

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

David Martin  
Cabinet Secretary

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

David R. Catanach 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 3160-3 APD form.

Operator Signature Date: 07-24-15

Well information;

Operator Bridge creek, Well Name and Number Osprey #30-7

API# 30-045-35736, Section 30, Township 31 NS, Range 14 E W

Conditions of Approval:

(See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
  - ☐ Hold C-104 for directional survey & "As Drilled" Plat
  - ☐ Hold C-104 for NSL, NSP, DHC
  - ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
  - ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
    - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
    - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
    - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
  - ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☒ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- ☒ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
- ☒ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

NMOCD Approved by Signature

11-17-15  
Date KC



## OIL CONS. DIV DIST. 3

Form 3160-3  
(August 2007)

NOV 09 2015

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTRECEIVED  
ELECTRONIC REPORT

JUL 24 2015

FORM APPROVED  
OMB No. 1004-0136  
Expires July 31, 2010

## APPLICATION FOR PERMIT TO DRILL OR REENTER

BUREAU OF LAND MANAGEMENT

|  |   |  |
|--|---|--|
| 1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER   |   | 5. Lease Serial No.<br>751141038   |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone   |   | 6. If Indian, Allottee or Tribe Name<br>UTE MOUNTAIN UTE                                 |
| 2. Name of Operator<br>BRIDGECREEK RESOURCES CO LLC<br>Contact: CHRISTINE CAMPBELL<br>Email: ccampbell@bridgecreekresources.com  |   | 7. If Unit or CA Agreement, Name and No.   |
| 3a. Address<br>405 URBAN STREET, SUITE 400<br>LAKEWOOD, CO 80228   | 3b. Phone No. (include area code)<br>Ph: 303-945-2642 | 8. Lease Name and Well No.<br>OSPREY 30-7  |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *)<br>At surface <b>G</b> SWNE 1933FNL 1939FEL 36.873895 N Lat, 108.348216 W Lon<br>At proposed prod. zone <b>G</b> SWNE 1980FNL 1980FEL 36.873767 N Lat, 108.348353 W Lon |   | 9. API Well No.<br><b>30-045-35736</b>   |
| 14. Distance in miles and direction from nearest town or post office*<br>12.5 MILES FROM KIRTLAND, NM POST OFFICE  |   | 10. Field and Pool, or Exploratory<br>VERDE GALLUP                                       |
| 15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)<br>1831 FEET FROM NEAREST LEASE LINE  | 16. No. of Acres in Lease<br>8915.98                  | 11. Sec., T., R., M., or Blk. and Survey or Area<br>Sec 30 T31N R14W Mer NMP<br>SME: BIA |
| 18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.<br>109 FEET FROM NEAREST APPLIED FOR WELL  | 19. Proposed Depth<br>4748 MD<br>4748 TVD             | 12. County or Parish<br>SAN JUAN   |
| 21. Elevations (Show whether DF, KB, RT, GL, etc.)<br>5571 GL  | 22. Approximate date work will start<br>09/15/2015    | 13. State<br>NM  |
| 24. Attachments  |   | 17. Spacing Unit dedicated to this well<br>40.00   |
| The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:   |   | 20. BLM/BIA Bond No. on file<br>B008918  |
| 1. Well plat certified by a registered surveyor.<br>2. A Drilling Plan.<br>3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).   |   | 23. Estimated duration<br>10   |
| 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).<br>5. Operator certification<br>6. Such other site specific information and/or plans as may be required by the authorized officer.                                     |   |  |

|   |   |                     |
|---|---|---------------------|
| 25. Signature<br>(Electronic Submission)                | Name (Printed/Typed)<br>CHRISTINE CAMPBELL Ph: 303-945-2642 | Date<br>07/24/2015  |
| Title<br>REGULATORY LEAD                                |   |                     |
| Approved by (Signature)<br><b>/s/ Connie Clementson</b> | Name (Printed/Typed)<br><b>/s/ Connie Clementson</b>        | Date<br>OCT 30 2015 |
| Title<br>Field Manager                                  | Office<br>TRES RIOS FIELD OFFICE                            |                     |

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Approval of this agreement does not warrant or certify that the operator thereof and other holders of operating rights hold legal or equitable title to those rights in the subject lease which are committed hereto...

Electronic Submission #310214 verified by the BLM Well Information System  
For BRIDGECREEK RESOURCES CO LLC, sent to the Durango  
Committed to AFMSS for processing by BARBARA TELECKY on 07/27/2015 (15BDT0345AE)

SEE ATTACHED  
CONDITIONS OF APPROVAL

NMOCD **PV**

Venting / Flaring approved for 30 days  
per NTL-4A

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*



NOV 20 2015

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II  
811 S. First St., Artesia, N.M. 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, N.M. 87505  
Phone: (505) 478-3460 Fax: (505) 478-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, N.M. 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

|                             |   |                            |
|-----------------------------|---|----------------------------|
| *API Number<br>30-045-35736 | *Pool Code<br>62510                                     | *Pool Name<br>Verde Gallup |
| *Property Code<br>315057    | *Property Name<br>OSPREY 30                             | *Well Number<br>7          |
| *GRID No.<br>310262         | *Operator Name<br>BRIDGECREEK RESOURCES (COLORADO), LLC | *Elevation<br>5571         |

## 10 Surface Location

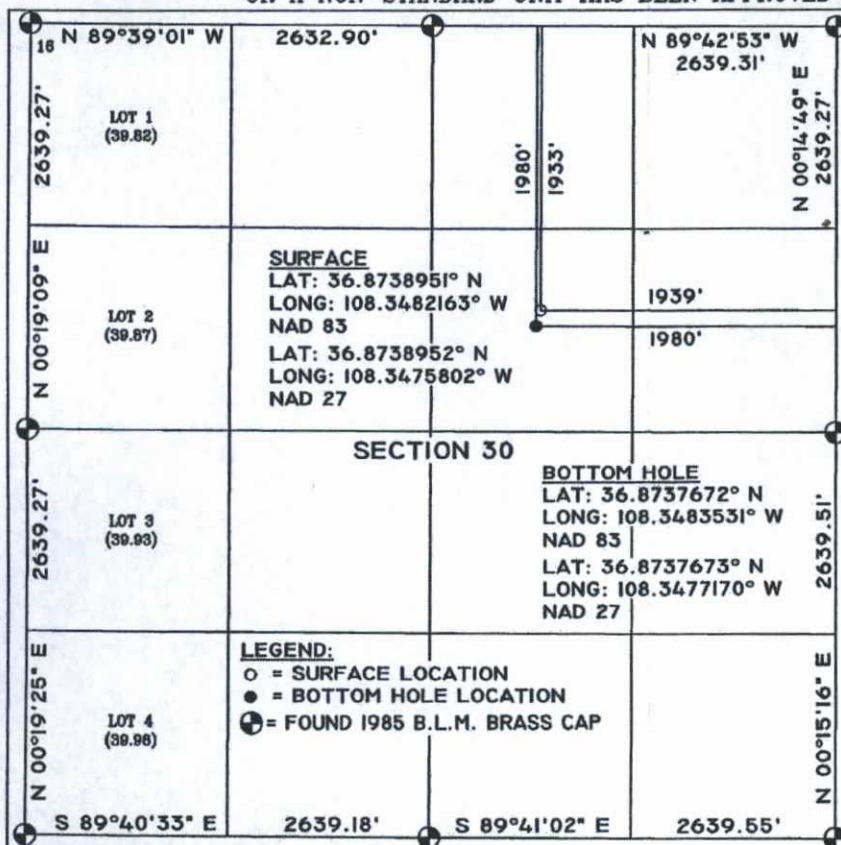
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| G             | 30      | 31 N     | 14 W  |         | 1933          | NORTH            | 1939          | EAST           | SAN JUAN |

## 11 Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| G             | 30      | 31 N     | 14 W  |         | 1980          | NORTH            | 1980          | EAST           | SAN JUAN |

|                                      |                  |                     |            |
|--------------------------------------|------------------|---------------------|------------|
| *Dedicated Acres.<br>40 sub<br>NE 30 | *Joint or Infill | *Consolidation Code | *Order No. |
|--------------------------------------|------------------|---------------------|------------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



