State of New Mexico Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham Governor

•

Sarah Cottrell Propst Cabinet Secretary

Todd E. Leahy, JD, PhD Deputy Secretary Adrienne Sandoval, Division Director Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following <u>3160-4 or 3160-5</u> form.

Operator Signature Date: 2/6/2020 Well information:

30-039-20339 CREEK #001

HILCORP ENERGY COMPANY

Application Type:

P&A Drilling/Casing Change Location Change

Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84; Submit Gas Capture Plan form prior to spudding or initiating recompletion operations)



Conditions of Approval:

• Notify NMOCD 24hrs prior to beginning operations.

In addition to the BLM approved plugs ensure the following are covered:

- 4035'-3230' to cover the Chacra and Pictured Cliffs tops. OCD Chacra pick @ 4060'; P.C. pick @ 3280.
- 2970'-2320' to cover the Fruitland, Kirtland and Ojo Alamo tops. OCD Fruitland pick @ 2920'; Ojo Alamo pick @ 2370'.

NMOCD Approved by Signature

3/25/20

Date

| orm 3160-5 une 2015) | UNITED STATES EPARTMENT OF THE INTER | | OMB N | APPROVED 0. 1004-0137 | | | |
|--|--|---|---|--|------------------------|--|--|
| В | UREAU OF LAND MANAGEM | ENT | | 5. Lease Serial No. | | | |
| SUNDRY Do not use thi | | NMNM0558139 6. If Indian, Allottee or Tribe Name | | | | | |
| abandoned we | | , | | | | | |
| SUBMIT IN | TRIPLICATE - Other instructi | ions on page 2 | | 7. If Unit or CA/Agree | ement, Name and/or No. | | |
| Type of Well Oil Well 	☐ Gas Well 	☐ Oth | ner | | 1 | B. Well Name and No. CREEK 1 | | | |
| 2. Name of Operator HILCORP ENERGY COMPAN | Contact: TAM NY E-Mail: tajones@hilcorp | | 9 | 9. API Well No. 30-039-20339-00-S1 | | | |
| 3a. Address 1111 TRAVIS STREET HOUSTON, TX 77002 | | Phone No. (include area code) 505.324.5185 | | 10. Field and Pool or Exploratory Area BLANCO MESAVERDE | | | |
| 4. Location of Well <i>(Footage, Sec., T</i> | ., R., M., or Survey Description) | | | 1. County or Parish, | State | | |
| Sec 4 T29N R5W SWNE 1950 36.756454 N Lat, 107.358170 | | | | RIO ARRIBA CO | OUNTY, NM | | |
| 12. CHECK THE AF | PPROPRIATE BOX(ES) TO I | NDICATE NATURE OI | F NOTICE, R | EPORT, OR OTH | IER DATA | | |
| TYPE OF SUBMISSION | | TYPE OF | ACTION | | | | |
| Notice of Intent | □ Acidize | Deepen | Production | n (Start/Resume) | □ Water Shut-Off | | |
| | □ Alter Casing | Hydraulic Fracturing | Reclamati | on | U Well Integrity | | |
| Subsequent Report | Casing Repair | □ New Construction | Recomple | | □ Other | | |
| ☐ Final Abandonment Notice | Change Plans Convert to Injection | Plug and Abandon Plug Back | Temporar Water Dis | | | | |
| determined that the site is ready for fi Hilcorp Energy Company requ proposed TA procedure. A clo schematic, proposed TA sche | andonment Notices must be filed only inal inspection. uests approval to plug and abai sed loop system will be used. matic, proposed P&A schemat ed on 1/31/20 with Bob Switze | ndon the wellbore if the N Attached is the current w ic, procedures & reclama | AIT fails on ellbore ation plan - | | | | |
| | | | | | IMOCD | | |
| | | | | FE | B 2 0 2020 | | |
| | | | | DIST | RICT III | | |
| 14. I hereby certify that the foregoing is | true and correct. Electronic Submission #50221 | 9 verified by the BLM Wel | Information S | system | | | |
| Committ | For HILCORP ENERG | SY COMPANY, sent to the | Farmington | - | | | |
| Name (Printed/Typed) TAMMY J | | | LATORY SPE | | | | |
| Signature (Electronic S | Submission) | Date 02/06/20 | 020 | | | | |
| | | EDERAL OR STATE | | 1 | | | |
| | | | | | | | |
| Approved By JOE KILLINS | | | 7 | | Date 02/21/20 | | |
| onditions of approval, if any, are attache rtify that the applicant holds legal or equ hich would entitle the applicant to condu | uitable title to those rights in the subje | | ton | | | | |
| tle 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent s | U.S.C. Section 1212, make it a crime statements or representations as to any | for any person knowingly and matter within its jurisdiction. | willfully to make | to any department or | agency of the United | | |
| nstructions on page 2) ** BLM REV | ISED ** BLM REVISED ** E | BLM REVISED ** BLM | REVISED | * BLM REVISE | D ** | | |
| | | E. | | | | | |

