

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

5. Lease Serial No. <b>UTU-0464</b>	
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No. <b>UNIT #891008900A</b>	
8. Lease Name and Well No. <b>NBU 1022-6C-4</b>	
9. API Well No. <b>43-047-38528</b>	
1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER	10. Field and Pool, or Exploratory <b>NATURAL BUTTES</b>
b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone	11. Sec., T., R., M., or Blk, and Survey or Area <b>SEC. 6, T10S, R22E</b>
2. Name of Operator <b>KERR MCGEE OIL &amp; GAS ONSHORE LP</b>	12. County or Parish <b>UINTAH</b>
3A. Address <b>1368 SOUTH 1200 EAST VERNAL, UT 84078</b>	13. State <b>UTAH</b>
3b. Phone No. (include area code) <b>(435) 781-7024</b>	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface <b>NENW 1178'FNL, 2192'FNL LOT 3</b> At proposed prod. Zone <b>W</b>	
14. Distance in miles and direction from nearest town or post office* <b>21 MILES SOUTHEAST OF OURAY, UTAH</b>	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>1178'</b>	16. No. of Acres in lease <b>206.97</b>
18. Distance from proposed* location to nearest well, drilling, completed, applied for, on this lease, ft. <b>REFER TO TOPO C</b>	17. Spacing Unit dedicated to this well <b>20.00</b>
19. Proposed Depth <b>9110'</b>	20. BLM/BIA Bond No. on file <b>BOND NO: WY-2357</b>
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>4983'UNGRADED GL</b>	22. Approximate date work will start*
	23. Estimated duration

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.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).   |
| 2. A Drilling Plan.   | 5. Operator certification.  |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized office. |

25. Signature 	Name (Printed/Typed) <b>SHEILA UPCHEGO</b>	Date <b>8/16/2006</b>
Title <b>REGULATORY ANALYST</b>		
Approved by (Signature) 	Name (Printed/Typed) <b>BRADLEY G. HILL</b>	Date <b>08-29-06</b>
Title <b>ENVIRONMENTAL MANAGER</b>		

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

Conditions of approval, if any, are attached.

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

\*(Instructions on reverse)

Federal Approval of this  
Action is Necessary

RECEIVED

AUG 28 2006

DIV. OF OIL, GAS & MINING



NBU #1022-6C-4  
SWNENW LOT 3, SEC 6-T10S-R22E  
UINTAH COUNTY, UTAH  
UTU-0464

ONSHORE ORDER NO. 1

*DRILLING PROGRAM*

1. Estimated Tops of Important Geologic Markers:

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1165'
Top of Birds Nest Water	1489'
Mahogany	2122'
Wasatch	4392'
Mesaverde	6979'
MVU2	7882'
MVL1	8497'
TD	9110'

2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River	1165'
	Top of Birds Nest Water	1489'
	Mahogany	2122'
Gas	Wasatch	4392'
Gas	Mesaverde	6979'
Gas	MVU2	7882'
Gas	MVL1	8497'
Water	N/A	
Other Minerals	N/A	

3. Pressure Control Equipment (Schematic Attached)

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

4. Proposed Casing & Cementing Program:

*Please see the Natural Buttes Unit SOP.*

5. Drilling Fluids Program:

*Please see the Natural Buttes Unit SOP.*

6. Evaluation Program:

*Please see the Natural Buttes Unit SOP.*

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 9110' TD, approximately equals 5648 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3644 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. **Variations:**

*Please see Natural Buttes Unit SOP.*

10. **Other Information:**

*Please see Natural Buttes Unit SOP.*



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE August 16, 2006  
 WELL NAME NBU 1022-6C-4 TD 9,110' MD/TVD  
 FIELD Natural Buttes COUNTY Uintah STATE Utah ELEVATION 4,983' GL KB 4,998'  
 SURFACE LOCATION SWNENW SECTION 6, T10S, R22E 1178'FNL, 2192'FNL BHL Straight Hole  
 Latitude: 39.982033 Longitude: 109.482814  
 OBJECTIVE ZONE(S) Wasatch/Mesaverde  
 ADDITIONAL INFO Regulatory Agencies: BLM (SURF & MINERALS), UDOGM, Tri-County Health Dept.

GEOLOGICAL FORMATION			MECHANICAL		
LOGS	TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			12-1/4"	9-5/8", 32.3#, H-40, STC	Air mist
Catch water sample, if possible, from 0 to <b>4,392'</b> <div style="margin-left: 40px;"> <b>Green River @ 1,165'</b>  <b>Top of Birds Nest Water @ 1489'</b>    <b>Preset f/ GL @ 1,990' MD</b> </div>					
Note: 12.25" surface hole will usually be drilled ±400' below the bottom of lost circulation zone. Drilled depth may be ±200' of the estimated set depth depending on the actual depth of the loss zone.					
	<b>Mahogany @</b>	<b>2,122'</b>			Water/Fresh Water Mud
Mud logging program TBD Open hole logging program f/ TD - surf csg			7-7/8"	4-1/2", 11.6#, I-80 or equivalent LTC casing	8.3-11.5 ppg
	<b>Wasatch @</b>	<b>4,392'</b>			
	<b>Mverde @</b>	<b>6,979'</b>			
	<b>MVU2 @</b>	<b>7,882'</b>			
	<b>MVL1 @</b>	<b>8,497'</b>			
		<b>TD @ 9,110'</b>			Max anticipated Mud required 11.5 ppg



**KERR-McGEE OIL & GAS ONSHORE LP**  
**DRILLING PROGRAM**

**CASING PROGRAM**

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				.2270	1370	254000
SURFACE	9-5/8"	0 to 1990	32.30	H-40	STC	0.66*****	1.47	4.51
PRODUCTION	4-1/2"	0 to 9110	11.60	I-80	LTC	2.26	1.17	201000

- 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 - (.22 psi/ft-partial evac gradient x TD)  
 (Burst Assumptions: TD = 11.5 ppg) .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 3444 psi

\*\*\*\*\* Burst SF is low but csg is much stronger than formation at 2000'. EMW @ 2000' for 2270# is 21.8 ppg or 1.13 psi/ft

**CEMENT PROGRAM**

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
Option 1	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	50		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>					
Option 2	LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite + .25 pps Flocele + 3% salt BWOC	170	35%	11.00	3.82
	TAIL	500	Premium cmt + 2% CaCl + .25 pps flocele	180	35%	15.60	1.18
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,890'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	430	60%	11.00	3.38
	TAIL	5,220'	50/50 Poz/G + 10% salt + 2% gel + .1% R-3	1460	60%	14.30	1.31

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

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

**FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

**ADDITIONAL INFORMATION**

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

BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder & four sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.