## 17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Christine Campbell* Date: 11/15/15

Printed Name: Christine Campbell

E-mail Address: ccampbell@bridgocreekresources.com

## 18 SURVEYOR CERTIFICATION

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

Date of Survey: 06/24/15  
Signature and Seal: *Marshall W. Lindeen*

17078  
PROFESSIONAL SURVEYOR  
7-21-15

Certificate Number: 17078



- ~~J.A.~~ Portable toilets will be provided by Serrano's Portable Toilets (505-632-9497) or similar commercial sanitation service. The waste will be disposed at the Farmington OMI Waste Water Treatment plant located in Farmington, NM. The toilets will be onsite during all operations.
- B. Drilling operations will utilize a closed loop water based mud system. Bridgecreek anticipates that during the flowback stage of the well there will be four (4) 300bbl tanks on location placed outside of the workover rig and rig crew equipment areas, in a designated area that be safe for all other operations on the pad.
- C. Drill cuttings (rock fragments generated during drilling) will be produced during drilling of the borehole. The operator will follow Onshore Oil and Gas Order No. 1 regarding the placement, operation and removal of the closed-loop systems. No blow pit will be used. Drill cuttings will be disposed on-site in a burial trench. The drill cuttings will be temporarily stored in above-ground steel containment until drilling completion. The entire area designated to include one or more burial trenches will not exceed the dimension of 10 feet wide x 10 feet deep x 215 feet maximum length. The operator will obtain an approved Form C-144 for each burial trench per NMOCD's Pit Rule NMAC 19.15.17 prior to on-site disposal of drill cuttings. The drill cuttings will be temporarily stored in above-ground steel containment until drilling completion. Cuttings will be dried and mixed with a bonding agent or clean fill for stabilization. The drill cuttings will not be mixed greater than a 3:1 ratio.
- D. Prior to disposal, cuttings will be tested by taking at a minimum 5-point sample for the analysis of constituents under the regulations listed in the NMAC 19.15.17.13 Closure and Site Reclamation requirements, Ute Mountain Ute (UMU) Tribe's "Standards for Spill Clean-up and Chlorides Reclamation" table, and EPA SW-846 methods. These results will be submitted to the BLM via a 3160-5 Sundry Form to the Tres Rios BLM Field Office
- E. The cuttings burial trench will be compacted to ground level to prevent the collection of surface runoff and located on the pad as shown on the well pad layout (Attachment F). The burial trench will be lined with a minimum of 20 mil string reinforced LLDPE liner or equivalent liner which the outer edges will be folded in to overlap the cuttings. A geomembrane (20-mil LLDPE) cover will be placed on top and capped with a minimum of 4 feet of clean fill dirt. No trash will be placed in the cuttings trench.
- F. The first well will be drilled and completed and a burial trench utilized. The remaining wells on this pad will be drilled at a later date and an additional burial trench will be placed end-to-end within the same contiguous burial trench area shown on Attachment F. The boundaries of the trench will be designated by surface and depth markers. The markers will clearly define the edge of the trench until future expansion due to remaining wells being drilled on pad and their cuttings burial.
- G. Drilling fluids will be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids will be recycled and transferred to other permitted locations or returned to the vendor for re-use, as practical. Residual fluids will be vacuumed from the storage tanks and disposed of at an appropriate waste disposal facility. Drilling fluid storage tanks will be adequately sized to ensure confinement of all fluids and will provide a minimum of 2 feet of freeboard to prevent uncontrolled releases.
- H. Anticipated flowback volumes: Total Fluid estimate: ~450 bbls, Total Oil estimate: ~50 bbls, Sand content: ~12.5cups/bbl or 90% Water/10% oil/ Sand content: ~12.5cups/bbl.
- I. It is anticipated that either Basin Disposal located at 200 Montana, Bloomfield, NM 87413 or Aqua Moss Disposal located at 3782 Provo, Bloomfield, NM 87413 will be used.

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Attachment I--Drilling Plan

**Attachment to Application for Permit to Drill  
Drilling Plan**

Bridgecreek Resources (Colorado), LLC  
405 Urban St, Suite 400  
Lakewood, CO 80228

**OSPREY 30-7**

Surface Location: 1933' FNL – 1939' FEL  
Section 30, T31N, R14W, N.M.P.M.  
Latitude = 36.8738951° N  
Longitude = 108.3482163°W  
Ungraded GL Elev. = 5571'  
Graded GL Elev. = 5570'

Proposed Bottom Hole Location: 1980' FNL – 1980' FEL  
Section 30, T31N, R14W, N.M.P.M.  
Latitude = 36.87376724° N  
Longitude = 108.3483531° W

SAN JUAN COUNTY, NEW MEXICO

*Drilling Program written in compliance with Onshore Oil and Gas Order No. 1 (OO1 III.D.3, effective May 7, 2007) and Onshore Order No. 2, Dated November 18, 1988*

Drilling Plan:

The OSPREY 30-7 well is intended to be drilled as a slightly deviated well with limited directional guidance to the Graneros formation. After a 16" conductor is preset at a depth of 40' below ground level, the location will be prepared for operations, including all prudent storm water controls. This well will be drilled using a closed-loop mud system without the use of an earthen reserve pit.

The well will be spud with using a 12 1/4" bit and fresh water-based mud to a depth of 1,714' MD. At a minimum, wireline directional surveys will be run at intervals not exceeding 500'. At a depth of +/- 1,714' MD (to be adjusted according to KB of rig selected), 9-5/8" 36#/ft. J-55 STC surface casing will be run and cemented into place. Surface casing will be set at 1,714' MD or 50' into the Top Menefee, whichever is deeper. Top Menefee will be determined by mudlogger. If, for some reason the cement is not circulated to surface, or if cement falls further than 10' from ground level, the 9-5/8" x 12-1/4" annulus will be filled to the surface from the top of cement using 1" tubing.

The surface casing will be drilled out using an 8-3/4" bit, performance BHA and water based mud to a total depth (TD) of 4,749' MD. Upon reaching TD, we will utilize open hole logs to evaluate prospective interval(s) from the Mancos marker to the top of the Greenhorn formation in which to perforate for stimulation. Planned logs to be run include Dipole/GR/DIL/DEN/NEU/ML from TD to surface casing. Optional percussion sidewall core from TD to surface casing.

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Depending on geologic conditions observed through mud logger analysis and results from open hole logs, Bridgecreek may elect to run and cement 5 1/2" 17#/ft. N-80 LTC casing and cement into place.

### 1. Estimated Tops for Important Geological Formations

| Formation          | Est/ MD | TVD    | Comments               |
|--------------------|---------|--------|------------------------|
| Kirtland/Fruitland | 0'      | 0'     | Coal                   |
| Cliffhouse         | 1,510'  | 1,510' | Aquifer (Water)        |
| Menefee            | 1,664'  | 1,664' | Deepest Coal           |
| Point Lookout      | 2,453'  | 2,453' | None                   |
| Upper Mancos       | 2,889'  | 2,889' | None                   |
| MRZ                | 3,275'  | 3,274' | Possible Pay (Oil/Gas) |
| ElVado             | 3,908'  | 3,907' | Possible Pay (Oil/Gas) |
| Tocito             | 4,160'  | 4,160' | Possible Pay (Oil/Gas) |
| Juana Lopez        | 4,331'  | 4,331' | Possible Pay (Oil/Gas) |
| Greenhorn          | 4,679'  | 4,678' | Possible Pay (Oil/Gas) |
| Graneros           | 4,744'  | 4,744' | None                   |

### 2. Anticipated Depths of Prospective Oil, Gas and Other Hydrocarbons

Primary objectives are productive zones within the Mancos (Top Mancos is anticipated at approximately 2,889'TVD) through the Greenhorn (Top Greenhorn is anticipated at approximately 4,678' TVD).

### 3. Minimum Specifications For Pressure Control Equipment Complies with Onshore Order #2.A.1

The working pressure of all BOP shall exceed the anticipated surface pressure to which it may be subjected, assuming a partially evacuated hole with a pressure gradient of 0.22 psi/ft.

Bottom Hole pressure = 4,748' TVD x 0.45 psi/ft = 2,136 psi (based on measured offset bottom hole pressures, see plan point 8 for details).

Maximum Surface Pressure = 2,136 psi - (4,748' TVD x .22 psi/ft)  
 = 2,136 psi - 1,044 psi  
 = 1,092 psi (less than 3000 psi working pressure.)

Therefore 3000 psi BOP system required.

#### A. Wellhead Equipment 3,000 PSI System (See Exhibit A)

1. 9 5/8" slip-on / welded x 11" 3,000 psi casing head.
2. One (1) 11" x 3,000 psi WP single-ram preventer with one (1) set of pipe rams, complete with hand wheels and extension arms.
3. One (1) 11" 3,000 psi WP drilling spool with side outlets for 2" kill line and minimum 3" choke line
4. One 11" 3,000 psi WP double-ram preventer with one (1) set of blind rams on bottom & one (1) set of pipe rams on top complete with hand wheels and extension arms.
5. One 11" x 3,000 psi WP Hydril GK (or equivalent) annular preventer.

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6. Accumulator - Four Station Koomey (or equivalent) 120 gallon closing unit with remote, backup. The accumulator shall have sufficient capacity to open the hydraulically-controlled gate valve and close all rams plus the annular preventer, with a 50% safety factor and retain a minimum of 200 psi above the pre-charge on the closing manifold without the use of the closing unit pumps. The reservoir capacity shall be double the usable accumulator capacity, and the fluid level shall be maintained at the manufacturer's recommendations.
7. The BOP system shall have two (2) independent power sources (electric and air) available for powering the closing unit pumps. Sufficient nitrogen bottles are suitable as a backup power source only, and shall be recharged when the pressure falls below manufacturer's specification.
8. A valve shall be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative.