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HILCORP ENERGY COMPANY Creek 1 P&A NOI

JOB PROCEDURES

1. Hold pre-job safety meeting. Verify cathodic is off. Comply with all NMOCD, BLM, and HEC safety and environmental regulations.

- Check casing, tubing, and bradenhead pressures and record them in WellView. If there is pressure on the BH, contact Operations Engineer. NOTE: Petro Wireline CBL run May 22, 1998 showed TOC @ 3,558' in 5-1/2" casing and TOC @ 2,802' in 7-5/8" casing (at top of log run). New CBL will have been run during MIT/TA program to confirm TOC behind 7-5/8" casing. Plan to run new CBL from top of liner to surface. Procedure for plugs assumes MIT passed and a TOC behind 7-5/8" casing is at 879' based on 75% efficiency calculation during primary cement job pumped 9/23/1970. This puts the Naclemento formation top below TOC. Cement volumes, plug length and pumping procedures will be adjusted pending results of new CBL.
 MIRU service rig and associated equipment; NU and test BOP.
- 4. TIH w/ tubing/work string to +/- 4,035' (top of CIBP).
- 5. Plug #1: CHACRA/LEWIS PERFORATIONS; HEURFANITO BENTONITE, LEWIS AND PICTURED CLIFFS FORMATION TOPS; COVERING 5-1/2" LINER LAP (3,230' to 4,035', 130 Sacks of Class G Cement): Pump a +/- 805' balanced cement plug (130 sacks of Class G cement with an estimated TOC @ +/- 3,230' and an estimated BOC @ +/- 4,035'). Includes 50' of excess cement. NOTE this balanced cement plug will be pumped from the CIBP in the 5-1/2" casing, across the liner top at 3,438' and up into the 7-5/8" annulus to cover the top of the Lewis and Pictured Cliffs formation tops.
- 6. TOOH w/ tubing/work string to +/- 2,931'.
- 7. Plug #2: FRUITLAND, KIRTLAND AND OJO ALAMO FORMATION TOPS (2,457' to 2,931', 121 Sacks of Class G Cement): Pump a +/- 474' balanced cement plug (121 sacks of Class G cement with an estimated TOC @ +/- 2,457' and an estimated BOC @ +/- 2,931'). Includes 50' of excess cement.

9. Plug #3: NACIEMENTO FORMATION TOP (1,202' to 1,302', 35 Sacks of Class G Cement): Pump a +/- 100' balanced cement plug (35 sacks of Class G cement with an estimated TOC @ +/- 1,202' and an estimated BOC @ +/- 1,302'). Includes 50' of excess cement.

10. TOOH w/ tubing/work string. RU EL, RIH peforate squeeze holes @ +/-366*. POOH, RD EL. Establish injection rate into squeeze holes.

