(N 88'59' W - GLO - 3319.60')

FBC "1941"

A strip of land 20 feet wide, being 424.90 feet or 25.751 rods in length, lying in Section 20, Township 26 South, Range 26 East, N. M. P. M., Eddy County, New Mexico, being 10 feet left and 10 feet right of the following described survey of a centerline across the lands of David & Loverne Maley, according to a deed fixed for record in Book 997, Page 475, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 0+00, a point in the Southwest quarter of Section 20, which bears, N 83'46'34" E, 915.13 feet from a bross cap, stamped "1941", found for the Southwest corner of Section 20;

Thence, S 89'56'42" E. 424.90 feet, to Engr. Sta. 4+24.90, the End of Survey, a point in the Southwest quarter of Section 20, which bears, N 85'36'49" W, 1,323.76 feet from a brass cap, stumped "1941", found for the South quarter corner of Section 20.

Said strip of land contains 0.195 acres, more or less, and is allocated by forties as follows:

1" = 1000"

/BC "1841

N 8346'34" E

SW 1/4 SW 1/4 SE 1/4 SW 1/4

25.302 Rods 0.449 Rods

0.192 Acres 0.003 Acres

5 89'57'14" W 2658.20"

BEARINGS ARE GIND MAD BY MM EAST DISTANCES ARE MORE, GROUND.

LEGEND

RECORD DATA - GLO

PROPOSED ACCESS ROAD

i, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief. FOUND MONUMENT AS HOTELY

Robert M. Howett NM NM PS 19680 SERT M. HOM

/BC "1841"

M 2017 - AN AN

REVISION DATE JOB NO.: L51711740 DWG. NO.: 1711740RD2

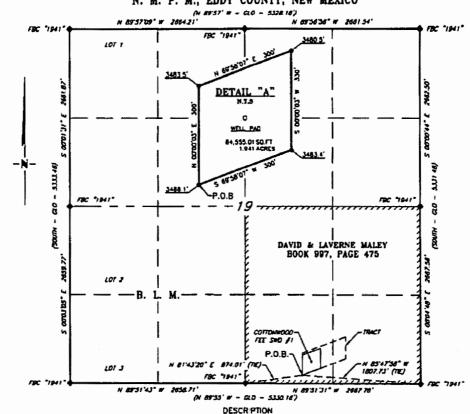


SCALE: 1" = 1000" DATE: 11-29-2017 SURVEYED BY: BK/CG DRAWN BY: AIAC APPROVED BY: RMH SHEET: 1 OF 1

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

3BEAR FIELD SERVICES, LLC SURVEY FOR THE PROPOSED COTTONWOOD FEE SWD #1 PAD SECTION 19, T26S, R26E

N. M. P. M., EDDY COUNTY, NEW MEXICO



A tract of land situated within the Southeast quarter of Section 19, Township 26 South, Range 26 East, N. M. P. M., Eddy County, New Mexico, across the lands of David & Laverne Maley, according to a deed filed for record in Book 997, Page 475, of the Deed Records of Eddy County, New Mexico, and being more particularly described by metes and bounds as follows:

BEGINNING at a point, which bears N 81'43'20" E, 874 01 feet from a brass cap, stamped "1941", found for the South quarter corner of Section 19, and bears N 85'47'58" W, 1,807.73 feet from a brass cap, stamped 1941", found for the Southeast corner of Section 19.

Thence N 00'00'03" E, 300 feet, to a point,

Thence N 69'58'07" E, 300 feet, to a point;

Thence S 00'00'03" W, 300 feet, to a point;

Thence S 69'58'07" W, 300 feet, to the Point of Beginning.

Sold tract of land contains 84,555.01 square feet or 1.941 ocres, more or less and is allocated by forties as BRT M. HOW

1" - 1000" 500' 1000

BEARINGS ARE GRID INIO BJ IBM EAST DISTANCES ARE HORIZ GROUND. LEGENO

RECORD DATA - GLO

FOUND HOMAKHT AS NOTED ROBERT M. HOWELL

SW 1/4 SE 1/4 84,555.01 Sq Ft 1.941 Acres

I, R. M. Hawett, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, solid survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Robert 11 Howett NM PS 19680

REVISION DATE JOB NO.: LS1711740 DWG. NO.:1711740TR1

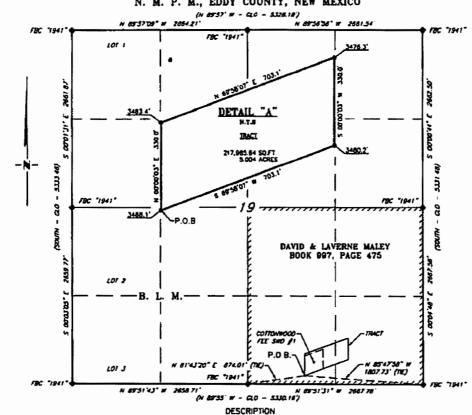


308 W. BROADWAY ST., HOBBS, HM 58240 (575) 964-8200

SCALE: 1" = 1000" DATE: 11-29-2017 SURVEYED BY: BK/CG DRAWN BY: AIAC APPROVED BY: RMH SHEET: 1 OF 1

3BEAR FIELD SERVICES, LLC SURVEY FOR THE PROPOSED COTTONWOOD FEE SWD #1 TRACT SECTION 19, T26S, R26E

N. M. P. M., EDDY COUNTY, NEW MEXICO



A tract of land situated within the Southeast quarter of Section 19, Township 26 South, Range 26 East, N. M. P. M., Eddy County, New Mexico, across the lands of David & Laverne Moley, according to a deed filed for record in Book 997, Page 475, of the Deed Records of Eddy County, New Mexico, and being more particularly described by metes and bounds as follows:

BEGINNING at a point, which bears N 81'43'20" E. 874.01 feet from a brass cap, stamped "1941", found for the South quarter corner of Section 19, and bears N 85'47'58" W, 1,807.73 feet from a brass cap, stamped "1941", found for the Southeast corner of Section 19:

Thence N 00'00'03" E. 330 feet, to a point,

Thence N 69'58'07" E, 703.1 feet, to a point,

Thence S 00'00'03" W, 330 feet, to a point;

Thence S 69'58'07" W, 703.1 feet, to the Point of Baginning.

Sold tract of land contains 217,985.64 square feet or 5.004 acres, more or less and is allocated by forties as

SW 1/4 SE 1/4 154,740.89 Sq. Ft. SE 1/4 SE 1/4 63,244.75 Sq. ft.