All BOP equipment will be hydraulically operated with controls accessible both on the rig floor and on the ground.

B. Auxiliary Equipment To Be Used – Minimum 3,000 PSI System (See Exhibit B)

1. Upper & lower kelly cock valve with handles available.
2. Safety valve and subs to fit drill pipe, on rig floor.
3. Choke manifold for 3,000 psi system with 2 chokes (pressure gauge on manifold).
4. Two (2) kill lines (2" minimum, one remote to end of substructure) both with 2" kill line full open valves, plus a check valve for each line.
5. Minimum 3" choke line.
6. Two choke line gate valves, 3" minimum, with one choke line gate valve being hydraulically operated.
7. Two chokes (1 remote, 1 manual) on choke manifold
8. Fill-up line above the uppermost preventer.
9. Wear Bushing or Bowl Protector in the casing head.
10. Inside BOP or (float sub) available
11. All BOPE connections subjected to well pressure shall be flanged, welded or clamped.
12. Choke line shall be straight lines unless turns use tee blocks or are targeted with running tees, and shall be anchored to prevent whip and reduce vibration.

The wellhead BOP equipment will be nipped-up on the 9-5/8" x 11" 3,000 psi casing head prior to drilling out from under surface casing. All ram preventers and related equipment will be tested to 250 psi for 10 minutes then 3,000 psi for 10 minutes. Annular preventers will be tested to 50% of rated working pressure for 10 minutes. Surface casing will be tested to 70% of internal yield pressure. All preventers and surface casing will be tested before drilling out of surface casing. BOP equipment will be tested every 14 days, after any repairs are made to the BOP equipment, and after the BOP equipment is subjected to pressure. Annular preventers will be functionally operated at least once per week. Pipe rams will be activated daily and blind rams shall be activated each trip or at least weekly. The Bureau of Land Management, the Bureau of Indian Affairs and Ute Mountain Ute Tribe will be notified 24 hours in advance of testing of BOPE.

4. **Proposed Bit and Casing Program**

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A. Bit Program

12 1/4" Surface Hole = Surface to 1,714' MD

8 3/4" Production= 1,714' MD to TD (approximately 4,749' MD)

B. Casing Program – all casing strings are new casing

| Casing & Hole Size | Weight | Grade | Coupling | Setting Depth (MD) | Comments                          |
|--------------------|--------|-------|----------|--------------------|-----------------------------------|
| 16" Conductor      |        |       |          | 0' - 40-ft BGL     | New casing.                       |
| 9-5/8" (12-1/4")   | 36 ppf | J-55  | ST&C     | 0' – 1,714' MD     | New casing.<br>Cement to surface. |
| 5-1/2" (8-3/4")    | 17 ppf | N-80  | LT&C     | 0'-4,749' MD       | New casing.<br>Cement to surface. |

**Casing strings below the conductor casing will be tested to .22 psi per foot of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield.**

Minimum casing design factors used: Collapse - 1.0  
Burst - 1.1  
Jt. Strength - 1.3

Surface casing shall have a minimum of 1 centralizer per joint on the bottom three (3) joints, starting with the shoe joint for a total of (4) minimum centralizers. Centralizers will be placed 10' above the shoe on the shoe joint, on the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> casing collars.

The production casing will be centralized using 1 centralizer the first 6 jts and then spaced +/- 1 centralizer / 4 jts through the remainder of the cement column.

5. Proposed Cementing Program

Surface Casing Single Stage Job – (0 – 1,714' MD):

Excess – 100% over gauge hole – 12-1/4" hole and 9-5/8" casing (0.3132 ft3/ft)

Top of Cement - Surface

Yield – 2.21 ft3/sx

Water requirement – 12.6 gal/sx

**Total sacks of cement pumped = 490sx**

Production Casing Single Stage Job – (0 – 4,479' MD):

Excess –25% over gauge hole – 8-3/4" hole and 5-1/2" casing (0.3157 ft3/ft)

Top of Cement – Surface

Yield – 1.21 ft3/sx

Water requirement –5.68 gal/sx

**Total sacks of cement pumped = 1,240sx**

6. **Characteristics for Drilling Fluids (all depths are MD)**

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| Depth (MD)     | Hole Size (in) | Type   | Fluid Density (ppg) | PV (cP) | YP (lb/100 ft <sup>2</sup> ) | API (mL) | pH        | MBT (ppb) | Salinity (PPM) | Remarks  |
|----------------|----------------|--------|---------------------|---------|------------------------------|----------|-----------|-----------|----------------|----------|
| 0 - 1,714'     | 12-1/4"        | FW/Gel | 8.4 - 8.8           | 2 - 8   | 12                           | N/C      | 8.5 - 9.5 | < 15      | < 500          | spud mud |
| 1,714 - 4,479' | 8-3/4"         | WBM    | 8.4 - 8.8           | 8 - 14  | 7-8                          | < 6      | 8.5 - 9.5 | < 15      | < 1,000        | LSND     |

Sufficient weighting material will be on hand to weight mud up to 11.0 PPG, if required.

The formula for weight up with barite is listed below:

$$\text{Sacks of Barite per 100 bbl of mud} = 1470 \times (W2 - W1) \div (35 - W2)$$

Where; W1 = current mud weight

W2 = new mud weight

$$\text{Sacks} = 1470 \times (11.0 - 8.6) / (35 - 11.0) = 147 \times 20 \text{ (2000bbls minimum)} = 2940 \times$$

Pason Pit Volume Totalizer (PVT) equipment will be on each pit to monitor pit levels. A closed-loop mud system will be utilized while drilling. Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations. All necessary spill prevention and remediation materials and procedures will be utilized to control any potential discharges on the surface. A steel tank will be used to collect all of the cuttings. The cuttings will be disposed of onsite in an approved lined cuttings disposal trench, in accordance with the rules and regulations of the BLM and New Mexico Oil Conservation Division.

## 7. Testing, Logging, Coring and Completion Program

A. Drill-Stem Testing Program: None

B. Logging Program:

The following logs (Dipole/GR/DIL/DEN/NEU/ML) will be run in 8-3/4" hole from TD (~4,479' MD) to the surface casing shoe (~1,714' MD).

Submission of digital logging data shall be in Log ASCII Standard (LAS) file format.

BLM shall be provided with a final survey to establish the location of the bottom hole location. If reduced data are provided, the algorithm, datum, and projection should also be provided.

C. Mud Logging

Geologist & a manned mud-logging unit will be operational @ +/-400' on the main hole to TD. Samples will be caught every 30 feet during drilling, with the exception of possible pay zones, where samples will be caught every 5 feet.

D. Coring: Optional percussion sidewall cores from surface casing to TD.

E. Cement Bond Log: Will be run after the drilling of the well has been completed and as the start of the completion process. The CBL will confirm the quality of the cement bond and the actual TOC. If either of these two data points were not

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satisfactory per BLM, State and standard procedure, remedial cement work, if required, will be performed after consultation and approval of a plan from both the BLM and State agencies.

- F. **Drilling and Stimulation:** Drilling is expected to take 7 days. Completion (if the well is deemed productive) is estimated to take 2 days. The duration of flowback/testing operations is 3 days. We are planning a 4 stage nitrogen foam frac for this well. Based on frac modeling work, we anticipate an average frac length away from the wellbore to be ~400 feet in the horizontal direction. Estimated fresh water usage per stage during completion is ~476 bbls. A total of ~1,540 bbls of sand/nitrogen/water mix will be injected during the completion. A total of ~3,700 lb of premium white 40/70 sand and a total of ~70,300 lb of premium white 20/70 sand will be injected during the completion. A hydraulic fracture treatment will be designed for the completion of this well based on open hole log analysis and surface shows. If a hydraulic fracture treatment is warranted, The drill site, as approved, will be sufficient size to accommodate all completion activities.

**8. Expected Bottom Hole Pressure and any Anticipated Abnormal Pressures, Temperatures or Other Potential Hazards**

- A. Based on offset information the expected bottom-hole pressure at the Graneros is 0.45 psi x 4,748' TVD = 2,136 psi.

| Well                 | TVD<br>(ft) | BHP (PSI)    | Pressure Gradient<br>(psi/ft) | EMW<br>(ppg) |
|----------------------|-------------|--------------|-------------------------------|--------------|
| Harris Hawk 20-1     | 3578        | 1610         | 0.45                          | 8.7          |
| Prairie Falcon 19-1  | 3269        | 1471         | 0.45                          | 8.7          |
| <b>Estimated BHP</b> | <b>4748</b> | <b>2,136</b> | <b>0.45</b>                   | <b>8.7</b>   |

- B. Expected bottom-hole temperature @ the Graneros formation is ~110 deg F.  
C. No lost circulation is anticipated.  
D. No zones of potable water are expected to be encountered during the drilling of this well.  
E. No H2S sour gas is known to exist in the formations that we will drill through.  
F. Estimated fresh water usage for drilling operations will start at ~1,000 bbls of fresh water. The mud system will dewater after a well is drilled. We can reuse the same water over and over (re-use of drilling mud on subsequent wells). Accounting for fluid loss to formation and evaporation, we estimated needing to add approximately 250 bbls of new fresh water when the mud is transported to the next well. This assumes no lost circulation events.  
G. Estimated fresh water usage for cementing operations is ~162 bbls for surface casing, and ~351 bbls for production casing. Both of these estimates include using fresh water as the displacement fluid.  
H. Estimated maximum fresh water usage for completion operations is ~3,022 bbls. This includes 25% excess water on hand per stage. This assumes a 4-stage nitrogen foam frac. The water usage for the completion activities will vary depending on the number of stages selected for stimulation and will be provided in the completion report.

