

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT

| | | |
|--|---|---|
| APPLICATION FOR PERMIT TO DRILL | | 1. WELL NAME and NUMBER NBU 1022-12C4CS |
| 2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/> | | 3. FIELD OR WILDCAT NATURAL BUTTES |
| 4. TYPE OF WELL Gas Well Coalbed Methane Well: NO | | 5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES |
| 6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P. | | 7. OPERATOR PHONE 720 929-6515 |
| 8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217 | | 9. OPERATOR E-MAIL julie.jacobson@anadarko.com |
| 10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UT ST UO 01997-A ST | 11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> | |
| 12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> | | 13. NAME OF SURFACE OWNER (if box 12 = 'fee') |
| 14. SURFACE OWNER PHONE (if box 12 = 'fee') | | 15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') |
| 16. SURFACE OWNER E-MAIL (if box 12 = 'fee') | | 17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') |
| 18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/> | | 19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/> |

| 20. LOCATION OF WELL | FOOTAGES | QTR-QTR | SECTION | TOWNSHIP | RANGE | MERIDIAN |
|--|-------------------|---------|---------|----------|--------|----------|
| LOCATION AT SURFACE | 855 FNL 2031 FWL | NENW | 12 | 10.0 S | 22.0 E | S |
| Top of Uppermost Producing Zone | 1076 FNL 2135 FWL | NENW | 12 | 10.0 S | 22.0 E | S |
| At Total Depth | 1076 FNL 2135 FWL | NENW | 12 | 10.0 S | 22.0 E | S |

| | | |
|---|--|---|
| 21. COUNTY UINTAH | 22. DISTANCE TO NEAREST LEASE LINE (Feet) 1076 | 23. NUMBER OF ACRES IN DRILLING UNIT 1674 |
| 24. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 233 | 25. PROPOSED DEPTH MD: 8459 TVD: 8445 | |
| 26. ELEVATION - GROUND LEVEL 5129 | 27. BOND NUMBER 22013542 | 28. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-8496 |

Hole, Casing, and Cement Information

| String | Hole Size | Casing Size | Length | Weight | Grade & Thread | Max Mud Wt. | Cement | Sacks | Yield | Weight |
|-------------|-----------|-------------|----------|--------|----------------|-------------|----------------------------|-------|-------|--------|
| SURF | 11 | 8.625 | 0 - 2140 | 28.0 | J-55 LT&C | 0.2 | Type V | 180 | 1.15 | 15.8 |
| | | | | | | | Class G | 270 | 1.15 | 15.8 |
| PROD | 7.875 | 4.5 | 0 - 8459 | 11.6 | I-80 LT&C | 12.5 | Premium Lite High Strength | 270 | 3.38 | 11.0 |
| | | | | | | | 50/50 Poz | 1150 | 1.31 | 14.3 |

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

| | |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN |
| <input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE) | <input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER |
| <input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED) | <input checked="" type="checkbox"/> TOPOGRAPHICAL MAP |

| | | |
|--|---|---------------------------------------|
| NAME Gina Becker | TITLE Regulatory Analyst II | PHONE 720 929-6086 |
| SIGNATURE | DATE 09/12/2011 | EMAIL gina.becker@anadarko.com |
| API NUMBER ASSIGNED 43047519850000 | APPROVAL  Permit Manager | |

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 1022-12C4CS**

Surface: 855 FNL / 2031 FWL NENW
 BHL: 1076 FNL / 2135 FWL NENW

Section 12 T10S R22E

Uintah County, Utah
 Mineral Lease: UT ST UO 01197-A ST

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

| <u>Formation</u> | <u>Depth</u> | <u>Resource</u> |
|------------------|--------------|-----------------|
| Uinta | 0 - Surface | |
| Green River | 1062 | |
| Birds Nest | 1326 | Water |
| Mahogany | 1694 | Water |
| Wasatch | 4094 | Gas |
| Mesaverde | 6251 | Gas |
| MVU2 | 7234 | Gas |
| MVL1 | 7793 | Gas |
| TVD | 8445 | |
| TD | 8459 | |

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 8445' TVD, approximately equals
 5,405 psi 0.64 psi/ft = actual bottomhole gradient

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,535 psi (bottom hole pressure
 minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press. (MASP) = (Pore Pressure at next csg point-
 (0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

*Please refer to the attached Drilling Program.
 Onshore Order #2 – Air Drilling Variance*

*Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements
 associated with air drilling outlined in Onshore Order 2*

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated
 with air drilling.*

*This Standard Operating Practices addendum provides supporting information as to why KMG current
 air drilling practices for constructing the surface casing hole should be granted a variance to Onshore
 Order 2 air drilling requirements.*

*The reader should note that the air rig is used only to construct a stable surface casing hole through a
 historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to
 drill and construct the majority of the wellbore.*

*More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing
 hole in approximately 675 wells without incident of blow out or loss of life.*

Background

*In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the
 surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling
 operation does not drill through productive or over pressured formations in KMG field, but does
 penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome
 the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole
 for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the
 Bird's Nest.*

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

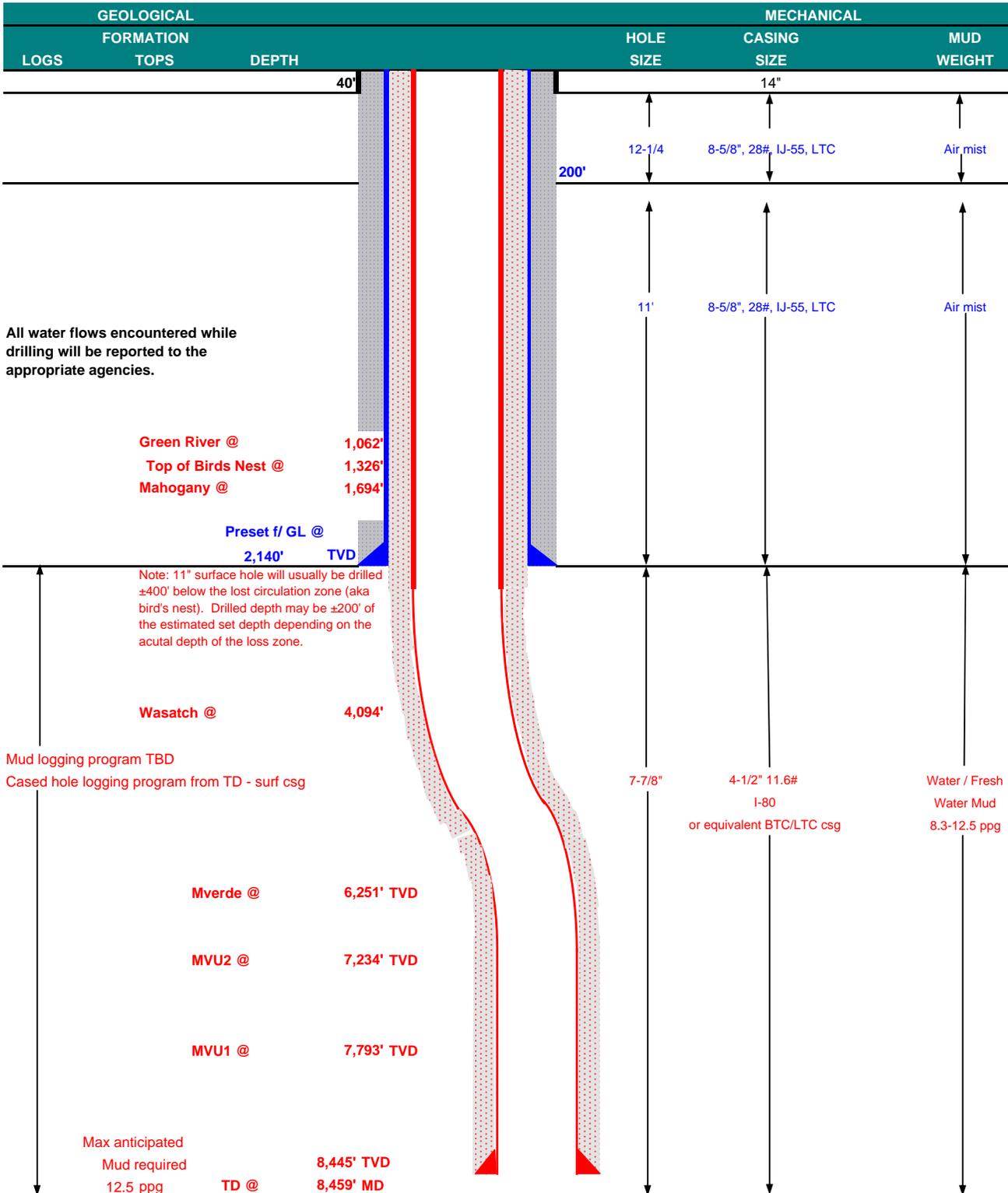
10. **Other Information:**

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

| | | | | | |
|-------------------|---|----------|------------------------|--------------------|---------------------------|
| COMPANY NAME | KERR-McGEE OIL & GAS ONSHORE LP | | DATE | September 7, 2011 | |
| WELL NAME | NBU 1022-12C4CS | | TD | 8,445' TVD | 8,459' MD |
| FIELD | Natural Buttes | COUNTY | Uintah | STATE | Utah |
| SURFACE LOCATION | NENW | 855 FNL | 2031 FWL | Sec 12 T 10S R 22E | FINISHED ELEVATION 5129.1 |
| | Latitude: 39.968384 | | Longitude: -109.389775 | | NAD 27 |
| BTM HOLE LOCATION | NENW | 1076 FNL | 2135 FWL | Sec 12 T 10S R 22E | |
| | Latitude: 39.967778 | | Longitude: -109.389411 | | NAD 27 |
| OBJECTIVE ZONE(S) | Wasatch/Mesaverde | | | | |
| ADDITIONAL INFO | Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept. | | | | |





KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

| | SIZE | INTERVAL | WT. | GR. | CPLG. | DESIGN FACTORS | | | |
|------------|--------|------------|-------|-------|---------|----------------|----------|---------|---------|
| | | | | | | BURST | COLLAPSE | TENSION | |
| CONDUCTOR | 14" | 0-40' | | | | | | | |
| SURFACE | 8-5/8" | 0 to 2,140 | 28.00 | IJ-55 | LTC | 3,390 | 1,880 | 348,000 | N/A |
| | | | | | | 2.53 | 1.88 | 6.63 | N/A |
| PRODUCTION | 4-1/2" | 0 to 8,459 | 11.60 | I-80 | LTC/BTC | 7,780 | 6,350 | 279,000 | 367,000 |
| | | | | | | 1.11 | 1.16 | 3.51 | 4.62 |

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe
Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

| | FT. OF FILL | DESCRIPTION | SACKS | EXCESS | WEIGHT | YIELD |
|---|-----------------------------|--|---------|--------|--------|-------|
| SURFACE Option 1 | LEAD 500' | Premium cmt + 2% CaCl + 0.25 pps flocele | 180 | 60% | 15.80 | 1.15 |
| | TOP OUT CMT (6 jobs) 1,200' | 20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele | 270 | 0% | 15.80 | 1.15 |
| NOTE: If well will circulate water to surface, option 2 will be utilized | | | | | | |
| SURFACE Option 2 | LEAD 1,640' | 65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW | 150 | 35% | 11.00 | 3.82 |
| | TAIL 500' | Premium cmt + 2% CaCl + 0.25 pps flocele | 150 | 35% | 15.80 | 1.15 |
| | TOP OUT CMT as required | Premium cmt + 2% CaCl | as req. | | 15.80 | 1.15 |
| PRODUCTION | LEAD 3,589' | Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender | 270 | 20% | 11.00 | 3.38 |
| | TAIL 4,870' | 50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3 | 1,150 | 35% | 14.30 | 1.31 |

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

| | |
|------------|--|
| SURFACE | Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe |
| PRODUCTION | Float shoe, 1 jt, float collar. No centralizers will be used. |

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

Nick Spence / Danny Showers

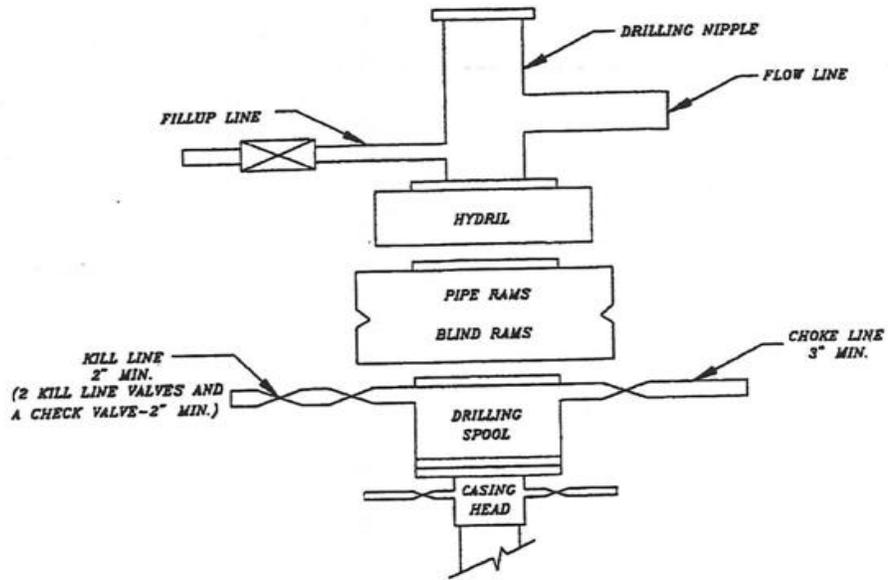
DATE: _____

DRILLING SUPERINTENDENT:

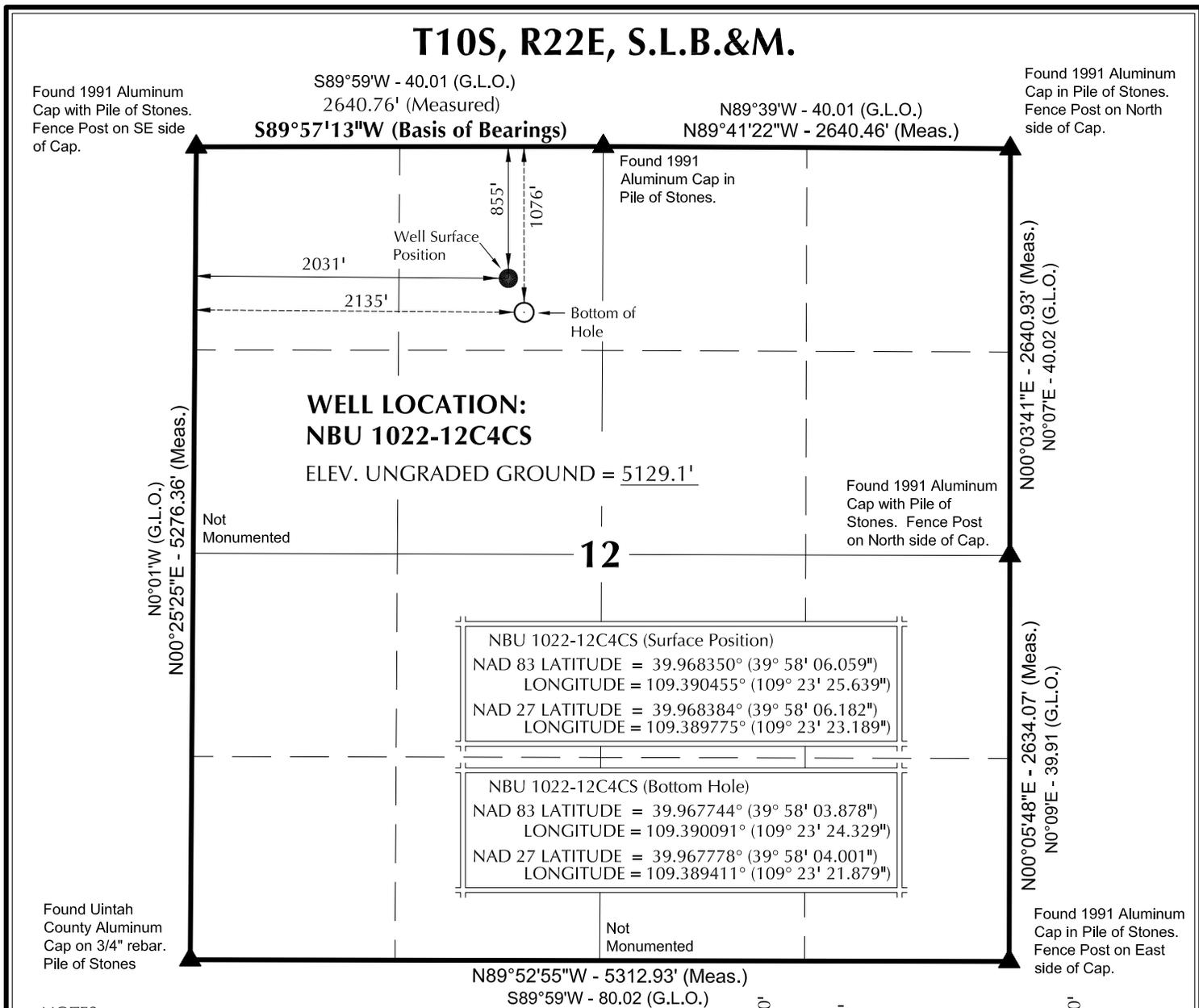
Kenny Gathings / Lovel Young

DATE: _____

EXHIBIT A NBU 1022-12C4CS

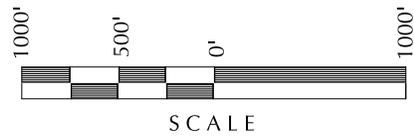


T10S, R22E, S.L.B.&M.



NOTES:

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines.
- 2. G.L.O. distances are shown in feet or chains.
1 chain = 66 feet.
- 3. The Bottom of hole bears S24°51'21"E 243.19' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

John R. Slough
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION No. 6028691
 STATE OF UTAH 4-14-11

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

WELL PAD: NBU 1022-12C

NBU 1022-12C4CS
WELL PLAT
 1076' FNL, 2135' FWL (Bottom Hole)
 NE ¼ NW ¼ OF SECTION 12, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH.

609

CONSULTING, LLC
 2155 North Main Street
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

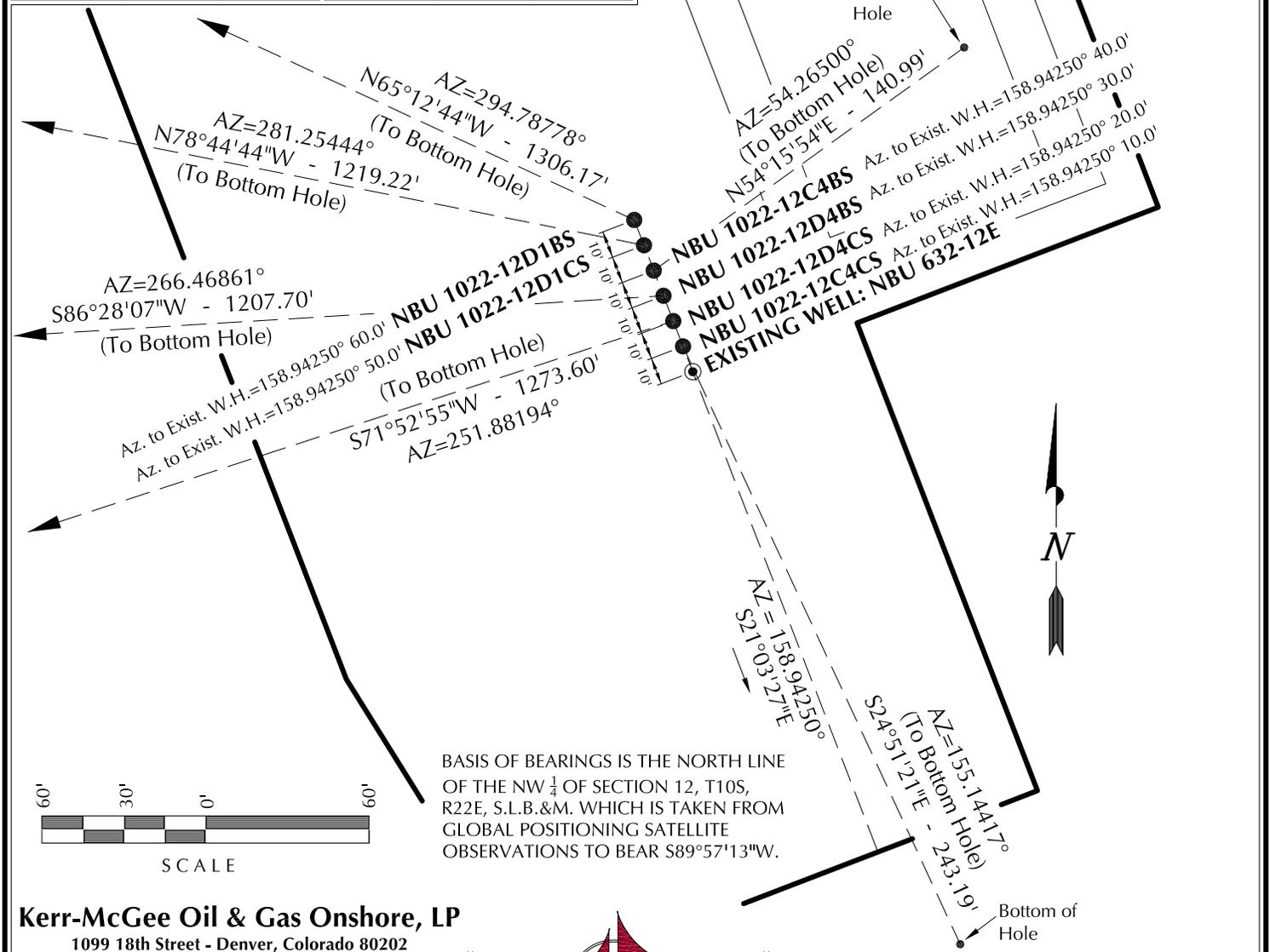
TIMBERLINE (435) 789-1365
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

| | | |
|----------------------------|-------------------|-----------------------|
| DATE SURVEYED: 01-28-11 | SURVEYED BY: R.Y. | SHEET NO: 6 |
| DATE DRAWN: 02-17-11 | DRAWN BY: E.M.S. | |
| SCALE: 1" = 1000' | | 6 OF 18 |

| WELL NAME | SURFACE POSITION | | | | | BOTTOM HOLE | | | | |
|-----------------|------------------|----------------|---------------|----------------|-----------|---------------|----------------|---------------|----------------|-----------|
| | NAD83 | | NAD27 | | FOOTAGES | NAD83 | | NAD27 | | FOOTAGES |
| | LATITUDE | LONGITUDE | LATITUDE | LONGITUDE | | LATITUDE | LONGITUDE | LATITUDE | LONGITUDE | |
| NBU 1022-12D1BS | 39°58'06.520" | 109°23'25.869" | 39°58'06.643" | 109°23'23.419" | 809' FNL | 39°58'11.939" | 109°23'41.090" | 39°58'12.063" | 109°23'38.639" | 260' FNL |
| NBU 1022-12D1CS | 39.968478° | 109.390519° | 39.968512° | 109.389839° | 2013' FWL | 39.969983° | 109.394747° | 39.970017° | 109.394066° | 823' FWL |
| NBU 1022-12C4BS | 39°58'06.427" | 109°23'25.823" | 39°58'06.551" | 109°23'23.373" | 818' FNL | 39°58'08.788" | 109°23'41.175" | 39°58'08.911" | 109°23'38.724" | 579' FNL |
| NBU 1022-12C4CS | 39.968452° | 109.390506° | 39.968486° | 109.389826° | 2016' FWL | 39.969108° | 109.394771° | 39.969142° | 109.394090° | 819' FWL |
| NBU 1022-12D4BS | 39°58'06.335" | 109°23'25.777" | 39°58'06.458" | 109°23'23.327" | 827' FNL | 39°58'07.148" | 109°23'24.307" | 39°58'07.271" | 109°23'21.857" | 745' FNL |
| NBU 1022-12D4CS | 39.968426° | 109.390494° | 39.968461° | 109.389813° | 2020' FWL | 39.968652° | 109.390085° | 39.968686° | 109.389405° | 2134' FWL |
| NBU 1022-12D4BS | 39°58'06.243" | 109°23'25.731" | 39°58'06.366" | 109°23'23.281" | 837' FNL | 39°58'05.517" | 109°23'41.210" | 39°58'05.641" | 109°23'38.759" | 910' FNL |
| NBU 1022-12D4CS | 39.968401° | 109.390481° | 39.968435° | 109.389800° | 2024' FWL | 39.968199° | 109.394781° | 39.968234° | 109.394100° | 819' FWL |
| NBU 1022-12D4CS | 39°58'06.151" | 109°23'25.685" | 39°58'06.274" | 109°23'23.235" | 846' FNL | 39°58'02.247" | 109°23'41.232" | 39°58'02.371" | 109°23'38.781" | 1241' FNL |
| NBU 1022-12C4CS | 39.968375° | 109.390468° | 39.968409° | 109.389787° | 2027' FWL | 39.967291° | 109.394787° | 39.967325° | 109.394106° | 820' FWL |
| NBU 1022-12C4CS | 39°58'06.059" | 109°23'25.639" | 39°58'06.182" | 109°23'23.189" | 855' FNL | 39°58'03.878" | 109°23'24.329" | 39°58'04.001" | 109°23'21.879" | 1076' FNL |
| NBU 1022-12C4CS | 39.968350° | 109.390455° | 39.968384° | 109.389775° | 2031' FWL | 39.967744° | 109.390091° | 39.967778° | 109.389411° | 2135' FWL |
| NBU 632-12E | 39°58'05.966" | 109°23'25.593" | 39°58'06.090" | 109°23'23.143" | 865' FNL | | | | | |
| NBU 632-12E | 39.968324° | 109.390443° | 39.968358° | 109.389762° | 2035' FWL | | | | | |

RELATIVE COORDINATES - From Surface Position to Bottom Hole

| WELL NAME | NORTH | EAST | WELL NAME | NORTH | EAST | WELL NAME | NORTH | EAST | WELL NAME | NORTH | EAST |
|-----------------|---------|-----------|-----------------|---------|-----------|-----------------|-------|--------|-----------------|--------|-----------|
| NBU 1022-12D1BS | 547.6' | -1,185.8' | NBU 1022-12D1CS | 238.0' | -1,195.8' | NBU 1022-12C4BS | 82.3' | 114.4' | NBU 1022-12D4BS | -74.4' | -1,205.4' |
| NBU 1022-12D4CS | -396.1' | -1,210.5' | NBU 1022-12C4CS | -220.7' | 102.2' | | | | | | |



BASIS OF BEARINGS IS THE NORTH LINE OF THE NW 1/4 OF SECTION 12, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR S89°57'13"W.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-12C

WELL PAD INTERFERENCE PLAT
WELLS - NBU 1022-12D1BS, NBU 1022-12D1CS, NBU 1022-12C4BS, NBU 1022-12D4BS, NBU 1022-12D4CS & NBU 1022-12C4CS LOCATED IN SECTION 12, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

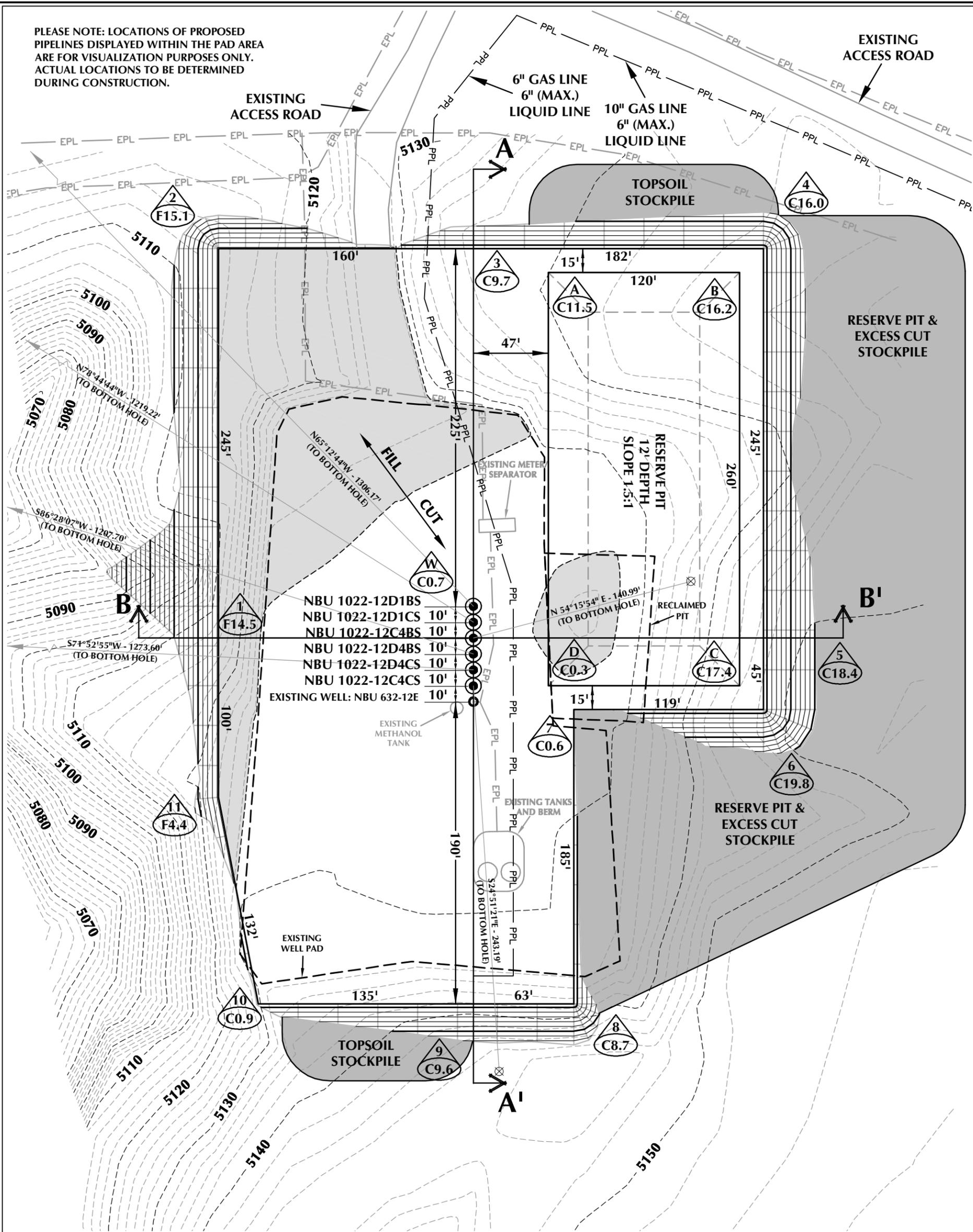


CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

| | | |
|----------------------------|---------------------------------------|-----------------------|
| DATE SURVEYED: 01-28-11 | SURVEYED BY: R.Y. | SHEET NO: 7 |
| DATE DRAWN: 02-16-11 | DRAWN BY: E.M.S. | |
| SCALE: 1" = 60' | Date Last Revised: 04-12-11 E.M.S. | 7 OF 18 |

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.