- Plug #4: SURFACE PLUG (0' to 366', 206 Sacks of Class G Cement): Pump +/-50' cement squeeze in the 7-5/8" x 15" OH (below surface shoe), +/- 316' cement squeeze in the 7-5/8" x 10-3/4" annulus and +/- 366' balanced cement plug in the 7-5/8" annulus to surface (206 sacks of Class G cement with an estimated TOC @ +/- 0' and an estimated BOC @ +/-366'). Ensure good returns to surface. Includes 50' of excess cement in OH section below surface shoe.
- 12. ND BOP, cut off casing below casing flange. Top off cement in surface casing annulus, if needed. Install a P&A marker with cement to comply with regulations. Rig down, move off location, cut off anchors, and restore location.

^{8.} TOOH w/ tubing/work string to +/- 1,202'.



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HILCORP ENERGY COMPANY Creek 1 P&A NOI

| ∮ ∥ | ilcorp E | nergy Company | | | | |
|--------------------|---------------|---|-------------------------------|--|---|--------------------------|
| Well N | ame: | CREEK #1 | | | | |
| 0039203 | 339 | Surface Legal Location Field Name 004-029N-005W-G BLANCO MESAVE | RDE (PRORAT #00) | Route 78 1208 | State/Province NEW MEXICO | Weil Configuration Type |
| 343.00 | | | -Ground Distance (it) 1.00 | K5-Casing Flan | ge Distance (f) KB-Tubing Hang | er Distance (11) |
| | | Original Ho | ole, 1/27/2020 | 9.02.46 AM | 1 | |
| MD (ftKB) | TVD (ftKB) | onginarre | Vertical sche | | | |
| | (100) | | | | Surface Casing Ceme | ot: 11 00 320 00: |
| 11.2 315.0 | | | | | 9/18/1970; Cemented | |
| 315.9 | | | | 000 | cement. 1: Surface: 10 3/4 in: 1 | 0.19 in: 11.00 #KB |
| 319.9 | | | 1999294 | /4543 | 316.06 ftKB | 0.13 m, 11.00 mb, |
| 878.9 | | NACINIENTO (final) | | | | ement: 879.00-3.560.00 |
| 1,252.0 | | — NACIMIENTO (final) — dTubing Porducation; 2 3/8 in; 4.70 ib/ft; J-55;]- | | | 9/23/1970; Cemented | w/ 150 sx followed by 50 |
| 2,621.1 | | 11.05 ftKB; 5.082.66 ftKB | | | sx neat cement. TOC | |
| 2,850.9 | | | | | | |
| 3,303.1 | | PICTURED CLIFFS (final) | | | | |
| 3,430.1 | | - LEWIS (final) | | - <u></u> | | |
| 3,438.0 | | | 100 | ar an | | |
| 3,442.9 | | | 1 S | | | |
| 3,558.1 | | | 88 s | | | |
| 3,559.1 | | | 89 S | | 2: Intermediate: 7 5/8 i | n; 6.97 in; 11.00 ftKB; |
| 3,560.0 | | HUERFANITO BENTONITE (final) | | | 3,560.00 ftKB | |
| 4,061.0 | | HOERPANTO BENTONTE (intal) | | | | |
| 4,341.9 | | | 1000 | 1828 | PERF - LEWIS UPPER | 3; 4,085.00-4,580.00; |