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9. **Plugging and Abandonment**

No plugging and abandonment of the well would occur until after the well has been drilled, completed, hydraulically stimulated and production tested, unless extenuating circumstances arise. Full authorization will be verbally sought from the Bureau of Land Management and the New Mexico Oil Conservation Division prior to actual plugging operations being initiated with written reports submitted as a followed up.

10. **Other**

A Cultural Resource Inventory and Paleontology reconnaissance has been conducted for the well location and access route. The reports shall be submitted to the Ute Mountain Ute Tribe and the BLM upon their receipt.

Anticipated Commencement Date:                      Within 30 days of APD approval based on ability to source appropriate rig to complete operations

11. **Protecting Valuable deposits of fluid or solid minerals**

We will run 2 strings of casing (surface and production) and cement to surface both. Surface casing cement will have 100% returns to surface. Production casing will have 25% returns to surface. This extra cement back at surface ensures that the quality of cement downhole is good. A CBL will be run from TD to surface to ensure the cement bond is good quality. We will drill the well with the appropriate mud weight based on anticipated and encountered pressures while drilling. Fresh water, usable water and coal deposits will be protected by surface casing and production casing. Oil and gas bearing zones will be isolated from fresh water and usable water zones by the production casing. Formations will be selected for completion and perforated. This ensures we are targeting only the zones of interest for completion.

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|                     |                                       |        |            |                  |                |                             |               |
|---------------------|---------------------------------------|--------|------------|------------------|----------------|-----------------------------|---------------|
| PROSPECT/FIELD      | Gallup Verde                          | COUNTY | San Juan   | GROUND ELEVATION | GR 5,570'      | Source of drilling program: | Alicia Branch |
| OPERATOR            | Bridgecreek Resources (Colorado), LLC | STATE  | New Mexico | RIG HT. 12.0'    | KB KB ± 5,582' | Source of geological tops:  | John Frame    |
| LEASE & WELL NO.    | Osprey 30-7                           |        |            |                  |                |                             |               |
| FORM @ TD           | Graneros                              |        |            |                  |                |                             |               |
| Initial Target Line | n/a                                   |        |            |                  |                |                             |               |

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# BRIDGECREEK RESOURCES (COLORADO), LLC

Well Name: Osprey 30-7  
Surface Location: Section 30 T31N, R14W  
North American Datum 1983 US State Plane 1983 New Mexico Western Zone  
Ground Elevation: 5570.0  
PLAN KB Osprey 30-7 @ 5582.0usft (PLAN KB)



Azimuths to True North  
Magnetic North: 9.66°  
Magnetic Field  
Strength: 50338.3nT  
Dip Angle: 63.37°  
Date: 7/9/2015  
Model: IGRF2010

Section 30 T31N, R14W  
Osprey 30-7  
Design #3  
12:50, July 10 2015

## WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

| Name            | TVD    | +N/-S | +E/-W | Northing   | Easting     | Latitude         | Longitude         | Shape |
|-----------------|--------|-------|-------|------------|-------------|------------------|-------------------|-------|
| Osprey 30-7 TGT | 4748.0 | -46.6 | -40.0 | 2137782.21 | 2572452.898 | 36° 52' 26.022 N | 108° 20' 53.579 W | Point |

## ANNOTATIONS

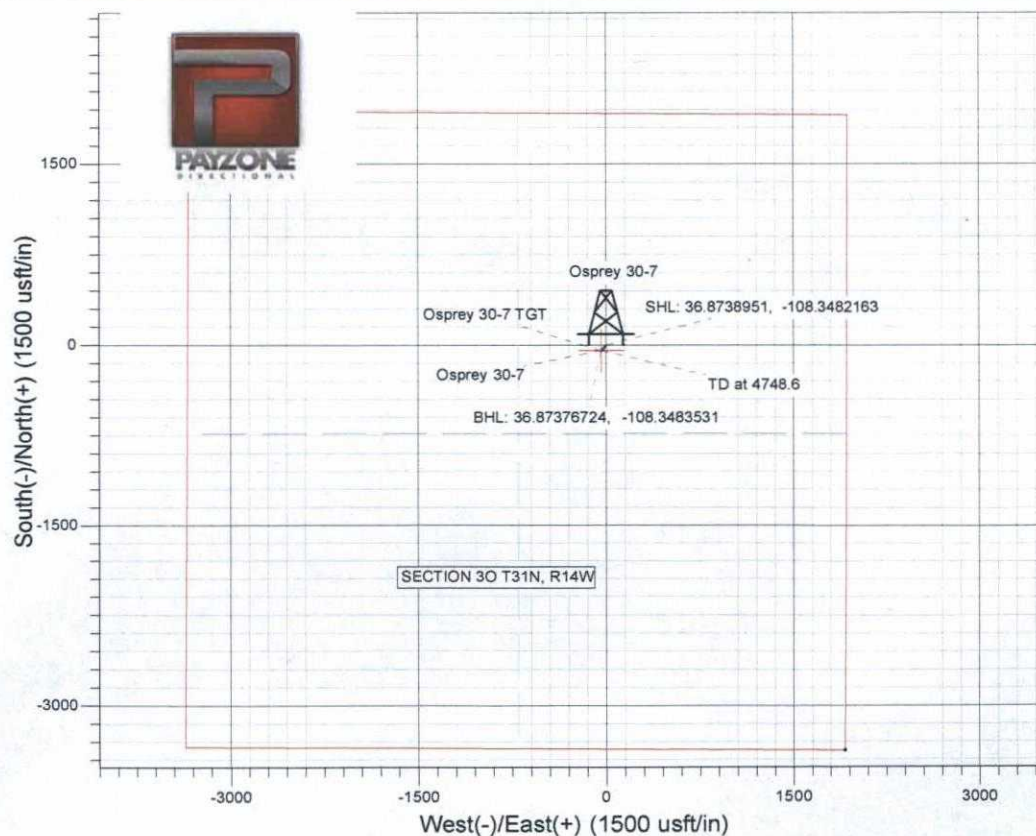
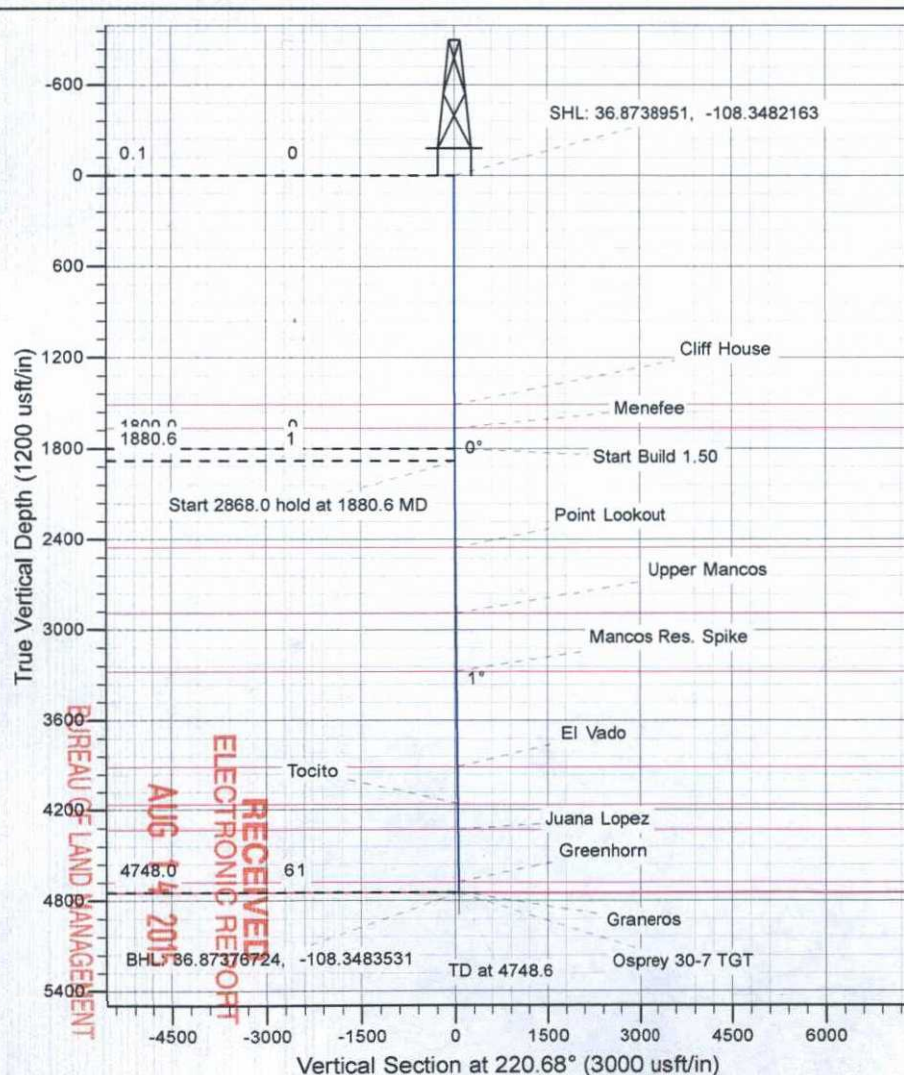
| TVD    | MD     | Annotation                     |
|--------|--------|--------------------------------|
| 0.1    | 0.1    | SHL: 36.8738951, -108.3482163  |
| 1800.0 | 1800.0 | Start Build 1.50               |
| 1880.6 | 1880.6 | Start 2868.0 hold at 1880.6 MD |
| 4747.9 | 4748.5 | BHL: 36.87376724, -108.3483531 |
| 4748.0 | 4748.6 | TD at 4748.6                   |