WELL PAD - NBU 1022-12C DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5129.2'
 FINISHED GRADE ELEVATION = 5128.5'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.90 ACRES
 TOTAL DAMAGE AREA = 6.34 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-12C
 WELL PAD - LOCATION LAYOUT
 NBU 1022-12D1BS, NBU 1022-12D1CS,
 NBU 1022-12C4BS, NBU 1022-12D4BS,
 NBU 1022-12D4CS & NBU 1022-12C4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 20,378 C.Y.
 TOTAL FILL FOR WELL PAD = 10,353 C.Y.
 TOPSOIL @ 6" DEPTH = 1,905 C.Y.
 EXCESS MATERIAL = 10,025 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
 +/- 11,020 C.Y.
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 42,290 BARRELS



CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

TIMBERLINE
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

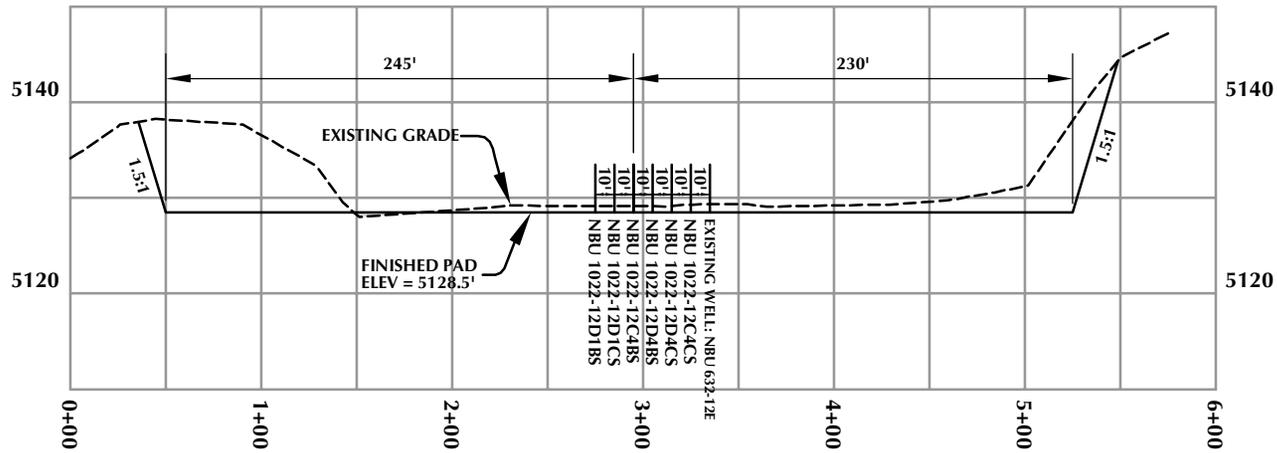
WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PROPOSED PIPELINE
- EXISTING PIPELINE

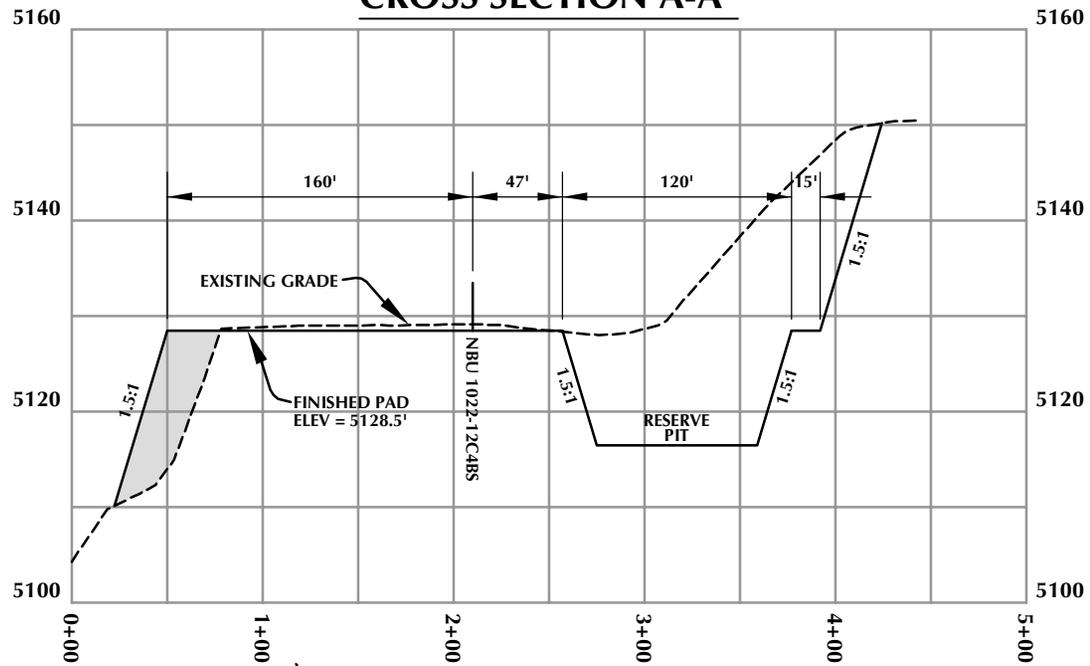


HORIZONTAL 0 30' 60' 1" = 60'
 2' CONTOURS

SCALE: 1"=60' DATE: 3/8/11 SHEET NO:
 REVISED: SEA 4/22/11 **8** 8 OF 18



CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-12C

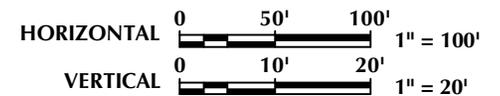
WELL PAD - CROSS SECTIONS
NBU 1022-12D1BS, NBU 1022-12D1CS,
NBU 1022-12C4BS, NBU 1022-12D4BS,
NBU 1022-12D4CS & NBU 1022-12C4CS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH



CONSULTING, LLC
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Sheridan, WY 82801
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TIMBERLINE
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365



Scale: 1"=100'

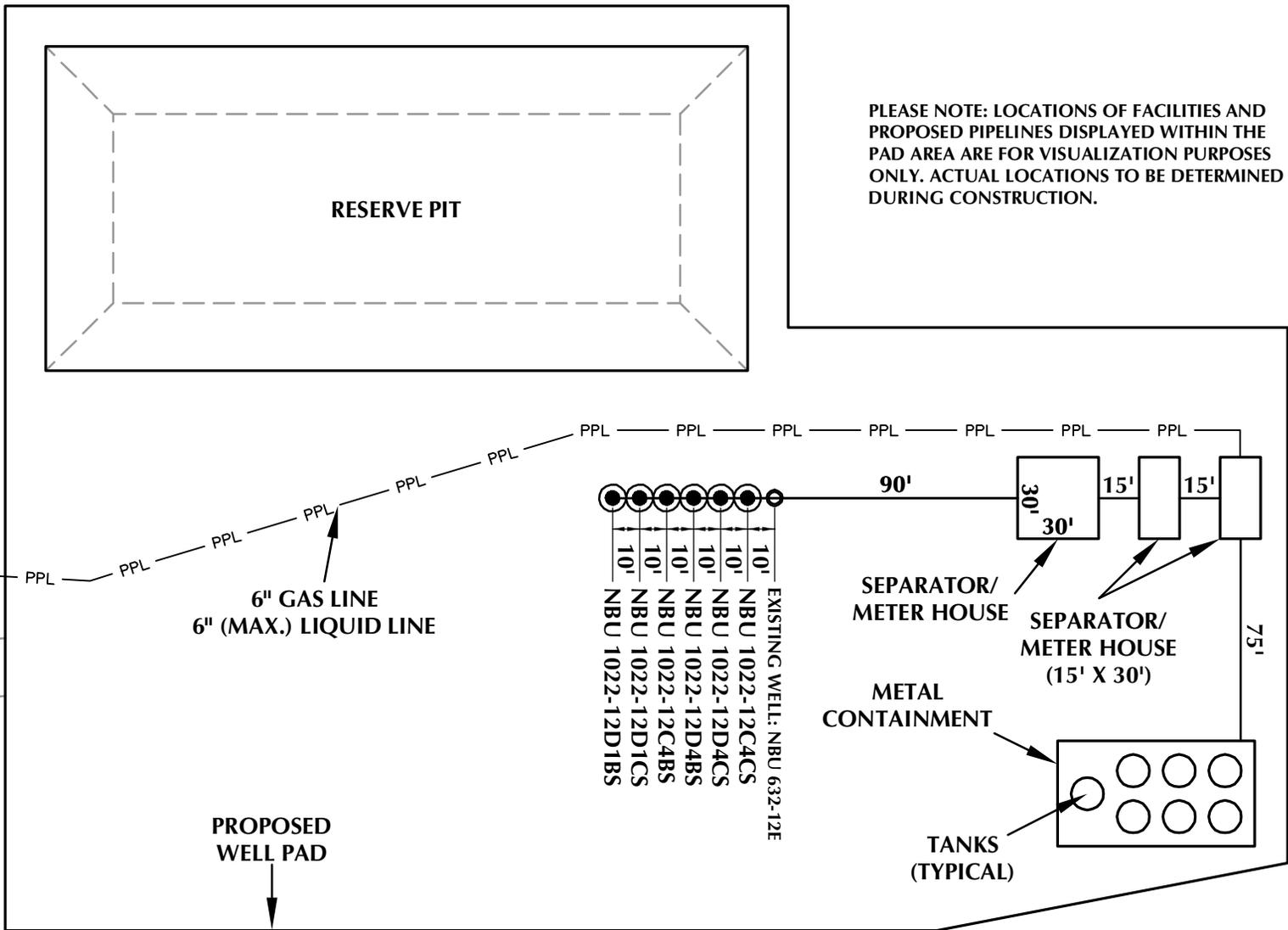
Date: 3/8/11

SHEET NO:

REVISED:

SEA
4/22/11

9
9 OF 18



Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-12C

WELL PAD - FACILITIES DIAGRAM

NBU 1022-12D1BS, NBU 1022-12D1CS,
 NBU 1022-12C4BS, NBU 1022-12D4BS,
 NBU 1022-12D4CS & NBU 1022-12C4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH



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 Sheridan, WY 82801
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WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED PIPELINE
- EXISTING PIPELINE



HORIZONTAL 0 30' 60' 1" = 60'

TIMBERLINE
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

Scale: 1"=60'

Date: 3/8/11

SHEET NO:

REVISED:

SEA
 4/22/11

10 10 OF 18

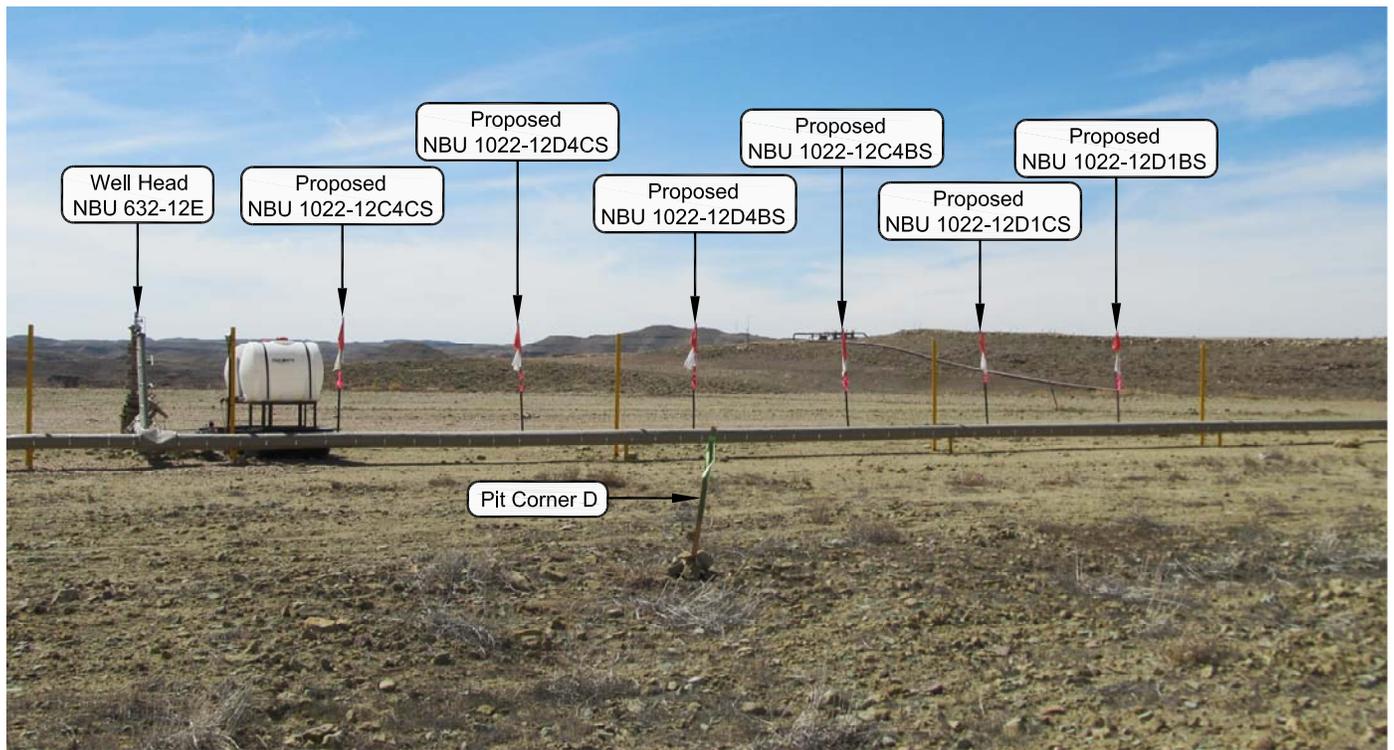


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: SOUTHWESTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHERLY

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-12C

LOCATION PHOTOS

NBU 1022-12D1BS, NBU 1022-12D1CS,
 NBU 1022-12C4BS, NBU 1022-12D4BS,
 NBU 1022-12D4CS & NBU 1022-12C4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., Uintah County, Utah.



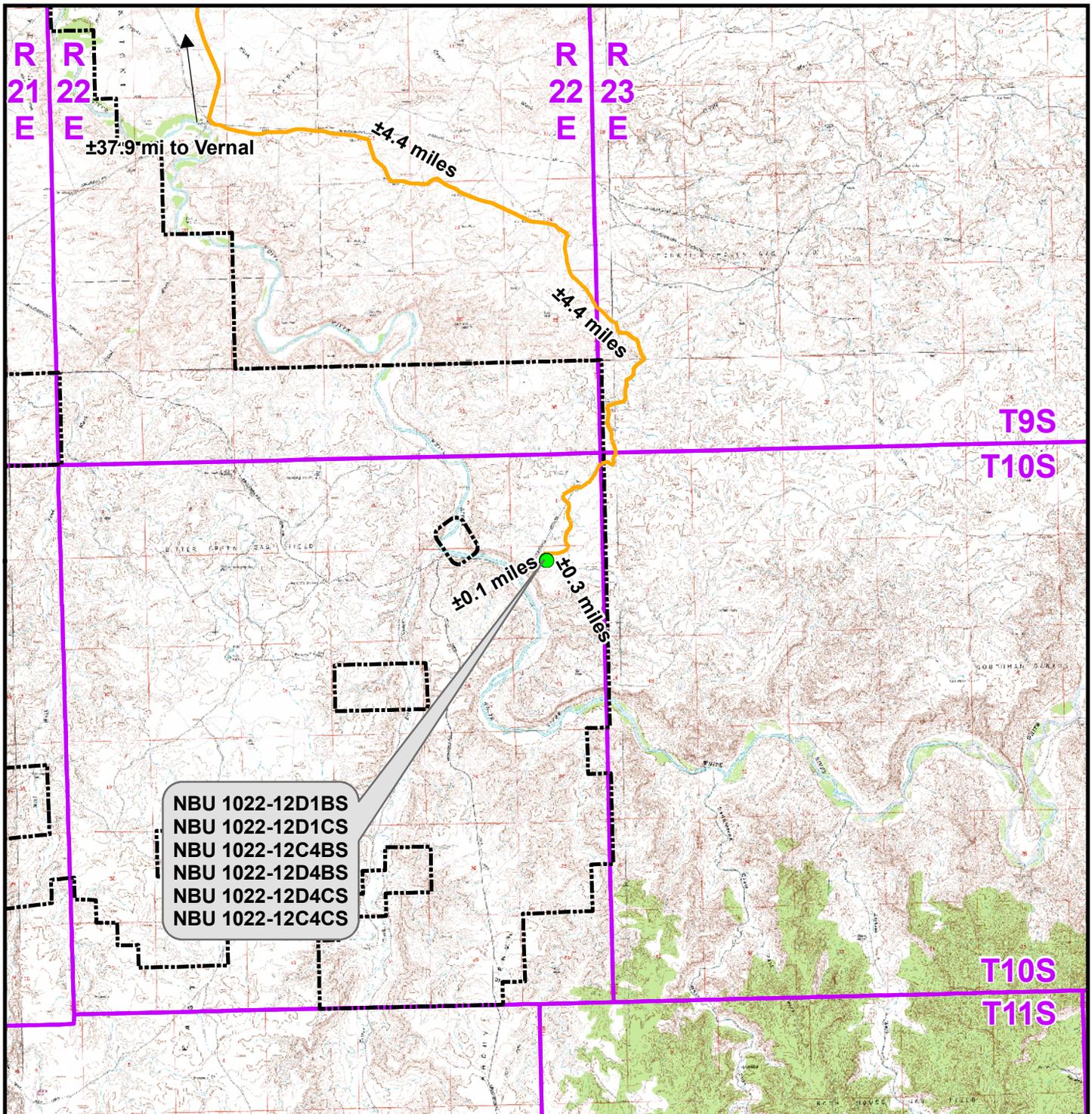
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 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

TIMBERLINE

(435) 789-1365

ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

| | | |
|------------------------------------|-----------------------|------------------------|
| DATE PHOTOS TAKEN: 02-17-11 | PHOTOS TAKEN BY: R.Y. | SHEET NO: 11 |
| DATE DRAWN: 02-18-11 | DRAWN BY: E.M.S. | |
| Date Last Revised: 04-12-11 E.M.S. | | 11 OF 18 |



Legend

- Proposed Well Location
- Natural Buttes Unit Boundary
- Access Route - Proposed

Distance From Well Pad - NBU 1022-12C To Unit Boundary: ±3,254ft

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-12C

TOPO A

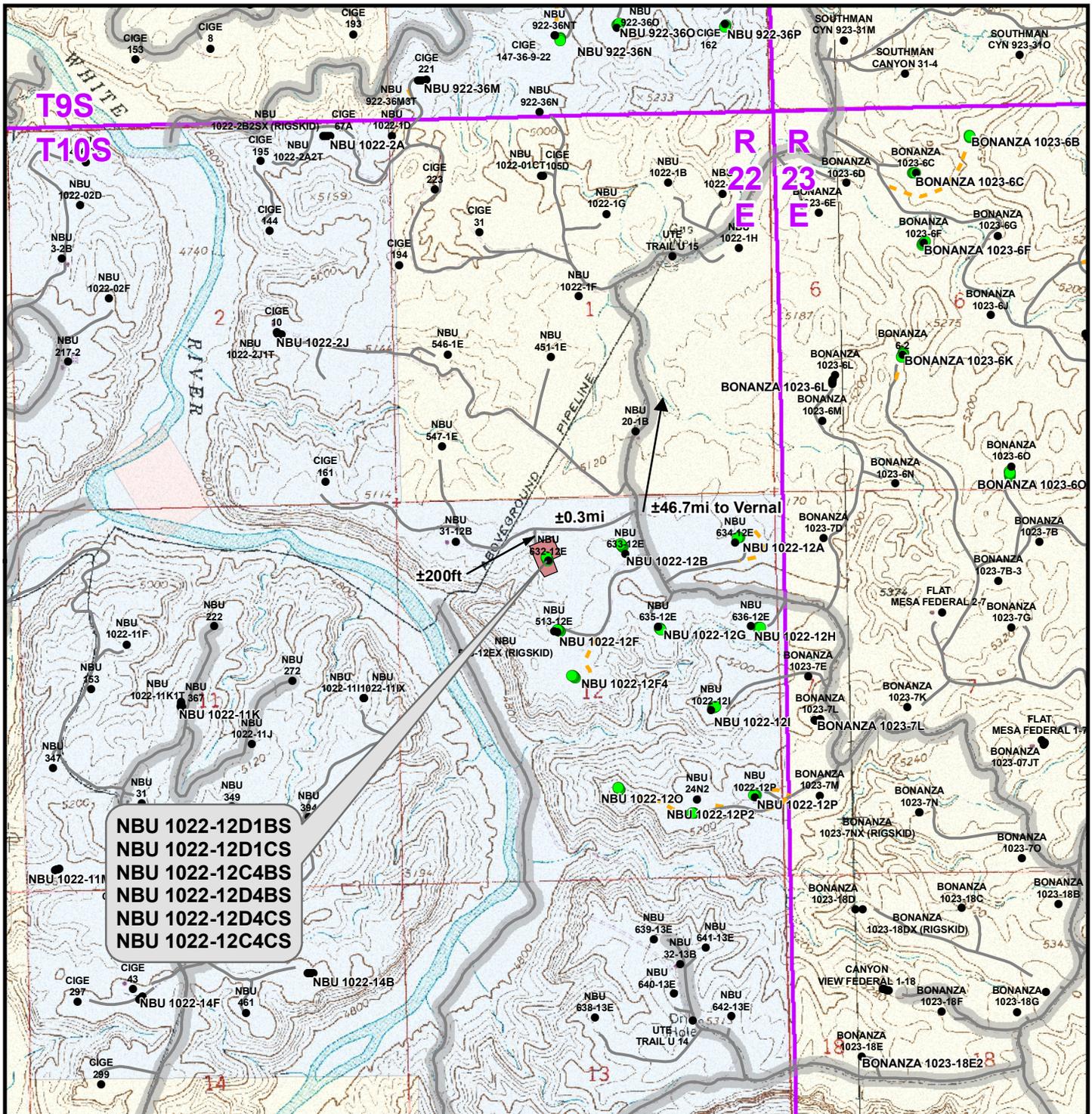
NBU 1022-12D1BS, NBU 1022-12D1CS,
 NBU 1022-12C4BS, NBU 1022-12D4BS,
 NBU 1022-12D4CS & NBU 1022-12C4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH

609
CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone (307) 674-0609
 Fax (307) 674-0182



| | | |
|------------------|-------------------|-----------|
| Scale: 1:100,000 | NAD83 USP Central | Sheet No: |
| Drawn: TL | Date: 8 Mar 2011 | 12 |
| Revised: TL | Date: 19 Apr 2011 | |

12 of 18



NBU 1022-12D1BS
NBU 1022-12D1CS
NBU 1022-12C4BS
NBU 1022-12D4BS
NBU 1022-12D4CS
NBU 1022-12C4CS

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Bureau of Land Management
- Indian Reservation
- State
- Private

Total Proposed Road Length: ±0ft

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-12C

TOPO B

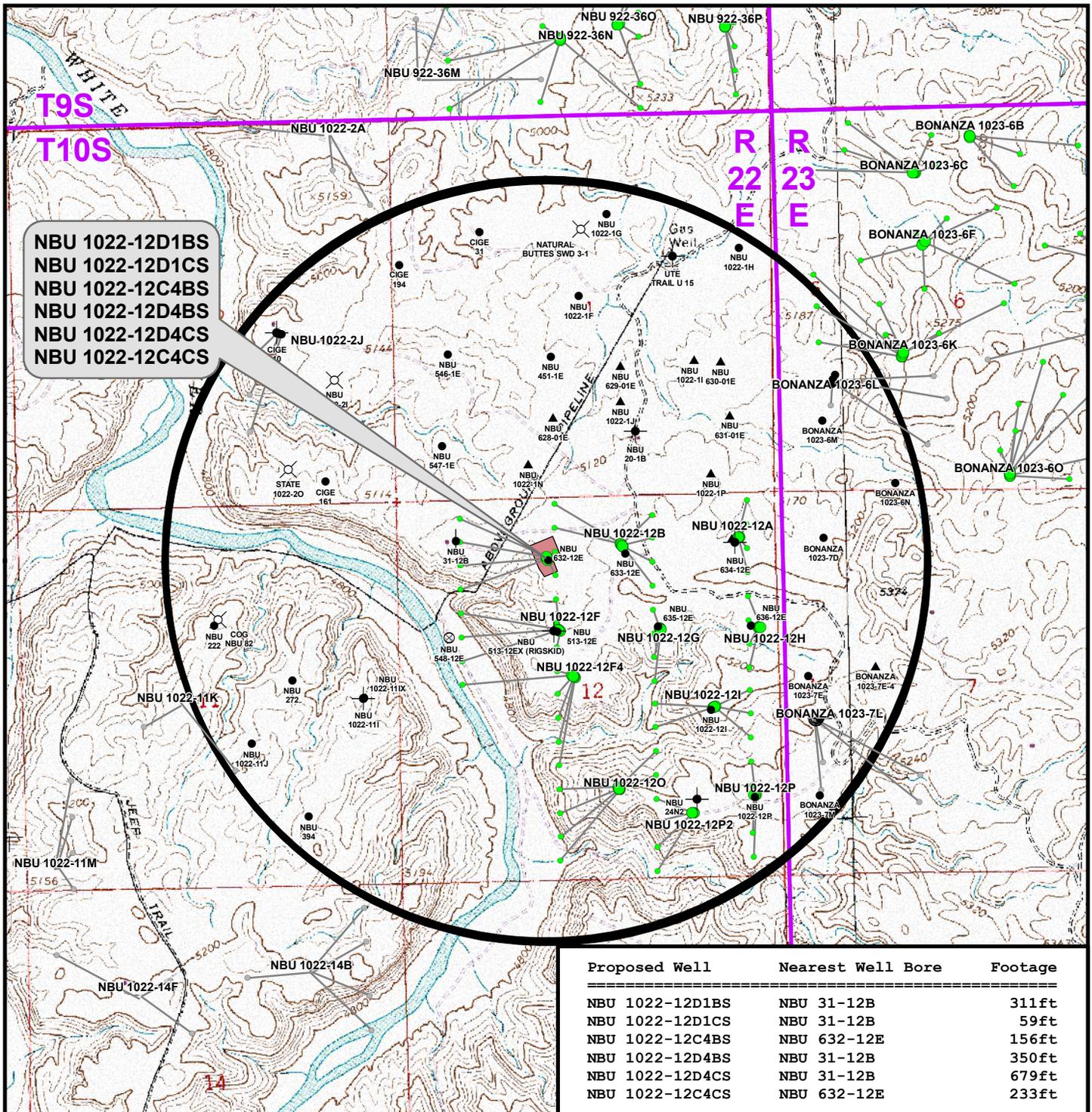
NBU 1022-12D1BS, NBU 1022-12D1CS,
NBU 1022-12C4BS, NBU 1022-12D4BS,
NBU 1022-12D4CS & NBU 1022-12C4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH



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| | | | |
|---------------------|-------------------|-----------|-----------|
| Scale: 1" = 2,000ft | NAD83 USP Central | Sheet No: | 13 |
| Drawn: TL | Date: 8 Mar 2011 | 13 of 18 | |
| Revised: TL | Date: 19 Apr 2011 | | |



Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Well Pad
- Bottom Hole - Existing
- Well - 1 Mile Radius
- Producing
- Temporarily-Abandoned
- Active
- Shut-In
- Spudded (Drilling commenced; Not yet completed)
- Approved permit (APD); not yet spudded
- Plugged and Abandoned
- New Permit (Not yet approved or drilled)
- Location Abandoned
- Inactive
- Dry hole marker, buried
- Drilling Operations Suspended
- Returned APD (Unapproved)