| 4,580.1 | | | | | 5/23/1998 | |
| 4,525.0 | | Tubing Pup Joint; 2 3/8 in; 4.70 lb/ft: J-55; 5,082.66 ftKB; 5,085.16 ftKB | | | PERF - LEWIS LOWE | R; 4,625.00-5,050.00; |
| 5,049.9 | | Tubing Porducation: 2 3/8 in: 4.70 lb/ft; J-55; | | | 5/22/1998 | |
| 5,082.7 | | 5,085.16 ftKB; 5,115.26 ftKB | | | | |
| 5,085.3 | | Profile Nipple; 2 3/8 in; 4.70 lb/ft; j-55; 5,115.26 | | | | |
| 5,115.2 | | ftKB; 5,116.13 ftKB Expendabl Check Mule Shoe; 2 3/8 in; 4.70 | | | | |
| 5,115.1 | | Ib/ft; j-55; 5.116.13 ftKB; 5.117.00 ftKB | | | Cement Plug; 5,142.00 | -5,403.00; 5/28/1998; |
| 5.142.1 | | PBTD: 5,142.00; Tagged on 9/11/2007 | | 100 A | Drid cmt plug to 5180' | E 400 00 E 258 00. 1 |
| 5,191.9 | | | | | PERF - MESAVERDE; / 10/23/1970 | 5,192.00-5,256.00, |
| 5,199.1 | | CLIFF HOUSE (final) | | | / Cement Plug: 5.406.00 | -6,190.00; 5/28/1998; |
| 5,237.9 | | MENEFEE (final) | | | | tw/ 180 sx Class B neat |
| 5,257.9 | | | | | Cement. | E 500 00 E 530 00: 1 |
| 5,402.9 | | Cement Retainer; 5,403.00-5,406.00- | | 11 | PERF - MESAVERDE; / 10/23/1970 | 3,330.00-3,330.00, |
| 5,405.8 5,492.1 | | POINT LOOKOUT (final) | | | Liner Cement; 3,558.0 | |
| 5,529.9 | | Point Lookoor (iinai) | | | TOC @ 3,558" by CBL | |
| 5,589.9 | | | | N 188 | Cemented w/215 sx H 150 sx Class C cemer | |
| 5,945.9 | | MANCOS (final) | | SS 0 | Cement Plug; 6,190.00 | -6,357.00; 5/28/1998; |
| 6,190.0 | | | | ###################################### | Spot cement plug from | |
| 6,357.0 | | | | ····· | Class B neat cement. | -7,390.00: 10/23/1970:1 |
| 6,740.2 | | GALLUP (final) | | | Cemented hole w/ 35 | |
| 7,107.9 | | Cement Retainer; 7,108.00-7,111.00- | | 11 (8) | PERF - DAKOTA; 7,23 | |
| 7,110.9 | | | | | /10/20/1970 | |
| 7,248.0 | | | 1001 | | PERF - DAKOTA; 7,25 | 0.00-7,274.00; |
| 7,253.0 | | | | | PERF - DAKOTA; 7.27 | 6.00-7.304.00 |
| 7,274.0 | | | | | /10/14/1970 | |
| 7,275.9 | | | | | / PERF - DAKOTA; 7,27 | 6.00-7,304.00; |
| 7,304.1 | | | | | 10/17/1970 | |
| 7,390.1 | | Cement Retainer; 7,390.00-7,393.00- | | 1 | Cement Plug; 7,393.00 | -7,650.00; 10/13/1970; |
| 7,393.0 | | | | **** ×** | Cemented Dakota form | nation w/75 sx Class A |
| 7,486.9 | | - GREENHORN (final) | | | Comon. | |
| 7,542.0 | | GRANEROS (final) | | | | in: 3 438 00 8/8- |
| 7,648.9 | | Serve in (initial) | | | 7.650.00 ftKB | 11, 3,430.00 IUND, |
| 7,549.9 | | | | | Cement: 7,650.00-7,74 | 8.00; 10/13/1970 |
| 7,748.0 | | | | | | |



