Form 3160-3
(August 2007)

FORM APPROVED
OMB NO. 1004-0137
Expires: July 31, 2010

# UNITED STATES
# DEPARTMENT OF THE INTERIOR
# BUREAU OF LAND MANAGEMENT
# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: UTU-000577A

6. If Indian, Allottee or Tribe Name: Ute Tribe

7. If Unit or CA Agreement, Name and No.: 891008900A

8. Lease Name and Well No.: NBU 920-22O

1a. Type of Work: [X] DRILL [ ] REENTER

1b. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [ ] Single Zone [X] Multiple Zone

9. API Well No.: 43-047-40542

2. Name of Operator: Kerr-McGee Oil & Gas Onshore, LP

3a. Address: PO Box 173779, Denver, CO 80217-3779

3b. Phone No. *(include area code)*: Raleen White 720-929-6666

10. Field and Pool, or Exploratory: Natural Buttes Field

4. Location of well *(Report location clearly and In accordance with any State requirements.*)* *NAD 83*

At surface: 198' FSL 2,487' FEL SW/4 SE/4 Lat. 40.014011 Long. -109.651847

At proposed prod. zone: 615112 X 40.014003 / 44299734 -109.651227

11. Sec.,T.,R.,M.,or Blk.and Survey or Area: 22 T 9S R 20E S.L.B. & M.

14. Distance in miles and direction from the nearest town or post office*: Approximately 38 miles south of Vernal, Utah

12. County or Parish: Uintah

13. State: Utah

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any): 198'

16. No. of acres in lease: 2,091.18

17. Spacing Unit dedicated to this well: Unit well

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: ±1,800'

19. Proposed Depth: 10,500'

20. BLM/ BIA Bond No. on file: WYB000291

21. Elevations (Show whether DF. RT, GR, etc.): 4,831 ' GR KB

22. Aproximate date work will start*: ASAP

23. Estimated duration: 10 days

## 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1 shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan ( if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by existing bond on file(see item 20 above).
5. Operator certification.
6. Such other site specific information and/ or plans as may be required by the a authorized officer.

25. Signature: Raleen White — Name *(Printed/ Typed)*: Raleen White — Date: 2-13-2009

Title: Sr Regulatory Analyst — E-mail: raleen.white@anadarko.com — Phone: 720-929-6666

Approved By *(Signature)*: — Name *(Printed/ Typed)*: BRADLEY G. HILL — Date: 03-02-09

Title: — Office ENVIRONMENTAL MANAGER

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

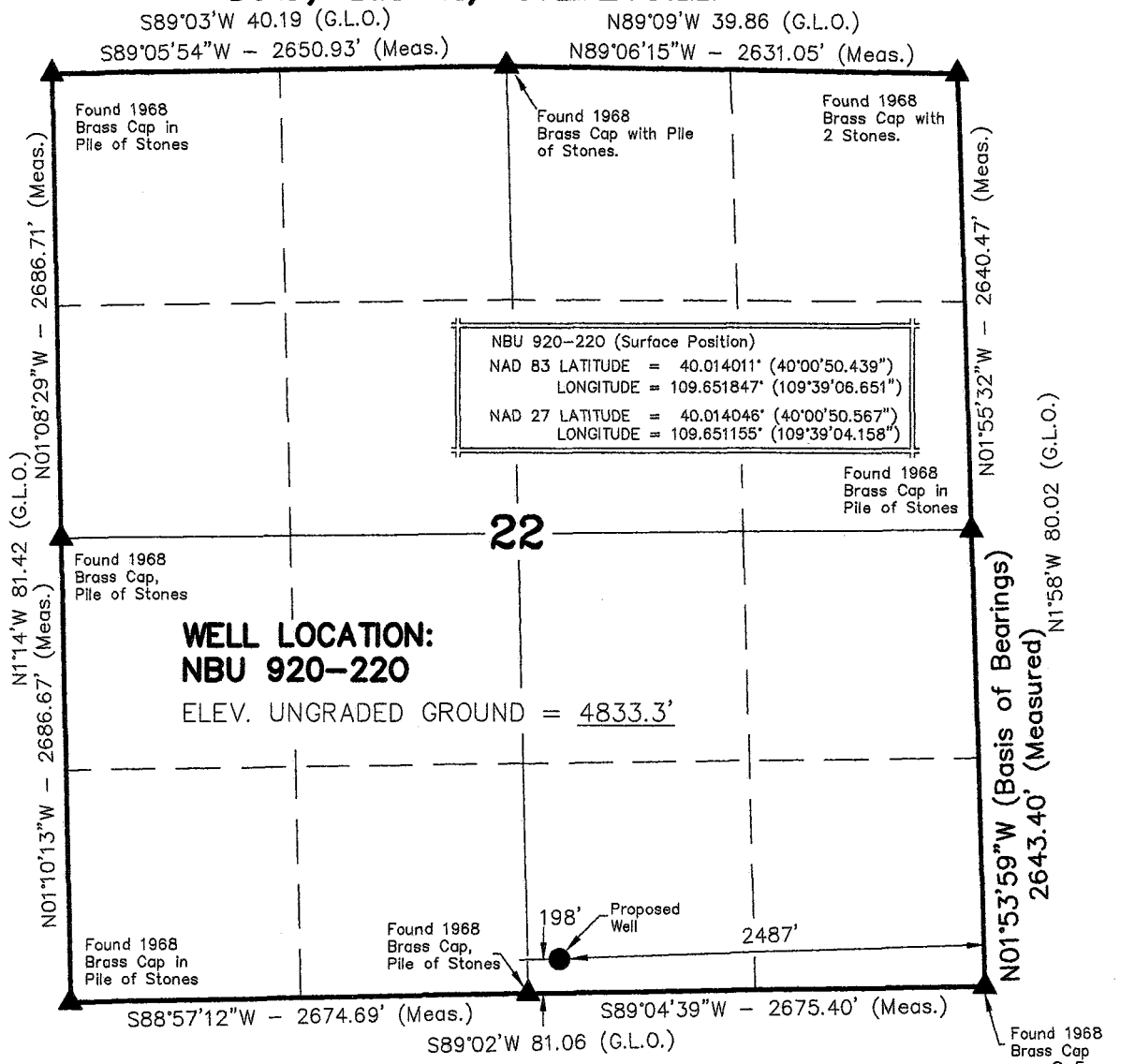
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* *(Instructions on page 2)*

RECEIVED
FEB 17 2009
DIV. OF OIL, GAS & MINING

***Federal Approval of this Action is Necessary***

# T9S, R20E, 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. Bearings are based on Global Positioning Satellite observations.
4. Basis of elevation is the Northwest Corner of Section 12, T9S, R20E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 4676'.

N

## 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.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 362251
STATE OF UTAH

REGISTERED LAND SURVEYOR No. 362251 KOLBY R. KAY STATE OF UTAH

**Kerr-McGee Oil & Gas Onshore, LP**

1099 18th Street – Denver, Colorado 80202

**NBU 920-22O**
**WELL PLAT**
**198' FSL, 2487' FEL**
**SW1/4 SE1/4 OF SECTION 22, T9S, R20E, S.L.B.&M. UINTAH COUNTY, UTAH.**


609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182



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


| | | |
|---|---|---|
| DATE SURVEYED: 12-15-08 | SURVEYED BY: DJS | SHEET |
| DATE DRAWN: 01-08-09 | DRAWN BY: K.K.O. | 1 |
| SCALE: 1" = 1000' | Date Last Revised: 1-22-09 | OF 9 |

**NBU 920-22O**
**SWSE Sec. 22, T9S R20E**
**UINTAH COUNTY, UTAH**
**UTU-000577A**

# ONSHORE ORDER NO. 1

## *DRILLING PROGRAM*

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

| Formation | Depth | Resource |
|---|---|---|
| Uinta | 0 – Surface | |
| Green River | 1,679' | |
| Birds Nest | 1,908' | Water |
| Mahogany | 2,415' | Water |
| Wasatch | 5,066' | Gas |
| Mesaverde | 8,386' | Gas |
| MVU2 | 9,324' | Gas |
| MVL1 | 9,765' | Gas |
| TD | 10,500' | |

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

*Please see the Natural Buttes Unit Standard Operating Procedure (SOP).*

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

*Please see the Natural Buttes Unit SOP. See attached drilling diagram.*

**5. Drilling Fluids Program:**

*Please see the Natural Buttes Unit SOP.*

**6. Evaluation Program:**

*Please see the Natural Buttes Unit SOP.*

**7. Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 10,500' TD, approximately equals 6,705 psi (calculated at 0.64 psi/foot).

Maximum anticipated surface pressure equals approximately 4,395 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

**8. Anticipated Starting Dates:**

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

**9. Variances:**

*Please see Natural Buttes Unit SOP 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 to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 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 9-5/8 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.*

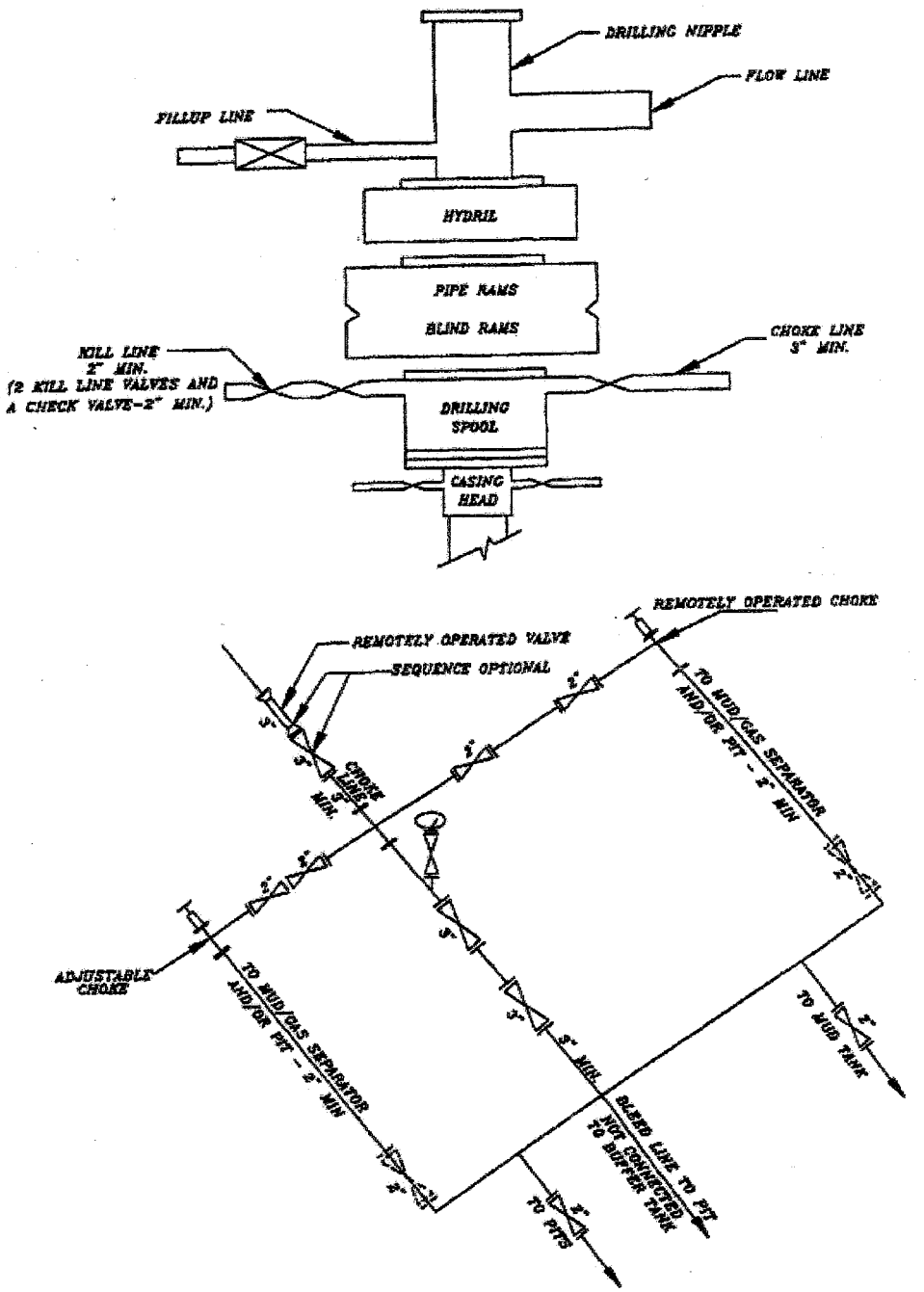
***Conclusion***

*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 see Natural Buttes Unit SOP.*

# EXHIBIT A
# NBU 920-22O




SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

**NBU 920-22O**
**SWSE Sec. 22 T9S R20E**
**UINTAH COUNTY, UTAH**
**UTU-000577A**

# ONSHORE ORDER NO. 1

## *MULTI-POINT SURFACE USE & OPERATIONS PLAN*

1. **Existing Roads:**

Refer to the attached location directions.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. **Planned Access Roads:**

Approximately ±480' of new access road is proposed. Refer to Topo Map B.

***Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.***

*Please see the Natural Buttes Unit Standard Operating Procedure (SOP).*

3. **Location of Existing Wells Within a 1-Mile Radius:**

Please refer to Topo Map C.

4. **Location of Existing & Proposed Facilities:**

*Please see the Natural Buttes Unit SOP.*

Refer to Topo Map D for the location of the proposed pipelines.

**Variances to Best Management Practices (BMPs) Requested:**

This exception to the BMP should be granted by the BLM Authorized Officer because indurated bedrock, such as sandstone, is at or within 2 feet of the surface and the soil has a poor history for successful rehabilitation.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Shadow gray (2.5Y 6/2), a non-reflective earthtone.

Interim Surface Reclamation Plan:

This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

5. **Location and Type of Water Supply:**

*Please see the Natural Buttes SOP.*

6. **Source of Construction Materials:**

*Please see the Natural Buttes SOP.*

7. **Methods of Handling Waste Materials:**

*Please see the Natural Buttes SOP.*

A plastic reinforced liner is to be used as discussed during on-site inspection. It will be a minimum of 20 mil thick and felt, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility Sec. 36, T9S, R20E,Goat Pasture Evaporation Pond SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond Sec. 2, T10S, R23E *(Request is in lieu of filing Form 3160-5, after initial production).*

8. **Ancillary Facilities:**

*Please see the Natural Buttes SOP.*

9. **Well Site Layout:** (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be re-surveyed and a form 3160-5 will be submitted.

10. **Plans for Reclamation of the Surface:**

*Please see the Natural Buttes SOP.*

Operator shall call the BIA for the seed mixture when the final reclamation occurs.

11. **Surface/Mineral Ownership:**

The well pad and access road are located on lands owned by:

Ute Indian Tribe
P.O. Box 70
Fort Duchesne, Utah 84026
(435) 722-5141

The mineral ownership is listed below:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

12. **Stipulations/Notices/Mitigation:**

There are no stipulations or notices for this location.

13. **Other Information:**

A Class III archaeological survey and Paleo Survey has been performed and will be submitted upon receipt.

14. **Lessee's or Operator's Representative & Certification:**

Raleen White
Sr. Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
P.O. Box 173779
Denver, CO 80217-3779
(720) 929-6666

Tommy Thompson
Drilling Manager
Kerr-McGee Oil & Gas Onshore LP
P.O. 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.

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 the terms and conditions of the lease for the operations conducted upon leased lands.

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.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided 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.

Raleen White

Raleen White

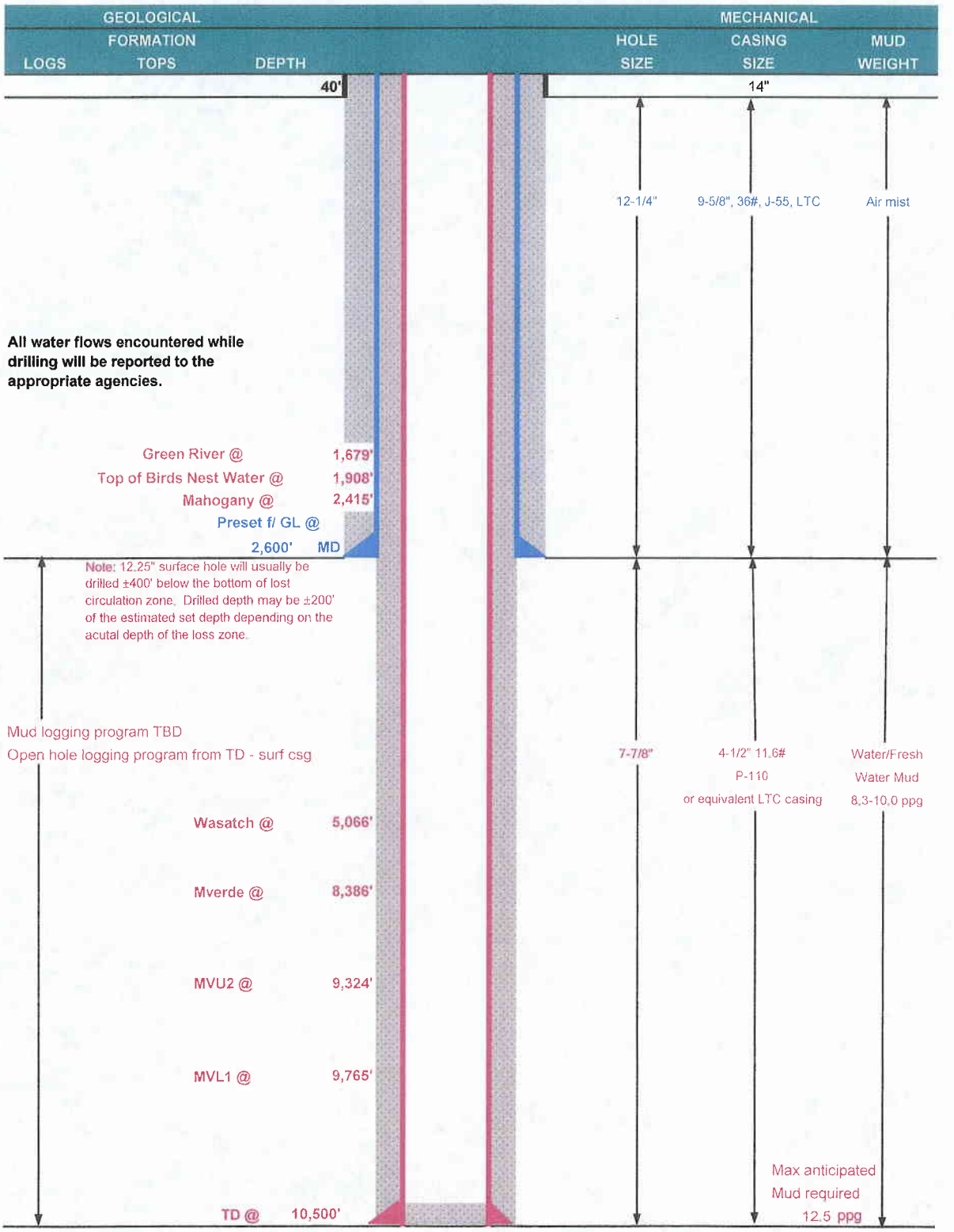
*2/9/2009*

Date

# KERR-McGEE OIL & GAS ONSHORE LP

## DRILLING PROGRAM

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| COMPANY NAME | KERR-McGEE OIL & GAS ONSHORE LP | | | DATE | February 9, 2009 | | |
| WELL NAME | NBU 920-22O | | | TD | 10,500' MD/TVD | | |
| FIELD | Natural Buttes | COUNTY | Uintah | STATE | Utah | ELEVATION | 4,831' GL KB 4,846' |
| SURFACE LOCATION | SW/4 SE/4 198' FSL 2,487' FEL | Sec 22 | T 9S | R 20E | | BHL | Straight Hole |
| | Latitude: 40.014011 | Longitude: | -109.651847 | | NAD 83 | | |
| OBJECTIVE ZONE(S) | Wasatch/Mesaverde | | | | | | |
| ADDITIONAL INFO | Regulatory Agencies: BLM (MINERALS), BIA (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' | | | | | | | | |
| | | | | | | | | 3,520 | 2,020 | 453,000 |
| SURFACE | 9-5/8" | 0 | to | 2600 | 36.00 | J-55 | LTC | 0.78 | 1.66 | 6.16 |
| | | | | | | | | 10,690 | 7,580 | 279,000 |
| PRODUCTION | 4-1/2" | 0 | to | 10500 | 11.60 | P-110 | LTC | 2.37 | 1.11 | 2.62 |