## SECTION DETAILS

| Sec | MD     | Inc  | Azi    | TVD    | +N/-S | +E/-W | Dleg | TFace  | VFace | Target          |
|-----|--------|------|--------|--------|-------|-------|------|--------|-------|-----------------|
| 1   | 0.0    | 0.00 | 0.00   | 0.0    | 0.0   | 0.0   | 0.00 | 0.00   | 0.0   |                 |
| 2   | 1800.0 | 0.00 | 0.00   | 1800.0 | 0.0   | 0.0   | 0.00 | 0.00   | 0.0   |                 |
| 3   | 1880.6 | 1.21 | 220.68 | 1880.6 | -0.6  | -0.6  | 1.50 | 220.68 | 0.9   |                 |
| 4   | 4748.6 | 1.21 | 220.68 | 4748.0 | -46.6 | -40.0 | 0.00 | 0.00   | 61.4  | Osprey 30-7 TGT |

## FORMATION TOP DETAILS

| TVDPATH | MDPATH | Formation         | DipAngle | DipDir |
|---------|--------|-------------------|----------|--------|
| 1510.0  | 1510.0 | Cliff House       | 0.00     |        |
| 1664.0  | 1664.0 | Menefee           | 0.00     |        |
| 2453.0  | 2453.1 | Point Lookout     | 0.00     |        |
| 2889.0  | 2889.2 | Upper Mancos      | 0.00     |        |
| 3274.0  | 3274.3 | Mancos Res. Spike | 0.00     |        |
| 3907.0  | 3907.5 | El Vado           | 0.00     |        |
| 4160.0  | 4160.5 | Tocito            | 0.00     |        |
| 4331.0  | 4331.6 | Juana Lopez       | 0.00     |        |
| 4678.0  | 4678.6 | Greenhorn         | 0.00     |        |
| 4744.0  | 4744.6 | Graneros          | 0.00     |        |
| 4748.0  | 4748.6 | TD                | 0.00     |        |





## **Bridgecreek Resources**

**Osprey 30**

**Section 30 T31N, R14W**

**Osprey 30-7**

**Wellbore #1**

**Plan: Design #3**

## **Standard Planning Report**

**10 July, 2015**

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Payzone Directional  
Planning Report



|           |                           |                              |                                    |
|-----------|---------------------------|------------------------------|------------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well Osprey 30-7                   |
| Company:  | Bridgreek Resources       | TVD Reference:               | Osprey 30-7 @ 5582.0usft (PLAN KB) |
| Project:  | Osprey 30                 | MD Reference:                | Osprey 30-7 @ 5582.0usft (PLAN KB) |
| Site:     | Section 30 T31N, R14W     | North Reference:             | True                               |
| Well:     | Osprey 30-7               | Survey Calculation Method:   | Minimum Curvature                  |
| Wellbore: | Wellbore #1               |                              |                                    |
| Design:   | Design #3                 |                              |                                    |

|             |                           |               |                |
|-------------|---------------------------|---------------|----------------|
| Project     | Osprey 30                 |               |                |
| Map System: | US State Plane 1983       | System Datum: | Mean Sea Level |
| Geo Datum:  | North American Datum 1983 |               |                |
| Map Zone:   | New Mexico Western Zone   |               |                |

|                       |                       |                   |                   |
|-----------------------|-----------------------|-------------------|-------------------|
| Site                  | Section 30 T31N, R14W |                   |                   |
| Site Position:        |                       | Northing:         | 2,137,828.54 usft |
| From:                 | Lat/Long              | Easting:          | 2,572,493.13 usft |
| Position Uncertainty: | 0.0 usft              | Slot Radius:      | 13-3/16 "         |
|                       |                       | Latitude:         | 36° 52' 26.022 N  |
|                       |                       | Longitude:        | 108° 20' 53.579 W |
|                       |                       | Grid Convergence: | -0.31 °           |

|                      |   |                     |                             |
|----------------------|---|---------------------|-----------------------------|
| Well                 | Osprey 30-7, SHL: 36.8738951 -108.3482163 |                     |                             |
| Well Position        | +N/-S                                     | 0.0 usft            | Northing: 2,137,828.54 usft |
|                      | +E/-W                                     | 0.0 usft            | Easting: 2,572,493.15 usft  |
| Position Uncertainty | 0.0 usft                                  | Wellhead Elevation: | 5,582.0 usft                |
|                      |   | Latitude:           | 36° 52' 26.022 N            |
|                      |   | Longitude:          | 108° 20' 53.579 W           |
|                      |   | Ground Level:       | 5,570.0 usft                |

|           |             |             |                |
|-----------|-------------|-------------|----------------|
| Wellbore  | Wellbore #1 |             |                |
| Magnetics | Model Name  | Sample Date | Declination    |
|           |             |             | (°)            |
|           | IGRF2010    | 7/9/2015    | 9.66           |
|           |             |             | Dip Angle      |
|           |             |             | (°)            |
|           |             |             | 63.37          |
|           |             |             | Field Strength |
|           |             |             | (nT)           |
|           |             |             | 50,338         |

|                   |                  |           |                   |
|-------------------|------------------|-----------|-------------------|
| Design            | Design #3        |           |                   |
| Audit Notes:      |                  |           |                   |
| Version:          | Phase:           | PROTOTYPE | Tie On Depth: 0.0 |
| Vertical Section: | Depth From (TVD) | +N/-S     | +E/-W             |
|                   | (usft)           | (usft)    | (usft)            |
|                   | 0.0              | 0.0       | 0.0               |
|                   |                  |           | Direction         |
|                   |                  |           | (°)               |
|                   |                  |           | 220.68            |

|               |             |         |          |        |        |             |             |             |        |                 |
|---------------|-------------|---------|----------|--------|--------|-------------|-------------|-------------|--------|-----------------|
| Plan Sections |             |         |          |        |        |             |             |             |        |                 |
| Measured      | Inclination | Azimuth | Vertical | +N/-S  | +E/-W  | Dogleg      | Build       | Turn        | TFO    | Target          |
| Depth         | (°)         | (°)     | Depth    | (usft) | (usft) | Rate        | Rate        | Rate        | (°)    |                 |
| (usft)        |             |         | (usft)   |        |        | (°/100usft) | (°/100usft) | (°/100usft) |        |                 |
| 0.0           | 0.00        | 0.00    | 0.0      | 0.0    | 0.0    | 0.00        | 0.00        | 0.00        | 0.00   |                 |
| 1,800.0       | 0.00        | 0.00    | 1,800.0  | 0.0    | 0.0    | 0.00        | 0.00        | 0.00        | 0.00   |                 |
| 1,880.6       | 1.21        | 220.68  | 1,880.6  | -0.6   | -0.6   | 1.50        | 1.50        | 0.00        | 220.68 |                 |
| 4,748.6       | 1.21        | 220.68  | 4,748.0  | -46.6  | -40.0  | 0.00        | 0.00        | 0.00        | 0.00   | Osprey 30-7 TGT |

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Database: EDM 5000.1 Single User Db  
Company: Bridgecreek Resources  
Project: Osprey 30  
Site: Section 30 T31N, R14W  
Well: Osprey 30-7  
Wellbore: Wellbore #1  
Design: Design #3