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

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

DRILLING ENGINEER: \_\_\_\_\_

Brad Laney

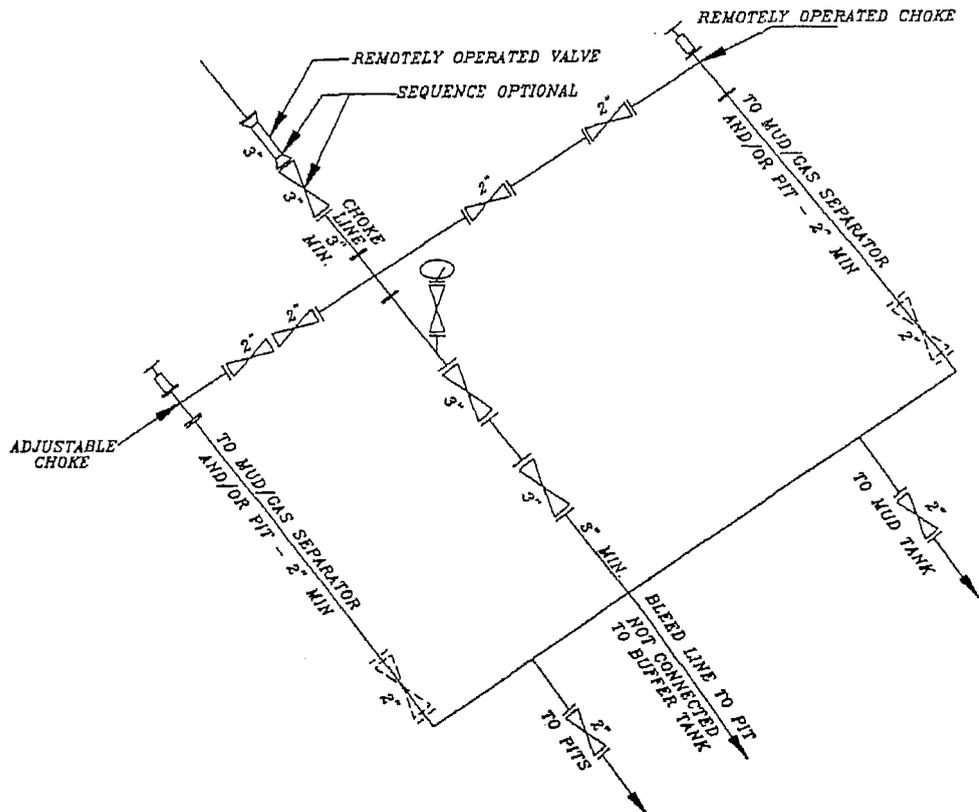
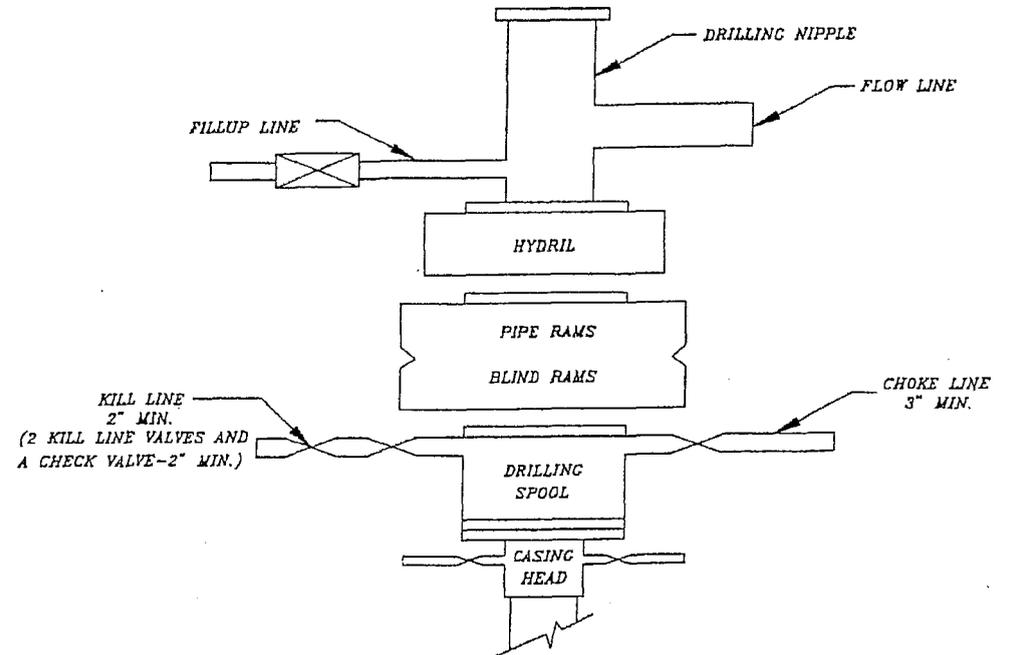
DATE: \_\_\_\_\_

DRILLING SUPERINTENDENT: \_\_\_\_\_

Randy Bayne

DATE: \_\_\_\_\_

# 5M BOP STACK and CHOKE MANIFOLD SYSTEM



NBU #1022-6C-4  
SWNENW LOT 3, SEC 6-T10S-R22E  
UINTAH COUNTY, UTAH  
UTU-0464

ONSHORE ORDER NO. 1

*MULTI-POINT SURFACE USE & OPERATIONS PLAN*

1. **Existing Roads:**

Refer to the attached location directions.

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

2. **Planned Access Roads:**

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

Approximately 110' +/- of access road is proposed. Please refer to the attached Topo Map B.

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

Please refer to Topo Map C.

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

*Please see the Natural Buttes Unit SOP.*

A 30' of rights-of-way will be required approximately 1600' +/- of 4" high pressure pipeline to tie-in to an existing pipeline. Approximately 1558' +/- of 4" low pressure pipeline is proposed from the location to an tie-in point to cross into Lease #UTU-01195 is proposed. Refer to Topo Map D.

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

The pipeline shall be installed on surface within the access corridor for the well location. As a Best Management Practice (BMP), the pipeline would be buried within the access road corridor if possible. The construction of pipelines requires the corridor of 30 feet.

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

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

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

*Please see the Natural Buttes SOP.*

6. **Source of Construction Materials:**

*Please see the Natural Buttes SOP.*

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

*Please see the Natural Buttes SOP.*

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

8. **Ancillary Facilities:**

*Please see the Natural Buttes SOP.*

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

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

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

A 20 mil reserve pit liner with felt will be used. As discussed at the on-site inspection.

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

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

*Please see the Natural Buttes SOP.*

When the pit is backfilled, the topsoil pile shall be spread on the location up to the rig anchor points. The location will be reshaped to the original contour to the extent possible. The following seed mixture will be used to reclaim the surface for interim reclamation using appropriate reclamation methods. A total of 12 lbs/acre will be used if the seeds are drilled (24 lbs/acre if the seeds are broadcast). The per acre requirements for *drilled* seed are:

Galletta Grass	20 lbs.
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Operator shall call the BLM for the seed mixture when final reclamation occurs.