3 552 Acres 1.452 Acres

- 1000

DISTANCES . LECENO

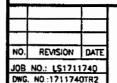
I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, soid survey and plat meet the Min. Stds. far Land Surveying in the State of N. M. and are true and correct to the best

of my knowledge and belief.

POLICE WOMENT AS NOTED ROBERT M. HOWELL NM

NM PS 19680

SS/ONAL MIN 2017 - AN A





308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000" DATE: 11-29-2017 SURVEYED BY: BK/CG DRAWN BY: AJAC APPROVED BY: RMH SHEET: 1 OF 1

M. HOME

SH MEN

ADDENDUM

То

APPLICATION TO DRILL

Cottonwood Fee SWD #1

3Bear Field Services, LLC

Unit Letter O, 330' FSL & 1662' FEL, Section 19,

T26S, R26E, N.M.P.M. Survey

Eddy County, New Mexico

This attachment is a continuation of responses to the questions asked within the NM OCD Form C101 Application to Drill.

- 1. Location: SHL 330' FSL & 1662' FEL with BHL Same as above
- 2. Elevation above Sea Level at Ground Reference: 3483'
- 3. Geologic name of surface formation: Quaternary Alluvium Deposits
- 4. <u>Drilling tools and associated equipment:</u> Conventional rotary drilling rig utilizing a managed fluid as the circulating medium for well control and for solids removal.
- 5. Proposed Drilling Depth: MD 13,000' FS & TVD 13,000'
- 6. Estimated tops of Geological markers:

| | | | TVDSS, | |
|--------------------|--------|---------|--------|-----------------|
| FORMATION | MD, ft | TVD, ft | ft | LITHOLOGY |
| Castile | | 85 | 3425 | Anhy & Salt |
| Delaware Mtn Gr | | 1625 | 1885 | SS, SLTST, & SH |
| Bone Spring | | 5010 | -1500 | LS & SH |
| 1st Bone Spring SS | | 5890 | -2380 | SS, SLTST, & SH |
| 2nd Bone Spring SS | | 6415 | -2905 | SS, SLTST, & SH |
| 3rd Bone Spring LS | | 6835 | -3325 | LS, SS, & SH |
| 3rd Bone Spring SS | | 7805 | -4295 | SS, SLTST, & SH |
| Wolfcamp | | 7970 | -4460 | SLTST, LS, & SH |
| Wolfcamp "B" | | 8410 | -4900 | SS & SH |
| Wolfcamp "C" | | 8835 | -5325 | LS & SH |
| Strawn | | 9535 | -6025 | LS |
| Atoka | | 9660 | -6150 | SH & LS |
| Morrow Clastics | | 10310 | -6800 | SH & SS |
| Barnett | | 11070 | -7560 | SH |
| Mississippian LS | | 11460 | -7950 | L\$ |
| Woodford | | 11650 | -8140 | SH |
| Siluro-Devonian | | 11755 | -8245 | LS & DOL |

7. Potential mineral bearing formations:

Yates, Seven Rivers, Queen, Glorieta, Yeso, Delaware Section, Bone Springs Section, Wolfcamp Section-Oil and Atoka/Morrow-Gas

8. <u>Proposed mud circulating system:</u>

| Depth | Туре | Mud | Mud | Нg | Cl-ppm | % Soilds |
|---------------|---------|-----------|-----------|------|----------|-----------|
| | Mud | Weight | Viscosity | | | |
| 0-300 | SPUD | 8.4-9.7 | 32-38 | 10.0 | 1-6K | 3%-8% |
| 300-1950 | BRINE | 10.0 | 28.0 | 10.0 | 186K | .75%-1.0% |
| 1,950-8,000 | СВ | 9.3-9.4 | 28.0 | 10.0 | 120-160K | .5%75% |
| 8,000-8,400 | СВ | 9.3-9.6 | 28.0 | 10.0 | 120-160K | .75%-1.0% |
| 8,400-10,850 | BR/POLY | 10.0-10.5 | 38-45 | 10.0 | 186K | 3.0%-6.0% |
| 10,850-11,760 | BR/POLY | 10.5-12.0 | 40-50 | 10.0 | 186K | 5.0%-7.0% |
| 11,760-13,000 | СВ | 8.9-9.0 | 28.0 | 10.0 | 3-6K | .5%75% |

9. Casing Program:

| DRILLING: Coto | DRILLING: Cotonwood SWD #1 | | | | | | | | | | | |
|----------------|----------------------------|-------------------|----------------|-----------------|--------------------|--------------|---------------------------------|--|--|--|--|--|
| Description | Process | Bottom of Pipe | Top of Pipe | Size of Pipe | Weight per Foot | API Grade | Thread Type | | | | | |
| Conductor | Spud well | 150 | Surface | 20 | 94 | H-40 | Buttress | | | | | |
| Surface | Intermediate | 1650 | Surface | 13.375 | 54.5 | J-55 | 8rd ST&C | | | | | |
| Production | Production | 7965 | Surface | 9.625 | 43.5 | HCL-80 | 8rd LT&C | | | | | |
| Production | Production | 11760 | 7500 | 7.625 | 39 | HCP-110 | 8rd LT&C | | | | | |
| | Liner | | | 7 | 32 | HCP-110 | 8rd LT&C | | | | | |
| COMPLETION: | | | | | | | - | | | | | |
| Disposal | Tubing | 13,000 | | 4 1/2 | 12.75 | P-110 | CS Hydrill/PH6 W/Teflon Ring | | | | | |

10. <u>Cement Program</u>:

| CEMENT PROGRAM: | | | | | | | | | |
|-----------------|-----------|------------|---------|---|------------|--------------|--|--|--|
| | Bottom of | Size of | Size of | | Cement | Top of | | | |
| Description | Pipe | Drill Hole | Pipe | Cement Type & Additives | Volume | Cement | | | |
| Conductor | 300 | 26 | 20 | Class C w/2% KCL | 675 Sacks | Surface | | | |
| Surface | 1950 | 17-1/2 | 13-3/8 | LEAD: Class C w/2% KCL + Celloflake+Bentonite Extender | 900 Sacks | Surface | | | |
| | | | | TAIL: Class C w/1% PF1 Calcium | 200 Sacks | Surface | | | |
| Production | 8100 | 12 25 | 9 5/8 | LEAD: 50/50 P/H _ 5% BWOW & Salt + 10% Bentonite Gel + Celloflake | 1400 Sacks | Surface | | | |
| | | | | TAIL: Class SO/50 P/H + 2% PF20 Gel + 3% Fluid Loss | 300 Sacks | Surface | | | |
| Production | 11700 | 8.75 | 7 | Class H 50/50 +2% Bentonite Gel + 5% Fluid Loss | 940 Sacks | Top of Lines | | | |

According to borings in Section 20, groundwater can be found at 33' from surface. The closest producing water well is ¾ mile to the northeast of proposed SWD well site. This water well produces from 33' from the surface.