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-12C

TOPO C

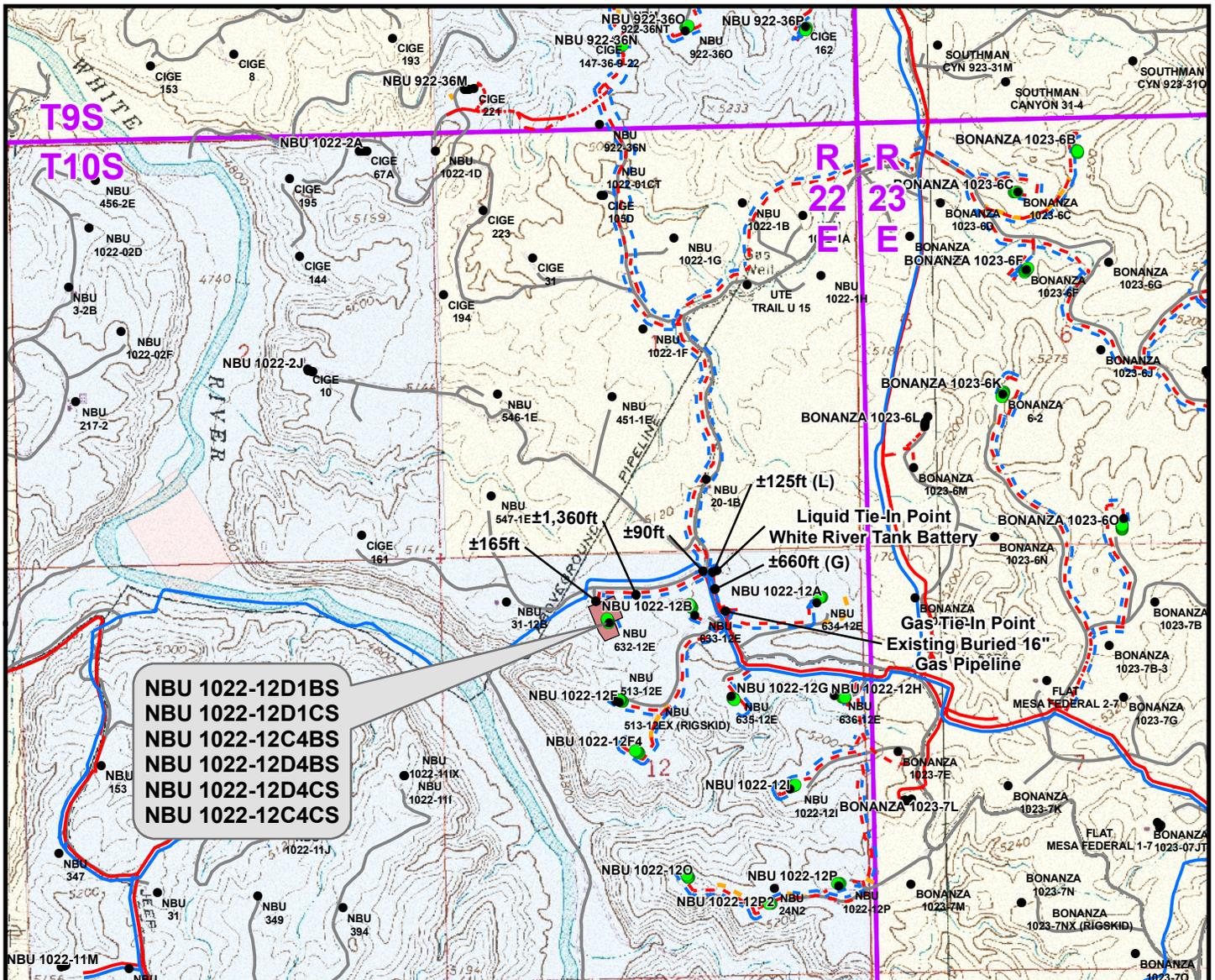
NBU 1022-12D1BS, NBU 1022-12D1CS,
NBU 1022-12C4BS, NBU 1022-12D4BS,
NBU 1022-12D4CS & NBU 1022-12C4CS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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2155 North Main Street
Sheridan, WY 82801
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Fax (307) 674-0182



| | | |
|---------------------|-------------------|-----------|
| Scale: 1" = 2,000ft | NAD83 USP Central | Sheet No: |
| Drawn: TL | Date: 8 Mar 2011 | 14 |
| Revised: TL | Date: 19 Apr 2011 | |



| Proposed Liquid Pipeline | Length |
|---|-----------------|
| Proposed 6" (Max.) (Meter House to Edge of Pad) | ±490ft |
| Proposed 6" (Max.) (Edge of Pad to Road Intersection) | ±165ft |
| Proposed 6" (Max.) (Road Intersection to County Road Intersection) | ±1,360ft |
| Proposed 6" (Max.) (County Road Intersection to White River Tank Battery) | ±215ft |
| TOTAL PROPOSED LIQUID PIPELINE = | ±2,230ft |

| Proposed Gas Pipeline | Length |
|---|-----------------|
| Proposed 6" (Meter House to Edge of Pad) | ±490ft |
| Proposed 6" (Edge of Pad to Road Intersection) | ±165ft |
| Proposed 10" (Road Intersection to County Road Intersection) | ±1,360ft |
| Proposed 16" (County Road Intersection to 12B Intersection) | ±535ft |
| Proposed 16" (12B Intersection to Existing Buried 16" Gas Pipeline) | ±215ft |
| TOTAL PROPOSED GAS PIPELINE = | ±2,765ft |

Legend

- Well - Proposed ■ Well Pad - - - Gas Pipeline - Proposed - - - Liquid Pipeline - Proposed - - - Road - Proposed □ Bureau of Land Management
- Well - Existing - - - Gas Pipeline - To Be Upgraded - - - Liquid Pipeline - Existing - - - Road - Existing □ Indian Reservation
- - - Gas Pipeline - Existing □ State □ Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

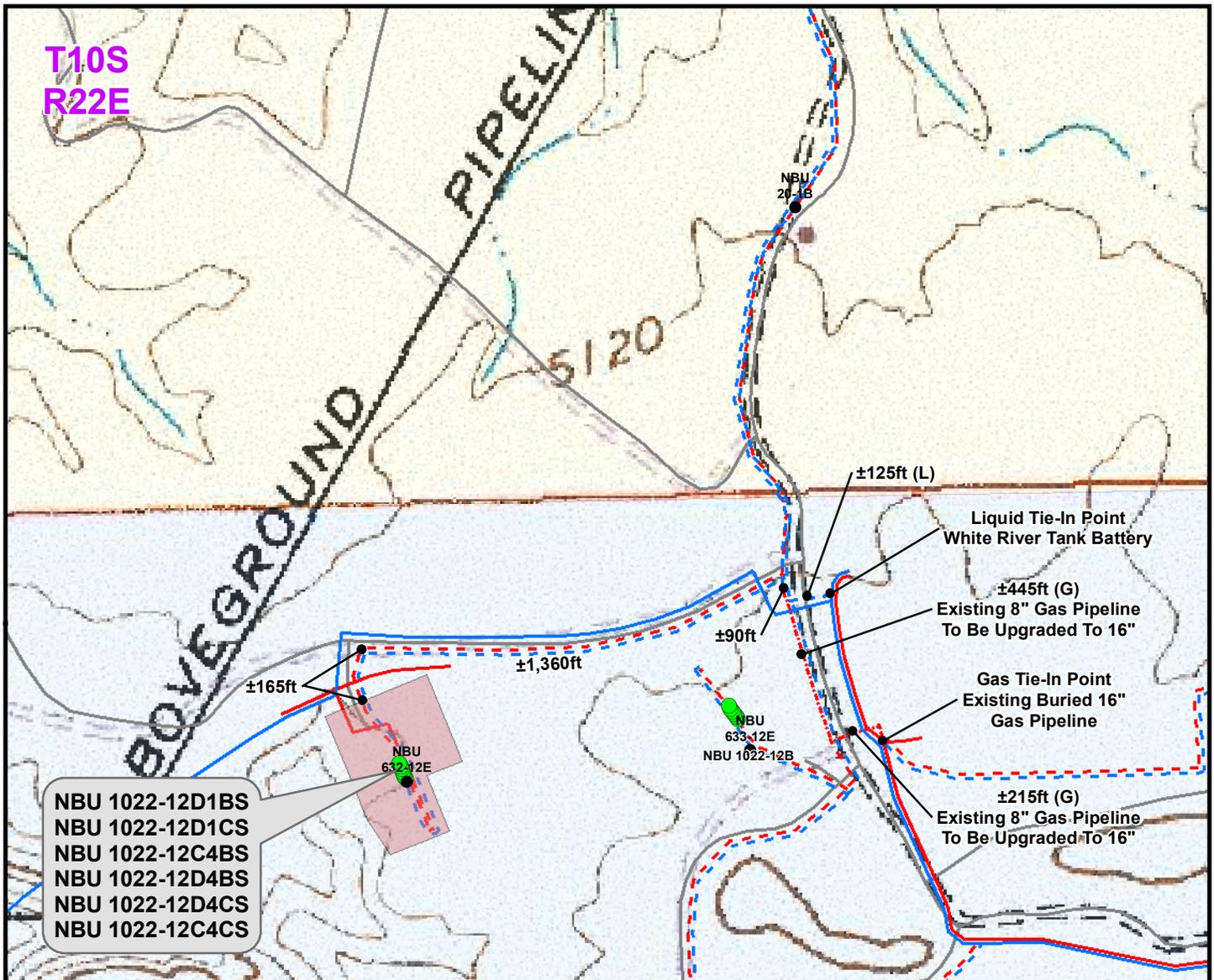
WELL PAD - NBU 1022-12C

TOPO D
NBU 1022-12D1BS, NBU 1022-12D1CS,
NBU 1022-12C4BS, NBU 1022-12D4BS,
NBU 1022-12D4CS & NBU 1022-12C4CS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH

CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182



| | | |
|---------------------|-------------------|-----------|
| Scale: 1" = 2,000ft | NAD83 USP Central | Sheet No: |
| Drawn: JFE | Date: 8 Mar 2011 | 15 |
| Revised: TL | Date: 19 Apr 2011 | |



- NBU 1022-12D1BS
- NBU 1022-12D1CS
- NBU 1022-12C4BS
- NBU 1022-12D4BS
- NBU 1022-12D4CS
- NBU 1022-12C4CS

| Proposed Liquid Pipeline | Length |
|---|-----------------|
| Proposed 6" (Max.) (Meter House to Edge of Pad) | ±490ft |
| Proposed 6" (Max.) (Edge of Pad to Road Intersection) | ±165ft |
| Proposed 6" (Max.) (Road Intersection to County Road Intersection) | ±1,360ft |
| Proposed 6" (Max.) (County Road Intersection to White River Tank Battery) | ±215ft |
| TOTAL PROPOSED LIQUID PIPELINE = | ±2,230ft |

| Proposed Gas Pipeline | Length |
|---|-----------------|
| Proposed 6" (Meter House to Edge of Pad) | ±490ft |
| Proposed 6" (Edge of Pad to Road Intersection) | ±165ft |
| Proposed 10" (Road Intersection to County Road Intersection) | ±1,360ft |
| Proposed 16" (County Road Intersection to 12B Intersection) | ±535ft |
| Proposed 16" (12B Intersection to Existing Buried 16" Gas Pipeline) | ±215ft |
| TOTAL PROPOSED GAS PIPELINE = | ±2,765ft |

Legend

- Well - Proposed
- Well Pad
- - - Gas Pipeline - Proposed
- - - Liquid Pipeline - Proposed
- - - Road - Proposed
- Bureau of Land Management
- Well - Existing
- - - Gas Pipeline - To Be Upgraded
- - - Liquid Pipeline - Existing
- - - Road - Existing
- Indian Reservation
- - - Gas Pipeline - Existing
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

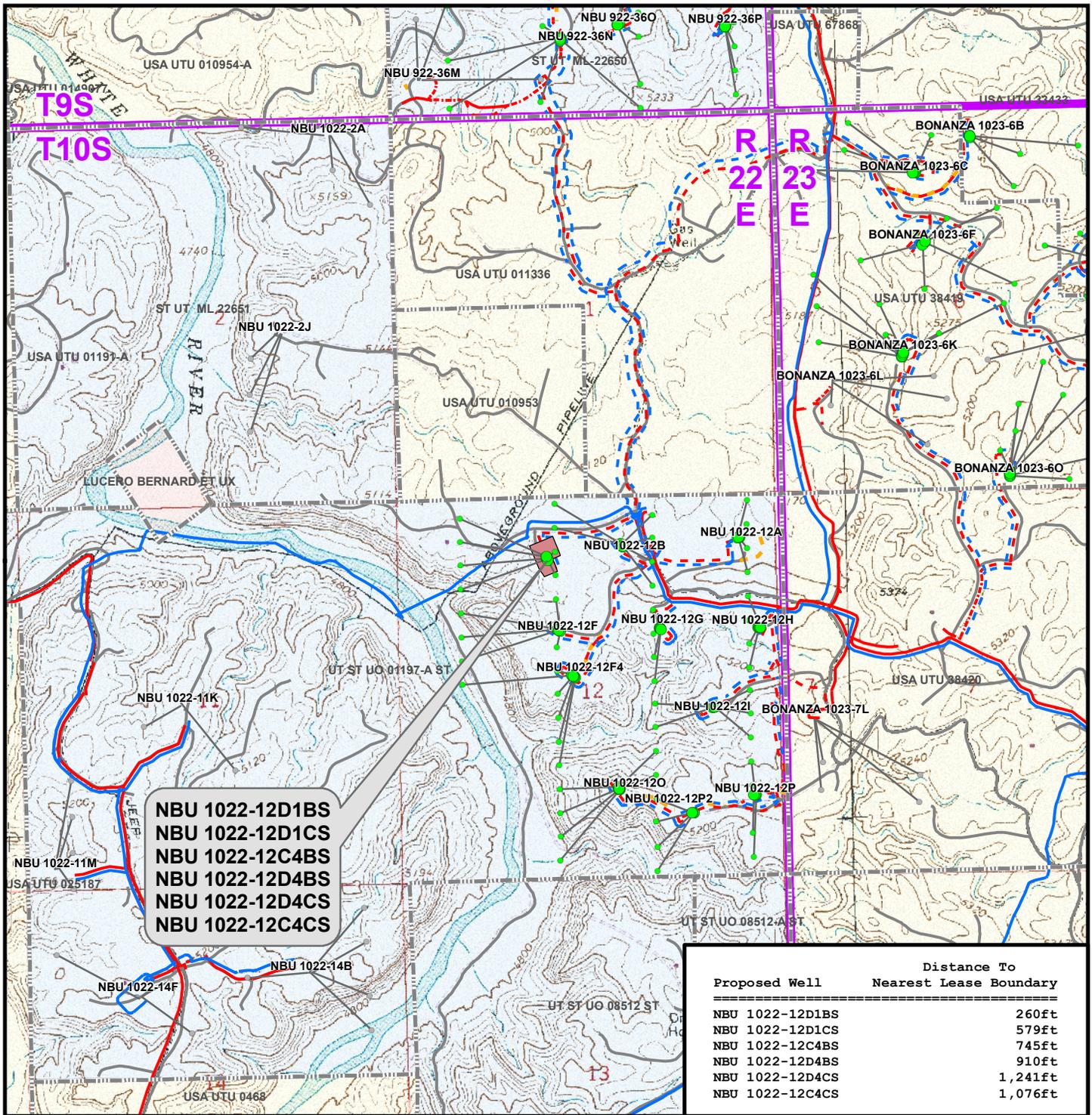
WELL PAD - NBU 1022-12C

TOPO D2 (PAD & PIPELINE DETAIL)
 NBU 1022-12D1BS, NBU 1022-12D1CS,
 NBU 1022-12C4BS, NBU 1022-12D4BS,
 NBU 1022-12D4CS & NBU 1022-12C4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone (307) 674-0609
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| | | |
|-------------------|-------------------|-----------|
| Scale: 1" = 500ft | NAD83 USP Central | Sheet No: |
| Drawn: JFE | Date: 8 Mar 2011 | 16 |
| Revised: TL | Date: 19 Apr 2011 | |



Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- ▭ Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-12C

TOPO E
 NBU 1022-12D1BS, NBU 1022-12D1CS,
 NBU 1022-12C4BS, NBU 1022-12D4BS,
 NBU 1022-12D4CS & NBU 1022-12C4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

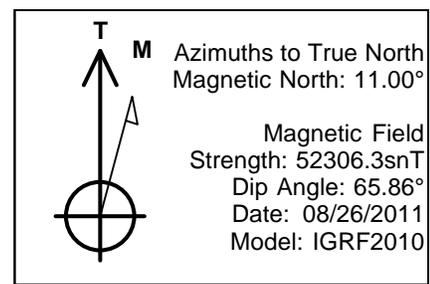
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 CONSULTING, LLC
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 Sheridan, WY 82801
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 Fax (307) 674-0182

| | | |
|---------------------|-------------------|------------------------|
| Scale: 1" = 2,000ft | NAD83 USP Central | Sheet No: 17 |
| Drawn: TL | Date: 8 Mar 2011 | 17 of 18 |
| Revised: TL | Date: 19 Apr 2011 | |

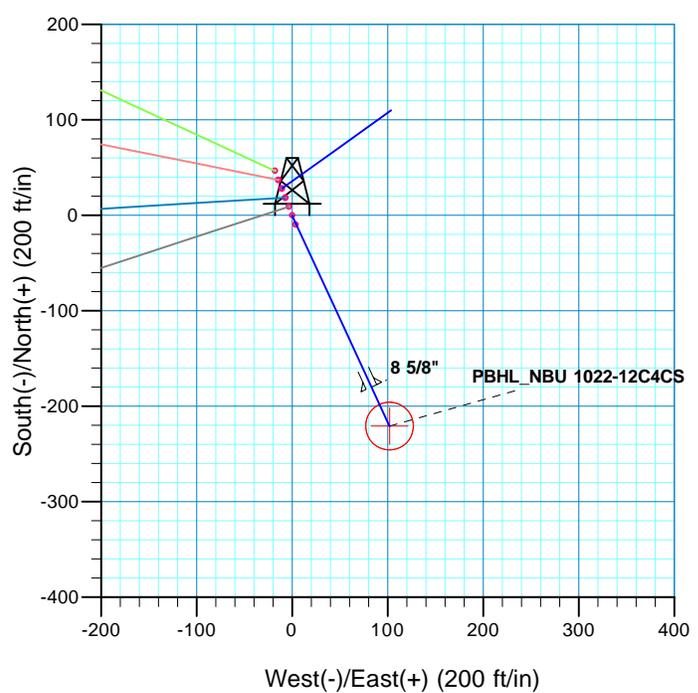
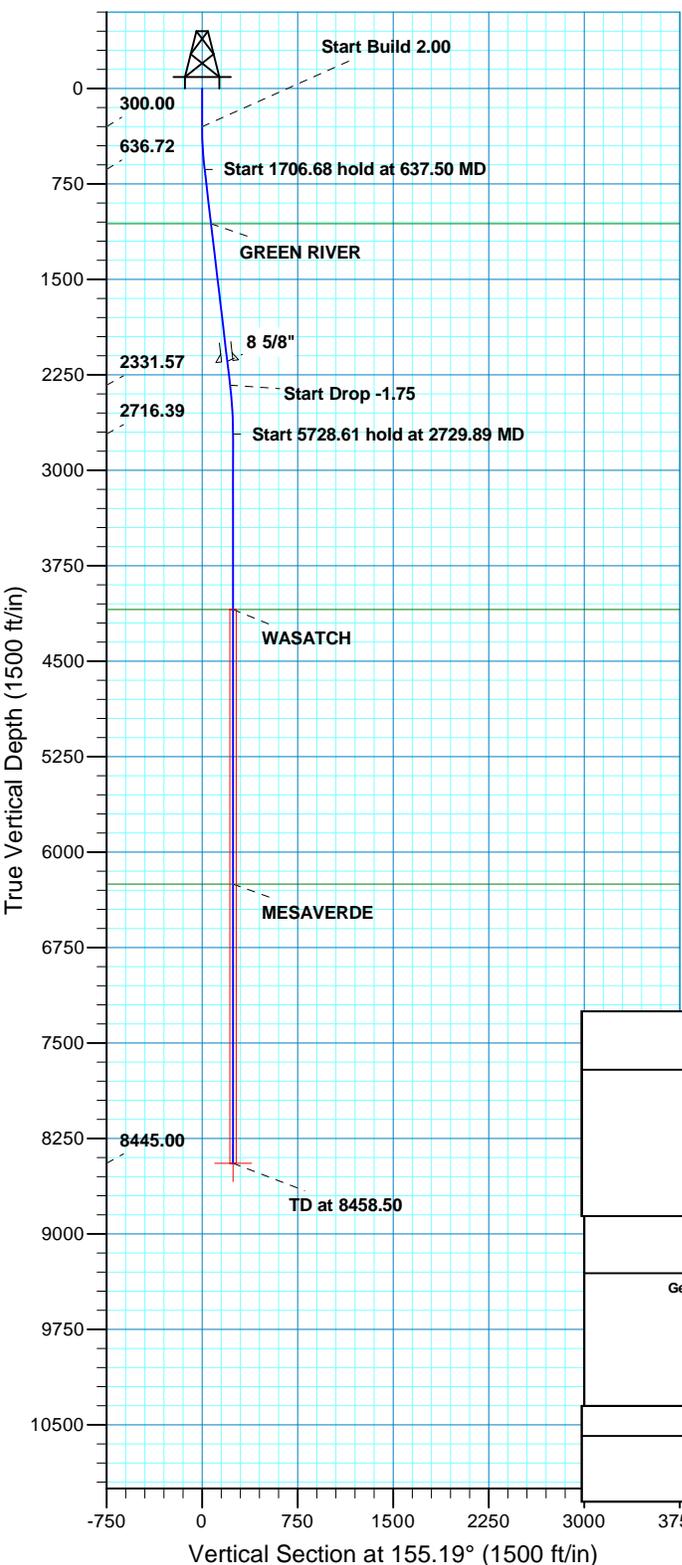
**Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 1022-12C
WELLS – NBU 1022-12D1BS, NBU 1022-12D1CS,
NBU 1022-12C4BS, NBU 1022-12D4BS,
NBU 1022-12D4CS & NBU 1022-12C4CS
Section 12, T10S, R22E, S.L.B.&M.**

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 14.4 miles to the intersection of the Fidlar Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge at the White River. Exit left and proceed in a southeasterly direction along the Fidlar Road approximately 4.4 miles to the intersection of the Seven Sisters Road (County B Road 3420). Exit right and proceed in a southeasterly, then southerly direction along the Seven Sisters Road approximately 4.4 miles to a service road to the southwest. Exit right and proceed in a southwesterly direction along the service road approximately 0.3 miles to an access road to the south. Exit left and proceed in a southerly direction along the access road approximately 200 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 47.0 miles in a southerly direction.



| WELL DETAILS: NBU 1022-12C4CS | | | | | | |
|--------------------------------------|------------------------|-------------|------------|-----------------|-------------------|-----------------|
| GL 5129 & KB 4 @ 5133.00ft (ASSUMED) | | | | | | |
| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | |
| 0.00 | 0.00 | 14518605.03 | 2091591.96 | 39° 58' 6.182 N | 109° 23' 23.190 W | |
| DESIGN TARGET DETAILS | | | | | | |
| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude |
| PBHL | 8445.00 | -220.72 | 102.01 | 14518386.20 | 2091697.94 | 39° 58' 4.001 N |
| - plan hits target center | | | | | | |
| Shape | Circle (Radius: 25.00) | | | | | |



| SECTION DETAILS | | | | | | | | | |
|--|---------|-------------|---------|---------|--------|------|--------|--------|----------------------|
| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 637.50 | 6.75 | 155.19 | 636.72 | -18.03 | 8.33 | 2.00 | 155.19 | 19.86 | |
| 2344.18 | 6.75 | 155.19 | 2331.57 | -200.12 | 92.49 | 0.00 | 0.00 | 220.46 | |
| 2729.89 | 0.00 | 0.00 | 2716.39 | -220.72 | 102.01 | 1.75 | 180.00 | 243.15 | |
| 8458.50 | 0.00 | 0.00 | 8445.00 | -220.72 | 102.01 | 0.00 | 0.00 | 243.15 | PBHL_NBU 1022-12C4CS |
| FORMATION TOP DETAILS | | | | | | | | | |
| TVDPath | MDPath | Formation | | | | | | | |
| 1062.00 | 1065.75 | GREEN RIVER | | | | | | | |
| 4094.00 | 4107.50 | WASATCH | | | | | | | |
| 6251.00 | 6264.50 | MESAVERDE | | | | | | | |
| PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N | | | | | | | | | |
| Geodetic System: Universal Transverse Mercator (US Survey Feet) Datum: NAD 1927 (NADCON CONUS) Ellipsoid: Clarke 1866 Zone: Zone 12N (114 W to 108 W) Location: SECTION 12 T10S R22E System Datum: Mean Sea Level | | | | | | | | | |
| CASING DETAILS | | | | | | | | | |
| TVD | MD | Name | Size | | | | | | |
| 2144.00 | 2155.30 | 8 5/8" | 8.625 | | | | | | |

RECEIVED



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

NBU 1022-12CPAD

NBU 1022-12C4CS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

26 August, 2011





SDI
Planning Report



| | | | |
|------------------|------------------------------------|-------------------------------------|---|
| Database: | EDM5000-RobertS-Local | Local Co-ordinate Reference: | Well NBU 1022-12C4CS |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL 5129 & KB 4 @ 5133.00ft (ASSUMED) |
| Project: | UTAH - UTM (feet), NAD27, Zone 12N | MD Reference: | GL 5129 & KB 4 @ 5133.00ft (ASSUMED) |
| Site: | NBU 1022-12CPAD | North Reference: | True |
| Well: | NBU 1022-12C4CS | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OH | | |
| Design: | PLAN #1 PRELIMINARY | | |

| | | | |
|--------------------|--|----------------------|----------------|
| Project | UTAH - UTM (feet), NAD27, Zone 12N | | |
| Map System: | Universal Transverse Mercator (US Survey Feet) | System Datum: | Mean Sea Level |
| Geo Datum: | NAD 1927 (NADCON CONUS) | | |
| Map Zone: | Zone 12N (114 W to 108 W) | | |

| | | | | | |
|------------------------------|---------------------------------------|---------------------|--------------------|--------------------------|-------------------|
| Site | NBU 1022-12CPAD, SECTION 12 T10S R22E | | | | |
| Site Position: | | Northing: | 14,518,632.89 usft | Latitude: | 39° 58' 6.460 N |
| From: | Lat/Long | Easting: | 2,091,580.80 usft | Longitude: | 109° 23' 23.327 W |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13.200 in | Grid Convergence: | 1.03 ° |

| | | | | | | |
|-----------------------------|-----------------------------------|-----------|----------------------------|--------------------|----------------------|-------------------|
| Well | NBU 1022-12C4CS, 855 FNL 2031 FWL | | | | | |
| Well Position | +N/-S | -28.04 ft | Northing: | 14,518,605.04 usft | Latitude: | 39° 58' 6.182 N |
| | +E/-W | 10.65 ft | Easting: | 2,091,591.96 usft | Longitude: | 109° 23' 23.190 W |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | | Ground Level: | 5,129.00 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | OH | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 08/26/11 | 11.00 | 65.86 | 52,306 |

| | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| Design | PLAN #1 PRELIMINARY | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.00 | 0.00 | 0.00 | 155.19 |

| Plan Sections | | | | | | | | | | |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|-------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 637.50 | 6.75 | 155.19 | 636.72 | -18.03 | 8.33 | 2.00 | 2.00 | 0.00 | 155.19 | |
| 2,344.18 | 6.75 | 155.19 | 2,331.57 | -200.12 | 92.49 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,729.89 | 0.00 | 0.00 | 2,716.39 | -220.72 | 102.01 | 1.75 | -1.75 | 0.00 | 180.00 | |
| 8,458.50 | 0.00 | 0.00 | 8,445.00 | -220.72 | 102.01 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL_NBU 1022-12C |



| | | | |
|------------------|------------------------------------|-------------------------------------|---|
| Database: | EDM5000-RobertS-Local | Local Co-ordinate Reference: | Well NBU 1022-12C4CS |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL 5129 & KB 4 @ 5133.00ft (ASSUMED) |
| Project: | UTAH - UTM (feet), NAD27, Zone 12N | MD Reference: | GL 5129 & KB 4 @ 5133.00ft (ASSUMED) |
| Site: | NBU 1022-12CPAD | North Reference: | True |
| Well: | NBU 1022-12C4CS | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OH | | |
| Design: | PLAN #1 PRELIMINARY | | |

| Planned Survey | | | | | | | | | | |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Start Build 2.00 | | | | | | | | | | |
| 400.00 | 2.00 | 155.19 | 399.98 | -1.58 | 0.73 | 1.75 | 2.00 | 2.00 | 0.00 | |
| 500.00 | 4.00 | 155.19 | 499.84 | -6.33 | 2.93 | 6.98 | 2.00 | 2.00 | 0.00 | |
| 600.00 | 6.00 | 155.19 | 599.45 | -14.25 | 6.58 | 15.69 | 2.00 | 2.00 | 0.00 | |
| 637.50 | 6.75 | 155.19 | 636.72 | -18.03 | 8.33 | 19.86 | 2.00 | 2.00 | 0.00 | |
| Start 1706.68 hold at 637.50 MD | | | | | | | | | | |
| 700.00 | 6.75 | 155.19 | 698.79 | -24.69 | 11.41 | 27.20 | 0.00 | 0.00 | 0.00 | |
| 800.00 | 6.75 | 155.19 | 798.09 | -35.36 | 16.34 | 38.96 | 0.00 | 0.00 | 0.00 | |
| 900.00 | 6.75 | 155.19 | 897.40 | -46.03 | 21.28 | 50.71 | 0.00 | 0.00 | 0.00 | |
| 1,000.00 | 6.75 | 155.19 | 996.71 | -56.70 | 26.21 | 62.46 | 0.00 | 0.00 | 0.00 | |
| 1,065.75 | 6.75 | 155.19 | 1,062.00 | -63.72 | 29.45 | 70.19 | 0.00 | 0.00 | 0.00 | |
| GREEN RIVER | | | | | | | | | | |
| 1,100.00 | 6.75 | 155.19 | 1,096.01 | -67.37 | 31.14 | 74.22 | 0.00 | 0.00 | 0.00 | |
| 1,200.00 | 6.75 | 155.19 | 1,195.32 | -78.04 | 36.07 | 85.97 | 0.00 | 0.00 | 0.00 | |
| 1,300.00 | 6.75 | 155.19 | 1,294.63 | -88.71 | 41.00 | 97.73 | 0.00 | 0.00 | 0.00 | |
| 1,400.00 | 6.75 | 155.19 | 1,393.93 | -99.38 | 45.93 | 109.48 | 0.00 | 0.00 | 0.00 | |
| 1,500.00 | 6.75 | 155.19 | 1,493.24 | -110.05 | 50.86 | 121.23 | 0.00 | 0.00 | 0.00 | |
| 1,600.00 | 6.75 | 155.19 | 1,592.55 | -120.72 | 55.79 | 132.99 | 0.00 | 0.00 | 0.00 | |
| 1,700.00 | 6.75 | 155.19 | 1,691.86 | -131.39 | 60.73 | 144.74 | 0.00 | 0.00 | 0.00 | |
| 1,800.00 | 6.75 | 155.19 | 1,791.16 | -142.06 | 65.66 | 156.49 | 0.00 | 0.00 | 0.00 | |
| 1,900.00 | 6.75 | 155.19 | 1,890.47 | -152.72 | 70.59 | 168.25 | 0.00 | 0.00 | 0.00 | |
| 2,000.00 | 6.75 | 155.19 | 1,989.78 | -163.39 | 75.52 | 180.00 | 0.00 | 0.00 | 0.00 | |
| 2,100.00 | 6.75 | 155.19 | 2,089.08 | -174.06 | 80.45 | 191.76 | 0.00 | 0.00 | 0.00 | |
| 2,155.30 | 6.75 | 155.19 | 2,144.00 | -179.96 | 83.18 | 198.26 | 0.00 | 0.00 | 0.00 | |
| 8 5/8" | | | | | | | | | | |
| 2,200.00 | 6.75 | 155.19 | 2,188.39 | -184.73 | 85.38 | 203.51 | 0.00 | 0.00 | 0.00 | |
| 2,300.00 | 6.75 | 155.19 | 2,287.70 | -195.40 | 90.31 | 215.26 | 0.00 | 0.00 | 0.00 | |
| 2,344.18 | 6.75 | 155.19 | 2,331.57 | -200.12 | 92.49 | 220.46 | 0.00 | 0.00 | 0.00 | |
| Start Drop -1.75 | | | | | | | | | | |
| 2,400.00 | 5.77 | 155.19 | 2,387.06 | -205.64 | 95.05 | 226.54 | 1.75 | -1.75 | 0.00 | |
| 2,500.00 | 4.02 | 155.19 | 2,486.69 | -213.39 | 98.63 | 235.08 | 1.75 | -1.75 | 0.00 | |
| 2,600.00 | 2.27 | 155.19 | 2,586.53 | -218.38 | 100.93 | 240.57 | 1.75 | -1.75 | 0.00 | |
| 2,700.00 | 0.52 | 155.19 | 2,686.50 | -220.59 | 101.96 | 243.01 | 1.75 | -1.75 | 0.00 | |
| 2,729.89 | 0.00 | 0.00 | 2,716.39 | -220.72 | 102.01 | 243.15 | 1.75 | -1.75 | 0.00 | |
| Start 5728.61 hold at 2729.89 MD | | | | | | | | | | |
| 2,800.00 | 0.00 | 0.00 | 2,786.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 2,900.00 | 0.00 | 0.00 | 2,886.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 3,000.00 | 0.00 | 0.00 | 2,986.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 3,100.00 | 0.00 | 0.00 | 3,086.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 3,200.00 | 0.00 | 0.00 | 3,186.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 3,300.00 | 0.00 | 0.00 | 3,286.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 3,400.00 | 0.00 | 0.00 | 3,386.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 3,500.00 | 0.00 | 0.00 | 3,486.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 3,600.00 | 0.00 | 0.00 | 3,586.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 3,700.00 | 0.00 | 0.00 | 3,686.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 3,800.00 | 0.00 | 0.00 | 3,786.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 3,900.00 | 0.00 | 0.00 | 3,886.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |



SDI
Planning Report



| | | | |
|------------------|------------------------------------|-------------------------------------|---|
| Database: | EDM5000-RobertS-Local | Local Co-ordinate Reference: | Well NBU 1022-12C4CS |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL 5129 & KB 4 @ 5133.00ft (ASSUMED) |
| Project: | UTAH - UTM (feet), NAD27, Zone 12N | MD Reference: | GL 5129 & KB 4 @ 5133.00ft (ASSUMED) |
| Site: | NBU 1022-12CPAD | North Reference: | True |
| Well: | NBU 1022-12C4CS | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OH | | |
| Design: | PLAN #1 PRELIMINARY | | |

| Planned Survey | | | | | | | | | | |
|-----------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 4,000.00 | 0.00 | 0.00 | 3,986.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 4,100.00 | 0.00 | 0.00 | 4,086.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 4,107.50 | 0.00 | 0.00 | 4,094.00 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| WASATCH | | | | | | | | | | |
| 4,200.00 | 0.00 | 0.00 | 4,186.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 4,300.00 | 0.00 | 0.00 | 4,286.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 4,400.00 | 0.00 | 0.00 | 4,386.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 4,500.00 | 0.00 | 0.00 | 4,486.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 4,600.00 | 0.00 | 0.00 | 4,586.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 4,700.00 | 0.00 | 0.00 | 4,686.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 4,800.00 | 0.00 | 0.00 | 4,786.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 4,900.00 | 0.00 | 0.00 | 4,886.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 5,000.00 | 0.00 | 0.00 | 4,986.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 5,100.00 | 0.00 | 0.00 | 5,086.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 5,200.00 | 0.00 | 0.00 | 5,186.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 5,300.00 | 0.00 | 0.00 | 5,286.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 5,400.00 | 0.00 | 0.00 | 5,386.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 5,500.00 | 0.00 | 0.00 | 5,486.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 5,600.00 | 0.00 | 0.00 | 5,586.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 5,700.00 | 0.00 | 0.00 | 5,686.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 5,800.00 | 0.00 | 0.00 | 5,786.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 5,900.00 | 0.00 | 0.00 | 5,886.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 6,000.00 | 0.00 | 0.00 | 5,986.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 6,100.00 | 0.00 | 0.00 | 6,086.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 6,200.00 | 0.00 | 0.00 | 6,186.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 6,264.50 | 0.00 | 0.00 | 6,251.00 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| MESAVERDE | | | | | | | | | | |
| 6,300.00 | 0.00 | 0.00 | 6,286.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 6,400.00 | 0.00 | 0.00 | 6,386.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 6,500.00 | 0.00 | 0.00 | 6,486.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 6,600.00 | 0.00 | 0.00 | 6,586.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 6,700.00 | 0.00 | 0.00 | 6,686.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 6,800.00 | 0.00 | 0.00 | 6,786.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 6,900.00 | 0.00 | 0.00 | 6,886.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 7,000.00 | 0.00 | 0.00 | 6,986.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 7,100.00 | 0.00 | 0.00 | 7,086.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 7,200.00 | 0.00 | 0.00 | 7,186.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 7,300.00 | 0.00 | 0.00 | 7,286.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 7,400.00 | 0.00 | 0.00 | 7,386.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 7,500.00 | 0.00 | 0.00 | 7,486.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 7,600.00 | 0.00 | 0.00 | 7,586.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 7,700.00 | 0.00 | 0.00 | 7,686.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 7,800.00 | 0.00 | 0.00 | 7,786.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 7,900.00 | 0.00 | 0.00 | 7,886.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 8,000.00 | 0.00 | 0.00 | 7,986.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 8,100.00 | 0.00 | 0.00 | 8,086.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 8,200.00 | 0.00 | 0.00 | 8,186.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 8,300.00 | 0.00 | 0.00 | 8,286.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 8,400.00 | 0.00 | 0.00 | 8,386.50 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| 8,458.50 | 0.00 | 0.00 | 8,445.00 | -220.72 | 102.01 | 243.15 | 0.00 | 0.00 | 0.00 | |
| PBHL_NBU 1022-12C4CS | | | | | | | | | | |



| | | | |
|------------------|------------------------------------|-------------------------------------|---|
| Database: | EDM5000-RobertS-Local | Local Co-ordinate Reference: | Well NBU 1022-12C4CS |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL 5129 & KB 4 @ 5133.00ft (ASSUMED) |
| Project: | UTAH - UTM (feet), NAD27, Zone 12N | MD Reference: | GL 5129 & KB 4 @ 5133.00ft (ASSUMED) |
| Site: | NBU 1022-12CPAD | North Reference: | True |
| Well: | NBU 1022-12C4CS | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OH | | |
| Design: | PLAN #1 PRELIMINARY | | |

| Design Targets | | | | | | | | | |
|---|-----------|----------|----------|---------|--------|---------------|--------------|-----------------|-------------------|
| Target Name | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - hit/miss target | (°) | (°) | (ft) | (ft) | (ft) | (usft) | (usft) | | |
| - Shape | | | | | | | | | |
| PBHL_NBU 1022-12C4C - plan hits target center - Circle (radius 25.00) | 0.00 | 0.00 | 8,445.00 | -220.72 | 102.01 | 14,518,386.20 | 2,091,697.94 | 39° 58' 4.001 N | 109° 23' 21.880 W |

| Casing Points | | | | | |
|----------------|----------------|--------|-----------------|---------------|--|
| Measured Depth | Vertical Depth | Name | Casing Diameter | Hole Diameter | |
| (ft) | (ft) | | (in) | (in) | |
| 2,155.30 | 2,144.00 | 8 5/8" | 8.625 | 11.000 | |

| Formations | | | | | |
|----------------|----------------|-------------|-----------|-----|---------------|
| Measured Depth | Vertical Depth | Name | Lithology | Dip | Dip Direction |
| (ft) | (ft) | | | (°) | (°) |
| 1,065.75 | 1,062.00 | GREEN RIVER | | | |
| 4,107.50 | 4,094.00 | WASATCH | | | |
| 6,264.50 | 6,251.00 | MESAVERDE | | | |

| Plan Annotations | | | | | |
|------------------|----------------|-------------------|--------|----------------------------------|--|
| Measured Depth | Vertical Depth | Local Coordinates | | Comment | |
| (ft) | (ft) | +N/-S | +E/-W | | |
| (ft) | (ft) | (ft) | (ft) | | |
| 300.00 | 300.00 | 0.00 | 0.00 | Start Build 2.00 | |
| 637.50 | 636.72 | -18.03 | 8.33 | Start 1706.68 hold at 637.50 MD | |
| 2,344.18 | 2,331.57 | -200.12 | 92.49 | Start Drop -1.75 | |
| 2,729.89 | 2,716.39 | -220.72 | 102.01 | Start 5728.61 hold at 2729.89 MD | |
| 8,458.50 | 8,445.00 | -220.72 | 102.01 | TD at 8458.50 | |

NBU 1022-12C4BS/ 1022-12C4CS/
 1022-12D1BS/ 1022-12D1CS
 1022-12D4BS/ 1022-12D4CS

Surface Use Plan of Operations
 1 of 9

| NBU 1022-12C4BS | | | |
|------------------------|---------------------|------|-----|
| Surface: | 827 FNL / 2020 FWL | NENW | Lot |
| BHL: | 745 FNL / 2134 FWL | NENW | Lot |
| NBU 1022-12C4CS | | | |
| Surface: | 855 FNL / 2031 FWL | NENW | Lot |
| BHL: | 1076 FNL / 2135 FWL | NENW | Lot |
| NBU 1022-12D1BS | | | |
| Surface: | 809 FNL / 2013 FWL | NENW | Lot |
| BHL: | 260 FNL / 823 FWL | NWNW | Lot |
| NBU 1022-12D1CS | | | |
| Surface: | 818 FNL / 2016 FWL | NENW | Lot |
| BHL: | 579 FNL / 819 FWL | NWNW | Lot |
| NBU 1022-12D4BS | | | |
| Surface: | 837 FNL / 2024 FWL | NENW | Lot |
| BHL: | 910 FNL / 819 FWL | NWNW | Lot |
| NBU 1022-12D4CS | | | |
| Surface: | 846 FNL / 2027 FWL | NENW | Lot |
| BHL: | 1241 FNL / 820 FWL | NWNW | Lot |

Pad: NBU 1022-12C PAD

Section 12 T10S R22E

Mineral Lease: UT ST UO 01197-A ST

Uintah County, Utah

Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

NBU 1022-12C4BS/ 1022-12C4CS/
1022-12D1BS/ 1022-12D1CS
1022-12D4BS/ 1022-12D4CS

Surface Use Plan of Operations
2 of 9

A. Existing Roads:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

No new access road is proposed. (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the NBU 632-12E. The NBU 632-12E well location is a vertical producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of September 7, 2011

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 2,765'$ and the individual segments are broken up as follows:

- $\pm 490'$ (0.1 miles) –New 6” buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 165'$ (0.03 miles) –New 6” buried gas pipeline from the edge of pad to road intersection to tie-in to the proposed 10” buried pipeline. Please refer to Topo D & D2.
- $\pm 1,360'$ (0.3 miles) –New 10” buried gas pipeline from the road intersection to tie-in to the proposed 16” buried pipeline at the county road intersection. Please refer to Topo D & D2.
- $\pm 535'$ (0.1 miles) –New 16” buried gas pipeline to replace existing 8” gas pipeline from the tie-in at the existing County Road Intersection to the tie-in at the proposed 1022-12B Intersection 16” gas pipeline. Please refer to Topo D & D2.
- $\pm 215'$ (0.04 miles) –New 16” buried gas pipeline to replace existing 8” gas pipeline from the proposed 1022-12B Intersection 16” gas pipeline to the tie-in at the existing 16” gas pipeline. Please refer to Topo D & D2.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 2,230'$ and the individual segments are broken up as follows:

- $\pm 490'$ (0.09 miles) –New 6” buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 1,525'$ (0.03 miles) –New 6” buried liquid pipeline from the edge of pad to the existing access road intersection traveling east to the County Road Crossing. Please refer to Topo D & D2.
- $\pm 215'$ (0.04 miles) –New 6” buried liquid pipeline from the tie-in at the existing County Road intersection to the White River Tank Battery. Please refer to Topo D & D2.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

NBU 1022-12C4BS/ 1022-12C4CS/
1022-12D1BS/ 1022-12D1CS
1022-12D4BS/ 1022-12D4CS

Surface Use Plan of Operations
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Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E
Ouray #1 SWD in Sec. 1 T9S R21E
NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 33 T9S R21E
NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification.)

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20 mil or thicker. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

NBU 1022-12C4BS/ 1022-12C4CS/
1022-12D1BS/ 1022-12D1CS
1022-12D4BS/ 1022-12D4CS

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

L. Other Information:

None

NBU 1022-12C4BS/ 1022-12C4CS/
1022-12D1BS/ 1022-12D1CS
1022-12D4BS/ 1022-12D4CS

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M. Lessee's or Operators' Representative & Certification:

Gina T. Becker
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6086

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.



Gina T. Becker

September 7, 2011

Date



Joseph D. Johnson
1099 18TH STREET STE. 1800 • DENVER, CO
80202
720-929-6708 • FAX 720-929-7708
E-MAIL: JOE.JOHNSON@ANADARKO.COM

September 15, 2011

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 1022-12C4CS
10S-22E-Sec. 12
NENW/NENW
Surface: 855' FNL, 2031' FWL
Bottom Hole: 1076' FNL, 2135' FWL
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1022-12C4CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

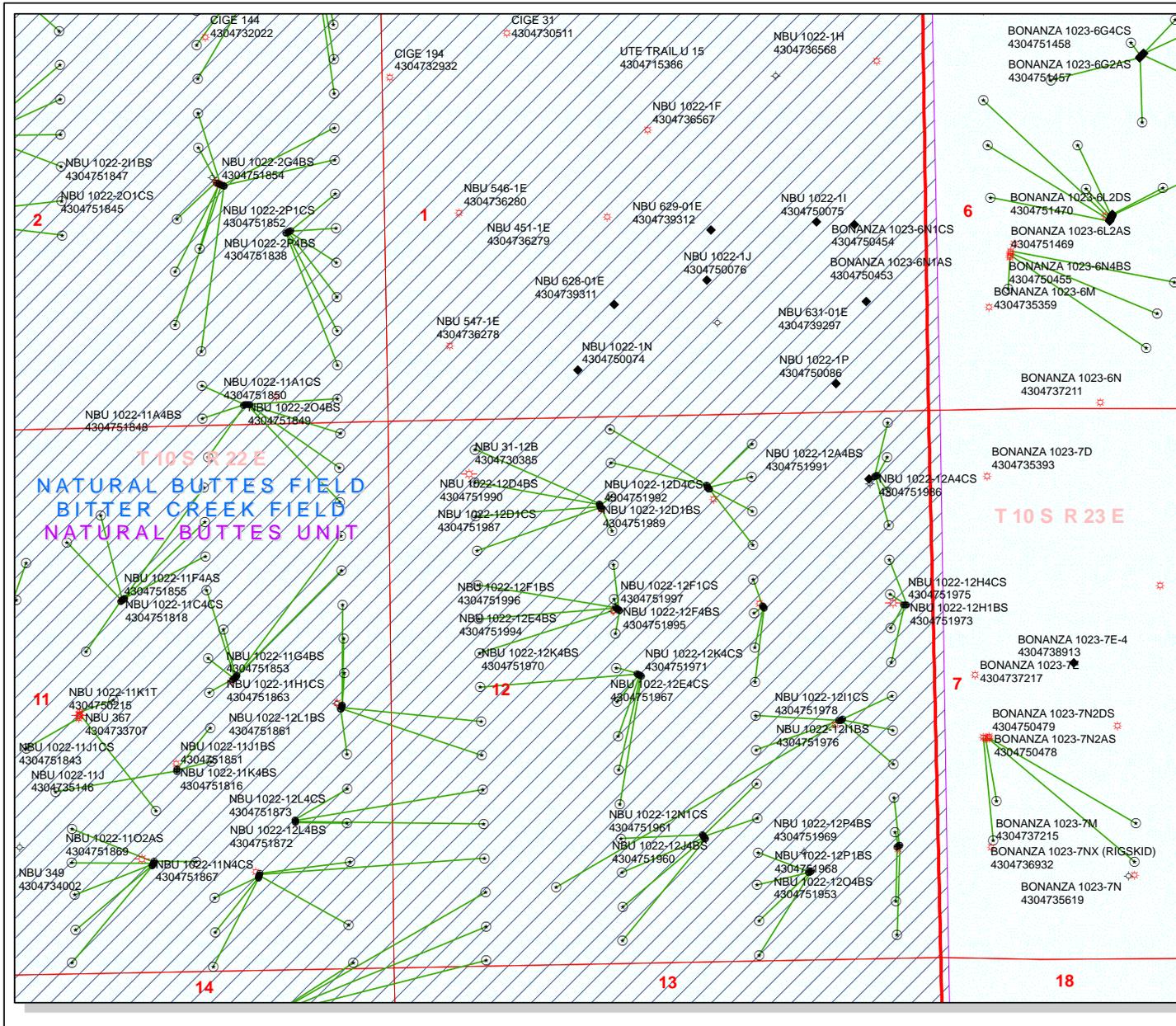
Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

A handwritten signature in blue ink, appearing to read 'Joe D. Johnson', with a horizontal line underneath.

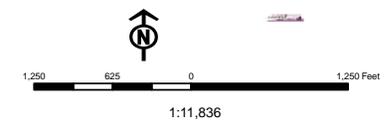
Joseph D. Johnson
Landman



API Number: 4304751985
Well Name: NBU 1022-12C4CS
Township T1.0 Range R2.2 Section 12
Meridian: SLBM
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason

| Units | Wells Query Status |
|--------------|------------------------------------|
| ACTIVE | APD - Approved Permit |
| EXPLORATORY | DRL - Spudded (Drilling Commenced) |
| GAS STORAGE | GIW - Gas Injection |
| NF PP OIL | GS - Gas Storage |
| NF SECONDARY | LA - Location Abandoned |
| PI OIL | LOC - New Location |
| PP GAS | OP - Operation Suspended |
| PP GEOTHERM | PA - Plugged Abandoned |
| PP OIL | PGW - Producing Gas Well |
| SECONDARY | POW - Producing Oil Well |
| TERMINATED | RET - Returned APD |
| Unknown | SGW - Shut-in Gas Well |
| ABANDONED | SOW - Shut-in Oil Well |
| ACTIVE | TA - Temp. Abandoned |
| COMBINED | TW - Test Well |
| INACTIVE | WDW - Water Disposal |
| STORAGE | WIW - Water Injection Well |
| TERMINATED | WSW - Water Supply Well |
| Sections | |
| Township | |



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

September 19, 2011

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2011 within the Natural Buttes Unit, Uintah County, Utah.

| API # | WELL NAME | LOCATION |
|----------------------------------|-----------------|--|
| (Proposed PZ WASATCH-MESA VERDE) | | |
| NBU 1022-12H PAD | | |
| 43-047-51941 | NBU 1022-12H4BS | Sec 12 T10S R22E 1846 FNL 0361 FEL BHL Sec 12 T10S R22E 2071 FNL 0491 FEL |
| 43-047-51942 | NBU 1022-12H1CS | Sec 12 T10S R22E 1843 FNL 0341 FEL BHL Sec 12 T10S R22E 1740 FNL 0491 FEL |
| 43-047-51973 | NBU 1022-12H1BS | Sec 12 T10S R22E 1842 FNL 0331 FEL BHL Sec 12 T10S R22E 1408 FNL 0491 FEL |
| 43-047-51975 | NBU 1022-12H4CS | Sec 12 T10S R22E 1845 FNL 0351 FEL BHL Sec 12 T10S R22E 2402 FNL 0492 FEL |
| NBU 1022-12O PAD | | |
| 43-047-51943 | NBU 1022-12N4BS | Sec 12 T10S R22E 1224 FSL 2329 FEL BHL Sec 12 T10S R22E 0580 FSL 2150 FWL |
| 43-047-51945 | NBU 1022-12N4CS | Sec 12 T10S R22E 1216 FSL 2323 FEL BHL Sec 12 T10S R22E 0251 FSL 2141 FWL |
| 43-047-51956 | NBU 1022-12J4CS | Sec 12 T10S R22E 1240 FSL 2341 FEL BHL Sec 12 T10S R22E 1409 FSL 1817 FEL |
| 43-047-51959 | NBU 1022-12N1BS | Sec 12 T10S R22E 1257 FSL 2352 FEL BHL Sec 12 T10S R22E 1242 FSL 2147 FWL |
| 43-047-51960 | NBU 1022-12J4BS | Sec 12 T10S R22E 1249 FSL 2346 FEL BHL Sec 12 T10S R22E 1740 FSL 1816 FEL |

RECEIVED: September 20, 2011

| API # | WELL NAME | LOCATION |
|----------------------------------|-----------------|--|
| (Proposed PZ WASATCH-MESA VERDE) | | |
| 43-047-51961 | NBU 1022-12N1CS | Sec 12 T10S R22E 1232 FSL 2335 FEL BHL Sec 12 T10S R22E 0911 FSL 2149 FWL |
| NBU 1022-12B PAD | | |
| 43-047-51944 | NBU 1022-12B1BS | Sec 12 T10S R22E 0668 FNL 2232 FEL BHL Sec 12 T10S R22E 0259 FNL 1797 FEL |
| 43-047-51979 | NBU 1022-12C1BS | Sec 12 T10S R22E 0651 FNL 2244 FEL BHL Sec 12 T10S R22E 0089 FNL 2138 FWL |
| 43-047-51980 | NBU 1022-12B1CS | Sec 12 T10S R22E 0676 FNL 2227 FEL BHL Sec 12 T10S R22E 0579 FNL 1806 FEL |
| 43-047-51981 | NBU 1022-12C1CS | Sec 12 T10S R22E 0660 FNL 2238 FEL BHL Sec 12 T10S R22E 0414 FNL 2133 FWL |
| 43-047-51982 | NBU 1022-12B4BS | Sec 12 T10S R22E 0684 FNL 2221 FEL BHL Sec 12 T10S R22E 0910 FNL 1807 FEL |
| 43-047-51983 | NBU 1022-12B4CS | Sec 12 T10S R22E 0692 FNL 2215 FEL BHL Sec 12 T10S R22E 1241 FNL 1808 FEL |
| NBU 1022-12P PAD | | |
| 43-047-51947 | NBU 1022-12P4CS | Sec 12 T10S R22E 1115 FSL 0442 FEL BHL Sec 12 T10S R22E 0246 FSL 0491 FEL |
| 43-047-51962 | NBU 1022-12I4CS | Sec 12 T10S R22E 1112 FSL 0451 FEL BHL Sec 12 T10S R22E 1574 FSL 0493 FEL |
| 43-047-51968 | NBU 1022-12P1BS | Sec 12 T10S R22E 1109 FSL 0461 FEL BHL Sec 12 T10S R22E 1240 FSL 0489 FEL |
| 43-047-51969 | NBU 1022-12P4BS | Sec 12 T10S R22E 1105 FSL 0470 FEL BHL Sec 12 T10S R22E 0580 FSL 0494 FEL |
| NBU 1022-12P2 PAD | | |
| 43-047-51949 | NBU 1022-12O1BS | Sec 12 T10S R22E 0877 FSL 1322 FEL BHL Sec 12 T10S R22E 1077 FSL 1818 FEL |
| 43-047-51950 | NBU 1022-12O1CS | Sec 12 T10S R22E 0873 FSL 1331 FEL BHL Sec 12 T10S R22E 0761 FSL 1834 FEL |
| 43-047-51953 | NBU 1022-12O4BS | Sec 12 T10S R22E 0881 FSL 1313 FEL BHL Sec 12 T10S R22E 0415 FSL 1820 FEL |
| 43-047-51954 | NBU 1022-12O4CS | Sec 12 T10S R22E 0885 FSL 1304 FEL BHL Sec 12 T10S R22E 0082 FSL 1828 FEL |
| NBU 1022-12A PAD | | |
| 43-047-51951 | NBU 1022-12A1BS | Sec 12 T10S R22E 0598 FNL 0621 FEL BHL Sec 12 T10S R22E 0081 FNL 0481 FEL |
| 43-047-51952 | NBU 1022-12A1CS | Sec 12 T10S R22E 0591 FNL 0592 FEL BHL Sec 12 T10S R22E 0414 FNL 0490 FEL |

| API # | WELL NAME | | | LOCATION | | | | | | |
|----------------------------------|-----------------|-----|----|----------|------|------|-----|------|-----|--|
| (Proposed PZ WASATCH-MESA VERDE) | | | | | | | | | | |
| 43-047-51986 | NBU 1022-12A4CS | Sec | 12 | T10S | R22E | 0596 | FNL | 0611 | FEL | |
| | BHL | Sec | 12 | T10S | R22E | 1077 | FNL | 0491 | FEL | |
| 43-047-51991 | NBU 1022-12A4BS | Sec | 12 | T10S | R22E | 0593 | FNL | 0601 | FEL | |
| | BHL | Sec | 12 | T10S | R22E | 0746 | FNL | 0490 | FEL | |
| NBU 1022-12I PAD | | | | | | | | | | |
| 43-047-51955 | NBU 1022-12J1CS | Sec | 12 | T10S | R22E | 2333 | FSL | 1011 | FEL | |
| | BHL | Sec | 12 | T10S | R22E | 2071 | FSL | 1815 | FEL | |
| 43-047-51957 | NBU 1022-12J1BS | Sec | 12 | T10S | R22E | 2337 | FSL | 1002 | FEL | |
| | BHL | Sec | 12 | T10S | R22E | 2402 | FSL | 1814 | FEL | |
| 43-047-51958 | NBU 1022-12I4BS | Sec | 12 | T10S | R22E | 2341 | FSL | 0993 | FEL | |
| | BHL | Sec | 12 | T10S | R22E | 1905 | FSL | 0493 | FEL | |
| 43-047-51976 | NBU 1022-12I1BS | Sec | 12 | T10S | R22E | 2350 | FSL | 0974 | FEL | |
| | BHL | Sec | 12 | T10S | R22E | 2568 | FSL | 0492 | FEL | |
| 43-047-51978 | NBU 1022-12I1CS | Sec | 12 | T10S | R22E | 2345 | FSL | 0984 | FEL | |
| | BHL | Sec | 12 | T10S | R22E | 2237 | FSL | 0492 | FEL | |
| NBU 1022-12G PAD | | | | | | | | | | |
| 43-047-51963 | NBU 1022-12G1CS | Sec | 12 | T10S | R22E | 1833 | FNL | 1721 | FEL | |
| | BHL | Sec | 12 | T10S | R22E | 1904 | FNL | 1810 | FEL | |
| 43-047-51972 | NBU 1022-12G4BS | Sec | 12 | T10S | R22E | 1841 | FNL | 1715 | FEL | |
| | BHL | Sec | 12 | T10S | R22E | 2235 | FNL | 1812 | FEL | |
| 43-047-51974 | NBU 1022-12G1BS | Sec | 12 | T10S | R22E | 1826 | FNL | 1727 | FEL | |
| | BHL | Sec | 12 | T10S | R22E | 1572 | FNL | 1809 | FEL | |
| 43-047-51977 | NBU 1022-12G4CS | Sec | 12 | T10S | R22E | 1849 | FNL | 1709 | FEL | |
| | BHL | Sec | 12 | T10S | R22E | 2566 | FNL | 1813 | FEL | |
| NBU 1022-12F4 PAD | | | | | | | | | | |
| 43-047-51964 | NBU 1022-12F4CS | Sec | 12 | T10S | R22E | 2462 | FNL | 2342 | FWL | |
| | BHL | Sec | 12 | T10S | R22E | 2401 | FNL | 2141 | FWL | |
| 43-047-51965 | NBU 1022-12K1BS | Sec | 12 | T10S | R22E | 2473 | FNL | 2359 | FWL | |
| | BHL | Sec | 12 | T10S | R22E | 2567 | FSL | 2142 | FWL | |
| 43-047-51966 | NBU 1022-12K1CS | Sec | 12 | T10S | R22E | 2479 | FNL | 2367 | FWL | |
| | BHL | Sec | 12 | T10S | R22E | 2236 | FSL | 2144 | FWL | |
| 43-047-51967 | NBU 1022-12E4CS | Sec | 12 | T10S | R22E | 2467 | FNL | 2350 | FWL | |
| | BHL | Sec | 12 | T10S | R22E | 2565 | FNL | 0822 | FWL | |
| 43-047-51970 | NBU 1022-12K4BS | Sec | 12 | T10S | R22E | 2484 | FNL | 2375 | FWL | |
| | BHL | Sec | 12 | T10S | R22E | 1904 | FSL | 2145 | FWL | |
| 43-047-51971 | NBU 1022-12K4CS | Sec | 12 | T10S | R22E | 2490 | FNL | 2384 | FWL | |
| | BHL | Sec | 12 | T10S | R22E | 1573 | FSL | 2146 | FWL | |

| API # | WELL NAME | LOCATION |
|-------|-----------|----------|
|-------|-----------|----------|

(Proposed PZ WASATCH-MESA VERDE)

NBU 1022-12CPAD

| | | |
|--------------|-----------------|------------------------------------|
| 43-047-51984 | NBU 1022-12C4BS | Sec 12 T10S R22E 0827 FNL 2020 FWL |
| | BHL | Sec 12 T10S R22E 0745 FNL 2134 FWL |

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|--------------|-----------------|------------------------------------|
| 43-047-51985 | NBU 1022-12C4CS | Sec 12 T10S R22E 0855 FNL 2031 FWL |
| | BHL | Sec 12 T10S R22E 1076 FNL 2135 FWL |

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|--------------|-----------------|------------------------------------|
| 43-047-51987 | NBU 1022-12D1CS | Sec 12 T10S R22E 0818 FNL 2016 FWL |
| | BHL | Sec 12 T10S R22E 0579 FNL 0819 FWL |

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|--------------|-----------------|------------------------------------|
| 43-047-51989 | NBU 1022-12D1BS | Sec 12 T10S R22E 0809 FNL 2013 FWL |
| | BHL | Sec 12 T10S R22E 0260 FNL 0823 FWL |

| | | |
|--------------|-----------------|------------------------------------|
| 43-047-51990 | NBU 1022-12D4BS | Sec 12 T10S R22E 0837 FNL 2024 FWL |
| | BHL | Sec 12 T10S R22E 0910 FNL 0819 FWL |

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|--------------|-----------------|------------------------------------|
| 43-047-51992 | NBU 1022-12D4CS | Sec 12 T10S R22E 0846 FNL 2027 FWL |
| | BHL | Sec 12 T10S R22E 1241 FNL 0820 FWL |

NBU 1022-12FPAD

| | | |
|--------------|-----------------|------------------------------------|
| 43-047-51988 | NBU 1022-12E1BS | Sec 12 T10S R22E 1818 FNL 2146 FWL |
| | BHL | Sec 12 T10S R22E 1572 FNL 0820 FWL |

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|--------------|-----------------|------------------------------------|
| 43-047-51993 | NBU 1022-12E1CS | Sec 12 T10S R22E 1824 FNL 2154 FWL |
| | BHL | Sec 12 T10S R22E 1903 FNL 0821 FWL |

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|--------------|-----------------|------------------------------------|
| 43-047-51994 | NBU 1022-12E4BS | Sec 12 T10S R22E 1835 FNL 2170 FWL |
| | BHL | Sec 12 T10S R22E 2234 FNL 0821 FWL |

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|--------------|-----------------|------------------------------------|
| 43-047-51995 | NBU 1022-12F4BS | Sec 12 T10S R22E 1847 FNL 2187 FWL |
| | BHL | Sec 12 T10S R22E 2070 FNL 2140 FWL |

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|--------------|-----------------|------------------------------------|
| 43-047-51996 | NBU 1022-12F1BS | Sec 12 T10S R22E 1841 FNL 2179 FWL |
| | BHL | Sec 12 T10S R22E 1407 FNL 2137 FWL |

| | | |
|--------------|-----------------|------------------------------------|
| 43-047-51997 | NBU 1022-12F1CS | Sec 12 T10S R22E 1830 FNL 2162 FWL |
| | BHL | Sec 12 T10S R22E 1739 FNL 2138 FWL |

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
 DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals,
 email=Michael_Coulthard@blm.gov, c=US
 Date: 2011.09.19 14:47:24 -0600

bcc: File - Natural Buttes Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron
 Fluid Chron

MCoulthard:mc:9-19-11

RECEIVED: September 20, 2011

From: Jim Davis
To: Hill, Brad; Mason, Diana
CC: Bonner, Ed; Garrison, LaVonne; Julie Jacobsen
Date: 11/28/2011 3:44 PM
Subject: APD approvals (Kerr McGee in 10S 22E Sec12)

The following APD have been approved by SITLA including arch clearance. Construction of these locations will need to be monitored by a paleontologist as recommended in the paleo survey reports. Kerr McGee, please acknowledge this stipulation with an email response. Thanks.

