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

FORM 3

AMENDED REPORT ☐

## APPLICATION FOR PERMIT TO DRILL

**1. WELL NAME and NUMBER**
NBU 1022-6J4CS

**2. TYPE OF WORK**
DRILL NEW WELL ■ REENTER P&A WELL ○ DEEPEN WELL ○

**3. FIELD OR WILDCAT**
NATURAL BUTTES

**4. TYPE OF WELL**
Gas Well Coalbed Methane Well: NO

**5. UNIT or COMMUNITIZATION AGREEMENT NAME**
NATURAL BUTTES

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

**7. OPERATOR PHONE**
720 929-6587

**8. ADDRESS OF OPERATOR**
P.O. Box 173779, Denver, CO, 80217

**9. OPERATOR E-MAIL**
mary.mondragon@anadarko.com

**10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)**
UTU 01195

**11. MINERAL OWNERSHIP**
FEDERAL ■ INDIAN ○ STATE ○ FEE ○

**12. SURFACE OWNERSHIP**
FEDERAL ■ INDIAN ○ STATE ○ FEE ○

**13. NAME OF SURFACE OWNER (if box 12 = 'fee')**

**14. SURFACE OWNER PHONE (if box 12 = 'fee')**

**15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')**

**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')**

**17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')**

**18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS**
YES ■ (Submit Commingling Application) NO ○

**19. SLANT**
VERTICAL ○ DIRECTIONAL ■ HORIZONTAL ○

| 20. LOCATION OF WELL | FOOTAGES | QTR-QTR | SECTION | TOWNSHIP | RANGE | MERIDIAN |
|---|---|---|---|---|---|---|
| LOCATION AT SURFACE | 1178 FSL 1593 FEL | SWSE | 6 | 10.0 S | 22.0 E | S |
| Top of Uppermost Producing Zone | 1535 FSL 1760 FEL | NWSE | 6 | 10.0 S | 22.0 E | S |
| At Total Depth | 1535 FSL 1760 FEL | NWSE | 6 | 10.0 S | 22.0 E | S |

**21. COUNTY**
UINTAH

**22. DISTANCE TO NEAREST LEASE LINE (Feet)**
1535

**23. NUMBER OF ACRES IN DRILLING UNIT**
578

**25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)**
345

**26. PROPOSED DEPTH**
MD: 9231 TVD: 9200

**27. ELEVATION - GROUND LEVEL**
5155

**28. BOND NUMBER**
WYB000291

**29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE**
Permit #43-8496

## ATTACHMENTS

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

- ☑ **WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER**
- ☑ **COMPLETE DRILLING PLAN**
- ☐ **AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)**
- ☐ **FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER**
- ☑ **DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)**
- ☑ **TOPOGRAPHICAL MAP**

| | | |
|---|---|---|
| **NAME** Danielle Piernot | **TITLE** Regulatory Analyst | **PHONE** 720 929-6156 |
| **SIGNATURE** | **DATE** 08/24/2009 | **EMAIL** danielle.piernot@anadarko.com |

**API NUMBER ASSIGNED**
43047506850000

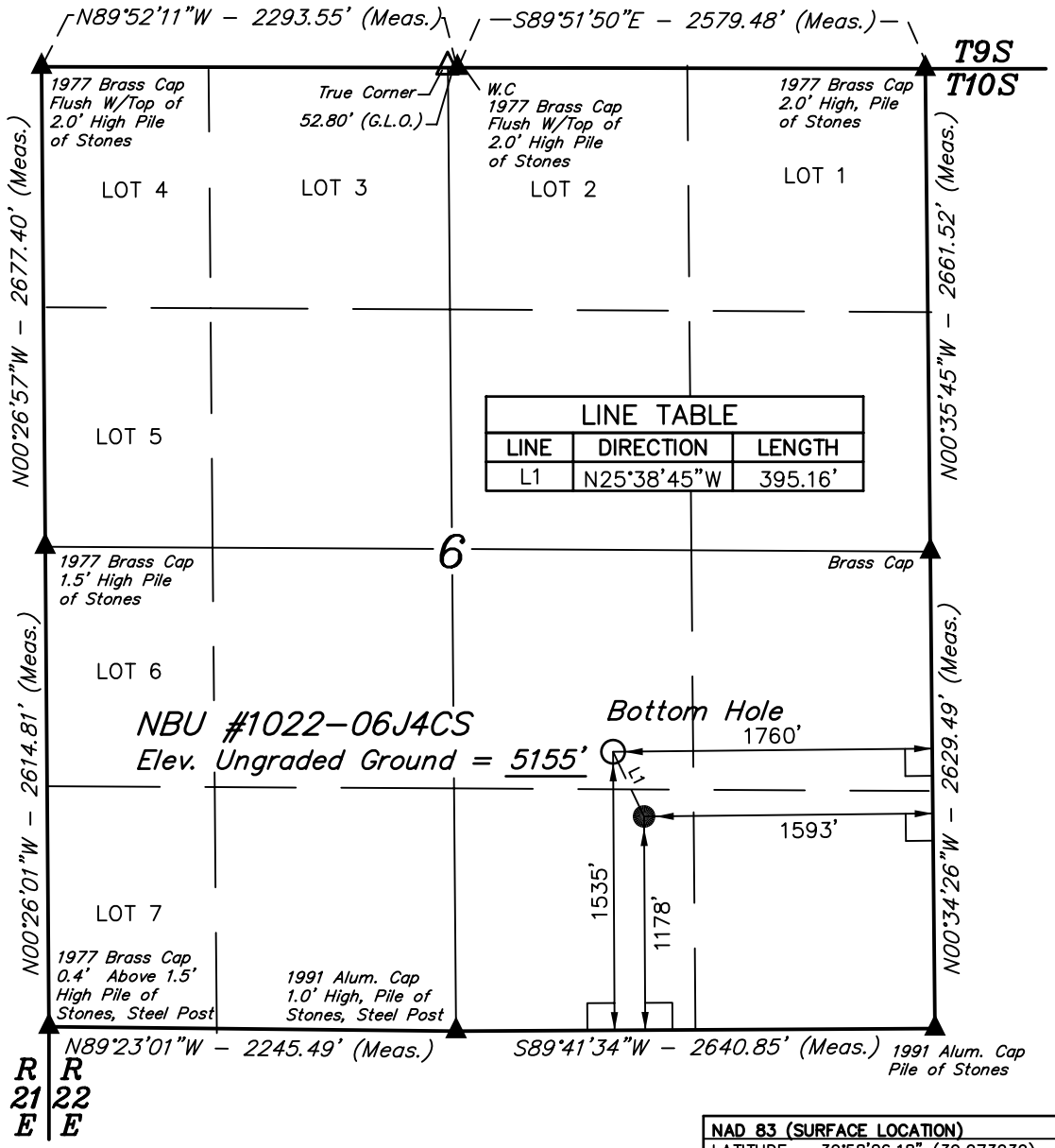
**APPROVAL**

Permit Manager

| Proposed Hole, Casing, and Cement | | | | | | |
|---|---|---|---|---|---|---|
| **String** | **Hole Size** | **Casing Size** | **Top (MD)** | **Bottom (MD)** | | |
| Prod | 7.875 | 4.5 | 0 | 9231 | | |
| **Pipe** | **Grade** | **Length** | **Weight** | | | |
| | Grade I-80 Buttress | 9231 | 11.6 | | | |
| | | | | | | |

| Proposed Hole, Casing, and Cement | | | | | | |
|---|---|---|---|---|---|---|
| **String** | **Hole Size** | **Casing Size** | **Top (MD)** | **Bottom (MD)** | | |
| Surf | 12.25 | 9.625 | 0 | 2285 | | |
| **Pipe** | **Grade** | **Length** | **Weight** | | | |
| | Grade J-55 LT&C | 2285 | 36.0 | | | |
| | | | | | | |

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




## Kerr-McGee Oil & Gas Onshore LP

Well location, NBU #1022-06J4CS, located as shown in the SW 1/4 SE 1/4 of Section 6, T10S, R22E, S.L.B.&M. Uintah County, Utah.

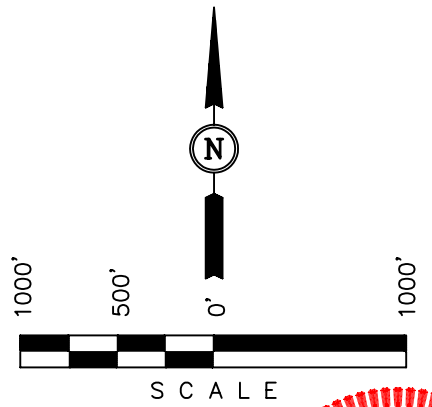
### BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.

### BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

| LINE TABLE | | |
|---|---|---|
| LINE | DIRECTION | LENGTH |
| L1 | N25°38'45"W | 395.16' |




### 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. 161319
STATE OF UTAH

REGISTERED LAND SURVEYOR REGISTRATION NO. 161319 STATE OF UTAH

REV: 10-22-08

| NAD 83 (SURFACE LOCATION) |
|---|
| LATITUDE = 39°58'26.18" (39.973939) |
| LONGITUDE = 109°28'43.72" (109.478811) |
| **NAD 27 (SURFACE LOCATION)** |
| LATITUDE = 39°58'26.31" (39.973975) |
| LONGITUDE = 109°28'41.25" (109.478125) |
| **NAD 83 (BOTTOM HOLE)** |
| LATITUDE = 39°58'29.70" (39.974917) |
| LONGITUDE = 109°28'45.92" (109.479422) |
| **NAD 27 (BOTTOM HOLE)** |
| LATITUDE = 39°58'29.83" (39.974953) |
| LONGITUDE = 109°28'43.45" (109.478736) |

### LEGEND:

- ⌐ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set On Ground)


**UINTAH ENGINEERING & LAND SURVEYING**
*85 SOUTH 200 EAST – VERNAL, UTAH 84078*
(435) 789-1017


| | | |
|---|---|---|
| SCALE 1" = 1000' | DATE SURVEYED: 8-19-08 | DATE DRAWN: 9-04-08 |
| PARTY D.S. E.D. K.E. | REFERENCES G.L.O. PLAT | |
| WEATHER HOT | FILE Kerr-McGee Oil & Gas Onshore LP | |


'APIWellNo:43047506850000'

'APIWellNo:43047506850000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT
Site: NBU 1022-6O Pad
Well: NBU 1022-6J4CS
Wellbore: OH
Design: Plan #1

Kerr McGee Oil and Gas Onshore LP

T M

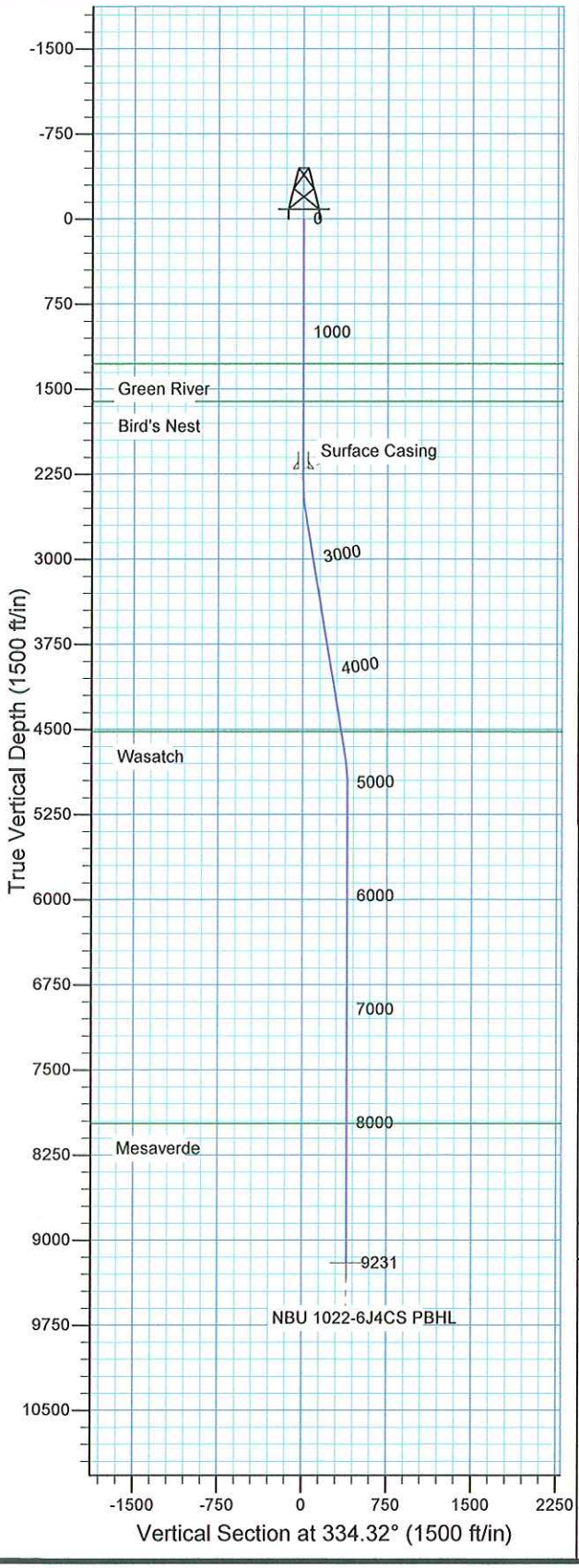
Azimuths to True North
Magnetic North: 11.39°

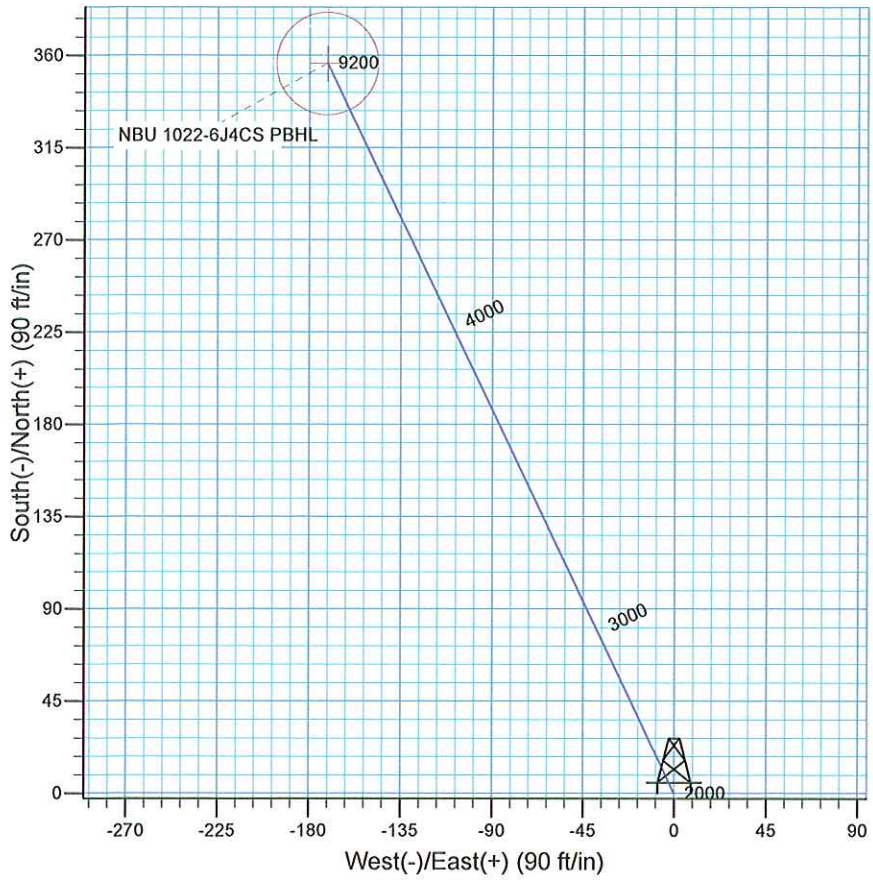
Magnetic Field
Strength: 52605.0snT
Dip Angle: 65.92°
Date: 10/20/2008
Model: IGRF2005-10

WELL DETAILS: NBU 1022-6J4CS

GL 5149' & RKB 18' @ 5167.00ft 5149.00

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|
| 0.00 | 0.00 | 603971.08 | 2566585.66 | 39° 58' 26.310 N | 109° 28' 41.250 W |




Plan: Plan #1 (NBU 1022-6J4CS/OH)

Created By: Julie Cruse Date: 2008-10-20

PROJECT DETAILS: Uintah County, UT

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: Sec 6 T10S R22E
System Datum: Mean Sea Level
Local North: True

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | Target |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2300.00 | 0.00 | 0.00 | 2300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2610.86 | 9.33 | 334.32 | 2609.49 | 22.75 | -10.94 | 3.00 | 334.32 | 25.24 | |
| 4737.99 | 9.33 | 334.32 | 4708.51 | 333.40 | -160.32 | 0.00 | 0.00 | 369.94 | |
| 5048.86 | 0.00 | 0.00 | 5018.00 | 356.15 | -171.26 | 3.00 | 180.00 | 395.19 | |
| 9230.86 | 0.00 | 0.00 | 9200.00 | 356.15 | -171.26 | 0.00 | 0.00 | 395.19 | NBU 1022-6J4CS PBHL |

'APIWellNo:43047506850000'

Scientific Drilling
Rocky Mountain Operations

# Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT**
**NBU 1022-6O Pad**
**NBU 1022-6J4CS**
**OH**

**Plan: Plan #1**

# Standard Planning Report

**20 October, 2008**

Scientific Drilling
Rocky Mountain Operations

# Scientific Drilling
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 2003.16 Multi User DB | **Local Co-ordinate Reference:** | Well NBU 1022-6J4CS |
| **Company:** | Kerr McGee Oil and Gas Onshore LP | **TVD Reference:** | GL 5149' & RKB 18' @ 5167.00ft |
| **Project:** | Uintah County, UT | **MD Reference:** | GL 5149' & RKB 18' @ 5167.00ft |
| **Site:** | NBU 1022-6O Pad | **North Reference:** | True |
| **Well:** | NBU 1022-6J4CS | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #1 | | |

**Project** Uintah County, UT

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane 1927 (Exact solution) | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | NAD 1927 (NADCON CONUS) | | |
| **Map Zone:** | Utah Central 4302 | | |

**Site** NBU 1022-6O Pad, Sec 6 T10S R22E

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 603,918.07 ft | **Latitude:** | 39° 58' 25.780 N |
| **From:** | Lat/Long | **Easting:** | 2,566,613.33 ft | **Longitude:** | 109° 28' 40.910 W |
| **Position Uncertainty:** | 0.00 ft | **Slot Radius:** | in | **Grid Convergence:** | 1.30 ° |

**Well** NBU 1022-6J4CS, 1178' FSL 1593' FEL

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 0.00 ft | **Northing:** | 603,971.08 ft | **Latitude:** | 39° 58' 26.310 N |
| | **+E/-W** | 0.00 ft | **Easting:** | 2,566,585.66 ft | **Longitude:** | 109° 28' 41.250 W |
| **Position Uncertainty** | | 0.00 ft | **Wellhead Elevation:** | ft | **Ground Level:** | 5,149.00 ft |

**Wellbore** OH

| **Magnetics** | **Model Name** | **Sample Date** | **Declination (°)** | **Dip Angle (°)** | **Field Strength (nT)** |
|---|---|---|---|---|---|
| | IGRF2005-10 | 10/20/2008 | 11.39 | 65.93 | 52,605 |

**Design** Plan #1

**Audit Notes:**

| | | | | |
|---|---|---|---|---|
| **Version:** | **Phase:** | PLAN | **Tie On Depth:** | 0.00 |

| **Vertical Section:** | **Depth From (TVD) (ft)** | **+N/-S (ft)** | **+E/-W (ft)** | **Direction (°)** |
|---|---|---|---|---|
| | 0.00 | 0.00 | 0.00 | 334.32 |

**Plan Sections**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,300.00 | 0.00 | 0.00 | 2,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,610.86 | 9.33 | 334.32 | 2,609.49 | 22.75 | -10.94 | 3.00 | 3.00 | 0.00 | 334.32 | |
| 4,737.99 | 9.33 | 334.32 | 4,708.51 | 333.40 | -160.32 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,048.86 | 0.00 | 0.00 | 5,018.00 | 356.15 | -171.26 | 3.00 | -3.00 | 0.00 | 180.00 | |
| 9,230.86 | 0.00 | 0.00 | 9,200.00 | 356.15 | -171.26 | 0.00 | 0.00 | 0.00 | 0.00 | NBU 1022-6J4CS PB |

Scientific Drilling
Rocky Mountain Operations

# Scientific Drilling
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 2003.16 Multi User DB | **Local Co-ordinate Reference:** | Well NBU 1022-6J4CS |
| **Company:** | Kerr McGee Oil and Gas Onshore LP | **TVD Reference:** | GL 5149' & RKB 18' @ 5167.00ft |
| **Project:** | Uintah County, UT | **MD Reference:** | GL 5149' & RKB 18' @ 5167.00ft |
| **Site:** | NBU 1022-6O Pad | **North Reference:** | True |
| **Well:** | NBU 1022-6J4CS | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #1 | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 800.00 | 0.00 | 0.00 | 800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,000.00 | 0.00 | 0.00 | 1,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 0.00 | 0.00 | 1,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 0.00 | 0.00 | 1,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,277.00 | 0.00 | 0.00 | 1,277.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Green River** | | | | | | | | | |
| 1,300.00 | 0.00 | 0.00 | 1,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 0.00 | 0.00 | 1,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 0.00 | 0.00 | 1,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 0.00 | 0.00 | 1,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,607.00 | 0.00 | 0.00 | 1,607.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Bird's Nest** | | | | | | | | | |
| 1,700.00 | 0.00 | 0.00 | 1,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 0.00 | 0.00 | 1,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 0.00 | 0.00 | 1,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 0.00 | 0.00 | 2,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 0.00 | 0.00 | 2,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 0.00 | 0.00 | 2,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Surface Casing** | | | | | | | | | |
| 2,300.00 | 0.00 | 0.00 | 2,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 3.00 | 334.32 | 2,399.95 | 2.36 | -1.13 | 2.62 | 3.00 | 3.00 | 0.00 |
| 2,500.00 | 6.00 | 334.32 | 2,499.63 | 9.43 | -4.53 | 10.46 | 3.00 | 3.00 | 0.00 |
| 2,600.00 | 9.00 | 334.32 | 2,598.77 | 21.19 | -10.19 | 23.51 | 3.00 | 3.00 | 0.00 |
| 2,610.86 | 9.33 | 334.32 | 2,609.49 | 22.75 | -10.94 | 25.24 | 3.00 | 3.00 | 0.00 |
| 2,700.00 | 9.33 | 334.32 | 2,697.45 | 35.77 | -17.20 | 39.69 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 9.33 | 334.32 | 2,796.13 | 50.37 | -24.22 | 55.89 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 9.33 | 334.32 | 2,894.81 | 64.98 | -31.24 | 72.10 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 9.33 | 334.32 | 2,993.49 | 79.58 | -38.27 | 88.30 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 9.33 | 334.32 | 3,092.16 | 94.18 | -45.29 | 104.51 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 9.33 | 334.32 | 3,190.84 | 108.79 | -52.31 | 120.71 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 9.33 | 334.32 | 3,289.52 | 123.39 | -59.34 | 136.92 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 9.33 | 334.32 | 3,388.20 | 138.00 | -66.36 | 153.12 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 9.33 | 334.32 | 3,486.88 | 152.60 | -73.38 | 169.33 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 9.33 | 334.32 | 3,585.56 | 167.21 | -80.40 | 185.53 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 9.33 | 334.32 | 3,684.23 | 181.81 | -87.43 | 201.74 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 9.33 | 334.32 | 3,782.91 | 196.41 | -94.45 | 217.94 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 9.33 | 334.32 | 3,881.59 | 211.02 | -101.47 | 234.15 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 9.33 | 334.32 | 3,980.27 | 225.62 | -108.49 | 250.35 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 9.33 | 334.32 | 4,078.95 | 240.23 | -115.52 | 266.56 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 9.33 | 334.32 | 4,177.63 | 254.83 | -122.54 | 282.76 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 9.33 | 334.32 | 4,276.30 | 269.43 | -129.56 | 298.97 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 9.33 | 334.32 | 4,374.98 | 284.04 | -136.59 | 315.17 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 9.33 | 334.32 | 4,473.66 | 298.64 | -143.61 | 331.38 | 0.00 | 0.00 | 0.00 |
| 4,544.93 | 9.33 | 334.32 | 4,518.00 | 305.20 | -146.76 | 338.66 | 0.00 | 0.00 | 0.00 |

Scientific Drilling
Rocky Mountain Operations

# Scientific Drilling
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 2003.16 Multi User DB | **Local Co-ordinate Reference:** | Well NBU 1022-6J4CS |
| **Company:** | Kerr McGee Oil and Gas Onshore LP | **TVD Reference:** | GL 5149' & RKB 18' @ 5167.00ft |
| **Project:** | Uintah County, UT | **MD Reference:** | GL 5149' & RKB 18' @ 5167.00ft |
| **Site:** | NBU 1022-6O Pad | **North Reference:** | True |
| **Well:** | NBU 1022-6J4CS | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #1 | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| **Wasatch** | | | | | | | | | |
| 4,600.00 | 9.33 | 334.32 | 4,572.34 | 313.25 | -150.63 | 347.58 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 9.33 | 334.32 | 4,671.02 | 327.85 | -157.65 | 363.79 | 0.00 | 0.00 | 0.00 |
| 4,737.99 | 9.33 | 334.32 | 4,708.51 | 333.40 | -160.32 | 369.94 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 7.47 | 334.32 | 4,769.85 | 341.56 | -164.24 | 379.00 | 3.00 | -3.00 | 0.00 |
| 4,900.00 | 4.47 | 334.32 | 4,869.29 | 350.92 | -168.75 | 389.39 | 3.00 | -3.00 | 0.00 |
| 5,000.00 | 1.47 | 334.32 | 4,969.15 | 355.59 | -170.99 | 394.56 | 3.00 | -3.00 | 0.00 |
| 5,048.86 | 0.00 | 0.00 | 5,018.00 | 356.15 | -171.26 | 395.19 | 3.00 | -3.00 | 0.00 |
| 5,100.00 | 0.00 | 0.00 | 5,069.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 0.00 | 0.00 | 5,169.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 0.00 | 0.00 | 5,269.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 0.00 | 0.00 | 5,369.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 0.00 | 0.00 | 5,469.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 0.00 | 0.00 | 5,569.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 0.00 | 0.00 | 5,669.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 0.00 | 0.00 | 5,769.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 0.00 | 0.00 | 5,869.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 0.00 | 0.00 | 5,969.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 0.00 | 0.00 | 6,069.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 0.00 | 0.00 | 6,169.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.00 | 0.00 | 6,269.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.00 | 0.00 | 6,369.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 0.00 | 0.00 | 6,469.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 0.00 | 0.00 | 6,569.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 0.00 | 0.00 | 6,669.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 0.00 | 0.00 | 6,769.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 0.00 | 0.00 | 6,869.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 0.00 | 0.00 | 6,969.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 7,100.00 | 0.00 | 0.00 | 7,069.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 7,200.00 | 0.00 | 0.00 | 7,169.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 7,300.00 | 0.00 | 0.00 | 7,269.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 7,400.00 | 0.00 | 0.00 | 7,369.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 7,500.00 | 0.00 | 0.00 | 7,469.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 0.00 | 0.00 | 7,569.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 0.00 | 0.00 | 7,669.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 0.00 | 0.00 | 7,769.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 0.00 | 0.00 | 7,869.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 0.00 | 0.00 | 7,969.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 8,001.86 | 0.00 | 0.00 | 7,971.00 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| **Mesaverde** | | | | | | | | | |
| 8,100.00 | 0.00 | 0.00 | 8,069.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 0.00 | 0.00 | 8,169.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 0.00 | 0.00 | 8,269.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 0.00 | 0.00 | 8,369.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 0.00 | 0.00 | 8,469.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 0.00 | 0.00 | 8,569.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 0.00 | 0.00 | 8,669.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 0.00 | 0.00 | 8,769.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 0.00 | 0.00 | 8,869.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 0.00 | 0.00 | 8,969.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 0.00 | 0.00 | 9,069.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 0.00 | 0.00 | 9,169.14 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |
| 9,230.86 | 0.00 | 0.00 | 9,200.00 | 356.15 | -171.26 | 395.19 | 0.00 | 0.00 | 0.00 |

Scientific Drilling
Rocky Mountain Operations

# Scientific Drilling
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 2003.16 Multi User DB | **Local Co-ordinate Reference:** | Well NBU 1022-6J4CS |
| **Company:** | Kerr McGee Oil and Gas Onshore LP | **TVD Reference:** | GL 5149' & RKB 18' @ 5167.00ft |
| **Project:** | Uintah County, UT | **MD Reference:** | GL 5149' & RKB 18' @ 5167.00ft |
| **Site:** | NBU 1022-6O Pad | **North Reference:** | True |
| **Well:** | NBU 1022-6J4CS | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #1 | | |

**Planned Survey**

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

**Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| NBU 1022-6J4CS PBHL<br>- plan hits target center<br>- Circle (radius 25.00) | 0.00 | 0.00 | 9,200.00 | 356.15 | -171.26 | 604,323.27 | 2,566,406.39 | 39° 58' 29.830 N | 109° 28' 43.450 W |

**Casing Points**

| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (in) | Hole Diameter (in) |
|---|---|---|---|---|
| 2,200.00 | 2,200.00 | Surface Casing | 9.625 | 13.500 |

**Formations**

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---|---|---|---|---|---|
| 1,277.00 | 1,277.00 | Green River | | 0.00 | |
| 1,607.00 | 1,607.00 | Bird's Nest | | 0.00 | |
| 4,544.93 | 4,518.00 | Wasatch | | 0.00 | |
| 8,001.86 | 7,971.00 | Mesaverde | | 0.00 | |

# NBU 1022-6J4CS

Pad: NBU 1022-6O
Surface: 1,178' FSL 1,593' FEL (SW/4SE/4)
BHL: 1,535' FSL 1,760' FEL (NW/4SE/4)
Sec. 6 T10S R22E

Uintah, Utah
Mineral Lease: UTU 01195

## 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 | 1,277' | |
| Birds Nest | 1,607' | Water |
| Mahogany | 2,082' | Water |
| Wasatch | 4,518' | Gas |
| Mesaverde | 7,079' | Gas |
| MVU2 | 7,971' | Gas |
| MVL1 | 8,603' | Gas |
| TVD | 9,200' | |
| TD | 9,231' | |

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

*Please refer to the attached Drilling Program.*

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

*Please refer to the attached Drilling Program.*

**5. Drilling Fluids Program:**

*Please refer to the attached Drilling Program.*

**6. Evaluation Program:**

*Please refer to the attached Drilling Program.*

**7. Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 9,200' TVD, approximately equals 5,493 psi (calculated at 0.60 psi/foot).