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HILCORP ENERGY COMPANY Creek 1 P&A NOI

| | | nergy Company CREEK #1 | | | | |
|--------------|---------------|------------------------------|--|---------------------|---|--|
| 0039203 | 39 | | Ped Name BLANCO MESAVERDE (PRORAT #0078 | Route 1208 | StateProvince NEW MEXICO | Weil Configuration Type |
| ound Elevat | | Original KBRT Elevation (ft) | KB-Ground Distance (II) | KB-Casing Flange Di | | nger Distance (ft) |
| 343.00 | | 6.354.00 | 11.00 | I contraction | and the second car | |
| | | | | | | |
| | | | Original Hole, 5/1/20 | 020 | | |
| MD (ftKB) | TVD (ftKB) | | Vertical schema | tic (actual) | | |
| 11.2 | | | | | Surface Casing Cem | |
| 315.0 | | | | | 9/18/1970; Cemented | d w/ 380 sx Class C |
| 315.9 | | | | 100000 | cement. | 10 10 in: 11 00 6KD |
| 319.9 | | | 25425253 | -servere / | 1; Surface: 10 3/4 in: 316.06 ftKB | 10.19 III, 11.00 TIKD; |
| 878.9 | | | 888 B | 300 E | - | Cament 970 00 3 500 00 |
| 1,252.0 | | -NACIMIENTO (final) | | | | Cement: 879.00-3,560.00 w/ 150 sx followed by 50 |
| 2,505.9 | | | | | sx neat cement. TO | |
| 2,821.1 | | | | | | |
| 3,279.9 | | -PICTURED CLIFFS (final) - | | | | |
| 3,430.1 | | -LEWIS (final) | | | | |
| 3,438.0 | | | | | | |
| 3.442.9 | | | | 2 | | |
| 3,558.1 | | | | · · · | | |
| 3.559.1 | | | | 8 88 | 2. Intermediate: 7.5/8 | 3 in; 6.97 in; 11.00 ftKB; |
| 3,560.0 | | | | 10 | 3,560.00 ftKB | |
| 4,035.1 | | CIBP; 4 | 4.035.00-4.037.00 | | | |
| 4,037.1 | | | (final) | | | |
| 4,051.0 | | HOERFANTO BENTONTE | (iiriai) | 888 | | |
| 4,341.9 | | | | AND A | | R; 4,085.00-4,580.00; |
| 4,580.1 | | | | ASSA | 5/23/1998 | |
| 4,625.0 | | | 200 | 100 | PERF - LEWIS LOW | ER: 4,625.00-5.050.00; |
| 5,049.9 | | | 300 | 226 | 5/22/1998 | |
| 5,082.7 | | | | | | |
| 5,085.3 | | | | | | |
| 5,115.2 | | | | 888 · | Cement Plug: 5 142 | 00-5,403.00; 5/28/1998; |
| 5,116.1 | | | | | Drid cmt plug to 518 | |
| 5,142.1 | | PBTD: 5.142.00: Tag | ged on 9/11/2007 | | PERF - MESAVERDE | ; 5,192.00-5,258.00; |
| 5,191.9 | | | | | 10/23/1970 | |
| 5,199.1 | | | | | | 00-6,190.00; 5/28/1998; ut w/ 180 sx Class B neat |
| 5,237.9 | | - MENEFEE (final) | | | cement. | ULW/ 100 SX Class Dileat |
| 5,257.9 | | | | | PERF - MESAVERDE | 5,590.00-5,530.00; |
| 5,432.9 | | Cement Retainer; | 5 403 00-5 406 00 | | 10/23/1970 | |
| 5,405.8 | | | | | | .00-7,650.00; 10/1/1970; |
| 5,492.1 | | POINT LOOKOUT (final) | | | TOC @ 3,558' by CB Cemented w/215 sx I | Halco Light followed by |
| 5,589.9 | | | | \$\$ •/ | 150 sx Class C ceme | |
| 5,945.9 | | | | × * | Cement Plug; 6,190.0 | 00-6,357.00; 5/28/1998; |
| 6,190.0 | | , | | × | | om 6190'-6357' w/ 20 sx |
| 6,357.0 | | | | × | Class B neat cemen | n. 00-7,390.00; 10/23/1970; |
| 5,740.2 | | GALLUP (final) | | ×7 | | 5 sx Class C cement. |
| 7,107.9 | | Cement Retainer; | 7,108,00-7,111,00 | | PERF - DAKOTA: 7,2 | |
| 7,110.9 | | e en en recentrer, | | × 1 | 10/20/1970 | |
| 7,237.9 | | | 1004 | ····· | PERF - DAKOTA; 7,2 | 50.00-7,274.00; |
| 7,250.0 | | | 200 | | 10/21/1970 | 76 00 7 304 00- |
| 7,274.0 | | | 102 | ····· | PERF - DAKOTA; 7,2 10/14/1970 | 10.00-1,304.00; |
| 7,275.9 | | | | | PERF - DAKOTA; 7,2 | 76.00-7,304.00; |
| 7,304.1 | | | | | 10/17/1970 | |
| 7,390.1 | | Cement Retainer: | 7 390 00-7 393 00 | | | 00-7,650.00; 10/13/1970; |
| 7,393.0 | | | | ××× 8 | Cemented Dakota for | rmation w/ 75 sx Class A |
| 7,485.9 | | GREENHORN (final) | | × ** | cement. | |
| 7,542.0 | | GRANEROS (final) | | × × | | |
| 7,647.0 | | - DAKOTA (final) | | | -3; Liner; 5 1/2 in; 4.9 | 5 in; 3,438.00 ftKB; |
| 7,548.9 | | | | | 7,650.00 ftKB Cement: 7,650.00-7,7 | 748 00: 10/13/4070 |
| 1,043.9 | | | | | Loement, 7,000.00-7,1 | 40.00, 10/13/19/0 |
| 7,748.0 | | | | | | |