Local Co-ordinate Reference: Well Osprey 30-7  
TVD Reference: Osprey 30-7 @ 5582.0usft (PLAN KB)  
MD Reference: Osprey 30-7 @ 5582.0usft (PLAN KB)  
North Reference: True  
Survey Calculation Method: Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft)    | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|--------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 0.0                            | 0.00               | 0.00           | 0.0                         | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 0.1                            | 0.00               | 0.00           | 0.1                         | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| SHL: 36.8738951, -108.3482163  |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 100.0                          | 0.00               | 0.00           | 100.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 200.0                          | 0.00               | 0.00           | 200.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 300.0                          | 0.00               | 0.00           | 300.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 400.0                          | 0.00               | 0.00           | 400.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 500.0                          | 0.00               | 0.00           | 500.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 600.0                          | 0.00               | 0.00           | 600.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 700.0                          | 0.00               | 0.00           | 700.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 800.0                          | 0.00               | 0.00           | 800.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 900.0                          | 0.00               | 0.00           | 900.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,000.0                        | 0.00               | 0.00           | 1,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,100.0                        | 0.00               | 0.00           | 1,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,200.0                        | 0.00               | 0.00           | 1,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,300.0                        | 0.00               | 0.00           | 1,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,400.0                        | 0.00               | 0.00           | 1,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,500.0                        | 0.00               | 0.00           | 1,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,510.0                        | 0.00               | 0.00           | 1,510.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| Cliff House                    |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 1,600.0                        | 0.00               | 0.00           | 1,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,664.0                        | 0.00               | 0.00           | 1,664.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| Menefee                        |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 1,700.0                        | 0.00               | 0.00           | 1,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,800.0                        | 0.00               | 0.00           | 1,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| Start Build 1.50               |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 1,880.6                        | 1.21               | 220.68         | 1,880.6                     | -0.6            | -0.6            | 0.9                           | 1.50                          | 1.50                         | 0.00                        |
| Start 2868.0 hold at 1880.6 MD |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 1,900.0                        | 1.21               | 220.68         | 1,900.0                     | -1.0            | -0.8            | 1.3                           | 0.00                          | 0.00                         | 0.00                        |
| 2,000.0                        | 1.21               | 220.68         | 2,000.0                     | -2.6            | -2.2            | 3.4                           | 0.00                          | 0.00                         | 0.00                        |
| 2,100.0                        | 1.21               | 220.68         | 2,099.9                     | -4.2            | -3.6            | 5.5                           | 0.00                          | 0.00                         | 0.00                        |
| 2,200.0                        | 1.21               | 220.68         | 2,199.9                     | -5.8            | -4.9            | 7.6                           | 0.00                          | 0.00                         | 0.00                        |
| 2,300.0                        | 1.21               | 220.68         | 2,299.9                     | -7.4            | -6.3            | 9.7                           | 0.00                          | 0.00                         | 0.00                        |
| 2,400.0                        | 1.21               | 220.68         | 2,399.9                     | -9.0            | -7.7            | 11.8                          | 0.00                          | 0.00                         | 0.00                        |
| 2,453.1                        | 1.21               | 220.68         | 2,453.0                     | -9.8            | -8.4            | 12.9                          | 0.00                          | 0.00                         | 0.00                        |
| Point Lookout                  |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 2,500.0                        | 1.21               | 220.68         | 2,499.9                     | -10.6           | -9.1            | 13.9                          | 0.00                          | 0.00                         | 0.00                        |
| 2,600.0                        | 1.21               | 220.68         | 2,599.8                     | -12.2           | -10.5           | 16.0                          | 0.00                          | 0.00                         | 0.00                        |
| 2,700.0                        | 1.21               | 220.68         | 2,699.8                     | -13.8           | -11.8           | 18.1                          | 0.00                          | 0.00                         | 0.00                        |
| 2,800.0                        | 1.21               | 220.68         | 2,799.8                     | -15.4           | -13.2           | 20.3                          | 0.00                          | 0.00                         | 0.00                        |
| 2,889.2                        | 1.21               | 220.68         | 2,889.0                     | -16.8           | -14.4           | 22.1                          | 0.00                          | 0.00                         | 0.00                        |
| Upper Mancos                   |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 2,900.0                        | 1.21               | 220.68         | 2,899.8                     | -17.0           | -14.6           | 22.4                          | 0.00                          | 0.00                         | 0.00                        |
| 3,000.0                        | 1.21               | 220.68         | 2,999.7                     | -18.6           | -16.0           | 24.5                          | 0.00                          | 0.00                         | 0.00                        |
| 3,100.0                        | 1.21               | 220.68         | 3,099.7                     | -20.2           | -17.3           | 26.6                          | 0.00                          | 0.00                         | 0.00                        |
| 3,200.0                        | 1.21               | 220.68         | 3,199.7                     | -21.8           | -18.7           | 28.7                          | 0.00                          | 0.00                         | 0.00                        |
| 3,274.3                        | 1.21               | 220.68         | 3,274.0                     | -23.0           | -19.7           | 30.3                          | 0.00                          | 0.00                         | 0.00                        |
| Mancos Res. Spike              |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 3,300.0                        | 1.21               | 220.68         | 3,299.7                     | -23.4           | -20.1           | 30.8                          | 0.00                          | 0.00                         | 0.00                        |
| 3,400.0                        | 1.21               | 220.68         | 3,399.7                     | -25.0           | -21.5           | 32.9                          | 0.00                          | 0.00                         | 0.00                        |
| 3,500.0                        | 1.21               | 220.68         | 3,499.6                     | -26.6           | -22.8           | 35.0                          | 0.00                          | 0.00                         | 0.00                        |
| 3,600.0                        | 1.21               | 220.68         | 3,599.6                     | -28.2           | -24.2           | 37.1                          | 0.00                          | 0.00                         | 0.00                        |
| 3,700.0                        | 1.21               | 220.68         | 3,699.6                     | -29.8           | -25.6           | 39.3                          | 0.00                          | 0.00                         | 0.00                        |





Database: EDM 5000.1 Single User Db  
Company: Bridgecreek Resources  
Project: Osprey 30  
Site: Section 30 T31N, R14W  
Well: Osprey 30-7  
Wellbore: Wellbore #1  
Design: Design #3

Local Co-ordinate Reference: Well Osprey 30-7  
TVD Reference: Osprey 30-7 @ 5582.0usft (PLAN KB)  
MD Reference: Osprey 30-7 @ 5582.0usft (PLAN KB)  
North Reference: True  
Survey Calculation Method: Minimum Curvature

## Planned Survey

| Measured Depth (usft)          | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|--------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 3,800.0                        | 1.21            | 220.68      | 3,799.6               | -31.4        | -27.0        | 41.4                    | 0.00                    | 0.00                   | 0.00                  |
| 3,900.0                        | 1.21            | 220.68      | 3,899.5               | -33.0        | -28.3        | 43.5                    | 0.00                    | 0.00                   | 0.00                  |
| 3,907.5                        | 1.21            | 220.68      | 3,907.0               | -33.1        | -28.4        | 43.6                    | 0.00                    | 0.00                   | 0.00                  |
| El Vado                        |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,000.0                        | 1.21            | 220.68      | 3,999.5               | -34.6        | -29.7        | 45.6                    | 0.00                    | 0.00                   | 0.00                  |
| 4,100.0                        | 1.21            | 220.68      | 4,099.5               | -36.2        | -31.1        | 47.7                    | 0.00                    | 0.00                   | 0.00                  |
| 4,160.5                        | 1.21            | 220.68      | 4,160.0               | -37.1        | -31.9        | 49.0                    | 0.00                    | 0.00                   | 0.00                  |
| Tocito                         |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,200.0                        | 1.21            | 220.68      | 4,199.5               | -37.8        | -32.5        | 49.8                    | 0.00                    | 0.00                   | 0.00                  |
| 4,300.0                        | 1.21            | 220.68      | 4,299.5               | -39.4        | -33.8        | 51.9                    | 0.00                    | 0.00                   | 0.00                  |
| 4,331.6                        | 1.21            | 220.68      | 4,331.0               | -39.9        | -34.3        | 52.6                    | 0.00                    | 0.00                   | 0.00                  |
| Juana Lopez                    |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,400.0                        | 1.21            | 220.68      | 4,399.4               | -41.0        | -35.2        | 54.0                    | 0.00                    | 0.00                   | 0.00                  |
| 4,500.0                        | 1.21            | 220.68      | 4,499.4               | -42.6        | -36.6        | 56.1                    | 0.00                    | 0.00                   | 0.00                  |
| 4,600.0                        | 1.21            | 220.68      | 4,599.4               | -44.2        | -38.0        | 58.2                    | 0.00                    | 0.00                   | 0.00                  |
| 4,678.6                        | 1.21            | 220.68      | 4,678.0               | -45.4        | -39.1        | 59.9                    | 0.00                    | 0.00                   | 0.00                  |
| Greenhorn                      |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,700.0                        | 1.21            | 220.68      | 4,699.4               | -45.8        | -39.3        | 60.4                    | 0.00                    | 0.00                   | 0.00                  |
| 4,744.6                        | 1.21            | 220.68      | 4,744.0               | -46.5        | -40.0        | 61.3                    | 0.00                    | 0.00                   | 0.00                  |
| Graneros                       |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,748.5                        | 1.21            | 220.68      | 4,747.9               | -46.5        | -40.0        | 61.4                    | 0.00                    | 0.00                   | 0.00                  |
| BHL: 36.87376724, -108.3483531 |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,748.6                        | 1.21            | 220.68      | 4,748.0               | -46.5        | -40.0        | 61.4                    | 0.00                    | 0.00                   | 0.00                  |
| TD at 4748.6                   |                 |             |                       |              |              |                         |                         |                        |                       |