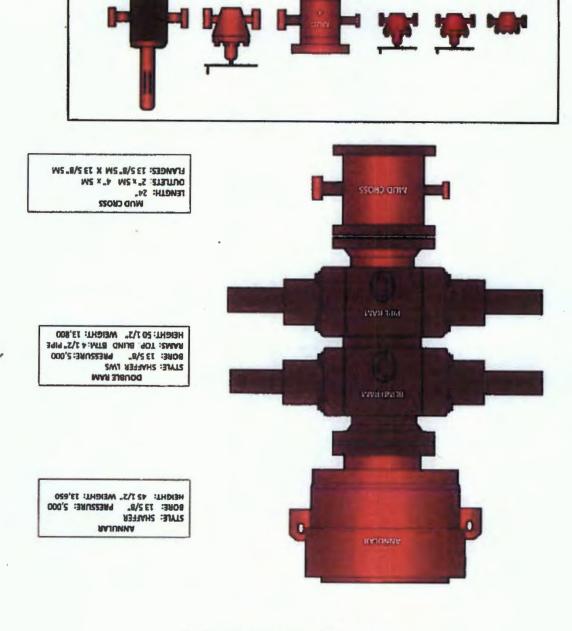
11. Pressure Control Equipment;

Exhibit E. A 13-3/8" 5000 PSI working pressure BOP system tested to 3000 PSI consisting of one set of blind rams and on set of pipe rams and a 5000 PSI annular preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head as needed. A Kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. Mud gas separator will be available if drilling into H2S areas.

BOP unit will be hydraulically operated. BOP will be nippled up and operated at least once per day while drilling and the blind rams will be operated when out of the hole during trips. No abnormal pressure or temperature is anticipated. From the base of the 13-3/8"casing through the running of the production liner, the well will be equipped with a 5000 PSI BOP system tested to 3000 PSI.

BOPS will be tested by an independent service company to 250 PSI low and 3000 PSI high. Schaffer will be tested to 250 PSI low and 1500 PSI high.

SM BOPE SCHEMATIC



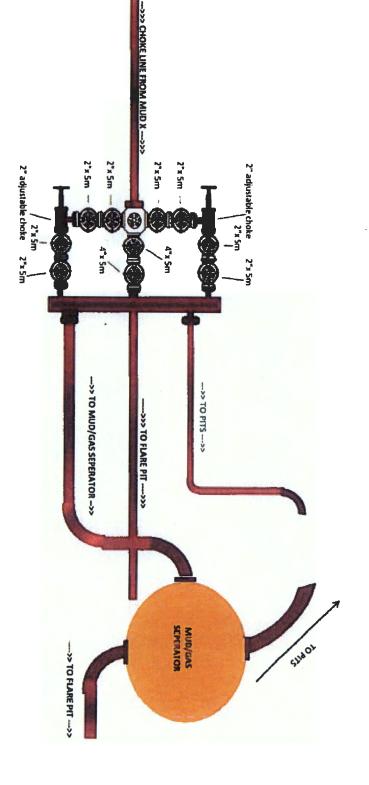
4" HYDRAULIC

TYTHING ..

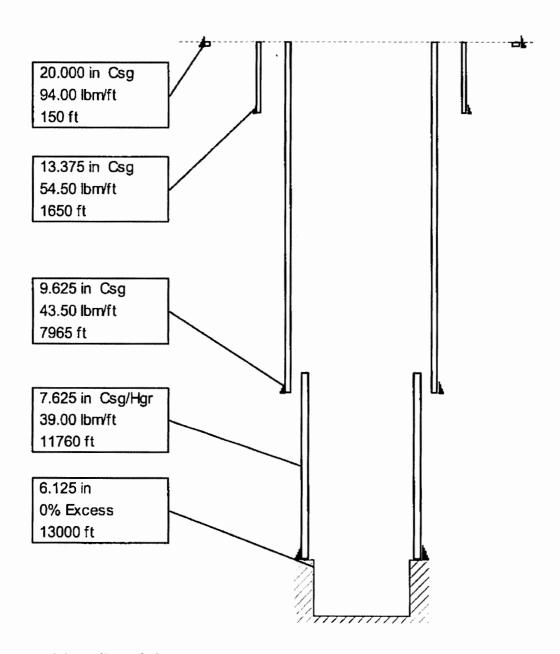
INDIAM "S

2" CHECK 2" MANUAL

5M CHOKE MANIFOLD ARRANGEMENT



Cottonwood Fee SWD #1
3Bear Field Services, LLC
C-101
Wellbore Diagram
Created on 5/20/2018 10:42:07 AM



i-Handbook* - *a mark of Schlumberger

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

Libby Berry Fee SWD #1 Unit O, Section 19 T26S, R26E, Eddy County, NM

1. All personnel admitted to drilling location must be H2S certified:

All Company and Contract personnel admitted on location must be trained by a qualified H2S instructor to the following:

- A. Characteristics of H2S
- B. Physical effects and hazards
- C. Proper use of safety equipment and life support systems
- D. Principle and operation of H2S detectors, warning system and briefing areas
- E. Evacuation procedure, routes and first aid
- F. Proper use of 30 minute pressure demand pack

2. H2S Detection and Alarm Systems:

A. H2S detectors and audio alarm system to be located at bell nipple, end of flowline (mud pit) and on derrick floor or doghouse.

3. Windsocks and wind streamers:

- A. Windsock at mud pit should be high enough to be readily visible
- B. Windsock at briefing area should be high enough to be readily visible

4. Condition Flags and Signs:

- A. Warning signs on access road to location
- B. Flags to be displayed on sign at entrance to location.
 - a. Green flag indicates normal safe condition.
 - b. Yellow flag indicates potential pressure and danger.
 - c. Red flag indicates danger (H2S present in dangerous concentration). Only emergency personnel admitted to location

5. Well control equipment:

A. See Exhibit E

6. Communication:

- A. While working under masks, chalkboards will be used for communication
- B. Hand signals will be used where chalkboard is inappropriate
- C. Two way radio will be used to communicate off location in case emergency help is required. In most cases cellular telephones will be available at drilling foreman's trailer or living quarters.