Maximum anticipated surface pressure equals approximately 3,469 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 refer to the attached Drilling Program.*
*Onshore Order #2 – Air Drilling Variance*

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

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

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

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

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

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

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

*The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole 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.*

***Variance for FIT Requirements***
*KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). The air rig operation utilizes a 5M BOPE when drilling. This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.*

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

**10. Other Information:**

*Please refer to the attached Drilling Program.*

’APIWellNo:43047506850000’

# KERR-McGEE OIL & GAS ONSHORE LP

## DRILLING PROGRAM

| | | | |
|---|---|---|---|
| COMPANY NAME | KERR-McGEE OIL & GAS ONSHORE LP | DATE | August 19, 2009 |
| WELL NAME | **NBU 1022-6J4CS** | TD | 9,200' TVD 9,231' MD |
| FIELD | Natural Buttes | COUNTY Uintah STATE Utah | FINISHED ELEVATION 5,149' |
| SURFACE LOCATION | SW/4 SE/4 1,178' FSL 1,593' FEL | Sec 6 T 10S R 22E | |
| | Latitude: 39.973939 | Longitude: -109.478811 | NAD 83 |
| BTM HOLE LOCATION | NW/4 SE/4 1,535' FSL 1,760' FEL | Sec 6 T 10S R 22E | |
| | Latitude: 39.974917 | Longitude: -109.479422 | NAD 83 |
| OBJECTIVE ZONE(S) | Wasatch/Mesaverde | | |
| ADDITIONAL INFO | Regulatory Agencies: BLM (Minerals), BLM (Surface), Tri-County Health Dept. | | |

| GEOLOGICAL | | | MECHANICAL | | |
|---|---|---|---|---|---|
| LOGS | FORMATION TOPS | DEPTH | HOLE SIZE | CASING SIZE | MUD WEIGHT |
| | | 20' | | 14" | |
| | | | 12-1/4" | 9-5/8", 36#, J-55, LTC | Air mist |
| **All water flows encountered while drilling will be reported to the appropriate agencies.** | | | | | |
| | **Green River @** | **1,277'** | | | |
| | **Top of Birds Nest @** | **1,607'** | | | |
| | **Mahogany @** | **2,082'** | | | |
| | **Preset f/ GL @** | **2,285' MD** | | | |
| | Note: 12.25" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone. | | | | |
| | **Wasatch @** | **4,518'** | | | |
| Mud logging program TBD<br>Cased hole logging program from TD - surf csg | | | 7-7/8" | 4-1/2" 11.6# I-80 or equivalent BTC csg | Water / Fresh Water Mud 8.3-11.7 ppg |
| | **Mverde @** | **7,079' TVD** | | | |
| | **MVU2 @** | **7,971' TVD** | | | |
| | **MVU1 @** | **8,603' TVD** | | | |
| Max anticipated Mud required 11.7 ppg | **TD @** | **9,200' TVD**<br>**9,231' MD** | | | |

'APIWellNo:43047506850000'

# 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 | 2,285 | 36.00 | J-55 | LTC | 0.98 | 1.89 | 7.01 |
| | | | | | | | | 7,780 | 6,350 | 278,000 |
| PRODUCTION | 4-1/2" | 0 | to | 9,231 | 11.60 | I-80 | BTC | 2.18 | 1.13 | 2.97 |

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 = 11.7 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 3,469 psi**

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 11.7 ppg) 0.6 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
**MABHP 5,493 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 | 380 | 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 | 1,785' | 65/35 Poz + 6% Gel + 10 pps gilsonite | 420 | 35% | 12.60 | 1.81 |
| | | | + 0.25 pps Flocele + 3% salt BWOW | | | | |
| | TAIL | 500' | Premium cmt + 2% CaCl | 180 | 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 | 4,011' | Premium Lite II + 3% KCl + 0.25 pps | 380 | 40% | 11.00 | 3.38 |
| | | | celloflake + 5 pps gilsonite + 10% gel | | | | |
| | | | + 0.5% extender | | | | |
| | TAIL | 5,220' | 50/50 Poz/G + 10% salt + 2% gel | 1,280 | 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. No centralizers will be used. |

**ADDITIONAL INFORMATION**

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

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

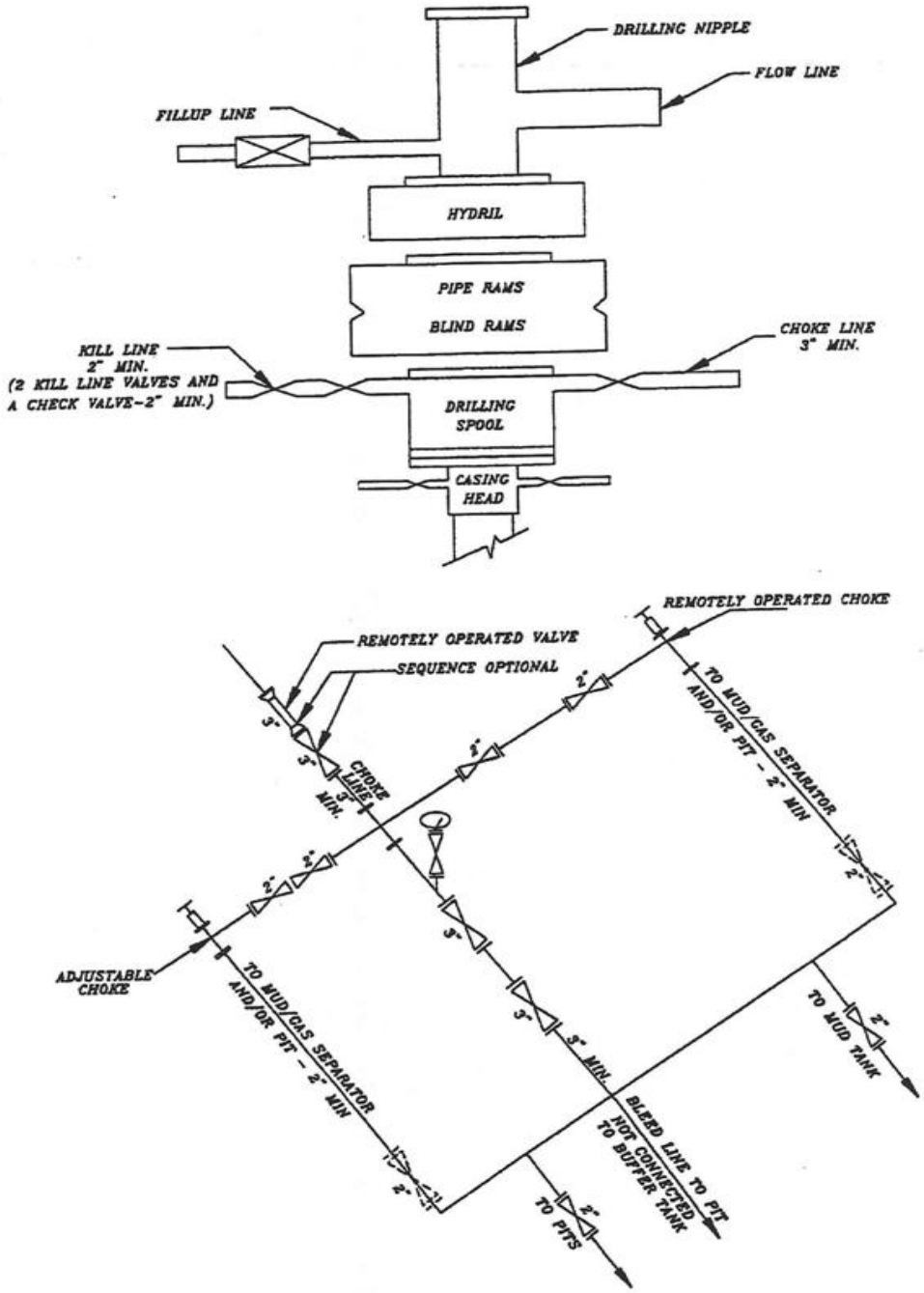
Surveys will be taken at 1,000' minimum intervals.

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

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

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

# EXHIBIT A
# NBU 1022-6J4CS




**SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK**

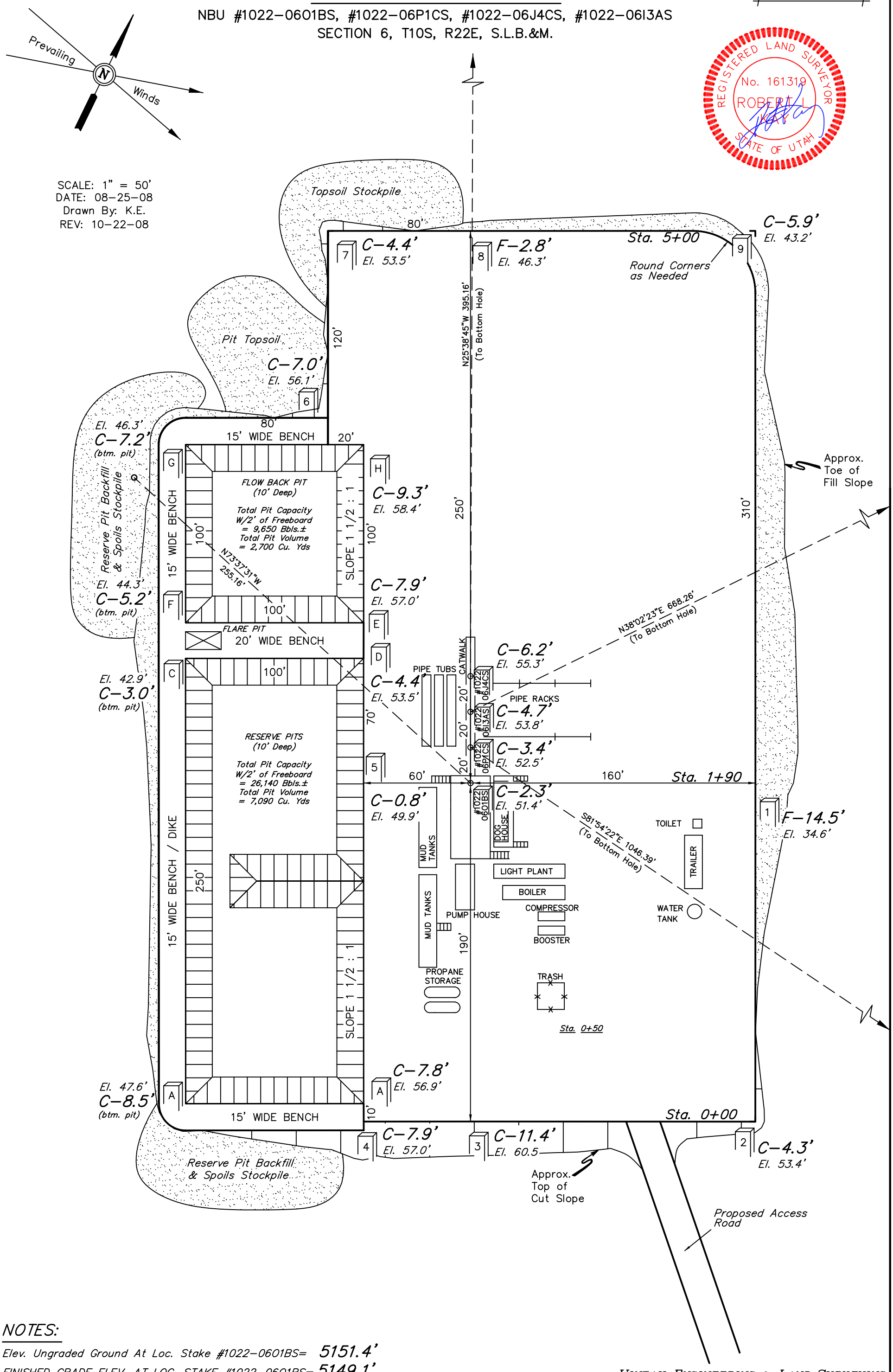
# Kerr–McGee Oil & Gas Onshore LP

SITE PLAN LAYOUT FOR

NBU #1022–06O1BS, #1022–06P1CS, #1022–06J4CS, #1022–06I3AS

SECTION 6, T10S, R22E, S.L.B.&M.

FIGURE #1




NOTES:

Elev. Ungraded Ground At Loc. Stake #1022–0601BS= 5151.4'

FINISHED GRADE ELEV. AT LOC. STAKE #1022–0601BS= 5149.1'

UINTAH ENGINEERING & LAND SURVEYING

85 So. 200 East * Vernal, Utah 84078 * (435) 789–1017

# Kerr–McGee Oil & Gas Onshore LP

## TYPICAL CROSS SECTIONS FOR

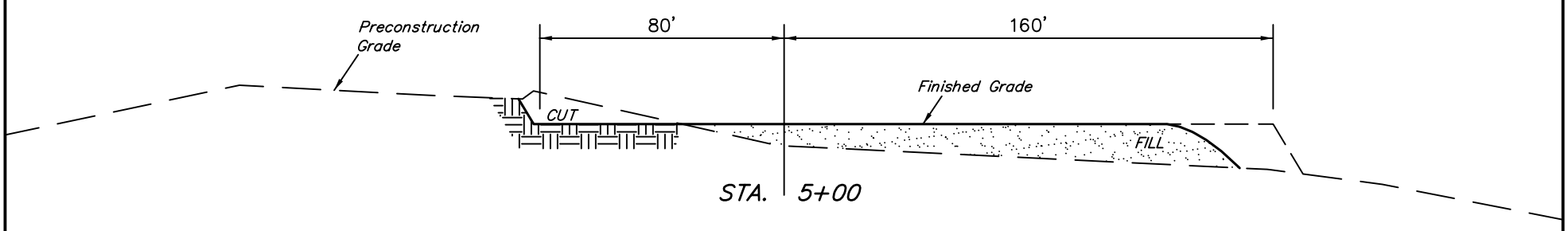
NBU #1022–06O1BS, #1022–06P1CS, #1022–06J4CS, #1022–06I3AS
SECTION 6, T10S, R22E, S.L.B.&M.

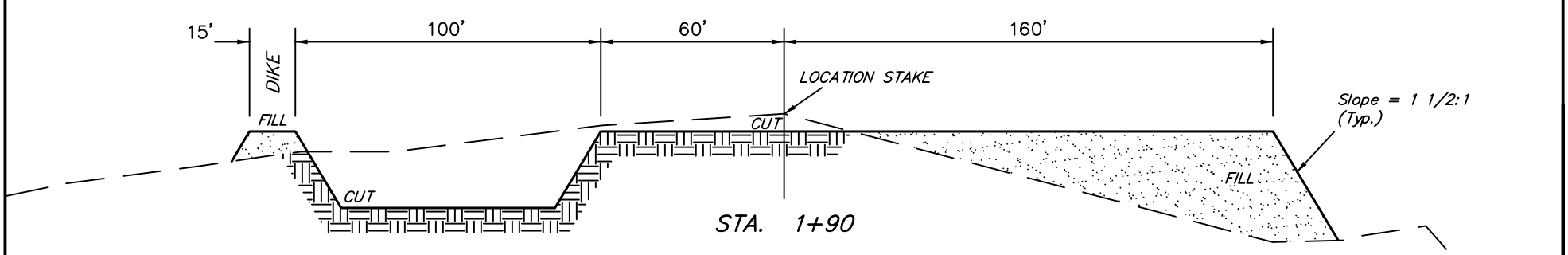
*FIGURE #2*

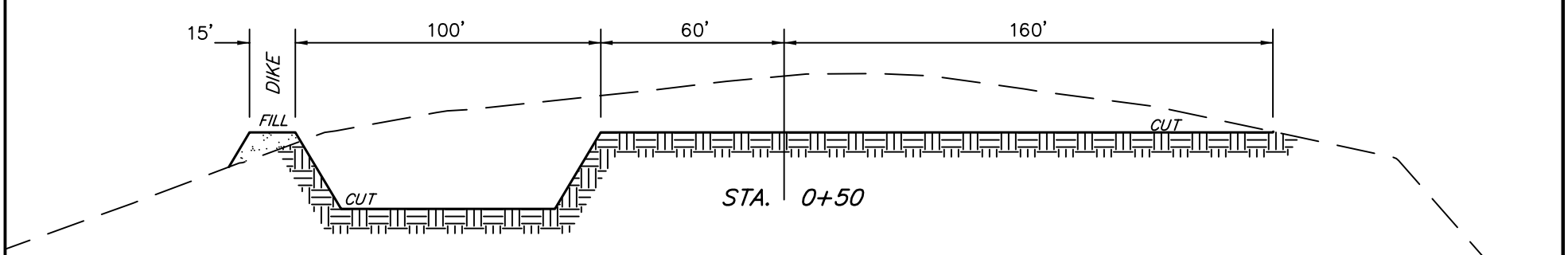
1" = 20'
X–Section Scale
1" = 50'

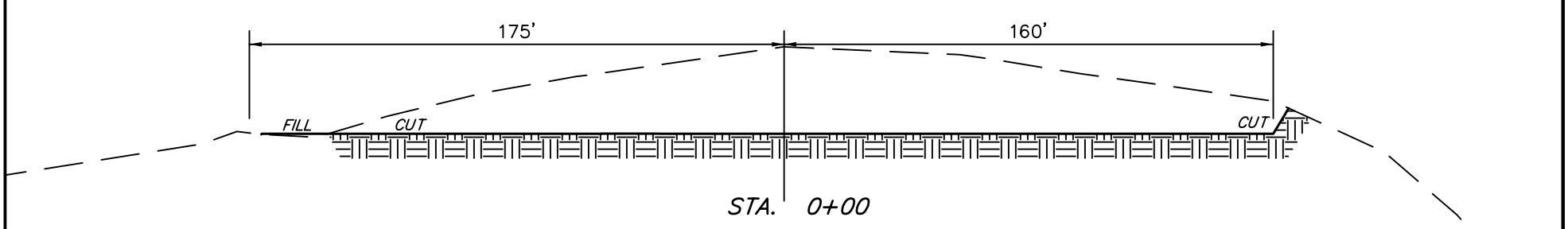
DATE: 08–25–08
Drawn By: K.E.

REGISTERED LAND SURVEYOR
No. 161319
ROBERT L. KAY
STATE OF UTAH




NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

## APPROXIMATE YARDAGES

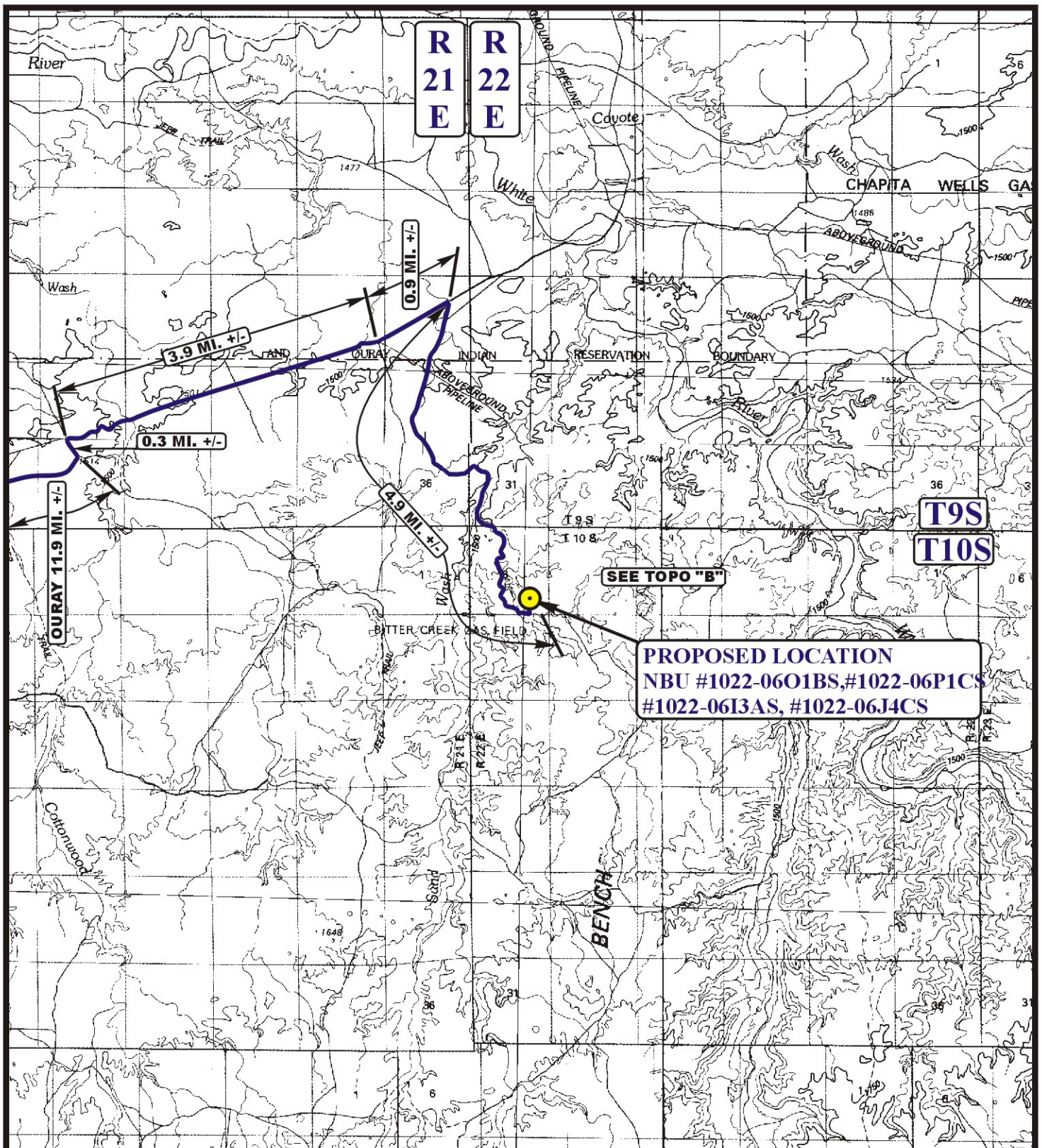
CUT
(6") Topsoil Stripping = 3,330 Cu. Yds.
Remaining Location = 20,100 Cu. Yds.

TOTAL CUT = 23,430 CU.YDS.
FILL = 13,750 CU.YDS.