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 12.5 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 4,395 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 12.5 ppg) 0.64 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 6,705 psi

### CEMENT PROGRAM

| | | FT. OF FILL | DESCRIPTION | SACKS | EXCESS | WEIGHT | YIELD |
|---|---|---|---|---|---|---|---|
| SURFACE | LEAD | 500 | Premium cmt + 2% CaCl + .25 pps flocele | 215 | 60% | 15.60 | 1.18 |
| Option 1 | TOP OUT CMT (1) | 200 | 20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele | 50 | | 15.60 | 1.18 |
| | TOP OUT CMT (2) | as required | Premium cmt + 2% CaCl | as req. | | 15.60 | 1.18 |
| SURFACE | | NOTE: If well will circulate water to surface, option 2 will be utilized | | | | | |
| Option 2 | LEAD | 1500 | Prem cmt + 16% Gel + 10 pps gilsonite + .25 pps Flocele + 3% salt BWOC | 170 | 35% | 11.00 | 3.82 |
| | TAIL | 500 | Premium cmt + 2% CaCl + .25 pps flocele | 180 | 35% | 15.60 | 1.18 |
| | TOP OUT CMT | as required | Premium cmt + 2% CaCl | as req. | | 15.60 | 1.18 |
| PRODUCTION | LEAD | 4,560' | Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender | 500 | 60% | 11.00 | 3.38 |
| | TAIL | 5,940' | 50/50 Poz/G + 10% salt + 2% gel + 1% R-3 | 1660 | 60% | 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. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers. |

### ADDITIONAL INFORMATION

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

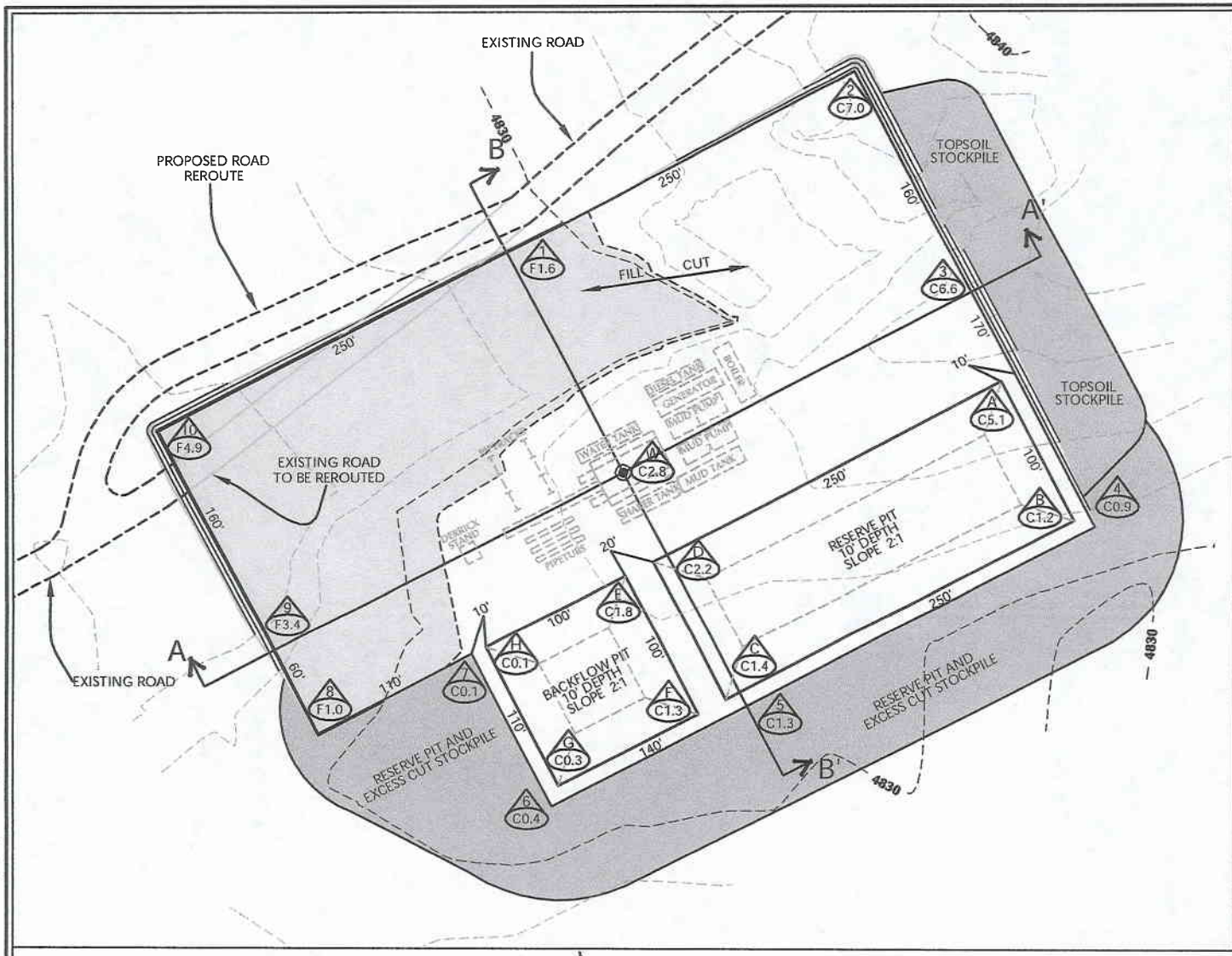
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and 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.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

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

**DRILLING ENGINEER:** _____ **DATE:** _____
John Huycke / Grant Schluender

**DRILLING SUPERINTENDENT:** _____ **DATE:** _____
John Merkel / Lovel Young




## WELL PAD LEGEND

- WELL LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)

## WELL PAD NBU 920-22O QUANTITIES

EXISTING GRADE @ LOC. STAKE = 4833.3'
FINISHED GRADE ELEVATION = 4830.5'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 6,893 C.Y.
TOTAL FILL FOR WELL PAD = 6,320 C.Y.
TOPSOIL @ 6" DEPTH = 2,950 C.Y.
EXCESS MATERIAL = 573 C.Y.
TOTAL DISTURBANCE = 3.66 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 25,880 BARRELS
RESERVE PIT VOLUME
+/- 7,185 CY
BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
+/- 8,780 BARRELS
BACKFLOW PIT VOLUME
+/- 2,520 CY

HORIZONTAL 0 50 100 1" = 100'
2' CONTOURS

KERR-MCGEE OIL & GAS ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

NBU 920-22O
WELL PAD - LOCATION LAYOUT
198' FSL, 2487' FEL
SW1/4 SE1/4, SECTION 22, T9S, R20E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

| Scale: 1"=100' | Date: 1/22/09 | SHEET NO: |
|---|---|---|
| REVISED: | BY DATE | 2 OF 9 |

Timberline Engineering & Land Surveying, Inc.
(435) 789-1365
38 WEST 100 NORTH VERNAL, UTAH 84078

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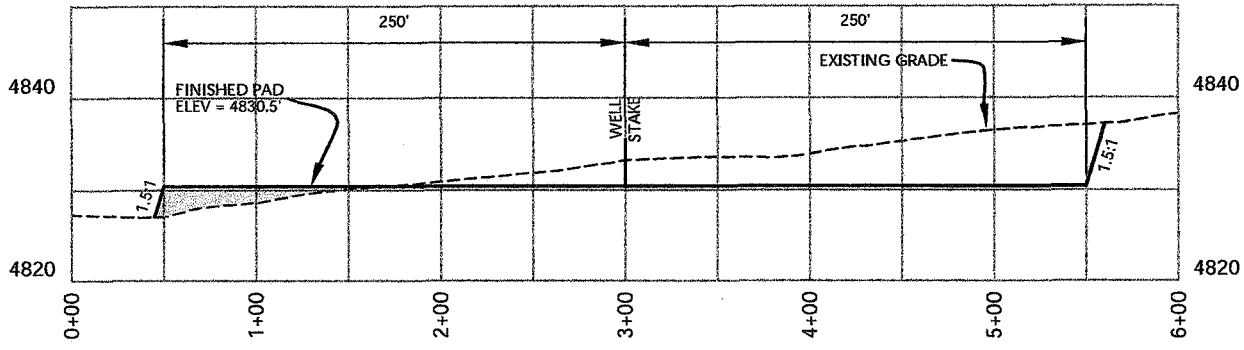
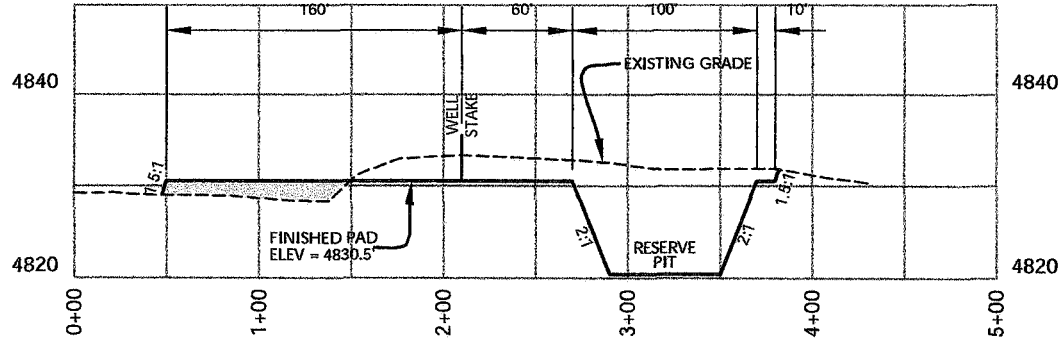



## CROSS SECTION A-A'




## CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS MAXIMUM RESERVE PIT DEPTH.

KERR-MCGEE OIL & GAS
ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

NBU 920-22O
WELL PAD - CROSS SECTIONS
198' FSL, 2487' FEL
SW1/4 SE1/4, SECTION 22, T9S, R20E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

| Scale: 1"=100' | Date: 1/22/09 | SHEET NO: |
|---|---|---|
| REVISED: | BY DATE | 3 3 OF 9 |

HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

*Timberline* (435) 789-1365
*Engineering & Land Surveying, Inc.*
38 WEST 100 NORTH VERNAL, UTAH 84078

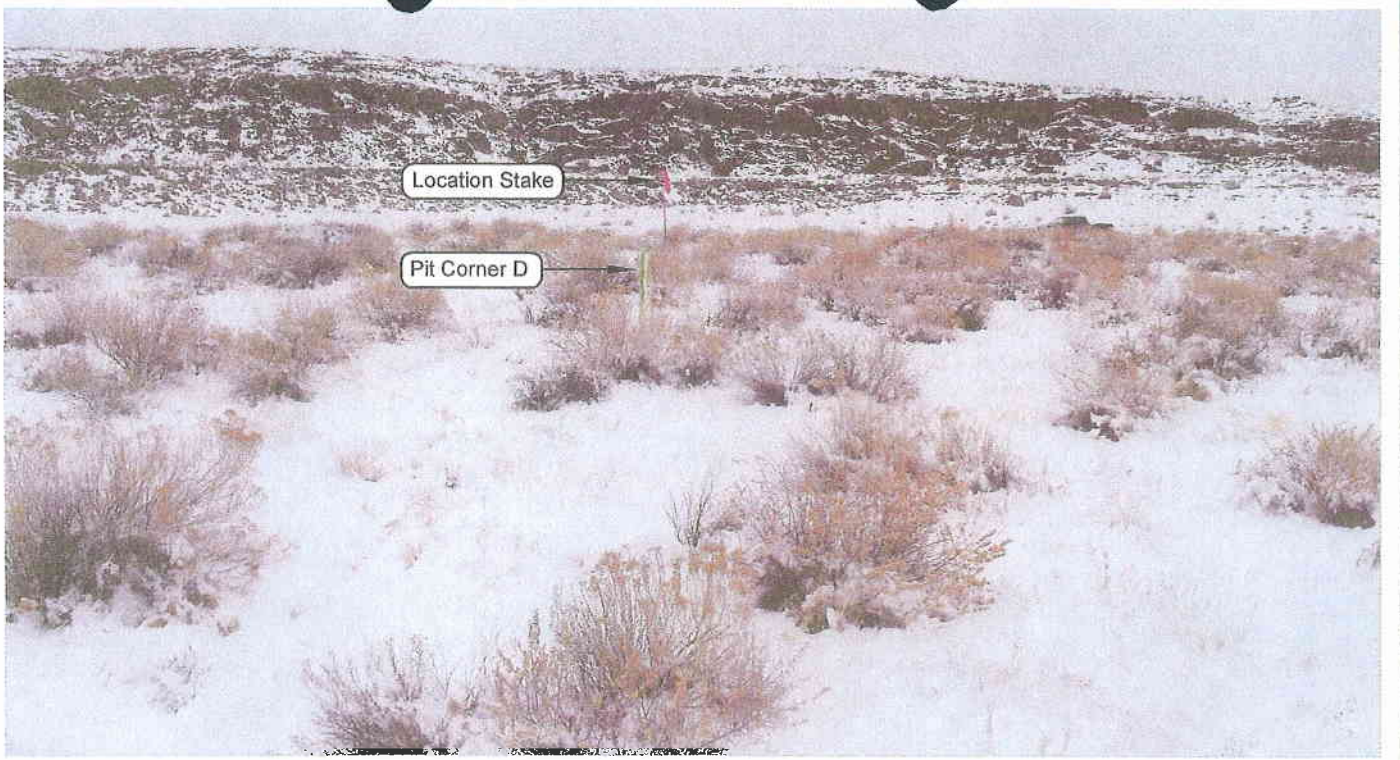



PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY


PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: EASTERLY

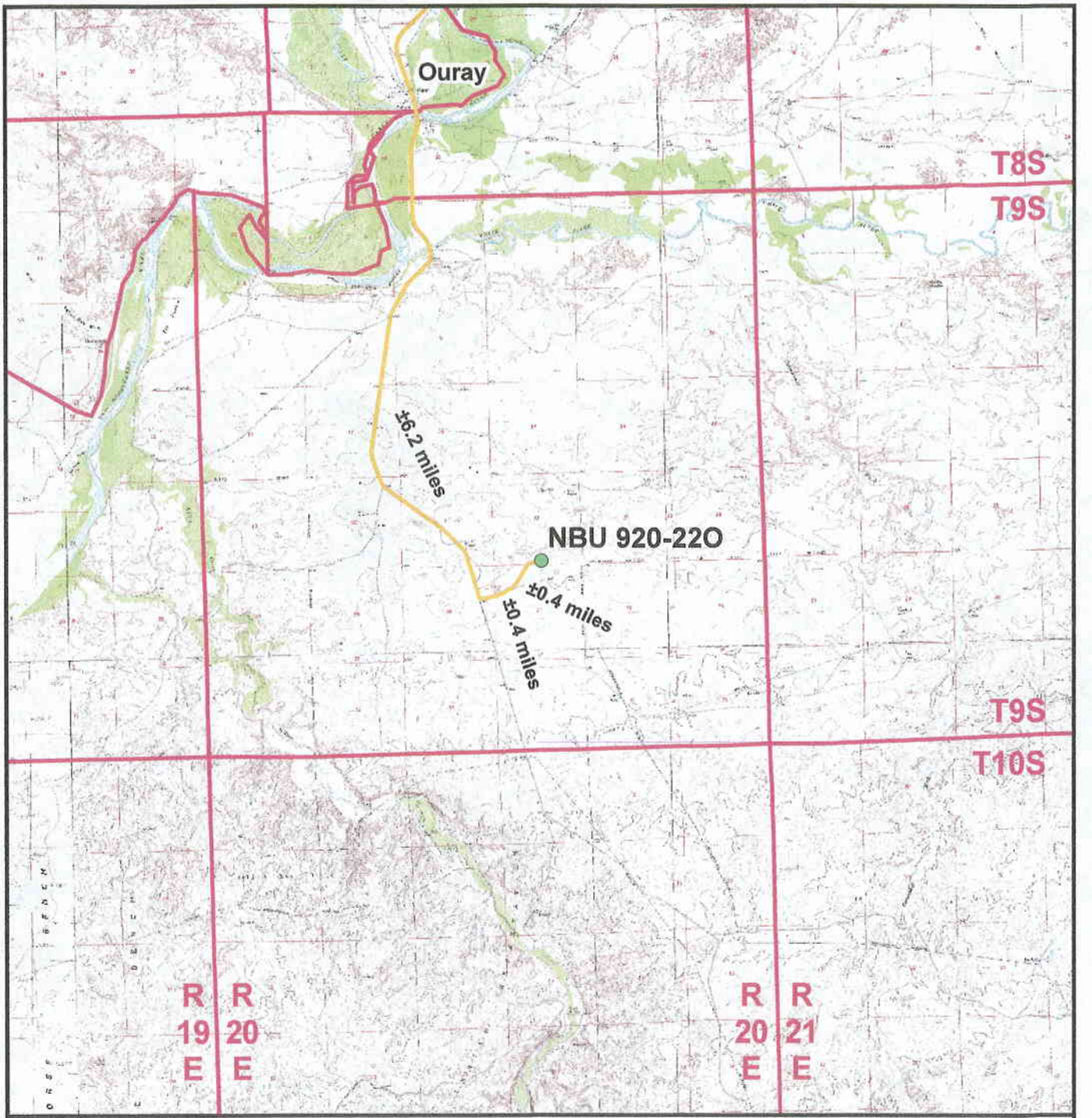
Kerr–McGee
Oil & Gas Onshore, LP
1099 18th Street – Denver, Colorado 80202

NBU 920-22O
198' FSL, 2487' FEL
SW¼ SE¼ OF SECTION 22, T9S, R20E,
S.L.B.&M. UINTAH COUNTY, UTAH.

CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

| LOCATION PHOTOS | | DATE TAKEN: 12-15-08 |
|---|---|---|
| | | DATE DRAWN: 01-08-09 |
| TAKEN BY: DJS | DRAWN BY: K.K.O. | REVISED: |

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
209 NORTH 300 WEST VERNAL, UTAH 84078




**Legend**

- Proposed NBU 920-22O Well Location
- Access Route - Proposed

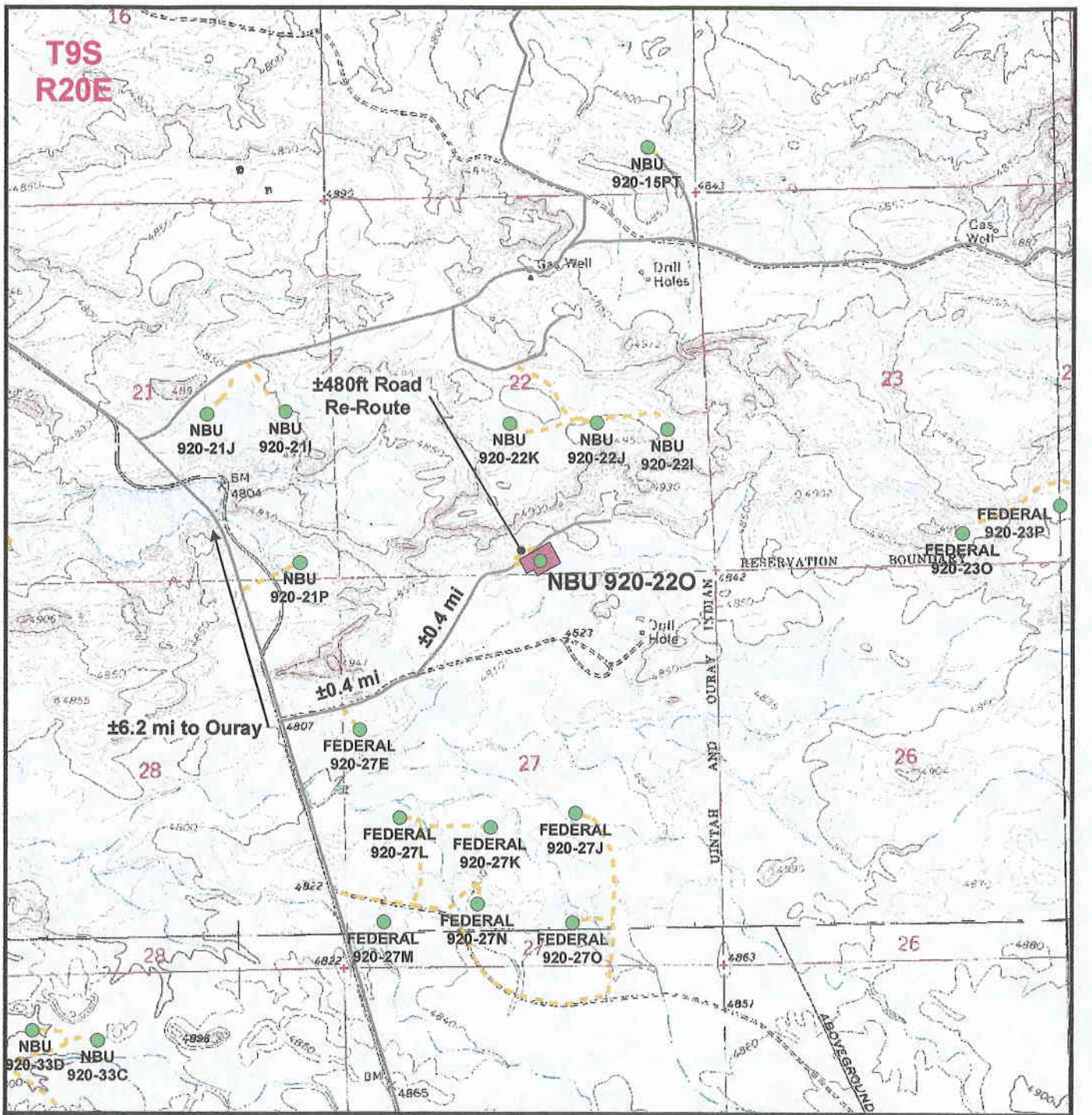
**Kerr-McGee Oil & Gas Onshore, LP**
1099 18th Street, Denver, Colorado 80202

**NBU 920-22O**
**Topo A**
**198' FSL, 2487' FEL**
**SW¼ SE¼, Section 22, T9S, R20E**
**S.L.B.&M., Uintah County, Utah**

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

| | | | |
|---|---|---|---|
| Scale: 1:100,000 | NAD83 USP Central | Sheet No: | |
| Drawn: JELo | Date: 12 Jan 2009 | 5 | 5 of 9 |
| Revised: | Date: | | |




**Legend**

Well - Proposed | Well Pad | Road - Proposed | Road - Existing

Total Proposed Road Length: ±480ft

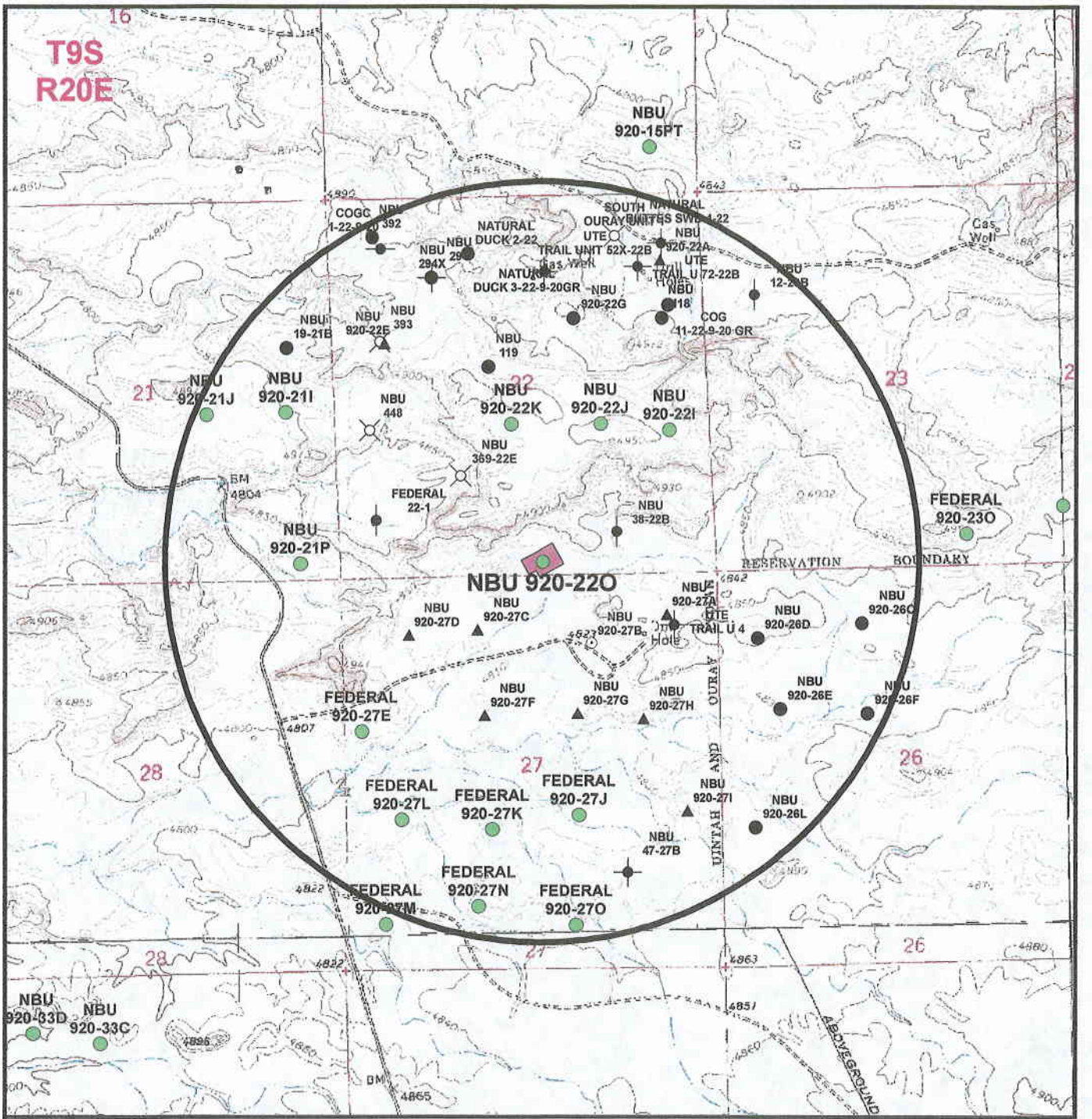

**Kerr-McGee Oil & Gas Onshore, LP**
1099 18th Street, Denver, Colorado 80202


**NBU 920-22O**
**Topo B**
**198' FSL, 2487' FEL**
**SW¼ SE¼, Section 22, T9S, R20E**
**S.L.B.&M., Uintah County, Utah**


609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182


N

| | | | |
|---|---|---|---|
| Scale: 1" = 2000ft | NAD83 USP Central | Sheet No: 6 | 6 of 9 |
| Drawn: JELo | Date: 12 Jan 2009 | | |
| Revised: | Date: | | |




**Legend**

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

- Well - Proposed
- Well - 1 Mile Radius
- Well Pad
- Producing
- Approved permit (APD); not yet spudded
- Spudded (Drilling commenced: Not yet comple
- Location Abandoned
- Temporarily-Abandoned
- Plugged and Abandoned
- Shut-In

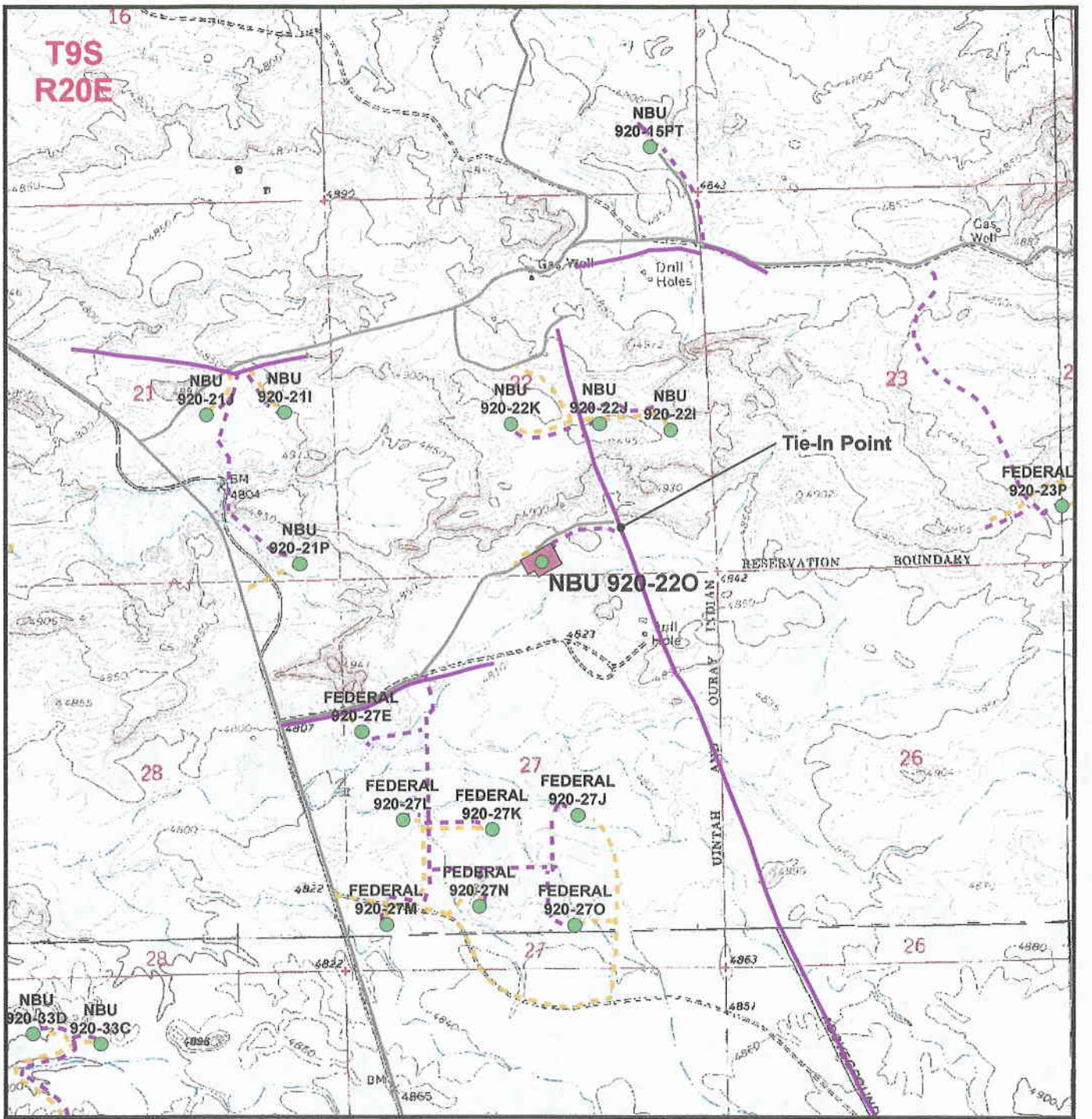

**Kerr-McGee Oil & Gas Onshore, LP**
1099 18th Street, Denver, Colorado 80202


**NBU 920-22O**
**Topo C**
**198' FSL, 2487' FEL**
**SW¼ SE¼, Section 22, T9S, R20E**
**S.L.B.&M., Uintah County, Utah**


609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182


N

| | | | |
|---|---|---|---|
| Scale: 1" = 2000ft | NAD83 USP Central | Sheet No: 7 | 7 of 9 |
| Drawn: JELo | Date: 12 Jan 2009 | | |
| Revised: | Date: | | |




**Legend**

Well - Proposed | Well Pad | Pipeline - Proposed | Road - Proposed | Pipeline - Existing | Road - Existing

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±1,010ft
Proposed Pipeline Length Around Pad: ±660ft


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


**NBU 920-22O**
**Topo D**
**198' FSL, 2487' FEL**
**SW¼ SE¼, Section 22, T9S, R20E**
**S.L.B.&M., Uintah County, Utah**


609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182


N

| | | | |
|---|---|---|---|
| Scale: 1" = 2000ft | NAD83 USP Central | Sheet No: 8 | 8 of 9 |
| Drawn: JELo | Date: 12 Jan 2009 | | |
| Revised: | Date: | | |

**Kerr-McGee Oil & Gas Onshore, LP**
**NBU 920-22O**
**Section 22, T9S, R20E, S.L.B.&M.**

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 6.2 MILES TO THE INTERSECTION OF A CLASS D COUNTY ROAD TO THE EAST. EXIT LEFT AND PROCEED IN AN EAST BY NORTHEAST DIRECTION ALONG THE CLASS D COUNTY ROAD APPROXIMATELY 0.4 MILES TO A SERVICE ROAD TO THE NORTHEAST. EXIT LEFT AND PROCEED NORTHEASTERLY ALONG THE SERVICE ROAD APPROXIMATELY 0.4 MILES TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 37.7 MILES IN A SOUTHERLY DIRECTION.

**WORKSHEET**

**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 02/17/2009

API NO. ASSIGNED: 43-047-40542

WELL NAME: NBU 920-22O

OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )

PHONE NUMBER: 720-929-6666

CONTACT: RALEEN WHITE

PROPOSED LOCATION:

SWSE 22 090S 200E

SURFACE: 0198 FSL 2487 FEL

BOTTOM: 0198 FSL 2487 FEL

COUNTY: UINTAH

LATITUDE: 40.01400 LONGITUDE: -109.6512

UTM SURF EASTINGS: 615112 NORTHINGS: 4429973

FIELD NAME: NATURAL BUTTES ( 630 )

INSPECT LOCATN BY: / /

| Tech Review | Initials | Date |
|---|---|---|
| Engineering | | |
| Geology | | |
| Surface | | |

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-000577A

PROPOSED FORMATION: WSMVD

SURFACE OWNER: 2 - Indian

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[1] Ind[] Sta[] Fee[]
(No. WYB000291 )

N Potash (Y/N)

Y Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 43-8496 )

N RDCC Review (Y/N)
(Date: )

NA Fee Surf Agreement (Y/N)

NA Intent to Commingle (Y/N)

LOCATION AND SITING:

___ R649-2-3.

Unit: NATURAL BUTTES

___ R649-3-2. General

Siting: 460 From Qtr/Qtr & 920' Between Wells

___ R649-3-3. Exception

✓ Drilling Unit

Board Cause No: 173-14

Eff Date: 12-2-1999

Siting: 460' fr u.b.drg & uncomm Tract

___ R649-3-11. Directional Drill

COMMENTS: Sop, Separate File

STIPULATIONS: 1-Federal Approval
2-Oil Shale

# API Number: 4304740542

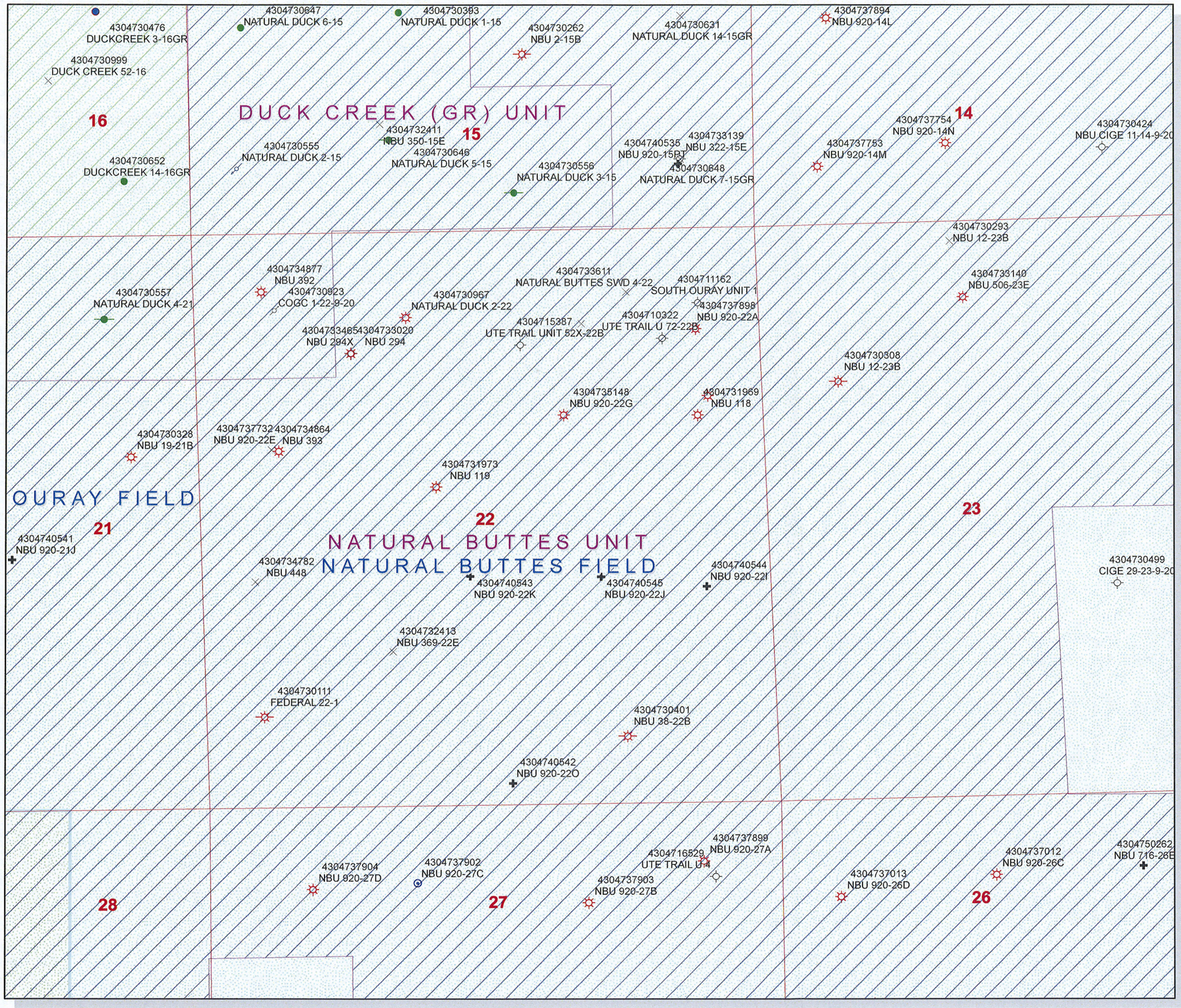
# Well Name: NBU 920-22O

**Township 09.0 S  Range 20.0 E  Section 22**

**Meridian: SLBM**

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason




**Units**

STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

**Fields**

STATUS
- ACTIVE
- COMBINED
- Sections

**Wells Query Events**

<all other values>

GIS_STAT_TYPE
- <Null>
- APD
- DRL
- GI
- GS
- LA
- NEW
- OPS
- PA
- PGW
- POW
- RET
- SGW
- SOW
- TA
- TW
- WD
- WI
- WS


1,300 650 0 1,300 Feet

1:11,349

# 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)**

March 2, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 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 2009 within the Natural Buttes Unit, Uintah County, Utah.

| API # | WELL NAME | LOCATION |
|---|---|---|
| (Proposed PZ Wasatch/MesaVerde) | | |
| 43-047-40553 | NBU 920-29O | Sec 29 T09S R20E 0746 FSL 2465 FEL |
| 43-047-40554 | NBU 920-29L | Sec 29 T09S R20E 1572 FSL 0754 FWL |
| 43-047-40555 | NBU 920-29M | Sec 29 T09S R20E 0159 FSL 0757 FWL |
| 43-047-40556 | NBU 920-29I | Sec 29 T09S R20E 2164 FSL 0400 FEL |
| 43-047-40557 | NBU 920-29K | Sec 29 T09S R20E 2208 FSL 2197 FWL |
| 43-047-40558 | NBU 920-29P | Sec 29 T09S R20E 1038 FSL 0018 FEL |
| 43-047-40559 | NBU 920-29J | Sec 29 T09S R20E 1977 FSL 1747 FEL |
| 43-047-40560 | NBU 920-29N | Sec 29 T09S R20E 1254 FSL 2098 FWL |
| 43-047-40542 | NBU 920-22O | Sec 22 T09S R20E 0198 FSL 2487 FEL |
| 43-047-40543 | NBU 920-22K | Sec 22 T09S R20E 2128 FSL 2497 FWL |
| 43-047-40544 | NBU 920-22I | Sec 22 T09S R20E 1965 FSL 0599 FEL |
| 43-047-40545 | NBU 920-22J | Sec 22 T09S R20E 2086 FSL 1575 FEL |
| 43-047-40538 | NBU 920-20B | Sec 20 T09S R20E 1229 FNL 1580 FEL |
| 43-047-40536 | NBU 920-20C | Sec 20 T09S R20E 0963 FNL 1754 FWL |
| 43-047-40537 | NBU 920-20F | Sec 20 T09S R20E 1794 FNL 2199 FWL |
| 43-047-40539 | NBU 920-20E | Sec 20 T09S R20E 1644 FNL 1084 FWL |
| 43-047-40540 | NBU 920-20D | Sec 20 T09S R20E 0646 FNL 0686 FWL |
| 43-047-40541 | NBU 920-21J | Sec 21 T09S R20E 2346 FSL 1748 FEL |
| 43-047-40561 | NBU 920-32E | Sec 32 T09S R20E 2052 FNL 0707 FWL |
| 43-047-40562 | NBU 920-32K | Sec 32 T09S R20E 2095 FSL 1813 FWL |
| 43-047-40567 | NBU 920-33D | Sec 33 T09S R20E 0821 FNL 0925 FWL |
| 43-047-40568 | NBU 920-33L | Sec 33 T09S R20E 2299 FSL 0625 FWL |
| 43-047-40574 | NBU 920-33E | Sec 33 T09S R20E 2079 FNL 0611 FWL |
| 43-047-40575 | NBU 920-33C | Sec 33 T09S R20E 0971 FNL 1851 FWL |

43-047-40576 NBU 920-33F Sec 33 T09S R20E 2048 FNL 1845 FWL
43-047-40535 NBU 920-15PT Sec 15 T09S R20E 0591 FSL 0696 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

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

MCoulthard:mc:3-2-09

JON M. HUNTSMAN, JR.
*Governor*

GARY R. HERBERT
*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*

March 2, 2009

Kerr-McGee Oil & Gas Onshore, LP
P O Box 173779
Denver, CO 80217-3779

Re: NBU 920-22O Well, 198' FSL, 2487' FEL, SW SE, Sec. 22, T. 9 South, R. 20 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

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. The API identification number assigned to this well is 43-047-40542.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

cc: Uintah County Assessor
Bureau of Land Management, Vernal Office

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING

**Operator:** Kerr-McGee Oil & Gas Onshore, LP

**Well Name & Number** NBU 920-22O

**API Number:** 43-047-40542

**Lease:** UTU-000577A

**Location:** SW SE **Sec.** 22 **T.** 9 South **R.** 20 East

## Conditions of Approval

1. 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.