7. Drillstem Testing:

A. No DST's nor cores are planned for this drilling program

8. Metallurgical effect of H2S:

A. Drilling contractor shall be required to be familiar with the effects of H2S on tubular goods and other mechanical equipment

9. Mud system changes to control H2S:

A. Should H2S be encountered, the mud system will be altered as necessary to maintain control of the formation. A mud gas separator will be placed in service along with H2S scavengers as needed.

Emergency Procedures

In the event of a release of gas containing H2S, the first responders must:

- Isolate the area and prevent entry by other persons into the area;
- Evacuate any public places encompassed by the release area;
- Be equipped with H2S monitors and air packs in order to control the release;
- Use the "buddy system" to ensure that no injuries occur during the response;
- Take precautions to avoid personal injury during this operation;
- Contact operator and/or local officials to aid in the operation a list of safety contact numbers is attached;
- Have received training in the:
 - Detection of H2S, and
 - Become trained in the measures for protection against the gas, and
 - Become trained in the use of the equipment used for protection and emergency response.

Ignition of the Gas Source

Should control of the well deteriorate or be considered lost and ignition is a possibility or is being considered, take care to protect against exposure to Sulphur Dioxide (SO2). Intentional ignition must be coordinated with the NMOCD, the operator, and both the State and Local officials. Once the State Police become involved, they shall be the Incident Command on scene. Take care to protect downwind during the release and during the ignition phase.

Characteristics of H2s and SO2

| Common | Chemical | Specific | Threshold | Hazardous | Lethal |
|------------------|----------|-------------|-----------|------------|---------------|
| Name | Formula | Gravity | Limit | Limit | Concentration |
| Hydrogen Sulfide | H25 | 1.189 Air=1 | 10 ppm | 100 ppm/hr | 600 ppm |
| Sulphur Dioxide | 502 | 2.21 Air=1 | 2 ppm | N/A | 1000 ppm |

H2S Contingency Plan and Emergency Contacts

Libby Berry Fee SWD #1 3Bear Field Service, LLC Unit H, Section 26, T20S, R34E

| | OINT 11, SECTION 20, 120. | | | |
|--|---------------------------|--------------|--------------|--------------|
| Company Office: | | Office | Direct | Mobile |
| 3Bear Energy, LLC | | 303/626-8290 | | |
| Key Personnel | | | | |
| Name | Title | Office | Direct | Mobile |
| Mike Salomon | VP/COO | 303/626-8290 | 303/862-3960 | 303/921-9117 |
| Kevin Burns | Senior Engineer | | | 432/3120843 |
| Phelps White | Drilling Consultant | | | 575/626-7660 |
| Rory McMinn | Advisor | | | 575/626-7100 |
| Eunice, NM | | | | |
| Ambulance | | 911 | | |
| State Police | | 575/392-5580 | | |
| City Police | | 575/394-2112 | | |
| Sheriff's Office | | 575/396-3611 | | |
| Fire Department | | 575/394-3258 | | |
| | | | | |
| Hobbs, NM | | | | |
| Ambulance | | 911 | | |
| State Police | | 575/392-5580 | | |
| City Police | | 575/397-9265 | | |
| Sheriff's Office | | 575/396-3611 | | |
| Fire Department | | 575/397-9311 | | |
| i ' | | | | |
| New Mexico Oil Conservation Division | | 575/393-6161 | | |
| Carlsbad, NM | | | | |
| Ambulance | | 911 | | |
| State Police | | 575/885-3137 | | |
| City Police | | 575/885-2111 | | |
| Sheriff's Office | | 575/887-7551 | | |
| Fire Department | | 575/887-3798 | | |
| Local Emergency Planning | | 575/887-6544 | | |
| Santa Fe, NM | | | | |
| New Mexico Emergency Response Cor | nmission | 505/476-9600 | | |
| New Mexico Emergency Response Cor | nmission 24 hrs | 505/827-9126 | | |
| New Mexico Emergency Operations Co | | 505/476-9635 | | |
| National | | | | |
| National Emergency Response Center, | Wash, DC | 800/424-8802 | | |
| Medical | | | | |
| Flight for Life - 4000 24th St., Lubbock | , TX | 806/743-9911 | | |
| Aerocare - R3, Box 49C, Lubbock, TX | | 806/747-8923 | | |
| Med Flight Air Amb - 2301 Yale Blvd. S | E #D3, Albuquerque, NM | 505-842-4433 | | |
| SB Air Med Service - 2505 Clark Carr Lo | oop S.E., Albuquerque, NM | 505/842-4949 | | |
| <u>Other</u> | | | | |
| Boots & Coots IWC | | 800/256-9688 | | |
| Elite Well Service | | | | |
| Cudd Pressure Control | | 432/699-0139 | | |
| Halliburton | | 575/746-2757 | | |