EXCESS MATERIAL = 9,680 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.) = 9,680 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation) = 0 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789–1017

’APIWellNo:43047506850000’




**LEGEND:**

PROPOSED LOCATION

N

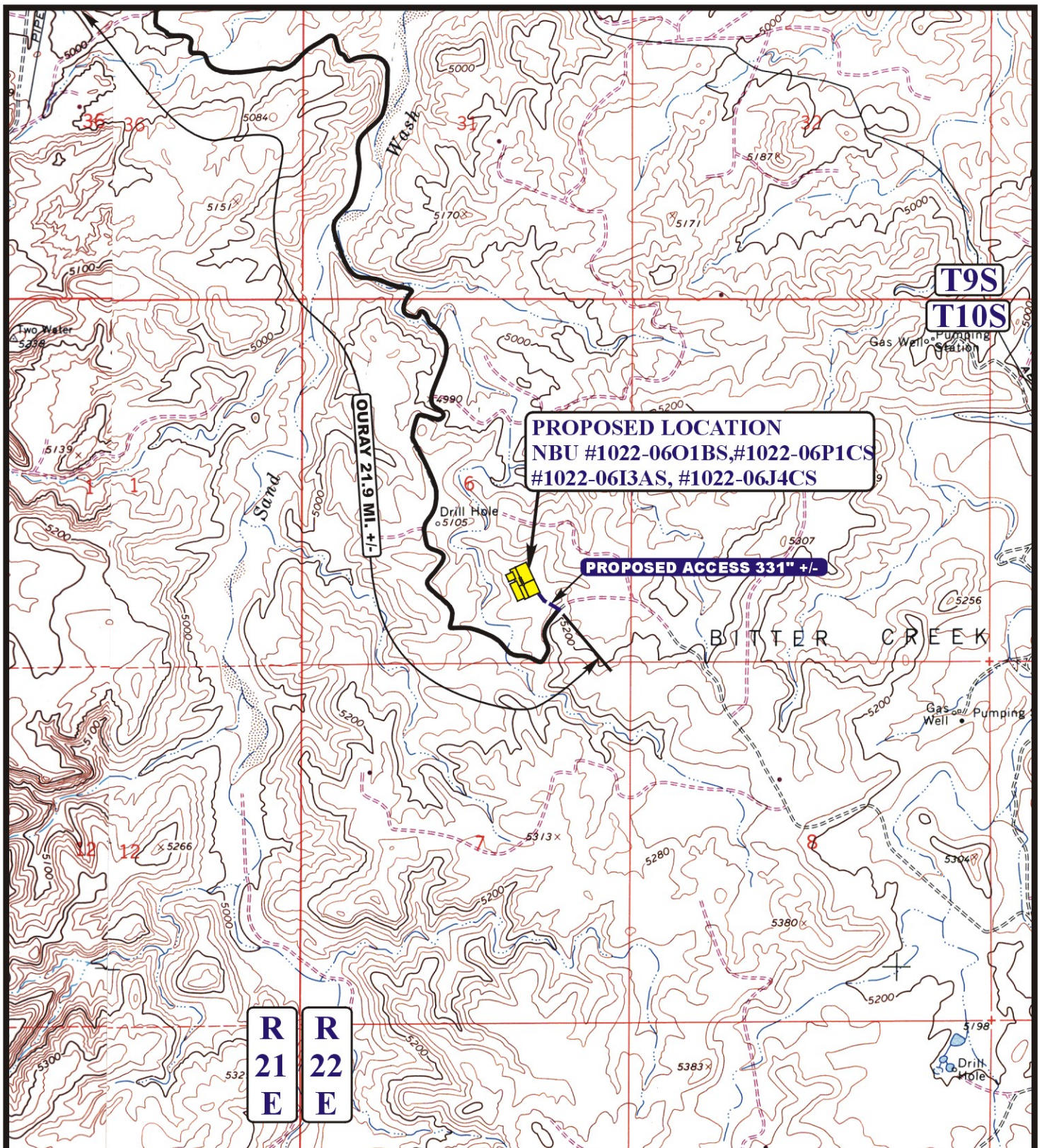
**Kerr-McGee Oil & Gas Onshore LP**

NBU #1022-06O1BS, #1022-06P1CS,
#1022-06I3AS, #1022,06J4CS
SECTION 6, T10S, R22E, S.L.B.&M.
SW 1/4 SE 1/4


Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813


| TOPOGRAPHIC MAP | 09 MONTH | 11 DAY | 08 YEAR | A TOPO |
|---|---|---|---|---|
| SCALE: 1:100,000 | DRAWN BY: J.H. | REVISED: 00-00-00 | | |

’APIWellNo:43047506850000’




**LEGEND:**

EXISTING ROAD

PROPOSED ACCESS ROAD

N

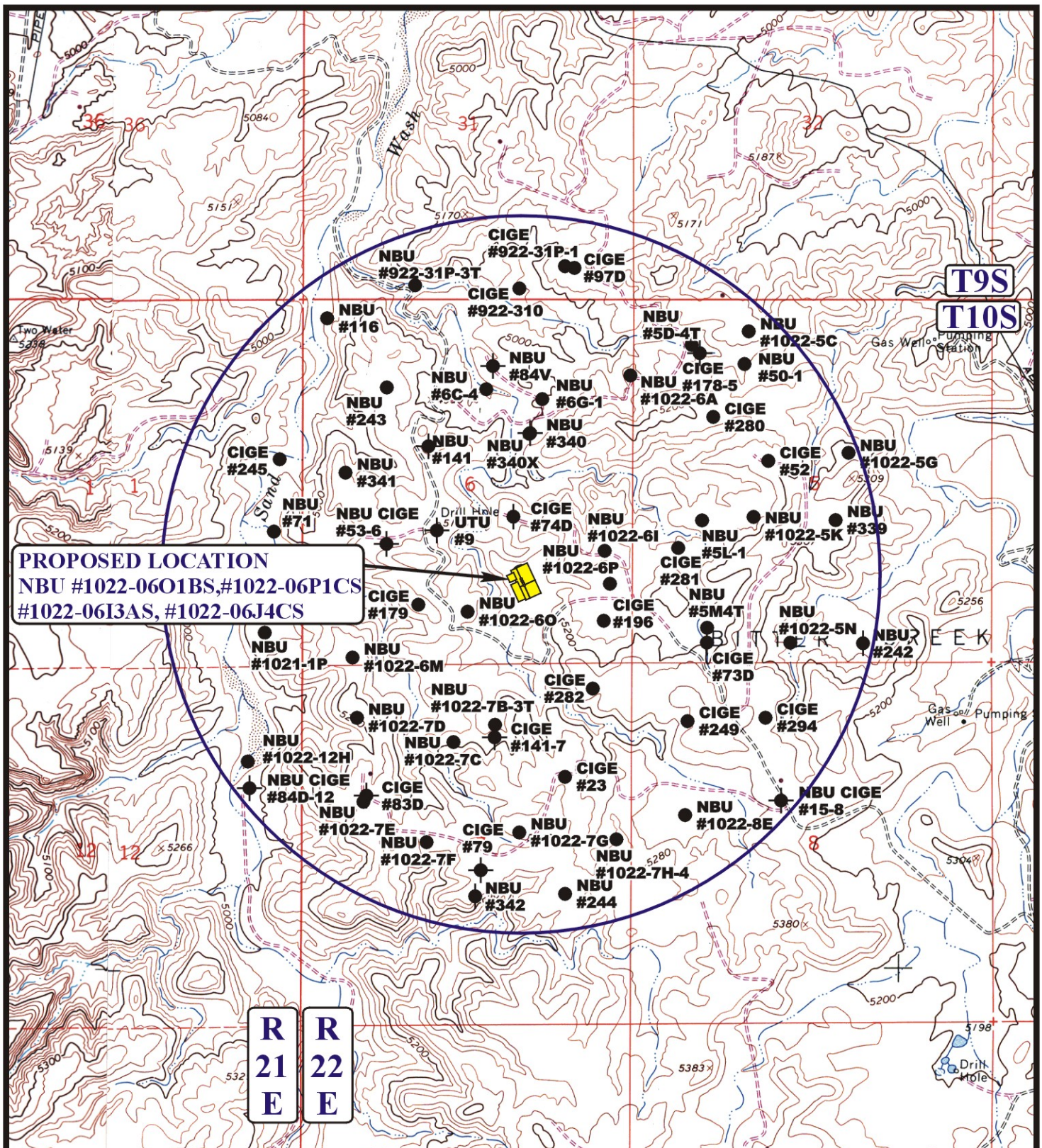
**Kerr-McGee Oil & Gas Onshore LP**

NBU #1022-06O1BS, #1022-06P1CS,
#1022-06I3AS, #1022-06J4CS
SECTION 6, T10S, R22E, S.L.B.&M.
SW 1/4 SE 1/4


Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813


| TOPOGRAPHIC MAP | 09 MONTH | 11 DAY | 08 YEAR | B TOPO |
|---|---|---|---|---|
| SCALE: 1" = 2000' | DRAWN BY: J.H. | REVISED: 00-00-00 | | |

’APIWellNo:43047506850000’




**LEGEND:**

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

N

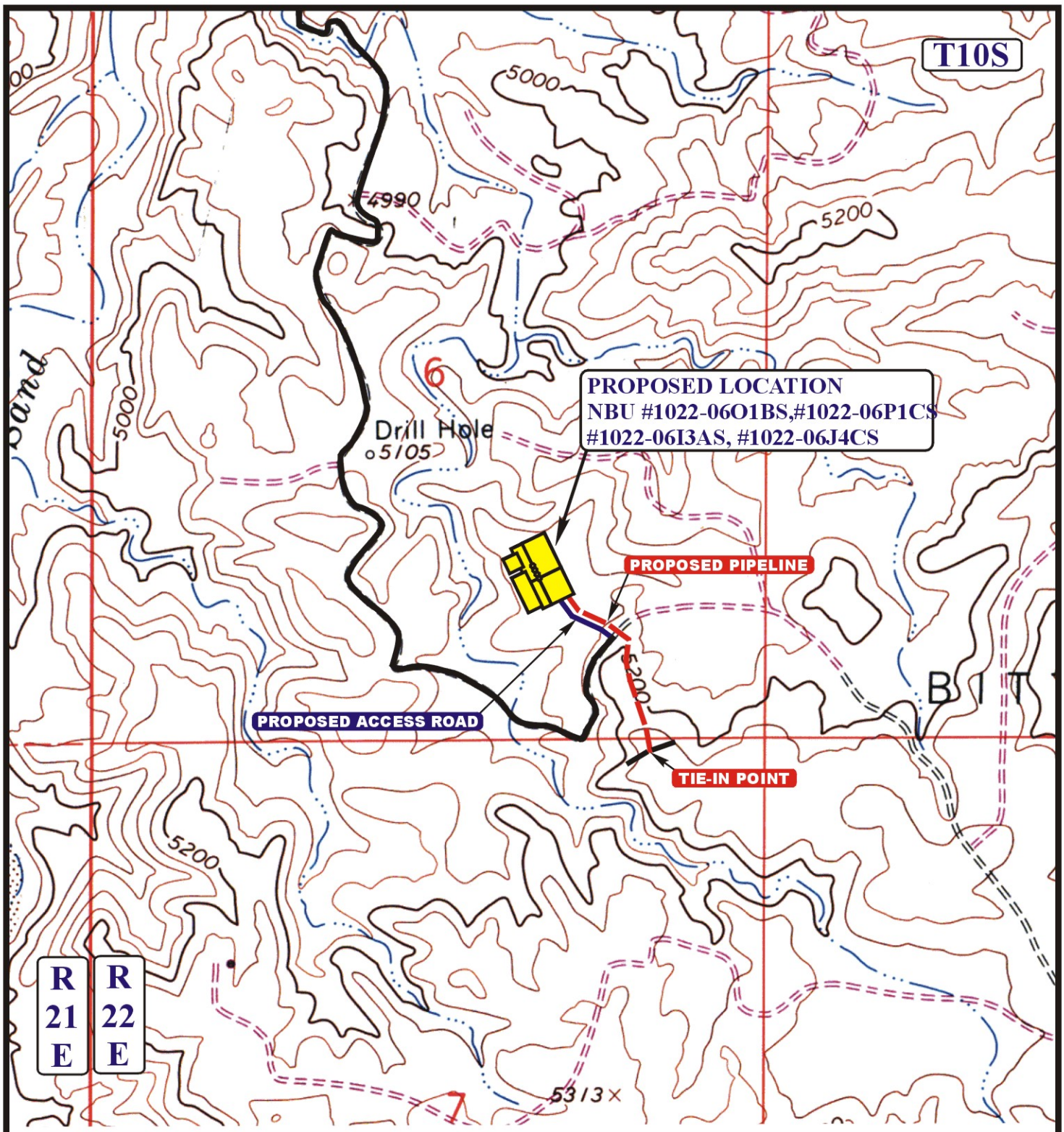
**Kerr-McGee Oil & Gas Onshore LP**

NBU #1022-06O1BS, #1022-06P1CS,
#1022-06I3AS, #1022-06J4CS
SECTION 6, T10S, R22E, S.L.B.&M.
SW 1/4 SE 1/4

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

| TOPOGRAPHIC MAP | 09 MONTH | 11 DAY | 08 YEAR | C TOPO |
|---|---|---|---|---|
| SCALE: 1" = 2000' | DRAWN BY: J.H. | REVISED: 00-00-00 | | |

’APIWellNo:43047506850000’




APPROXIMATE TOTAL PIPELINE DISTANCE =1441' +/-

**LEGEND:**

PROPOSED ACCESS ROAD
EXISTING PIPELINE
PROPOSED PIPELINE

N

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

NBU #1022-06O1BS, #1022-06P1CS,
#1022-06I3AS, #1022-06J4CS
SECTION 6, T10S, R22E, S.L.B.&M.
SW 1/4 SE 1/4


Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813


| TOPOGRAPHIC MAP | 09 MONTH | 11 DAY | 08 YEAR | D TOPO |
|---|---|---|---|---|
| SCALE: 1" = 1000' | DRAWN BY: J.H. | REVISED: 00-00-00 | | |

# Kerr-McGee Oil & Gas Onshore LP

## NBU #1022-06O1BS, #1022-06P1CS, #1022-06I3AS, #1022-06J4CS

**LOCATED IN UINTAH COUNTY, UTAH**
**SECTION 6, T10S, R22E, S.L.B.&M.**

PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE — CAMERA ANGLE: NORTHEASTERLY

PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS — CAMERA ANGLE: NORTHWESTERLY

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

| LOCATION PHOTOS | 09 MONTH | 11 DAY | 08 YEAR | PHOTO |
|---|---|---|---|---|
| TAKEN BY: D.S. | DRAWN BY: J.H. | REVISED: 00-00-00 | | |

# Kerr-McGee Oil & Gas Onshore LP

## NBU #1022-06O1BS, #1022-06P1CS, #1022-06I3AS, #1022-06J4CS

PIPELINE ALIGNMENT

**LOCATED IN UINTAH COUNTY, UTAH**
**SECTION 6, T10S, R22E, S.L.B.&M.**

**PHOTO: VIEW FROM TIE-IN POINT** **CAMERA ANGLE: NORTHWESTERLY**

**PHOTO: VIEW OF PIPELINE ALIGNMENT** **CAMERA ANGLE: NORTHWESTERLY**

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

| PIPELINE PHOTOS | 09 MONTH | 11 DAY | 08 YEAR | PHOTO |
|---|---|---|---|---|
| TAKEN BY: D.S. | DRAWN BY: J.H. | REVISED: 00-00-00 | | |

# Kerr-McGee Oil & Gas Onshore LP
## NBU #1022-06O1BS, #1022-06P1CS, #1022-06I3AS, #1022-06J4CS
## SECTION 6, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 6.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY DIRECTION APPROXIMATELY 5.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 3.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 4.9 MILES TO THE JUNCTION OF THIS ROAD AND THE PROPOSED ACCESS TO THE NORTHWEST; FOLLOW ROAD FLAGS IN A NORTHWESTERLY DIRECTION APPROXIMATELY 331’ TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 52.9 MILES.

**NBU 1022-6I3AS**
Surface: 1,160' FSL 1,584' FEL (SW/4SE/4)
BHL: 1,684' FSL 1,167' FEL (NE/4SE/4)

**NBU 1022-6J4CS**
Surface: 1,178' FSL 1,593' FEL (SW/4SE/4)
BHL: 1,535' FSL 1,760' FEL (NW/4SE/4)

**NBU 1022-6O1BS**
Surface: 1,124' FSL 1,567' FEL (SW/4SE/4)
BHL: 1,197' FSL 1,811' FEL (SW/4SE/4)

**NBU 1022-6P1CS**
Surface: 1,142' FSL 1,575' FEL (SW/4SE/4)
BHL: 989' FSL 541' FEL (SE/4SE/4)

Mineral Lease: UTU 01195

Pad: NBU 1022-6O
Sec. 6 T10S R22E

Uintah, Utah

# ONSHORE ORDER NO. 1

## *MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION*

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) documents. An NOS was submitted showing the surface locations in SW/4 SE/4 of Section 6 T10S R22E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BLM-Vernal Field Office.

To schedule an onsite please contact Raleen White at 720-929-6666.

**Directional Drilling:**
In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

**1. Existing Roads:**

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

**2. Planned Access Roads:**

*See MDP for additional details on road construction.*
Approximately ±331' (±0.06 miles) of new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

***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 and are typically shown on the attached Exhibits and Topo maps.***

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

Please refer to Topo Map C.

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

*See MDP for additional details on Existing and Proposed Facilities.*

*The following guidelines will apply if the well is productive.*
**Approximately ±1,441' (±0.27 miles) of pipeline is proposed. Refer to Topo D for the existing pipeline.** Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place.

Per request from the onsite meeting, corner 10 of the well pad will be rounded.

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

*See MDP for additional details on Location and Type of Water Supply.*

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

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

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

No water well is to be drilled on this lease.

**6. Source of Construction Materials:**

*See MDP for additional details on Source of Construction Materials.*

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

*See MDP for additional details on Methods of Handling Waste Materials.*

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 in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

**8. Ancillary Facilities:**
*See MDP for additional details on Ancillary Facilities.*

None are anticipated.

**9. Well Site Layout:** (See Location Layout Diagram)
*See MDP for additional details on Well Site Layout.*

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

**10. Plans for Reclamation of the Surface:**
*See MDP for additional details on Plans for Reclamation of the Surface.*

**11. Surface/Mineral Ownership:**
United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

**12. Other Information:**
*See MDP for additional details on Other Information.*

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

Kathy Schneebeck Dulnoan
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6007

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

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

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

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

Bond coverage 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.

Kathy Schneebeck Dulnoan
Kathy Schneebeck Dulnoan

August 24, 2009
Date

'APIWellNo:43047506850000'

’APIWellNo:43047506850000’

Kerr-McGee Oil & Gas Onshore LP
P.O. Box 173779
Denver, CO 80217-37795

August 12, 2009

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

Re: Directional Drilling R649-3-11
NBU 1022-06J4CS
T10S R22E
Section 6: SWSE/NWSE
SWSE 1178’ FSL, 1593’ FEL (surface)
NWSE 1535’ FSL, 1760’ FEL (bottom hole)
Uintah County, Utah

Dear Ms. Mason:

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

- Kerr-McGee’s NBU 1022-06J4CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore

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

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Jessy Pink

Jessy Pink
Landman

'APIWellNo:43047506850000'

# CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 73 PROPOSED NBU WELL LOCATIONS IN TOWNSHIP 10S, RANGE 22E UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Bureau of Land Management
Vernal Field Office
and
School and Institutional
Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 08-268

October 16, 2008

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

'APIWellNo:43047506850000'

**IPC #08-232**

# Paleontological Reconnaissance Survey Report

**Survey of Kerr McGee's Proposed Twin Wells and Pipelines for "NBU #1022-04M1S & K3S, #1022-05H2BS & H2LS, #1022-05L1S, 05E4S, 05F2S, & 05K1S, #1022-601BS, 06P1CS, 06I3AS, & 06J4CS" (Sec. 4-7, T 10 S, R 22 E)**

Archy Bench
Topographic Quadrangle
Uintah County, Utah

October 8, 2008

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

# SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

**Operator:** Anadarko Petroleum Company

**Well(s):** NBU 1022-06O1BS, -06P1CS, -06I3AS, -06J4CS

**Location:** Township 10 South, Range 22 East, Section 6

**Survey Date(s):** October 15, 2008

**Observer(s):** SWCA Environmental Consultants, Inc.

**Weather:** 55-60°F, clear skies, winds at 1 to 5 MPH

## PROPOSED PROJECT:

Anadarko proposes to construct well NBU 1022-06O1BS, -06P1CS, -06I3AS, -06J4CS in Township 10 South, Range 22 East, Section 6 in Uintah County, Utah. The proposed well is located west of Bonanza, Utah in the Book Cliffs Management Area of the Bureau of Land Management (BLM) Vernal Field Office. The project area has been historically impacted by mineral extraction activities, transportation corridors, agricultural and ranching activities, livestock grazing, and erosion. There is currently well construction activity occurring within the project area. A map of the proposed well can be found in Appendix D.

## PROJECT AREA DESCRIPTION:

The proposed project area is underlain by sedimentary deposits of the Uinta Formation of Late Middle Eocene age at an elevation of approximately 5,160 feet. Soils in the project area are predominantly sandy clay. Topography within the project area consists of moderately steep rolling hills cut by washes with some rocky outcrops. Slopes within the project area boundary range from 0 to 20 percent.

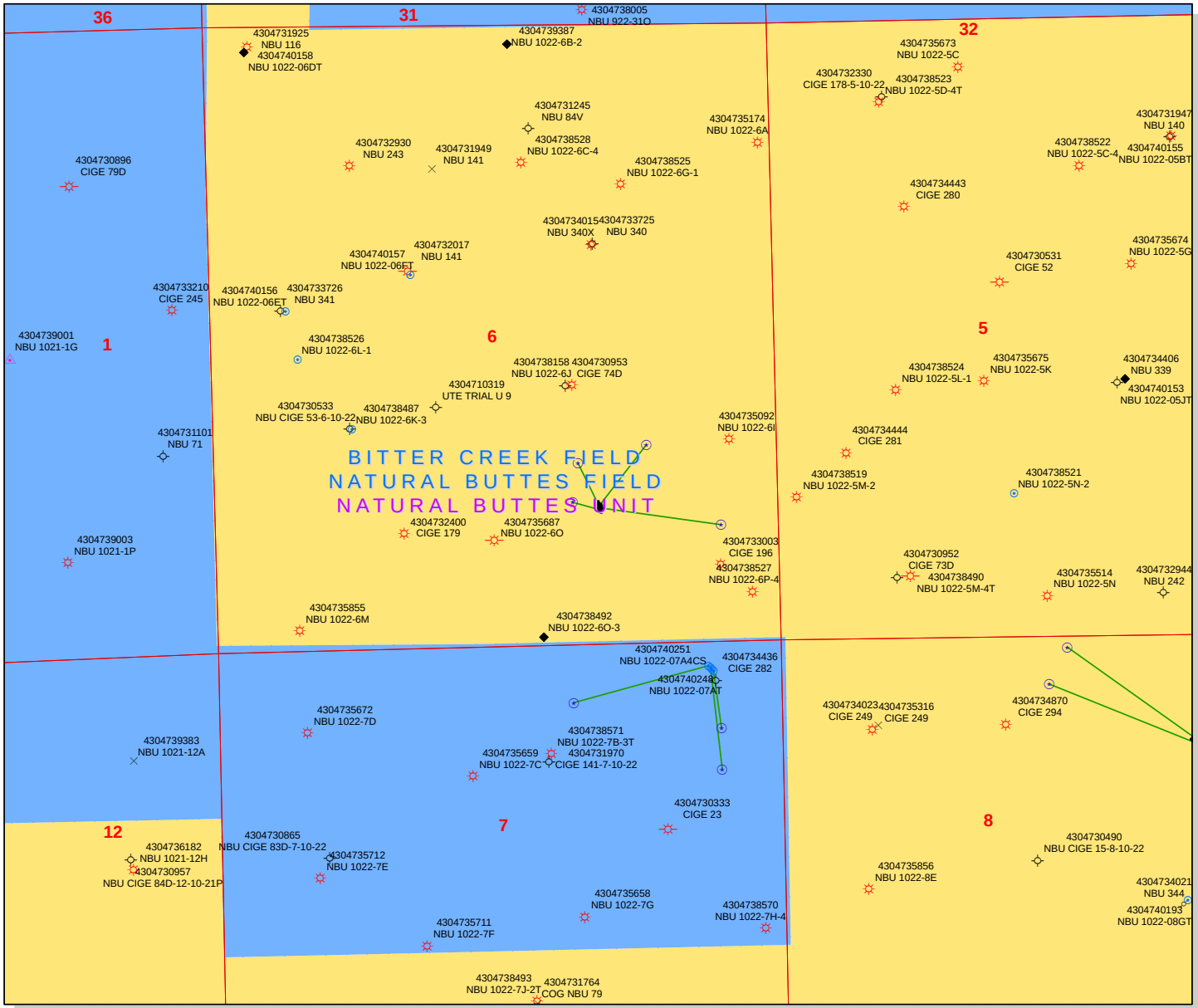
The vegetation in the project area is a desert shrub community. For a complete list of common plants associated with the desert shrub community in the project area see Appendix A.

## SURVEY METHODOLOGY:

In October 2008, the Utah Department of Wildlife Resources website (http://dwrcdc.nr.utah.gov/ucdc/) was reviewed for Uintah County. This site contains the U.S. Fish and Wildlife Service list of threatened, endangered, and candidate species as well as the BLM/Utah state sensitive species list. In addition, past survey reports and environmental documents were reviewed to determine which federally listed threatened, endangered, and candidate species, and which Utah/BLM sensitive species (collectively referred to as special status species) have the potential to occur in the project area. For a complete list of special status plant species within Uintah County see Appendix B. For a complete list of special status wildlife species within Uintah County see Appendix C.

From this pre-project assessment, it was determined that *Sclerocactus sp.* (*brevispinus* and/or *wetlandicus*) has potential to occur within the proposed project area. Both *S. brevispinus* and *S. wetlandicus* are protected under the Endangered Species Act as *Sclerocactus glaucus*.

’API Well No:43047506850000’




**API Number: 4304750685**

**Well Name: NBU 1022-6J4CS**

**Township 10.0 S Range 22.0 E Section 6**

**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

1,100 550 0 1,100 Feet

1:10,646

API Well No: 43047506850000

# 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)**

August 28, 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-MESA VERDE)

43-047-50640 NBU 1022-8B1DS   Sec 08 T10S R22E 0931 FNL 1709 FEL
                        BHL   Sec 08 T10S R22E 0367 FNL 1518 FEL

43-047-50641 NBU 1022-8B4AS   Sec 08 T10S R22E 0919 FNL 1693 FEL
                        BHL   Sec 08 T10S R22E 0744 FNL 1518 FEL

43-047-50642 NBU 1022-8C1AS   Sec 08 T10S R22E 0943 FNL 1725 FEL
                        BHL   Sec 08 T10S R22E 0102 FNL 2415 FWL

43-047-50643 NBU 1022-8C1CS   Sec 08 T10S R22E 0955 FNL 1742 FEL
                        BHL   Sec 08 T10S R22E 0418 FNL 2252 FWL

43-047-50644 NBU 922-30C3S    Sec 30 T09S R22E 1253 FNL 0663 FWL
                        BHL   Sec 30 T09S R22E 1238 FNL 1154 FWL

43-047-50645 NBU 922-30D3AS   Sec 30 T09S R22E 1232 FNL 0607 FWL
                        BHL   Sec 30 T09S R22E 0680 FNL 0382 FWL

43-047-50646 NBU 921-30C3CS   Sec 30 T09S R21E 0783 FNL 0920 FWL
                        BHL   Sec 30 T09S R21E 0993 FNL 1985 FWL