2. Notification Requirements

   Notify the Division within 24 hours of spudding the well.

   - Contact Carol Daniels at (801) 538-5284.

   Notify the Division prior to commencing operations to plug and abandon the well.

   - Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

3. Reporting Requirements

   All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

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

Form 3160-3
(August 2007)

FORM APPROVED
OMB NO. 1004-0137
Expires: July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: UTU-000577A

6. If Indian, Allottee or Tribe Name: Ute Tribe

7. If Unit or CA Agreement, Name and No.: 891008900A

8. Lease Name and Well No.: NBU 920-22O

1a. Type of Work: [X] DRILL [ ] REENTER

1b. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [ ] Single Zone [X] Multiple Zone

9. API Well No.: 43 047 40542

2. Name of Operator: Kerr-McGee Oil & Gas Onshore, LP

3a. Address: PO Box 173779, Denver, CO 80217-3779

3b. Phone No. *(include area code)*: Raleen White, 720-929-6666

10. Field and Pool, or Exploratory: Natural Buttes Field

4. Location of well *(Report location clearly and In accordance with any State requirements.*)* NAD 83
At surface: 198' FSL 2,487' FEL SW/4 SE/4 Lat. 40.014011 Long. -109.651847
At proposed prod. zone

11. Sec.,T.,R.,M.,or Blk.and Survey or Area: 22 T 9S R 20E S.L.B. & M.

14. Distance in miles and direction from the nearest town or post office*: Approximately 38 miles south of Vernal, Utah

12. County or Parish: Uintah

13. State: Utah

| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any) | 16. No. of acres in lease | 17. Spacing Unit dedicated to this well |
|---|---|---|
| 198' | 2,091.18 | Unit well |
| **18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.** | **19. Proposed Depth** | **20. BLM/ BIA Bond No. on file** |
| ±1,800' | 10,500' | WYB000291 |
| **21. Elevations (Show whether DF. RT, GR, etc.)** | **22. Aproximate date work will start*** | **23. Estimated duration** |
| 4,831' GR KB | ASAP | 10 days |

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1 shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan ( if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by existing bond on file(see item 20 above).
5. Operator certification.
6. Such other site specific information and/ or plans as may be required by the a authorized officer.

| 25. Signature | Name *(Printed/ Typed)* | Date |
|---|---|---|
| Raleen White | Raleen White | 2-13-2009 |
| Title: Sr Regulatory Analyst | E-mail: raleen.white@anadarko.com<br>Phone: 720-929-6666 | |
| Approved By *(Signature)*: Stephanie Howard | Name *(Printed/ Typed)*: Stephanie J Howard | Date: 10/16/09 |
| Title: Acting Assistant Field Manager Lands & Mineral Resources | Office: VERNAL FIELD OFFICE | |

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

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

* *(Instructions on page 2)*

RECEIVED
OCT 27 2009
DIV. OF OIL, GAS & MINING

NOS APD Posted 2/18/09

AFMSS# 09SX50707A

UDOGM

NOTICE OF APPROVAL

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

## *CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL*

| | | | |
|---|---|---|---|
| **Company:** | **Kerr McGee Oil & Gas Onshore, LP** | **Location:** | **SWSE, Sec. 22, T9S, R20E** |
| **Well No:** | **NBU 920-22O** | **Lease No:** | **UTU-0577A** |
| **API No:** | **43-047-40542** | **Agreement:** | **Natural Buttes Unit** |

# OFFICE NUMBER: (435) 781-4400

# OFFICE FAX NUMBER: (435) 781-3420

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

| | | |
|---|---|---|
| Construction Activity<br>(Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist) | - | The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday. |
| Construction Completion<br>(Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist) | - | Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig. |
| Spud Notice<br>(Notify BLM Petroleum Engineer) | - | Twenty-Four (24) hours prior to spudding the well. |
| Casing String & Cementing<br>(Notify BLM Supv. Petroleum Tech.) | - | Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov. |
| BOP & Related Equipment Tests<br>(Notify BLM Supv. Petroleum Tech.) | - | Twenty-Four (24) hours prior to initiating pressure tests. |
| First Production Notice<br>(Notify BLM Petroleum Engineer) | - | Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days. |

## *SURFACE USE PROGRAM*
## *CONDITIONS OF APPROVAL (COAs)*

**Site-Specific Conditions of Approval:**

1. Paint facilities "shadow gray."

2. Re-route existing access road north of the well pad, as reflected on the cut-sheet.

3. Utilize pit-run/gravel for well pad and access road support.

4. Monitor location by a permitted archaeologist during the construction process.

5. If project construction operations are scheduled to occur after December 31, 2009, KMG will conduct additional raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection for Human and Land Use Disturbances, 2002 and conduct its operations according to applicable seasonal restrictions and spatial offsets.

6. If project construction operation are scheduled to occur after June 16, 2010, KMG will conduct additional biological surveys in accordance with the guidelines specified I the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus and conduct its operation according to its specifications.

**BIA Standard Conditions of Approval:**

1. Soil erosion will be mitigated by reseeding all disturbed areas.

2. The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.

3. An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations of this document and in the Application for Permit to Drill. A closed drilling system shall be sued in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.

4. The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.

5. A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.

6. Major low water crossings will be armored with pit run material to protect them from erosion.

7. All personnel shall refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.

8. If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

9. Before the site is abandoned the company will be required to restore the right-of-way to near its original state. The disturbed area will be reseeded with desirable perennial vegetation. If necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable seed mixture.

10. Noxious weeds will be controlled on all surface disturbances within the project area. If noxious weeds spread from the project area onto adjoining land, the company will also be responsible for their control.

11. If project construction operations are scheduled to occur after December 31, 2009, KMG shall conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix E) and conduct its operations according to applicable seasonal restrictions and spatial offsets.

12. USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix E).

13. All personnel shall refrain from collecting artifacts and from disturbing any significant cultural resources in the area.

14. If artifacts or any culturally sensitive materials are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

***DOWNHOLE PROGRAM***
***CONDITIONS OF APPROVAL (COAs)***

**SITE SPECIFIC DOWNHOLE COAs:**

1. Surface casing cement shall be brought up and into the surface. Top of Cmnt is to reach surf. For surface casing cement program, to reach surface with Top of Cement, operator is required to pump additional cement beyond the stated amounts in application.

2. The operator must notify any active gilsonite operation located within 2 miles of the location 48 hours prior to any surface blasting for this well.

3. Conductor casing shall be set into competent formation.

   toc_1800_operDrlgPlan#4
   CsgSurf_set_2600 to 2800
   Kerr McGee apd coa Downhole

4. Production casing cement shall be brought up and into the surface casing. Production casing minimum cement top is 1800 ft. The minimum cement top is approximately 0700 ft above the surface casing shoe.
   Cmnt Top (TOC) standard will place cmnt behind casing across formation lost circulation zone, Birds Nest Zone.
   Surface casing setting depth stated in APD is 2700 to 2800 ft.
   COA specification fulfills operators performance standard stated in APD (where operators toc is calc'd with an excess to reach surface).

5. Operator is to notify BLM Vernal Field Office and active gilsonite mining operator (or lease holder) located within a 2 mile radius, 48 hours prior to pad explosives blasting. Well is not close to gilsonite vein, but on trend to gilisonite vein deposits.

6. A copy of Kerr McGee's Standard Operating Practices (SOP version: dated 7/17/08 and approved 7/28/08) shall be on location.

7. Drilling plan specifics and practices are referenced in the Kerr McGee Oil & Gas Standard Operating Procedures (SOP version: July 28, 2008). The operators drilling plan items 3 to 9 reference the SOP. Kerr McGee shall adhere to the referenced requirements in the SOP. Kerr McGee and their contractors shall adhere to all Oil and Gas rules and requirements listed in the Code of Federal Regulations and all Federal Onshore Oil and Gas Orders except where variances have been granted.

8. Covering air/gas drilling operations, requirements will be adhered to covering air/gas drilling operations as described in Onshore Order #2 III. E. 1. Drilling Operations, Special Drilling Operations, air/gas drilling.

9. A Gamma Ray well Log shall be run from the well Total Depth to the surface.
   A copy of the Gamma Ray well Log shall be submitted to the BLM Vernal Field Office.

10. A variance is granted for Onshore Order #2 Drilling Operations III. E. "Blooie line discharge 100 feet from well bore and securely anchored" Blooie line can be 45 feet.
    All requirements will be adhered to covering air/gas drilling operations as described in Onshore Order #2 III. E. 1. Drilling Operations, Special Drilling Operations, air/gas drilling.

**All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to.** The following items are emphasized:

**DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.

- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.

- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.

- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.

- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.

- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

**OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.
    - Well name and number.
    - Well location (¼¼, Sec., Twn, Rng, and P.M.).
    - Date well was placed in a producing status (date of first production for which royalty will be paid).
    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
    - Unit agreement and/or participating area name and number, if applicable.
    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

API Well No: 43047405420000

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

FORM 9

**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU-000577A

## 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:** UTE

**7.UNIT or CA AGREEMENT NAME:** NATURAL BUTTES

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 920-22O

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

**9. API NUMBER:** 43047405420000

**3. ADDRESS OF OPERATOR:** P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

**PHONE NUMBER:** 720 929-6007 Ext

**9. FIELD and POOL or WILDCAT:** NATURAL BUTTES

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0198 FSL 2487 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 22 Township: 09.0S Range: 20.0E 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 | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT<br>Approximate date work will start:<br>11/19/2009 | ☐ ACIDIZE | ✓ ALTER CASING | ☐ CASING REPAIR |
| | ✓ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ☐ SUBSEQUENT REPORT<br>Date of Work Completion: | ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| | ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| | ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| ☐ SPUD REPORT<br>Date of Spud: | ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| | ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| ☐ DRILLING REPORT<br>Report Date: | ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| | ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests to change the surface casing size for this well. The surface casing size is changing FROM: 9-5/8" TO: 8-5/8". Please see the attached drilling program for additional details. If you have any questions, please contact the undersigned. Thank you.

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

**Date:** November 23, 2009

**By:**

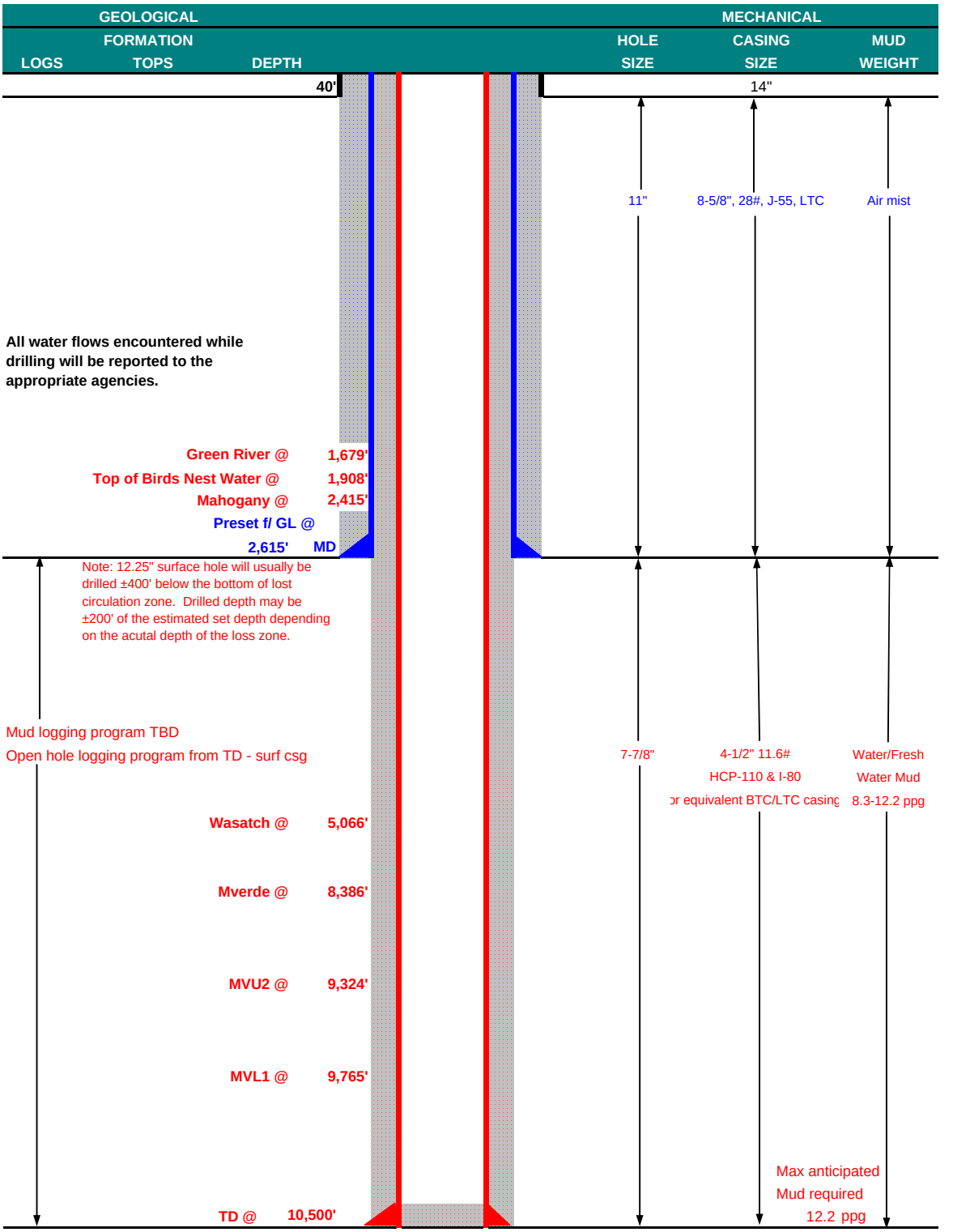
| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Danielle Piernot | 720 929-6156 | Regulatory Analyst |
| **SIGNATURE** | | **DATE** |
| N/A | | 11/18/2009 |

**RECEIVED** November 18, 2009

# KERR-McGEE OIL & GAS ONSHORE LP

## DRILLING PROGRAM

| | | | | | |
|---|---|---|---|---|---|
| COMPANY NAME | KERR-McGEE OIL & GAS ONSHORE LP | | | DATE | November 18, 2009 |
| WELL NAME | **NBU 920-22O** | | | TD | 10,500' MD/TVD |
| FIELD | Natural Buttes | COUNTY | Uintah | STATE | Utah | FINISHED ELEVATION | 4,831' |
| SURFACE LOCATION | SW/4 SE/4 198' FSL 2,487' FEL | Sec 22 | T 9S | R 20E | | BHL | Straight Hole |
| | Latitude: 40.014011 | Longitude: -109.651847 | | NAD 83 | | | |
| OBJECTIVE ZONE(S) | Wasatch/Mesaverde | | | | | | |
| ADDITIONAL INFO | Regulatory Agencies: BLM (MINERALS), Ute Tribe (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' | | | | | | |
| | | | | | | 3,390 | 1,880 | 437,000 |
| SURFACE | 8-5/8" | 0 to 2615 | 28.00 | J-55 | LTC | 0.78* | 1.54 | 5.97 |
| | | | | | | 7,780 | 6,350 | 278,000 |
| PRODUCTION | 4-1/2" | 0 to 9600 | 11.60 | I-80 | BTC | 1.79 | 1.04 | 2.81 |
| | | | | | | 10,690 | 8,650 | 279,000 |
| | | 9600 to 10500 | 11.60 | HCP-110 | LTC | 2.46 | 1.30 | 32.85 |

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.06

1) Max Anticipated Surf. Press.(MASP) (Surf Csg) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac grad x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 12.2 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
**MASP 4,232 psi**

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 12.2 ppg) 0.62 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
**MABHP 6,542 psi**

**CEMENT PROGRAM**

| | | FT. OF FILL | DESCRIPTION | SACKS | EXCESS | WEIGHT | YIELD |
|---|---|---|---|---|---|---|---|
| SURFACE | LEAD | 500' | Premium cmt + 2% CaCl | 215 | 60% | 15.60 | 1.18 |
| **Option 1** | | | + 0.25 pps flocele | | | | |
| | TOP OUT CMT (6 jobs) | 1,200' | 20 gals sodium silicate + Premium cmt | 260 | 0% | 15.60 | 1.18 |
| | | | + 2% CaCl + 0.25 pps flocele | | | | |
| | | | Premium cmt + 2% CaCl | | | | |
| SURFACE | | | **NOTE: If well will circulate water to surface, option 2 will be utilized** | | | | |
| **Option 2** | LEAD | 2,115' | Prem cmt + 16% Gel + 10 pps gilsonite | 200 | 35% | 11.00 | 3.82 |
| | | | + 0.25 pps Flocele + 3% salt BWOC | | | | |
| | TAIL | 500 | Premium cmt + 2% CaCl | 150 | 35% | 15.60 | 1.18 |
| | | | + 0.25 pps flocele | | | | |
| | TOP OUT CMT | as required | Premium cmt + 2% CaCl | as req. | | 15.60 | 1.18 |
| PRODUCTION | LEAD | 4,560' | Premium Lite II + 0.25 pps celloflake + | 370 | 40% | 11.00 | 3.38 |
| | | | 5 pps gilsonite + 10% gel '+ 1% Retarder | | | | |
| | TAIL | 5,940' | 50/50 Poz/G + 10% salt + 2% gel | 1,450 | 40% | 14.30 | 1.31 |
| | | | + 0.1% R-3 | | | | |

*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. Centralize first 3 joints & every third joint for a total of 15 bow spring centralizers. |

**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.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

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

**DRILLING ENGINEER:** _____ **DATE:** _____
John Huycke / Emile Goodwin

**DRILLING SUPERINTENDENT:** _____ **DATE:** _____
John Merkel / Lovel Young

API Well No: 43047405420000

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

**FORM 9**

**5.LEASE DESIGNATION AND SERIAL NUMBER:**
UTU-000577A

## 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:**
UTE

**7.UNIT or CA AGREEMENT NAME:**
NATURAL BUTTES

**1. TYPE OF WELL**
Gas Well

**8. WELL NAME and NUMBER:**
NBU 920-22O

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

**9. API NUMBER:**
43047405420000

**3. ADDRESS OF OPERATOR:**
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

**PHONE NUMBER:**
720 929-6007 Ext

**9. FIELD and POOL or WILDCAT:**
NATURAL BUTTES

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:**
0198 FSL 2487 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:**
Qtr/Qtr: SWSE Section: 22 Township: 09.0S Range: 20.0E 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 | | |
|---|---|---|---|
| ☐ NOTICE OF INTENT<br>Approximate date work will start: | ☐ ACIDIZE | ☐ ALTER CASING | ☐ CASING REPAIR |
| ☐ SUBSEQUENT REPORT<br>Date of Work Completion: | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| | ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| | ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| ✓ SPUD REPORT<br>Date of Spud:<br>11/24/2009 | ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| | ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| | ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| ☐ DRILLING REPORT<br>Report Date: | ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| | ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CMT W/28 SX READY MIX.
SPUD WELL LOCATION ON 11/24/2009 AT 11:30 HRS.