| Office. | State of New Mexico | Form C-103 |
|--|---|--|
| District I - (575) 393-6161 | Energy, Minerals and Natural Resour | |
| 1625 N. French Dr., Hobbs, NM 88240 District II - (575) 748-1283 | | WELL API NO. |
| 811 S. First St., Artesia, NM 88210 | OIL CONSERVATION DIVISION | N 30-015-44600 |
| District III - (505) 334-6178 | 1220 South St. Francis Dr. | 5. Indicate Type of Lease STATE FEE |
| 1000 Rio Brazos Rd., Aztec, NM 87410 | Santa Fe, NM 87505 | 6. State Oil & Gas Lease No. |
| <u>District IV</u> - (505) 476-3460 1220 S. St. Francis Dr., Santa Fe, NM | Dania 1 0, 1111 0 7 5 0 5 | o. State Oil & Gas Lease No. |
| 87505 | | |
| | ES AND REPORTS ON WELLS | 7. Lease Name or Unit Agreement Name |
| | LS TO DRILL OR TO DEEPEN OR PLUG BACK TO | A |
| PROPOSALS.) | TION FOR PERMIT" (FORM C-101) FOR SUCH | Cottonwood Fee SWD |
| _ | as Well Other SWD | 8. Well Number 1 |
| 2. Name of Operator | as wen outer <u>swo</u> | 9. OGRID Number 320495 |
| 3Bear Field Services, LLC | | 3. OORID Number 320493 |
| 3. Address of Operator | | 10. Pool name or Wildcat |
| 1512 Larimer St., Suite 540, Denv | ver CO 80202 | SWD; Devonian-Silurian |
| | C. 00 00L0L | 3110, Devoman-Sudnan |
| 4. Well Location | | |
| Unit Letter: Q | 330 feet from the South line and 1662 | feet from the <u>East</u> line |
| Section 19 | | 26 E NMPM Eddy County |
| 7 m m | 11. Elevation (Show whether DR, RKB, RT, C | GR, etc.) |
| Auto a second | 3483' GL | |
| | | |
| 12. Check An | propriate Box to Indicate Nature of N | Intice Report or Other Data |
| IZ. Check Ap | propriate box to maleute Nature of N | once, report of Onter Data |
| NOTICE OF INT | ENTION TO: | SUBSEQUENT REPORT OF: |
| | PLUG AND ABANDON REMEDIA | |
| <u> </u> | = 1 | CE DRILLING OPNS. P AND A |
| <u> </u> | <u></u> | CEMENT JOB |
| DOWNHOLE COMMINGLE | 0,10,110,1 | |
| CLOSED-LOOP SYSTEM | 1 | |
| OTHER: | ☐ OTHER: | · m |
| | | ails, and give pertinent dates, including estimated date |
| | | iple Completions: Attach wellbore diagram of |
| proposed completion or recon | | ipie Completions. Attack wendote diagram of |
| proposed completion of recon | iprocion. | |
| Will change production casing from | 7" 29# HCP-110 T&C to 7 625" 39# H | CP-110 UFJ liner. Will tie-back liner to 150' above |
| | | e between the injection tubing and the production |
| string if needed. | e 20100 if this will allow for more space | e between the injection tubing and the production |
| string if ficeded. | | |
| | | RECEIVED |
| | | |
| | | |
| <u></u> | | |
| Spud Date: | Rig Release Date: | |
| opud Date. | Nig Release Date. | DISTRICT II-ARTESIA O.C.D. |
| | | BETHIOT IF ATTESIA 0.0.D. |
| | | |
| I hereby certify that the information ab | ove is true and complete to the best of my kn | owledge and belief. |
| 16/ | () | |
| I Word | X SITTLE CONTRACT | D. 477 F. O. 40 |
| SIGNATURE | TITLE Consultant | DATE <u>5-9-18</u> |
| | | P. 10.15 (505) 105 5105 |
| Type or print name Brian Wood | E-mail address: <u>brian@permitswest.</u> | com PHONE: (505) 466-8120 |
| Paul Charles Have Co. 1 | | |
| For State Use Only | | |
| ADDROVED BY. | TITLE | DATE |
| APPROVED BY: | TITLE | DATE |
| Conditions of Approval (if any): | | |

Goetze, Phillip, EMNRD

From: Goetze, Phillip, EMNRD

Sent: Tuesday, May 15, 2018 4:15 PM

To: Brian Wood (brian@permitswest.com); 'Kevin Burns'

Cc: Klein, Ranell, EMNRD; Podany, Raymond, EMNRD; McMillan, Michael, EMNRD; 'Rory

McMinn'; Bratcher, Mike, EMNRD

Subject: FW: 3Bear Field Services, LLC - Cottonwood Fee SWD #1

Attachments: Scanned from a Xerox Multifunction Printer.pdf

RE: Cottonwood Fee SWD No. 1; 30-015-44600; pMAM1808855135

Gentlemen:

It seems this C-108 application is somewhat of a "moving target". The approval of the application is based on content submitted to Santa Fe with modification following the approval of the administrative order. If you wish to modify the construction of a "pending" application, I would suggest preparing a new completion diagram for consideration and inclusion in the application as a minor modification. Therefore, I am requesting the District Supervisor deny the C-101 and will be expecting a new well diagram showing the changes. One approval of the order is finalized, you may submit a Sundry for any and all changes from the original APD filed with the District for this well. The District will be able to reference the approved construction found in the C-108 application which itself becomes part of the administrative order as is the standard protocol.

And one final note - 200-foot tie-in is a minimum, 300 would be better. You may contact me with any questions regarding the content of the e-mail at your convenience. PRG

Phillip Goetze, PG

Engineering Bureau, Oil Conservation Division, NM EMNRD 1220 South St. Francis Drive, Santa Fe, NM 87505

Direct: 505.476.3466

E-mail: phillip.goetze@state.nm.us

----Original Message-----From: Klein, Ranell, EMNRD

Sent: Tuesday, May 15, 2018 3:51 PM

To: Goetze, Phillip, EMNRD < Phillip.Goetze@state.nm.us> Subject: 3Bear Field Services, LLC - Cottonwood Fee SWD #1

Phillip,

We received this sundry to alter their casing design yesterday. Can you take a look at it and approve it? I think aren't you guys supposed to approve these now? Could be wrong.....

Rusty Klein
Business Operations Specialist – A
NMOCD – Division 2
811 South First Street
Artesia, NM 88210

575-748-1283 - ext. 109

----Original Message-----

From: EMNRDOCD7835XWC@state.nm.us <EMNRDOCD7835XWC@state.nm.us>

Sent: Tuesday, May 15, 2018 3:49 PM

To: Klein, Ranell, EMNRD <Ranell.Klein@state.nm.us> Subject: Scanned from a Xerox Multifunction Printer

Please open the attached document. It was scanned and sent to you using a Xerox Multifunction Printer.

Attachment File Type: pdf, Multi-Page

Multifunction Printer Location: ARTESIA

Device Name: OCART-XWC7835

For more information on Xerox products and solutions, please visit http://www.xerox.com