43-047-50647 NBU 921-30D2DS   Sec 30 T09S R21E 0747 FNL 0871 FWL
                        BHL   Sec 30 T09S R21E 0460 FNL 0665 FWL
```

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

(Proposed PZ WASATCH-MESA VERDE)

43-047-50648 NBU 921-30D3DS Sec 30 T09S R21E 0759 FNL 0887 FWL
BHL Sec 30 T09S R21E 1152 FNL 0665 FWL

43-047-50649 NBU 921-30E2AS Sec 30 T09S R21E 0771 FNL 0903 FWL
BHL Sec 30 T09S R21E 1522 FNL 0665 FWL

43-047-50650 NBU 1022-7N1S Sec 07 T10S R22E 0089 FSL 1920 FEL
BHL Sec 07 T10S R22E 0895 FSL 1870 FWL

43-047-50651 NBU 1022-7N4S Sec 07 T10S R22E 0097 FSL 1938 FEL
BHL Sec 07 T10S R22E 0595 FSL 1740 FWL

43-047-50652 NBU 1022-7O4AS Sec 07 T10S R22E 0081 FSL 1902 FEL
BHL Sec 07 T10S R22E 0550 FSL 1560 FEL

43-047-50653 NBU 1022-7O4DS Sec 07 T10S R22E 0074 FSL 1883 FEL
BHL Sec 07 T10S R22E 0230 FSL 1650 FEL

43-047-50655 NBU 922-30D3DS Sec 30 T09S R22E 1226 FNL 0588 FWL
BHL Sec 30 T09S R22E 1314 FNL 0352 FWL

43-047-50656 NBU 922-30E2AS Sec 30 T09S R22E 1246 FNL 0645 FWL
BHL Sec 30 T09S R22E 1636 FNL 0352 FWL

43-047-50678 NBU 922-31G4BS Sec 31 T09S R22E 2317 FSL 0188 FEL
BHL Sec 31 T09S R22E 1994 FNL 1808 FEL

43-047-50679 NBU 922-31G4CS Sec 31 T09S R22E 2316 FSL 0198 FEL
BHL Sec 31 T09S R22E 2353 FNL 1796 FEL

43-047-50680 NBU 922-31I1AS Sec 31 T09S R22E 2317 FSL 0178 FEL
BHL Sec 31 T09S R22E 2483 FSL 0243 FEL

43-047-50681 NBU 922-31I1DS Sec 31 T09S R22E 2317 FSL 0168 FEL
BHL Sec 31 T09S R22E 2137 FSL 0264 FEL

43-047-50682 NBU 921-12J Sec 12 T09S R21E 1959 FSL 2051 FEL

43-047-50684 NBU 1022-6I3AS Sec 06 T10S R22E 1160 FSL 1584 FEL
BHL Sec 06 T10S R22E 1684 FSL 1167 FEL

43-047-50685 NBU 1022-6J4CS Sec 06 T10S R22E 1178 FSL 1593 FEL
BHL Sec 06 T10S R22E 1535 FSL 1760 FEL

43-047-50686 NBU 1022-6O1BS Sec 06 T10S R22E 1124 FSL 1567 FEL
BHL Sec 06 T10S R22E 1197 FSL 1811 FEL

| API # | WELL NAME | LOCATION |
|---|---|---|
| (Proposed PZ WASATCH-MESA VERDE) | | |
| 43-047-50687 | NBU 1022-6P1CS | Sec 06 T10S R22E 1142 FSL 1575 FEL<br>BHL Sec 06 T10S R22E 0989 FSL 0541 FEL |
| 43-047-50691 | NBU 921-29A3AS | Sec 29 T09S R21E 0299 FNL 2630 FEL<br>BHL Sec 29 T09S R21E 0700 FNL 0885 FEL |
| 43-047-50692 | NBU 921-29A3DS | Sec 29 T09S R21E 0303 FNL 2628 FWL<br>BHL Sec 29 T09S R21E 1193 FNL 0885 FEL |
| 43-047-50694 | NBU 921-29A2AS | Sec 29 T09S R21E 0296 FNL 2611 FEL<br>BHL Sec 29 T09S R21E 0209 FNL 0885 FEL |
| 43-047-50693 | NBU 921-29B2CS | Sec 29 T09S R21E 0307 FNL 2608 FWL<br>BHL Sec 29 T09S R21E 0443 FNL 2635 FEL |
| 43-047-50695 | NBU 921-12N | Sec 12 T09S R21E 0441 FSL 2236 FWL |
| 43-047-50698 | NBU 921-19F | Sec 19 T09S R21E 2236 FNL 2285 FWL |
| 43-047-50699 | NBU 921-17C | Sec 17 T09S R21E 0656 FNL 2004 FWL |
| 43-047-50700 | NBU 921-17D | Sec 17 T09S R21E 0985 FNL 0418 FWL |
| 43-047-50701 | NBU 921-17G | Sec 17 T09S R21E 1500 FNL 2262 FEL |
| 43-047-50702 | NBU 921-17H | Sec 17 T09S R21E 2100 FNL 0553 FEL |
| 43-047-50703 | NBU 921-18P | Sec 18 T09S R21E 1080 FSL 0197 FEL |
| 43-047-50704 | NBU 921-19E | Sec 19 T09S R21E 2061 FNL 0842 FWL |

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:8-28-09

# WORKSHEET
# APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 8/24/2009 **API NO. ASSIGNED:** 43047506850000
**WELL NAME:** NBU 1022-6J4CS
**OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156
**CONTACT:** Danielle Piernot

**PROPOSED LOCATION:** SWSE 6 100S 220E **Permit Tech Review:** ✔

**SURFACE:** 1178 FSL 1593 FEL **Engineering Review:** ✔

**BOTTOM:** 1535 FSL 1760 FEL **Geology Review:** ✔

**COUNTY:** UINTAH
**LATITUDE:** 39.97398 **LONGITUDE:** -109.47808
**UTM SURF EASTINGS:** 629966.00 **NORTHINGS:** 4425768.00
**FIELD NAME:** NATURAL BUTTES
**LEASE TYPE:** 1 - Federal
**LEASE NUMBER:** UTU 01195 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE
**SURFACE OWNER:** 1 - Federal **COALBED METHANE:** NO

**RECEIVED AND/OR REVIEWED:**

- ✔ **PLAT**
- ✔ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ✔ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ✔ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ✔ **Intent to Commingle**

**Commingling Approved**

**LOCATION AND SITING:**

- ☐ **R649-2-3.**

**Unit:** NATURAL BUTTES

- ☐ **R649-3-2. General**
- ✔ **R649-3-3. Exception**
- ✔ **Drilling Unit**

**Board Cause No:** Cause 173-14
**Effective Date:** 12/2/1999
**Siting:** 460' fr u bdry & uncomm. tract

- ✔ **R649-3-11. Directional Drill**

**Comments:** Presite Completed

**Stipulations:**
1 - Exception Location - dmason
3 - Commingling - ddoucet
4 - Federal Approval - dmason
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason

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*

# Permit To Drill
**********

**Well Name:** NBU 1022-6J4CS
**API Well Number:** 43047506850000
**Lease Number:** UTU 01195
**Surface Owner:** FEDERAL
**Approval Date:** 9/1/2009

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

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

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

**Exception Location:**
Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

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

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

**Conditions of Approval:**
State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

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

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale

Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

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

- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov

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

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

**Approved By:**

Gil Hunt
Associate Director, Oil & Gas

API Well No: 43047506850000

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01195

## SUNDRY NOTICES AND REPORTS ON WELLS

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL: Gas Well

8. WELL NAME and NUMBER: NBU 1022-6J4CS

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

9. API NUMBER: 43047506850000

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: 1178 FSL 1593 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 06 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT<br>Approximate date work will start: 8/31/2010 | ☐ 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, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

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

**Date:** August 31, 2010

**By:** [signature]

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Danielle Piernot | 720 929-6156 | Regulatory Analyst |

| SIGNATURE | DATE |
|---|---|
| N/A | 8/31/2010 |

RECEIVED August 31, 2010

**The Utah Division of Oil, Gas, and Mining**

**- State of Utah**
**- Department of Natural Resources**

**Electronic Permitting System - Sundry Notices**

## Request for Permit Extension Validation Well Number 43047506850000

**API:** 43047506850000
**Well Name:** NBU 1022-6J4CS
**Location:** 1178 FSL 1593 FEL QTR SWSE SEC 06 TWNP 100S RNG 220E MER S
**Company Permit Issued to:** KERR-MCGEE OIL & GAS ONSHORE, L.P.
**Date Original Permit Issued:** 9/1/2009

**The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.**

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

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

**Signature:** Danielle Piernot **Date:** 8/31/2010
**Title:** Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date:** August 31, 2010

**By:**

**RECEIVED** August 31, 2010

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

**FORM 9**

**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU 01195

## SUNDRY NOTICES AND REPORTS ON WELLS

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

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

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

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 1022-6J4CS

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

**9. API NUMBER:** 43047506850000

**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:** 1178 FSL 1593 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 06 Township: 10.0S Range: 22.0E Meridian: S

**COUNTY:** UINTAH

**STATE:** UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT<br>Approximate date work will start: 8/19/2011 | ☐ 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, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

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

**Date:** 08/22/2011

**By:**

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Gina Becker | 720 929-6086 | Regulatory Analyst II |

| SIGNATURE | DATE |
|---|---|
| N/A | 8/19/2011 |

**RECEIVED** Aug. 19, 2011

## The Utah Division of Oil, Gas, and Mining

**- State of Utah**
**- Department of Natural Resources**

**Electronic Permitting System - Sundry Notices**

# Request for Permit Extension Validation Well Number 43047506850000

**API:** 43047506850000
**Well Name:** NBU 1022-6J4CS
**Location:** 1178 FSL 1593 FEL QTR SWSE SEC 06 TWNP 100S RNG 220E MER S
**Company Permit Issued to:** KERR-MCGEE OIL & GAS ONSHORE, L.P.
**Date Original Permit Issued:** 9/1/2009

**The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.**

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

**Signature:** Gina Becker **Date:** 8/19/2011
**Title:** Regulatory Analyst II **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED Aug. 19, 2011

FORM 9

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

**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU 01195

## SUNDRY NOTICES AND REPORTS ON WELLS

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

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

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 1022-6J4CS

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

**9. API NUMBER:** 43047506850000

**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:** 1178 FSL 1593 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 06 Township: 10.0S Range: 22.0E Meridian: S

**COUNTY:** UINTAH

**STATE:** UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT<br>Approximate date work will start: 8/30/2012 | ☐ 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, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

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

**Date:** September 13, 2012

**By:**

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Danielle Piernot | 720 929-6156 | Regulatory Analyst |

| SIGNATURE | DATE |
|---|---|
| N/A | 8/30/2012 |

RECEIVED: Aug. 30, 2012

## The Utah Division of Oil, Gas, and Mining

**- State of Utah**
**- Department of Natural Resources**

**Electronic Permitting System - Sundry Notices**

## Request for Permit Extension Validation Well Number 43047506850000

**API:** 43047506850000
**Well Name:** NBU 1022-6J4CS
**Location:** 1178 FSL 1593 FEL QTR SWSE SEC 06 TWNP 100S RNG 220E MER S
**Company Permit Issued to:** KERR-MCGEE OIL & GAS ONSHORE, L.P.
**Date Original Permit Issued:** 9/1/2009

**The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.**

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

**Signature:** Danielle Piernot **Date:** 8/30/2012
**Title:** Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Aug. 30, 2012

RECEIVED

JAN 29 2013

9/2/09

BLM, Vernal Utah

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: October 31, 2014

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
UTU-01195

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA Agreement, Name and No.
UTU63047A 0

8. Lease Name and Well No.
NBU 1022-6J4CS

9. API Well No.
4304750685

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

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

2. Name of Operator
KERR-MCGEE OIL & GAS ONSHORE, L.P.

3a. Address
P.O. BOX 173779
DENVER, COLORADO 80202-3779

3b. Phone No. *(include area code)*
PHONE 720-929-6086
FAX 720-929-7086

10. Field and Pool, or Exploratory
NATURAL BUTTES

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

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| At surface | NWSE | Lot 0 | 2183 FSL | 1708 FEL | LAT = | 39.976696 | LONG = | -109.479260 |
| At proposed prod. Zone | NWSE | Lot 0 | 1535 FSL | 1760 FEL | LAT = | 39.974916 | LONG = | -109.479421 |

11. Sec.,T.,R.,M.,or Blk.and Survey or Area
6 T 10S R 22E

14. Distance in miles and direction from the nearest town or post office*
Approximately 47 miles Southeast of Vernal, Utah

12. County or Parish
UINTAH

13. State
UT

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any) 1414

16. No. of acres in lease
577.75

17. Spacing Unit dedicated to this well

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JUN 12 2013
DIV. OF OIL, GAS & MINING

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 676

19. Proposed Depth
10372 MD
10296 TVD

20. BLM/ BIA Bond No. on file
WYB000291

21. Elevations (Show whether DF. RT, GR, etc.)
5107.9 GR

22. Approximate date work will start*
8/1/2013

23. Estimated duration
60-90 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)* GINA T BECKER
Date January 28, 2013
Title SENIOR REGULATORY ANALYST

Approved By *(Signature)*
Name *(Printed/ Typed)* Jerry Kenczka
Date JUN 10 2013
Title 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.

*Kerr-McGee Oil & Gas Onshore, L.P. hereby certifies that it is authorized by the proper lease interest owners and responsible under the terms and conditions of the lease to conduct lease operation associated with this application.*

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:** | **NWSE, Sec. 6, T10S, R22E** |
| **Well No:** | **NBU 1022-6J4CS** | **Lease No:** | **UTU-01195** |
| **API No:** | **43-047-50685** | **Agreement:** | **Natural Butte** |

# 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

| | | |
|---|---|---|
| Location Construction<br>(Notify Environmental Scientist) | - | Forty-Eight (48) hours prior to construction of location and access roads. |
| Location Completion<br>(Notify Environmental Scientist) | - | Prior to moving on the drilling rig. |
| Spud Notice<br>(Notify Petroleum Engineer) | - | Twenty-Four (24) hours prior to spudding the well. |
| Casing String & Cementing<br>(Notify Supv. Petroleum Tech.) | - | Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov |
| BOP & Related Equipment Tests<br>(Notify Supv. Petroleum Tech.) | - | Twenty-Four (24) hours prior to initiating pressure tests. |
| First Production Notice<br>(Notify 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)*

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of $NO_x$ per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of $NO_x$ per horsepower-hour.

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.

- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

- Mitigation measures can be found in Appendix B, Table B-2, of the GNB ROD (BLM 2012b) under the following sections of the table:
    - Air Quality
    - Soils
    - Vegetation: *Sclerocactus wetlandicus*
    - Wildlife: Colorado River Fish
- Where populations or individuals of Sclerocactus wetlandicus are located within 300 feet of the proposed edge of project ROWs, the following actions will be taken to minimize impacts:
    - Silt fencing will be used to protect cacti that are within 300 feet and downslope or downwind of surface disturbance. Fencing is intended to prevent sedimentation or dust deposition and will be evaluated for effectiveness by a qualified botanist.
    - A qualified botanist will be on site to monitor surface-disturbing activities when cacti are within 300 feet of any surface disturbance.
    - Dust abatement (consisting of water only) will occur during construction where plants are closer than 300 feet from surface-disturbing activities.
    - Cacti within 300 feet of proposed surface disturbance will be flagged immediately prior to surface-disturbing activities and flags will be removed immediately after surface-disturbing activities are completed. Leaving cacti flagged for as short a time as possible will minimize drawing attention to the cacti location and reduce potential for theft.
    - Pipelines will be sited to maximize distance from adjacent cacti locations.
    - Project personnel associated with construction activities will be instructed to drive at a speed limit of 15 miles per hour on unpaved roads and remain in existing roadway ROWs at all times.
- For permanent surface pipelines, KMG will adhere to existing cacti survey/buffer guidelines of 300 feet, or amended guidelines if developed by the BLM and USFWS. In areas where avoidance by 300 feet is not feasible and populations or individuals of *Sclerocactus wetlandicus* are within 50 feet of proposed project components, the following actions will be taken to minimize impacts:

- Prior to construction, flag individual cactus. Once pipe installation is complete, remove the flagging.

- Prior to construction, install protective fencing around the cacti if they are down gradient of the surface pipe. Once pipe installation is complete, remove the protective fencing.
- A qualified botanist will be present during construction to monitor surface line installation.

- The following considerations are required for those wells where KMG deems completion fluid recycling is appropriate based on new well density and topography:
  - Temporary lines associated with recycling of completion water will be sited in existing ROWs. The pressure in the lines is less than 50 pounds per square inch and the lines are constructed of rigid aluminum; therefore, virtually no movement will occur during operation.
  - If surface water completion lines are placed within the footprint of a road disturbance where vegetation does not grow, *Sclerocactus wetlandicus* surveys will not be necessary.