**Accepted by the**
**Utah Division of**
**Oil, Gas and Mining**
**FOR RECORD ONLY**
December 01, 2009

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Andy Lytle | 720 929-6100 | Regulatory Analyst |
| **SIGNATURE** | | **DATE** |
| N/A | | 11/30/2009 |

**RECEIVED** November 30, 2009

API Well No: 43047405420000

# 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.

**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU-000577A

**6. IF INDIAN, ALLOTTEE OR TRIBE NAME:** UTE

**7.UNIT or CA AGREEMENT NAME:** NATURAL BUTTES

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 920-22O

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

**9. API NUMBER:** 43047405420000

**3. ADDRESS OF OPERATOR:** P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

**PHONE NUMBER:** 720 929-6007 Ext

**9. FIELD and POOL or WILDCAT:** NATURAL BUTTES

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0198 FSL 2487 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 22 Township: 09.0S Range: 20.0E 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 | | |
|---|---|---|---|
| ☐ NOTICE OF INTENT Approximate date work will start: | ☐ ACIDIZE | ☐ ALTER CASING | ☐ CASING REPAIR |
| ☐ SUBSEQUENT REPORT Date of Work Completion: | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ SPUD REPORT Date of Spud: | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ✓ DRILLING REPORT Report Date: 12/6/2009 | ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| | ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| | ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| | ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| | ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| | ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| | ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

MIRU PROPETRO AIR RIG ON 12/4/2009. DRILLED 11" SURFACE HOLE TO 2640'. RAN 8-5/8" 28# J-55 SURFACE CSG. LEAD CMT W/200 SX CLASS G HALFILL @ 11.0 PPG, 3.82 YIELD. TAILED CMT W/225 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YIELD. DISPLACED W/162.6 BBLS. BUMPED PLUG, FLOATS HELD. DID TWO TOP OUT JOBS. TOP OUT #1 W/125 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YIELD. TOP OUT #2 W/100 SX SAME CMT. TOTAL CMT WAS 650 SX. WORT.

**Accepted by the Utah Division of Oil, Gas and Mining**
**FOR RECORD ONLY**
December 07, 2009

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Andy Lytle | 720 929-6100 | Regulatory Analyst |
| **SIGNATURE** N/A | | **DATE** 12/7/2009 |

**RECEIVED** December 07, 2009

API Well No: 43047405420000

# 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.

**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU-000577A

**6. IF INDIAN, ALLOTTEE OR TRIBE NAME:** UTE

**7.UNIT or CA AGREEMENT NAME:** NATURAL BUTTES

**1. TYPE OF WELL:** Gas Well

**8. WELL NAME and NUMBER:** NBU 920-22O

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

**9. API NUMBER:** 43047405420000

**3. ADDRESS OF OPERATOR:** P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

**PHONE NUMBER:** 720 929-6007 Ext

**9. FIELD and POOL or WILDCAT:** NATURAL BUTTES

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0198 FSL 2487 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 22 Township: 09.0S Range: 20.0E Meridian: S

**COUNTY:** UINTAH

**STATE:** UTAH

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| ☐ SPUD REPORT Date of Spud: | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ✓ DRILLING REPORT Report Date: 4/4/2010 | ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| | ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| | ✓ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| | ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| | ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| | ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| | ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 4/4/2010 AT 9:00 A.M. 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**
April 12, 2010

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Andy Lytle | 720 929-6100 | Regulatory Analyst |
| **SIGNATURE** N/A | | **DATE** 4/8/2010 |

**RECEIVED** April 08, 2010

API Well No: 43047405420000

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

FORM 9

## SUNDRY NOTICES AND REPORTS ON WELLS

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**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU-000577A

**6. IF INDIAN, ALLOTTEE OR TRIBE NAME:** UTE

**7.UNIT or CA AGREEMENT NAME:** NATURAL BUTTES

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 920-22O

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

**9. API NUMBER:** 43047405420000

**3. ADDRESS OF OPERATOR:** P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

**PHONE NUMBER:** 720 929-6007 Ext

**9. FIELD and POOL or WILDCAT:** NATURAL BUTTES

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0198 FSL 2487 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 22 Township: 09.0S Range: 20.0E Meridian: S

**COUNTY:** UINTAH

**STATE:** UTAH

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

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| ☐ SUBSEQUENT REPORT Date of Work Completion: | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ SPUD REPORT Date of Spud: | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ✓ DRILLING REPORT Report Date: 3/5/2010 | ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| | ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| | ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| | ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| | ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| | ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| | ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

FINISHED DRILLING FROM 2640' TO 10554' ON 3/3/2010. RAN 4 1/2" 11.6 I-80 PRODUCTION CASING. LEAD CEMENT W/ 650 SX OF CLASS G PREMIUM LITE @ 13.2 PPG, 1.69 YIELD. TAILED CEMENT W/ 1322 SX OF CLASS G 50/50 POZ-MIX @ 14.3 PPG, 1.31 YIELD. DISPLACE W/ 163 BBLS OF WATER W/ CLAYTREAT & MAGNACIDE TO BUMP PLUG W/ 3450 PSI. 33 BBLS CEMENT TO SURFACE. RELEASE PSI. FLOATS OKAY. CLEAN PITS AND RELEASE ENSIGN 145 RIG ON 3/4/2010 @ 18:30 HOURS.

**Accepted by the Utah Division of Oil, Gas and Mining**
**FOR RECORD ONLY**
March 09, 2010

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Laura Gianakos | 307 752-1169 | Regulatory Affairs Supervisor |
| **SIGNATURE** N/A | | **DATE** 3/5/2010 |

**RECEIVED** March 05, 2010

API Well No: 43047405420000

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

FORM 9

## SUNDRY NOTICES AND REPORTS ON WELLS

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**7.UNIT or CA AGREEMENT NAME:** NATURAL BUTTES

**1. TYPE OF WELL:** Gas Well

**8. WELL NAME and NUMBER:** NBU 920-22O

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

**9. API NUMBER:** 43047405420000

**3. ADDRESS OF OPERATOR:** P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

**PHONE NUMBER:** 720 929-6007 Ext

**9. FIELD and POOL or WILDCAT:** NATURAL BUTTES

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0198 FSL 2487 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 22 Township: 09.0S Range: 20.0E Meridian: S

**COUNTY:** UINTAH

**STATE:** UTAH

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

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| ☐ SPUD REPORT Date of Spud: | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ✓ DRILLING REPORT Report Date: 4/4/2010 | ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
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| | ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 4/4/2010 AT 9:00 A.M. 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**
April 12, 2010

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Andy Lytle | 720 929-6100 | Regulatory Analyst |
| **SIGNATURE** N/A | | **DATE** 4/8/2010 |

**RECEIVED** April 08, 2010

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

# WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. UTU0577A

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. UTU63047A

2. Name of Operator KERR-MCGEE OIL&GAS ONSHORE LP Contact: ANDY LYTLE E-Mail: andrew.lytle@anadarko.com

8. Lease Name and Well No. NBU 920-22O

3. Address P.O. BOX 173779 DENVER, CO 80217

3a. Phone No. (include area code) Ph: 720-929-6100

9. API Well No. 43-047-40542

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface SWSE 198FSL 2487FEL 40.01401 N Lat, 109.65185 W Lon

At top prod interval reported below SWSE 198FSL 2487FEL 40.01401 N Lat, 109.65185 W Lon

At total depth SWSE ~~198FSL 2487FEL~~ 707 33a3 40.01401 N Lat, 109.65185 W Lon

10. Field and Pool, or Exploratory NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area Sec 22 T9S R20E Mer SLB

12. County or Parish UINTAH

13. State UT

14. Date Spudded 11/24/2009

15. Date T.D. Reached 03/03/2010

16. Date Completed ☐ D & A ☒ Ready to Prod. 04/04/2010

17. Elevations (DF, KB, RT, GL)* 4831 GL

18. Total Depth: MD 10554 TVD 10552

19. Plug Back T.D.: MD 10488 TVD 10486

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
✓GR-CBL-BHV-SDL/DSN/ACTR

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☒ No ☐ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

| Hole Size | Size/Grade | Wt. (#/ft.) | Top (MD) | Bottom (MD) | Stage Cementer Depth | No. of Sks. & Type of Cement | Slurry Vol. (BBL) | Cement Top* | Amount Pulled |
|---|---|---|---|---|---|---|---|---|---|
| 20.000 | 14.000 STEEL | 36.7 | | 40 | | 28 | | | |
| 11.000 | 8.625 J55 | 28.0 | | 2614 | | 650 | | | |
| 7.875 | 4.500 I80 | 11.6 | | 10531 | | 1972 | | 0 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

24. Tubing Record

| Size | Depth Set (MD) | Packer Depth (MD) | Size | Depth Set (MD) | Packer Depth (MD) | Size | Depth Set (MD) | Packer Depth (MD) |
|---|---|---|---|---|---|---|---|---|
| 2.375 | 10003 | | | | | | | |

25. Producing Intervals / 26. Perforation Record

| Formation | Top | Bottom | Perforated Interval | Size | No. Holes | Perf. Status |
|---|---|---|---|---|---|---|
| A) WASATCH | 5626 | 7418 | 5626 TO 7418 | 0.360 | 122 | OPEN |
| B) MESAVERDE | 8824 | 10456 | 8824 TO 10456 | 0.360 | 235 | OPEN |
| C) | | | | | | |
| D) | | | | | | |

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

| Depth Interval | Amount and Type of Material |
|---|---|
| 5626 TO 7418 | PMP 4,081 BBLS SLICK H20 & 189,013 LBS 30/50 SD. |
| 8824 TO 10456 | PMP 9,011 BBLS SLICK H20 & 336,233 LBS 30/50 SD. |
| | |
| | |

28. Production - Interval A

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|---|---|---|---|---|---|---|---|---|---|
| 04/04/2010 | 04/15/2010 | 24 | → | 7.0 | 2881.0 | 420.0 | | | FLOWS FROM WELL |

| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | Well Status |
|---|---|---|---|---|---|---|---|---|
| 20/64 | 1701 | 2161.0 | → | 7 | 2881 | 420 | | PGW |

28a. Production - Interval B

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|---|---|---|---|---|---|---|---|---|---|
| | | | → | | | | | | |

| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | Well Status |
|---|---|---|---|---|---|---|---|---|
| | | | → | | | | | |

*(See Instructions and spaces for additional data on reverse side)*

**ELECTRONIC SUBMISSION #86032 VERIFIED BY THE BLM WELL INFORMATION SYSTEM**

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

RECEIVED
MAY 11 2010
DIV. OF OIL, GAS & MINING

28b. Production - Interval C

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|---|---|---|---|---|---|---|---|---|---|
| | | | → | | | | | | |

| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | Well Status |
|---|---|---|---|---|---|---|---|---|
| | | | → | | | | | |

28c. Production - Interval D

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|---|---|---|---|---|---|---|---|---|---|
| | | | → | | | | | | |

| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | Well Status |
|---|---|---|---|---|---|---|---|---|
| | | | → | | | | | |

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. 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.

31. Formation (Log) Markers

| Formation | Top | Bottom | Descriptions, Contents, etc. | Name | Top Meas. Depth |
|---|---|---|---|---|---|
| GREEN RIVER | 1694 | | | | |
| MAHOGANY | 2426 | | | | |
| WASATCH | 5071 | 8400 | | | |
| MESAVERDE | 8409 | 10554 | TD | | |

32. Additional remarks (include plugging procedure):
ATTACHED IS THE CHRONOLOGICAL WELL HISTORY AND FINAL SURVEY.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

**Electronic Submission #86032 Verified by the BLM Well Information System.**
**For KERR-MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal**

Name *(please print)* ANDY LYTLE Title REGULATORY ANALYST

Signature (Electronic Submission) Date 05/05/2010

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

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

US ROCKIES REGION

# Operation Summary Report

| | | |
|---|---|---|
| Well: NBU 920-22O | Spud Conductor: 11/24/2009 | Spud Date: 12/4/2009 |
| Project: UTAH-UINTAH | Site: NBU 920-22O | Rig Name No: PROPETRO/, ENSIGN 145/145 |
| Event: DRILLING | Start Date: 12/2/2009 | End Date: 3/4/2010 |
| Active Datum: RKB @4,844.00ft (above Mean Sea Leve | UWI: SW/SE/0/9/S/20/E/22/0/0/26/PM/S/198.00/E/0/2,487.00/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|---|---|---|---|---|---|---|---|---|
| 12/4/2009 | 0:00 - 9:30 | 9.50 | MIRU | 01 | A | P | | MOVE RIG 20 MILES |
| | 9:30 - 14:00 | 4.50 | MIRU | 01 | B | P | | RIG UP TO DRILL 11' HOLE |
| | 14:00 - 0:00 | 10.00 | DRLSUR | 02 | B | P | | DRILL 11" HOLE 40 TO 1050' WT 20- 22 K PUMP 1300 ON BOTTOM OFF 1000 PSI RPM 60 MM RPM 104, GPM 650 |
| 12/5/2009 | 0:00 - 9:00 | 9.00 | DRLSUR | 02 | B | P | | DRILL F/ 1050 TO 1800 WT 20-22K RPM 60 MM RPM 104 PUMP 1650 ON BOTTOM OFF 1400 PSI ROP 83.3 |
| | 9:00 - 9:30 | 0.50 | DRLSUR | 10 | A | P | | SURVEY @ 1800 3/4 DEG |
| | 9:30 - 15:30 | 6.00 | DRLSUR | 02 | B | P | | DRILL F/ 1800 TO 2340 WT 20-22K RPM 60 MM RPM 104 PUMP 1650 ON BOTTOM OFF 1400 PSI ROP 90 |
| | 15:30 - 16:00 | 0.50 | DRLSUR | 10 | A | P | | SURVEY @ 2270 1.5 DEG. |
| | 16:00 - 19:30 | 3.50 | DRLSUR | 02 | B | P | | DRILL F/ 2340 TO 2640 WT 20-22K RPM 60 MM RPM 104 PUMP 1650 ON BOTTOM OFF 1400 PSI |
| | 19:30 - 20:30 | 1.00 | DRLSUR | 05 | A | P | | CIRC COND PUMP SWEEP AROUND |
| | 20:30 - 0:00 | 3.50 | DRLSUR | 06 | A | P | | TOH ( DROP MUILTE SHOT TOOL 1.3 70.1 AZ ) |
| 12/6/2009 | 0:00 - 0:30 | 0.50 | DRLSUR | 06 | A | P | | TOH |
| | 0:30 - 3:30 | 3.00 | DRLSUR | 12 | A | P | | RUN 59 JTS 8 5/8 # 28 LT&C SHOE 2601 BAF 2557 |
| | 3:30 - 9:30 | 6.00 | DRLSUR | 12 | B | P | | RIG CMT CREW HSM LEAD 200SK 11.0 3.82 YD TAIL 225 SX 15.8 YD 1.15 2% CAL, .25 LBSX FLOW SEAL, DIS PLACED W/ 162.6 BBLS BUMPED PLUG ,FLOATS HELD, TOP OUT # 1125 SX 15.8 YD 1.15 4% CAL .25 LBS SX FLOW SEAL TOP OUT # 2 100 SX CMT 15.8 YD 1.15 4% CAL .25 LBS SX FLOW SEAL TOTAL CMT 650 SX JOB WAS WITNESS BY DONNY KENNY W/ BLM |
| 2/20/2010 | 4:00 - 0:00 | 20.00 | DRLPRO | 01 | B | P | | HOLD PREMOVE SAFETY MEETING, MOVE FRONT YARD & CAMPS TO LOCATION, SET MATTIING BOARDS, RIG DOWN TEAR DOWN, WINTERIZE BACKYARD, SUB & DERRICK. |
| 2/21/2010 | 0:00 - 12:30 | 12.50 | DRLPRO | 01 | B | P | | MOVE BACKYARD, SUB, & DERRICK TO LOCATION, LAST TRUCK GONE AT 12:30 |
| | 12:30 - 0:00 | 11.50 | DRLPRO | 01 | B | P | | RIG UP SUB, NU BOP,PIN & RAISE DERRICK, RIG UP BACK YARD, INSPECT TOP DRIVE, |
| 2/22/2010 | 0:00 - 2:00 | 2.00 | DRLPRO | 01 | B | P | | RU FLOOR, FLOW;INES, FLAIR LINES |
| | 2:00 - 5:00 | 3.00 | DRLPRO | 14 | A | P | | NU BOP & CHOKE LINES |
| | 5:00 - 11:00 | 6.00 | DRLPRO | 15 | A | P | | TEST BOP, 250 LOW, 5000 HIGH, 2500- ANNULAR, 1500 CSG- 30 MINUTES, RD TESTER |
| | 11:00 - 14:30 | 3.50 | DRLPRO | 06 | A | P | | PU BHA, DIR WORK, PU & SCRIBE TOOLS |
| | 14:30 - 16:00 | 1.50 | DRLPRO | 06 | A | P | | TIH, TAG CMT AT 2490 |
| | 16:00 - 17:00 | 1.00 | DRLPRO | 02 | F | P | | DRILL OUT FLOAT, CMT, & SHOE TO 2601 |
| | 17:00 - 0:00 | 7.00 | DRLPRO | 02 | B | P | | DRILL 2601 TO 3415, WOB-20-25, SPP-2066, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-99 , DIF- 350-450, MW-9.5, VIS-32, EXTREME MUD PULSE QUIT AT 3000'. |
| 2/23/2010 | 0:00 - 13:00 | 13.00 | DRLPRO | 02 | B | P | | DRILL 3415 TO 4800, WOB-20-25, SPP-2066, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-99 , DIF- 350-450, MW-9.5, VIS-32, EXTREME MUD PULSE QUIT AT 3000'. |
| | 13:00 - 13:30 | 0.50 | DRLPRO | 07 | A | P | | LUBRICATE RIG |