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HILCORP ENERGY COMPANY Creek 1 P&A NOI

| | | nergy Company CREEK #1 | | | | | |
|--------------------|--------|---|--|----------------------------|------------------|---|--|
| 003920 | | Surface Lagar Location 004-029N-005W-G | Field Name BLANCO MESAVER | DE (PRORAT #0078 | Route 1208 | State/Province NEW MEXICO | Weil Configuration Type |
| round Elevi | | Original KBRT Elevation (ft | KB-G | round Distance (ft) | KB-Casing Flange | | inger Distance (fl) |
| ,343.00 | | 6,354.00 | | | | | |
| MD | TVD | | Origir | nal Hole, 5/1/20 | 020 | | |
| (ftKB) | (ftKB) | | | Vertical schema | tic (actual) | | * Annulus; 11.00-216.00; \$11,2020 |
| 315.0 | | alaan Are balan Barkan ay kanala da markan Barkan Alamat (Barkan) | al den vonde statsener (R. Brief werkeiß auf siederich | | | K BURFACE Plub Boz (2" E'to C'. E | SX Class & Content): Pump a +-316 coment with an estimate TOC ()+-C F). |
| 219.9 | | | | | | (366' to 0', 85'sx Class G Certen of Class G certent with an estim | () Pump a +-358 cement sqt (\$5 sec ata TOC G+0' and an estimated BOC |
| 878.9 | | | | | | Class C cement Class C cement Surface Plug Soz-7-53" x 15 C | H BOZ 216 CC-866 CC 811/2020 |
| 1,252.0 | | | | | | W SURFACE Plug Boz (365 to 216 | 1 52 sx Diass G Cement): Fump a +→3 cement with an estimate TOC @++31 EN. |
| 2,457.0 | | | | | | Specte Ferts - Burtace Shoe 38 Cement Flug 3 - 7-518 Antrolus | E 00 51 2020 |
| 2.621.1 | | KIRTLAND (final) FRUITLAND (final) | | | | Pump a +i-100 balanced cemen an estimated TOC @ +i-1,202 a memory are Casino Camert 87 | tplug (25 sects of Class Gcement with nd an estimated #OC @ +> 1.300%) 5 50-3 550 50: 912 1976 Cemented W |
| 3,279.9 | | |]) | | | Dement Plug 2 - 7-2/8 " Andulus:) FRUITLAND, KIRTLAND AND D | ment. TOC © 879 w/75% eff. 1.457.0042 931.00; 51/12020 JC ALAMO FORMATION TOP 8 (2.531 |
| 3,438.0 | | LEWIS (final) | | | | an estimated TOC @ +- 2.457 a | menQ tplug (121 secks of Class Gcement with nd an estimated BOC & +1-2 531) 5,230 00-2,438 00; 5112020; Flug 1 |