| | | Review Summary | | | | | | | |
|---|---|--------------------------------|---------------------|-----------------------|--|--|--|--|--|
| DATE RECORD: First Rec: 03/29/18 Admin Complete: 03/29/18 or Suspended: Add. Request/Reply: 5/20/18 | | | | | | | | | |
| ORDER TYPE: WE | FX / PMX /SWD N | umber: <u>1736</u> Order | Date: Out | Legacy Permit | s/Orders: Note | | | | |
| Well No Well Name(s): | | | | | | | | | |
| API: 30-015 - 44600 | Spud Da | te: TBD N | New or Old (| EPA): New (UIC CI | ass II Primacy 03/07/1982) | | | | |
| Footages 330' FSL / 166 | 2'FEL Lot_ | or Unit O Sec 19 | _ Tsp _ 26 S | B Rge _ 26 E | County Eddy | | | | |
| | | | | | | | | | |
| | General Location: South of headwaters of they Holland Services LLC OGRID: 372603 Contact: B. inoad / Permits West | | | | | | | | |
| COMPLIANCE RULE 5.9: Total Well | ls:2 Inactiv | ve:_O Fincl Assur:_Y | es Comp | . Order? <u>lb</u> is | 5.9 OK? 185 Date: 6/6/10 | | | | |
| WELL FILE REVIEWED Current | | | | | | | | | |
| WELL DIAGRAMS: NEW: Proposed | | _ |) (| nas in Imagina | | | | | |
| Planned Rehab Work to Well: | * Modified " | rell design - casi | ina chan | nes 126 in 120- | rcasina: 0 to 150 | | | | |
| | 3 | Setting | | Cement | Cement Top and | | | | |
| Well Construction Details 木 | Borehole / Pipe | Depths (ft) | | Sx or Cf | Determination Method | | | | |
| Planned or Existing Surface | 11.00 | 0 to 1650 | Stage Tool | 1100 | Cir to Surface | | | | |
| Planned_or Existinginterm/Prod | —————————————————————————————————————— | 0 to 7965 | Nove | 1700 | Cit. to surface | | | | |
| Planned_or Existing _Interm/Prod | | 7/00/ 400/0 | 16.4 | 010 | - V | | | | |
| Planned_lor Existing Prod Liner Planned_or Existing Liner | 1 7 7 5 | 7500' to 11760 | None | 940 | Toc/calculated | | | | |
| Planned or Existing OH PERF | | 11,760 to 13,000 | Inj Length | Completion | /Operation Details: | | | | |
| Injection Lithostratigraphic Units: | Depths (ft) | Injection or Confining | Tops | Drilled TD | | | | | |
| Adjacent Unit: Litho, Struc. Por | Deptils (it) | Units Mississippier | 11460 | NEW TD _ 13000 | | | | | |
| Confining Unit: Litho Struc. (Por | (+45) | Wood ord Shale | 11650 | | or NEW Perfs | | | | |
| Proposed Inj Interval TOP: | 11760 | Devonion | 11755 | | in. Inter Coated? 7es | | | | |
| Proposed Inj Interval BOTTOM: | _ | Silvian | <u> 213000</u> | | epth 11700 ft | | | | |
| Confining Unit: Litho. Struc. Por. Adjacent Unit: Litho. Struc. Por. | < 13660 | Montoya Ord | NR | Min. Packer Depth _ | 11 660 (100-ft limit) ace Press. 2000 psi | | | | |
| AOR: Hydrologic a | and Geologic In | formation | | Admin. Inj. Press. | | | | | |
| POTASH: R-111-P No Noticed? | | | M Salt/Sal | ado T: 100 B: 1450 | NW: Cliff House fm | | | | |
| ERESH WATER: Aquifer Alkay | ial/ Rustler | Max DenthAlluival: < | MYDRO | . AFFIRM STATEME | NT By Qualified Person | | | | |
| NMOSE Basin: Carlsbod CAF | PITAN REEF: thru_ | adj NA / No. | GW Wells i | n 1-Mile Radius? | FW Analysis? Yes Luf | | | | |
| Disposal Fluid: Formation Source(| s) DMG; BS; WC | Pen Analysis? | Yes on | Lease Operator O | nly O or Commercial | | | | |
| Disposal Interval: Inject Rate (Avg. | /Max BWPD): <u>200</u> | 00 25000 Protectable W | aters?_ No | Source: Historical | System: Closed or Open | | | | |
| HC Potential: Producing Interval? | _ λ Ь_Formerly Pro | ducing?_ //o Method: Lo | ogs/DST/P& | A/Other Mudlog | 2-Mi Radius Pool Map | | | | |
| AOR Wells: 1/2-M Radius Map a | nd Well List? Yes | No. Penetrating Wells: | φ , | AOR Horizontals: | AOR SWDs:] | | | | |
| Penetrating Wells: No. Active Wel | l ls_ Num Repairs | s?on which well(s)?_ | | - | Diagrams? | | | | |
| Penetrating Wells: No. P&A Wells Num Repairs?on which well(s)?Diagrams? | | | | | | | | | |
| NOTICE: Newspaper Date 12 09 207 Mineral Owner BLM Surface Owner For Moley N. Date 03 15 18 | | | | | | | | | |
| RULE 26.7(A): Identified Tracts? | | , , | - | • | | | | | |
| Order Conditions: Issues: | Order Conditions: Issues: HC potential; possible large capacity: CBL for uncirculated \$ 75/8-95/size | | | | | | | | |
| Additional COAs: CBL for 1 | ner Junarwlat | ed & Mudlog ; ifor | mation ; | xices | | | | | |
| U | | O_{2} 0 | • | | | | | | |