US ROCKIES REGION

# Operation Summary Report

| | | |
|---|---|---|
| Well: NBU 920-22O | Spud Conductor: 11/24/2009 | Spud Date: 12/4/2009 |
| Project: UTAH-UINTAH | Site: NBU 920-22O | Rig Name No: PROPETRO/, ENSIGN 145/145 |
| Event: DRILLING | Start Date: 12/2/2009 | End Date: 3/4/2010 |
| Active Datum: RKB @4,844.00ft (above Mean Sea Leve | UWI: SW/SE/0/9/S/20/E/22/0/0/26/PM/S/198.00/E/0/2,487.00/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|---|---|---|---|---|---|---|---|---|
| | 13:30 - 0:00 | 10.50 | DRLPRO | 02 | B | P | | DRILL 4800 TO 5770, WOB-20-25, SPP-2580, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-99 , DIF- 350-450, MW-9.5, VIS-32 |
| 2/24/2010 | 0:00 - 13:30 | 13.50 | DRLPRO | 02 | B | P | | DRILL 5770 TO 6859, WOB-20-25, SPP-2580, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-99 , DIF- 350-450, MW-10.5, VIS-32 |
| | 13:30 - 14:00 | 0.50 | DRLPRO | 07 | A | P | | LUBRICATE RIG |
| | 14:00 - 0:00 | 10.00 | DRLPRO | 02 | B | P | | DRILL 6859 TO 7382, WOB-20-25, SPP-2580, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-99 , DIF- 350-450, MW-10.7, VIS-36 |
| 2/25/2010 | 0:00 - 14:00 | 14.00 | DRLPRO | 02 | B | P | | DRILL 7382 TO 7943, WOB-20-25, SPP-2580, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-99 , DIF- 350-450, MW-10.7, VIS-36 |
| | 14:00 - 14:30 | 0.50 | DRLPRO | 07 | A | P | | LUBRICATE RIG |
| | 14:30 - 0:00 | 9.50 | DRLPRO | 02 | A | P | | DRILL 7943 TO 8306, WOB-20-25, SPP-2580, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-99 , DIF- 350-450, MW-11.3, VIS-38 |
| 2/26/2010 | 0:00 - 13:00 | 13.00 | DRLPRO | 02 | B | P | | DRILL 8306 TO 8852, WOB-20-25, SPP-2580, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-99 , DIF- 350-450, LOST 30 BBLS MUD IN 20 MINUTES, BUILD LCM TO 5%, MW-11.9, VIS-38 |
| | 13:00 - 13:30 | 0.50 | DRLPRO | 07 | A | P | | LUBRICATE RIG |
| | 13:30 - 0:00 | 10.50 | DRLPRO | 02 | B | P | | DRILL 8852 TO 9292, WOB-20-25, SPP-2580, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-99 , DIF- 350-450, LOST 30 BBLS MUD IN 20 MINUTES, BUILD LCM TO 5%, MW-12.5, VIS-38 |
| 2/27/2010 | 0:00 - 9:00 | 9.00 | DRLPRO | 02 | B | P | | DRILL 9292 TO 9584, WOB-20-25, SPP-2580, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-99 , DIF- 350-450, MW-12.5, VIS-38, BIT QUIT DRILLING, LOST ALL DIF PSI WITH BIT FACE ON FORMATION, REGAIN DIF WHEN PU OFF BOTTOM,. SUSPECT MOTOR FAILURE AS BIT WAS DIGGING WITH NO PROBLEM WHEN DIF WAS LOST. |
| | 9:00 - 13:00 | 4.00 | DRLPRO | 05 | C | P | | TOOK 8 BBL GAIN ON CONNECTION GAS, RAISE MUD WT TO EQUAL ECD AT 12.7, CIRC HOLE FOR TRIP |
| | 13:00 - 22:30 | 9.50 | DRLPRO | 06 | A | P | | POOH W/ BHA FOR BIT & MOTOR |
| | 22:30 - 0:00 | 1.50 | DRLPRO | 06 | A | P | | LD BIT & MOTOR, DIRECTIONAL TOOLS, MOTOR CHECKS OUT BAD, SEALS WASHED, BIT IS DBR |
| 2/28/2010 | 0:00 - 1:00 | 1.00 | DRLPRO | 06 | A | P | | PU BHA#2, SCRIBE DIR TOOLS |
| | 1:00 - 9:30 | 8.50 | DRLPRO | 06 | A | P | | TIH W/ BHA #2, REAM 9436 TO 9465 |
| | 9:30 - 11:00 | 1.50 | DRLPRO | 05 | A | P | | CIRC OUT TRIP GAS & C02 |
| | 11:00 - 11:30 | 0.50 | DRLPRO | 03 | D | P | | REAM DOWN 9465 TO 9527 |
| | 11:30 - 12:00 | 0.50 | DRLPRO | 07 | A | P | | LUBRICATE RIG |
| | 12:00 - 13:00 | 1.00 | DRLPRO | 03 | E | P | | REAM DOWN 9527 TO 9580 |
| | 13:00 - 15:00 | 2.00 | DRLPRO | 05 | A | X | | CIRCULATE OUT CO2 & RE CONDITION MUD |
| | 15:00 - 16:00 | 1.00 | DRLPRO | 02 | B | P | | DRILL 9584 TO 9618, WOB-20-25, SPP-2580, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-76 , DIF- 350-450, MW-12.9, VIS-42 |
| | 16:00 - 16:30 | 0.50 | DRLPRO | 05 | A | P | | CIRC HOLE CLEAN |

US ROCKIES REGION

# Operation Summary Report

| | | |
|---|---|---|
| Well: NBU 920-22O | Spud Conductor: 11/24/2009 | Spud Date: 12/4/2009 |
| Project: UTAH-UINTAH | Site: NBU 920-22O | Rig Name No: PROPETRO/, ENSIGN 145/145 |
| Event: DRILLING | Start Date: 12/2/2009 | End Date: 3/4/2010 |
| Active Datum: RKB @4,844.00ft (above Mean Sea Leve | UWI: SW/SE/0/9/S/20/E/22/0/0/26/PM/S/198.00/E/0/2,487.00/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|---|---|---|---|---|---|---|---|---|
| | 16:30 - 19:00 | 2.50 | DRLPRO | 10 | B | P | | RU WIRELINE & RUN MULTI SHOT ON WIRELINE TO BHA, POOH W/ TOOLS, TOOLS FAILED, RD WIRELINE |
| | 19:00 - 0:00 | 5.00 | DRLPRO | 02 | B | P | | DRILL 9618 TO 9730, WOB-20-25, SPP-2580, SPM#1-62, SPM-#2-62, GPM- 476, ROTARY RPM-40-50, MOTOR RPM-76 , DIF- 350-450, MW-13.1, VIS-41 |
| 3/1/2010 | 0:00 - 14:00 | 14.00 | DRLPRO | 02 | B | P | | DRILL 9730 to 10069, WOB-20-25, SPP-2880, SPM#1-60, SPM-#2-60, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-76 , DIF- 350-450, MW-13.1, VIS-44 |
| | 14:00 - 14:30 | 0.50 | DRLPRO | 07 | A | P | | LUBRICATE RIG |
| | 14:30 - 0:00 | 9.50 | DRLPRO | 02 | B | P | | DRILL 10069 TO 10197, WOB-20-25, SPP-25880, SPM#1-60, SPM-#2-60, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-76 , DIF- 350-450, MW-13.2, VIS-44 |
| 3/2/2010 | 0:00 - 1:00 | 1.00 | DRLPRO | 02 | B | P | | DRILL 10197 TO 10199, |
| | 1:00 - 2:00 | 1.00 | DRLPRO | 05 | C | P | | PUMP SWEEP, CIRC HOLE |
| | 2:00 - 9:00 | 7.00 | DRLPRO | 06 | A | P | | TRIP FOR BIT#3 |
| | 9:00 - 10:30 | 1.50 | DRLPRO | 06 | A | P | | LD OLD TOOLS, PU NEW TOOLS |
| | 10:30 - 12:30 | 2.00 | DRLPRO | 06 | A | P | | TIH TO SHOE, INSTALL ROTATING HEAD |
| | 12:30 - 13:00 | 0.50 | DRLPRO | 07 | A | P | | LUBRICATE RIG |
| | 13:00 - 18:00 | 5.00 | DRLPRO | 06 | A | P | | TIH W/ BHA #3 |
| | 18:00 - 0:00 | 6.00 | DRLPRO | 02 | B | P | | DRILL 10199 TO 10335, WOB-16-25, SPP-2890, SPM#1-60, SPM-#2-60, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-76 , DIF- 350-450, MW-13.2, VIS-44 |
| 3/3/2010 | 0:00 - 7:00 | 7.00 | DRLPRO | 02 | B | P | | DRILL 10335 TO 10554, TD, WOB-16-25, SPP-2890, SPM#1-60, SPM-#2-60, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-76 , DIF- 350-450, MW-13.2, VIS-44 |
| | 7:00 - 9:00 | 2.00 | DRLPRO | 05 | F | P | | PUMP SWEEPS, CIRC HOLE 2 BOTTOMS UP |
| | 9:00 - 11:00 | 2.00 | DRLPRO | 06 | E | P | | 5 STD WIPER TRIP, CIRC BOTTOMS UP |
| | 11:00 - 19:00 | 8.00 | DRLPRO | 06 | A | P | | POOH & LD DP, LD BHA. |
| | 19:00 - 19:30 | 0.50 | DRLPRO | 14 | B | P | | PULL THE WEAR BUSHING |
| | 19:30 - 0:00 | 4.50 | DRLPRO | 11 | D | P | | HELD SAFETY MEETING WITH HALLIBURTON LOGGERS, RU AND RIH WITH TRIPLE COMBO AND IDT TOOLS AND LOG FROM 10560'-2610', RAN GR TO SUFACE. RD HALLIBURTON |
| 3/4/2010 | 0:00 - 1:00 | 1.00 | DRLPRO | 11 | D | P | | FINISH RUNNING LOGS. RD HALLIBURTON |
| | 1:00 - 9:30 | 8.50 | DRLPRO | 12 | C | P | | HELD SAFETY MEETING, RU AND RUN PROD CSG. : FLOAT SHOE, 1 JT. CSG. FLOAT COLLAR, 22 JTS. P-110 LTC, CSG. 8' XO, 108 JTS. I-80 BTC, MARKER JT. SET AT 4991', 118 JTS. 4 1/2" 11.6 PPF I-80 BTC CSG. OAL 10531.48, SET AT 10531.48. CENTRALIZED WITH 15 BOW SPRINGS, 1 ON FIRST 3 JTS. THEN EVERY 3RD JT. INSTALL LANDING JOINT. |
| | 9:30 - 11:30 | 2.00 | DRLPRO | 05 | D | P | | CIRCULATE BOTTOMS UP WITH RIG PUMP. HELD SAFETY MEETING WITH BJ. |
| | 11:30 - 13:30 | 2.00 | DRLPRO | 12 | E | P | | SWITCH TO BJ, TEST LINES TO 5000 CEMENT 4 1/2" AS FOLLOWS: 40 BBLS WATER, LEAD W/ 650 SKS PL2 MIXED @ 13.2 PPG, YIELD 1.69, TAIL W/ 1322 SKS 50:50 POZ MIXED @ 14.3PPG, YIELD 1.31, WASH LINES, DROP PLUG & DISPLACE W/163 BBLS WATER W/ CLAYTREAT & MAGNACIDE TO BUMP PLUG W/ 3450 PSI. 33 BBL CEMENT TO SURFACE. RELEASE PSI FLOATS OK. |

US ROCKIES REGION

# Operation Summary Report

| | | |
|---|---|---|
| Well: NBU 920-22O | Spud Conductor: 11/24/2009 | Spud Date: 12/4/2009 |
| Project: UTAH-UINTAH | Site: NBU 920-22O | Rig Name No: PROPETRO/, ENSIGN 145/145 |
| Event: DRILLING | Start Date: 12/2/2009 | End Date: 3/4/2010 |
| Active Datum: RKB @4,844.00ft (above Mean Sea Leve | UWI: SW/SE/0/9/S/20/E/22/0/0/26/PM/S/198.00/E/0/2,487.00/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|---|---|---|---|---|---|---|---|---|
| | 13:30 - 18:30 | 5.00 | DRLPRO | 12 | B | P | | CLEAN STACK, REMOVE HANGER, SET PACKOFF. CLEAN PITS AND RELEASE THE RIG @ 18:30 HRS. |
| | 18:30 - 18:30 | 0.00 | DRLPRO | | | | | CONDUCTOR CASING:<br>Cond. Depth set:<br>Cement sx used:<br><br>SPUD DATE/TIME: 12-4-2009 @ 09:30<br><br>SURFACE HOLE: 11"<br>Surface From depth:40<br>Surface To depth: 2,640<br>Total SURFACE hours: 28.5<br>Surface Casing size:8 5/8" 28# LTC<br># of casing joints ran: 59<br>Casing set MD:2,601<br># sx of cement:425<br>Cement blend (ppg:)"G" 11#<br>Cement yield (ft3/sk): 1.15<br># of bbls to surface: 0<br>Describe cement issues: TOP OUT 3225 SXS 15.8# 1.14 YIELD<br>Describe hole issues: PARTIAL LOSSES AT 9200', LCM TO 5% TO CONTROL AND INC TO 12% BY TD DUE TO SEEPAGE<br><br>PRODUCTION: 7.875"<br>Rig Move/Skid start date/time: 2/20/2010 4:00<br>Rig Move/Skid finish date/time2/21/2010 14:30<br>Total MOVE hours: 34.5<br>Prod Rig Spud date/time: 2/25/2010 17:00<br>Rig Release date/time: 3/4/2010 20:30<br>Total SPUD to RR hours: 171.5<br>Planned depth MD 10,554<br>Planned depth TVD 10,552<br>Actual MD: 10,554<br>Actual TVD: 10,552<br>Open Wells $: $859,140<br>AFE $: $1,075,547<br>Open wells $/ft:$81.40<br><br>PRODUCTION HOLE:<br>Prod. From depth: 2,640<br>Prod. To depth:10,554<br>Total PROD hours: 163.5<br>Production Casing size: 4 1/2<br># of casing joints ran: 254<br>Casing set MD:10,531<br># sx of cement:Lead 650 Tail 1322<br>Cement blend (ppg:)13.2 / 14.3<br>Cement yield (ft3/sk): 1.69 / 1.18<br>Est. TOC (Lead & Tail) or 2 Stage : 0 / 4000<br>Describe cement issues: NONE<br>Describe hole issues: NONE<br><br>DIRECTIONAL INFO:<br>KOP:<br>Max angle:<br>Departure:<br>Max dogleg MD: |

US ROCKIES REGION

# Operation Summary Report

| | | |
|---|---|---|
| Well: NBU 920-22O | Spud Conductor: 11/24/2009 | Spud Date: 12/4/2009 |
| Project: UTAH-UINTAH | Site: NBU 920-22O | Rig Name No: MILES-GRAY 1/1 |
| Event: COMPLETION | Start Date: 3/25/2010 | End Date: 4/2/2010 |
| Active Datum: RKB @4,844.00ft (above Mean Sea Leve | UWI: SW/SE/0/9/S/20/E/22/0/0/26/PM/S/198.00/E/0/2,487.00/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|---|---|---|---|---|---|---|---|---|
| 3/26/2010 | 7:00 - 7:30 | 0.50 | COMP | 48 | | P | | HSM, MOVING RIG & EQUIP. |
| | 7:30 - 15:00 | 7.50 | COMP | 30 | A | P | | MIRU F/ STATE 1021-32L, ND WEATHERFORD WH, NU BOPS. RU FLOOR & TBG EQUIP, PREP TO PU TBG, SWI SDFWE |
| 3/29/2010 | 7:00 - 7:30 | 0.50 | COMP | 48 | | P | | HSM, PICKING UP TBG OFF FLOAT. |
| | 7:30 - 16:30 | 9.00 | COMP | 31 | I | P | | TALLY & PU 37/8 BIT, & 286 JTS 23/8 L-80 OFF FLOAT TO 9025', POOH W/ 286 JTS, RD FLOOR, ND BOPS & WEATHERFORD WH, NU FRAC VALVES, RU FLOOR. PREP TO TEST CSG & SHOOT 1ST STAGE IN AM. |
| 3/30/2010 | 7:00 - 7:30 | 0.50 | COMP | 48 | | P | | HSM, STAYING AWAY FROM WELL HEAD WHILE TESTING W/ B&C. |
| | 7:30 - 15:00 | 7.50 | COMP | 37 | B | P | | RU B&C FILL & TEST CSG & FRAC VALVES TO 7,000# PSI OK, RU SCHLUMBERGER WIRE LINE, RIH W/ 31/8 EXP GNS, 23 GRM, .36" HOLES 90 & 120 DEG PHASING & PERF 10,452'-10456' 4 SPF 16 HLS, 10,436'-10,440' 3 SPF 12 HLS, 10,348'-10,350' 3 SPF 6 HLS, 10,290'-10,292' 3 SPF 6 HLS. TOTAL 40 HOLES, POOH SWI SDFN, PREP TO FRAC IN AM. |
| 3/31/2010 | 6:30 - 7:00 | 0.50 | COMP | 48 | | P | | HSM, HELPING WIRE LINE & STAYING AWAY F/ WELL HEAD WHILE FRACING. |
| | 7:00 - 7:32 | 0.53 | COMP | 36 | E | P | | MIRU FRAC TECH, PRIME UP PUMPS & LINES, PRESSURE TEST SURFACE LINES TO 8,000# PSI.<br>( STG 1 ) WHP 1630 PSI, BRK 3597 PSI, 5.1 BPM, ISIP 3303 PSI, FG .75.<br>PUMP 100 BBLS @ 51 BPM, 5875 PSI = 100% PERFS OPEN.<br>MP 6500 PSI, MR 52.1 BPM, AP 5550 PSI, AR 51 BPM, ISIP 3238 PSI, FG .75.<br>NPI -65 PSI, PMPD1295 BBLS OF SW & 37,766 LBS 30/50 SND & 5,000 LBS 30/50 RESIN SAND. TOTAL PROP 42,766 LBS. |
| | 7:32 - 9:40 | 2.13 | COMP | 36 | E | | | ( STG 2 ) PU 41/2" CBP & 31/8" EXP GNS, 23 GRM, .36" HOLES, 120 DEG PHASING.<br>SET HAL 8K CBP @ 10,224' & PERF 10,190'-10,194' 3 SPF 12 HLS. 10,142'-10,144' 3 SPF 6 HLS. 10,056'-10,060' 3 SPF 12 HLS. 10,030'-10,033' 3 SPF 9 HLS. TOTAL ( 1HR 40 MIN )<br>WHP 1575 PSI, BRK 3944 PSI, 3 BPM, ISIP 3173 PSI, FG .75.<br>PUMP 100 BBLS @ 49 BPM, 6430 PSI = 72% PERFS OPEN.<br>MP 6600 PSI, MR 51 BPM, AP 6050 PSI, AR 49.9 BPM, ISIP 3685 PSI, FG .80.<br>NPI 512 PSI, PMPD 1174 BBLS OF SW & 39,451 LBS 30/50 SND & 5,000 LBS 30/50 RESIN SAND. TOTAL PROP 44,451 LBS. |

US ROCKIES REGION

# Operation Summary Report

| | | |
|---|---|---|
| Well: NBU 920-22O | Spud Conductor: 11/24/2009 | Spud Date: 12/4/2009 |
| Project: UTAH-UINTAH | Site: NBU 920-22O | Rig Name No: MILES-GRAY 1/1 |
| Event: COMPLETION | Start Date: 3/25/2010 | End Date: 4/2/2010 |
| Active Datum: RKB @4,844.00ft (above Mean Sea Leve | UWI: SW/SE/0/9/S/20/E/22/0/0/26/PM/S/198.00/E/0/2,487.00/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|---|---|---|---|---|---|---|---|---|
| | 9:40 - 11:44 | 2.07 | COMP | 36 | E | P | | ( STG 3 ) PU 41/2" CBP & 31/8" EXP GNS, 23 GRM, .36" HOLES, 120, 180, 90 DEG PHASING.<br>SET HAL 8K CBP @ 9968' & PERF 9936'-9938' 4 SPF 8 HLS, 9916'-9918' 4 SPF 8 HLS, 9864'-9868' 3 SPF 12 HLS, 9802'-9804' 3 SPF 6 HLS, 9710'-9712' 2 SPF 4 HLS. TOTAL 38 HOLES.<br>WHP 1325 PSI, BRK 4268 PSI, 6.4 BPM, ISIP 3568 PSI, FG .80.<br>PUMP 100 BBLS @ 50 BPM, 6280 PSI = 100% PERFS OPEN.<br>MP 6464 PSI, MR 52 BPM, AP 5810 PSI, AR 51.6 BPM, ISIP 3397 PSI, FG .78.<br>NPI - 171 PSI, PMPD 1941 BBLS OF SW & 68,232 LBS 30/50 SND & 5,000 LBS 30/50 RESIN SAND. TOTAL PROP 73,232 LBS. |
| | 11:44 - 13:26 | 1.70 | COMP | 36 | E | P | | ( STG 4 ) PU 41/2" CBP & 31/8" EXP GNS, 23 GRM, .36" HOLES, 120, 90 DEG PHASING.<br>SET HAL 8K CBP @ 9660' & PERF 9620'-9622' 4 SPF 8 HLS, 9612'-9614' 4 SPF 8 HLS, 9568'-9570' 3 SPF 6 HLS, 9468'-9470' 3 SPF 6 HLS, 9446'-9450' 3 SPF 12 HLS. TOTAL 40 HOLES.<br>WHP 1220 PSI, BRK 4103 PSI, 5.8 BPM, ISIP 3155 PSI, FG .76.<br>PUMP 100 BBLS @ 40 BPM, 4720 PSI = 100% PERFS OPEN.<br>MP 4733 PSI, MR 40.8 BPM, AP 4120 PSI, AR 40 BPM, ISIP 3032 PSI, FG .75.<br>NPI - 123 PSI, PMPD 1078 BBLS OF SW & 35,452 LBS 30/50 SND & 5,000 LBS 30/50 RESIN SAND. TOTAL PROP 40,452 LBS. |
| | 13:26 - 15:43 | 2.28 | COMP | 36 | E | P | | ( STG 5 ) PU 41/2" CBP & 31/8" EXP GNS, 23 GRM, .36" HOLES, 120, 90 DEG PHASING.<br>SET HAL 8K CBP @ 9314' & PERF 9282'-9284' 3 SPF 6 HLS, 9180'-9184' 3 SPF 12 HLS, 9094'-9096' 4 SPF 8 HLS, 9060'-9062' 4 SPF 8 HLS, 9004'-9006' 3 SPF 6 HLS. TOTAL 40 HOLES.<br>WHP 1375 PSI, BRK 4109 PSI, 6.5 BPM, ISIP 2949 PSI, FG .76.<br>PUMP 100 BBLS @ 52 BPM, 5430 PSI = 100% PERFS OPEN.<br>MP 6482 PSI, MR 52.9 BPM, AP 5120 PSI, AR 52 BPM, ISIP 3238 PSI, FG .79.<br>NPI 289 PSI, PMPD 2412 BBLS OF SW & 88,265 LBS 30/50 SND & 5,000 LBS 30/50 RESIN SAND. TOTAL PROP 93,265 LBS. |
| | 15:43 - 17:19 | 1.60 | COMP | 36 | E | P | | ( STG 6 ) PU 41/2" CBP & 31/8" EXP GNS, 23 GRM, .36" HOLES, 120, 90 DEG PHASING.<br>SET HAL 8K CBP @ 8980' & PERF 8948'-8950' 3 SPF 6 HLS, 8874'-8878' 3 SPF 12 HLS, 8850'-8852' 4 SPF 8 HLS, 8824'-8828' 3 SPF 12 HLS. TOTAL 38 HOLES.<br>WHP 1160 PSI, BRK 4768 PSI, 3.8 BPM, ISIP 3414 PSI, FG .82.<br>PUMP 100 BBLS @ 53 BPM, 5500 PSI = 100% PERFS OPEN.<br>MP 6317 PSI, MR 53 BPM, AP 5080 PSI, AR 52.8 BPM, ISIP 3214 PSI, FG .79.<br>NPI -200 PSI, PMPD 1111 BBLS OF SW & 37,067 LBS 30/50 SND & 5,000 LBS 30/50 RESIN SAND. TOTAL PROP 42,067 LBS. |