4304751984 NBU 1022-12C4BS
4304751985 NBU 1022-12C4CS
4304751987 NBU 1022-12D1CS
4304751989 NBU 1022-12D1BS
4304751990 NBU 1022-12D4BS
4304751992 NBU 1022-12D4CS
4304751988 NBU 1022-12E1BS
4304751993 NBU 1022-12E1CS
4304751994 NBU 1022-12E4BS
4304751995 NBU 1022-12F4BS
4304751996 NBU 1022-12F1BS
4304751997 NBU 1022-12F1CS

-Jim Davis

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156

| | | | | |
|--|---|-------|--|--|
| Well Name | KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-12C4C | | | |
| String | SURF | PROD | | |
| Casing Size(") | 8.625 | 4.500 | | |
| Setting Depth (TVD) | 2129 | 8446 | | |
| Previous Shoe Setting Depth (TVD) | 40 | 2129 | | |
| Max Mud Weight (ppg) | 8.3 | 12.5 | | |
| BOPE Proposed (psi) | 500 | 5000 | | |
| Casing Internal Yield (psi) | 3390 | 7780 | | |
| Operators Max Anticipated Pressure (psi) | 5405 | 12.3 | | |

| | | | |
|---|--|--------------|--|
| Calculations | SURF String | 8.625 | " |
| Max BHP (psi) | .052*Setting Depth*MW= | 919 | |
| | | | BOPE Adequate For Drilling And Setting Casing at Depth? |
| MASP (Gas) (psi) | Max BHP-(0.12*Setting Depth)= | 664 | NO <input type="text" value="air drill"/> |
| MASP (Gas/Mud) (psi) | Max BHP-(0.22*Setting Depth)= | 451 | YES <input type="text" value="OK"/> |
| | | | *Can Full Expected Pressure Be Held At Previous Shoe? |
| Pressure At Previous Shoe | Max BHP-.22*(Setting Depth - Previous Shoe Depth)= | 459 | NO <input type="text" value="Reasonable for area"/> |
| Required Casing/BOPE Test Pressure= | | 2129 | psi |
| *Max Pressure Allowed @ Previous Casing Shoe= | | 40 | psi *Assumes 1psi/ft frac gradient |

| | | | |
|---|--|--------------|--|
| Calculations | PROD String | 4.500 | " |
| Max BHP (psi) | .052*Setting Depth*MW= | 5490 | |
| | | | BOPE Adequate For Drilling And Setting Casing at Depth? |
| MASP (Gas) (psi) | Max BHP-(0.12*Setting Depth)= | 4476 | YES <input type="text"/> |
| MASP (Gas/Mud) (psi) | Max BHP-(0.22*Setting Depth)= | 3632 | YES <input type="text" value="OK"/> |
| | | | *Can Full Expected Pressure Be Held At Previous Shoe? |
| Pressure At Previous Shoe | Max BHP-.22*(Setting Depth - Previous Shoe Depth)= | 4100 | NO <input type="text" value="Reasonable"/> |
| Required Casing/BOPE Test Pressure= | | 5000 | psi |
| *Max Pressure Allowed @ Previous Casing Shoe= | | 2129 | psi *Assumes 1psi/ft frac gradient |

| | | | |
|---|--|--|--|
| Calculations | String | | " |
| Max BHP (psi) | .052*Setting Depth*MW= | | |
| | | | BOPE Adequate For Drilling And Setting Casing at Depth? |
| MASP (Gas) (psi) | Max BHP-(0.12*Setting Depth)= | | NO <input type="text"/> |
| MASP (Gas/Mud) (psi) | Max BHP-(0.22*Setting Depth)= | | NO <input type="text"/> |
| | | | *Can Full Expected Pressure Be Held At Previous Shoe? |
| Pressure At Previous Shoe | Max BHP-.22*(Setting Depth - Previous Shoe Depth)= | | NO <input type="text"/> |
| Required Casing/BOPE Test Pressure= | | | psi |
| *Max Pressure Allowed @ Previous Casing Shoe= | | | psi *Assumes 1psi/ft frac gradient |

| | | | |
|-------------------------------------|--|--|--|
| Calculations | String | | " |
| Max BHP (psi) | .052*Setting Depth*MW= | | |
| | | | BOPE Adequate For Drilling And Setting Casing at Depth? |
| MASP (Gas) (psi) | Max BHP-(0.12*Setting Depth)= | | NO <input type="text"/> |
| MASP (Gas/Mud) (psi) | Max BHP-(0.22*Setting Depth)= | | NO <input type="text"/> |
| | | | *Can Full Expected Pressure Be Held At Previous Shoe? |
| Pressure At Previous Shoe | Max BHP-.22*(Setting Depth - Previous Shoe Depth)= | | NO <input type="text"/> |
| Required Casing/BOPE Test Pressure= | | | psi |

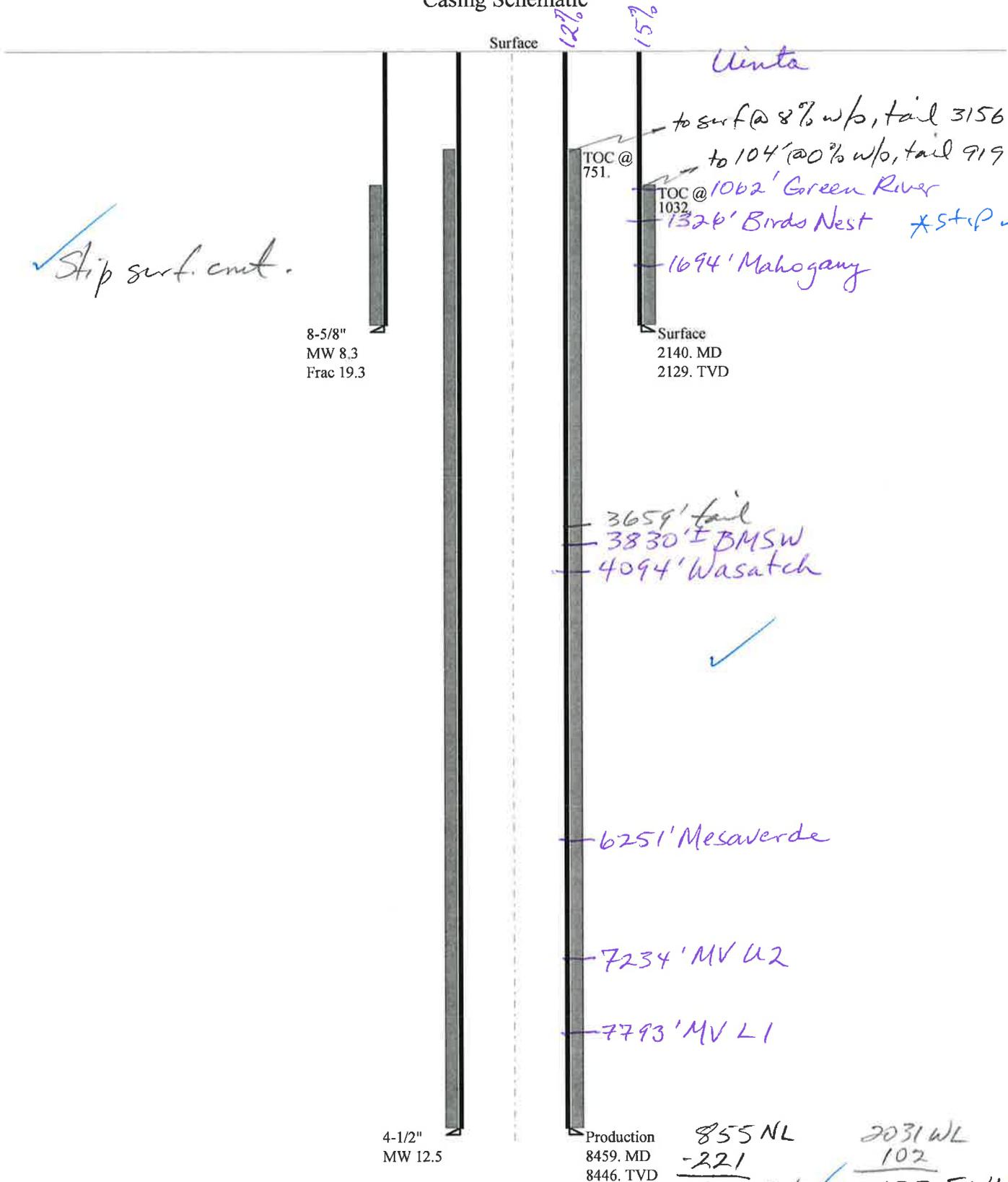
API Well Number: 43047519850000

*Max Pressure Allowed @ Previous Casing Shoe=

psi *Assumes 1psi/ft frac gradient

43047519850000 NBU 1022-12C4CS

Casing Schematic



✓ Strip surf. cement.

8-5/8"
MW 8.3
Frac 19.3

4-1/2"
MW 12.5

Production
8459. MD
8446. TVD

| | |
|-------------------|-------------------|
| 855 NL | 2031 WL |
| -221 | 102 |
| <u>1076 FNL</u> ✓ | <u>2133 FWL</u> ✓ |

NE NW Sec 12-10S-22E ^{OK}

| | | |
|--------------|---|-----------------------------|
| Well name: | 43047519850000 NBU 1022-12C4CS | |
| Operator: | KERR-MCGEE OIL & GAS ONSHORE, L.P. | |
| String type: | Surface | Project ID: 43-047-51985 |
| Location: | UINTAH COUNTY | |

Design parameters:

Collapse

Mud weight: 8.330 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 104 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft
Cement top: 1,032 ft

Burst

Max anticipated surface pressure: 1,883 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,139 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 1,877 ft

Directional Info - Build & Drop

Kick-off point 300 ft
Departure at shoe: 196 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 6.75 °

Re subsequent strings:

Next setting depth: 8,459 ft
Next mud weight: 12.500 ppg
Next setting BHP: 5,493 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,140 ft
Injection pressure: 2,140 psi

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Est. Cost (\$) |
|---------|---------------------|-------------------------|-------------------------|------------------|----------------------|----------------------|---------------------|-------------------------|-----------------------|
| 1 | 2140 | 8.625 | 28.00 | I-55 | LT&C | 2129 | 2140 | 7.892 | 84744 |
| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
| 1 | 921 | 1880 | 2.041 | 2139 | 3390 | 1.59 | 59.6 | 348 | 5.84 J |

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: December 1, 2011
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2129 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

| | | | |
|--------------|---|-------------|--------------|
| Well name: | 43047519850000 NBU 1022-12C4CS | | |
| Operator: | KERR-MCGEE OIL & GAS ONSHORE, L.P. | | |
| String type: | Production | Project ID: | 43-047-51985 |
| Location: | UINTAH COUNTY | | |

Design parameters:

Collapse

Mud weight: 12.500 ppg
 Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 192 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft
 Cement top: 751 ft

Burst

Max anticipated surface pressure: 3,626 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP 5,484 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
 8 Round LTC: 1.80 (J)
 Buttress: 1.60 (J)
 Premium: 1.50 (J)
 Body yield: 1.60 (B)

Tension is based on air weight.
 Neutral point: 6,881 ft

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 243 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 0 °

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Est. Cost (\$) |
|---------|---------------------|-------------------------|-------------------------|------------------|----------------------|----------------------|---------------------|-------------------------|-----------------------|
| 1 | 8459 | 4.5 | 11.60 | I-80 | LT&C | 8446 | 8459 | 3.875 | 111659 |
| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
| 1 | 5484 | 6360 | 1.160 | 5484 | 7780 | 1.42 | 98 | 212 | 2.16 J |

Prepared by: Helen Sadik-Macdonald
 Div of Oil, Gas & Mining

Phone: 801 538-5357
 FAX: 801-359-3940

Date: December 1, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8446 ft, a mud weight of 12.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 1022-12C4CS
API Number 43047519850000 **APD No** 4577 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 NENW **Sec** 12 **Tw** 10.0S **Rng** 22.0E 855 **FNL** 2031 **FWL**
GPS Coord (UTM) 637519 4425289 **Surface Owner**

Participants

Andy Lytle, Sheila Wopsock, Charles Chase, Grizz Oleen, Jaime Scharnowski, Doyle Holmes, (Kerr McGee). John Slaugh, Mitch Batty, (Timberline). Jim Davis (SITLA). Ben Williams (DWR). David Hackford, (DOGM).

Regional/Local Setting & Topography

The general area is in the southeast portion of the Natural Buttes Unit. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is 1800'. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 47.1 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads. Five wells, in addition to this one will be directionally drilled from this pad. (For a total of six new wells). There is one existing well on this pad. (The NBU 632-12E). At this time, the decision rather to PA or TA this well has not been made. This proposed location takes in an existing location, and very little new construction will be necessary except for digging the reserve pit. The existing access road will be adequate. The location runs in a north-south direction along the top of a flat topped ridge. This ridge breaks off sharply into rugged secondary canyons on the south and west sides. New construction will consist of approx. 50 feet on the east and west sides of the existing pad, and an additional 50 feet on the southeast side for reserve pit and excess cut stockpile. No drainage concerns exist, and no diversions will be needed. The pad as modified should be stable and should be a suitable location for seven wells, and is on the best site available in the immediate area.

Surface Use Plan

Current Surface Use

Grazing
Wildlife Habitat
Existing Well Pad

| New Road Miles | Well Pad | Src Const Material | Surface Formation |
|-----------------------|------------------------------------|---------------------------|--------------------------|
| 0 | Width 342 Length 415 | Onsite | UNTA |

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Prickly pear, wild onion, shadscale, mat saltbrush, Indian ricegrass, halogeton, pepper grass, annuals and curly Vegetation is a salt desert shrub type. Principal species present are cheatgrass, black sagebrush, stipa, mesquite grass.

Sheep, antelope, coyote, raptors, small mammals and birds.

Soil Type and Characteristics

Rocky sandy clay loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potential Observed?** N **Cultural Survey Run?** Y **Cultural Resources?** N

Reserve Pit

| Site-Specific Factors | Site Ranking | |
|--|---------------------|---------------------|
| Distance to Groundwater (feet) | 100 to 200 | 5 |
| Distance to Surface Water (feet) | >1000 | 0 |
| Dist. Nearest Municipal Well (ft) | >5280 | 0 |
| Distance to Other Wells (feet) | 300 to 1320 | 10 |
| Native Soil Type | High permeability | 20 |
| Fluid Type | Fresh Water | 5 |
| Drill Cuttings | Normal Rock | 0 |
| Annual Precipitation (inches) | | 0 |
| Affected Populations | | |
| Presence Nearby Utility Conduits | Not Present | 0 |
| | Final Score | 40 |
| | | 1 Sensitivity Level |

Characteristics / Requirements

Reserve pit will be 260' by 120' and 12' deep with two feet of freebore.

Closed Loop Mud Required? **Liner Required?** Y **Liner Thickness** 16 **Pit Underlayment Required?** Y

Other Observations / Comments

David Hackford
Evaluator

10/12/2011
Date / Time

Application for Permit to Drill Statement of Basis

12/12/2011

Utah Division of Oil, Gas and Mining

Page 1

| | | | | | |
|------------------|--|---------------|--------------------------|-------------------|------------|
| APD No | API WellNo | Status | Well Type | Surf Owner | CBM |
| 4577 | 43047519850000 | LOCKED | GW | S | No |
| Operator | KERR-MCGEE OIL & GAS ONSHORE, L.P. | | Surface Owner-APD | | |
| Well Name | NBU 1022-12C4CS | | Unit | NATURAL BUTTES | |
| Field | NATURAL BUTTES | | Type of Work | DRILL | |
| Location | NENW 12 10S 22E S 855 FNL 2031 FWL GPS Coord (UTM) | | | 637445E | 4425485N |

Geologic Statement of Basis

Kerr McGee proposes to set 2,140' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,830'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 12. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill
APD Evaluator

10/19/2011
Date / Time

Surface Statement of Basis

The general area is in the southeast portion of the Natural Buttes Unit. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is 1800'. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 47 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads. The existing access road will be adequate.

Six wells will be directionally drilled from this location. They are the NBU 1022-12C4BS, NBU 1022-12C4CS, NBU 1022-12D1BS, NBU 1022-12D1CS, NBU 1022-12D4BS and the NBU 1022-12D4CS. The existing location has one well. This well is the NBU 632-12E, and at this time the decision rather to PA or TA this well has not been made. The location is on a flat topped ridge that runs in a north-south direction. This ridge breaks off sharply into rugged secondary canyons on the south and west sides. No drainage concerns exist, and no diversions will be needed. The pad as modified should be stable and sufficient for seven wells, and is the best site for a location in the immediate area.

Excess material will be stockpiled on the east side of the location. Approx. 50' of additional construction will be necessary on the east and west sides of the original location.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA and Ben Williams with DWR were invited by email to the pre-site evaluation. Both were present. Kerr McGee personnel were told to consult with SITLA for reclamation standards including seeding mixes to be used.

David Hackford
Onsite Evaluator

10/12/2011
Date / Time

Conditions of Approval / Application for Permit to Drill

| | |
|-----------------|------------------|
| Category | Condition |
|-----------------|------------------|

RECEIVED: December 12, 2011

**Application for Permit to Drill
Statement of Basis**

12/12/2011

Utah Division of Oil, Gas and Mining

Page 2

Pits A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.

Pits The reserve pit should be located on the east side of the location.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 9/12/2011**API NO. ASSIGNED:** 43047519850000**WELL NAME:** NBU 1022-12C4CS**OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)**PHONE NUMBER:** 720 929-6086**CONTACT:** Gina Becker**PROPOSED LOCATION:** NENW 12 100S 220E**Permit Tech Review:** **SURFACE:** 0855 FNL 2031 FWL**Engineering Review:** **BOTTOM:** 1076 FNL 2135 FWL**Geology Review:** **COUNTY:** UINTAH**LATITUDE:** 39.96835**LONGITUDE:** -109.39059**UTM SURF EASTINGS:** 637445.00**NORTHINGS:** 4425485.00**FIELD NAME:** NATURAL BUTTES**LEASE TYPE:** 3 - State**LEASE NUMBER:** UT ST UO 01997-A ST**PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE**SURFACE OWNER:** 3 - State**COALBED METHANE:** NO**RECEIVED AND/OR REVIEWED:**

- PLAT
- Bond: STATE - 22013542
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: 43-8496
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

Commingle Approved**LOCATION AND SITING:**

- R649-2-3.
Unit: NATURAL BUTTES
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
Board Cause No: Cause 173-14
Effective Date: 12/2/1999
Siting: Suspends General Siting
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations:

- 3 - Commingle - ddoucet
- 5 - Statement of Basis - bhill
- 15 - Directional - dmason
- 17 - Oil Shale 190-5(b) - dmason
- 25 - Surface Casing - hmadonald

RECEIVED: December 12, 2011



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 1022-12C4CS
API Well Number: 43047519850000
Lease Number: UT ST UO 01997-A ST
Surface Owner: STATE
Approval Date: 12/12/2011

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:



For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:
UT ST UO 01197-A ST

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME:
UTU63047A

1. TYPE OF WELL OIL WELL GAS WELL OTHER _____

8. WELL NAME and NUMBER:
Multiple Well Locations

2. NAME OF OPERATOR:
Kerr-McGee Oil & Gas Onshore, L.P.

9. API NUMBER:

3. ADDRESS OF OPERATOR:
P.O. Box 173779 Denver CO 80217

PHONE NUMBER:
(720) 929-6086

10. FIELD AND POOL, OR W/LDCAT
Natural Buttes

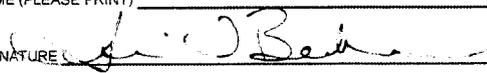
4. LOCATION OF WELL
FOOTAGES AT SURFACE: **Various Locations in T10S-R22E, Section 12** COUNTY: **Uintah**
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: **12 10S 22E 6** STATE: **UTAH**

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|--|---|---|---|
| <input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>4/23/2012</u> | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> REPERFORATE CURRENT FORMATION |
| <input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> SIDETRACK TO REPAIR WELL |
| | <input type="checkbox"/> CASING REPAIR | <input type="checkbox"/> NEW CONSTRUCTION | <input type="checkbox"/> TEMPORARILY ABANDON |
| | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> TUBING REPAIR |
| | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> VENT OR FLARE |
| | <input type="checkbox"/> CHANGE WELL NAME | <input type="checkbox"/> PLUG BACK | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> PRODUCTION (START/RESUME) | <input type="checkbox"/> WATER SHUT-OFF |
| | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input checked="" type="checkbox"/> OTHER: <u>Lease Number Correction</u> |
| | <input type="checkbox"/> CONVERT WELL TYPE | <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION | |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
Kerr-McGee is requesting approval to correct the lease number from UT ST UO 01997-A ST to UT ST UO 01197-A ST for various well locations. Please see attached well list.

Thank you!

NAME (PLEASE PRINT) Gina T Becker TITLE Senior Regulatory Analyst
SIGNATURE  DATE 4/23/2012

(This space for State use only)

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APR 24 2012

| | API UWI NO | WELL NAME | SL STATE | SL SECTION | SL TOWNSHIP | SL RANGE | SL COUNTY NAME | GOV LEASE NO | FEDERAL LEASE NO |
|----|------------|-----------------|----------|------------|-------------|----------|----------------|---------------------|------------------|
| 1 | 4304751951 | NBU 1022-12A1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 2 | 4304751952 | NBU 1022-12A1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 3 | 4304751991 | NBU 1022-12A4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 4 | 4304751986 | NBU 1022-12A4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 5 | 4304751944 | NBU 1022-12B1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 6 | 4304751980 | NBU 1022-12B1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 7 | 4304751982 | NBU 1022-12B4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 8 | 4304751983 | NBU 1022-12B4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 9 | 4304751979 | NBU 1022-12C1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 10 | 4304751981 | NBU 1022-12C1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 11 | 4304751984 | NBU 1022-12C4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 12 | 4304751985 | NBU 1022-12C4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 13 | 4304751989 | NBU 1022-12D1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 14 | 4304751987 | NBU 1022-12D1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 15 | 4304751990 | NBU 1022-12D4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 16 | 4304751992 | NBU 1022-12D4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 17 | 4304751988 | NBU 1022-12E1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 18 | 4304751993 | NBU 1022-12E1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 19 | 4304751994 | NBU 1022-12E4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 20 | 4304751996 | NBU 1022-12F1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 21 | 4304751997 | NBU 1022-12F1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 22 | 4304751995 | NBU 1022-12F4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 23 | 4304751967 | NBU 1022-12E4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 24 | 4304751964 | NBU 1022-12F4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 25 | 4304751965 | NBU 1022-12K1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 26 | 4304751966 | NBU 1022-12K1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 27 | 4304751970 | NBU 1022-12K4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 28 | 4304751971 | NBU 1022-12K4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 29 | 4304751974 | NBU 1022-12G1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 30 | 4304751963 | NBU 1022-12G1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 31 | 4304751972 | NBU 1022-12G4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 32 | 4304751977 | NBU 1022-12G4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 33 | 4304751973 | NBU 1022-12H1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 34 | 4304751942 | NBU 1022-12H1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 35 | 4304751941 | NBU 1022-12H4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 36 | 4304751975 | NBU 1022-12H4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 37 | 4304751976 | NBU 1022-12I1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 38 | 4304751978 | NBU 1022-12I1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 39 | 4304751958 | NBU 1022-12I4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 40 | 4304751957 | NBU 1022-12J1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 41 | 4304751955 | NBU 1022-12J1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 42 | 4304751960 | NBU 1022-12J4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 43 | 4304751956 | NBU 1022-12J4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 44 | 4304751959 | NBU 1022-12N1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 45 | 4304751961 | NBU 1022-12N1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 46 | 4304751943 | NBU 1022-12N4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 47 | 4304751945 | NBU 1022-12N4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 48 | 4304751962 | NBU 1022-12I4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 49 | 4304751968 | NBU 1022-12P1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |

| | API UWI NO | WELL NAME | SL STATE | SL SECTION | SL TOWNSHIP | SL RANGE | SL COUNTY NAME | GOV LEASE NO | FEDERAL LEASE NO |
|----|------------|-----------------|----------|------------|-------------|----------|----------------|---------------------|------------------|
| 50 | 4304751969 | NBU 1022-12P4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 51 | 4304751947 | NBU 1022-12P4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 52 | 4304751949 | NBU 1022-12O1BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 53 | 4304751950 | NBU 1022-12O1CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 54 | 4304751953 | NBU 1022-12O4BS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |
| 55 | 4304751954 | NBU 1022-12O4CS | UT | 12 | 10 | 22 | UINTAH | UT ST UO 01197-A ST | UTU63047A |

| | |
|--|---------------|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | FORM 9 |
| 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197- | |
| SUNDRY NOTICES AND REPORTS ON WELLS | |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | |
| 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: | |
| 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES | |
| 8. WELL NAME and NUMBER: NBU 1022-12C4CS | |
| 9. API NUMBER: 43047519850000 | |
| 9. FIELD and POOL or WILDCAT: NATURAL BUTTES | |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6511 | |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0855 FNL 2031 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S | |
| COUNTY: UINTAH | |
| STATE: UTAH | |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|--|--|---|---|
| <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> CASING REPAIR |
| <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> CHANGE WELL NAME |
| <input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 5/18/2012 | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE |
| <input type="checkbox"/> DRILLING REPORT Report Date: | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> NEW CONSTRUCTION |
| | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> PLUG BACK |
| | <input type="checkbox"/> PRODUCTION START OR RESUME | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
| | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL | <input type="checkbox"/> TEMPORARY ABANDON |
| | <input type="checkbox"/> TUBING REPAIR | <input type="checkbox"/> VENT OR FLARE | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> WATER SHUTOFF | <input type="checkbox"/> SI TA STATUS EXTENSION | <input type="checkbox"/> APD EXTENSION |
| | <input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> OTHER | OTHER: <input style="width: 100px;" type="text"/> |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU TRIPPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
 RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD
 WELL ON 05/18/2012 AT 1100 HRS.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 May 23, 2012

| | | |
|--|-------------------------------------|------------------------------------|
| NAME (PLEASE PRINT) Sheila Wopsock | PHONE NUMBER 435 781-7024 | TITLE Regulatory Analyst |
| SIGNATURE N/A | DATE 5/23/2012 | |

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
 Submitted By J. Scharnowske Phone Number 720.929.6304
 Well Name/Number NBU 1022-12C4CS
 Qtr/Qtr NENW Section 12 Township 10S Range 22E
 Lease Serial Number UT ST UO 01997-A ST
 API Number 4304751985

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 05/17/2012 14:00 HRS AM PM

Casing – Please report time casing run starts, not cementing times.