**11. Surface Ownership:**

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

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

**12. Other Information:**

A Class III Archaeological Survey Report No. 06-165, completed on May 3, 2006 for the well location; also, a Archaeological Survey Report No. 06-361 completed on July 31, 2006 for the pipeline. These two Archaeological Reports are submitted along with the Application for Permit to Drill. The paleontological survey have been performed and will be filed when received by our office.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying with the boundaries of the unit.

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

Sheila Ucphego  
Regulatory Analyst  
Kerr-McGee Oil & Gas Onshore LP  
1368 South 1200 East  
Vernal, UT 84078  
(435) 781-7024

Randy Bayne  
Drilling Manager  
Kerr-McGee Oil & Gas Onshore LP  
1368 South 1200 East  
Vernal, UT 84078  
(435) 781-7018

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

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

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

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by BLM Nationwide Bond #WY-2357.

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 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 by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

  
Sheila Upchego

8/16/2006

Date

Kerr-McGee Oil & Gas Onshore LP  
NBU #1022-6C-4  
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 4.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 280' TO THE BEGINNING OF THE PROPOSED ACCESS TO THE NORTHEAST; FOLLOW ROAD FLAGS IN A NORTHEASTERLY DIRECTION APPROXIMATELY 110' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 52.1 MILES.

# Kerr-McGee Oil & Gas Onshore LP

NBU #1022-6C-4  
LOCATED IN UINTAH COUNTY, UTAH  
SECTION 6, T10S, R22E, S.L.B.&M.