US ROCKIES REGION

# Operation Summary Report

| | | | |
|---|---|---|---|
| Well: NBU 920-22O | Spud Conductor: 11/24/2009 | Spud Date: 12/4/2009 | |
| Project: UTAH-UINTAH | Site: NBU 920-22O | | Rig Name No: MILES-GRAY 1/1 |
| Event: COMPLETION | Start Date: 3/25/2010 | | End Date: 4/2/2010 |
| Active Datum: RKB @4,844.00ft (above Mean Sea Leve | UWI: SW/SE/0/9/S/20/E/22/0/0/26/PM/S/198.00/E/0/2,487.00/0/0 | | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|---|---|---|---|---|---|---|---|---|
| | 17:19 - 19:00 | 1.68 | COMP | 34 | H | P | | ( STG 7 ) PU 41/2" CBP & 31/8" EXP GNS, 23 GRM, .36" HOLES, 90 DEG PHASING.<br>SET HAL 8K CBP @ 7445' & PERF 7412'-7418' 4 SPF 24 HLS, 7244'-7248' 4 SPF 16 HLS. TOTAL 40 HOLES. |
| 4/1/2010 | 6:00 - 6:30 | 0.50 | COMP | 48 | | P | | HSM, FRACING AND STAYING CLEAR OF ALL PRESSURE LINES. |
| | 6:30 - 6:49 | 0.32 | COMP | 36 | E | P | | ( STG 7 ) WHP 2000 PSI, BRK 3562 PSI, 6.9 BPM, ISIP 2867 PSI, FG .82.<br>PUMP 100 BBLS @ 51 BPM, 4710 PSI = 100% PERFS OPEN.<br>MP 6493 PSI, MR 52.7 BPM, AP 4427 PSI, AR 51.8 BPM, ISIP 3050 PSI, FG .85.<br>NPI 183 PSI, PMPD 627 BBLS OF SW & 16,678 LBS 30/50 SND & 5,000 LBS 30/50 RESIN SAND. TOTAL PROP 21,678 LBS. |
| | 6:49 - 8:45 | 1.93 | COMP | 36 | E | P | | ( STG 8 ) PU 41/2" CBP & 31/8" EXP GNS, 23 GRM, .36" HOLES, 120 DEG PHASING.<br>SET HAL 8K CBP @ 6484' & PERF 6446'-6452' 3 SPF 18 HLS, 6268'-6272' 3 SPF 12 HLS, 6212'-6216' 3 SPF 12 HLS. TOTAL 42 HOLES.<br>WHP 390 PSI, BRK 2166 PSI, 3.9 BPM, ISIP 1890 PSI, FG .73.<br>PUMP 100 BBLS @ 54 BPM, 3760 PSI = 100% PERFS OPEN.<br>MP 5728 PSI, MR 54.7 BPM, AP 3715 PSI, AR 53.9 BPM, ISIP 2455 PSI, FG .82.<br>NPI 565 PSI, PMPD 2051 BBLS OF SW & 92,889 LBS 30/50 SND & 5,000 LBS 30/50 RESIN SAND. TOTAL PROP 97,889 LBS. |
| | 8:45 - 10:10 | 1.42 | COMP | 36 | E | P | | ( STG 9 ) PU 41/2" CBP & 31/8" EXP GNS, 23 GRM, .36" HOLES, 90 DEG PHASING.<br>SET HAL 8K CBP @ 5840' & PERF 5804'-5810' 4 SPF 24 HLS, 5626'-5630' 4 SPF 16 HLS. TOTAL 40 HLS.<br>WHP 325 PSI, BRK 2166 PSI, 4.9 BPM, ISIP 1695 PSI, FG .73.<br>PUMP 100 BBLS @ 55 BPM, 3725 PSI = 100% PERFS OPEN.<br>MP 4939 PSI, MR 54.9 BPM, AP 3620 PSI, AR 53.9 BPM, ISIP 2508 PSI, FG .87.<br>NPI 813 PSI, PMPD 1403 BBLS OF SW & 64,446 LBS 30/50 SND & 5,000 LBS 30/50 RESIN SAND. TOTAL PROP 69,446 LBS.( OVERAGE WAS WHITE SAND ) |
| | 10:10 - 16:30 | 6.33 | COMP | 31 | I | P | | ( KILL PLUG ) RIH W/ 41/2" CBP & SET @ 5576', POOH RD WIRE LINE & FRAC CREW.ND FRAC VALVES, NU BOPS, RU FLOOR. WAIT ON WIND TO DIE DWN. RIH W/ 37/8 SEALED BEARING BIT, POBS & 1.875 X/N & 161 JTS 23/8 L-80 TO 5529' RU DRLG EQUIP, PREP TO DRILL PLUGS IN AM. SWI SDFN. |
| 4/2/2010 | 7:00 - 7:30 | 0.50 | COMP | 48 | | P | | HSM, WORKING W/ POWER SWIVEL & PICKING UP AND LAYING DWN TBG. |

US ROCKIES REGION

# Operation Summary Report

| | | |
|---|---|---|
| Well: NBU 920-22O | Spud Conductor: 11/24/2009 | Spud Date: 12/4/2009 |
| Project: UTAH-UINTAH | Site: NBU 920-22O | Rig Name No: MILES-GRAY 1/1 |
| Event: COMPLETION | Start Date: 3/25/2010 | End Date: 4/2/2010 |
| Active Datum: RKB @4,844.00ft (above Mean Sea Leve | UWI: SW/SE/0/9/S/20/E/22/0/0/26/PM/S/198.00/E/0/2,487.00/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|---|---|---|---|---|---|---|---|---|
| | 7:30 - 19:00 | 11.50 | COMP | 44 | C | P | | SICP 0, BREAK CIRC CONVENTINAL, TEST BOPS TO 3,000# PSI OK, RIH.<br><br>C/O 15' OF SAND TAG 1ST PLUG @ 5576' DRL PLG IN 22 MIN. 1100 PSI INCREASE RIH.<br><br>C/O 30' OF SAND TAG 2ND PLUG @ 5840' DRL PLG IN 20 MIN. 300 PSI INCREASE RIH.<br><br>C/O 30' OF SAND TAG 3RD PLUG @ 6484' DRL PLG IN 14 MIN. 500 PSI INCREASE RIH.<br><br>C/O 30' OF SAND TAG 4TH PLUG @ 7445' DRL PLG IN 13 MIN. 400 PSI INCREASE RIH.<br><br>C/O 30' OF SAND TAG 5TH PLUG @ 8980' DRL PLG IN 16 MIN. 700 PSI INCREASE RIH.<br><br>C/O 100' OF SAND TAG 6TH PLUG @ 9314' DRL PLG IN 33 MIN. 400 PSI INCREASE RIH.<br><br>C/O 30' OF SAND TAG 7TH PLUG @ 9652' DRL PLG IN 7 MIN. 500 PSI INCREASE RIH.<br><br>C/O 30' OF SAND TAG 8TH PLUG @ 9962' DRL PLG IN 5 MIN. 300 PSI INCREASE RIH.<br><br>C/O 90' OF SAND TAG 9TH PLUG @ 10,224' DRL PLG IN 5 MIN. 200 PSI INCREASE RIH.<br><br>C/O TO 10,486 PBTD. CIRC WELL CLEAN, L/D 15 JTS, LAND TBG ON 317 JTS 23/8 L-80 TBG.<br>ND BOPS NU WH, DROP BALL PUMP OFF BIT, LET BIT FALL FOR 30 MIN. TURN WELL OVER TO FB CREW. RIG DOWN RIG & PARK ON LOCATION.<br>SDFWE<br><br>KB = 13'<br>WEATHERFORD 71/16 HANGER = .83'<br>317 JTS 23/8 L-80 = 9987.77'<br>POBS W/ 1.875 X/N = 2.20'<br>EOT @ 10,003.80'<br><br>336 JTS 23/8 L-80 4.7# OUT BOUND<br>317 LANDED<br>19 RETURNED<br><br>TWTR = 13,572 BBLS<br>TWR = 2500 BBLS<br>TWLTR = 11,072 BBLS<br><br>1975 CSG PSI<br>300 FLOWING TBG PSI. |
| 4/3/2010 | 7:00 - | | | 33 | A | | | 7 AM FLBK REPORT: CP 1900#, TP 1650#, 20/64" CK, 85 BWPH, HEAVY SAND, - GAS<br>TTL BBLS RECOVERED: 3842<br>BBLS LEFT TO RECOVER: 9250 |
| 4/4/2010 | 7:00 - | | | 33 | A | | | 7 AM FLBK REPORT: CP 2975#, TP 2325#, 20/64" CK, 42 BWPH, HEAVY SAND, - GAS<br>TTL BBLS RECOVERED: 5063<br>BBLS LEFT TO RECOVER: 8029 |

US ROCKIES REGION

# Operation Summary Report

| | | | |
|---|---|---|---|
| Well: NBU 920-22O | Spud Conductor: 11/24/2009 | Spud Date: 12/4/2009 | |
| Project: UTAH-UINTAH | Site: NBU 920-22O | | Rig Name No: MILES-GRAY 1/1 |
| Event: COMPLETION | Start Date: 3/25/2010 | | End Date: 4/2/2010 |
| Active Datum: RKB @4,844.00ft (above Mean Sea Leve | UWI: SW/SE/0/9/S/20/E/22/0/0/26/PM/S/198.00/E/0/2,487.00/0/0 | | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|---|---|---|---|---|---|---|---|---|
| | 9:00 - | | PROD | 50 | | | | WELL TURNED TO SALES @ 0900 HR ON 4/4/2010 - 2300 MCFD, 1560 BWPD, CP 3100#, FTP 2400#, CK 20/64" |
| 4/5/2010 | 7:00 - | | | 33 | A | | | 7 AM FLBK REPORT: CP 2900#, TP 2225#, 20/64" CK, 32 BWPH, MED SAND, - GAS<br>TTL BBLS RECOVERED: 5863<br>BBLS LEFT TO RECOVER: 7229 |
| 4/6/2010 | 7:00 - | | | 33 | A | | | 7 AM FLBK REPORT: CP 2825#, TP 2100#, 20/64" CK, 25 BWPH, MED SAND, 2.5 GAS<br>TTL BBLS RECOVERED: 6596<br>BBLS LEFT TO RECOVER: 6496 |
| 4/7/2010 | 7:00 - | | | 33 | A | | | 7 AM FLBK REPORT: CP 2700#, TP 2000#, 20/64" CK, 28 BWPH, LIGHT SAND, 2.6 GAS<br>TTL BBLS RECOVERED: 7235<br>BBLS LEFT TO RECOVER: 5857 |

# 1 General

## 1.1 Customer Information

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

## 1.2 Well Information

| | | | |
|---|---|---|---|
| **Well** | NBU 920-22O | **Wellbore No.** | OH |
| **Well Name** | NBU 920-22O | **Common Name** | NBU 920-22O |
| **Project** | UTAH-UINTAH | **Site** | NBU 920-22O |
| **Vertical Section Azimuth** | | **North Reference** | True |
| **Origin N/S** | | **Origin E/W** | |
| **Spud Date** | 12/4/2009 | **UWI** | SW/SE/0/9/S/20/E/22/0/0/26/PM/S/198.00/E/0/2,487.00/0/0 |
| **Active Datum** | RKB @4,844.00ft (above Mean Sea Level) | | |

# 2 Survey Name

## 2.1 Survey Name: Survey #1

| | | | |
|---|---|---|---|
| **Survey Name** | Survey #1 | **Company** | PRO PETRO |
| **Started** | 12/4/2009 | **Ended** | 12/6/2009 |
| **Tool Name** | TOT | **Engineer** | Anadarko |

### 2.1.1 Tie On Point

| MD (ft) | Inc (°) | Azi (°) | TVD (ft) | N/S (ft) | E/W (ft) |
|---|---|---|---|---|---|
| 9.00 | 0.00 | 0.00 | 9.00 | 0.00 | 0.00 |

### 2.1.2 Survey Stations

| Date | Type | MD (ft) | Inc (°) | Azi (°) | TVD (ft) | N/S (ft) | E/W (ft) | V. Sec (ft) | DLeg (°/100ft) | Build (°/100ft) | Turn (°/100ft) | TFace (°) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/4/2009 | Tie On | 9.00 | 0.00 | 0.00 | 9.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12/4/2009 | NORMAL | 309.00 | 0.50 | | 309.00 | 1.31 | 0.00 | 1.31 | 0.17 | 0.17 | 0.00 | 0.00 |
| | NORMAL | 819.00 | 1.00 | | 818.95 | 7.98 | 0.00 | 7.98 | 0.10 | 0.10 | 0.00 | 0.00 |
| | NORMAL | 1,299.00 | 1.00 | | 1,298.88 | 16.36 | 0.00 | 16.36 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12/5/2009 | NORMAL | 1,809.00 | 0.75 | | 1,808.82 | 24.15 | 0.00 | 24.15 | 0.05 | -0.05 | 0.00 | 180.00 |
| | NORMAL | 2,279.00 | 1.50 | | 2,278.72 | 33.38 | 0.00 | 33.38 | 0.16 | 0.16 | 0.00 | 0.00 |
| | NORMAL | 2,609.00 | 1.30 | 70.10 | 2,608.65 | 38.97 | 3.52 | 38.97 | 0.49 | -0.06 | 21.24 | 130.86 |
| | NORMAL | 2,939.00 | | | 2,938.62 | 40.25 | 7.04 | 40.25 | 0.39 | -0.39 | 0.00 | -180.00 |

## 2.2 Survey Name: PROD SURVEY

| | | | |
|---|---|---|---|
| **Survey Name** | PROD SURVEY | **Company** | XTREME |
| **Started** | 2/23/2010 | **Ended** | |
| **Tool Name** | UNKNOWN | **Engineer** | Anadarko |

### 2.2.1 Tie On Point

| MD (ft) | Inc (°) | Azi (°) | TVD (ft) | N/S (ft) | E/W (ft) |
|---|---|---|---|---|---|
| 2,609.00 | 1.30 | 70.10 | 2,609.00 | 38.97 | 3.52 |

## 2.2.2 Survey Stations

| Date | Type | MD (ft) | Inc (°) | Azi (°) | TVD (ft) | N/S (ft) | E/W (ft) | V. Sec (ft) | DLeg (°/100ft) | Build (°/100ft) | Turn (°/100ft) | TFace (°) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/23/2010 | Tie On | 2,609.00 | 1.30 | 70.10 | 2,609.00 | 38.97 | 3.52 | 38.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3/2/2010 | NORMAL | 2,659.00 | 1.30 | 70.10 | 2,658.99 | 39.36 | 4.59 | 39.36 | 0.00 | 0.00 | 0.00 | 0.00 |
| | NORMAL | 10,120.00 | 1.60 | 120.40 | 10,117.87 | 15.45 | 174.02 | 15.45 | 0.02 | 0.00 | 0.67 | 102.72 |
| 3/4/2010 | NORMAL | 10,554.00 | 1.60 | 120.40 | 10,551.71 | 9.32 | 184.47 | 9.32 | 0.00 | 0.00 | 0.00 | 0.00 |

***Federal Approval of this Action is Necessary***

**FORM 9**

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

**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU-000577A

## 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:** UTE

**7.UNIT or CA AGREEMENT NAME:** NATURAL BUTTES

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 920-22O

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

**9. API NUMBER:** 43047405420000

**3. ADDRESS OF OPERATOR:** P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

**PHONE NUMBER:** 720 929-6515 Ext

**9. FIELD and POOL or WILDCAT:** NATURAL BUTTES

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0198 FSL 2487 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 22 Township: 09.0S Range: 20.0E 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 | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT<br>Approximate date work will start: 10/11/2011 | ☐ ACIDIZE | ☐ ALTER CASING | ✓ CASING REPAIR |
| ☐ SUBSEQUENT REPORT<br>Date of Work Completion: | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| | ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| ☐ SPUD REPORT<br>Date of Spud: | ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| | ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| | ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| ☐ DRILLING REPORT<br>Report Date: | ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| | ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| | ☐ WILDCAT WELL DETERMINATION | ✓ OTHER | OTHER: Wellhead |

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

The operator requests approval to conduct wellhead/casing repair operations on the subject well location. Please find the attached procedure for the proposed repair work on the subject well location.

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

**Date:** 10/12/2011

**By:** Dark K Quist

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Andy Lytle | 720 929-6100 | Regulatory Analyst |
| **SIGNATURE** N/A | | **DATE** 10/10/2011 |

**RECEIVED** Oct. 10, 2011

WORKORDER #: 88119386

Name: NBU 920-220 7/11/2011
Surface Location: SWSE Sec. 22, T9S, R20E
Uintah County, UT

API: 4304740542 LEASE#: UTU-0577A

ELEVATIONS: 4831' GL 4844' KB

TOTAL DEPTH: 10,554' PBTD: 10,488'

SURFACE CASING: 8 5/8", 28# J-55 @ 2614'

PRODUCTION CASING: 4 1/2", 11.6#, I-80 @ 10,531'
TOC @ 98' per CBL (with min 50' isolation)

PERFORATIONS: Wasatch 5626' – 7418'
Mesaverde 8824' – 10,456'

| Tubular/Borehole | Drift inches | Collapse psi | Burst psi | Capacities | | |
|---|---|---|---|---|---|---|
| | | | | Gal./ft. | Cuft/ft. | Bbl./ft. |
| 2.375" 4.7# J-55 tbg. | 1.901 | 8100 | 7700 | 0.1624 | 0.02171 | 0.00387 |
| 4.5" 11.6# I-80 | 3.875 | 6350 | 7780 | 0.6528 | 0.0872 | 0.0155 |
| 8.625" 28# J-55 | 8.097 | 1370 | 2950 | 2.6223 | 0.3505 | 0.0624 |
| **Annular Capacities** | | | | | | |
| 2.375" tbg. X 4 ½" 11.6# csg | | | | 0.4227 | 0.0565 | 0.01 |

GEOLOGICAL TOPS:

1694' Green River
2426' Mahogany
5071' Wasatch
8409' Mesaverde

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# NBU 920-220– WELLHEAD REPAIR PROCEDURE

## PREP-WORK PRIOR TO MIRU:

1. Dig out down to the 2" surface casing valve or to the valve on the riser off the surface casing.
2. Install a tee with 2 valves, with a pressure gauge and sensor on one valve.
3. Open casing valve and record pressures.
4. Install nipple and steel hose on the other valve, the relief valve,. Do not use hammer unions. No impact equipment or tools to be used for any of this installation. Extend hose and hard piping to a downwind location at least 100' from the wellhead. Consider installing a manifold so that vent area could be in two locations approx. 90 degrees apart from the wellhead.
5. Open the relief valve and blow well down to the atmosphere.
6. Make a determination of amount of gas flow, either by installation of a choke nipple, bucket test or other.
7. Shut well in. Observe for rate of build-up by utilizing sensor data. Do not build-up for more than 24 hours. Vent gas through the vent line and leave open to the atmosphere.