  - A qualified botanist will survey a 50-foot-wide corridor along roads where temporary lines are planned to ensure *Sclerocactus wetlandicus* is not present.
  - If cacti are present within the 50-foot-wide survey corridor and avoidance is necessary (to ensure the line is more than 50 feet away from identified cactus), the new alignment will, if possible, be such that the cacti are topographically higher than the re-aligned line so a potential spill from the line will not impact the identified cacti.
  - If it is not possible to re-align the surface lines to avoid individuals or populations of the *Sclerocactus wetlandicus* that are within 50 feet of surface disturbance, the following actions will be taken to minimize impacts:
  - Prior to construction, KMG will flag individual cacti. Once pipe installation is complete, remove the flagging.
  - Prior to construction, KMG will install protective fencing around the cacti if they are down gradient of the surface pipe. Once pipe installation is complete, remove the protective fencing.
  - A qualified botanist will be present during construction to monitor surface line installation.
- Avoidance of cactus by 300 feet will take priority in the expansion of pads within the cactus core conservation areas. When the 300-foot buffer cannot be avoided in pad expansion, KMG will notify the USFWS and work with the BLM to determine pad expansion that places a priority on avoiding cactus impacts.

- KMG will follow existing ROWs and/or roads in constructing new buried pipelines within the cactus core conservation areas. For instance, where a new buried pipeline is unable to follow an existing ROW and/or road and exceeds 600 feet in length, KMG will work with the USFWS and the BLM to determine a route that places a priority on avoiding cactus impacts.

- Maintenance activities on pipelines within cactus core conservation areas will avoid impacts to cactus, to the extent possible.

- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.

- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established

- Noxious and invasive weeds will be controlled throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an integrated pest management program is applicable, coordination has been undertaken with the state and local management program (if existing). A copy of the pest management plan will be submitted for each project.
- A pesticide use permit (PUP) will be obtained for the project, if applicable.
- Bird exclusion netting will be installed over reserve pits containing water that are left open for more than 30 days to reduce possibility of exposure to hazardous chemicals (BLM 2012b).
- KMG will install bird-excluding devises that prevent the perching and entry of migratory birds on or into its new fired vessel exhaust stacks (BLM 2012b).
- Tree removal within pinyon-juniper habitat will occur outside of the nesting season for migratory birds (approximately 4/1 to 7/31 (BLM 2012b).
- Damage to livestock and livestock facilities would be reported as quickly as possible to the BLM and affected livestock operators. Operators would develop and employ prevention measures to avoid damaging fences, gates, and cattle guards, including upgrading cattle guard gate widths and load-bearing requirements and fencing all open pits and cellars.
- If partial or complete removal of a fence cannot be avoided, the fence would be braced and tied off per the BLM guidance. Where the fence is crossed by a road, the fence would be braced and a cattle guard and gate installed per BLM guidance.

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

**SITE SPECIFIC DOWNHOLE COAs:**

- Gamma Ray Log shall be run from Total Depth to Surface.
- CBL will be run from TD to TOC.
- Kerr-McGee Oil & Gas Onshore L.P.. shall adhere to all referenced requirements in the SOP (version: "Standard Operating Practice Agreement for the Greater Natural Buttes Field", Oct 21, 2012). The operator shall also comply with applicable laws and regulations; with lease terms Onshore Oil and Gas Orders, NTL's; and with other orders and instructions of the, authorized officer.

**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 CD (compact disc) format to the Vernal BLM Field Office. 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.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.

- 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.

**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 01195

## SUNDRY NOTICES AND REPORTS ON WELLS

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

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

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

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 1022-6J4CS

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

**9. API NUMBER:** 43047506850000

**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:** 2183 FSL 1708 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 06 Township: 10.0S Range: 22.0E Meridian: S

**COUNTY:** UINTAH

**STATE:** UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT<br>Approximate date work will start: 6/15/2013 | ☐ 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.**

**The operator is requesting the approval of the following changes to the originally approved APD** 1. Surface Location Changes (New Plat Package is Attached) \ a. SHL - From = 1178 FSL/1593 FEL : To = 2183 FSL/1708 FEL \ 2. Proposed Total Depth (New Drilling Program Attached) \ 3. Surface Hole Size & Casing Grade (New Wellbore Diagram Attached) \ 4. Change to Directional Survey Plans (Directional Drilling Survey Attached) \ 5. Surface Use Plan of Operation (Updated Plan Attached) \ 8. Updated Topos & Directions (Attached)

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

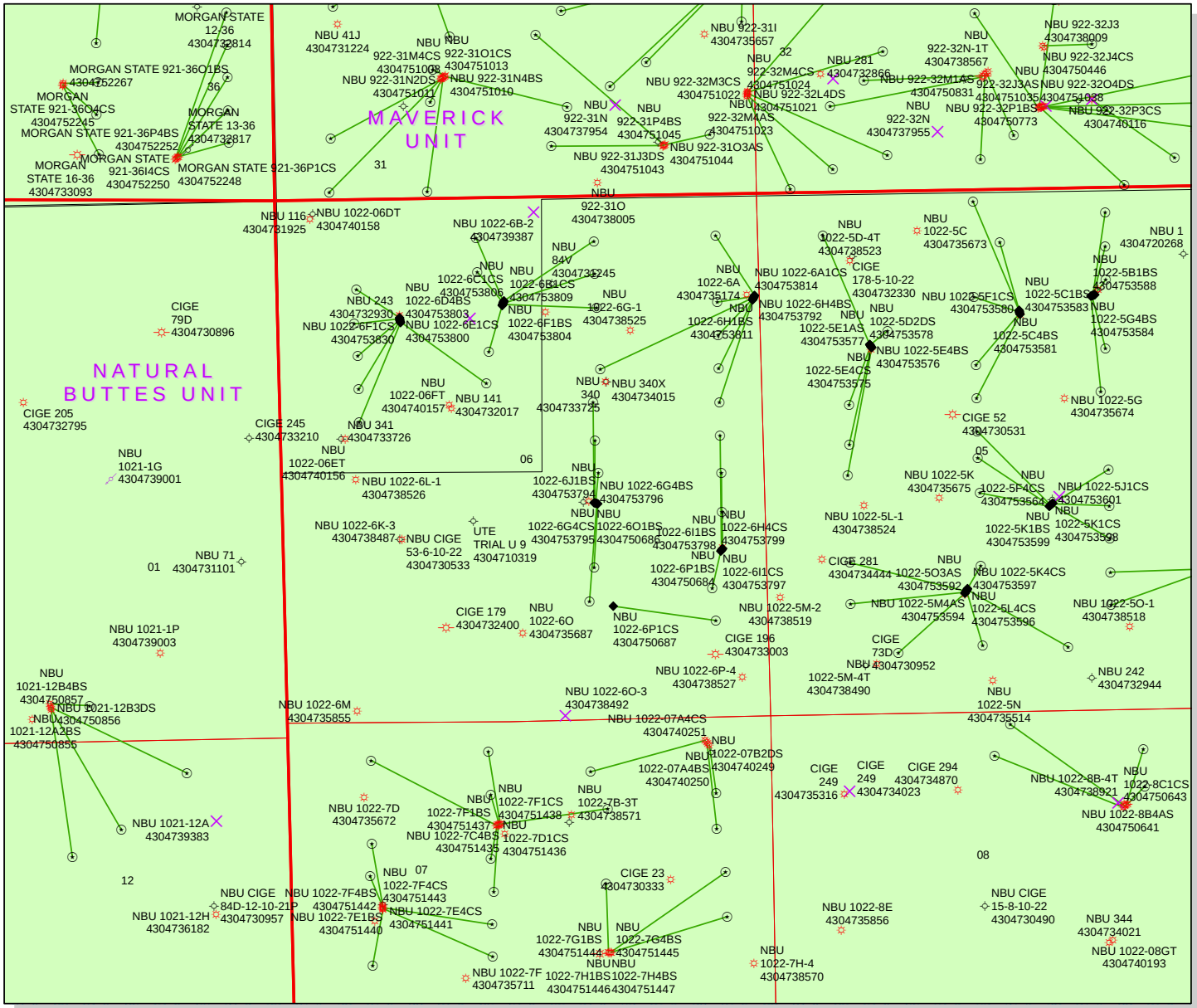
**Date:** June 20, 2013

**By:**

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Gina Becker | 720 929-6086 | Regulatory Analyst II |

| SIGNATURE | DATE |
|---|---|
| N/A | 5/29/2013 |

RECEIVED: May. 29, 2013




**API Number: 4304750685**

**Well Name: NBU 1022-6J4CS**

**Township T10.0S Range R22.0E Section 06**

**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

1,300 650 0 1,300 Feet

1:12,515

RECEIVED: Jun. 19, 2013

# Kerr-McGee Oil & Gas Onshore. L.P.

**NBU 1022-6J4CS**

Surface: 2183 FSL / 1708 FEL NWSE
BHL: 1535 FSL / 1760 FEL NWSE

Section 6 T10S R22E

Unitah County, Utah
Mineral Lease: UTU-01195

**ONSHORE ORDER NO. 1**

**DRILLING PROGRAM**

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

| Formation | Depth | Resource |
|---|---|---|
| Uinta | 0 - Surface | |
| Green River | 1,220' | |
| Birds Nest | 1,543' | Water |
| Mahogany | 2,035' | Water |
| Wasatch | 4,455' | Gas |
| Mesaverde | 7,040' | Gas |
| Sego | 9,205' | Gas |
| Castlegate | 9,260' | Gas |
| Blackhawk | 9,696' | Gas |
| TVD = | 10,296' | |
| TD = | 10,372' | |

**2.b** Kerr McGee Oil & Gas Onshore LP (Kerr McGee) may elect to drill to (i) the Blackhawk formation (part of the Mesaverde Group), (ii) to a shallower depth within the Mesaverde Group, or (iii) to the Wasatch Formation. If Kerr McGee drills to the Blackhawk formation, please refer to Blackhawk as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr-McGee drills to a shallower depth in the Mesaverde Group or to the Wasatch Formation, please refer to the attached Wasatch/Mesaverde Drilling Program which includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the shallower formations.

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

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.



RECEIVED: May. 29, 2013

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

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

**5. Drilling Fluids Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

**6. Evaluation Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

**7. Abnormal Conditions:**

**7.a Blackhawk (Part of Mesaverde Group)**

Maximum anticipated bottom hole pressure calculated at 10296' TVD, approximately equals 6,589 psi (0.64 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,310 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

**7.b Wasach Formation/Mesaverde Group**

Maximum anticipated bottom hole pressure calculated at 9205' TVD, approximately equals 5,615 psi (0.61 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 3,614 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

**8. Anticipated Starting Dates:**

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

**9. Variances:**

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

**10. Other Information:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



RECEIVED: May. 29, 2013

# KERR-McGEE OIL & GAS ONSHORE LP

## Blackhawk Drilling Program

| | | | |
|---|---|---|---|
| COMPANY NAME | KERR-McGEE OIL & GAS ONSHORE LP | DATE | January 24, 2013 |
| WELL NAME | **NBU 1022-6J4CS** | TD | 10,296' TVD 10,372' MD |
| FIELD | Natural Buttes | COUNTY Uintah | STATE Utah FINISHED ELEVATION 5,108' |
| SURFACE LOCATION | NWSE 2183 FSL 1708 FEL | Sec 6 | T 10S R 22E |
| | Latitude: 39.976696 | Longitude: -109.479260 | NAD 83 |
| BTM HOLE LOCATION | NWSE 1535 FSL 1760 FEL | Sec 6 | T 10S R 22E |
| | Latitude: 39.974916 | Longitude: -109.479421 | NAD 83 |
| OBJECTIVE ZONE(S) | BLACKHAWK (Part of the Mesaverde Group) | | |
| ADDITIONAL INFO | Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept. | | |

| GEOLOGICAL | | | MECHANICAL | | |
|---|---|---|---|---|---|
| LOGS | FORMATION TOPS | DEPTH | HOLE SIZE | CASING SIZE | MUD WEIGHT |
| | | 40' | | 14" | |
| | | | 12-1/4 | 8-5/8", 28#, IJ-55, LTC | Air mist |
| | | 200' | | | |
| **All water flows encountered while drilling will be reported to the appropriate agencies.** | | | 11.00' | 8-5/8", 28#, IJ-55, LTC | Air mist |
| | **Green River @** | **1,220'** | | | |
| | **Top of Birds Nest @** | **1,543'** | | | |
| | **Mahogany @** | **2,035'** | | | |
| | **Preset f/ GL @** | **2,490' TVD** | | | |
| | Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone. | | | | |
| | **Wasatch @** | **4,455'** | | | |
| Mud logging program TBD<br>Cased hole logging program from TD - surf csg | | | 7-7/8" | 4-1/2" 11.6#<br>HCP-110<br>Ultra DQX/LTC csg | Water / Fresh<br>Water Mud<br>8.3-12.5 ppg |
| | **Mesaverde @** | **7,040' TVD** | | | |
| | **Sego @** | **9,205' TVD** | | | |
| | **Castlegate @** | **9,260' TVD** | | | |
| | **Blackhawk** | **9,696' TVD** | | | |
| Max anticipated<br>Mud required<br>12.5 ppg | **TD @** | **10,296' TVD**<br>**10,372' MD** | | | |



RECEIVED: May. 29, 2013

KerrMcGee

## KERR-McGEE OIL & GAS ONSHORE LP

# Blackhawk Drilling Program

**CASING PROGRAM**

| | SIZE | INTERVAL | | | WT. | GR. | CPLG. | DESIGN FACTORS BURST | COLLAPSE | TENSION LTC | TENSION DQX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONDUCTOR | 14" | 0-40' | | | | | | | | | |
| | | | | | | | | 3,390 | 1,880 | 348,000 | N/A |
| SURFACE | 8-5/8" | 0 | to | 2,490 | 28.00 | IJ-55 | LTC | 2.16 | 1.61 | 5.70 | N/A |
| | | | | | | | | 10,690 | 8,650 | 279,000 | 367,174 |
| PRODUCTION | 4-1/2" | 0 | to | 5,000 | 11.60 | HCP-110 | DQX | 1.19 | 1.29 | | 3.77 |
| | 4-1/2" | 5,000 | to | 10,372' | 11.60 | HCP-110 | LTC | 1.19 | 1.29 | 5.53 | |

**Surface Casing:**

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

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

**Production casing:**

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.64 psi/ft = bottomhole gradient

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

**CEMENT PROGRAM**

| | | FT. OF FILL | DESCRIPTION | SACKS | EXCESS | WEIGHT | | YIELD |
|---|---|---|---|---|---|---|---|---|
| SURFACE | LEAD | 500' | Premium cmt + 2% CaCl | 180 | 60% | 15.80 | | 1.15 |
| **Option 1** | | | + 0.25 pps flocele | | | | | |
| | TOP OUT CMT (6 jobs) | 1,200' | 20 gals sodium silicate + Premium cmt | 270 | 0% | 15.80 | | 1.15 |
| | | | + 2% CaCl + 0.25 pps flocele | | | | | |
| SURFACE | | | **NOTE: If well will circulate water to surface, option 2 will be utilized** | | | | | |
| **Option 2** | LEAD | 1,990' | Premium cmt + 16% Gel + 10 pps gilsonite | 240 | 35% | 12.00 | | 2.86 |
| | | | + 0.25 pps Flocele + 3% salt BWOC + GR 3 pps | | | | | |
| | TAIL | 500' | Premium cmt + 2% CaCl | 150 | 35% | 15.80 | | 1.15 |
| | | | + 0.25 pps flocele | | | | | |
| | TOP OUT CMT | as required | Premium cmt + 2% CaCl | as req. | | 15.80 | | 1.15 |
| PRODUCTION | LEAD | 3,952' | Premium Lite II +0.25 pps celloflake + .4% FL-52 | 310 | 35% | 12.00 | | 3.38 |
| | | | + .3% R-3 + .5 lbs/sk Kol-Seal + 6%Bentonite II + | | | | | |
| | | | 1.2% Sodium Metasilicate + .05 lbs/sk Static Free | | | | | |
| | TAIL | 6,420' | 50/50 Poz/G + 10% salt + .05 lbs/sk Static Free | 1,520 | 35% | 14.30 | | 1.31 |
| | | | + 1.2% Sodium Metasilicate + .5 % EC-1 | | | | | |
| | | | +.002 gps FP-6L + 2% Bentonite II | | | | | |

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

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

**FLOAT EQUIPMENT & CENTRALIZERS**

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

**ADDITIONAL INFORMATION**

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

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

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

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

IF extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it.

**DRILLING ENGINEER:** _____ **DATE:** _____

Nick Spence / John Tuckwiller / Brian Cocchiere / Tyler Elliott

**DRILLING SUPERINTENDENT:** _____ **DATE:** _____

Kenny Gathings / Lovel Young



RECEIVED: May. 29, 2013

# KERR-McGEE OIL & GAS ONSHORE LP

## Wasatch/Mesaverde Drilling Program

| | | | |
|---|---|---|---|
| COMPANY NAME | KERR-McGEE OIL & GAS ONSHORE LP | DATE | January 24, 2013 |
| WELL NAME | **NBU 1022-6J4CS** | TD | 9,205' TVD 9,281' MD |
| FIELD | Natural Buttes | COUNTY Uintah STATE Utah | FINISHED ELEVATION 5,108' |
| SURFACE LOCATION | NWSE 2183 FSL 1708 FEL Sec 6 T 10S R 22E | | |
| | Latitude: 39.976696 Longitude: -109.479260 | | NAD 83 |
| BTM HOLE LOCATION | NWSE 1535 FSL 1760 FEL Sec 6 T 10S R 22E | | |
| | Latitude: 39.974916 Longitude: -109.479421 | | NAD 83 |
| OBJECTIVE ZONE(S) | Wasatch Formation/Mesaverde Group | | |
| ADDITIONAL INFO | Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept. | | |

| GEOLOGICAL | | | MECHANICAL | | |
|---|---|---|---|---|---|
| LOGS | FORMATION TOPS | DEPTH | HOLE SIZE | CASING SIZE | MUD WEIGHT |
| | | 40' | | 14" | |
| | | 200' | 12-1/4 | 8-5/8", 28#, IJ-55, LTC | Air mist |
| **All water flows encountered while drilling will be reported to the appropriate agencies.** | | | 11.00' | 8-5/8", 28#, IJ-55, LTC | Air mist |
| | **Green River @** | **1,220'** | | | |
| | **Top of Birds Nest @** | **1,543'** | | | |
| | **Mahogany @** | **2,035'** | | | |
| | **Preset f/ GL @** | **2,490' TVD** | | | |
| | Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone. | | | | |
| | **Wasatch @** | **4,455'** | | | |
| Mud logging program TBD<br>Cased hole logging program from TD - surf csg | | | 7-7/8" | 4-1/2" 11.6#<br>I-80<br>Ultra DQX/LTC csg | Water / Fresh<br>Water Mud<br>8.3-12.0 ppg |
| | **Mesaverde @** | **7,040' TVD** | | | |
| | **Sego @** | **9,205' TVD** | | | |
| Max anticipated<br>Mud required<br>12.0 ppg | **TD @** | **9,205' TVD**<br>**9,281' MD** | | | |



RECEIVED: May. 29, 2013

KerrMcGee

## KERR-McGEE OIL & GAS ONSHORE LP

# Wasatch/Mesaverde Drilling Program

**CASING PROGRAM**

| | SIZE | INTERVAL | | | WT. | GR. | CPLG. | DESIGN FACTORS BURST | COLLAPSE | TENSION LTC | TENSION DQX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONDUCTOR | 14" | 0-40' | | | | | | | | | |
| | | | | | | | | 3,390 | 1,880 | 348,000 | N/A |
| SURFACE | 8-5/8" | 0 | to | 2,490 | 28.00 | IJ-55 | LTC | 2.16 | 1.61 | 5.70 | N/A |
| | | | | | | | | 7,780 | 6,350 | | 267,035 |
| PRODUCTION | 4-1/2" | 0 | to | 5,000 | 11.60 | I-80 | DQX | 1.11 | 1.11 | | 3.04 |
| | | | | | | | | 7,780 | 6,350 | 223,000 | |
| | 4-1/2" | 5,000 | to | 9,281' | 11.60 | I-80 | LTC | 1.11 | 1.11 | 5.50 | |

**Surface Casing:**

(Burst Assumptions: TD = 12.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

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

**Production casing:**

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.61 psi/ft = bottomhole gradient

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

**CEMENT PROGRAM**

| | | FT. OF FILL | DESCRIPTION | SACKS | EXCESS | WEIGHT | | YIELD |
|---|---|---|---|---|---|---|---|---|
| SURFACE | LEAD | 500' | Premium cmt + 2% CaCl | 180 | 60% | 15.80 | | 1.15 |
| **Option 1** | | | + 0.25 pps flocele | | | | | |
| | TOP OUT CMT (6 jobs) | 1,200' | 20 gals sodium silicate + Premium cmt | 270 | 0% | 15.80 | | 1.15 |
| | | | + 2% CaCl + 0.25 pps flocele | | | | | |
| SURFACE | | **NOTE: If well will circulate water to surface, option 2 will be utilized** | | | | | | |
| **Option 2** | LEAD | 1,990' | Premium cmt + 16% Gel + 10 pps gilsonite | 240 | 35% | 12.00 | | 2.86 |
| | | | + 0.25 pps Flocele + 3% salt BWOC + GR 3 pps | | | | | |
| | TAIL | 500' | Premium cmt + 2% CaCl | 150 | 35% | 15.80 | | 1.15 |
| | | | + 0.25 pps Flocele + 3% salt BWOC + GR 3 pps | | | | | |
| | TOP OUT CMT | as required | Premium cmt + 2% CaCl | as req. | | 15.80 | | 1.15 |
| PRODUCTION | LEAD | 3,951' | Premium Lite II +0.25 pps celloflake + .4% FL-52 | 310 | 35% | 12.00 | | 3.38 |
| | | | + .3% R-3 + .5 lbs/sk Kol-Seal + 6%Bentonite II + | | | | | |
| | | | 1.2% Sodium Metasilicate + .05 lbs/sk Static Free | | | | | |
| | TAIL | 5,330' | 50/50 Poz/G + 10% salt + .05 lbs/sk Static Free | 1,260 | 35% | 14.30 | | 1.31 |
| | | | + 1.2% Sodium Metasilicate + .5 % EC-1 | | | | | |
| | | | +.002 gps FP-6L + 2% Bentonite II | | | | | |

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