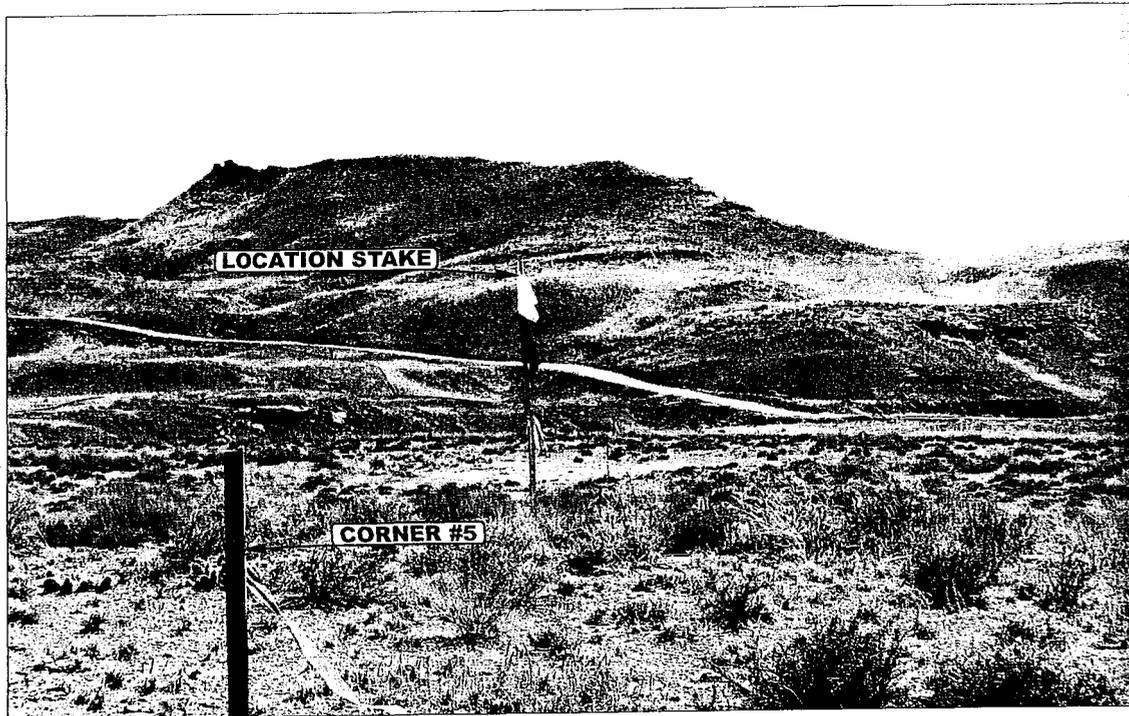


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY

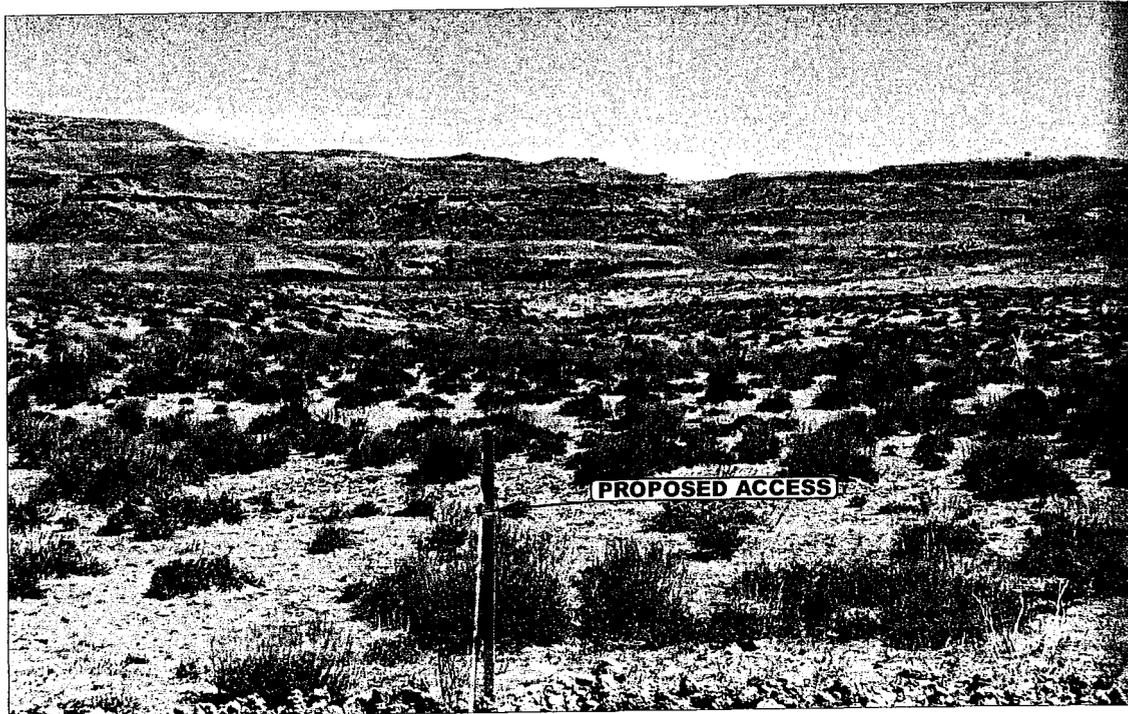


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: NORTHEASTERLY



U  
E  
L  
S  
Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS

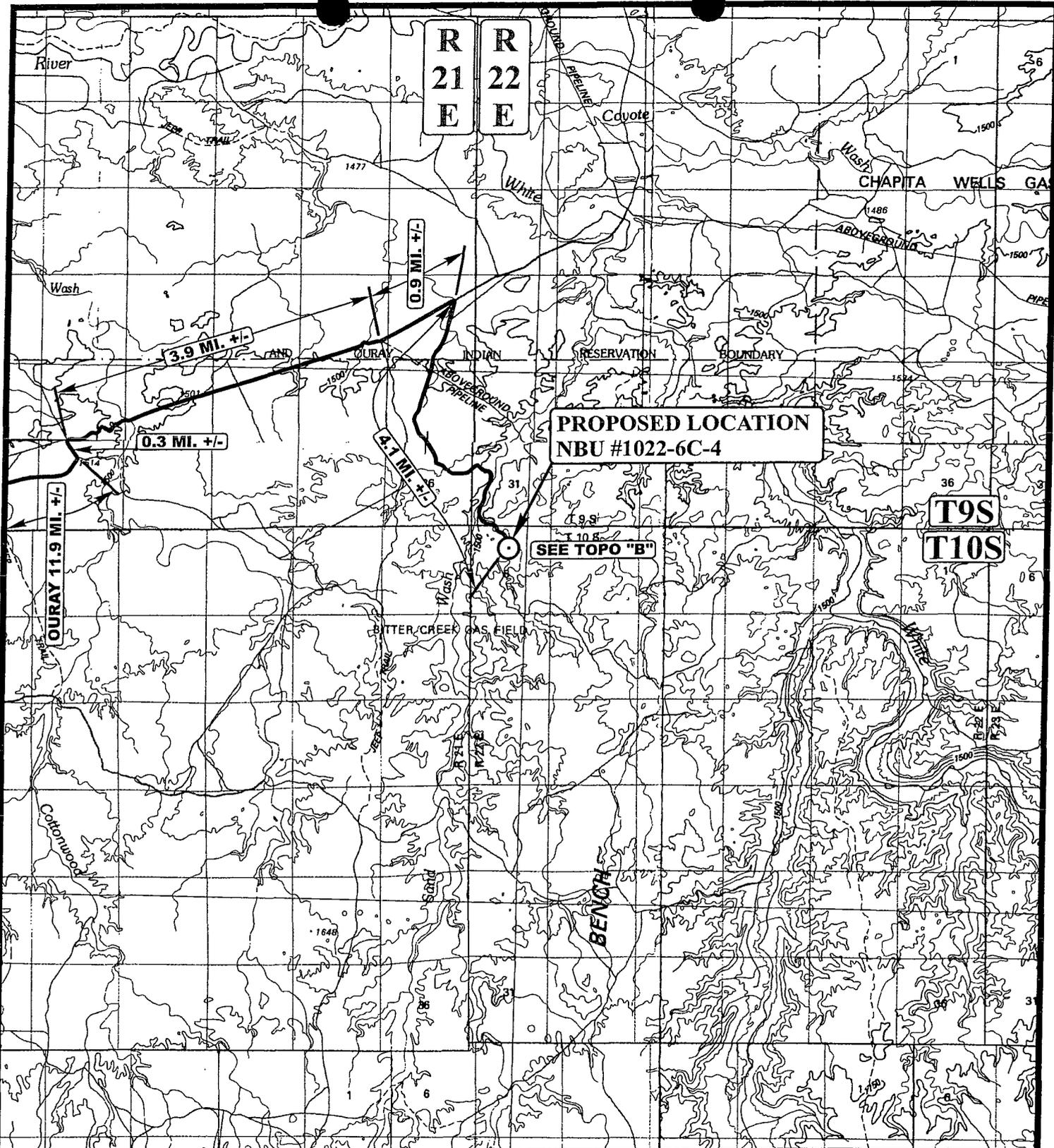
04 18 06  
MONTH DAY YEAR

PHOTO

TAKEN BY: P.J.

DRAWN BY: C.P.

REVISED: 00-00-00



**LEGEND:**

○ PROPOSED LOCATION



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

NBU #1022-6C-4  
SECTION 6, T10S, R22E, S.L.B.&M.  
1178' FNL 2192' FWL



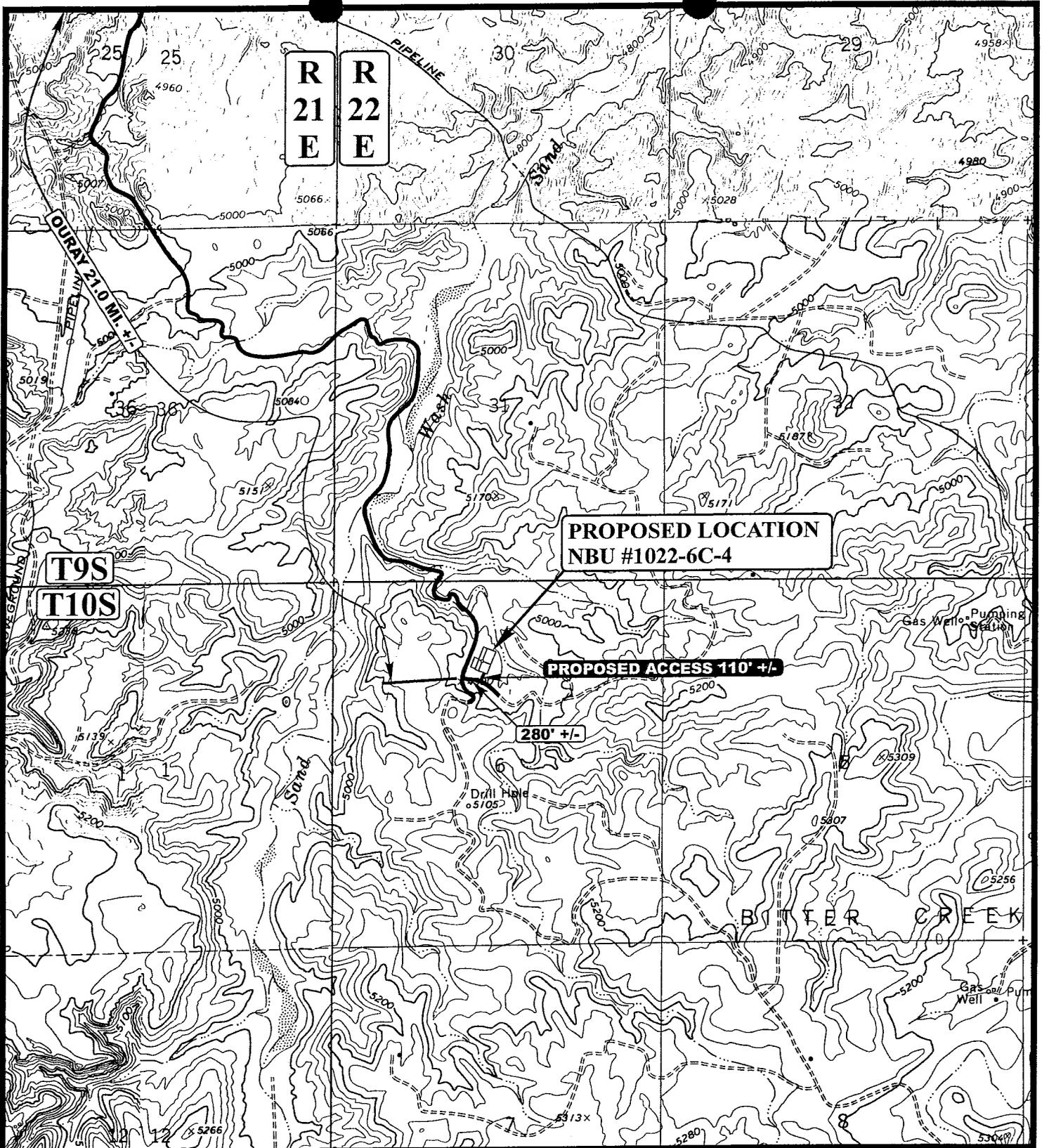
**Utah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC**  
MAP