| 3,558.1 | | | | | | Continued in 7-5/8" Annulus: (2, Dement): Pump 8 + 208 "belanced cemer | 433'to 3230', 60 Backs of Class G It plup (70 sacks of Class Gcoment wit |
| 3,560.0 | | | | 4 | | AND PICTURED CLIFFS FORM | nd an estimated BOC (2 3 438) (438.00-4 035.00; 5 1.2020 NS: HEURPANITO BENTONITE, LEWII ATION TOPS: COVERING 5-1/21 LINE/ |
| 4,037.1 | | CIB | P; 4,035.00-4,037.00 | | | LAP (4,035 to 3,433, 70 Secks of Pump a +1-597 balanced certer an estimated TOC dt +1-3,438 e | If Class & Cement): tplug (70 secks of Class & Cement with nd an estimated €OC @ +/- 4,0351 11.00 ftKE; 3,850 C0 ftKE |
| 4,085.0 | | | (| 3.651 | 1978 1978 | | |
| 4,580.1 | | | | 2000 I 2000 I 2000 I | 1000 m | PERFILENCE LOWER 4 625 0 | |
| 5,049.9 | | | | | | | |
| 5,085.3 | | | | | | | |
| 5,142.1 | | PBTD: 5.142.00: T | agged on 9/11/2007 | | | Dement#rug 5,142 00-5 403 00 | 5 75-1992 Drd CAY Diug to \$150 |
| 5,199.1 | | - CLIFF HOUSE (final) | | | | PERF-MESAVEACE 5 192 00 | |
| 5,257.9 | | — MENEFEE (final) ——— | | | | | |
| 5,405.8 | | Cement Retain | er; 5,403.00-5,406.00 | | × | SX Class E nest coment. | . 5 23.1 555, Cement Paint Lockaut w 1 |
| 5,529.9 | | . entreenteer (mai) | | | ∭ . | 5/22/1995). Demented w/ 215 sx | 5.530.00.10/23/1970 2.10/111970:1000 (3.555 by CBL (Mu Haico Lightfollowed by 150 s.x Class C |
| 5,945.9 | | — MANCOS (final) | | | | Cement Flug 8 190,004 357,00 6357 w 203x Class 8 nest cem | . 5/23-1993, 8 patcement plug from 819 |
| 6,357.0 7,107.9 | | | | | | Cemerc Plug: 7.105.00-7.350.00 | 10:22/1970: Cemented #: 25 5x 0:555 |
| 7,107.9 | | Cement Retain | er; 7.108.00-7.111.00 | | | Cement. | |
| 7,250.0 | | | | | | PERF- DAKOTA, 7 288 00-7 24 | |
| 7,275.9 | | | | | | | 100/10/17/1970 |
| 7,390.1 | | Cement Retain | er; 7,390.00-7,393.00 | | | Dement Plug 7,393 00-7,650 00 | 10/13/1970: Cemented Daksta format |
| 7,435.9 | | | | | × | W.75 sx Class A cement | |
| 7,547.0 | | - DAKOTA (final) | | | × | Cement 7,850,00-7,748,00,101 | 2:1970 |
| 7,549.9 | | | | | | 1. Uner \$1/2 in 4.95 in 3.423 0 | 0 10KB 7.650 00 10KB |