## Design Targets

| Target Name<br>- hit/miss target<br>- Shape             | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude         | Longitude         |
|---|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------------|-------------------|
| Osprey 30-7 TGT<br>- plan hits target center<br>- Point | 0.00          | 0.00         | 4,748.0    | -46.6        | -40.0        | 2,137,782.21    | 2,572,452.89   | 36° 52' 25.562 N | 108° 20' 54.071 W |

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**Payzone Directional**  
Planning Report



|                  |                           |                                     |                                    |
|------------------|---------------------------|-------------------------------------|------------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db | <b>Local Co-ordinate Reference:</b> | Well Osprey 30-7                   |
| <b>Company:</b>  | Bridgecreek Resources     | <b>TVD Reference:</b>               | Osprey 30-7 @ 5582.0usft (PLAN KB) |
| <b>Project:</b>  | Osprey 30                 | <b>MD Reference:</b>                | Osprey 30-7 @ 5582.0usft (PLAN KB) |
| <b>Site:</b>     | Section 30 T31N, R14W     | <b>North Reference:</b>             | True                               |
| <b>Well:</b>     | Osprey 30-7               | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Wellbore:</b> | Wellbore #1               |                                     |                                    |
| <b>Design:</b>   | Design #3                 |                                     |                                    |

| Formations            |                       |                   |           |         |                   |  |
|-----------------------|-----------------------|-------------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name              | Lithology | Dip (°) | Dip Direction (°) |  |
| 1,510.0               | 1,510.0               | Cliff House       |           | 0.00    |                   |  |
| 1,664.0               | 1,664.0               | Menefee           |           | 0.00    |                   |  |
| 2,453.1               | 2,453.0               | Point Lookout     |           | 0.00    |                   |  |
| 2,889.2               | 2,889.0               | Upper Mancos      |           | 0.00    |                   |  |
| 3,274.3               | 3,274.0               | Mancos Res. Spike |           | 0.00    |                   |  |
| 3,907.5               | 3,907.0               | El Vado           |           | 0.00    |                   |  |
| 4,160.5               | 4,160.0               | Tocito            |           | 0.00    |                   |  |
| 4,331.6               | 4,331.0               | Juana Lopez       |           | 0.00    |                   |  |
| 4,678.6               | 4,678.0               | Greenhorn         |           | 0.00    |                   |  |
| 4,744.6               | 4,744.0               | Graneros          |           | 0.00    |                   |  |
| 4,748.6               | 4,748.0               | TD                |           | 0.00    |                   |  |

| Plan Annotations      |                       |                   |              |                                |  |
|-----------------------|-----------------------|-------------------|--------------|--------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              |                                |  |
|                       |                       | +N/-S (usft)      | +E/-W (usft) | Comment                        |  |
| 0.1                   | 0.1                   | 0.0               | 0.0          | SHL: 36.8738951, -108.3482163  |  |
| 1,800.0               | 1,800.0               | 0.0               | 0.0          | Start Build 1.50               |  |
| 1,880.6               | 1,880.6               | -0.6              | -0.6         | Start 2868.0 hold at 1880.6 MD |  |
| 4,748.5               | 4,747.9               | -46.5             | -40.0        | BHL: 36.87376724, -108.3483531 |  |
| 4,748.6               | 4,748.0               | -46.5             | -40.0        | TD at 4748.6                   |  |

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Bridgecreek Resources  
Tribal IMDA: 751-14-1038  
Well: Osprey # 30-7  
Surface Location: 1933' FNL & 1939' FEL  
Sec. 30, T. 31 N., R. 14 W.  
San Juan County, New Mexico

3160

**Conditions of Approval - Drilling Plan:**

1. Notify this office at least **3 days** prior to:

- a. spudding the well
- b. running casing strings and cementing
- c. BOP tests
- d. Drill Stem Testing

**For the above procedures, Operators must talk to BLM personnel directly. Do not leave messages on answering machines. Contact Dan Rabinowitz, BLM Petroleum Engineer: office: 970-385-1363, or Rod Brashear: office: 970-385-1347, and cell: 970-799-1244.**

2. All BOP tests will be performed with a test plug in place. BOP will be tested to full stack working pressure and annular preventer to 50% maximum stack working pressure. All accumulators will be function tested as per Onshore Order #2. All 2M or greater systems require **adjustable** chokes as per Onshore Order #2.

3. No additional zones will be commingled without UMU Tribal and BLM approval.

4. If a BLM Inspector is not present during the initial BOP test, please provide chart record.

5. Submit copies of all logs to this office both paper and in Log ASCII Standard (LAS) format.

Continued on Page 2.



6. If any operations are to start over the weekend, notify this office by noon Friday. If any problems arise after hours or on weekends, call BLM personnel using the home phone or cell phone numbers listed on the following 'INFORMATIONAL NOTICE - APD's'. Do not leave messages on answering machines.

7. If cement cannot be brought to at least 10 ft. from ground level in 9-5/8" surface string then the operator must run a CBL log and obtain BLM approval prior to drilling ahead.

8. A CBL is also required if cement is not circulated to the surface on the production casing string. BLM verbal approval will be required prior to squeezing.

9. The BLM must witness the topping-off of the Surface Casing Cement.

10. The tops of all major identifiable geologic units (formations) from surface to TD will be logged and recorded.

11. Stabilized bottomhole pressure measurements and flowrates must be collected and submitted to the BLM.

12. The operator is required to set the surface casing shoe at a minimum depth of 1,714 ft. MD/TVD or at least 50 ft. below the top of the Menefee Formation, WHICHEVER IS DEEPER.

13. Please provide the following information if possible. All tests and operations on any well on subject lands shall be conducted at Operator's sole discretion.

All Wire Line Logs - Fields & Final Print (Electrical, Radioactive, Sonic, Velocity, Cement Bond, Temperature, etc with digitized and log analysis).

Drill Stem Tests - Field and Final Reports.


Core Analysis - Field and Final Reports.

Mud Log - Final Report.

Structure and Isopach Maps.

Continued on page 3.