04	18	06
MONTH	DAY	YEAR



SCALE: 1:100,000 DRAWN BY: C.P. REVISED: 00-00-00



**LEGEND:**

-  EXISTING ROAD
-  PROPOSED ACCESS ROAD



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

NBU #1022-6C-4  
 SECTION 6, T10S, R22E, S.L.B.&M.  
 1178' FNL 2192' FWL



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

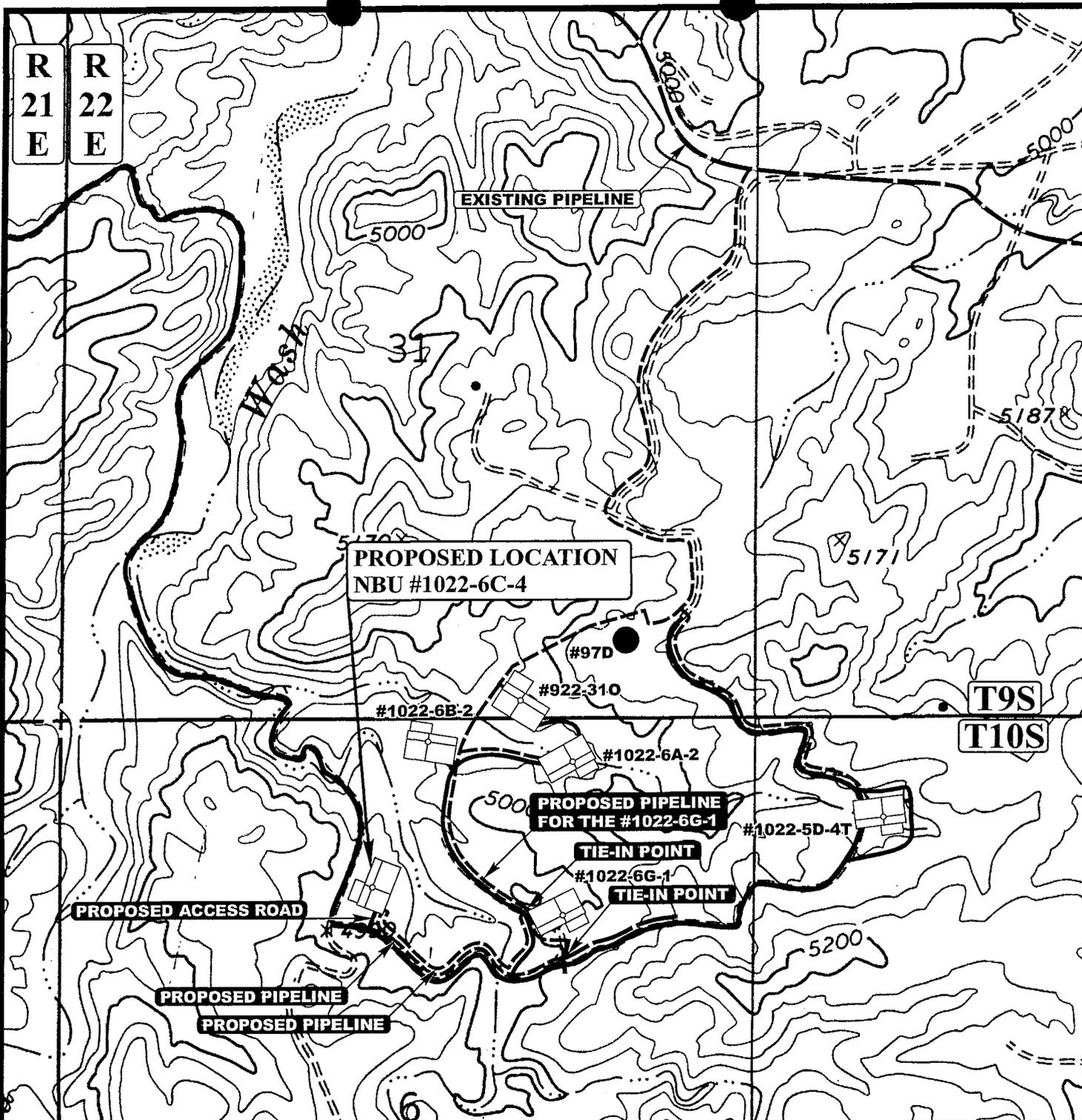
**TOPOGRAPHIC**  
**MAP**

**04 18 06**  
 MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: C.P. REVISED: 00-00-00







APPROXIMATE TOTAL HIGH-PRESSURE PIPELINE DISTANCE = 1,600' +/-

APPROXIMATE TOTAL LOW-PRESSURE PIPELINE DISTANCE = 1,558' +/-

**LEGEND:**

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- PROPOSED PIPELINE
- PROPOSED PIPELINE (SERVICING OTHER WELLS)



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

NBU #1022-6C-4  
 SECTION 6, T10S, R22E, S.L.B.&M.  
 1178' FNL 2192' FWL



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

TOPOGRAPHIC MAP 04 18 06  
 MONTH DAY YEAR  
 SCALE: 1" = 1000' DRAWN BY: C.P. REVISED: 07-05-06



# Kerr-McGee Oil & Gas Onshore LP

NBU #1022-6C-4  
PIPELINE ALIGNMENT  
LOCATED IN UINTAH COUNTY, UTAH  
SECTION 6, T10S, R22E, S.L.B.&M.