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

2016 KLY 27 KN 10: 20

| z | OSE POD NU | MBER (WEL | | Λ | - 1 | | OSE FILE NUM | MBER(S) | | | |
|---------------------------|---|----------------------------|--------------------|-------------------------------|--|---|-----------------|------------------------|-----------------|-------------|--------------|
| GENERAL AND WELL LOCATION | C-3811 Amendra | | | | PHONE (OPTIONAL) | | | | | | |
| | WELL OWN | Dav | rid Ma | الما | | | | | | | |
| | WELL OWN | WELL OWNER MAILING ADDRESS | | | | 575-236-6600 CITY STATE ZIP | | | | | |
| | 2737 Pecas Hwy. | | | | Carlshad NM 88220 | | | | | | |
| QX | WELL DEGREES MINUTES SECONDS | | | | | | | | | | |
| LA | LOCATION LATITUDE 32 / 31.00 N | | | | * ACCURACY REQUIRED: ONE TENTH OF A SECOND | | | | | | |
| ERA | (FROM GP | S) LON | GITUDE /O | 4 19 | 29. | 78 W | * DATUM REC | QUIRED: WGS 84 | | | |
| CE | DESCRIPTION | ON RELATING | G WELL LOCATION TO | STREET ADDRESS AND C | OMMON LANDM | ARKS - PLS | S (SECTION, TO | WNSHЛP, RANGE) WH | ERE AVAILA | BLE | |
| 1. | | | | | | | | | | | i |
| | LICENSE NU | MBER | NAME OF LICENSED | DRILLER | | | | NAME OF WELL DR | ILLING COM | PANY | |
| | WD | 1690 | Jaso | W Male | .u | | | MMX | Troc | | |
| | DRILLING S | | DRILLING ENDED | DEPTH OF COMPLETED W | TELL (FT) | BORE HOL | E DEPTH (FT) | DEPTH WATER FIR | ST ENCOUNT | ERED (FT) | |
| | 6-18 | -15 | 6-18-15 | 46 50 | | 0 | 15 | | | | |
| | | | | DRY HOLE SHALLOW (UNCONFINED) | | STATIC WATER LEVEL IN COMPLETED WELL (FT) | | | | | |
| & CASING INFORMATION | | | | | | | | | | | |
| MAT | DRILLING FLUID: X AIR MUD ADDITIVES - SPECIFY: DRILLING METHOD: X ROTARY CABLE TOOL OTHER - SPECIFY: | | | | | | | | | | |
| JOR. | DRILLING M | | ROTARY | | | I OTHE | K - SPECIFY: | | T | | <u> </u> |
| N | | (feet bgl) | BORE HOLE | CASING MATERIA GRADE | L AND/OR | | SING VECTION | CASING INSIDE DIAM. | CASING THICK | | SLOT SIZE |
| SINC | FROM | то | DIAM (inches) | | | YPE | (inches) | (inch | | (inches) | |
| S | 0 | 20 | 12" | | Steel / | | /4 | 8 5/8" | .18 | 8 | _ |
| | 0 | 20 | 83/11" | PVC | | 5011 | NP. | 6" | SIL | 40 | - |
| | 20 | 45 | 83/4" | PYC | | SPLI | ne | 6" | 5ch | 40 | ,032 |
| DRILLING | | | | | | * | | | | | |
| 7. | | | | | J., | | | | - | | |
| | | | | | | | | | | | |
| | | | | | | | | | - | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | DEPTH | (feet bgl) | BORE HOLE | LIST ANNUI | AR SEAL MA | ATERIAL A | AND | AMOUNT | | метно | |
| AL | FROM | то | DIAM. (inches) | GRAVEL PACI | SIZE-RANG | E BY INTE | RVAL | (cubic feet) | | PLACEM | IENT |
| ERI | 0 | 20 | 12" | Neat Cement gro | | | out 10 P | | umf |) | |
| MAT | 20 | 45 | 83/4" | 3/8" pea gravel | | | | | | BACKSIDE | |
| AR | | | | • | | | | | | | |
| KUL, | | | | | | | | | | | |
| ANNULAR MATERIAL | | | | | | | | | | | |
| 3. | | | | | | | | | | | |
| L | | | <u></u> | | | | | | | | 0.42.57 |
| | OSE INTER | NAL USE | -20/11 | П. | OD NUMBER | | | WELL RECORD | LOG (Vei | 1910n 10/25 | 9/15) |
| | NUMBER | ZIV | 3811 | | 65 20 | | | 24 | 2 0 10 | | 1 OF 2 |
| كالك | ATION | ノエヘ. | | | <u> </u> | EC. 15 | <u> </u> | | | | لـــــــا |

of ser in

| | | | | d . | The condition | | | |
|---|---|-----------|---------------------------------|--|--------------------------------------|----------------------------------|--|--|
| | DEPTH (feet bgl) | | THICKNESS | THICKNESS COLOR AND TYPE OF MATERIAL ENCOUNTERED | | ESTIMATED YIELD FOR | | |
| | FROM | то | (feet) | INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units) | BEARING? (YES / NO) | WATER- BEARING ZONES (gpm) | | |
| | 0 | 15 | 15 | Brown Top Soil & Clay | Y N | | | |
| | 15 | 45 | 30 | Brown Top Soil & Clay Broken Gypsum White White Gypsum | (Y) N | 200 | | |
| | 45 | 50 | 5 | White Gypsum | Y 🚯 | | | |
| | | | | | Y N | | | |
| | | | | | Y N | | | |
| TT | | | | | Y N | | | |
| 4. HYDROGEOLOGIC LOG OF WELL | | | | | Y N | | | |
| 305 | | | | | Y N | | | |
| 20 | | | | | Y N | | | |
| GIC | | | | | Y N | | | |
| 070 | | | | | Y N | | | |
| GEC | | | | | Y N | | | |
| DRO | | | | | Y N | | | |
| H | | | | | Y N | | | |
| 4 | | | | | Y N | | | |
| | | | | | Y N | | | |
| | | | | | Y N | | | |
| | | | | | Y N | | | |
| | | | | | Y N | | | |
| | | | | | Y N | | | |
| | | | | | Y N | | | |
| | METHOD U | SED TO ES | TIMATE YIELD | OF WATER-BEARING STRATA: | TOTAL ESTIMATED | | | |
| | PUMP | AI | RLIFT 🔲 | BAILER OTHER - SPECIFY: | WELL YIELD (gpm): | 20 0 .00 | | |
| NC | WELL TEST | TEST I | RESULTS - ATTA TIME, END TIM | CH A COPY OF DATA COLLECTED DURING WELL TESTING, INCL IE, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER | UDING DISCHARGE THE TESTING PERIO | METHOD, DD. | | |
| WELL TEST START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD. MISCELLANEOUS INFORMATION: PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICE | | | | | | | | |
| 5. TEST; R | | | | | | | | |
| SIGNATURE | THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING: | | | | | | | |
| 6. SIGN | Jason Maley 6-26-15 SIGNATURE OF DRIVER / PRINT SIGNEE NAME DATE | | | | | | | |
| | | | | No. As Nove | DECORD A LOC C | | | |
| | R OSE INTERN E NUMBER | NAL USE | 3411 | POD NUMBER / TRN NUMBE | RECORD & LOG (Ve | TSION 00/08/2012) | | |
| | CATION | <1 | K DII | 2/05 2/08 19.424 | 11010 | PAGE 2 OF 2 | | |
| | | ~ | <u> </u> | | | | | |

The state of the s

Locator Tool Report

General Information:

Application ID:28

Date: 05-23-2016

Time: 16:36:02

WR File Number: C-03811-POD1

Purpose: POINT OF DIVERSION

Applicant First Name: MALEY STOCK WELL PERMIT

Applicant Last Name: AMENDED (2ND) DRILLERS LOG COORDINATES

GW Basin: CARLSBAD

County: EDDY

Critical Management Area Name(s): NONE Special Condition Area Name(s): NONE

Land Grant Name: NON GRANT

PLSS Description (New Mexico Principal Meridian):

NW 1/4 of SE 1/4 of NE 1/4 of SE 1/4 of Section 19, Township 26S, Range 26E.