- Surface Casing
 Intermediate Casing
 Production Casing
 Liner
 Other

RECEIVED

MAY 16 2012

DIV. OF OIL, GAS & MINING

Date/Time 05/28/2012 08:00 HRS AM PM

BOPE

- Initial BOPE test at surface casing point
 BOPE test at intermediate casing point
 30 day BOPE test
 Other

Date/Time _____ AM PM

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT

435.828.0986 OR LOVEL YOUNG AT 435.781.7051

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
 Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078 Phone Number: (435) 781-7024

Well 1

| API Number | Well Name | | QQ | Sec | Twp | Rng | County |
|---|-----------------------|-------------------|-----------|-----|-----|----------------------------------|--------|
| 4304751990 | NBU 1022-12D4BS | | NENW | 12 | 10S | 22E | UINTAH |
| Action Code | Current Entity Number | New Entity Number | Spud Date | | | Entity Assignment Effective Date | |
| B | 99999 | 2900 | 5/17/2012 | | | 5/30/2012 | |
| Comments: MIRU TRIPPLE A BUCKET RIG. <i>wsmvd</i> SPUD WELL ON 05/17/2012 AT 2230 HRS. <i>BHL: nwnw</i> | | | | | | | |

Well 2

| API Number | Well Name | | QQ | Sec | Twp | Rng | County |
|---|-----------------------|-------------------|-----------|-----|-----|----------------------------------|--------|
| 4304751992 | NBU 1022-12D4CS | | NENW | 12 | 10S | 22E | UINTAH |
| Action Code | Current Entity Number | New Entity Number | Spud Date | | | Entity Assignment Effective Date | |
| B | 99999 | 2900 | 5/18/2012 | | | 5/30/2012 | |
| Comments: MIRU TRIPPLE A BUCKET RIG. <i>wsmvd</i> SPUD WELL ON 05/18/2012 AT 0800 HRS. <i>BHL: nwnw</i> | | | | | | | |

Well 3

| API Number | Well Name | | QQ | Sec | Twp | Rng | County |
|---|-----------------------|-------------------|-----------|-----|-----|----------------------------------|--------|
| 4304751985 | NBU 1022-12C4CS | | NENW | 12 | 10S | 22E | UINTAH |
| Action Code | Current Entity Number | New Entity Number | Spud Date | | | Entity Assignment Effective Date | |
| B | 99999 | 2900 | 5/18/2012 | | | 5/30/2012 | |
| Comments: MIRU TRIPPLE A BUCKET RIG. <i>wsmvd</i> SPUD WELL ON 05/18/2012 AT 1100 HRS. <i>BHL: nwnw</i> | | | | | | | |

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST

5/23/2012

Title

Date

RECEIVED

MAY 29 2012

Div. of Oil, Gas & Mining

| | |
|--|---|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | FORM 9 |
| SUNDRY NOTICES AND REPORTS ON WELLS | |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | |
| 1. TYPE OF WELL Gas Well | 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197- |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 | 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0855 FNL 2031 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S | 8. WELL NAME and NUMBER: NBU 1022-12C4CS |
| PHONE NUMBER: 720 929-6511 | 9. API NUMBER: 43047519850000 |
| 9. FIELD and POOL or WILDCAT: NATURAL BUTTES | COUNTY: Uintah |
| | STATE: UTAH |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|--|---|---|---|
| <input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 6/3/2012 | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> CASING REPAIR |
| <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: | <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> CHANGE WELL NAME |
| <input type="checkbox"/> SPUD REPORT Date of Spud: | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE |
| <input type="checkbox"/> DRILLING REPORT Report Date: | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> NEW CONSTRUCTION |
| | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> PLUG BACK |
| | <input type="checkbox"/> PRODUCTION START OR RESUME | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
| | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL | <input type="checkbox"/> TEMPORARY ABANDON |
| | <input type="checkbox"/> TUBING REPAIR | <input type="checkbox"/> VENT OR FLARE | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> WATER SHUTOFF | <input type="checkbox"/> SI TA STATUS EXTENSION | <input type="checkbox"/> APD EXTENSION |
| | <input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> OTHER | OTHER: <input style="width: 100px;" type="text"/> |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator requests approval for changes in the drilling plan. Specifically, the Operator requests approval for a FIT waiver, a closed loop drilling option and production casing change. All other aspects of the previously approved drilling plan will not change. Please see the attachment. Thank you.

**Approved by the
Utah Division of
Oil, Gas and Mining**

Date: June 26, 2012

By: *Derek Duff*

| | | |
|---|-------------------------------------|------------------------------------|
| NAME (PLEASE PRINT) Jaime Scharnowske | PHONE NUMBER 720 929-6304 | TITLE Regulatory Analyst |
| SIGNATURE N/A | DATE 6/3/2012 | |

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 1022-12C4CS**

Surface: 855 FNL / 2031 FWL NENW
 BHL: 1076 FNL / 2135 FWL NENW

Section 12 T10S R22E

Uintah County, Utah
 Mineral Lease: UT ST UO 01197-A ST

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

| <u>Formation</u> | <u>Depth</u> | <u>Resource</u> |
|------------------|--------------|-----------------|
| Uinta | 0 - Surface | |
| Green River | 1,062' | |
| Birds Nest | 1,326' | Water |
| Mahogany | 1,694' | Water |
| Wasatch | 4,094' | Gas |
| Mesaverde | 6,251' | Gas |
| Sego | 8,445' | Gas |
| TVD | 8,445' | |
| TD | 8,459' | |

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 8445' TVD, approximately equals
5,405 psi 0.64 psi/ft = actual bottomhole gradient

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,535 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

| | SIZE | INTERVAL | WT. | GR. | CPLG. | DESIGN FACTORS | | | |
|------------|--------|-----------------|-------|-------|-------|----------------|----------|---------|---------|
| | | | | | | BURST | LTC | | DQX |
| | | | | | | | COLLAPSE | TENSION | |
| CONDUCTOR | 14" | 0-40' | | | | 3,390 | 1,880 | 348,000 | N/A |
| SURFACE | 8-5/8" | 0 to 2,140 | 28.00 | IJ-55 | LTC | 2.53 | 1.88 | 6.63 | N/A |
| | | | | | | 7,780 | 6,350 | 223,000 | 267,035 |
| PRODUCTION | 4-1/2" | 0 to 5,000 | 11.60 | I-80 | DQX | 1.11 | 1.16 | | 3.36 |
| | | | | | | 7,780 | 6,350 | 223,000 | 267,035 |
| | 4-1/2" | 5,000 to 8,459' | 11.60 | I-80 | LTC | 1.11 | 1.16 | 6.87 | |

Surface casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe
Fracture at surface shoe with 0.1 psi/ft gas gradient above
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

| | FT. OF FILL | DESCRIPTION | SACKS | EXCESS | WEIGHT | YIELD |
|---|-----------------------------|--|---------|--------|--------|-------|
| SURFACE Option 1 | LEAD 500' | Premium cmt + 2% CaCl + 0.25 pps flocele | 180 | 60% | 15.80 | 1.15 |
| | TOP OUT CMT (6 jobs) 1,200' | 20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele | 270 | 0% | 15.80 | 1.15 |
| NOTE: If well will circulate water to surface, option 2 will be utilized | | | | | | |
| SURFACE Option 2 | LEAD 1,640' | 65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW | 150 | 35% | 11.00 | 3.82 |
| | TAIL 500' | Premium cmt + 2% CaCl + 0.25 pps flocele | 150 | 35% | 15.80 | 1.15 |
| | TOP OUT CMT as required | Premium cmt + 2% CaCl | as req. | | 15.80 | 1.15 |
| PRODUCTION | LEAD 3,589' | Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender | 280 | 35% | 12.00 | 3.38 |
| | TAIL 4,870' | 50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3 | 1,150 | 35% | 14.30 | 1.31 |

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained
*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

| | |
|------------|---|
| SURFACE | Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe |
| PRODUCTION | Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter. |

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

Nick Spence / Danny Showers / Chad Loesel

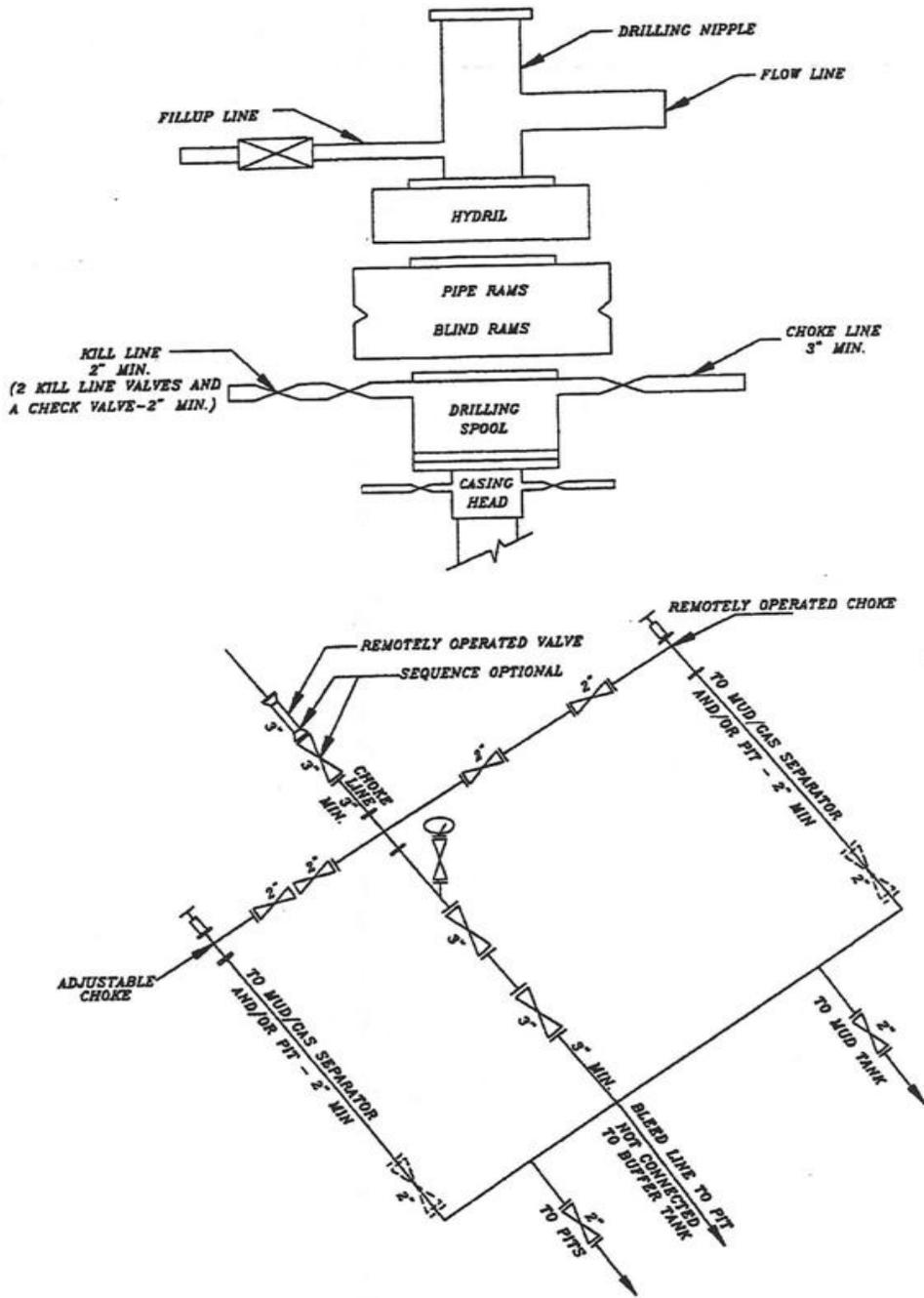
DATE:

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE:

EXHIBIT A NBU 1022-12C4CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

| | |
|--|---|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | FORM 9 |
| SUNDRY NOTICES AND REPORTS ON WELLS | |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | |
| 1. TYPE OF WELL Gas Well | 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197- |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 | 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES |
| PHONE NUMBER: 720 929-6511 | 8. WELL NAME and NUMBER: NBU 1022-12C4CS |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0855 FNL 2031 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S | 9. API NUMBER: 43047519850000 |
| | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES |
| | COUNTY: UINTAH |
| | STATE: UTAH |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|--|--|---|---|
| <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> CASING REPAIR |
| <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> CHANGE WELL NAME |
| <input type="checkbox"/> SPUD REPORT Date of Spud: | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE |
| <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/22/2012 | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> NEW CONSTRUCTION |
| | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> PLUG BACK |
| | <input type="checkbox"/> PRODUCTION START OR RESUME | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
| | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL | <input type="checkbox"/> TEMPORARY ABANDON |
| | <input type="checkbox"/> TUBING REPAIR | <input type="checkbox"/> VENT OR FLARE | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> WATER SHUTOFF | <input type="checkbox"/> SI TA STATUS EXTENSION | <input type="checkbox"/> APD EXTENSION |
| | <input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> OTHER | OTHER: <input style="width: 100px;" type="text"/> |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU AIR RIG ON 6/20/2012. DRILLED SURFACE HOLE TO 2280'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 June 26, 2012

| | | |
|---|-------------------------------------|--------------------------------------|
| NAME (PLEASE PRINT) Cara Mahler | PHONE NUMBER 720 929-6029 | TITLE Regulatory Analyst I |
| SIGNATURE N/A | DATE 6/25/2012 | |

| | |
|--|---|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | FORM 9 |
| SUNDRY NOTICES AND REPORTS ON WELLS | |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | |
| 1. TYPE OF WELL Gas Well | 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197- |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 | 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES |
| PHONE NUMBER: 720 929-6511 | 8. WELL NAME and NUMBER: NBU 1022-12C4CS |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0855 FNL 2031 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S | 9. API NUMBER: 43047519850000 |
| | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES |
| | COUNTY: Uintah |
| | STATE: UTAH |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|--|--|---|---|
| <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> CASING REPAIR |
| <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> CHANGE WELL NAME |
| <input type="checkbox"/> SPUD REPORT Date of Spud: | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE |
| <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 7/29/2012 | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> NEW CONSTRUCTION |
| | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> PLUG BACK |
| | <input type="checkbox"/> PRODUCTION START OR RESUME | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
| | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL | <input type="checkbox"/> TEMPORARY ABANDON |
| | <input type="checkbox"/> TUBING REPAIR | <input type="checkbox"/> VENT OR FLARE | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> WATER SHUTOFF | <input type="checkbox"/> SI TA STATUS EXTENSION | <input type="checkbox"/> APD EXTENSION |
| | <input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> OTHER | OTHER: <input style="width: 100px;" type="text"/> |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU ROTARY RIG. FINISHED DRILLING FROM 2280' TO 8473' ON 7/26/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED H&P 318 RIG ON 7/29/2012 @ 6:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 July 31, 2012**

| | | |
|---|-------------------------------------|--------------------------------------|
| NAME (PLEASE PRINT) Cara Mahler | PHONE NUMBER 720 929-6029 | TITLE Regulatory Analyst I |
| SIGNATURE N/A | DATE 7/31/2012 | |

| | |
|--|--|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197- |
| SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES |
| 1. TYPE OF WELL Gas Well | 8. WELL NAME and NUMBER: NBU 1022-12C4CS |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. | 9. API NUMBER: 43047519850000 |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 | PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: NATURAL BUTTES |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0855 FNL 2031 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S | COUNTY: UINTAH STATE: UTAH |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|--|---|---|
| <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> CASING REPAIR |
| <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> CHANGE WELL NAME |
| <input type="checkbox"/> SPUD REPORT Date of Spud: | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE |
| <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/5/2012 | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> NEW CONSTRUCTION |
| | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> PLUG BACK |
| | <input type="checkbox"/> PRODUCTION START OR RESUME | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
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| | <input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> OTHER | OTHER: <input style="width: 100px;" type="text"/> |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No Activity for the month of August 2012. Well TD at 8,473.

**Accepted by the
Utah Division of
Oil, Gas and Mining**

FOR RECORD ONLY

September 06, 2012

| | | |
|--|------------------------------|-------------------------------|
| NAME (PLEASE PRINT) Jaime Scharnowske | PHONE NUMBER 720 929-6304 | TITLE Regularatory Analyst |
| SIGNATURE N/A | DATE 9/5/2012 | |

| | |
|--|---------------|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | FORM 9 |
| 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197- | |
| SUNDRY NOTICES AND REPORTS ON WELLS | |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | |
| 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: | |
| 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES | |
| 8. WELL NAME and NUMBER: NBU 1022-12C4CS | |
| 9. API NUMBER: 43047519850000 | |
| 9. FIELD and POOL or WILDCAT: NATURAL BUTTES | |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6511 | |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0855 FNL 2031 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S | |
| COUNTY: UINTAH | |
| STATE: UTAH | |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|--|--|---|---|
| <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> CASING REPAIR |
| <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> CHANGE WELL NAME |
| <input type="checkbox"/> SPUD REPORT Date of Spud: | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE |
| <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 10/2/2012 | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> NEW CONSTRUCTION |
| | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> PLUG BACK |
| | <input type="checkbox"/> PRODUCTION START OR RESUME | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
| | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL | <input type="checkbox"/> TEMPORARY ABANDON |
| | <input type="checkbox"/> TUBING REPAIR | <input type="checkbox"/> VENT OR FLARE | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> WATER SHUTOFF | <input type="checkbox"/> SI TA STATUS EXTENSION | <input type="checkbox"/> APD EXTENSION |
| | <input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> OTHER | OTHER: <input style="width: 100px;" type="text"/> |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No Activity for the month of September 2012. Well TD at 8,473.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 October 05, 2012

| | | |
|---|-------------------------------------|------------------------------------|
| NAME (PLEASE PRINT) Jaime Scharnowske | PHONE NUMBER 720 929-6304 | TITLE Regulatory Analyst |
| SIGNATURE N/A | DATE 10/2/2012 | |

| | |
|--|---|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | FORM 9 |
| SUNDRY NOTICES AND REPORTS ON WELLS | |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | |
| 1. TYPE OF WELL Gas Well | 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197- |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 | 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES |
| PHONE NUMBER: 720 929-6511 | 8. WELL NAME and NUMBER: NBU 1022-12C4CS |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0855 FNL 2031 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S | 9. API NUMBER: 43047519850000 |
| | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES |
| | COUNTY: UINTAH |
| | STATE: UTAH |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|--|--|---|---|
| <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> CASING REPAIR |
| <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> CHANGE WELL NAME |
| <input type="checkbox"/> SPUD REPORT Date of Spud: | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE |
| <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 11/5/2012 | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> NEW CONSTRUCTION |
| | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> PLUG BACK |
| | <input type="checkbox"/> PRODUCTION START OR RESUME | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
| | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL | <input type="checkbox"/> TEMPORARY ABANDON |
| | <input type="checkbox"/> TUBING REPAIR | <input type="checkbox"/> VENT OR FLARE | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> WATER SHUTOFF | <input type="checkbox"/> SI TA STATUS EXTENSION | <input type="checkbox"/> APD EXTENSION |
| | <input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> OTHER | OTHER: <input style="width: 100px;" type="text"/> |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No Activity for the month of October 2012. Well TD at 8,473.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 November 05, 2012

| | | |
|---|-------------------------------------|------------------------------------|
| NAME (PLEASE PRINT) Jaime Scharnowske | PHONE NUMBER 720 929-6304 | TITLE Regulatory Analyst |
| SIGNATURE N/A | DATE 11/5/2012 | |

| | |
|--|---------------|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | FORM 9 |
| 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197- | |
| SUNDRY NOTICES AND REPORTS ON WELLS | |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | |
| 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: | |
| 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES | |
| 8. WELL NAME and NUMBER: NBU 1022-12C4CS | |
| 9. API NUMBER: 43047519850000 | |
| 9. FIELD and POOL or WILDCAT: NATURAL BUTTES | |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6511 | |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0855 FNL 2031 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S | |
| COUNTY: UINTAH | |
| STATE: UTAH | |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|--|--|---|---|
| <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> CASING REPAIR |
| <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> CHANGE WELL NAME |
| <input type="checkbox"/> SPUD REPORT Date of Spud: | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE |
| <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 12/3/2012 | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> NEW CONSTRUCTION |
| | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> PLUG BACK |
| | <input type="checkbox"/> PRODUCTION START OR RESUME | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
| | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL | <input type="checkbox"/> TEMPORARY ABANDON |
| | <input type="checkbox"/> TUBING REPAIR | <input type="checkbox"/> VENT OR FLARE | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> WATER SHUTOFF | <input type="checkbox"/> SI TA STATUS EXTENSION | <input type="checkbox"/> APD EXTENSION |
| | <input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> OTHER | OTHER: <input style="width: 100px;" type="text"/> |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Started completing the well. Well TD at 8,473.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 December 04, 2012

| | | |
|---|-------------------------------------|------------------------------------|
| NAME (PLEASE PRINT) Jaime Scharnowske | PHONE NUMBER 720 929-6304 | TITLE Regulatory Analyst |
| SIGNATURE N/A | DATE 12/3/2012 | |

| | |
|--|---------------|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | FORM 9 |
| 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197- | |
| SUNDRY NOTICES AND REPORTS ON WELLS | |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | |
| 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: | |
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| 8. WELL NAME and NUMBER: NBU 1022-12C4CS | |
| 9. API NUMBER: 43047519850000 | |
| 9. FIELD and POOL or WILDCAT: NATURAL BUTTES | |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6511 | |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0855 FNL 2031 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S | |
| COUNTY: UINTAH | |
| STATE: UTAH | |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|--|---|---|
| <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> CASING REPAIR |
| <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> CHANGE WELL NAME |
| <input type="checkbox"/> SPUD REPORT Date of Spud: | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE |
| <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 12/17/2012 | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> NEW CONSTRUCTION |
| | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> PLUG BACK |
| | <input checked="" type="checkbox"/> PRODUCTION START OR RESUME | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
| | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL | <input type="checkbox"/> TEMPORARY ABANDON |
| | <input type="checkbox"/> TUBING REPAIR | <input type="checkbox"/> VENT OR FLARE | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> WATER SHUTOFF | <input type="checkbox"/> SI TA STATUS EXTENSION | <input type="checkbox"/> APD EXTENSION |
| | <input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> OTHER | OTHER: <input style="width: 100px;" type="text"/> |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The subject well was placed on production on 12/17/2012. The Chronological Well History will be submitted with the well completion report.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 December 20, 2012

| | | |
|---|-------------------------------------|---------------------------------------|
| NAME (PLEASE PRINT) Lindsey Frazier | PHONE NUMBER 720 929-6857 | TITLE Regulatory Analyst II |
| SIGNATURE N/A | DATE 12/20/2012 | |

RECEIVED

JAN 23 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

DIV. OF OIL, GAS & MINING

AMENDED REPORT FORM 8
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:

UT ST UO 01197-A ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME

UTU63047A

8. WELL NAME and NUMBER:

NBU 1022-12C4CS

9. API NUMBER:

4304751985

10. FIELD AND POOL, OR WILDCAT

NATURAL BUTTES

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

NENW 12 10S 22E S

12. COUNTY

UINTAH

13. STATE

UTAH

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL [] GAS WELL [x] DRY [] OTHER []

b. TYPE OF WORK: NEW WELL [x] HORIZ. LATS. [] DEEP-EN [] RE-ENTRY [] DIFF. RESVR. [] OTHER []

2. NAME OF OPERATOR: KERR MCGEE OIL & GAS ONSHORE, L.P.

3. ADDRESS OF OPERATOR: P.O. BOX 173779 CITY DENVER STATE CO ZIP 80217 PHONE NUMBER: (720) 929-6000

4. LOCATION OF WELL (FOOTAGES) AT SURFACE: NENW 855FNL 2031FWL S12,T10S,RR22E AT TOP PRODUCING INTERVAL REPORTED BELOW: NENW 1063 FNL 2125 FWL S12,T10S,R22E AT TOTAL DEPTH: NENW 1078 FNL 2138 FWL S12, T10S, R22E

14. DATE SPURRED: 5/18/2012 15. DATE T.D. REACHED: 7/26/2012 16. DATE COMPLETED: 12/17/2012 ABANDONED [] READY TO PRODUCE [x]

17. ELEVATIONS (DF, RKB, RT, GL): 5153 RKB

18. TOTAL DEPTH: MD 8,473 TVD 8,460 19. PLUG BACK T.D.: MD 8,398 TVD 8,385

20. IF MULTIPLE COMPLETIONS, HOW MANY? *

21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)

[x] HDIL/ZDL/CNCR/CBL/GR/CCL/TEMP

23. WAS WELL CORED? NO [x] YES [] (Submit analysis) WAS DST RUN? NO [x] YES [] (Submit report) DIRECTIONAL SURVEY? NO [] YES [x] (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

Table with 10 columns: HOLE SIZE, SIZE/GRADE, WEIGHT (#/ft.), TOP (MD), BOTTOM (MD), STAGE CEMENTER DEPTH, CEMENT TYPE & NO. OF SACKS, SLURRY VOLUME (BBL), CEMENT TOP **, AMOUNT PULLED. Rows include 20" STL, 11" IJ-55, and 7 7/8" I-80.

25. TUBING RECORD

Table with 9 columns: SIZE, DEPTH SET (MD), PACKER SET (MD), SIZE, DEPTH SET (MD), PACKER SET (MD), SIZE, DEPTH SET (MD), PACKER SET (MD). Row: 2 3/8" 7,800

26. PRODUCING INTERVALS

Table with 10 columns: FORMATION NAME, TOP (MD), BOTTOM (MD), TOP (TVD), BOTTOM (TVD), INTERVAL (Top/Bot - MD), SIZE, NO. HOLES, PERFORATION STATUS. Row (A) MESAVERDE: 6,996, 8,340, 6,996, 8,340, 0.36, 162, Open [x] Squeezed []

27. PERFORATION RECORD

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

Table with 2 columns: DEPTH INTERVAL, AMOUNT AND TYPE OF MATERIAL. Row: 6996-8340 PUMP 7928 BBLs SLICK H2O & 161,804 LBS 30/50 OTTAWA SAND 7 STAGES

29. ENCLOSED ATTACHMENTS:

[] ELECTRICAL/MECHANICAL LOGS [] GEOLOGIC REPORT [] DST REPORT [x] DIRECTIONAL SURVEY [] SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION [] CORE ANALYSIS [] OTHER:

30. WELL STATUS:

PROD

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

| | | | | | | | | | | | | | | | |
|------------------------------------|----------------------|--------------------------|-------------|---------------------|---------------|---------------------------|--|-----------------|--|---------------------|--|---------------------|--|--------------------------|--|
| DATE FIRST PRODUCED: 12/17/2012 | | TEST DATE: 12/23/2012 | | HOURS TESTED: 24 | | TEST PRODUCTION RATES: → | | OIL – BBL: 0 | | GAS – MCF: 3,696 | | WATER – BBL: 420 | | PROD. METHOD: FLOWING | |
| CHOKE SIZE: 20/64 | TBG. PRESS. 1,866 | CSG. PRESS. 2,133 | API GRAVITY | BTU – GAS | GAS/OIL RATIO | 24 HR PRODUCTION RATES: → | | OIL – BBL: 0 | | GAS – MCF: 3,696 | | WATER – BBL: 420 | | INTERVAL STATUS: PROD | |

INTERVAL B (As shown in item #26)

| | | | | | | | | | | | | | | | |
|----------------------|-------------|-------------|-------------|---------------|---------------|---------------------------|--|------------|--|------------|--|--------------|--|------------------|--|
| DATE FIRST PRODUCED: | | TEST DATE: | | HOURS TESTED: | | TEST PRODUCTION RATES: → | | OIL – BBL: | | GAS – MCF: | | WATER – BBL: | | PROD. METHOD: | |
| CHOKE SIZE: | TBG. PRESS. | CSG. PRESS. | API GRAVITY | BTU – GAS | GAS/OIL RATIO | 24 HR PRODUCTION RATES: → | | OIL – BBL: | | GAS – MCF: | | WATER – BBL: | | INTERVAL STATUS: | |

INTERVAL C (As shown in item #26)

| | | | | | | | | | | | | | | | |
|----------------------|-------------|-------------|-------------|---------------|---------------|---------------------------|--|------------|--|------------|--|--------------|--|------------------|--|
| DATE FIRST PRODUCED: | | TEST DATE: | | HOURS TESTED: | | TEST PRODUCTION RATES: → | | OIL – BBL: | | GAS – MCF: | | WATER – BBL: | | PROD. METHOD: | |
| CHOKE SIZE: | TBG. PRESS. | CSG. PRESS. | API GRAVITY | BTU – GAS | GAS/OIL RATIO | 24 HR PRODUCTION RATES: → | | OIL – BBL: | | GAS – MCF: | | WATER – BBL: | | INTERVAL STATUS: | |

INTERVAL D (As shown in item #26)

| | | | | | | | | | | | | | | | |
|----------------------|-------------|-------------|-------------|---------------|---------------|---------------------------|--|------------|--|------------|--|--------------|--|------------------|--|
| DATE FIRST PRODUCED: | | TEST DATE: | | HOURS TESTED: | | TEST PRODUCTION RATES: → | | OIL – BBL: | | GAS – MCF: | | WATER – BBL: | | PROD. METHOD: | |
| CHOKE SIZE: | TBG. PRESS. | CSG. PRESS. | API GRAVITY | BTU – GAS | GAS/OIL RATIO | 24 HR PRODUCTION RATES: → | | OIL – BBL: | | GAS – MCF: | | WATER – BBL: | | INTERVAL STATUS: | |

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

| Formation | Top (MD) | Bottom (MD) | Descriptions, Contents, etc. | Name | Top (Measured Depth) |
|-----------|----------|-------------|------------------------------|-------------|----------------------|
| | | | | GREEN RIVER | 1,110 |
| | | | | BIRD'S NEST | 1,337 |
| | | | | MAHOGANY | 1,807 |
| | | | | WASATCH | 4,117 |
| | | | | MESAVERDE | 6,200 |

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210' of the surface hole was drilled with a 12 1/4" bit. The remainder of surface hole was drilled with an 11" bit. DQX csg was run from surface to 4989'; LTC csg was run from 4989' to 8446'. Attached is the chronological well history, perforation report & final survey.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) LINDSEY FRAZIER TITLE REGULATORY ANALYST
 SIGNATURE *Lindsey Frazier* DATE 1/15/2013

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
 1594 West North Temple, Suite 1210
 Box 145801
 Salt Lake City, Utah 84114-5801