PHOTO: VIEW FROM TIE-IN POINT

CAMERA ANGLE: WESTERLY

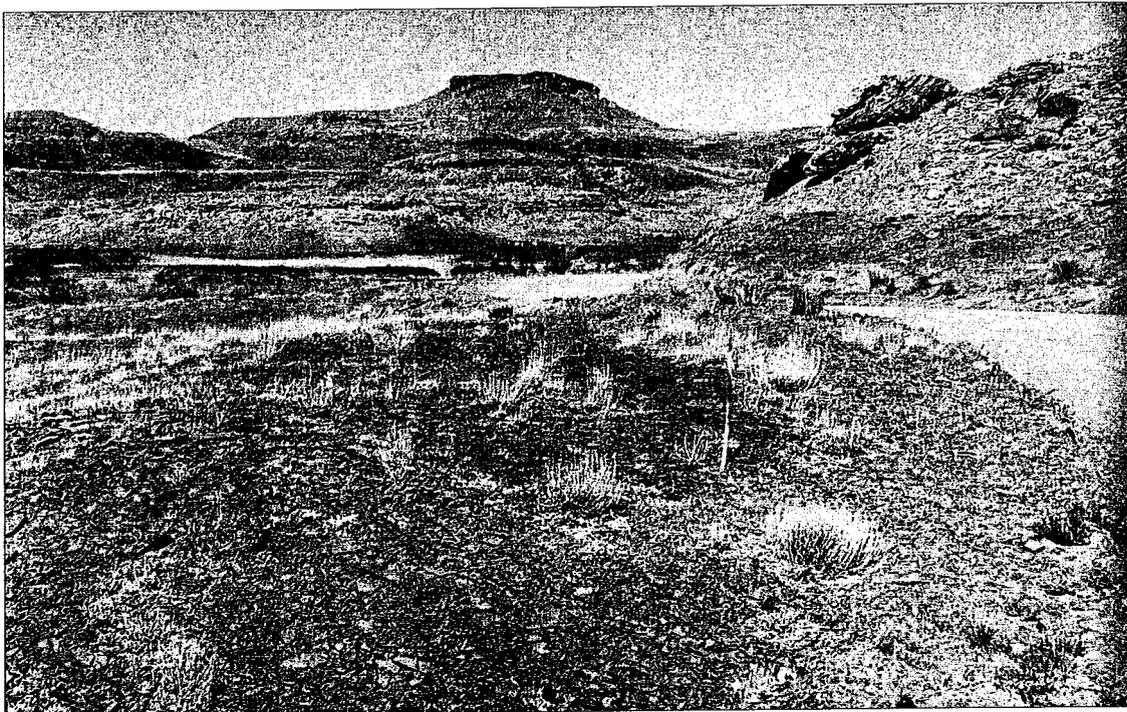


PHOTO: VIEW OF PIPELINE AT LOCATION

CAMERA ANGLE: SOUTHWESTERLY



- Since 1964 -

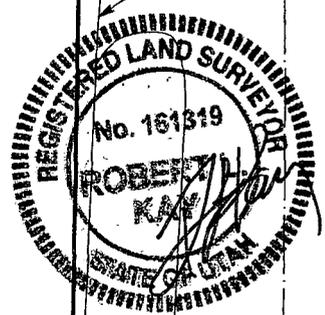
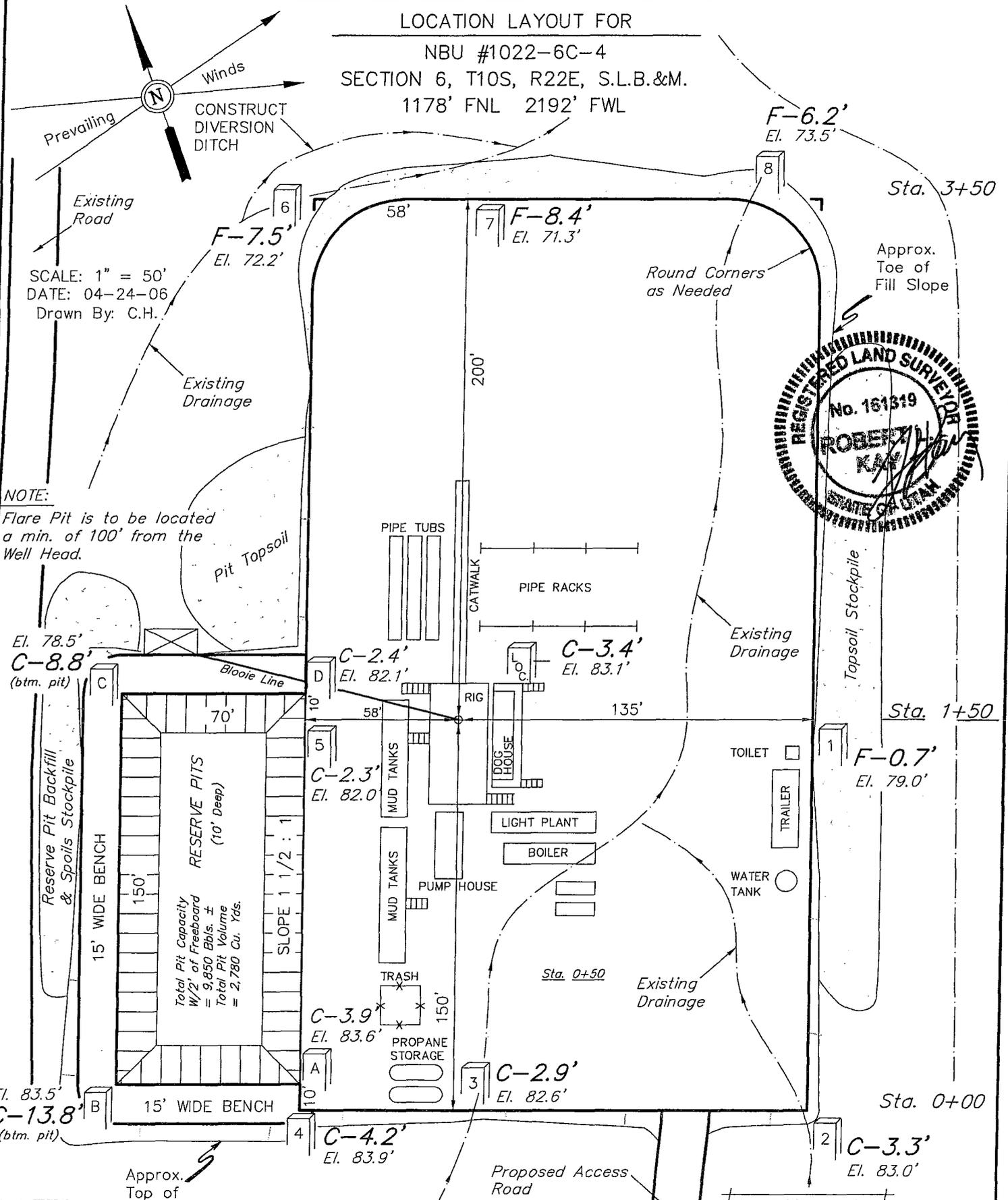
**U E L S** Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