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UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT FARMINGTON DISTRICT OFFICE 6251 COLLEGE BLVD. FARMINGTON, NEW MEXICO 87402

Attachment to notice of Intention to Abandon:

Re: Permanent Abandonment Well: Creek 1

CONDITIONS OF APPROVAL

- 1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
- 2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
- The well is within the Rosa Mesa SDA and is seasonally restricted starting in December and ending in April. Do not proceed with plugging operations within the restricted season without approval of a wildlife stipulation exception. (form attached with NOI approval)
- 4. Submit electronic copy of the CBL for verification to the following addresses: jkillins@blm.gov, jhoffman@blm.gov and Brandon.Powell@state.nm.us. Based on CBL results inside/outside plugs and volumes will be adjusted accordingly. Please review the General Requirements document to ensure volumes meet required excess inside and outside casing.
 - a. BLM tops are based on the attached geologic report. Plugs will be adjusted based on cement coverage indicated by the CBL. Do not proceed with any plugging operations prior to reviewing CBL results with BLM.

BLM FLUID MINERALS Geologic Report

Date Completed: 2/14/20

| Well No. | Creek # 1 | | | Location | 1950' | FNL | & | 1490 | FEL |
|----------------|-------------|------|-------|---------------|----------------|-------------|-------|--------|-------|
| Lease No. | NMNM0558139 | | | Sec. 4 | . 1 | F29N | | | R5W |
| Operator | Hilcorp | | | County | Rio A | rriba | State | New Me | exico |
| Total Depth | 7748' | PBTD | 5142' | Formation | Blanco N | Aesa Verd | e | | |
| Elevation (GL) | 6343' | | | Elevation (KE | 3) 6355' (est. |) | | | |

| Geologic Formations | Est. Top | Est. Bottom | Log Top | Log Bottom | Remarks |
|----------------------------|----------|-------------|------------|------------|-----------------------------|
| San Jose Fm | | | Surface | 1220' | Surface/Fresh water sands |
| Nacimiento Fm | | | 1220' | 2120' | Fresh water sands |
| Ojo Alamo Ss | | | 2120' | 2550' | Aquifer (fresh water) |
| Kirtland Shale | | | 2550' | 2950' | |
| Fruitland Fm | | | 2950' | 3155' | Coal/Gas/Possible water |
| Pictured Cliffs Ss | | | 3155' | 3400' | Gas |
| Lewis Shale | | | 3400' | PBTD | |
| Chacra | | | Below CIBP | | Probable water or dry |
| La Ventana Tongue | | | | | Probable water or dry |
| Cliff House Ss | | | | | Water/Possible gas |
| Menefee Fm | | | | | Coal/Ss/Water/Possible O&G |
| Point Lookout Ss | | | | | Probable water/Possible O&G |
| Mancos Shale | | | | | Source rock |
| Gallup | | | | | O&G/Water |
| Dakota | | | | | O&G/Water |

Remarks:

P & A

- Log analysis of reference well #2 (attached worksheet) indicates the San Jose, Nacimiento, and Ojo Alamo formations contain fresh water (\leq 5,000 ppm TDS).

- Please ensure that the tops of the Pictured Cliffs, Fruitland, and Nacimiento formations as well as the entire Ojo Alamo aquifer, identified in this report, are isolated by proper placement of cement plugs. This will protect the freshwater sands in this well bore.

Reference Well: 1) Hilcorp Creek # 2 2010 FNL, 1120' FEL Sec 4, T29N, R5W GL 6343', KB 6355'

Fm. Tops

Water

Analysis

2) Phillips Pet. SJ 29-5 Unit # 17 1040' FNL, 1180FEL Sec 5, 29N, 5W GL 6429'

Prepared by: Valter Gage



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5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.

- 5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.
- 5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.
- 5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.
- 5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.

6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.

- 6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.
- 6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.

7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H_2S .

8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show <u>date</u> well was plugged.

9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.

10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.

(October 2012 Revision)



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