Phone: 801-538-5340
 Fax: 801-359-3940

US ROCKIES REGION
Operation Summary Report

| | | | |
|--|--|--|--|
| Well: NBU 1022-12C4CS BLACK | | Spud Date: 6/20/2012 | |
| Project: UTAH-UINTAH | | Site: NBU 1022-12C PAD | Rig Name No: PROPETRO 12/12, H&P 318/318 |
| Event: DRILLING | | Start Date: 5/23/2012 | End Date: 7/29/2012 |
| Active Datum: RKB @5,153.00usft (above Mean Sea Level) | | UW: NE/NW0/10/S/22/E/12/0/0/26/PM/N/855/W/0/2031/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (usft) | Operation |
|-----------|----------------|---------------|--------|------|----------|-----|----------------|--|
| 6/20/2012 | 14:00 - 16:00 | 2.00 | DRLSUR | 01 | C | P | | SKID RIG TO WELL 6/6 RIG UP AND PREPARE TO SPUD |
| | 16:00 - 17:30 | 1.50 | DRLSUR | 02 | C | P | | SPUD 06/20/ 2012 16:00 hrs. DRILL 12.25" HOLE 44 ft TO 210 ft (166 FT, 111 FPH). WOB 5-15 Kips. GPM 491. PSI ON/OFF 600/400. SURFACE RPM 55, MOTOR 83, TOTAL RPM 138. UP/DOWN/ ROT 20/20/20 K. DRAG 0 Kips . CIRCULATE CLOSED LOOP SYSTEM DRILL DOWN TO 210 ft W/6 in COLLARS. |
| | 17:30 - 19:30 | 2.00 | DRLSUR | 06 | A | P | | PRE JOB SAFETY MEETING, LAY DOWN 6 in DRILL COLLARS, 12 1/4 in BIT. MAKE UP Q506F 11in BIT (7 th RUN) (SN 7031153) PICK UP 8 in DIRECTIONAL ASSEMBLY. INSTALL EM TOOL. TRIP IN HOLE. |
| | 19:30 - 0:00 | 4.50 | DRLSUR | 02 | C | P | | DRILL 11" SURFACE HOLE 210' - 860' (820 AT 142 FT HR) WEIGHT ON BIT 15-25 K. STROKES PER MINUTE 120 GALLONS PER MINUTE 491. PRESSURE ON/OFF(BOTTOM) 1090/880. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROTATE 68/54/60 K. DRAG 20 K. SLIDING 12' - 20' PER 90'OF ROTATION GETTING 1.8 DEGREE BUILD RATES LANDED 7' LOW 2.1' LEFT OF LINE SLIDING 170' @ 11.6% LAST SURVEY 4.57 DEG 129.4 AZI CIRCULATE CLOSED LOOP SYSTEM WITH 8.6# WATER. RUNNING VOLUME OVER BOTH SHAKERS 200 API SCREENS ON SHAKERS NO HOLE ISSUES. |

**US ROCKIES REGION
Operation Summary Report**

| | | | |
|--|--|---|--|
| Well: NBU 1022-12C4CS BLACK | | Spud Date: 6/20/2012 | |
| Project: UTAH-UINTAH | | Site: NBU 1022-12C PAD | Rig Name No: PROPETRO 12/12, H&P 318/318 |
| Event: DRILLING | | Start Date: 5/23/2012 | End Date: 7/29/2012 |
| Active Datum: RKB @5,153.00usft (above Mean Sea Level) | | UVM: NE/NW/0/10/S/22/E/12/0/0/26/PM/N/855/NW/0/2031/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (usft) | Operation |
|-----------|----------------|---------------|--------|------|----------|-----|----------------|---|
| 6/21/2012 | 0:00 - 9:00 | 9.00 | DRLSUR | 02 | C | P | | DRILL 11" SURFACE HOLE 860' - 1850' (990' AT 110 FT HR) WEIGHT ON BIT 15-25 K. STROKES PER MINUTE 120 GALLONS PER MINUTE 491. PRESSURE ON/OFF(BOTTOM) 1090/880. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROTATE 68/54/60 K. DRAG 20 K. SLIDING 12' - 20' PER 90'OF ROTATION GETTING 1.8 DEGREE BUILD RATES LANDED 7' LOW 2.1' LEFT OF LINE SLIDING 170' @ 11.6% LAST SURVEY 4.57 DEG 129.4 AZI CIRCULATE CLOSED LOOP SYSTEM WITH 8.6# WATER. RUNNING VOLUME OVER BOTH SHAKERS 200 API SCREENS ON SHAKERS NO HOLE ISSUES. |
| | 9:00 - 14:00 | 5.00 | DRLSUR | 08 | A | Z | | CHANGE OUT COMPUTER ON RIG (RIG STOPPED RUNNING ON BOTTOM WHILE DRILLING) |
| | 14:00 - 19:00 | 5.00 | DRLSUR | 02 | C | P | | DRILL 11" SURFACE HOLE 1850' - 2280' T.D. (430' AT 86 FT HR) WEIGHT ON BIT 15-25 K. STROKES PER MINUTE 120 GALLONS PER MINUTE 491. PRESSURE ON/OFF(BOTTOM) 1320/1050. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROTATE 80/64/71 K. DRAG 9 K. SLIDING 12' - 20' PER 90'OF ROTATION GETTING 1.8 DEGREE BUILD RATES LANDED 1.3 HIGH 1.3' LEFT OF LINE SLIDING 211' @ 9.3% LAST SURVEY 6.77 DEG 167.77 AZI CIRCULATE CLOSED LOOP SYSTEM WITH 8.6# WATER. RUNNING VOLUME OVER BOTH SHAKERS 200 API SCREENS ON SHAKERS NO HOLE ISSUES. |
| | 19:00 - 21:30 | 2.50 | DRLSUR | 05 | C | P | | CIRCULATE AND CONDITION MUD PRIOR TO LDDS PUMP AWAY 90% OF DRILLING WATER ON LOCATION |
| | 21:30 - 22:00 | 0.50 | DRLSUR | 06 | A | P | | TOOH FOR BIT AND BHA |
| | 22:00 - 23:00 | 1.00 | DRLSUR | 08 | A | Z | | CHANGE OUT WATER PUMP ON RIG |
| | 23:00 - 0:00 | 1.00 | DRLSUR | 06 | A | P | | CONTINUE TRIPPING OUT OF HOLE |
| 6/22/2012 | 0:00 - 2:00 | 2.00 | DRLSUR | 08 | A | Z | | CHANGE OUT WATER PUMP ON RIG |
| | 2:00 - 5:00 | 3.00 | DRLSUR | 06 | A | P | | TOOH LAYING DOWN DRILL STRING BREAK BIT MUD MOTOR AND ALL DIRECTIONAL TOOLS L/D EM TOOL |
| | 5:00 - 9:00 | 4.00 | DRLSUR | 12 | C | P | | RIG UP AND RUN 51 JOINT 8.625 28# J55 SURFACE CASING SHOE AT 2252' BAFFLE AT 2208' |

US ROCKIES REGION
Operation Summary Report

| | | | |
|--|--|--|--|
| Well: NBU 1022-12C4CS BLACK | | Spud Date: 6/20/2012 | |
| Project: UTAH-UINTAH | | Site: NBU 1022-12C PAD | Rig Name No: PROPETRO 12/12, H&P 318/318 |
| Event: DRILLING | | Start Date: 5/23/2012 | End Date: 7/29/2012 |
| Active Datum: RKB @5,153.00usft (above Mean Sea Level) | | UWI: NE/NW0/10/S/22/E/12/0/0/26/PM/N/855/NW/0/2031/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (usft) | Operation |
|-----------|----------------|---------------|--------|------|----------|-----|----------------|--|
| | 9:00 - 13:00 | 4.00 | DRLSUR | 12 | E | P | | PRESSURE TEST LINES TO 2000 PSI. PUMP 135 BBLS OF WATER AHEAD. CATCH PSI. PUMP 20 BBLS OF 8.3# GEL WATER AHEAD. MIX AND PUMP (300 SX) 61.4 BBLS OF 15.8# 1.15 YD 5 GAL/SK PREMIUM CEMENT W/ 2% CALC. DROP PLUG ON FLY. DISPLACE W/ 143 BBLS OF H2O. NO CIRC THROUGH OUT. FINAL LIFT OF 210 PSI AT 4 BBL/MIN. BUMP PLUG WITH 500 PSI FOR 5 MIN. FLOAT HELD. MIX AND PUMP (150 SX) 30.7 BBLS OF SAME TAIL CEMENT W/ 4% CALC. DOWN BACKSIDE, NO CEMENT TO SURFACE. SHUT DOWN AND CLEAN TRUCK. WAIT 1.5 HOURS MIX AND PUMP (125 SX) 22.4 BBLS OF SAME TAIL CEMENT W/ 4% CALC. DOWN BACKSIDE NO CEMENT TO SURFACE. NO CEMENT TO SURFACE. SHUT DOWN AND CLEAN TRUCK. TOTAL TOP OUT SX 1125 NO CEMENT TO SURFACE WILL CALL READY MIX TRUCK TO TOP OUT |
| 7/24/2012 | 9:30 - 10:00 | 0.50 | DRLPRO | 01 | E | P | | RELEASE RIG 6-22-12 @ 1300 |
| | 10:00 - 11:00 | 1.00 | DRLPRO | 01 | C | P | | PREPARE TO SKID RIG |
| | 11:00 - 11:30 | 0.50 | DRLPRO | 01 | B | P | | SKID RIG TO NBU 1022-124CCS |
| | 11:30 - 13:30 | 2.00 | DRLPRO | 14 | A | P | | RIG MOVE PIPE WRANGLER, RIG FLOOR |
| | 13:30 - 20:30 | 7.00 | DRLPRO | 15 | A | P | | NIPPLE UP BOPS, CHOKE LINES |
| | 20:30 - 22:00 | 1.50 | DRLPRO | 06 | A | P | | TEST BOPS BLINDS , PIPE IBOP FLOOR VAVLES, HCR WING VAVLES, CHOKE MANIFOLD LOW 250 PSI HIGH 5,000 PSI ANULAR LOW 250 HIGH 2500 PSI CASING 1500 FOR 30 MINS TEST NOV EQUIPMENT TO 1,000 PSI |
| | 22:00 - 23:30 | 1.50 | DRLPRO | 06 | A | | | P/U MWD TOOLS SCRIBE IN HOLE |
| | 23:30 - 0:00 | 0.50 | DRLPRO | 02 | F | P | | TRIP IN HOLE TAGED TOP OF CMT @ 2125 |
| 7/25/2012 | 0:00 - 0:30 | 0.50 | DRLPRO | 02 | F | P | | DRILL OUT SHOE TRACK |
| | 0:30 - 12:00 | 11.50 | DRLPRO | 02 | D | P | | DRILL SHOE TRACK & FLOAT EQUIP. |
| | 12:00 - 16:00 | 4.00 | DRLPRO | 02 | D | P | | DRILL F 2300 TO 4800 2500 FT ROP 217.39 WOB 21 RPM 45 MM RPM 124 PUMP PSI ON / OFF 2275 / 1700 SPM 60 / 60 GPM 540 WT 8.4 VIS 26 TORQUE ON 10 OFF 5 SWACO OFF LINE NOV - DEWATERING P/U 92 S/O 80 R/T 85 SLIDE 93' 1 HR 0 MINS. ROP 93.0 |
| | 16:00 - 16:30 | 0.50 | DRLPRO | 07 | A | P | | DRILL F 4800 TO 5654 854 FT ROP 213.5 WOB 22 RPM 45 MM RPM 124 PUMP PSI ON / OFF 2200 / 1700 SPM 60 / 60 GPM 540 WT 8.6 VIS 26 TORQUE ON 10 OFF 5 SWACO OFF LINE NOV - DEWATERING P/U 160 S/O 123 R/T 139 SLIDE 10' 0 HR .15 MINS. ROP 25.0 RIG SER. |

US ROCKIES REGION
Operation Summary Report

| | | | |
|--|--|---|--|
| Well: NBU 1022-12C4CS BLACK | | Spud Date: 6/20/2012 | |
| Project: UTAH-UINTAH | | Site: NBU 1022-12C PAD | Rig Name No: PROPETRO 12/12, H&P 318/318 |
| Event: DRILLING | | Start Date: 5/23/2012 | End Date: 7/29/2012 |
| Active Datum: RKB @5,153.00usft (above Mean Sea Level) | | UVM: NE/NW0/10/S/22/E/12/0/0/26/PM/N/855/NW0/2031/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (usft) | Operation |
|-----------|----------------|---------------|--------|------|----------|-----|----------------|--|
| | 16:30 - 0:00 | 7.50 | DRLPRO | 02 | D | P | | DRILL F 5654 TO 6505 851 FT ROP 113.46 WOB 25 RPM 45 MM RPM 124 PUMP PSI ON / OFF 2100 / 1752 SPM 60 / 60 GPM 540 WT 8.4 VIS 26 TORQUE ON 8 OFF 6 SWACO OFF LINE NOV - DEWATERING P/U 174 S/O 127 R/T 148 SLIDE 16 ' 0 HR 30 MINS. ROP |
| 7/26/2012 | 0:00 - 12:00 | 12.00 | DRLPRO | 02 | D | P | | DRILL F 6505 TO 7825 1320 FT ROP 110 WOB 25 RPM 45 MM RPM 124 PUMP PSI ON / OFF 2100 / 1752 SPM 60 / 60 GPM 540 WT 8.4 VIS 26 TORQUE ON 8 OFF 6 SWACO OFF LINE NOV - DEWATERING P/U 206 S/O 150 R/T 173 SLIDE ' 0 HR 0 MINS. ROP |
| | 12:00 - 17:30 | 5.50 | DRLPRO | 02 | D | P | | DRILL F 7825 TO 8297 472 FT ROP 85.5 WOB 25 RPM 45 -50 MM RPM 124 PUMP PSI ON / OFF 2100 / 1752 SPM 60 / 60 GPM 540 WT 8.5 VIS 26 TORQUE ON 8 OFF 6 SWACO OFF LINE NOV - DEWATERING P/U 206 S/O 150 R/T 173 SLIDE ' 0 HR 0 MINS. ROP HAD 35' FLAR @ 7920 RIG SER. |
| | 17:30 - 18:00 | 0.50 | DRLPRO | 07 | A | P | | |
| | 18:00 - 20:00 | 2.00 | DRLPRO | 02 | D | P | | DRILL F 8297 TO 8473 176 FT ROP 88.0 WOB 25 RPM 45 -50 MM RPM 124 PUMP PSI ON / OFF 2100 / 1900 SPM 60 / 60 GPM 540 WT 8.5 VIS 26 TORQUE ON 11 OFF 7 SWACO OFF LINE NOV - DEWATERING P/U 203 S/O 151 R/T 175 SLIDE ' 0 HR 0 MINS. ROP HAD 50' FLAR @ 8473 |
| | 20:00 - 0:00 | 4.00 | DRLPRO | 05 | C | P | | DISPLACE WATER OUT HOLE WITH MUD 12.2 VIS 42 |
| 7/27/2012 | 0:00 - 1:00 | 1.00 | DRLPRO | 05 | C | P | | DIS PLACE WATER OUT OF HOLE WITH 12.2 MUD VIS 42 |
| | 1:00 - 6:00 | 5.00 | DRLPRO | 06 | A | P | | SHOR TRIP FOR LOGS |
| | 6:00 - 7:00 | 1.00 | DRLPRO | 06 | A | P | | L/D MONEL DC , XOV R SUB ,MED TOOLS |
| | 7:00 - 11:00 | 4.00 | DRLPRO | 06 | A | P | | TRIP IN HOLE TAGED BRIDGE @3600,3700,4850,5248,6200 WASHED 8283 TO 8473 |
| | 11:00 - 13:30 | 2.50 | DRLPRO | 05 | A | P | | CIRC OUT GAS HAD 5' FLAR |
| | 13:30 - 19:00 | 5.50 | DRLPRO | 06 | E | P | | WPER TRIP # 2 FOR LOGS HOLE LOOKED GOOD |
| | 19:00 - 21:00 | 2.00 | DRLPRO | 05 | C | P | | CIRC COND MUD TO L/D 4.5 DP |

**US ROCKIES REGION
Operation Summary Report**

| | | | |
|--|--|--|--|
| Well: NBU 1022-12C4CS BLACK | | Spud Date: 6/20/2012 | |
| Project: UTAH-UINTAH | | Site: NBU 1022-12C PAD | Rig Name No: PROPETRO 12/12, H&P 318/318 |
| Event: DRILLING | | Start Date: 5/23/2012 | End Date: 7/29/2012 |
| Active Datum: RKB @5,153.00usft (above Mean Sea Level) | | UVM: NE/NW/010/S/22/E/12/0/0/26/PM/N/855/NW/0/2031/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (usft) | Operation |
|-----------|-------------------|------------------|--------|------|-------------|-----|-------------------|---|
| 7/28/2012 | 21:00 - 0:00 | 3.00 | DRLPRO | 06 | A | P | | L/D 4.5 DRILL PIPE |
| | 0:00 - 3:30 | 3.50 | DRLPRO | 06 | A | P | | L/D 4.5 DRILL PIPE |
| | 3:30 - 4:30 | 1.00 | DRLPRO | 06 | A | P | | PULLED SMITH BEARING PACK OFF |
| | 4:30 - 5:00 | 0.50 | DRLPRO | 06 | E | P | | PULLED WEAR BUSHING |
| | 5:00 - 6:00 | 1.00 | DRLPRO | 06 | A | P | | INSTALL CASING NIPPLE TO PIPE |
| | 6:00 - 13:00 | 7.00 | DRLPRO | 11 | D | P | | RIG UP LOG WELL LOGER TD WAS 8464 DRILLER TD 84 73 RUN TRIPLE COMBO |
| | 13:00 - 13:30 | 0.50 | DRLPRO | 07 | A | P | | RIG SER. |
| | 13:30 - 19:30 | 6.00 | DRLPRO | 12 | A | P | | RIG UP CASING CREW HSM RUN 195 JTS 4.5 I-80 11.6 SHOE @ 8445 FC @ 8400 MARKER JTS 6464 CIRC OUT GAS COND MUD |
| | 19:30 - 21:00 | 1.50 | DRLPRO | 05 | A | P | | ****WAIT CEMENT BULK TRUCK |
| | 21:00 - 22:00 | 1.00 | DRLPRO | 22 | L | Z | | |
| 7/29/2012 | 22:00 - 0:00 | 2.00 | DRLPRO | 12 | E | P | | RIG CMT CREW HSM LEAD 13.0 YIELD 1.77 543 SX CMT TAIL 14.3 YIELD 1.32 1325 SX CMT DISPLACE WITH 130 BBLS BUMPED PLUG WITH 2685 PSI LIFT PSI 2166 NO CMT TO PIT LOST FULL RETURNS AT 80 BBLS IN TO DISPLACEMENT WAS 130.5 BBLS FLOATS HELD |
| | 0:00 - 1:00 | 1.00 | DRLPRO | 12 | E | P | | FINSH CEMENTING 4.5 CASING |
| | 1:00 - 2:00 | 1.00 | DRLPRO | 12 | B | P | | SET PACK OFF, LAY DOWN LANDING JT. BACK FLUSH BOPS, MUD LINES |
| | 2:00 - 6:00 | 4.00 | DRLPRO | 14 | A | P | | NIPPLE DOWN BOPS, CLEAN MUD TANKS |
| | 6:00 - 6:00 | 0.00 | DRLPRO | | | | | RIG RELEASED @ 06:00 7/29/2012 |

1 General

1.1 Customer Information

| | |
|----------------|-------------------|
| Company | US ROCKIES REGION |
| Representative | |
| Address | |

1.2 Well/Wellbore Information

| | | | |
|--------------|--|---------------|--|
| Well | NBU 1022-12C4CS BLACK | Wellbore No. | OH |
| Well Name | NBU 1022-12C4CS | Wellbore Name | NBU 1022-12C4CS |
| Report No. | 1 | Report Date | 11/15/2012 |
| Project | UTAH-UINTAH | Site | NBU 1022-12C PAD |
| Rig Name/No. | | Event | COMPLETION |
| Start Date | 11/15/2012 | End Date | 12/17/2012 |
| Spud Date | 6/20/2012 | Active Datum | RKB @5,153.00usft (above Mean Sea Level) |
| UWI | NE/NW0/10/S/22/E/12/0/0/26/PM/N/855/W/0/2031/0/0 | | |

1.3 General

| | | | | | |
|---------------------|--|-----------------|--|------------|--|
| Contractor | | Job Method | | Supervisor | |
| Perforated Assembly | | Conveyed Method | | | |

1.4 Initial Conditions

| | | | |
|-------------------|---------|--------------------|--|
| Fluid Type | | Fluid Density | |
| Surface Press | | Estimate Res Press | |
| TVD Fluid Top | | Fluid Head | |
| Hydrostatic Press | | Press Difference | |
| Balance Cond | NEUTRAL | | |

1.5 Summary

| | | | |
|------------------|-------------------------------|--------------------------|--------------------|
| Gross Interval | 6,996.0 (usft)-8,340.0 (usft) | Start Date/Time | 11/15/2012 12:00AM |
| No. of Intervals | 32 | End Date/Time | 11/15/2012 12:00AM |
| Total Shots | 162 | Net Perforation Interval | 54.00 (usft) |
| Avg Shot Density | 3.00 (shot/ft) | Final Surface Pressure | |
| | | Final Press Date | |

2 Intervals

2.1 Perforated Interval

| Date | Formation/Reservoir | CCL@ (usft) | CCL-T S (usft) | MD Top (usft) | MD Base (usft) | Shot Density (shot/ft) | Misfires/Add. Shot | Diameter (in) | Carr Type /Stage No | Carr Size (in) | Phasing (") | Charge Desc /Charge Manufacturer | Charge Weight (gram) | Reason | Misrun |
|-----------------------|---------------------|-------------|----------------|---------------|----------------|------------------------|--------------------|---------------|---------------------|----------------|-------------|----------------------------------|----------------------|----------------|--------|
| 11/15/2012 12:00AM | MESAVERDE/ | | | 6,996.0 | 6,998.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |

2.1 Perforated Interval (Continued)

| Date | Formation/ Reservoir | CCL@ (usft) | CCL-T S (usft) | MD Top (usft) | MD Base (usft) | Shot Density (shot/ft) | Misfires/ Add. Shot | Diamete r (in) | Carr Type /Stage No | Carr Size (in) | Phasing (°) | Charge Desc /Charge Manufacturer | Charge Weight (gram) | Reason | Misrun |
|-----------------------|-------------------------|----------------|----------------------|------------------|-------------------|------------------------------|------------------------|----------------------|---------------------|----------------------|----------------|-------------------------------------|----------------------------|----------------|--------|
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,019.0 | 7,021.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,075.0 | 7,079.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,242.0 | 7,244.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,254.0 | 7,256.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,274.0 | 7,276.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,296.0 | 7,298.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,344.0 | 7,346.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,378.0 | 7,380.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,426.0 | 7,428.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,450.0 | 7,452.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,490.0 | 7,491.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,506.0 | 7,508.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,552.0 | 7,553.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,588.0 | 7,591.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |

2.1 Perforated Interval (Continued)

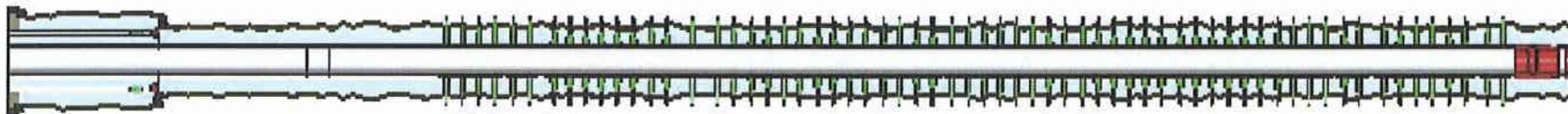
| Date | Formation/ Reservoir | CCL@ (usft) | CCL-T S (usft) | MD Top (usft) | MD Base (usft) | Shot Density (shot/ft) | Misfires/ Add. Shot | Diamete r (in) | Carr Type /Stage No | Carr Size (in) | Phasing (°) | Charge Desc /Charge Manufacturer | Charge Weight (gram) | Reason | Misrun |
|-----------------------|-------------------------|----------------|----------------------|------------------|-------------------|------------------------------|------------------------|----------------------|---------------------|----------------------|----------------|-------------------------------------|----------------------------|----------------|--------|
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,663.0 | 7,664.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,680.0 | 7,681.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,700.0 | 7,702.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,723.0 | 7,724.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,759.0 | 7,760.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,771.0 | 7,772.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,784.0 | 7,785.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,839.0 | 7,840.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,856.0 | 7,857.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,872.0 | 7,873.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,910.0 | 7,911.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,924.0 | 7,926.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 7,987.0 | 7,989.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 8,150.0 | 8,151.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |

2.1 Perforated Interval (Continued)

| Date | Formation/ Reservoir | CCL@ (usft) | CCL-T S (usft) | MD Top (usft) | MD Base (usft) | Shot Density (shot/ft) | Misfires/ Add. Shot | Diamete r (in) | Carr Type /Stage No | Carr Size (in) | Phasing (°) | Charge Desc /Charge Manufacturer | Charge Weight (gram) | Reason | Misrun |
|-----------------------|-------------------------|----------------|----------------------|------------------|-------------------|------------------------------|------------------------|----------------------|---------------------|----------------------|----------------|-------------------------------------|----------------------------|----------------|--------|
| 11/15/2012 12:00AM | MESAVERDE/ | | | 8,176.0 | 8,177.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 8,204.0 | 8,206.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 11/15/2012 12:00AM | MESAVERDE/ | | | 8,337.0 | 8,340.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION
Operation Summary Report

| | | | |
|--|--|--|--------------------------|
| Well: NBU 1022-12C4CS BLACK | | Spud Date: 6/20/2012 | |
| Project: UTAH-UINTAH | | Site: NBU 1022-12C PAD | Rig Name No: SWABBCO 8/8 |
| Event: COMPLETION | | Start Date: 11/15/2012 | End Date: 12/17/2012 |
| Active Datum: RKB @5,153.00usft (above Mean Sea Level) | | UWM: NE/NW0/10/S/22/E/12/0/0/26/PM/N/855/NW/0/2031/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (usft) | Operation |
|------------|----------------|---------------|-------|------|----------|-----|----------------|---|
| 8/1/2012 | - | | | | | | | |
| 8/2/2012 | - | | | | | | | |
| 11/15/2012 | 10:30 - 12:00 | 1.50 | FRAC | 33 | C | P | | <p>FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 0 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 38 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 59 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. SWFN</p> |
| 11/26/2012 | 12:00 - 18:00 | 6.00 | FRAC | 36 | B | P | | <p>PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH PERF AS PER DESIGN.</p> <p>FRAC STG 1)WHP 1540 PSI, BRK 3857 PSI @ 4.7 BPM. ISIP 2350 PSI, FG .0.72, CALC PERFS OPEN @ 50.5 BPM @ 4277 PSI = 100% HOLES OPEN. ISIP 2570 PSI, FG .0.75, NPI 220 PSI. MP 5834 PSI, MR 51.4 BPM, AP 4587 PSI, AR 50.3 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8019' P/U PERF AS PER DESIGN. POOH, SWFN.</p> |

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-12C4CS BLACK

Spud Date: 6/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-12C PAD

Rig Name No: SWABBCO 8/8

Event: COMPLETION

Start Date: 11/15/2012

End Date: 12/17/2012

Active Datum: RKB @5,153.00usft (above Mean Sea Level)

UVM: NE/NW/0/10/S/22/E/12/0/0/26/PM/N/855/NW/0/2031/0/0

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (usft) | Operation |
|------------|----------------|---------------|-------|------|----------|-----|----------------|---|
| 11/27/2012 | 7:00 - 18:00 | 11.00 | FRAC | 36 | B | P | | <p>FRAC STG 2)WHP 475 PSI, BRK 2783 PSI @ 4.7 BPM. ISIP 1822 PSI, FG .0.67, CALC PERFS OPEN @ 52.6 BPM @ 4644 PSI = 96% HOLES OPEN. ISIP 2702 PSI, FG .0.78, NPI 880 PSI. MP 5361 PSI, MR 53.9 BPM, AP 4583 PSI, AR 52.8 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7815' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 3)WHP 2271 PSI, BRK 3301 PSI @ 4.7 BPM. ISIP 2379 PSI, FG .0.75, CALC PERFS OPEN @ 52.8 BPM @ 5330 PSI = 92% HOLES OPEN. ISIP 2728 PSI, FG .0.79, NPI 349 PSI. MP 5726 PSI, MR 53.6 BPM, AP 5009 PSI, AR 52.6 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7621' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 4)WHP 2060 PSI, BRK 2778 PSI @ 4.7 BPM. ISIP 1903 PSI, FG .0.69, CALC PERFS OPEN @ 50.2 BPM @ 5427 PSI = 81% HOLES OPEN. ISIP 1885 PSI, FG .0.69, NPI -18 PSI. MP 5553 PSI, MR 53.9 BPM, AP 4673 PSI, AR 51.5 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7480' P/U PERF AS PER DESIGN. POOH, SWIFN.</p> |

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12C4CS BLACK

Spud Date: 6/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-12C PAD

Rig Name No: SWABBCO 8/8

Event: COMPLETION

Start Date: 11/15/2012

End Date: 12/17/2012

Active Datum: RKB @5,153.00usft (above Mean Sea Level)

UWI: NE/NW/0/10/S/22/E/12/0/0/26/PM/N/855/NW/0/2031/0/0

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (usft) | Operation |
|------------|----------------|---------------|--------|------|----------|-----|----------------|---|
| 11/28/2012 | 7:00 - 18:00 | 11.00 | FRAC | 36 | B | P | | <p>FRAC STG 5)WHP 1630 PSI, BRK 1923 PSI @ 4.7 BPM. ISIP 1647 PSI, FG .066, CALC PERFS OPEN @ 53.1 BPM @ 3884 PSI = 100% HOLES OPEN. ISIP 2082 PSI, FG .072, NPI 435 PSI. MP 4791 PSI, MR 53.2 BPM, AP 3701 PSI, AR 52.1 BPM, PUMPED 30/50 OWATTA SAND.SWI, XO T/ WL.</p> <p>PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7328' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 6)WHP 1930 PSI, BRK 2380 PSI @ 4.7 BPM. ISIP 1928 PSI, FG .07, CALC PERFS OPEN @ 53 BPM @ 4344 PSI = 100% HOLES OPEN. ISIP 2076 PSI, FG .072, NPI 148 PSI. MP 4783 PSI, MR 54.5 BPM, AP 3996 PSI, AR 53.1 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7109' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 7)WHP 1075 PSI, BRK 2914 PSI @ 4.7 BPM. ISIP 1332 PSI, FG .063, CALC PERFS OPEN @ 52.9 BPM @ 4875 PSI = 75% HOLES OPEN. ISIP 2602 PSI, FG .081, NPI 1270 PSI. MP 5664 PSI, MR 53.4 BPM, AP 4361 PSI, AR 53 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 6946'. POOH, SWI. RDMO CASEDHOLE SOLUTIONS & NABORS FRAC SERV. DONE FRACING THIS PAD.</p> <p>TOTAL SAND = 161,804 LBS TOTAL CLFL = 7928 BBLS</p> |
| 12/14/2012 | 13:00 - 17:00 | 4.00 | | 31 | I | P | | <p>MOVE OVER RIG UP, ND WH NU BOPS, RU FLOOR & TBG EQUIP. TALLY & PU 37/8 BIT, POBS, 1.875 X/N 82 JTS 23/8 L-80 OFF FLOAT. EOT @ 2583' SWI DRAIN EQUIP, SDFWE</p> |
| 12/17/2012 | 7:00 - 7:30 | 0.50 | DRLOUT | 48 | | P | | HSM, PICKING UP TBG & DRILLING CBPS. |
| | 7:30 - 10:30 | 3.00 | DRLOUT | 31 | I | P | | PU REM 136 JTS 23/8 L-80, 218 IN. RU DRLG EQUIP. |