PIPELINE PHOTOS	04	18	06	PHOTO
	MONTH	DAY	YEAR	
TAKEN BY: P.J.	DRAWN BY: C.P.		REVISED: 00-00-00	

# Kerr-McGee Oil & Gas Onshore LP

LOCATION LAYOUT FOR

NBU #1022-6C-4  
SECTION 6, T10S, R22E, S.L.B.&M.  
1178' FNL 2192' FWL



SCALE: 1" = 50'  
DATE: 04-24-06  
Drawn By: C.H.

NOTE:  
Flare Pit is to be located  
a min. of 100' from the  
Well Head.

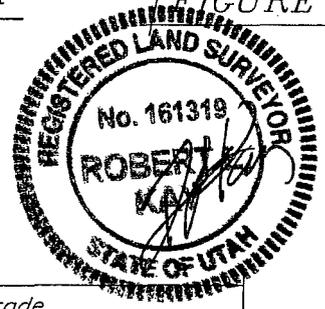
NOTES:  
Approx. Top of Cut Slope  
Elev. Ungraded Ground At Loc. Stake = 4983.1'  
FINISHED GRADE ELEV. AT LOC. STAKE = 4979.7'

FIGURE #1

# Kerr-McGee Oil & Gas Onshore LP

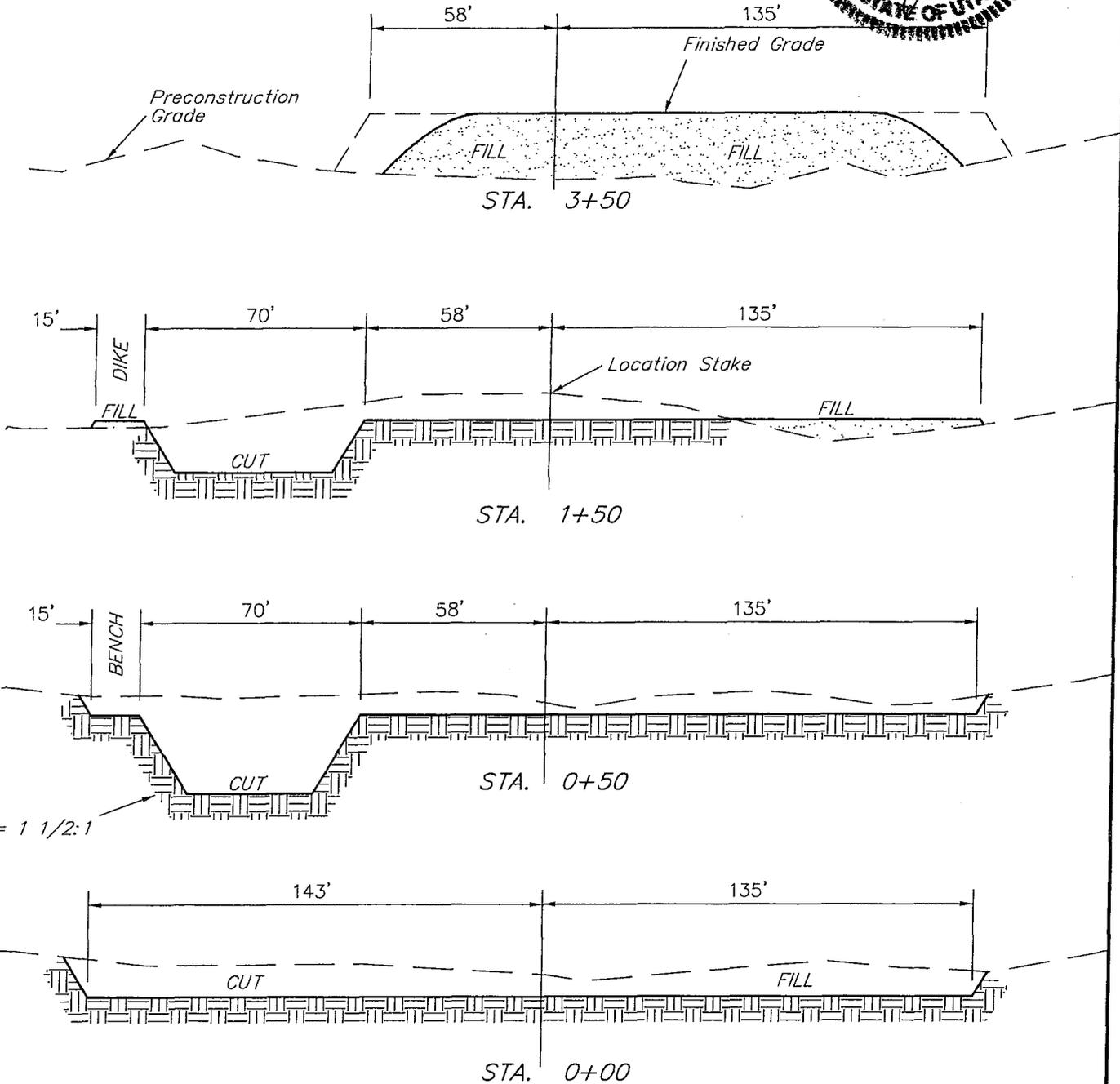
FIGURE #2

TYPICAL CROSS SECTIONS FOR  
 NBU #1022-6C-4  
 SECTION 6, T10S, R22E, S.L.B.&M.  
 1178' FNL 2192' FWL



1" = 20'  
 X-Section Scale  
 1" = 50'

DATE: 04-24-06  
 Drawn By: C.H.



### APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 1,690 Cu. Yds.
Remaining Location	= 6,000 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 7,690 CU.YDS.</b>
<b>FILL</b>	<b>= 4,610 CU.YDS.</b>

EXCESS MATERIAL	= 3,080 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 3,080 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	= 0 Cu. Yds.