## WORKOVER PROCEDURE:

1. MIRU workover rig.
2. Kill well with 10# brine / KCL (dictated by well pressure ).
3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
4. POOH w/ tubing laying down extra tubing.
5. Rig up wireline service. RIH and set CBP @ ~5576'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service. TIH w/ tubing and seating nipple. Land tubing ±60' above cement. RDMO.
6. Monitor well pressures. If surface casing is dead. MIRU. ND WH and NU BOP. POOH w/ tubing.
7. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

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## CUT/PATCH PROCEDURE:

1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.

2. POOH, LD cutters and casing.

3. PU 7 3/8" overshot with 4 ½" right hand standard wicker grapple, 1 - 4 ¾" drill collar with 3 ½" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' utilize >7000 ft-lb torque pipe as needed. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to ±7000 ft-lbs, count number of turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out, release overshot, POOH, and lay down.

4. TIH w/ skirted mill and dress off the fish top for approximately ½ hour. TOOH.

5. PU & RIH w/ 4 ½" 10k external casing patch on 4 ½" P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.

6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 3500 psi.

7. Install slips. Land casing w/ 80,000# tension.

8. Cut-off and dress 4 ½" casing stub.

9. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~5526'. Clean out to PBTD (10,488').

10. POOH, land tbg and pump off POBS.

11. NUWH, RDMO. Turn well over to production ops.

## BACK-OFF PROCEDURE:

1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.

2. POOH, LD cutters and casing.

3. PU 4 ½" overshot. RIH, latch fish. Pick string weight to neutral.

4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.

5. Back-off casing, POOH.

RECEIVED Oct. 10, 2011

6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to ±7000 ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.

7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 3500 psi.

8. Install slips. Land casing w/ 80,000# tension.

9. Cut-off and dress 4 ½" casing stub.

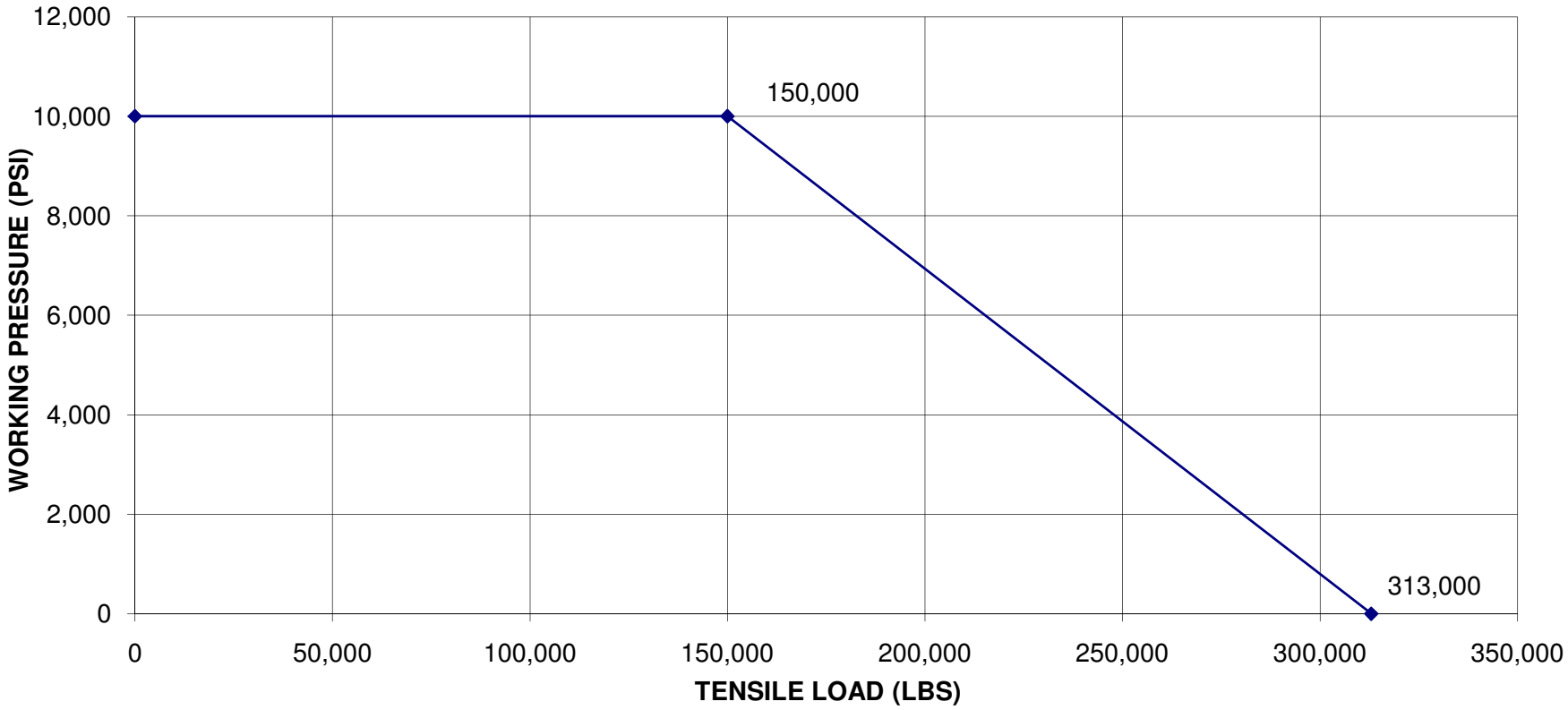
10. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~5526'. Clean out to PBTD (10,488').

11. POOH, land tbg and pump off POBS.

12. NUWH, RDMO. Turn well over to production ops.

RECEIVED Oct. 10, 2011

# STRENGTH DATA FOR LOGAN 5.88" OD "L" TYPE CSG PATCH
# 4-1/2 CASING, 10K PSI MAX WP 125K YIELD MAT'L
# LOGAN ASSEMBLY NO. 510L-005 -000




COLLAPSE PRESSURE:
11,222 PSI @ 0 TENSILE
8,634 PSI @ 220K TENSILE

Tensile Strength @ Yield:
Tensile Strength w/ 0 Int. Press.= 472,791lbs.
Tensile Strength w/ 10K Int. Press.= 313,748lbs.

DATA BY SLS 11/16/2009

# Logan High Pressure Casing Patches
## Assembly Procedure

All parts should be thoroughly greased before being assembled.

1. Install all four Logan Type “L” Packers in the spaces provided in the Casing Patch Bowl. Refer to diagram provided for proper installation.

2. Install Packer Protector from the Basket Grapple end of the Bowl. The beveled end of the Packer Protector goes in first. Carefully push the Packer Protector through the four Type “L” Packers.

3. Align Shear Pin Holes in Packer Protector so that the holes have just passed into the counter bore at the Top Sub end, refer to diagram. The Packer Protector is provided with four Shear Pin Holes. Use only two holes, 180 degrees apart and install the pins.

4. Screw the Basket Grapple in from the lower end of the Bowl, using left-hand rotation. The Tang Slot in the Basket Grapple must land in line with the slot in the Bowl.

5. Insert the Basket Grapple Control into the end of the Bowl. Align Tang on the Basket Grapple Control with the Tang Slot of the Bowl and Basket Grapple. This secures the Bowl and the Basket Grapple together.

6. Install the Cutlipped Guide into the lower end of the Bowl.

7. Install O-Rings on the two five-foot long Extensions. Screw the first Extension into the top end of the Bowl. Screw the second Extension into the top end of the first Extension.

8. Install O-Ring on Top Sub. Screw Top Sub into top end of second Extension.

Follow recommended Make-Up Torque as provided in chart.

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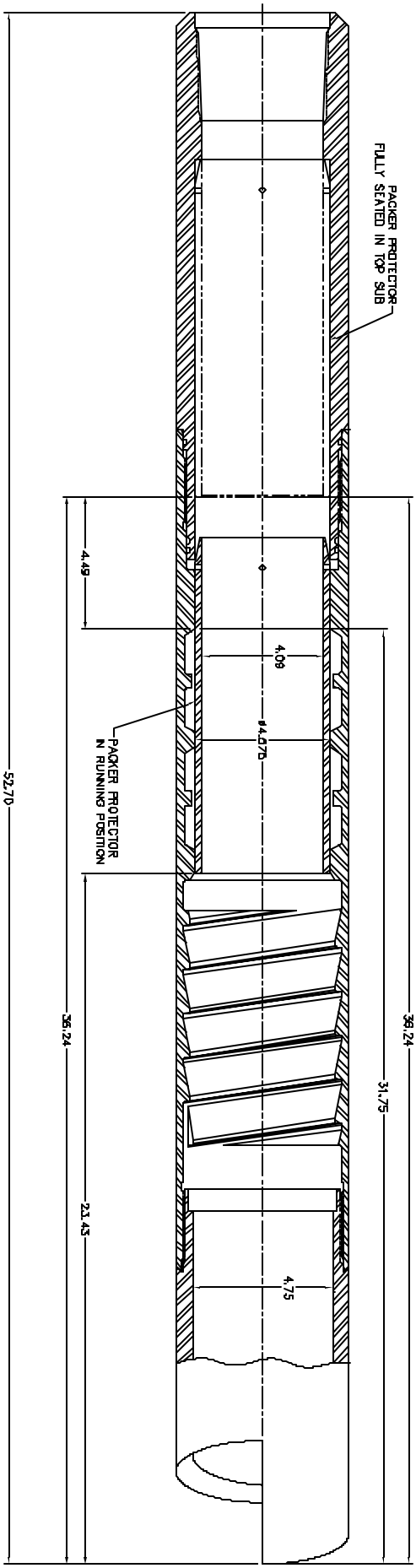


510L-005-001 4-1/2" LOGAN HP CASING PATCH

RECEIVED Oct. 10, 2011

**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.

**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU-000577A

**6. IF INDIAN, ALLOTTEE OR TRIBE NAME:** UTE

**7.UNIT or CA AGREEMENT NAME:** NATURAL BUTTES

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 920-22O

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

**9. API NUMBER:** 43047405420000

**3. ADDRESS OF OPERATOR:** P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

**9. FIELD and POOL or WILDCAT:** NATURAL BUTTES

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 0198 FSL 2487 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 22 Township: 09.0S Range: 20.0E 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 | | |
|---|---|---|---|
| ☐ NOTICE OF INTENT<br>Approximate date work will start: | ☐ ACIDIZE | ☐ ALTER CASING | ☑ CASING REPAIR |
| ☑ SUBSEQUENT REPORT<br>Date of Work Completion:<br>10/31/2011 | ☐ CHANGE TO PREVIOUS PLANS | ☐ CHANGE TUBING | ☐ CHANGE WELL NAME |
| ☐ SPUD REPORT<br>Date of Spud: | ☐ CHANGE WELL STATUS | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ CONVERT WELL TYPE |
| ☐ DRILLING REPORT<br>Report Date: | ☐ DEEPEN | ☐ FRACTURE TREAT | ☐ NEW CONSTRUCTION |
| | ☐ OPERATOR CHANGE | ☐ PLUG AND ABANDON | ☐ PLUG BACK |
| | ☐ PRODUCTION START OR RESUME | ☐ RECLAMATION OF WELL SITE | ☐ RECOMPLETE DIFFERENT FORMATION |
| | ☐ REPERFORATE CURRENT FORMATION | ☐ SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON |
| | ☐ TUBING REPAIR | ☐ VENT OR FLARE | ☐ WATER DISPOSAL |
| | ☐ WATER SHUTOFF | ☐ SI TA STATUS EXTENSION | ☐ APD EXTENSION |
| | ☐ WILDCAT WELL DETERMINATION | ☐ OTHER | OTHER: |

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

The operator has concluded the wellhead/casing repairs on the subject well location. Please see that attached chronological history for details of the operations.

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

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Jaime Scharnowske | 720 929-6304 | Regulartory Analyst |
| **SIGNATURE** N/A | | **DATE** 7/17/2012 |

RECEIVED: Jul. 17, 2012

US ROCKIES REGION

## Operation Summary Report

| | | | |
|---|---|---|---|
| Well: NBU 920-22O | Spud Conductor: 11/24/2009 | Spud Date: 12/4/2009 | |
| Project: UTAH-UINTAH | Site: NBU 920-22O | | Rig Name No: MONUMENT/698 |
| Event: WELL WORK EXPENSE | Start Date: 10/25/2011 | | End Date: 10/27/2011 |
| Active Datum: RKB @4,844.00usft (above Mean Sea Level) | UWI: SW/SE/0/9/S/20/E/22/0/0/26/PM/S/198.00/E/0/2,487.00/0/0 | | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (usft) | Operation |
|---|---|---|---|---|---|---|---|---|
| 10/25/2011 | 11:00 - 12:00 | 1.00 | ALL | 30 | A | P | | ROAD RIG F/ NBU 920-27F TO NBU 920-22O MIRU. |
| | 12:00 - 12:30 | 0.50 | ALL | 48 | | P | | HSM, REVIEW SET CIBP. |
| | 12:30 - 13:30 | 1.00 | ALL | 47 | A | P | | FCP. 270 PSI. FTP. 270 PSI. BLEW TBG DWN, CONTROL TBG W/ 10 BBLS, ND WH, NU BOP'S, RU FLOOR & TBG EQUIPMENT, UNLAND TBG |
| | 13:30 - 17:00 | 3.50 | ALL | 31 | I | P | | POOH 317 JTS. 2-3/8 L-80 TBG. |
| | 17:00 - 18:00 | 1.00 | ALL | 34 | I | P | | RU J-W WIRELINE COMPANY, RIH & SET 4-1/2 BAKER 10K CIBP @ 5575', POOH TOOLS, RD J-W WIRELINE COMPANY, FILL CSG W/ T-MAC, P.T. PLUG TO 3000 PSI. HELD, SWI, SDFN. |
| | 7:00 - 11:00 | 4.00 | PROD | 35 | | | | Tb 113 Cs 270 FL GC Got Pace Maker Plunger up w/Well. Ran w/Down Shear Fsih Tool to SN at 10003, latched, sheared tool, pulled out. Re-pinned w/ Up Shear Fish Tool, ran to SN, pulled Ball, pulled out. Left Ball and Plunger in Sep Bldg. Rigged Down. Turned Well over to Rig. |
| 10/26/2011 | 7:00 - 7:30 | 0.50 | ALL | 48 | | P | | HSM, REVIEW BACK-OFF PROCEDURE |
| | 7:30 - 8:00 | 0.50 | ALL | 47 | A | P | | RD FLOOR & TBG EQUIPMENT, ND BOP'S, ND CSG BOWL, REMOVE LOCK CAP, RU FLOOR, NU PWR SWVL. |
| | 8:00 - 9:00 | 1.00 | ALL | 31 | B | P | | PU INTERNAL CSG CUTTER & RIH, CUT CSG @ 3' F/ SURFACE, POOH, LD CUTTER & CSG MANDRAL, RD PWR SWVL, RD FLOOR, PU 4-1/2 OVERSHOT, RIH, LATCH FISH, MIRU CSG CREW & WIRELINE SERVICES, RIH & STRING SHOT CSG COLLAR, BACK-OFF CSG, POOH LD OVERSHOT, PU NEW 15' CSG PUP JNT, TAG CSG TOP,THREAD INTO CSG, TORQUE CSG TO 7000# W/ 14 ROTATIONS, RD CSG CREW & WIRELINE SERVICES, PU CSG TO 100,000# TENSION. |
| | 9:00 - 10:00 | 1.00 | ALL | 33 | C | P | | RU B&C QUICK TEST, P.T. 4-1/2 CSG TO 1000 PSI. FOR 15 MINS, LOST 1 PSI. IN 15 MINS, P.T. 4-1/2 CSG TO 3500 PSI. LOST 24 PSI. IN 30 MINS. NO COMMUNICATION SURFACE CSG & 4-1/2 CSG, RD B&C QUICK TEST. |
| | 10:00 - 12:00 | 2.00 | ALL | 47 | C | P | | RU WEATHERFORD TECHNICIAN, SET C-21 SLIPS, LAND CSG W/ 85,000# TENSION, CUT & DRESS 4-1/2 CSG STUB, INSTALL "H" PLATE, FLANGE, CROSSOVER SPOOL, TORQUE ALL 1-7/8 BOLTS ON NEW WH, RD WEATHERFORD TECHNICIAN. |
| | 12:00 - 13:30 | 1.50 | ALL | 31 | I | P | | NU CSG BOWL, NU BOP'S, RU FLOOR & TBG EQUIPMENT, PU 3-7/8 MILL W/ 1.875 XN POBS & RIH 176 JTS. 2-3/8 L-80 TBG, TAG CIBP @ 5575' |
| | 13:30 - 14:20 | 0.83 | ALL | 31 | H | P | | NU PWR SWVL, RU TECH FOAM, EST CIRC IN 20 MINS |
| | 14:20 - 15:00 | 0.67 | ALL | 44 | C | P | | D/O CIBP @ 5575' IN 25 MINS. NO INCREASE IN PRESSURE, KILL TBG, LD PWR SWVL, |



RECEIVED: Jul. 17, 2012

US ROCKIES REGION

# Operation Summary Report

| | | | |
|---|---|---|---|
| Well: NBU 920-22O | Spud Conductor: 11/24/2009 | Spud Date: 12/4/2009 | |
| Project: UTAH-UINTAH | Site: NBU 920-22O | | Rig Name No: MONUMENT/698 |
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| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (usft) | Operation |
|---|---|---|---|---|---|---|---|---|
| | 15:00 - 19:00 | 4.00 | ALL | 31 | I | P | | RIH 141 JTS. F/ DERRICK, PU 16 JTS. F/ TRAILER, TAG SCALE @ 10,453', INSTALL TSF, RU PWR SWVL, EST CIRC IN 10 MINS, C/O SCALE TO 10,488' PBTD, CIRC WELL CLEAN, POOH 2 JTS. KILL TBG, REMOVE TSF, RD PWR SWVL, DROP BALL, PUMP MILL-OFF W/ 1675 PSI. RD TECH FOAM, SWI, SDFN. |
| 10/27/2011 | 7:00 - 7:30 | 0.50 | ALL | 48 | | | | HSM, REVIEW BROACHING TBG. |
| | 7:30 - 11:00 | 3.50 | ALL | 31 | I | | | SICP. 700 PSI. SITP. 500 PSI. BLEW TBG DWN, CONTROL TBG W/ 10 BBLS, POOH LD 14 JTS. ON TRAILER, LAND TBG HANGER, RU SWAB EQUIPMENT, RIH & BROACH TBG TO XN W/ 1.901 BROACH, POOH, LD SWAB EQUIPMENT, RD FLOOR & TBG EQUIPMENT, ND BOP'S, NU WH, RDMO. MOVE TO NBU 920-22i.<br><br>TBG DETAIL<br><br>KB----------13'<br>HANGER----------.83"<br>317 JTS. 2-3/8 L-80 TBG----------9987.77'<br>1.875 XN POBS----------2.20'<br>EOT @----------10,003.80'<br>WLTR. 190 BBLS.<br>TOP PERF @ 5626'<br>BTM PERF @ 10,456'<br>PBTD @ 10, 488'<br>API # 4304740542 |
| 10/31/2011 | 7:00 - 11:00 | 4.00 | PROD | 35 | | P | | Tb 900 Cs 896 FL GC Ran w/Spear to TD at 10510, pulled out. Ran w/1.910 Broach to SN at 10035, pulled out. Dropped Good Used Titanium Spring w/single X-cups and roll pin, chased w/1.910 Broach to SN, set spring, pulled out. Dropped Used Ball and Pace Maker Plunger for Pumper. Left Well in Abort. Rigged Down. |