US ROCKIES REGION
Operation Summary Report

| | | | |
|--|--|--|--------------------------|
| Well: NBU 1022-12C4CS BLACK | | Spud Date: 6/20/2012 | |
| Project: UTAH-UINTAH | | Site: NBU 1022-12C PAD | Rig Name No: SWABBCO 8/8 |
| Event: COMPLETION | | Start Date: 11/15/2012 | End Date: 12/17/2012 |
| Active Datum: RKB @5,153.00usft (above Mean Sea Level) | | UVM: NE/NW0/10/S/22/E/12/0/0/26/PM/N/855/NW/0/2031/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (usft) | Operation |
|------------|-------------------|------------------|--------|------|-------------|-----|-------------------|---|
| | 10:30 - 15:30 | 5.00 | DRLOUT | 44 | C | P | | <p>BROKE CIRC CONV, TEST BOPS TO 4,000#, RIH</p> <p>C/O 5' SAND TAG 1ST CBP @ 6946' DRL PLG IN 6 MINS 0 PSI INCREASE RIH</p> <p>C/O 20' SAND TAG 2ND CBP @ 7109' DRL PLG IN 7 MINS 650 PSI INCREASE RIH</p> <p>C/O 25' SAND TAG 3RD CBP @ 7328' DRL PLG IN 4 MINS 200 PSI INCREASE RIH</p> <p>C/O 30' SAND TAG 4TH CBP @ 7480' DRL PLG IN 4 MINS 0 PSI INCREASE RIH</p> <p>C/O 30' SAND TAG 5TH CBP @ 7621' DRL PLG IN 5 MINS 350 PSI INCREASE RIH</p> <p>C/O 15' SAND TAG 6TH CBP @ 7810' DRL PLG IN 6 MINS 300 PSI INCREASE RIH</p> <p>C/O 30' SAND TAG 7TH CBP @ 8019' DRL PLG IN 5 MINS 300 PSI INCREASE RIH</p> <p>C/O TO PBTD @ 8398', CIR CLN, HANG SWVEL, L/D 19 JTS, LAND TBG ND BOPS NU WH, TEST FLOW LINE TO 2,000 PSI HAD BAD NIPPLE HAD TO CHANGE, TEST LINE TO 4,000, PUMP OFF BIT, PUMPED 50 BBLD WTR W/ SCALE INH DWN CSG, TURN WELL OVER TO FB.RIG DOWN.</p> <p>KB = 24'</p> <p>41/16 CAMERON HANGER = .83'</p> <p>245 JTS 23/8 L-80 TBG = 7773.02' (SURFACE OPEN & LOCKED)</p> <p>POBS W/ 1.875 X/N = 2.20'</p> <p>SICP 2000 FTP 100</p> <p>EOT @ 7800.05'</p> <p>TWTR 8128 BBLS</p> <p>TWR 1200 BBLS</p> <p>TWLTR 6928 BBLS</p> <p>285 JTS DELIVERED</p> <p>245 JTS LANDED</p> <p>40 TO RETURN</p> |
| | 15:30 - 15:30 | 0.00 | DRLOUT | 50 | | | | <p>WELL TURNED TO SALES @ 1450 HR ON 12/17/2012. 2100 MCFD, 1560 BWP, FCP 2500#, FTP 1900#, 20/64" CK.</p> |
| 12/23/2012 | 7:00 - | | | 50 | | | | <p>WELL IP'D ON 12/23/12 - 3696 MCFD, 420 BWP, 0 BOPD, CP 2133#, FTP 1866#, LP 174#, 24 HRS, CK 20/64</p> |

WELL DETAILS: NBU 1022-12C4CS

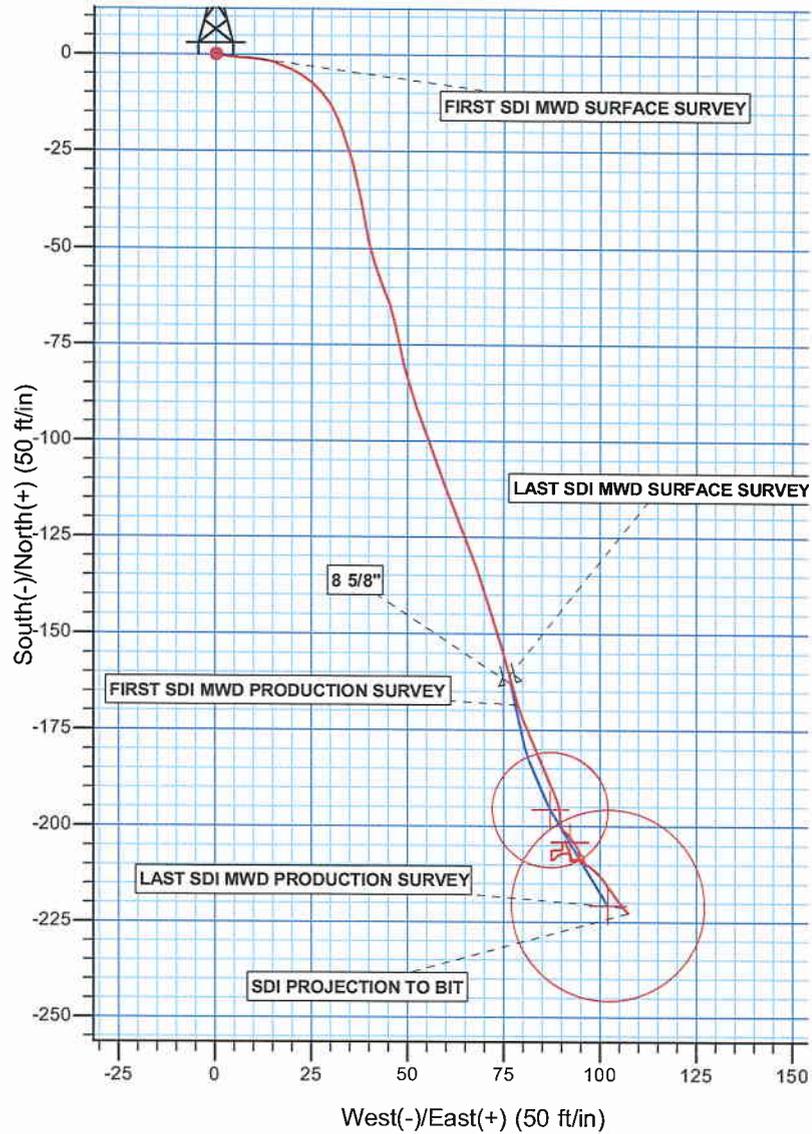
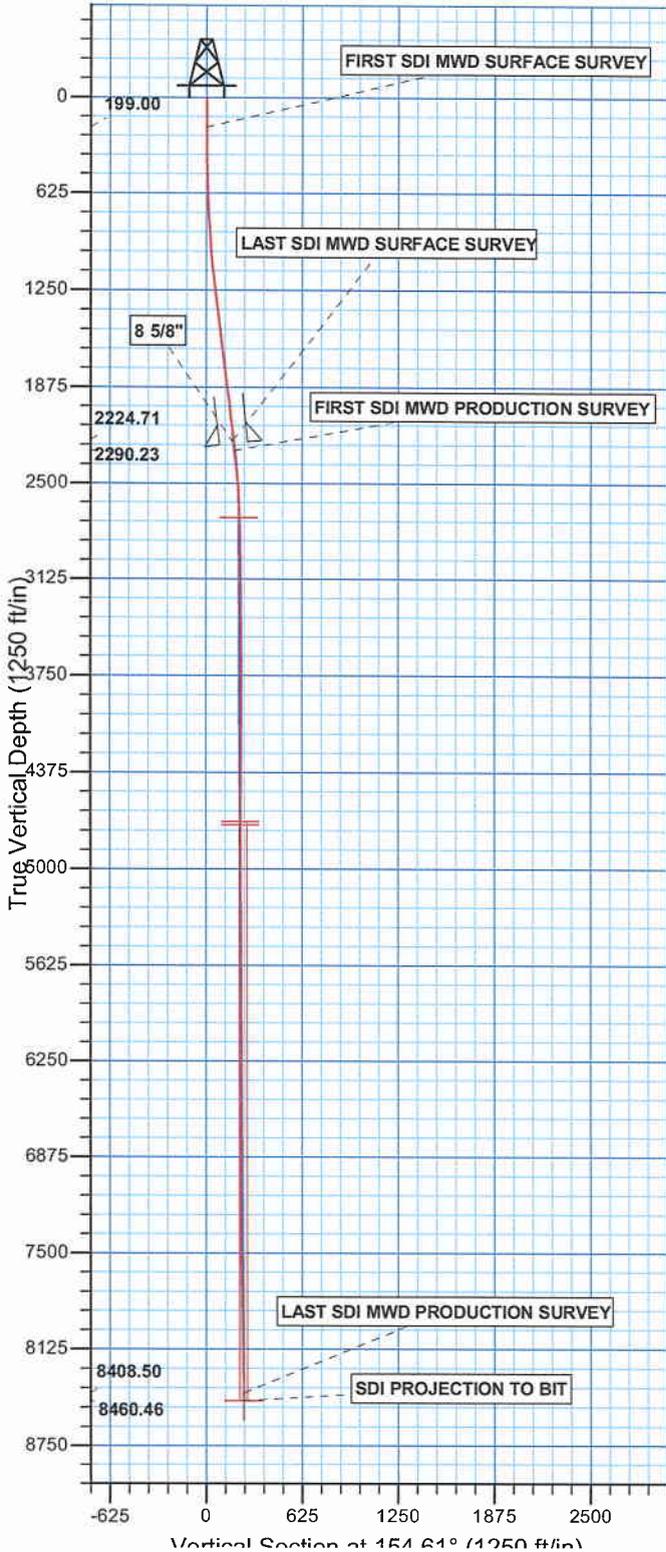
GL 5129 & KB 24 @ 5153.00ft (H&P 318)

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|-------|-------|-------------|------------|-----------|-------------|
| 0.00 | 0.00 | 14518605.03 | 2091591.96 | 39.968384 | -109.389775 |



Azimuths to True North
 Magnetic North: 11.00°

Magnetic Field
 Strength: 52306.1snT
 Dip Angle: 65.86°
 Date: 08/26/2011
 Model: IGRF2010



PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey F)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 12 T10S R22E
 System Datum: Mean Sea Level

Design: OH (NBU 1022-12C4CS/OH)

Created By: Gabe Kendall Date: 10-17 August 08 2012



Scientific Drilling

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

NBU 1022-12C PAD

NBU 1022-12C4CS

OH

Design: OH

Standard Survey Report

06 August, 2012

| | | | |
|------------------|------------------------------------|-------------------------------------|---------------------------------------|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well NBU 1022-12C4CS |
| Project: | UTAH - UTM (feet), NAD27, Zone 12N | TVD Reference: | GL 5129 & KB 24 @ 5153.00ft (H&P 318) |
| Site: | NBU 1022-12C PAD | MD Reference: | GL 5129 & KB 24 @ 5153.00ft (H&P 318) |
| Well: | NBU 1022-12C4CS | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | EDM 5000.1 Single User Db |

| | | | |
|--------------------|--|----------------------|----------------|
| Project | UTAH - UTM (feet), NAD27, Zone 12N | | |
| Map System: | Universal Transverse Mercator (US Survey Feet) | System Datum: | Mean Sea Level |
| Geo Datum: | NAD 1927 (NADCON CONUS) | | |
| Map Zone: | Zone 12N (114 W to 108 W) | | |

| | | | | | |
|------------------------------|--|---------------------|-------------------|--------------------------|-------------|
| Site | NBU 1022-12C PAD, SECTION 12 T10S R22E | | | | |
| Site Position: | Northing: | 14,518,632.89 usft | Latitude: | 39.968461 | |
| From: | Lat/Long | Easting: | 2,091,580.80 usft | Longitude: | -109.389813 |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13.200 in | Grid Convergence: | 1.03 ° |

| | | | | | | |
|-----------------------------|-----------------------------------|----------------------------|------------------|----------------------|-------------------|-------------|
| Well | NBU 1022-12C4CS, 855 FNL 2031 FWL | | | | | |
| Well Position | +N/-S | 0.00 ft | Northing: | 14,518,605.04 usft | Latitude: | 39.968384 |
| | +E/-W | 0.00 ft | Easting: | 2,091,591.96 usft | Longitude: | -109.389775 |
| Position Uncertainty | 0.00 ft | Wellhead Elevation: | ft | Ground Level: | 5,129.00 ft | |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | OH | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 08/26/11 | 11.00 | 65.86 | 52,306 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| Design | OH | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 154.61 | |

| | | | | | |
|-----------------------|----------------|-----------------------------------|------------------|------------------------------|--|
| Survey Program | Date | 08/06/12 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 20.00 | 2,235.00 | Survey #1 SDI MWD SURFACE (OH) | SDI MWD | SDI MWD - Standard ver 1.0.1 | |
| 2,301.00 | 8,473.00 | Survey #2 SDI MWD PRODUCTION (OH) | SDI MWD | SDI MWD - Standard ver 1.0.1 | |

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|-------------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20.00 | 0.00 | 0.00 | 20.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 199.00 | 0.26 | 311.05 | 199.00 | 0.27 | -0.31 | -0.37 | 0.15 | 0.15 | 0.00 |
| FIRST SDI MWD SURFACE SURVEY | | | | | | | | | |
| 284.00 | 0.54 | 95.58 | 284.00 | 0.35 | -0.05 | -0.34 | 0.90 | 0.33 | 170.04 |
| 366.00 | 1.58 | 111.89 | 365.98 | -0.10 | 1.38 | 0.69 | 1.31 | 1.27 | 19.89 |
| 456.00 | 2.66 | 94.53 | 455.92 | -0.73 | 4.61 | 2.64 | 1.38 | 1.20 | -19.29 |
| 546.00 | 3.14 | 92.40 | 545.81 | -1.00 | 9.16 | 4.83 | 0.55 | 0.53 | -2.37 |
| 636.00 | 3.87 | 105.30 | 635.64 | -1.91 | 14.55 | 7.96 | 1.19 | 0.81 | 14.33 |
| 726.00 | 3.34 | 118.39 | 725.46 | -3.95 | 19.79 | 12.06 | 1.08 | -0.59 | 14.54 |

| | | | |
|------------------|------------------------------------|-------------------------------------|---------------------------------------|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well NBU 1022-12C4CS |
| Project: | UTAH - UTM (feet), NAD27, Zone 12N | TVD Reference: | GL 5129 & KB 24 @ 5153.00ft (H&P 318) |
| Site: | NBU 1022-12C PAD | MD Reference: | GL 5129 & KB 24 @ 5153.00ft (H&P 318) |
| Well: | NBU 1022-12C4CS | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | EDM 5000.1 Single User Db |

| Survey | | | | | | | | | | |
|--|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 816.00 | 4.66 | 128.94 | 815.24 | -7.50 | 24.94 | 17.47 | 1.67 | 1.47 | 11.72 | |
| 906.00 | 4.57 | 149.24 | 904.96 | -12.88 | 29.62 | 24.33 | 1.81 | -0.10 | 22.56 | |
| 996.00 | 5.23 | 160.64 | 994.63 | -19.83 | 32.81 | 31.98 | 1.30 | 0.73 | 12.67 | |
| 1,086.00 | 5.89 | 163.21 | 1,084.20 | -28.12 | 35.50 | 40.63 | 0.78 | 0.73 | 2.86 | |
| 1,176.00 | 6.47 | 170.70 | 1,173.68 | -37.54 | 37.66 | 50.06 | 1.10 | 0.64 | 8.32 | |
| 1,266.00 | 7.15 | 168.20 | 1,263.05 | -48.03 | 39.62 | 60.38 | 0.82 | 0.76 | -2.78 | |
| 1,356.00 | 7.83 | 156.98 | 1,352.28 | -59.16 | 43.16 | 71.95 | 1.79 | 0.76 | -12.47 | |
| 1,446.00 | 6.86 | 168.40 | 1,441.55 | -70.07 | 46.64 | 83.30 | 1.94 | -1.08 | 12.69 | |
| 1,536.00 | 6.86 | 167.09 | 1,530.90 | -80.57 | 48.92 | 93.77 | 0.17 | 0.00 | -1.46 | |
| 1,626.00 | 7.12 | 159.53 | 1,620.24 | -91.03 | 52.08 | 104.57 | 1.06 | 0.29 | -8.40 | |
| 1,716.00 | 7.21 | 160.67 | 1,709.53 | -101.59 | 55.90 | 115.74 | 0.19 | 0.10 | 1.27 | |
| 1,806.00 | 7.34 | 158.78 | 1,798.81 | -112.28 | 59.85 | 127.09 | 0.30 | 0.14 | -2.10 | |
| 1,896.00 | 7.21 | 158.12 | 1,888.09 | -122.88 | 64.03 | 138.47 | 0.17 | -0.14 | -0.73 | |
| 1,986.00 | 6.86 | 160.49 | 1,977.41 | -133.19 | 67.93 | 149.45 | 0.51 | -0.39 | 2.63 | |
| 2,076.00 | 6.42 | 164.01 | 2,066.80 | -143.09 | 71.11 | 159.76 | 0.67 | -0.49 | 3.91 | |
| 2,166.00 | 6.86 | 161.46 | 2,156.20 | -153.02 | 74.21 | 170.06 | 0.59 | 0.49 | -2.83 | |
| 2,235.00 | 6.77 | 167.79 | 2,224.71 | -160.90 | 76.38 | 178.11 | 1.10 | -0.13 | 9.17 | |
| LAST SDI MWD SURFACE SURVEY | | | | | | | | | | |
| 2,301.00 | 7.12 | 160.47 | 2,290.23 | -168.56 | 78.57 | 185.97 | 1.44 | 0.53 | -11.09 | |
| FIRST SDI MWD PRODUCTION SURVEY | | | | | | | | | | |
| 2,395.00 | 5.10 | 155.46 | 2,383.69 | -177.85 | 82.25 | 195.94 | 2.22 | -2.15 | -5.33 | |
| 2,490.00 | 4.75 | 158.71 | 2,478.34 | -185.36 | 85.43 | 204.09 | 0.47 | -0.37 | 3.42 | |
| 2,584.00 | 3.17 | 155.37 | 2,572.12 | -191.35 | 87.93 | 210.57 | 1.70 | -1.68 | -3.55 | |
| 2,679.00 | 1.85 | 171.72 | 2,667.02 | -195.25 | 89.25 | 214.66 | 1.57 | -1.39 | 17.21 | |
| 2,773.00 | 2.37 | 174.71 | 2,760.96 | -198.69 | 89.64 | 217.94 | 0.57 | 0.55 | 3.18 | |
| 2,867.00 | 0.79 | 131.29 | 2,854.92 | -201.05 | 90.31 | 220.36 | 2.00 | -1.68 | -46.19 | |
| 2,962.00 | 1.32 | 134.19 | 2,949.91 | -202.25 | 91.59 | 221.98 | 0.56 | 0.56 | 3.05 | |
| 3,056.00 | 1.06 | 154.49 | 3,043.89 | -203.79 | 92.74 | 223.87 | 0.52 | -0.28 | 21.60 | |
| 3,150.00 | 1.14 | 138.41 | 3,137.87 | -205.27 | 93.73 | 225.64 | 0.34 | 0.09 | -17.11 | |
| 3,245.00 | 0.79 | 179.72 | 3,232.86 | -206.63 | 94.36 | 227.14 | 0.80 | -0.37 | 43.48 | |
| 3,339.00 | 0.35 | 359.19 | 3,326.85 | -207.00 | 94.36 | 227.46 | 1.21 | -0.47 | 190.93 | |
| 3,434.00 | 0.35 | 156.95 | 3,421.85 | -206.97 | 94.47 | 227.49 | 0.72 | 0.00 | 166.06 | |
| 3,528.00 | 0.53 | 188.77 | 3,515.85 | -207.67 | 94.52 | 228.13 | 0.32 | 0.19 | 33.85 | |
| 3,622.00 | 1.06 | 169.43 | 3,609.84 | -208.95 | 94.61 | 229.33 | 0.62 | 0.56 | -20.57 | |
| 3,717.00 | 0.44 | 54.30 | 3,704.84 | -209.60 | 95.07 | 230.12 | 1.38 | -0.65 | -121.19 | |
| 3,811.00 | 0.35 | 124.26 | 3,798.83 | -209.55 | 95.60 | 230.30 | 0.49 | -0.10 | 74.43 | |
| 3,906.00 | 0.70 | 323.24 | 3,893.83 | -209.25 | 95.49 | 229.98 | 1.09 | 0.37 | -169.49 | |
| 4,000.00 | 0.26 | 280.00 | 3,987.83 | -208.75 | 94.94 | 229.30 | 0.58 | -0.47 | -46.00 | |
| 4,094.00 | 0.26 | 268.58 | 4,081.83 | -208.72 | 94.51 | 229.09 | 0.06 | 0.00 | -12.15 | |
| 4,189.00 | 0.53 | 257.06 | 4,176.83 | -208.83 | 93.87 | 228.90 | 0.29 | 0.28 | -12.13 | |
| 4,283.00 | 0.62 | 199.84 | 4,270.82 | -209.40 | 93.27 | 229.17 | 0.59 | 0.10 | -60.87 | |
| 4,378.00 | 1.06 | 330.80 | 4,365.82 | -209.12 | 92.67 | 228.65 | 1.62 | 0.46 | 137.85 | |
| 4,472.00 | 0.62 | 341.17 | 4,459.81 | -207.88 | 92.08 | 227.28 | 0.49 | -0.47 | 11.03 | |

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-12C PAD
Well: NBU 1022-12C4CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-12C4CS
TVD Reference: GL 5129 & KB 24 @ 5153.00ft (H&P 318)
MD Reference: GL 5129 & KB 24 @ 5153.00ft (H&P 318)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

| Survey | | | | | | | | | |
|---------------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 4,566.00 | 0.70 | 354.53 | 4,553.80 | -206.82 | 91.86 | 226.24 | 0.18 | 0.09 | 14.21 |
| 4,661.00 | 0.70 | 324.47 | 4,648.79 | -205.77 | 91.47 | 225.12 | 0.38 | 0.00 | -31.64 |
| 4,756.00 | 0.44 | 4.90 | 4,743.79 | -204.94 | 91.16 | 224.23 | 0.49 | -0.27 | 42.56 |
| 4,850.00 | 0.26 | 17.12 | 4,837.79 | -204.38 | 91.26 | 223.76 | 0.21 | -0.19 | 13.00 |
| 4,945.00 | 0.35 | 277.72 | 4,932.79 | -204.13 | 91.03 | 223.45 | 0.49 | 0.09 | -104.63 |
| 5,039.00 | 0.18 | 4.46 | 5,026.79 | -203.95 | 90.76 | 223.16 | 0.41 | -0.18 | 92.28 |
| 5,133.00 | 0.44 | 240.45 | 5,120.79 | -203.98 | 90.46 | 223.06 | 0.60 | 0.28 | -131.93 |
| 5,228.00 | 0.53 | 173.39 | 5,215.78 | -204.59 | 90.19 | 223.50 | 0.57 | 0.09 | -70.59 |
| 5,322.00 | 0.35 | 200.02 | 5,309.78 | -205.29 | 90.14 | 224.12 | 0.28 | -0.19 | 28.33 |
| 5,417.00 | 0.53 | 166.80 | 5,404.78 | -205.99 | 90.14 | 224.75 | 0.32 | 0.19 | -34.97 |
| 5,511.00 | 0.88 | 279.47 | 5,498.77 | -206.30 | 89.53 | 224.76 | 1.27 | 0.37 | 119.86 |
| 5,606.00 | 0.88 | 265.50 | 5,593.76 | -206.24 | 88.09 | 224.08 | 0.23 | 0.00 | -14.71 |
| 5,700.00 | 0.18 | 192.11 | 5,687.76 | -206.44 | 87.33 | 223.94 | 0.90 | -0.74 | -78.07 |
| 5,794.00 | 0.44 | 191.93 | 5,781.76 | -206.93 | 87.23 | 224.35 | 0.28 | 0.28 | -0.19 |
| 5,889.00 | 0.18 | 116.79 | 5,876.76 | -207.36 | 87.29 | 224.76 | 0.45 | -0.27 | -79.09 |
| 5,983.00 | 0.53 | 188.77 | 5,970.75 | -207.85 | 87.35 | 225.23 | 0.54 | 0.37 | 76.57 |
| 6,077.00 | 0.53 | 178.58 | 6,064.75 | -208.72 | 87.30 | 225.99 | 0.10 | 0.00 | -10.84 |
| 6,172.00 | 0.79 | 43.66 | 6,159.75 | -208.68 | 87.76 | 226.16 | 1.29 | 0.27 | -142.02 |
| 6,266.00 | 0.88 | 52.98 | 6,253.74 | -207.78 | 88.78 | 225.78 | 0.17 | 0.10 | 9.91 |
| 6,360.00 | 0.79 | 71.61 | 6,347.73 | -207.14 | 89.97 | 225.71 | 0.30 | -0.10 | 19.82 |
| 6,455.00 | 1.06 | 97.10 | 6,442.71 | -207.04 | 91.47 | 226.26 | 0.51 | 0.28 | 26.83 |
| 6,549.00 | 0.09 | 238.17 | 6,536.71 | -207.19 | 92.27 | 226.74 | 1.20 | -1.03 | 150.07 |
| 6,644.00 | 0.44 | 177.78 | 6,631.71 | -207.59 | 92.22 | 227.08 | 0.42 | 0.37 | -63.57 |
| 6,738.00 | 0.62 | 144.39 | 6,725.70 | -208.37 | 92.53 | 227.92 | 0.37 | 0.19 | -35.52 |
| 6,832.00 | 0.53 | 75.57 | 6,819.70 | -208.67 | 93.25 | 228.50 | 0.70 | -0.10 | -73.21 |
| 6,927.00 | 0.44 | 102.55 | 6,914.70 | -208.64 | 94.03 | 228.81 | 0.26 | -0.09 | 28.40 |
| 7,021.00 | 0.88 | 3.32 | 7,008.69 | -208.00 | 94.42 | 228.40 | 1.11 | 0.47 | -105.56 |
| 7,116.00 | 0.26 | 342.40 | 7,103.69 | -207.07 | 94.40 | 227.54 | 0.68 | -0.65 | -22.02 |
| 7,210.00 | 0.26 | 135.60 | 7,197.69 | -207.02 | 94.48 | 227.53 | 0.54 | 0.00 | 162.98 |
| 7,305.00 | 0.62 | 120.48 | 7,292.69 | -207.43 | 95.08 | 228.16 | 0.39 | 0.38 | -15.92 |
| 7,399.00 | 0.44 | 171.72 | 7,386.68 | -208.05 | 95.57 | 228.93 | 0.52 | -0.19 | 54.51 |
| 7,494.00 | 0.88 | 168.73 | 7,481.68 | -209.12 | 95.76 | 229.98 | 0.46 | 0.46 | -3.15 |
| 7,588.00 | 0.09 | 22.66 | 7,575.67 | -209.76 | 95.93 | 230.64 | 1.02 | -0.84 | -155.39 |
| 7,682.00 | 0.53 | 127.77 | 7,669.67 | -209.96 | 96.30 | 230.97 | 0.60 | 0.47 | 111.82 |
| 7,776.00 | 0.88 | 115.29 | 7,763.66 | -210.54 | 97.30 | 231.92 | 0.40 | 0.37 | -13.28 |
| 7,870.00 | 1.06 | 139.64 | 7,857.65 | -211.51 | 98.52 | 233.32 | 0.47 | 0.19 | 25.90 |
| 7,965.00 | 1.14 | 135.51 | 7,952.63 | -212.85 | 99.75 | 235.06 | 0.12 | 0.08 | -4.35 |
| 8,058.00 | 0.79 | 145.35 | 8,045.62 | -214.04 | 100.76 | 236.57 | 0.42 | -0.38 | 10.58 |
| 8,153.00 | 1.06 | 150.27 | 8,140.61 | -215.34 | 101.57 | 238.09 | 0.30 | 0.28 | 5.18 |
| 8,247.00 | 1.32 | 137.00 | 8,234.59 | -216.89 | 102.74 | 239.99 | 0.40 | 0.28 | -14.12 |
| 8,342.00 | 1.93 | 148.34 | 8,329.55 | -219.05 | 104.32 | 242.62 | 0.72 | 0.64 | 11.94 |
| 8,421.00 | 2.11 | 138.41 | 8,408.50 | -221.27 | 105.99 | 245.34 | 0.50 | 0.23 | -12.57 |
| LAST SDI MWD PRODUCTION SURVEY | | | | | | | | | |
| 8,473.00 | 2.11 | 138.41 | 8,460.46 | -222.70 | 107.26 | 247.18 | 0.00 | 0.00 | 0.00 |

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-12C PAD
Well: NBU 1022-12C4CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-12C4CS
TVD Reference: GL 5129 & KB 24 @ 5153.00ft (H&P 318)
MD Reference: GL 5129 & KB 24 @ 5153.00ft (H&P 318)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|-----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| SDI PROJECTION TO BIT | | | | | | | | | |

| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (in) | Hole Diameter (in) |
|---------------------|---------------------|--------|----------------------|--------------------|
| 2,252.00 | 2,241.59 | 8 5/8" | 8.625 | 11.000 |

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
|---------------------|---------------------|-------------------|------------|---------------------------------|
| | | +N/-S (ft) | +E/-W (ft) | |
| 199.00 | 199.00 | 0.27 | -0.31 | FIRST SDI MWD SURFACE SURVEY |
| 2,235.00 | 2,224.71 | -160.90 | 76.38 | LAST SDI MWD SURFACE SURVEY |
| 2,301.00 | 2,290.23 | -168.56 | 78.57 | FIRST SDI MWD PRODUCTION SURVEY |
| 8,421.00 | 8,408.50 | -221.27 | 105.99 | LAST SDI MWD PRODUCTION SURVEY |
| 8,473.00 | 8,460.46 | -222.70 | 107.26 | SDI PROJECTION TO BIT |

Checked By: _____ Approved By: _____ Date: _____