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

**FLOAT EQUIPMENT & CENTRALIZERS**

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

**ADDITIONAL INFORMATION**

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

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

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

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

IF extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it.

**DRILLING ENGINEER:** _____ **DATE:** _____

Nick Spence / John Tuckwiller / Brian Cocchiere / Tyler Elliott

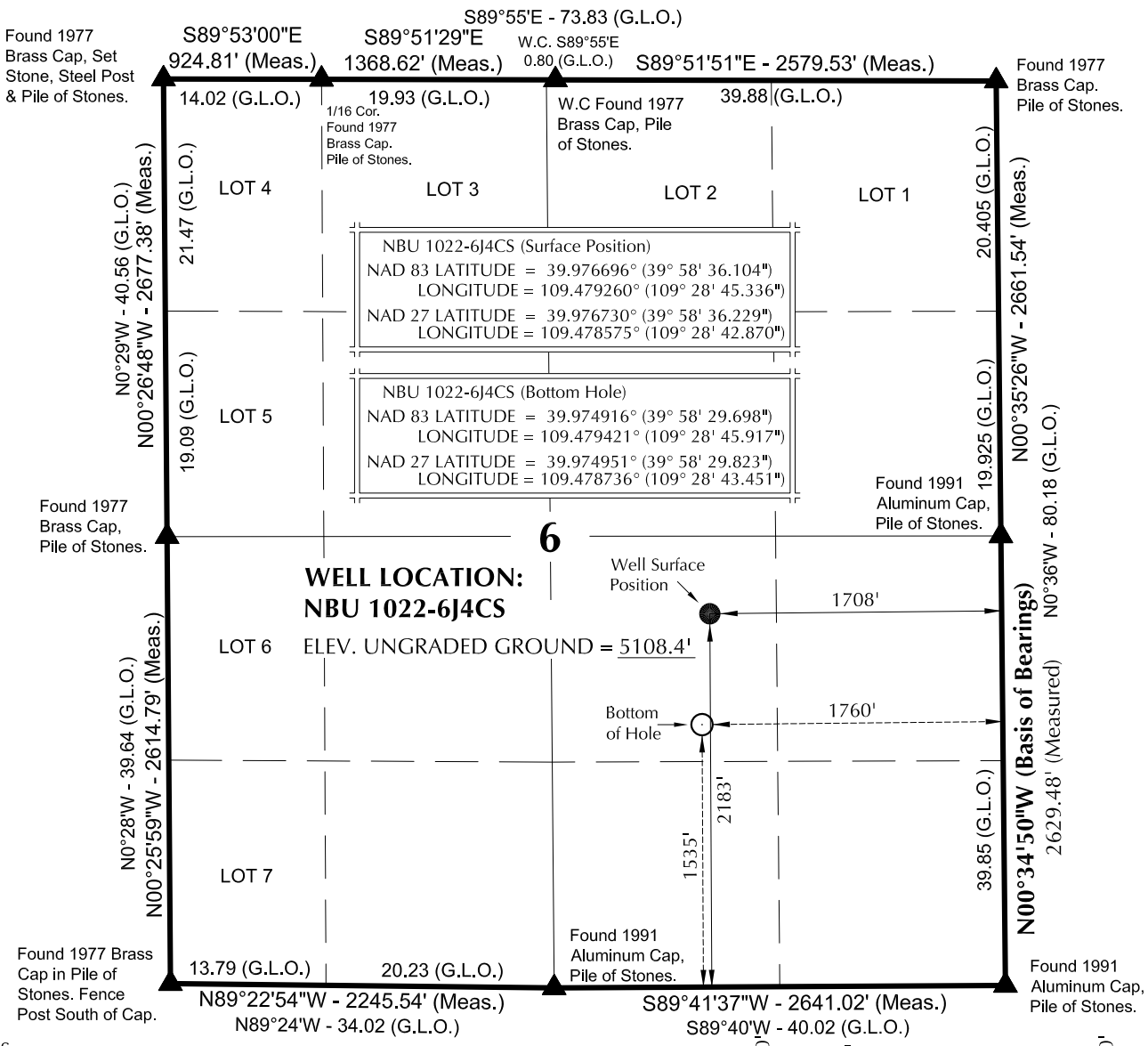
**DRILLING SUPERINTENDENT:** _____ **DATE:** _____

Kenny Gathings / Lovel Young



RECEIVED: May. 29, 2013

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




NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines. G.L.O. distances are shown in feet or chains.
2. 1 chain = 66 feet.
3. The Bottom of hole bears S04°00'06"W 649.93' from the Surface Position.
4. NAD 83 Latitude & Longitude are (CORS 96)(EPOCH:2002).
5. Bearings and Distances are based upon a Local Cartesian Grid, oriented to Geodetic North at the North 1/4 Corner of Section 8, T10S, R22E, S.L.B.&M. The Grid having a mean project height of 5300'. Lineal units used are U.S. Survey Foot.
6. Basis of elevation is Tri-Sta "Two Water" located in Lot 4 of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

N

1000' 500' 0' 1000'

SCALE

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.

9-22-12

PROFESSIONAL LAND SURVEYOR No. 6028691 JOHN R. LAUGHLIN STATE OF UTAH

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

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

**WELL PAD: NBU 1022-6J**

**NBU 1022-6J4CS**
**WELL PLAT**
**1535' FSL, 1760' FEL (Bottom Hole)**
**NW ¼ SE ¼ OF SECTION 6, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.**

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

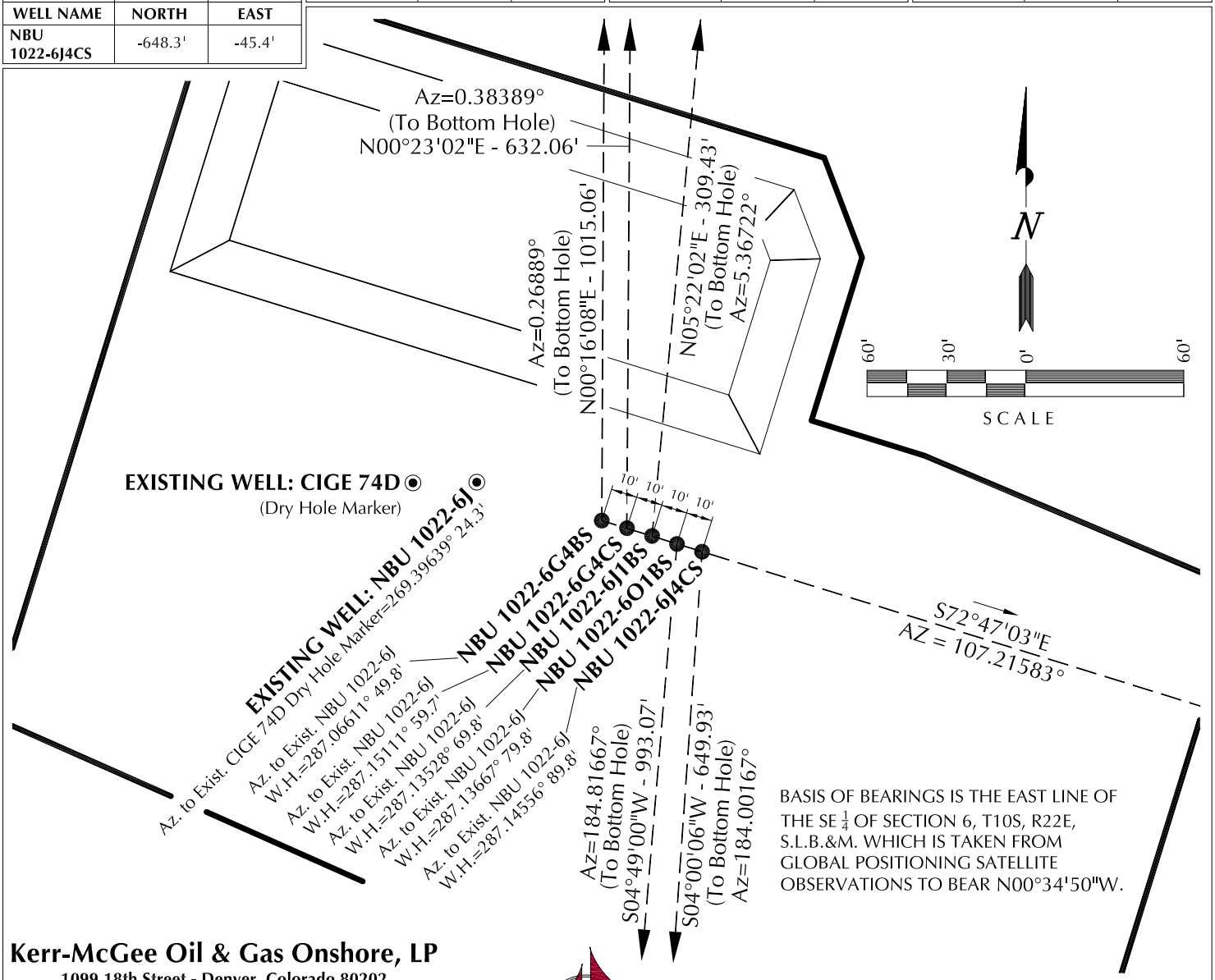
**TIMBERLINE** (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

| | | |
|---|---|---|
| DATE SURVEYED: 8-9-12 | SURVEYED BY: W.W. | SHEET NO: |
| DATE DRAWN: 8-22-12 | DRAWN BY: T.J.R. | 5 |
| SCALE: 1" = 1000' | Date Last Revised: | 5 OF 17 |

| WELL NAME | SURFACE POSITION | | | | | BOTTOM HOLE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | NAD83 | | NAD27 | | | NAD83 | | NAD27 | | |
| | LATITUDE | LONGITUDE | LATITUDE | LONGITUDE | FOOTAGES | LATITUDE | LONGITUDE | LATITUDE | LONGITUDE | FOOTAGES |
| NBU 1022-6G4BS | 39°58'36.221" 39.976728° | 109°28'45.826" 109.479396° | 39°58'36.346" 39.976763° | 109°28'43.360" 109.478711° | 2195' FSL 1746' FEL | 39°58'46.250" 39.979514° | 109°28'45.767" 109.479380° | 39°58'46.375" 39.979549° | 109°28'43.301" 109.478695° | 2094' FNL 1731' FEL |
| NBU 1022-6G4CS | 39°58'36.191" 39.976720° | 109°28'45.704" 109.479362° | 39°58'36.316" 39.976755° | 109°28'43.238" 109.478677° | 2192' FSL 1737' FEL | 39°58'42.436" 39.978454° | 109°28'45.651" 109.479348° | 39°58'42.561" 39.978489° | 109°28'43.185" 109.478662° | 2480' FNL 1726' FEL |
| NBU 1022-6J1BS | 39°58'36.162" 39.976712° | 109°28'45.580" 109.479328° | 39°58'36.287" 39.976746° | 109°28'43.114" 109.478643° | 2189' FSL 1727' FEL | 39°58'39.206" 39.977557° | 109°28'45.209" 109.479225° | 39°58'39.331" 39.977592° | 109°28'42.743" 109.478540° | 2497' FSL 1695' FEL |
| NBU 1022-6O1BS | 39°58'36.133" 39.976704° | 109°28'45.458" 109.479294° | 39°58'36.258" 39.976738° | 109°28'42.992" 109.478609° | 2186' FSL 1718' FEL | 39°58'26.356" 39.973988° | 109°28'46.527" 109.479591° | 39°58'26.481" 39.974023° | 109°28'44.061" 109.478906° | 1197' FSL 1811' FEL |
| NBU 1022-6J4CS | 39°58'36.104" 39.976696° | 109°28'45.336" 109.479260° | 39°58'36.229" 39.976730° | 109°28'42.870" 109.478575° | 2183' FSL 1708' FEL | 39°58'29.698" 39.974916° | 109°28'45.917" 109.479421° | 39°58'29.823" 39.974951° | 109°28'43.451" 109.478736° | 1535' FSL 1760' FEL |
| NBU 1022-6J | 39°58'36.367" 39.976769° | 109°28'46.440" 109.479567° | 39°58'36.492" 39.976803° | 109°28'43.973" 109.478882° | 2210' FSL 1794' FEL | | | | | |
| CIGE 74D | 39°58'36.363" 39.976767° | 109°28'46.749" 109.479653° | 39°58'36.488" 39.976802° | 109°28'44.283" 109.478968° | 2210' FSL 1818' FEL | | | | | |

**RELATIVE COORDINATES** - From Surface Position to Bottom Hole

| WELL NAME | NORTH | EAST | WELL NAME | NORTH | EAST | WELL NAME | NORTH | EAST | WELL NAME | NORTH | EAST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NBU 1022-6G4BS | 1015.0' | 4.8' | NBU 1022-6G4CS | 632.0' | 4.2' | NBU 1022-6J1BS | 308.1' | 28.9' | NBU 1022-6O1BS | -989.6' | -83.4' |
| WELL NAME | NORTH | EAST | | | | | | | | | |
| NBU 1022-6J4CS | -648.3' | -45.4' | | | | | | | | | |




BASIS OF BEARINGS IS THE EAST LINE OF THE SE $\frac{1}{4}$ OF SECTION 6, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°34'50"W.

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

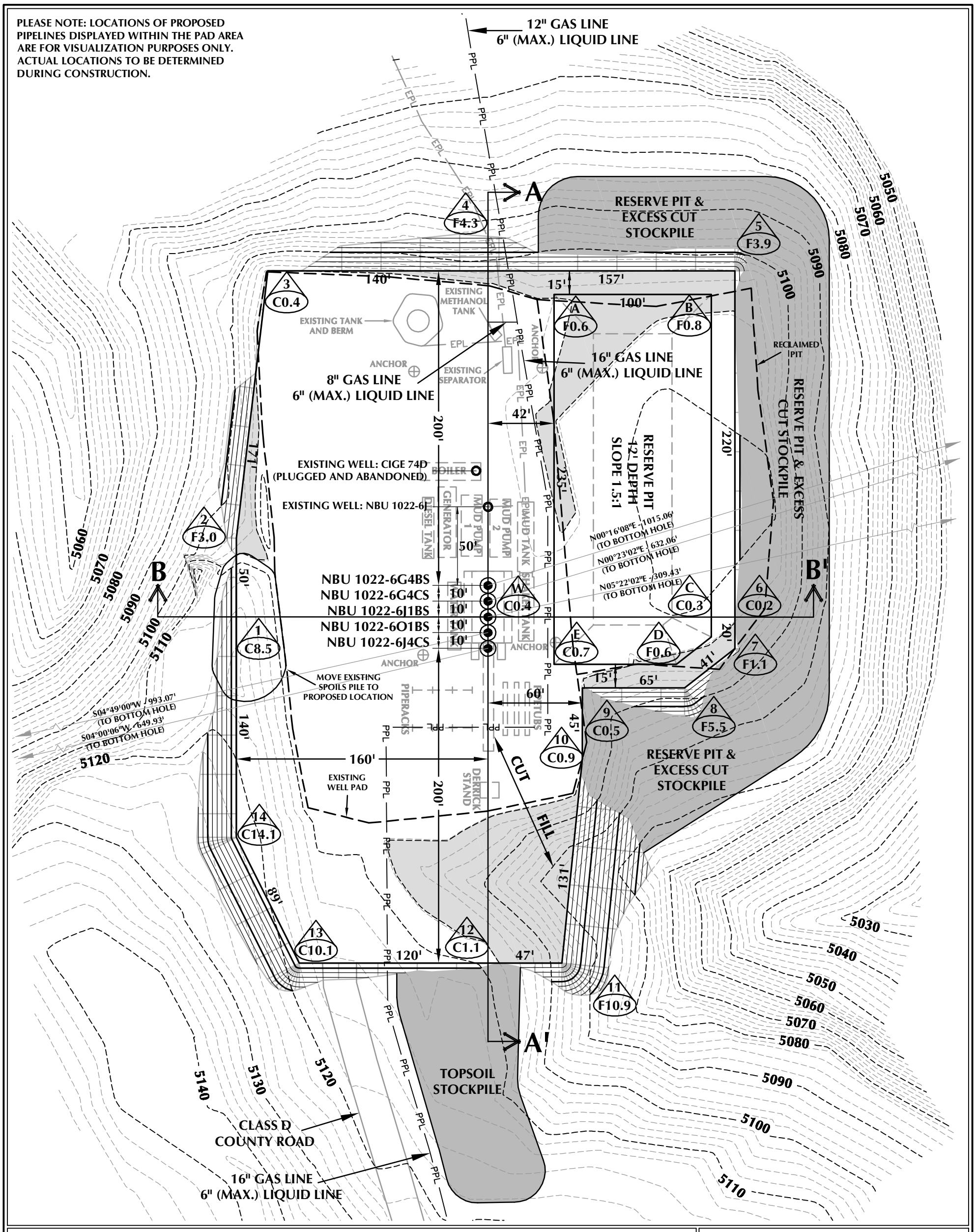
## WELL PAD - NBU 1022-6J

**WELL PAD INTERFERENCE PLAT**
**WELLS - NBU 1022-6G4BS, NBU 1022-6G4CS, NBU 1022-6J1BS, NBU 1022-6O1BS & NBU 1022-6J4CS**
**LOCATED IN SECTION 6, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.**

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

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

| | | |
|---|---|---|
| DATE SURVEYED: 8-9-12 | SURVEYED BY: W.W. | SHEET NO: |
| DATE DRAWN: 8-22-12 | DRAWN BY: T.J.R. | 6 |
| SCALE: 1" = 60' | Date Last Revised: | 6 OF 17 |




## WELL PAD - NBU 1022-6J DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5108.3'
FINISHED GRADE ELEVATION = 5107.9'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.13 ACRES
TOTAL DISTURBANCE AREA = 4.15 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

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

**WELL PAD QUANTITIES**

TOTAL CUT FOR WELL PAD = 6,171 C.Y.
TOTAL FILL FOR WELL PAD = 4,926 C.Y.
TOPSOIL @ 6" DEPTH = 1,382 C.Y.
EXCESS MATERIAL = 1,245 C.Y.

**RESERVE PIT QUANTITIES**

TOTAL CUT FOR RESERVE PIT
+/- 7,910 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 30,090 BARRELS

**WELL PAD LEGEND**

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

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

WELL PAD - NBU 1022-6J

WELL PAD - LOCATION LAYOUT
NBU 1022-6G4BS,
NBU 1022-6G4CS, NBU 1022-6J1BS,
NBU 1022-6O1BS & NBU 1022-6J4CS
LOCATED IN SECTION 6, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

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

| SCALE: 1"=60' | DATE: 9/4/12 | SHEET NO: |
|---|---|---|
| REVISED: | ANK 11/30/12 | 7 — 7 OF 17 |

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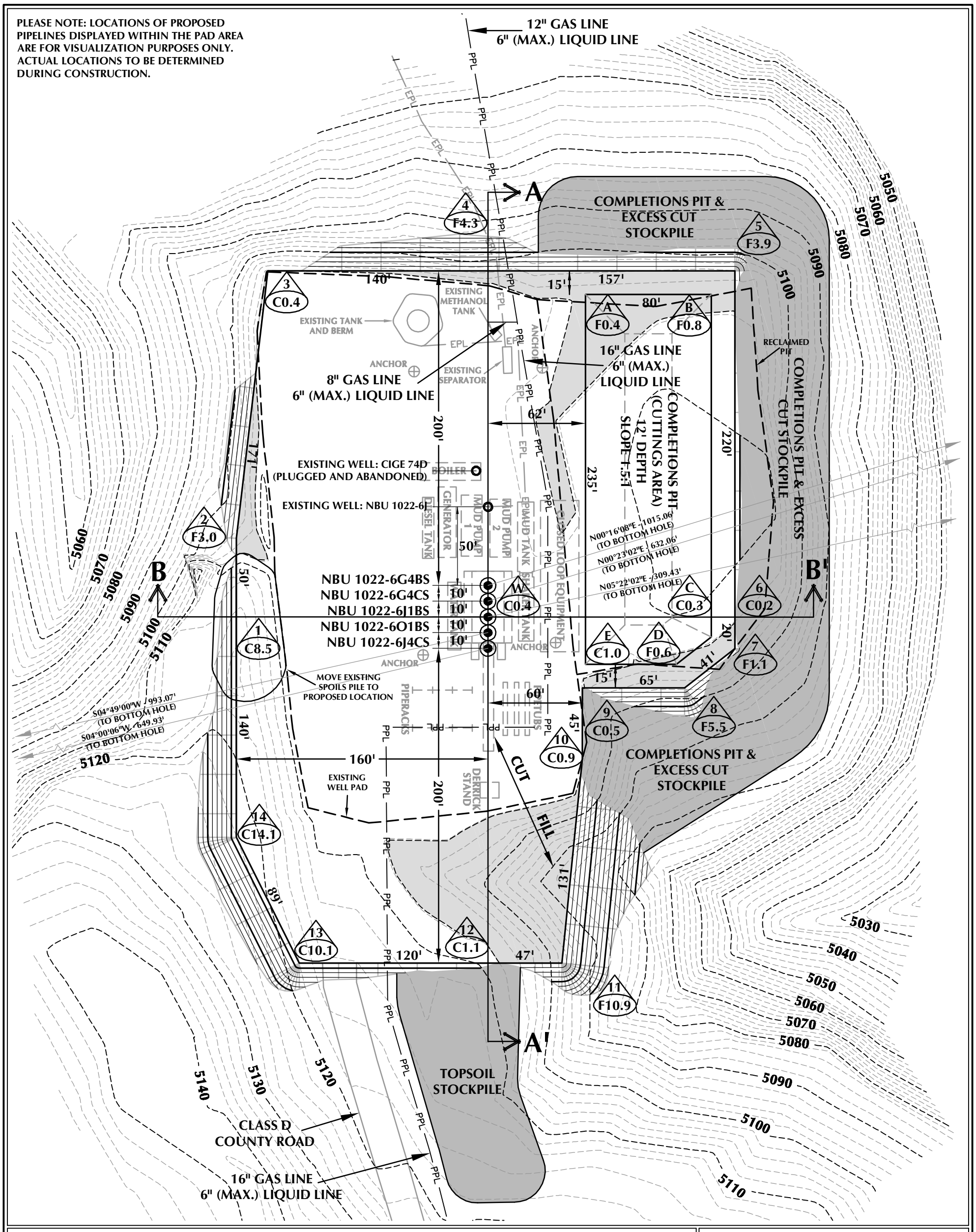


## WELL PAD - NBU 1022-6J (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5108.3'
FINISHED GRADE ELEVATION = 5107.9'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.13 ACRES
TOTAL DISTURBANCE AREA = 4.15 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

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

WELL PAD - NBU 1022-6J

WELL PAD - LOCATION LAYOUT
NBU 1022-6G4BS,
NBU 1022-6G4CS, NBU 1022-6J1BS,
NBU 1022-6O1BS & NBU 1022-6J4CS
LOCATED IN SECTION 6, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

### WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 6,171 C.Y.
TOTAL FILL FOR WELL PAD = 4,926 C.Y.
TOPSOIL @ 6" DEPTH = 1,382 C.Y.
EXCESS MATERIAL = 1,245 C.Y.

### COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT
+/- 6,120 C.Y.
COMPLETIONS PIT CAPACITY
(2' OF FREEBOARD)
+/- 22,790 BARRELS

### WELL PAD LEGEND

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

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

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209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60' | DATE: 11/30/12 | SHEET NO: 7B 7B OF 17
REVISED:

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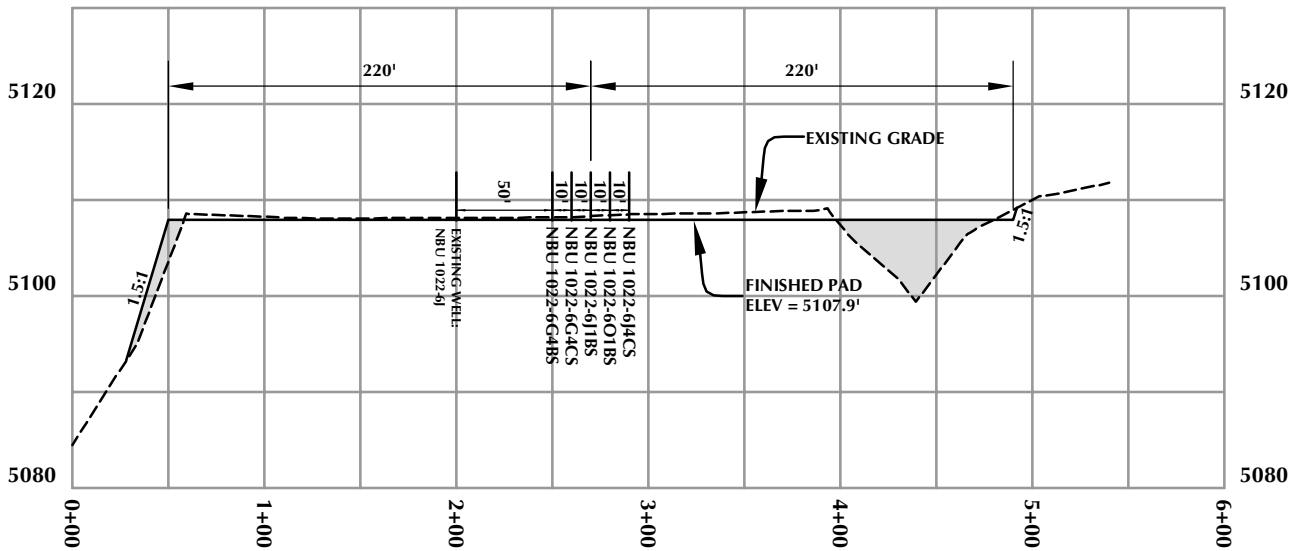
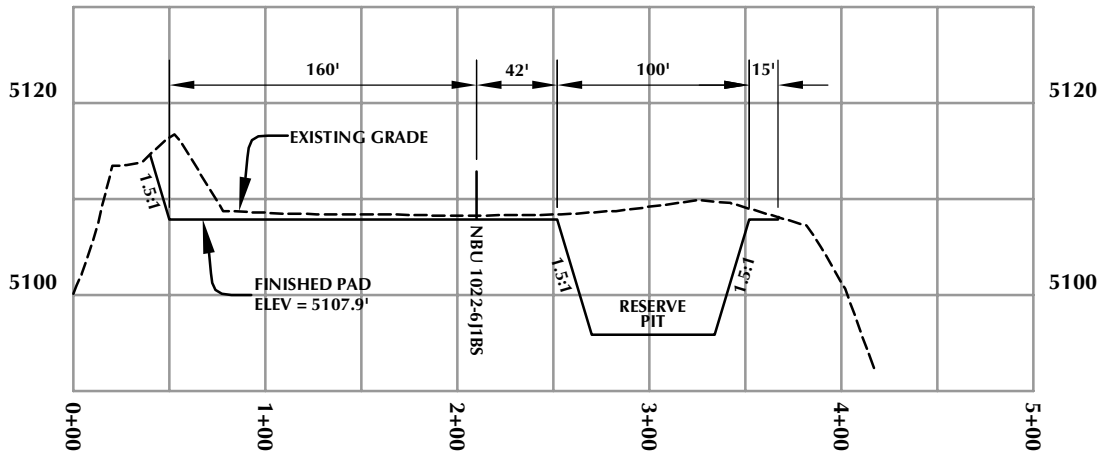



## CROSS SECTION A-A'




## CROSS SECTION B-B'

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

WELL PAD - NBU 1022-6J

WELL PAD - CROSS SECTIONS
NBU 1022-6G4BS,
NBU 1022-6G4CS, NBU 1022-6J1BS,
NBU 1022-6O1BS & NBU 1022-6J4CS
LOCATED IN SECTION 6, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

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

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

Scale: 1"=100' | Date: 9/4/12 | SHEET NO: 8
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8 OF 17

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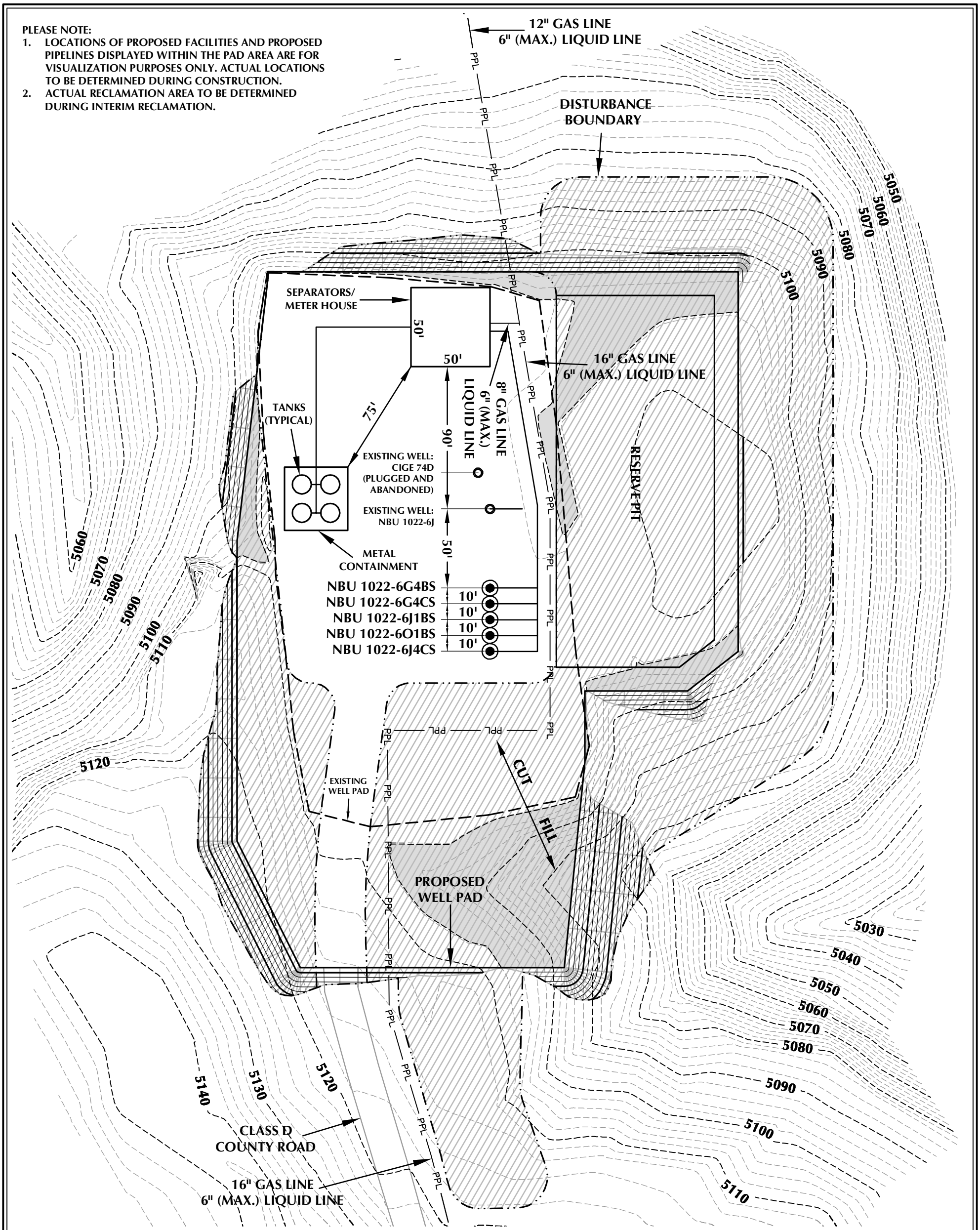
PLEASE NOTE:
1. LOCATIONS OF PROPOSED FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. ACTUAL RECLAMATION AREA TO BE DETERMINED DURING INTERIM RECLAMATION.




## WELL PAD - NBU 1022-6J RECLAMATION DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 4.15 ACRES (INCLUDING EXISTING)
RECLAMATION AREA = 2.93 ACRES
TOTAL WELL PAD AREA AFTER RECLAMATION = 1.22 ACRES

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE
- RECLAMATION AREA

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

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

WELL PAD - NBU 1022-6J

WELL PAD - RECLAMATION LAYOUT
NBU 1022-6G4BS,
NBU 1022-6G4CS, NBU 1022-6J1BS,
NBU 1022-6O1BS & NBU 1022-6J4CS
LOCATED IN SECTION 6, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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209 NORTH 300 WEST - VERNAL, UTAH 84078

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|---|---|---|
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RECEIVED: May. 29, 2013

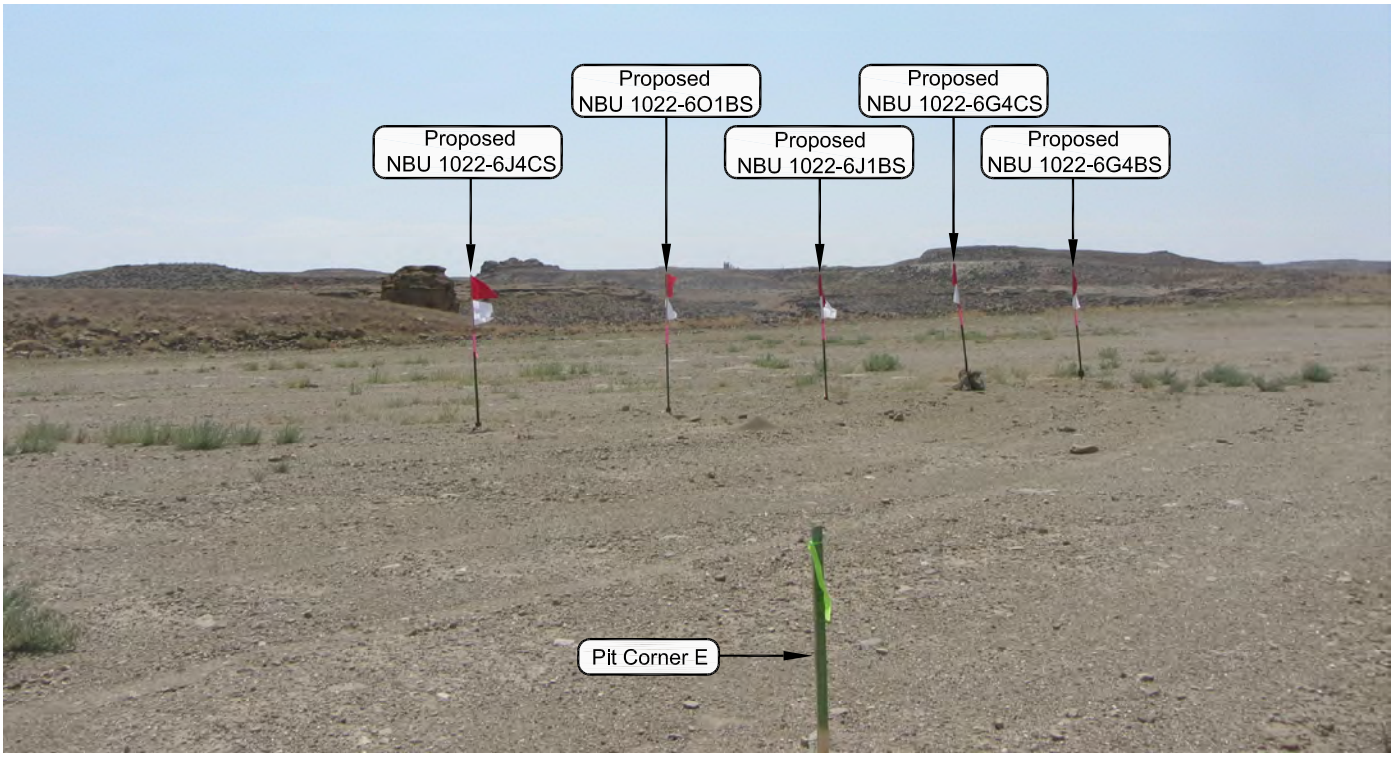


**PHOTO VIEW: FROM PIT CORNER E TO LOCATION STAKE** **CAMERA ANGLE: SOUTHWESTERLY**

**PHOTO VIEW: FROM EXISTING ACCESS ROAD** **CAMERA ANGLE: WESTERLY**

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

**WELL PAD - NBU 1022-6J**

**LOCATION PHOTOS**
**NBU 1022-6G4BS,**
**NBU 1022-6G4CS, NBU 1022-6J1BS,**
**NBU 1022-6O1BS & NBU 1022-6J4CS**
**LOCATED IN SECTION 6, T10S, R22E,**
**S.L.B.&M., UINTAH COUNTY, UTAH.**

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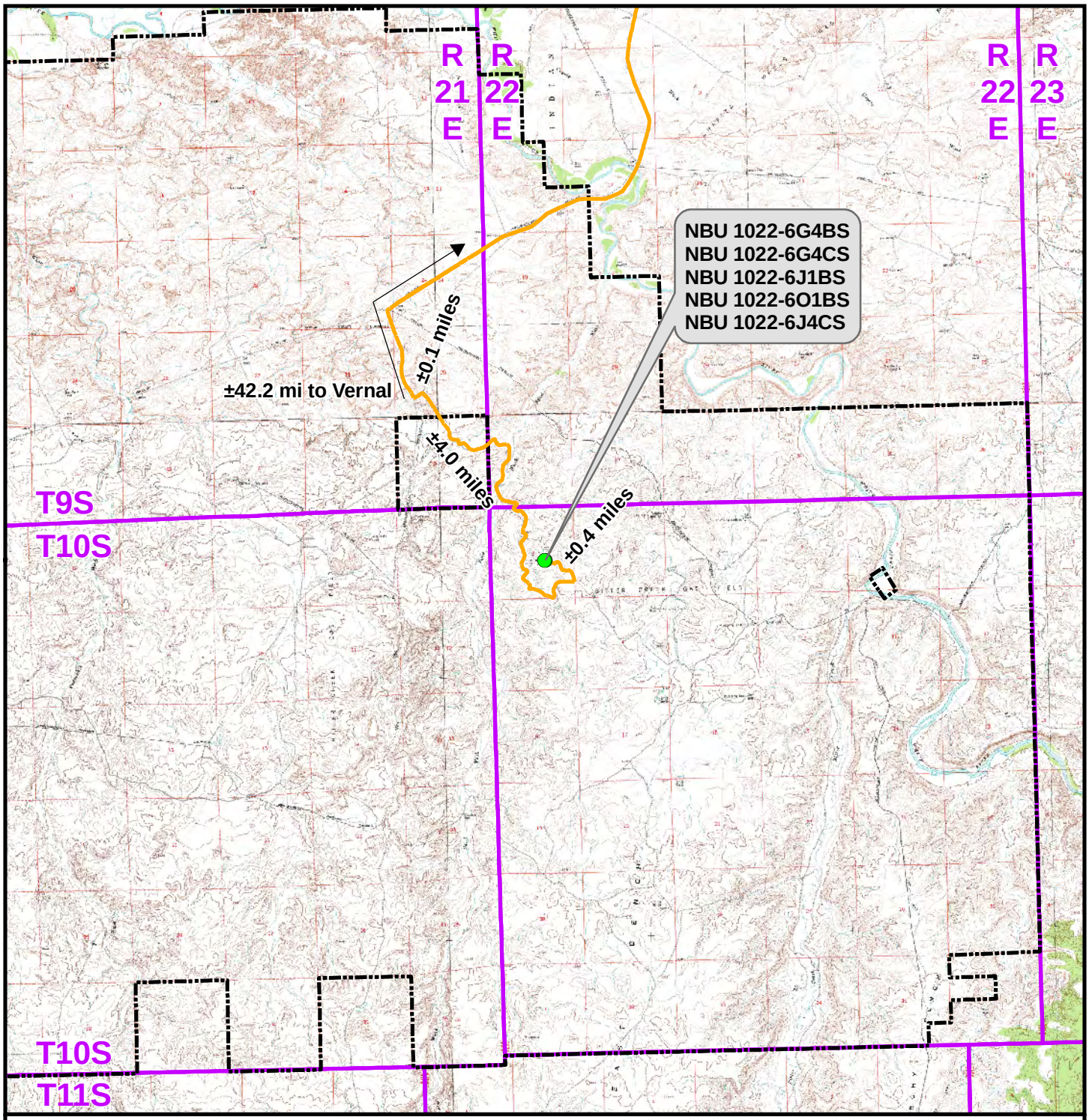
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

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

| | | |
|---|---|---|
| DATE PHOTOS TAKEN: 8-9-12 | PHOTOS TAKEN BY: W.W. | SHEET NO: |
| DATE DRAWN: 8-22-12 | DRAWN BY: T.J.R. | 10 |
| Date Last Revised: | | 10 OF 17 |

RECEIVED: May. 29, 2013




**Legend**

Distance From Well Pad - NBU 1022-6J To Unit Boundary: ±4,436ft

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

| WELL PAD - NBU 1022-6J | Kerr-McGee Oil & Gas Onshore L.P. | CONSULTING, LLC |
|---|---|---|
| TOPO A<br>NBU 1022-6G4BS,<br>NBU 1022-6G4CS, NBU 1022-6J1BS,<br>NBU 1022-6O1BS & NBU 1022-6J4CS<br>LOCATED IN SECTION 6, T10S, R22E<br>S.L.B.&M., UINTAH COUNTY, UTAH | 1099 18th Street<br>Denver, Colorado 80202 | 609<br>2155 North Main Street<br>Sheridan, Wyoming 82801<br>Phone 307-674-0609<br>Fax 307-674-0182<br>N |

| | | | |
|---|---|---|---|
| SCALE: 1:100,000 | NAD83 USP Central | SHEET NO: | |
| DRAWN: TL | DATE: 20 Sept 2012 | 11 | |
| REVISED: | DATE: | 11 OF 17 | |

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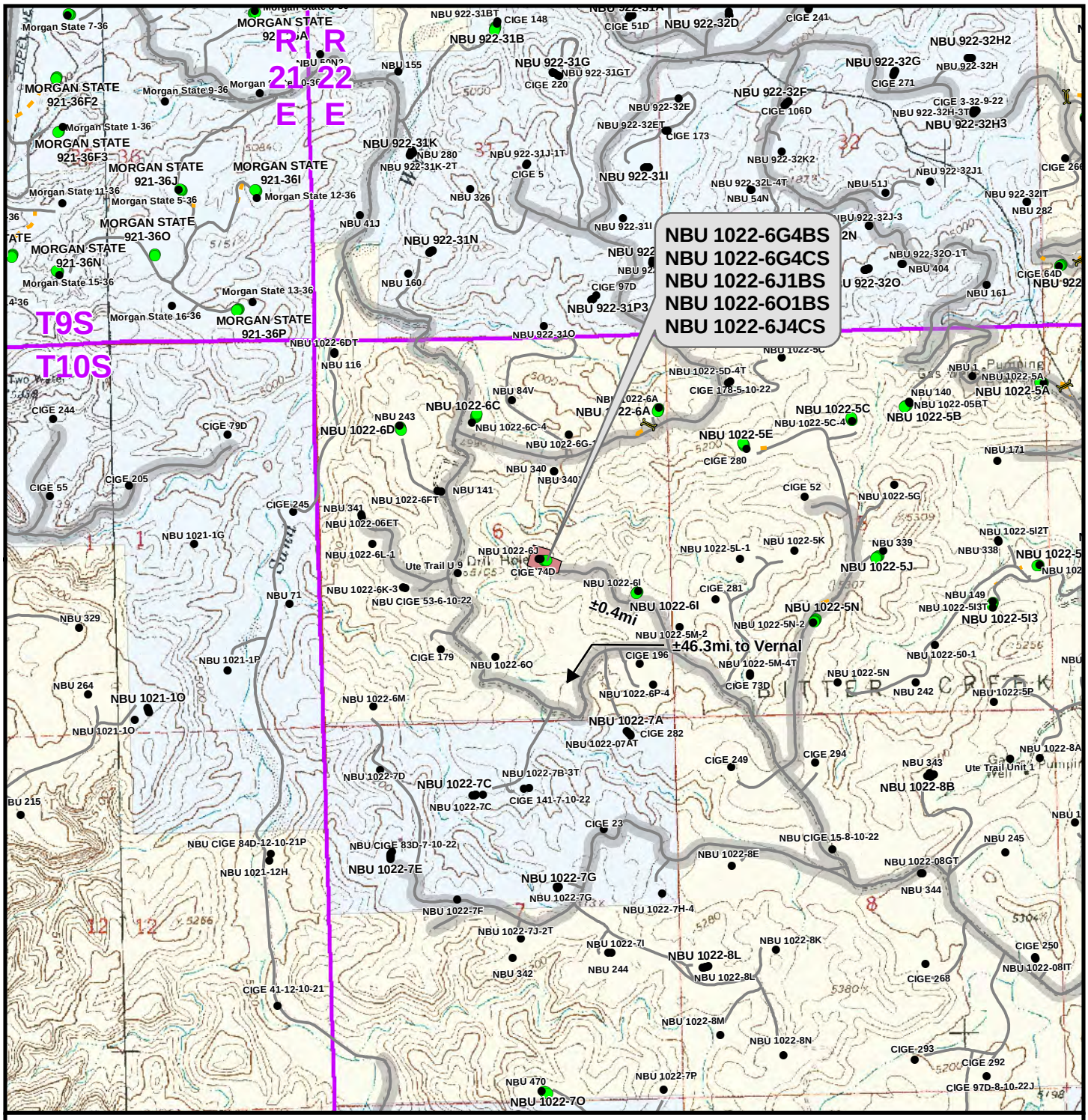


**Legend**

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

Total Proposed Road Length: ±0ft

# WELL PAD - NBU 1022-6J

**TOPO B**
**NBU 1022-6G4BS, NBU 1022-6G4CS, NBU 1022-6J1BS, NBU 1022-6O1BS & NBU 1022-6J4CS**
**LOCATED IN SECTION 6, T10S, R22E S.L.B.&M., UINTAH COUNTY, UTAH**

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

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

N

| | | | |
|---|---|---|---|
| SCALE: 1" = 2,000ft | NAD83 USP Central | SHEET NO: | 12 |
| DRAWN: TL | DATE: 20 Sept 2012 | | 12 OF 17 |
| REVISED: TL | DATE: 30 Nov 2012 | | |

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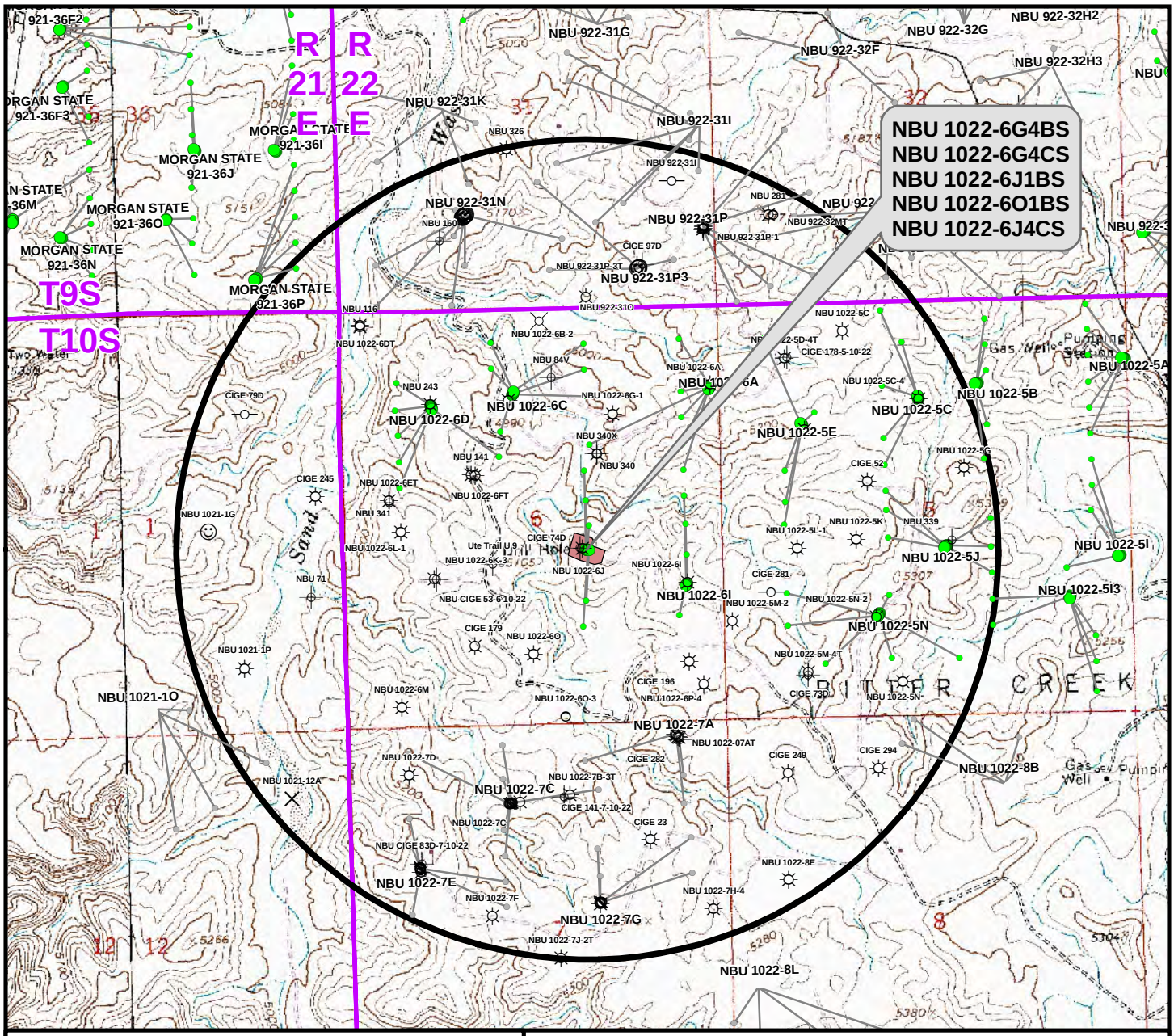


Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

| Proposed Well | Nearest Well Bore | Footage |
|---|---|---|
| NBU 1022-6G4BS | NBU 340X | 268ft |
| NBU 1022-6G4CS | NBU 1022-6J | 617ft |
| NBU 1022-6J1BS | NBU 1022-6J | 302ft |
| NBU 1022-6O1BS | NBU 1022-6O | 734ft |
| NBU 1022-6J4CS | NBU 1022-6J | 676ft |

**Legend**

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - NBU 1022-6J

TOPO C
NBU 1022-6G4BS,
NBU 1022-6G4CS, NBU 1022-6J1BS,
NBU 1022-6O1BS & NBU 1022-6J4CS
LOCATED IN SECTION 6, T10S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

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Phone 307-674-0609
Fax 307-674-0182

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| SCALE: 1" = 2,000ft | NAD83 USP Central | SHEET NO: 13 |
| DRAWN: TL | DATE: 30 Nov 2012 | 13 OF 17 |
| REVISED: | DATE: | |

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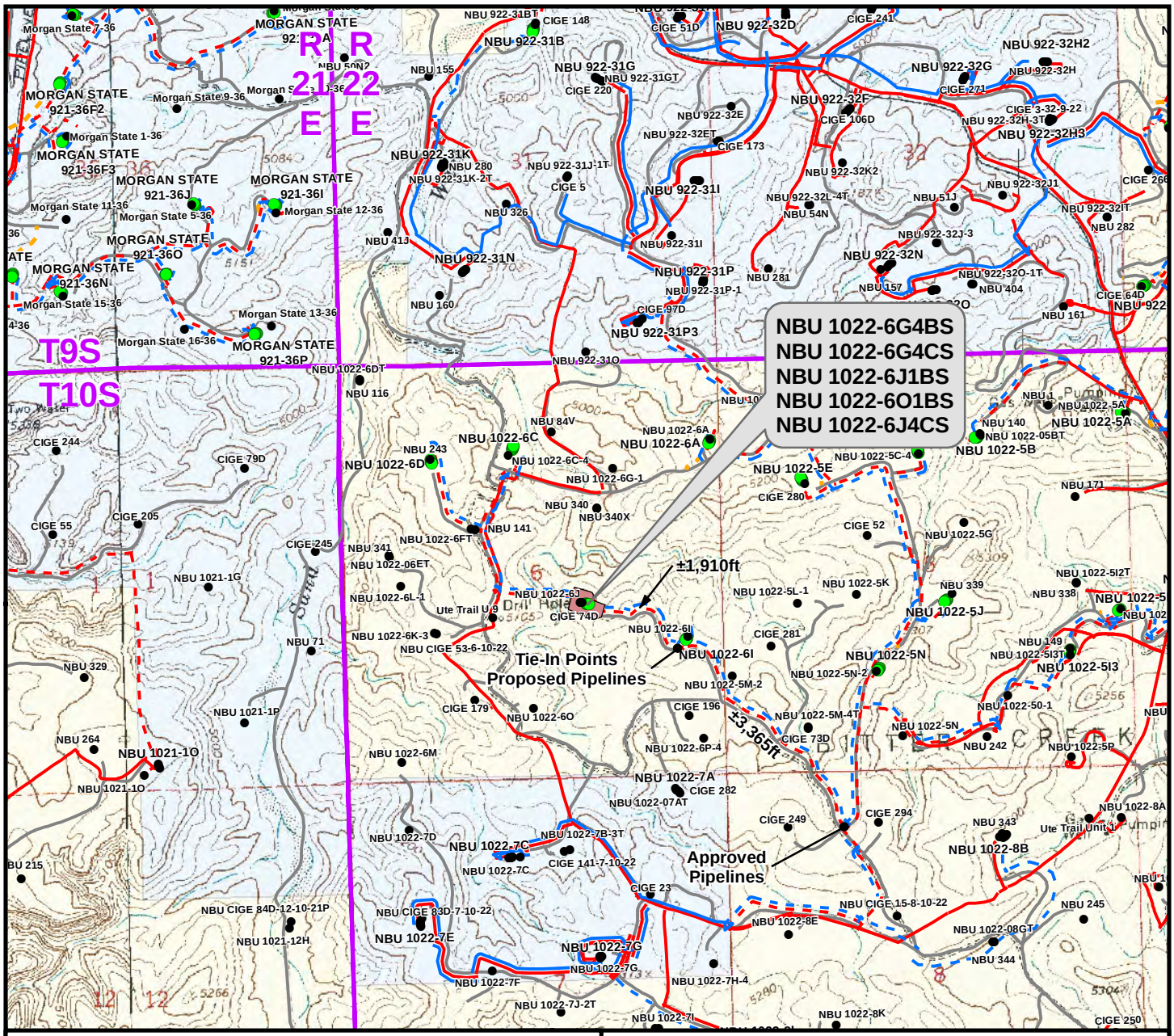
R 21 E
R 22 E
T9S
T10S
NBU 1022-6G4BS
NBU 1022-6G4CS
NBU 1022-6J1BS
NBU 1022-6O1BS
NBU 1022-6J4CS
±1,910ft
±3,365ft
Tie-In Points
Proposed Pipelines
Approved
Pipelines
Ute Trail U 9
Ute Trail Unit 1
Drill Hole
DRY CREEK
MORGAN STATE 921-36F2
MORGAN STATE 921-36F3
MORGAN STATE 921-36J
MORGAN STATE 921-36I
MORGAN STATE 921-36O
MORGAN STATE 921-36N
MORGAN STATE 921-36P
NBU 922-31B
NBU 922-31G
NBU 922-32D
NBU 922-32G
NBU 922-32H2
NBU 922-32F
NBU 922-31K
NBU 922-31I
NBU 922-31N
NBU 922-31P
NBU 922-31P3
NBU 922-32N
NBU 1022-6C
NBU 1022-6A
NBU 1022-6D
NBU 1022-5E
NBU 1022-5B
NBU 1022-5A
NBU 1022-6I
NBU 1022-5N
NBU 1022-5J
NBU 1022-7A
NBU 1022-7C
NBU 1022-7E
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NBU 1022-5I2T
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NBU 1022-5A
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NBU 1021-1P
NBU 1021-1G
NBU 1021-12H
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NBU CIGE 84D-12-10-21P
NBU CIGE 83D-7-10-22
NBU CIGE 15-8-10-22
CIGE 74D
CIGE 73D
CIGE 97D
CIGE 141-7-10-22
CIGE 3-32-9-22
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NBU 922-32H3
NBU 922-32H
NBU 922-32J1
NBU 922-32J-3
NBU 922-32O-1T
NBU 922-32L-4T
NBU 922-32K2
NBU 922-32ET
NBU 922-32E
NBU 922-31J-1T
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NBU 922-31T
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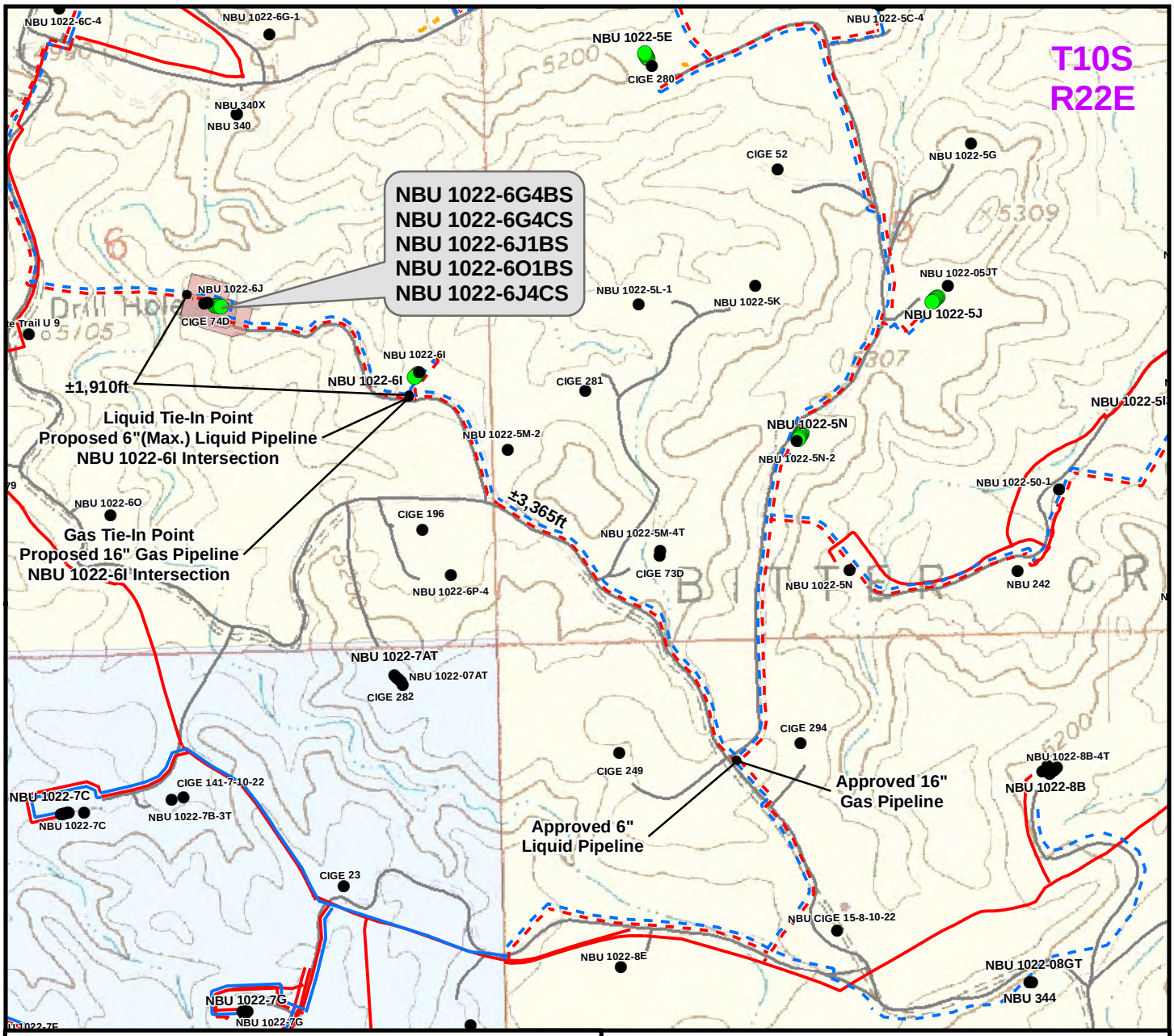


| Proposed Liquid Pipeline | Length |
|---|---|
| Buried 6"(Max.) (Separator to 1022-6D Intersection) | ±20ft |
| Buried 6"(Max.) (1022-6D Intersection to 1022-6I Intersection) | ±1,910ft |
| TOTAL PROPOSED BURIED LIQUID PIPELINE = | ±1,930ft |

| Proposed Gas Pipeline | Length |
|---|---|
| Buried 8" (Meter House to 1022-6D Intersection) | ±20ft |
| Buried 16" (1022-6D Intersection to 1022-6I Intersection) | ±1,910ft |
| TOTAL PROPOSED BURIED GAS PIPELINE = | ±1,930ft |

**Legend**

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

WELL PAD - NBU 1022-6J

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 1022-6G4BS,
NBU 1022-6G4CS, NBU 1022-6J1BS,
NBU 1022-6O1BS & NBU 1022-6J4CS
LOCATED IN SECTION 6, T10S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

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| SCALE: 1" = 1,000ft | NAD83 USP Central | SHEET NO: 15 |
| DRAWN: TL | DATE: 20 Sept 2012 | 15 OF 17 |
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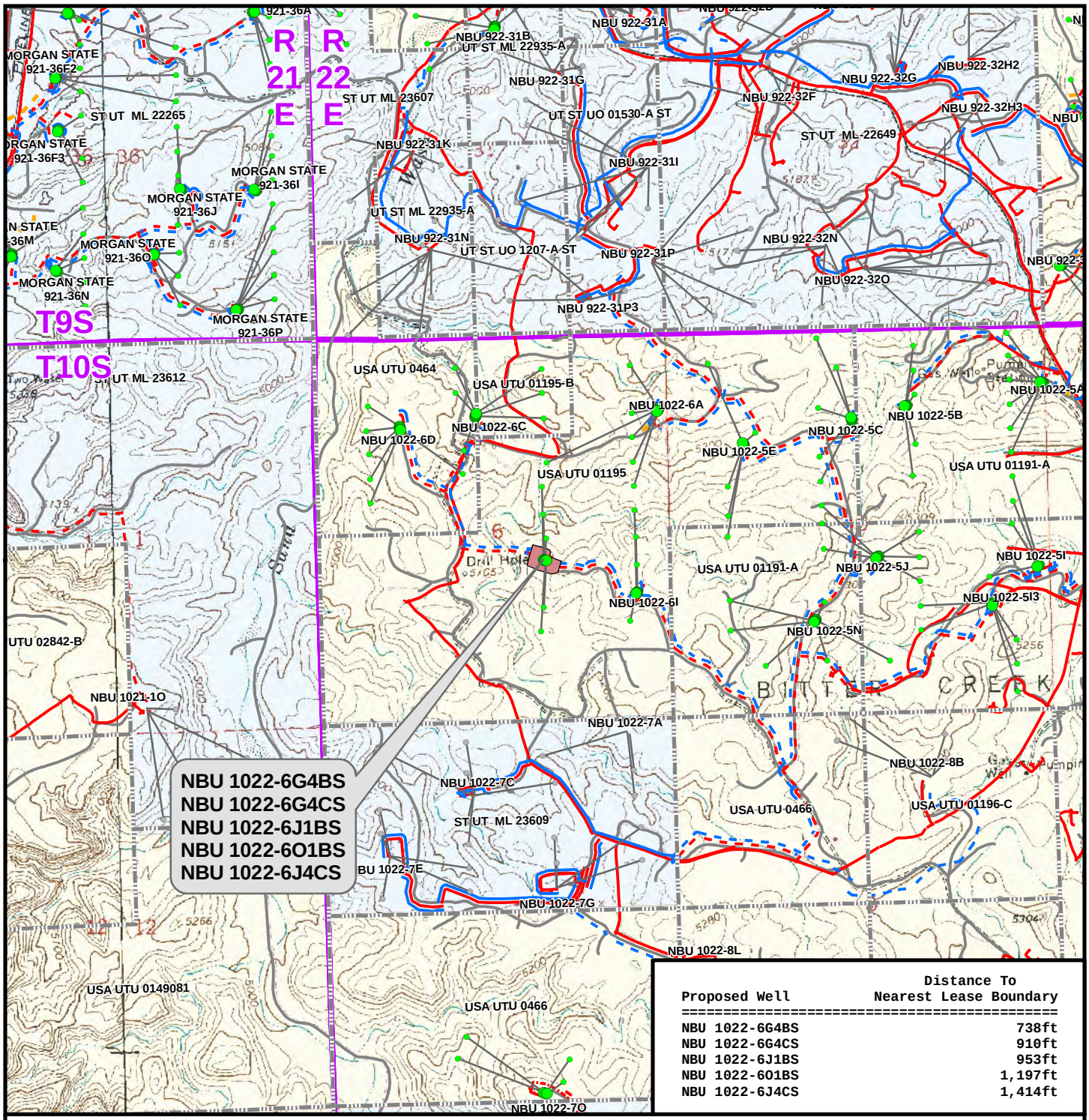



| Proposed Well | Distance To Nearest Lease Boundary |
|---|---|
| NBU 1022-6G4BS | 738ft |
| NBU 1022-6G4CS | 910ft |
| NBU 1022-6J1BS | 953ft |
| NBU 1022-6O1BS | 1,197ft |
| NBU 1022-6J4CS | 1,414ft |

**Legend**

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

File: K:\ANADARKO\2012\2012_54_NBU_1022-6_FOCUS\GIS\Maps_ABCDE\NBU 1022-6J\NBU 1022-6J_E.mxd, 12/12/2012 5:04:44 PM

# WELL PAD - NBU 1022-6J

TOPO E
NBU 1022-6G4BS,
NBU 1022-6G4CS, NBU 1022-6J1BS,
NBU 1022-6O1BS & NBU 1022-6J4CS
LOCATED IN SECTION 6, T10S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

**Kerr-McGee Oil & Gas Onshore L.P.**

1099 18th Street
Denver, Colorado 80202

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

N

| | | |
|---|---|---|
| SCALE: 1" = 2,000ft | NAD83 USP Central | SHEET NO: 16 |
| DRAWN: TL | DATE: 30 Nov 2012 | 16 OF 17 |
| REVISED: | DATE: | |

**Kerr-McGee Oil & Gas Onshore, LP**
**WELL PAD – NBU 1022-6J**
**WELLS - NBU 1022-6G4BS,**
**NBU 1022-6G4CS, NBU 1022-6J1BS,**
**NBU 1022-6O1BS, & NBU 1022-6J4CS**
**Section 6, T10S, R22E, S.L.B.&M.**

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.7 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 4.0 miles to a third Class D County Road to the northwest. Exit left and proceed in a northwesterly direction along the third Class D County Road approximately 0.4 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 46.7 miles in a southerly direction.



RECEIVED: May. 29, 2013

Scientific Drilling

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-6J PAD
Well: NBU 1022-6J4CS
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

T M

Azimuths to True North
Magnetic North: 10.86°

Magnetic Field
Strength: 52160.3snT
Dip Angle: 65.81°
Date: 2013/01/16
Model: IGRF2010

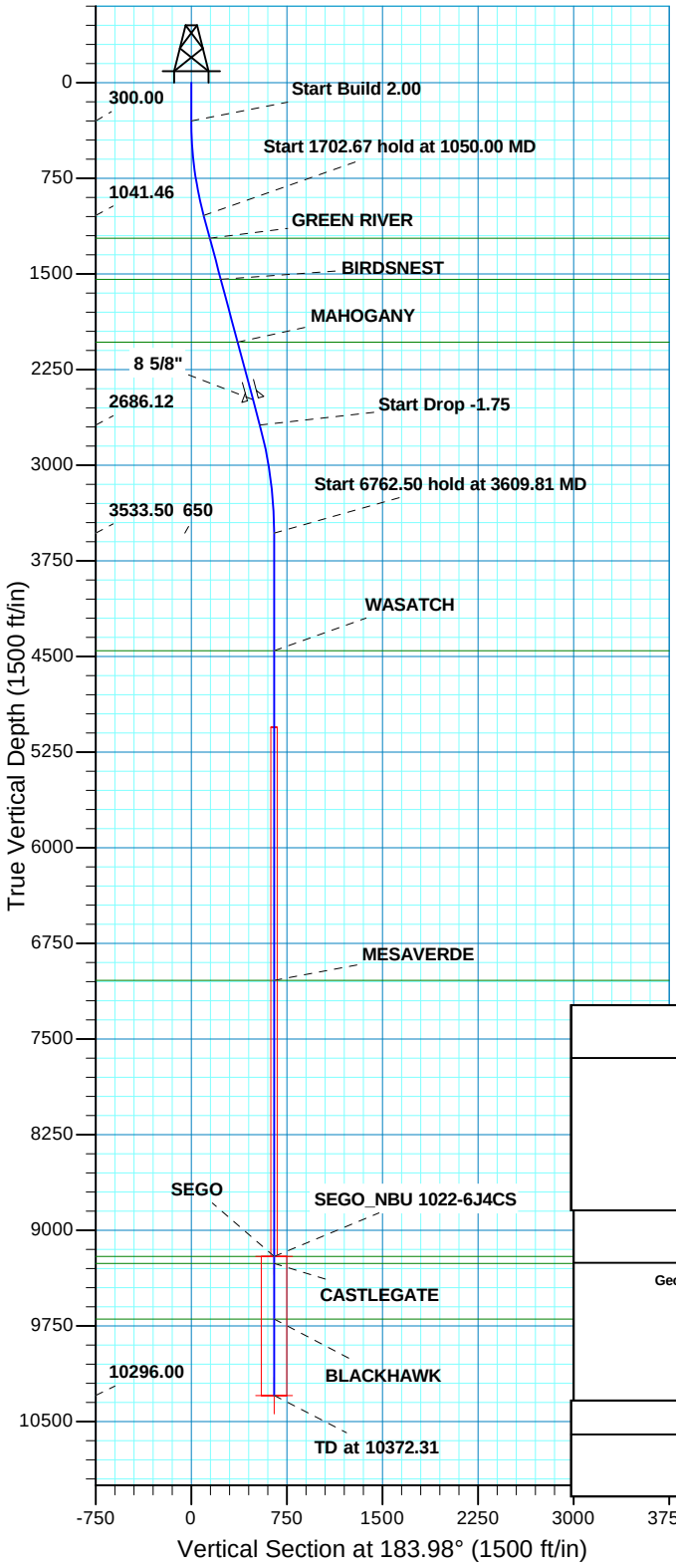
**WELL DETAILS: NBU 1022-6J4CS**

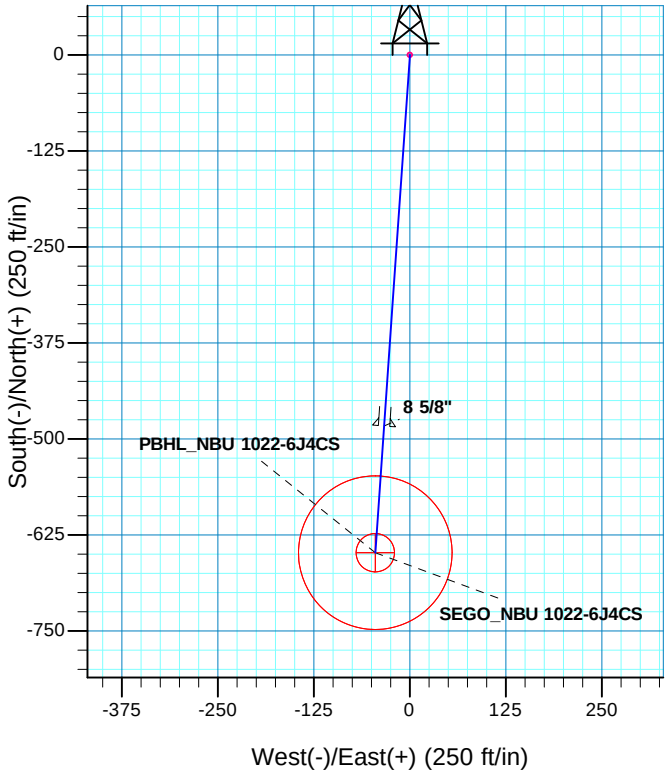
GL 5108 & KB 4 @ 5112.00ft (ASSUMED)

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|
| 0.00 | 0.00 | 14521207.64 | 2066657.81 | 39.9767308 | -109.4785750 |

**DESIGN TARGET DETAILS**

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Shape |
|---|---|---|---|---|---|---|---|---|
| SEGO | 9205.00 | -648.29 | -45.12 | 14520558.68 | 2066623.76 | 39.9749508 | -109.4787360 | Circle (Radius: 25.00) |
| - plan hits target center | | | | | | | | |
| PBHL | 10296.00 | -648.29 | -45.12 | 14520558.68 | 2066623.76 | 39.9749508 | -109.4787360 | Circle (Radius: 100.00) |
| - plan hits target center | | | | | | | | |