Coordinate System Details:

Geographic Coordinates:

Longitude:

Latitude:

32 Degrees 1 Minutes 31.0 Seconds N

104 Degrees 19 Minutes 29.8 Seconds W

Universal Transverse Mercator Zone: 13N

NAD 1983(92) (Meters) NAD 1983(92) (Survey Feet) NAD 1927 (Meters) NAD 1927 (Survey Feet)

N: 3,543,437 E: 563,746 N: 11,625,425 E: 1,849,558 N: 3,543,236 E: 563,795 N: 11,624,767 E: 1,849,716

N: 113,671

State Plane Coordinate System Zone: New Mexico East

NAD 1983(92) (Meters) NAD 1983(92) (Survey Feet) NAD 1927 (Meters) NAD 1927 (Survey Feet)

N: 372,935 E: 543,939 N: 113,654 E: 153,240 N: 372,879 E: 502,756

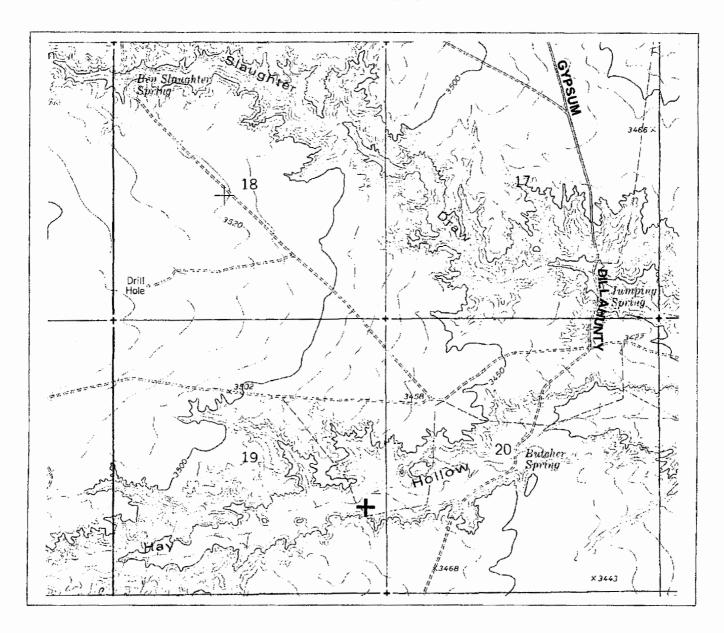
E: 165,793

Page 1 of 2

Print Date: 05/23/2016

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report





WR File Number: C-03811-POD1 Scale: 1:21,437

Northing/Easting: UTM83(92) (Meter): N: 3,543,437 E: 563,746

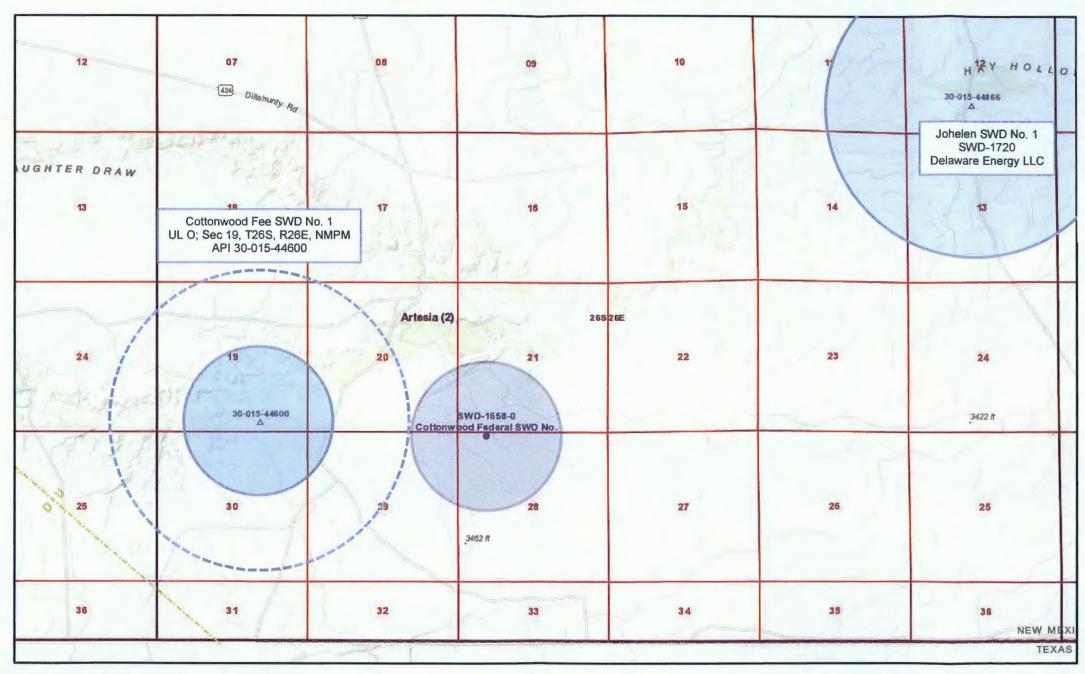
Northing/Easting: SPCS83(92) (Feet): N: 372,935 E: 543,939

GW Basin: Carlsbad

Page 2 of 2

Print Date: 05/23/2016

Pending Applications for High-Volume Devonian Disposal Wells C-108 Application for Cottonwood Fee SWD No. 1 – 3Bear Field Services LLC



Cottonwood Fee SWD No. 1; 3Bear Field Services LLC

API 30-015-44600; Application No. pMAM1808855135; Rcvd 03.29.2018

Proposed interval: Devonian-Silurian interval; 11,760' to 13,000'

Proposed construction: single size tubing; 4.5-inch; requested well design change to increase 7-inch liner to 7%-inch liner.

Closet Devonian Well with Large-Volume Potential: Johelen SWD No. 1 (30-015-44866) not drilled; approved tubing with 5-in x 5.5-in tapered system. Cottonwood Federal SWD No. 1 (COG Operating) designed with 7-inch liner using 4.5-in tubing; no request for additional increase in injection rate by changing to tapered tubing design.

Township 26 South Range 26 East of the New Mexico Principal Meridian, New Mexico

County: Eddy - 015

BLM Field Office: Carlsbad



BUREAU OF LAND MANAGEMENT STATUS OF PUBLIC DOMAIN LAND AND MINERALS

MTP

T26S R26E

NDTE: The Serial Numbers displayed are in the Bureau's LR2000 system format.

If there is a zero in the 7th position (from the right),
the serial number has a "prefix" Zero;
example NM 0012345.

If there is not a zero in the 7th position (from the right) then the
serial number does not have a "prefix" zero;
example NM 022345.

T 26 S R 26 E NMPM

For Index to Segregated Tracts, see survey plat.

CAVEAT STATEMENT

This plat is the Bureau's Record of Tide, and should be used only as a graphic display of the toweship survey data. Records hereon do not refect tide changes within thay have been affected by latecal movements of rheirs or other bodies of water. Refer to the codestral surveys for official survey information.