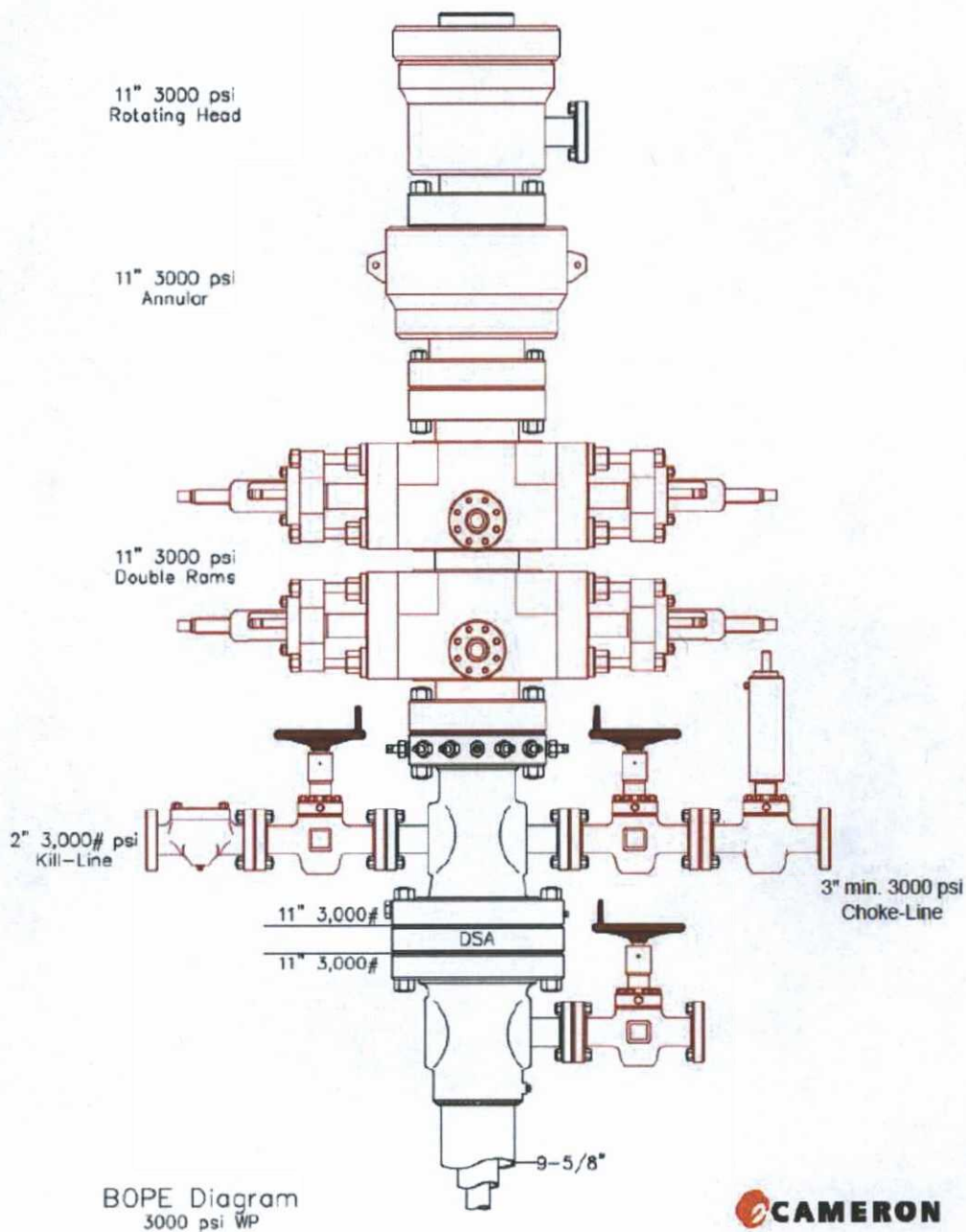




Location (Surveyors) Plat.  
Application to Drill (Drilling Permit).  
Daily Drilling Reports, Daily Work Over Reports and Final Drilling Report Summary.  
Directional Survey.  
Geological Summary Report.  
Completion Report.  
Production Tests (All Production Tests during Completion, AOF, Potential, GOR, etc).  
30 Day Well Production Test Record  
Bottom Hole Pressure Surveys including build up tests.  
Shut in Surface Pressure Surveys.  
Gas, Oil and Water Analyses.  
State and/or BLM Completion Reports.  
State and/or BLM and/or MMS Monthly Production and OGOR Reports.  
Additional Governmental Permits and Reports.  
Drilling Contracts.  
Operating Agreements.  
Oil and Gas Sales Contracts.  
Plug and Abandon Reports.  
Monthly, Gas and/or Plant Products Purchasing Statements.  
Well Bore Profiles.  
Division Orders/Title Opinions.  
AFEs.  
Final Drill and Completion Costs.  
Other wellfile information as requested by the Tribal Department of Energy.



Exhibit A: Blow Out Prevention Equipment



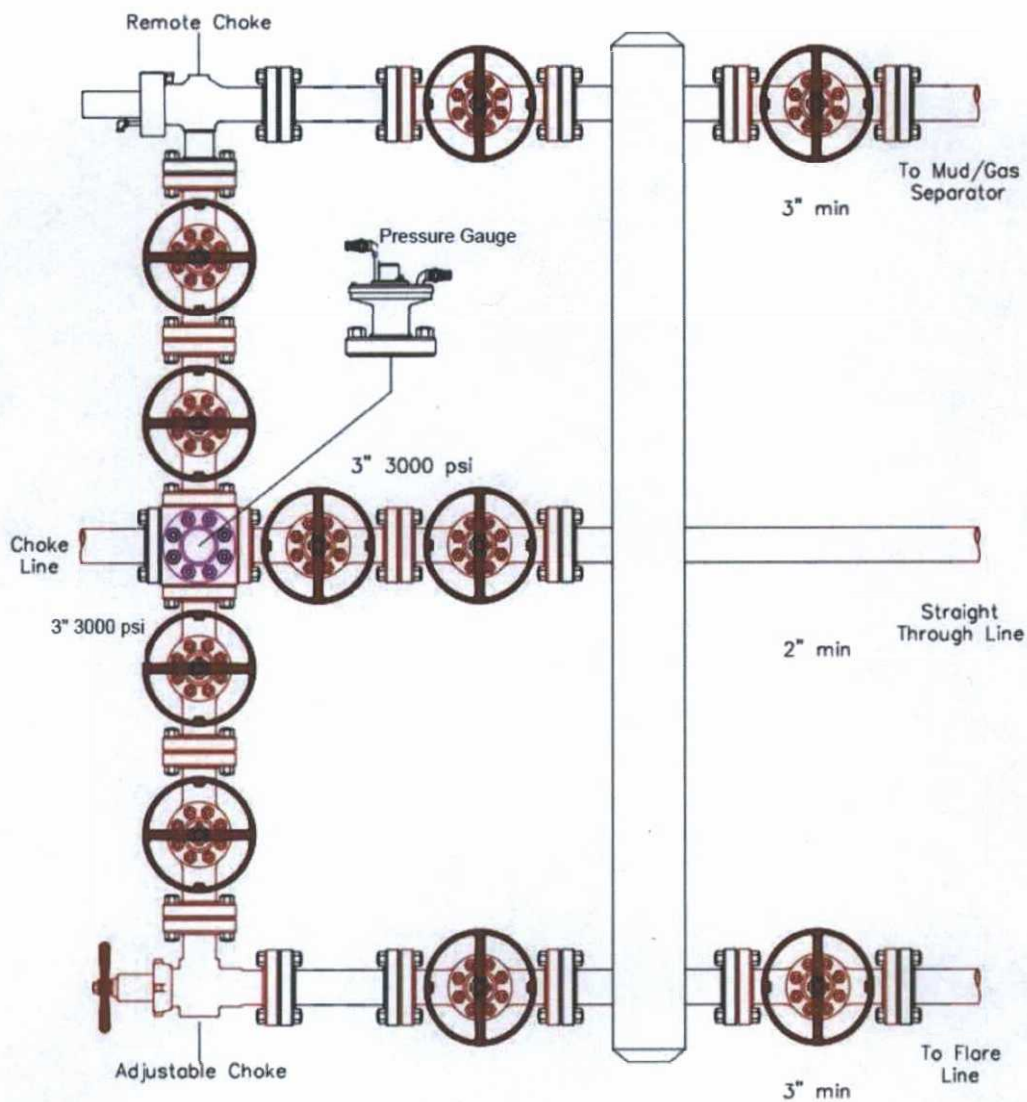
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Exhibit B: Choke Manifold



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DEPARTMENT OF THE INTERIOR  
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FORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

## SUNDRY NOTICES AND REPORTS ON WELLS

**Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.**5. Lease Serial No.  
7511410386. If Indian, Allottee or Tribe Name  
UTE MOUNTAIN UTE

7. If Unit or CA/Agreement, Name and/or No.

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

## 1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No.  
OSPREY 30-7

## 2. Name of Operator

BRIDGECREEK RESOURCES COLO LLC

Contact: CHRISTINE CAMPBELL

E-Mail: ccampbell@bridgecreekresources.com

## 9. API Well No.

## 3a. Address

405 URBAN STREET, SUITE 400  
LAKEWOOD, CO 80228

## 3b. Phone No. (include area code)

Ph: 303-945-2642

10. Field and Pool, or Exploratory  
VERDE GALLUP

## 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 30 T31N R14W SWNE 1933FNL 1939FEL  
36.873895 N Lat, 108.348216 W Lon

## 11. County or Parish, and State

SAN JUAN COUNTY, NM

## 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION                                    | TYPE OF ACTION                                |   |  |   |
|---|---|---|--|---|
| <input type="checkbox"/> Notice of Intent             | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off   |
| <input checked="" type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity   |
| <input type="checkbox"/> Final Abandonment Notice     | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other |
|   | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       | Change to Original A                      |
|   | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            | PD  |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Bridgecreek Resources (Colorado), LLC submits the following deficiencies for the Osprey 30-7 APD.

Surface Use Plan, REVISIONS ARE MARKED IN RED.

Attachment F - Well pad layout during drilling phase (Trench Revised)

Attachment G - Well pad cross sections (Trench &amp; Well Flag Added)

Attachment H - Interim reclamation (Add'l Reclamation area/Trench Revised)

Attachment I - Drilling Plan, replace all pages.

Attachments should be printed as "choose paper source by PDF page Size"

## 14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #312781 verified by the BLM Well Information System  
For BRIDGECREEK RESOURCES COLO LLC, sent to the Durango  
Committed to AFMSS for processing by BARBARA TELECKY on 08/18/2015 (15BDT0373SE)**

Name (Printed/Typed) CHRISTINE CAMPBELL

Title REGULATORY LEAD

Signature (Electronic Submission)

Date 08/14/2015

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

/S/ Connie Clementson

Title

Field Manager

Date

OCT 30 2015

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

TRES RIOS FIELD OFFICE  
Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***