**SECTION DETAILS**

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1050.00 | 15.00 | 183.98 | 1041.46 | -97.38 | -6.78 | 2.00 | 183.98 | 97.62 | |
| 2752.67 | 15.00 | 183.98 | 2686.12 | -537.00 | -37.37 | 0.00 | 0.00 | 538.30 | |
| 3609.81 | 0.00 | 0.00 | 3533.50 | -648.29 | -45.12 | 1.75 | 180.00 | 649.86 | |
| 10372.31 | 0.00 | 0.00 | 10296.00 | -648.29 | -45.12 | 0.00 | 0.00 | 649.86 | PBHL_NBU 1022-6J4CS |

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

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 6 T10S R22E
System Datum: Mean Sea Level

**FORMATION TOP DETAILS**

| TVDPath | MDPath | Formation |
|---|---|---|
| 1220.00 | 1234.84 | GREEN RIVER |
| 1543.00 | 1569.23 | BIRDSNEST |
| 2035.00 | 2078.59 | MAHOGANY |
| 4455.00 | 4531.31 | WASATCH |
| 7040.00 | 7116.31 | MESAVERDE |
| 9205.00 | 9281.31 | SEGO |
| 9260.00 | 9336.31 | CASTLEGATE |
| 9696.00 | 9772.31 | BLACKHAWK |

**CASING DETAILS**

| TVD | MD | Name | Size |
|---|---|---|---|
| 2485.00 | 2544.46 | 8 5/8" | 8.625 |

Plan: PLAN #1 PRELIMINARY (NBU 1022-6J4CS/OH)

Created By: RobertScott Date: 12:02, January 16 2013

REC

Scientific Drilling

# US ROCKIES REGION PLANNING

**UTAH - UTM (feet), NAD27, Zone 12N**
**NBU 1022-6J PAD**
**NBU 1022-6J4CS**

**OH**

**Plan: PLAN #1 PRELIMINARY**

# Standard Planning Report

**16 January, 2013**

Anadarko Petroleum Corporation

RECEIVED: May. 29, 2013

Scientific Drilling

# SDI
## Planning Report

Anadarko Petroleum Corporation

| | | | |
|---|---|---|---|
| **Database:** | EDM5000-RobertS-Local | **Local Co-ordinate Reference:** | Well NBU 1022-6J4CS |
| **Company:** | US ROCKIES REGION PLANNING | **TVD Reference:** | GL 5108 & KB 4 @ 5112.00ft (ASSUMED) |
| **Project:** | UTAH - UTM (feet), NAD27, Zone 12N | **MD Reference:** | GL 5108 & KB 4 @ 5112.00ft (ASSUMED) |
| **Site:** | NBU 1022-6J PAD | **North Reference:** | True |
| **Well:** | NBU 1022-6J4CS | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | PLAN #1 PRELIMINARY | | |

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

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

**Site** NBU 1022-6J PAD, SECTION 6 T10S R22E

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 14,521,218.65 usft | **Latitude:** | 39.9767628 |
| **From:** | Lat/Long | **Easting:** | 2,066,619.50 usft | **Longitude:** | -109.4787110 |
| **Position Uncertainty:** | 0.00 ft | **Slot Radius:** | 13.200 in | **Grid Convergence:** | 0.98 ° |

**Well** NBU 1022-6J4CS, 2183 FSL 1708 FEL

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | -11.65 ft | **Northing:** | 14,521,207.65 usft | **Latitude:** | 39.9767308 |
| | **+E/-W** | 38.11 ft | **Easting:** | 2,066,657.81 usft | **Longitude:** | -109.4785750 |
| **Position Uncertainty** | | 0.00 ft | **Wellhead Elevation:** | | **Ground Level:** | 5,108.00 ft |

**Wellbore** OH

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | IGRF2010 | 2013/01/16 | 10.86 | 65.81 | 52,160 |

**Design** PLAN #1 PRELIMINARY

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | | **Phase:** | PLAN | **Tie On Depth:** | 0.00 |

| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
|---|---|---|---|---|
| | 0.00 | 0.00 | 0.00 | 183.98 |

**Plan Sections**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,050.00 | 15.00 | 183.98 | 1,041.46 | -97.38 | -6.78 | 2.00 | 2.00 | 0.00 | 183.98 | |
| 2,752.67 | 15.00 | 183.98 | 2,686.12 | -537.00 | -37.37 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3,609.81 | 0.00 | 0.00 | 3,533.50 | -648.29 | -45.12 | 1.75 | -1.75 | 0.00 | 180.00 | |
| 10,372.31 | 0.00 | 0.00 | 10,296.00 | -648.29 | -45.12 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL_NBU 1022-6J4 |



RECEIVED: May. 29, 2013

Scientific Drilling

# SDI
## Planning Report

Anadarko Petroleum Corporation

| | | | |
|---|---|---|---|
| **Database:** | EDM5000-RobertS-Local | **Local Co-ordinate Reference:** | Well NBU 1022-6J4CS |
| **Company:** | US ROCKIES REGION PLANNING | **TVD Reference:** | GL 5108 & KB 4 @ 5112.00ft (ASSUMED) |
| **Project:** | UTAH - UTM (feet), NAD27, Zone 12N | **MD Reference:** | GL 5108 & KB 4 @ 5112.00ft (ASSUMED) |
| **Site:** | NBU 1022-6J PAD | **North Reference:** | True |
| **Well:** | NBU 1022-6J4CS | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | PLAN #1 PRELIMINARY | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Start Build 2.00** | | | | | | | | | |
| 400.00 | 2.00 | 183.98 | 399.98 | -1.74 | -0.12 | 1.75 | 2.00 | 2.00 | 0.00 |
| 500.00 | 4.00 | 183.98 | 499.84 | -6.96 | -0.48 | 6.98 | 2.00 | 2.00 | 0.00 |
| 600.00 | 6.00 | 183.98 | 599.45 | -15.66 | -1.09 | 15.69 | 2.00 | 2.00 | 0.00 |
| 700.00 | 8.00 | 183.98 | 698.70 | -27.81 | -1.94 | 27.88 | 2.00 | 2.00 | 0.00 |
| 800.00 | 10.00 | 183.98 | 797.47 | -43.42 | -3.02 | 43.52 | 2.00 | 2.00 | 0.00 |
| 900.00 | 12.00 | 183.98 | 895.62 | -62.45 | -4.35 | 62.60 | 2.00 | 2.00 | 0.00 |
| 1,000.00 | 14.00 | 183.98 | 993.06 | -84.89 | -5.91 | 85.10 | 2.00 | 2.00 | 0.00 |
| 1,050.00 | 15.00 | 183.98 | 1,041.46 | -97.38 | -6.78 | 97.62 | 2.00 | 2.00 | 0.00 |
| **Start 1702.67 hold at 1050.00 MD** | | | | | | | | | |
| 1,100.00 | 15.00 | 183.98 | 1,089.76 | -110.29 | -7.68 | 110.56 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 15.00 | 183.98 | 1,186.35 | -136.11 | -9.47 | 136.44 | 0.00 | 0.00 | 0.00 |
| 1,234.84 | 15.00 | 183.98 | 1,220.00 | -145.10 | -10.10 | 145.45 | 0.00 | 0.00 | 0.00 |
| **GREEN RIVER** | | | | | | | | | |
| 1,300.00 | 15.00 | 183.98 | 1,282.94 | -161.93 | -11.27 | 162.32 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 15.00 | 183.98 | 1,379.54 | -187.75 | -13.07 | 188.20 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 15.00 | 183.98 | 1,476.13 | -213.57 | -14.86 | 214.08 | 0.00 | 0.00 | 0.00 |
| 1,569.23 | 15.00 | 183.98 | 1,543.00 | -231.44 | -16.11 | 232.00 | 0.00 | 0.00 | 0.00 |
| **BIRDSNEST** | | | | | | | | | |
| 1,600.00 | 15.00 | 183.98 | 1,572.72 | -239.39 | -16.66 | 239.97 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 15.00 | 183.98 | 1,669.31 | -265.21 | -18.46 | 265.85 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 15.00 | 183.98 | 1,765.91 | -291.03 | -20.25 | 291.73 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 15.00 | 183.98 | 1,862.50 | -316.85 | -22.05 | 317.61 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 15.00 | 183.98 | 1,959.09 | -342.66 | -23.85 | 343.49 | 0.00 | 0.00 | 0.00 |
| 2,078.59 | 15.00 | 183.98 | 2,035.00 | -362.96 | -25.26 | 363.83 | 0.00 | 0.00 | 0.00 |
| **MAHOGANY** | | | | | | | | | |
| 2,100.00 | 15.00 | 183.98 | 2,055.68 | -368.48 | -25.64 | 369.38 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 15.00 | 183.98 | 2,152.28 | -394.30 | -27.44 | 395.26 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 15.00 | 183.98 | 2,248.87 | -420.12 | -29.24 | 421.14 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 15.00 | 183.98 | 2,345.46 | -445.94 | -31.03 | 447.02 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 15.00 | 183.98 | 2,442.05 | -471.76 | -32.83 | 472.90 | 0.00 | 0.00 | 0.00 |
| 2,544.46 | 15.00 | 183.98 | 2,485.00 | -483.24 | -33.63 | 484.41 | 0.00 | 0.00 | 0.00 |
| **8 5/8"** | | | | | | | | | |
| 2,600.00 | 15.00 | 183.98 | 2,538.65 | -497.58 | -34.63 | 498.78 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 15.00 | 183.98 | 2,635.24 | -523.40 | -36.42 | 524.67 | 0.00 | 0.00 | 0.00 |
| 2,752.67 | 15.00 | 183.98 | 2,686.12 | -537.00 | -37.37 | 538.30 | 0.00 | 0.00 | 0.00 |
| **Start Drop -1.75** | | | | | | | | | |
| 2,800.00 | 14.17 | 183.98 | 2,731.92 | -548.89 | -38.20 | 550.22 | 1.75 | -1.75 | 0.00 |
| 2,900.00 | 12.42 | 183.98 | 2,829.23 | -571.83 | -39.80 | 573.22 | 1.75 | -1.75 | 0.00 |
| 3,000.00 | 10.67 | 183.98 | 2,927.21 | -591.80 | -41.18 | 593.23 | 1.75 | -1.75 | 0.00 |
| 3,100.00 | 8.92 | 183.98 | 3,025.74 | -608.77 | -42.37 | 610.25 | 1.75 | -1.75 | 0.00 |
| 3,200.00 | 7.17 | 183.98 | 3,124.76 | -622.74 | -43.34 | 624.24 | 1.75 | -1.75 | 0.00 |
| 3,300.00 | 5.42 | 183.98 | 3,224.15 | -633.68 | -44.10 | 635.21 | 1.75 | -1.75 | 0.00 |
| 3,400.00 | 3.67 | 183.98 | 3,323.83 | -641.59 | -44.65 | 643.14 | 1.75 | -1.75 | 0.00 |
| 3,500.00 | 1.92 | 183.98 | 3,423.71 | -646.45 | -44.99 | 648.02 | 1.75 | -1.75 | 0.00 |
| 3,600.00 | 0.17 | 183.98 | 3,523.69 | -648.28 | -45.12 | 649.84 | 1.75 | -1.75 | 0.00 |
| 3,609.81 | 0.00 | 0.00 | 3,533.50 | -648.29 | -45.12 | 649.86 | 1.75 | -1.75 | 0.00 |
| **Start 6762.50 hold at 3609.81 MD** | | | | | | | | | |
| 3,700.00 | 0.00 | 0.00 | 3,623.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |



RECEIVED: May. 29, 2013

Scientific Drilling

**SDI**

Planning Report

Anadarko Petroleum Corporation

| | | | |
|---|---|---|---|
| **Database:** | EDM5000-RobertS-Local | **Local Co-ordinate Reference:** | Well NBU 1022-6J4CS |
| **Company:** | US ROCKIES REGION PLANNING | **TVD Reference:** | GL 5108 & KB 4 @ 5112.00ft (ASSUMED) |
| **Project:** | UTAH - UTM (feet), NAD27, Zone 12N | **MD Reference:** | GL 5108 & KB 4 @ 5112.00ft (ASSUMED) |
| **Site:** | NBU 1022-6J PAD | **North Reference:** | True |
| **Well:** | NBU 1022-6J4CS | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | PLAN #1 PRELIMINARY | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 3,800.00 | 0.00 | 0.00 | 3,723.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 0.00 | 0.00 | 3,823.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 0.00 | 0.00 | 3,923.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 0.00 | 0.00 | 4,023.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 0.00 | 0.00 | 4,123.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 0.00 | 0.00 | 4,223.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 0.00 | 0.00 | 4,323.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 0.00 | 0.00 | 4,423.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 4,531.31 | 0.00 | 0.00 | 4,455.00 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| **WASATCH** | | | | | | | | | |
| 4,600.00 | 0.00 | 0.00 | 4,523.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 0.00 | 0.00 | 4,623.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 0.00 | 0.00 | 4,723.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 0.00 | 0.00 | 4,823.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 0.00 | 0.00 | 4,923.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 0.00 | 0.00 | 5,023.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 0.00 | 0.00 | 5,123.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 0.00 | 0.00 | 5,223.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 0.00 | 0.00 | 5,323.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 0.00 | 0.00 | 5,423.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 0.00 | 0.00 | 5,523.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 0.00 | 0.00 | 5,623.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 0.00 | 0.00 | 5,723.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 0.00 | 0.00 | 5,823.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 0.00 | 0.00 | 5,923.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 0.00 | 0.00 | 6,023.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 0.00 | 0.00 | 6,123.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.00 | 0.00 | 6,223.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.00 | 0.00 | 6,323.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 0.00 | 0.00 | 6,423.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 0.00 | 0.00 | 6,523.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 0.00 | 0.00 | 6,623.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 0.00 | 0.00 | 6,723.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 0.00 | 0.00 | 6,823.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 0.00 | 0.00 | 6,923.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 7,100.00 | 0.00 | 0.00 | 7,023.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 7,116.31 | 0.00 | 0.00 | 7,040.00 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| **MESAVERDE** | | | | | | | | | |
| 7,200.00 | 0.00 | 0.00 | 7,123.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 7,300.00 | 0.00 | 0.00 | 7,223.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 7,400.00 | 0.00 | 0.00 | 7,323.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 7,500.00 | 0.00 | 0.00 | 7,423.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 0.00 | 0.00 | 7,523.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 0.00 | 0.00 | 7,623.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 0.00 | 0.00 | 7,723.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 0.00 | 0.00 | 7,823.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 0.00 | 0.00 | 7,923.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 0.00 | 0.00 | 8,023.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 0.00 | 0.00 | 8,123.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 0.00 | 0.00 | 8,223.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 0.00 | 0.00 | 8,323.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 0.00 | 0.00 | 8,423.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 0.00 | 0.00 | 8,523.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 0.00 | 0.00 | 8,623.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |



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Scientific Drilling

# SDI
## Planning Report

Anadarko Petroleum Corporation

| | | | |
|---|---|---|---|
| **Database:** | EDM5000-RobertS-Local | **Local Co-ordinate Reference:** | Well NBU 1022-6J4CS |
| **Company:** | US ROCKIES REGION PLANNING | **TVD Reference:** | GL 5108 & KB 4 @ 5112.00ft (ASSUMED) |
| **Project:** | UTAH - UTM (feet), NAD27, Zone 12N | **MD Reference:** | GL 5108 & KB 4 @ 5112.00ft (ASSUMED) |
| **Site:** | NBU 1022-6J PAD | **North Reference:** | True |
| **Well:** | NBU 1022-6J4CS | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | PLAN #1 PRELIMINARY | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 8,800.00 | 0.00 | 0.00 | 8,723.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 0.00 | 0.00 | 8,823.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 0.00 | 0.00 | 8,923.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 0.00 | 0.00 | 9,023.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 0.00 | 0.00 | 9,123.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 9,281.31 | 0.00 | 0.00 | 9,205.00 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| **SEGO - SEGO_NBU 1022-6J4CS** | | | | | | | | | |
| 9,300.00 | 0.00 | 0.00 | 9,223.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 9,336.31 | 0.00 | 0.00 | 9,260.00 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| **CASTLEGATE** | | | | | | | | | |
| 9,400.00 | 0.00 | 0.00 | 9,323.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 0.00 | 0.00 | 9,423.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 0.00 | 0.00 | 9,523.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 0.00 | 0.00 | 9,623.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 9,772.31 | 0.00 | 0.00 | 9,696.00 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| **BLACKHAWK** | | | | | | | | | |
| 9,800.00 | 0.00 | 0.00 | 9,723.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 0.00 | 0.00 | 9,823.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 0.00 | 0.00 | 9,923.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 0.00 | 0.00 | 10,023.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 0.00 | 0.00 | 10,123.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 0.00 | 0.00 | 10,223.69 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| 10,372.31 | 0.00 | 0.00 | 10,296.00 | -648.29 | -45.12 | 649.86 | 0.00 | 0.00 | 0.00 |
| **TD at 10372.31 - PBHL_NBU 1022-6J4CS** | | | | | | | | | |

**Design Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| SEGO_NBU 1022-6J4C<br>- plan hits target center<br>- Circle (radius 25.00) | 0.00 | 0.00 | 9,205.00 | -648.29 | -45.12 | 14,520,558.68 | 2,066,623.76 | 39.9749508 | -109.4787360 |
| PBHL_NBU 1022-6J4C<br>- plan hits target center<br>- Circle (radius 100.00) | 0.00 | 0.00 | 10,296.00 | -648.29 | -45.12 | 14,520,558.68 | 2,066,623.76 | 39.9749508 | -109.4787360 |

**Casing Points**

| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (in) | Hole Diameter (in) |
|---|---|---|---|---|
| 2,544.46 | 2,485.00 | 8 5/8" | 8.625 | 11.000 |



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Scientific Drilling

# SDI
Planning Report

Anadarko Petroleum Corporation

| | | | |
|---|---|---|---|
| **Database:** | EDM5000-RobertS-Local | **Local Co-ordinate Reference:** | Well NBU 1022-6J4CS |
| **Company:** | US ROCKIES REGION PLANNING | **TVD Reference:** | GL 5108 & KB 4 @ 5112.00ft (ASSUMED) |
| **Project:** | UTAH - UTM (feet), NAD27, Zone 12N | **MD Reference:** | GL 5108 & KB 4 @ 5112.00ft (ASSUMED) |
| **Site:** | NBU 1022-6J PAD | **North Reference:** | True |
| **Well:** | NBU 1022-6J4CS | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | PLAN #1 PRELIMINARY | | |

**Formations**

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---|---|---|---|---|---|
| 1,234.84 | 1,220.00 | GREEN RIVER | | | |
| 1,569.23 | 1,543.00 | BIRDSNEST | | | |
| 2,078.59 | 2,035.00 | MAHOGANY | | | |
| 4,531.31 | 4,455.00 | WASATCH | | | |
| 7,116.31 | 7,040.00 | MESAVERDE | | | |
| 9,281.31 | 9,205.00 | SEGO | | | |
| 9,336.31 | 9,260.00 | CASTLEGATE | | | |
| 9,772.31 | 9,696.00 | BLACKHAWK | | | |

**Plan Annotations**

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates +N/-S (ft) | Local Coordinates +E/-W (ft) | Comment |
|---|---|---|---|---|
| 300.00 | 300.00 | 0.00 | 0.00 | Start Build 2.00 |
| 1,050.00 | 1,041.46 | -97.38 | -6.78 | Start 1702.67 hold at 1050.00 MD |
| 2,752.67 | 2,686.12 | -537.00 | -37.37 | Start Drop -1.75 |
| 3,609.81 | 3,533.50 | -648.29 | -45.12 | Start 6762.50 hold at 3609.81 MD |
| 10,372.31 | 10,296.00 | -648.29 | -45.12 | TD at 10372.31 |



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# Kerr-McGee Oil & Gas Onshore. L.P.

## NBU 1022-6J PAD

| | | | |
|---|---|---|---|
| **API #** | | **NBU 1022-6G4BS** | |
| | Surface: | 2195 FSL / 1746 FEL | NWSE |
| | BHL: | 2094 FNL / 1731 FEL | SWNE |
| **API #** | | **NBU 1022-6G4CS** | |
| | Surface: | 2192 FSL / 1737 FEL | NWSE |
| | BHL: | 2480 FNL / 1726 FEL | SWNE |
| **API #** | | **NBU 1022-6J1BS** | |
| | Surface: | 2189 FSL / 1727 FEL | NWSE |
| | BHL: | 2497 FSL / 1695 FEL | NWSE |
| **API #4304750685** | | **NBU 1022-6J4CS** | |
| | Surface: | 2183 FSL / 1708 FEL | NWSE |
| | BHL: | 1535 FSL / 1760 FEL | NWSE |
| **API #4304750686** | | **NBU 1022-6O1BS** | |
| | Surface: | 2186 FSL / 1718 FEL | NWSE |
| | BHL: | 1197 FSL / 1811 FEL | SWSE |

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

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

An on-site meeting was held on October 10, 2012. Present were:

- Dave Gordon, Melissa Wardle, Aaron Roe and Lynn Dehner - BLM
- Jacob Dunham and Mitch Batty - 609 Consulting, LLC and Timberline Engineering & Land Surveying, Inc.
- Alan Rabinoff- ICF International
- Gina Becker, Tony Kazeck, Casey McKee, Charles Chase and Robert Townley- Kerr-McGee

**A. Existing Roads:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Topo B for existing roads.

**B. New or Reconstructed Access Roads:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

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**There are no new or road re-routes planned for this pad.**

**C. Location of Existing Wells:**

Please refer to Topo C for exiting wells.

**D. Location of Existing and/or Proposed Facilities:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

This pad will expand the existing pad for the NBU 1022-6J, which is a producing gas well and the CIGE 74D, which is a plugged and abandoned location according to Utah Division of Oil, Gas and Mining (UDOGM) records on January 18, 2013. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

**GAS GATHERING**

*Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.*

The total gas gathering pipeline distance from the meter to the tie in point is ±5,295’ and the individual segments are broken up as follows:

**The following segments are "onlease", no ROW needed.**

±20’ (0.004 miles) – Section 6 T10S R22E (NW/4 SE/4) – On-lease UTU-01195, BLM surface, New 8” buried gas gathering pipeline from the meter to the proposed new 16" buried gas gathering pipeline at the NBU 1022-6D intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

±1,910’ (0.4 miles) – Section 6 T10S R22E (NW/4 SE/4) – On-lease UTU-01195, BLM surface, New 16” buried gas gathering pipeline from the NBU 1022-6D intersection traveling southeast to the NBU 1022-6I Pad intersection. This pipeline runs concurrently with the NBU 1022-6C and 1022-6D Pads. Please refer to Exhibit A, Line 2.

±3,365’ (0.6 miles) – Section 6 T10S R22E (NE/4 SE/4) – On-lease UTU-01195, UTU-01191-A & UTU-466, BLM surface, New 16” buried gas gathering pipeline from the NBU 1022-6I intersection traveling southeast to the tie-in point at the approved 16" buried gas gathering pipeline in the NE/4 NW/4, Section 8, T10S-R22E. This pipeline runs concurrently with the NBU 1022-6C, 1022-6D and 1022-6I Pads. Please refer to Exhibit A, Line 1.

**LIQUID GATHERING**

*Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.*

The total liquid gathering pipeline distance from the separator to the tie in point is ±5,295’ and the individual segments are broken up as follows:

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**The following segments are "onlease", no ROW needed.**

±20' (0.004 miles) – Section 6 T10S R22E (NW/4 SE/4) – On-lease UTU-01195, BLM surface, New 6" buried liquid gathering pipeline from the meter to the proposed new 16" buried liquid gathering pipeline at the NBU 1022-6D intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

±1,910' (0.4 miles) – Section 6 T10S R22E (NW/4 SE/4) – On-lease UTU-01195, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-6D intersection traveling southeast to the NBU 1022-6I Pad intersection. This pipeline runs concurrently with the NBU 1022-6C and 1022-6D Pads. Please refer to Exhibit B, Line 2.

±3,365' (0.6 miles) – Section 6 T10S R22E (NE/4 SE/4) – On-lease UTU-01195, UTU-01191-A & UTU-466, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-6I intersection traveling southeast to the tie-in point at the approved 6" buried liquid gathering pipeline in the NE/4 NW/4, Section 8, T10S-R22E. This pipeline runs concurrently with the NBU 1022-6C, 1022-6D and 1022-6I Pads. Please refer to Exhibit B, Line 1.

**Pipeline Gathering Construction**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**The Anadarko Completions Transportation System (ACTS) information:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Exhibit C for ACTS Lines

**E. Location and Types of Water Supply:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

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

**F. Construction Materials:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**G. Methods for Handling Waste:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Materials Management**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**H. Ancillary Facilities:**

No additional ancillary facilities are planned for this location.

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**I. Well Site Layout:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**J. Plans for Surface Reclamation:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Interim Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Final Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Measures Common to Interim and Final Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Weed Control**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Monitoring**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**K. Surface/Mineral Ownership:**

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

**L. Other Information:**

**Cultural and Paleontological Resources**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Resource Reports:**

A Class I literature survey was completed on October 31, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 12-311.

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A paleontological reconnaissance survey was completed on May 31, 2010 by IPC Block Survey. SWCA Environmental Consultants has prepared the survey report. For additional details please refer to report UT12-14314-207.

Biological field survey was completed on October 16, 2012 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-861.

**Proposed Action Annual Emissions Tables:**

Please refer to the Appendix in the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

RECEIVED: May. 29, 2013

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

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

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

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

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

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

Bond coverage 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.

Gina T.Becker

January 21, 2013
Date

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

FORM 9

**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU 01195

## SUNDRY NOTICES AND REPORTS ON WELLS

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

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

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

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 1022-6J4CS

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

**9. API NUMBER:** 43047506850000

**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:** 2183 FSL 1708 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 06 Township: 10.0S Range: 22.0E Meridian: S

**COUNTY:** UINTAH

**STATE:** UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT<br>Approximate date work will start: 9/1/2013 | ☐ 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, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

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

**Date:** August 15, 2013

**By:**

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Teena Paulo | 720 929-6236 | Staff Regulatory Specialist |

| SIGNATURE | DATE |
|---|---|
| N/A | 8/13/2013 |

RECEIVED: Aug. 13, 2013

## The Utah Division of Oil, Gas, and Mining

**- State of Utah**
**- Department of Natural Resources**

**Electronic Permitting System - Sundry Notices**

## Request for Permit Extension Validation Well Number 43047506850000

**API:** 43047506850000
**Well Name:** NBU 1022-6J4CS
**Location:** 2183 FSL 1708 FEL QTR SWSE SEC 06 TWNP 100S RNG 220E MER S
**Company Permit Issued to:** KERR-MCGEE OIL & GAS ONSHORE, L.P.
**Date Original Permit Issued:** 9/1/2009

**The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.**

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

**Signature:** Teena Paulo **Date:** 8/13/2013
**Title:** Staff Regulatory Specialist **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Aug. 13, 2013

FORM 9

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

**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU 01195

## SUNDRY NOTICES AND REPORTS ON WELLS

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

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

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

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 1022-6J4CS

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

**9. API NUMBER:** 43047506850000

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

**PHONE NUMBER:** 720 929-6100

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

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 2183 FSL 1708 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 06 Township: 10.0S Range: 22.0E Meridian: S

**COUNTY:** UINTAH

**STATE:** UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT<br>Approximate date work will start: 9/1/2014 | ☐ 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, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining
August 11, 2014
Date:
By:

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Teena Paulo | 720 929-6236 | Staff Regulatory Specialist |
| **SIGNATURE** N/A | | **DATE** 8/7/2014 |

RECEIVED: Aug. 07, 2014

## The Utah Division of Oil, Gas, and Mining

**- State of Utah**
**- Department of Natural Resources**

**Electronic Permitting System - Sundry Notices**

## Request for Permit Extension Validation Well Number 43047506850000

**API:** 43047506850000
**Well Name:** NBU 1022-6J4CS
**Location:** 2183 FSL 1708 FEL QTR SWSE SEC 06 TWNP 100S RNG 220E MER S
**Company Permit Issued to:** KERR-MCGEE OIL & GAS ONSHORE, L.P.
**Date Original Permit Issued:** 9/1/2009

**The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.**

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

**Signature:** Teena Paulo **Date:** 8/7/2014
**Title:** Staff Regulatory Specialist **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Aug. 07, 2014

Form 3160-5
(August 2007)

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAY 08 2015

BLM

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**
***Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***

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

5. Lease Serial No.
UTU01195

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
UTU63047A

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
NBU 1022-6J4CS

2. Name of Operator
KERR MCGEE OIL & GAS ONSHORE
Contact: JENNIFER THOMAS
E-Mail: JENNIFER.THOMAS@ANADARKO.COM

9. API Well No.
43-047-50685

3a. Address
P.O. BOX 173779 1099 18TH STREET, SUITE 600
DENVER, CO 80217

3b. Phone No. (include area code)
Ph: 720-929-6808

10. Field and Pool, or Exploratory
NATURAL BUTTES

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 6 T10S R22E Mer SLB SWSE

11. County or Parish, and State
UINTAH COUNTY, UT

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

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

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

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

APD - 6/10/13
NEPA - 2013-179 EA

RECEIVED
JUN 15 2015
DIV. OF OIL, GAS & MINING

VERNAL FIELD OFFICE
ENG. RHH 6/3/15
GEOL.
E.S.
PET.
RECL.

**CONDITIONS OF APPROVAL ATTACHED**

14. I hereby certify that the foregoing is true and correct.
**Electronic Submission #301201 verified by the BLM Well Information System**
**For KERR MCGEE OIL & GAS ONSHORE, sent to the Vernal**
**Committed to AFMSS for processing by JOHNETTA MAGEE on 05/12/2015 ()**

Name *(Printed/Typed)* JENNIFER THOMAS — Title REGULATORY SPECIALIST

Signature (Electronic Submission) — Date 05/08/2015

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By — Title ~~Assistant Field Manager~~ Lands & Mineral Resources — JUN 05 2015

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

Office **VERNAL FIELD OFFICE**

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

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

UDOGM

# CONDITIONS OF APPROVAL

## Kerr McGee Oil and Gas Onshore LP.

### Notice of Intent
### APD Extension

**Lease:** UTU-01195
**Well:** NBU 1022-6J4CS
**Location:** SWSE Sec 6-T10S-R22E

An extension for the referenced APD is granted with the following conditions:

---

1. The extension and APD shall expire on 06/10/2017.

2. No other extension shall be granted.

If you have any other questions concerning this matter, please contact Robin L Hansen of this office at (435) 781-2777

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

FORM 9

**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU 01195

## SUNDRY NOTICES AND REPORTS ON WELLS

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

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

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

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 1022-6J4CS

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

**9. API NUMBER:** 43047506850000

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

**PHONE NUMBER:** 720 929-6100

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

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 2183 FSL 1708 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 06 Township: 10.0S Range: 22.0E Meridian: S

**COUNTY:** UINTAH

**STATE:** UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT<br>Approximate date work will start: 8/14/2015 | ☐ 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, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining
August 17, 2015
Date:
By:

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Jennifer Thomas | 720 929-6808 | Regulatory Specialist |
| **SIGNATURE** N/A | | **DATE** 8/14/2015 |

RECEIVED: Aug. 14, 2015

**The Utah Division of Oil, Gas, and Mining**

**- State of Utah**
**- Department of Natural Resources**

**Electronic Permitting System - Sundry Notices**

## Request for Permit Extension Validation Well Number 43047506850000

**API:** 43047506850000
**Well Name:** NBU 1022-6J4CS
**Location:** 2183 FSL 1708 FEL QTR SWSE SEC 06 TWNP 100S RNG 220E MER S
**Company Permit Issued to:** KERR-MCGEE OIL & GAS ONSHORE, L.P.
**Date Original Permit Issued:** 9/1/2009

**The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.**

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

**Signature:** Jennifer Thomas **Date:** 8/14/2015
**Title:** Regulatory Specialist **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Aug. 14, 2015

FORM 9

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

**5.LEASE DESIGNATION AND SERIAL NUMBER:** UTU 01195

## SUNDRY NOTICES AND REPORTS ON WELLS

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

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

**1. TYPE OF WELL** Gas Well

**8. WELL NAME and NUMBER:** NBU 1022-6J4CS

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

**9. API NUMBER:** 43047506850000

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

**PHONE NUMBER:** 720 929-6404 EXT

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

**4. LOCATION OF WELL**
**FOOTAGES AT SURFACE:** 2183 FSL 1708 FEL
**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:** Qtr/Qtr: SWSE Section: 06 Township: 10.0S Range: 22.0E Meridian: S

**COUNTY:** UINTAH

**STATE:** UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ✓ NOTICE OF INTENT<br>Approximate date work will start: 8/30/2016 | ☐ 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, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining
August 31, 2016
Date:
By:

| NAME (PLEASE PRINT) | PHONE NUMBER | TITLE |
|---|---|---|
| Joel Malefyt | 720 929-6828 | Regualtory Analyst |

| SIGNATURE | DATE |
|---|---|
| N/A | 8/30/2016 |

RECEIVED: Aug. 30, 2016

## The Utah Division of Oil, Gas, and Mining

**- State of Utah**
**- Department of Natural Resources**

**Electronic Permitting System - Sundry Notices**

## Request for Permit Extension Validation Well Number 43047506850000

**API:** 43047506850000
**Well Name:** NBU 1022-6J4CS
**Location:** 2183 FSL 1708 FEL QTR SWSE SEC 06 TWNP 100S RNG 220E MER S
**Company Permit Issued to:** KERR-MCGEE OIL & GAS ONSHORE, L.P.
**Date Original Permit Issued:** 9/1/2009

**The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.**

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- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

**Signature:** Joel Malefyt **Date:** 8/30/2016
**Title:** Regualtory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Aug. 30, 2016