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

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 08/28/2006

API NO. ASSIGNED: 43-047-38528

WELL NAME: NBU 1022-6C-4

OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )

PHONE NUMBER: 435-781-7024

CONTACT: SHEILA UPCHEGO

PROPOSED LOCATION:

NENW 06 100S 220E  
 SURFACE: 1178 FNL 2192 FEL  
 BOTTOM: 1178 FNL 2192 FEL  
 COUNTY: UINTAH  
 LATITUDE: 39.98208 LONGITUDE: -109.4803  
 UTM SURF EASTINGS: 629764 NORTHINGS: 4426664  
 FIELD NAME: NATURAL BUTTES ( 630 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal  
 LEASE NUMBER: UTU-0464  
 SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: WSMVD  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. WY-2357 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. 43-8496 )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

LOCATION AND SITING:

- R649-2-3.
- Unit: NATURAL BUTTES
- R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit  
Board Cause No: 173-14  
Eff Date: 12-2-1999  
Siting: 460' from library & union m. road
- R649-3-11. Directional Drill

COMMENTS:

See Separate file

STIPULATIONS:

1- See my Approval  
2- ON SHALE



# 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 29, 2006

### Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2006 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 2006 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(PZ MesaVerde)		
43-047-38513	NBU 1022-3M-4T	Sec 03 T10S R22E 0639 FSL 0665 FWL
43-047-38514	NBU 1022-4D-1T	Sec 04 T10S R22E 0565 FNL 1162 FWL
43-047-38515	NBU 1022-41-4	Sec 04 T10S R22E 1656 FSL 0537 FEL
43-047-38516	NBU 1022-4E-1T	Sec 04 T10S R22E 1623 FNL 1289 FWL
43-047-38517	NBU 1022-4J-4T	Sec 04 T10S R22E 1385 FSL 1941 FEL
43-047-38511	NBU 922-34O-3	Sec 34 T09S R22E 0011 FSL 1433 FEL
43-047-38512	NBU 922-34D-3	Sec 34 T09S R22E 1217 FNL 0162 FWL
43-047-38525	NBU 1022-6G-1	Sec 06 T10S R22E 1372 FNL 1338 FEL
43-047-38526	NBU 1022-6L-1	Sec 06 T10S R22E 2451 FSL 0708 FWL
43-047-38527	NBU 1022-6P-4	Sec 06 T10S R22E 0413 FSL 0281 FEL
43-047-38528	NBU 1022-6C-4	Sec 06 T10S R22E 1178 FNL 2192 FEL
43-047-38518	NBU 1022-5O-1	Sec 05 T10S R22E 0873 FSL 1630 FEL
43-047-38519	NBU 1022-5M-2	Sec 05 T10S R22E 1219 FSL 0116 FWL
43-047-38520	NBU 1022-51-4	Sec 05 T10S R22E 1955 FSL 0139 FEL
43-047-38521	NBU 1022-5N-2	Sec 05 T10S R22E 1228 FSL 1980 FWL
43-047-38522	NBU 1022-5C-4	Sec 05 T10S R22E 1269 FNL 2606 FWL
43-047-38523	NBU 1022-5D-4T	Sec 05 T10S R22E 0696 FNL 0894 FWL
43-047-38524	NBU 1022-5L-1	Sec 05 T10S R22E 2132 FSL 0986 FWL

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



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

August 29, 2006

Kerr McGee Oil & Gas Onshore LP  
1368 S 1200 E  
Vernal, UT 84078

Re: Natural Buttes Unit 1022-6C-4 Well, 1178' FNL, 2192' FWL, NE NW, Sec. 6,  
T. 10 South, R. 22 East, Uintah County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-38528.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

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

Operator: Kerr McGee Oil & Gas Onshore LP  
Well Name & Number Natural Buttes Unit 1022-6C-4  
API Number: 43-047-38528  
Lease: UTU-0464

Location: NE NW                      Sec. 6                      T. 10 South                      R. 22 East

### Conditions of Approval

1. General

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

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

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

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

- Contact Dan Jarvis at (801) 538-5338

3. Reporting Requirements

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

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

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

RECEIVED

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

AUG 18 2006

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. <b>UTU-0464</b>	
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No. <b>UNIT #891008900A</b>	
8. Lease Name and Well No. <b>NBU 1022-6C-4</b>	
9. API Well No. <b>43-047-38528</b>	
10. Field and Pool, or Exploratory <b>NATURAL BUTTES</b>	
11. Sec., T., R., M., or Blk, and Survey or Area <b>SEC. 6, T10S, R22E</b>	
12. County or Parish <b>UINTAH</b>	13. State <b>UTAH</b>
14. Distance in miles and direction from nearest town or post office* <b>21 MILES SOUTHEAST OF OURAY, UTAH</b>	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>1178'</b>	16. No. of Acres in lease <b>206.97</b>
17. Spacing Unit dedicated to this well <b>20.00</b>	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>REFER TO TOPO C</b>	19. Proposed Depth <b>9110'</b>
20. BLM/BIA Bond No. on file <b>BOND NO: WY-2357</b>	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>4983'UNGRADED GL</b>	22. Approximate date work will start*
23. Estimated duration	

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.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).   |
| 2. A Drilling Plan.  | 5. Operator certification.  |
| 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. | 6. Such other site specific information and/or plans as may be required by the authorized office. |

25. Signature 	Name (Printed/Typed) <b>SHEILA UPCHEGO</b>	Date <b>8/16/2006</b>
Title <b>REGULATORY ANALYST</b>		
Approved by (Signature) 	Name (Printed/Typed) <b>Terry Kewers</b>	Date <b>4-12-2007</b>
Title <b>Assistant Field Manager Lands &amp; Mineral Resources</b>	Office <b>VERNAL FIELD OFFICE</b>	

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

Conditions of approval, if any, are attached.

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

\*(Instructions on reverse)

RECEIVED

06BM1675A  
NCS NCC 8/9/06

Entered in AFMSS  
Date 12-28-06

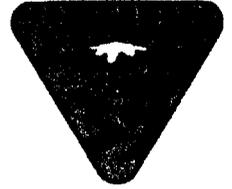
APR 27 2007

4006M  
**NOTICE OF APPROVAL**

**CONDITIONS OF APPROVAL ATTACHED**



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:** Lot 3, Sec. 6, T10S, R22E  
**Well No:** NBU 1022-6C-4      **Lease No:** UTU-0464  
**API No:** 43-047-38528      **Agreement:** Natural Buttes Unit

Title	Name	Office Phone Number	Cell Phone Number
Petroleum Engineer:	Matt Baker	435-781-4490	435-828-4470
Petroleum Engineer:	Michael Lee	435-781-4432	435-828-7875
Petroleum Engineer:	James Ashley	435-781-4470	435-828-7874
Petroleum Engineer:	Ryan Angus	435-781-4430	
Supervisory Petroleum Technician:	Jamie Sparger	435-781-4502	435-828-3913
NRS/Enviro Scientist:	Paul Buhler	435-781-4475	435-828-4029
NRS/Enviro Scientist:	Karl Wright	435-781-4484	
NRS/Enviro Scientist:	Holly Villa	435-781-4404	
NRS/Enviro Scientist:	Melissa Hawk	435-781-4476	435-828-7381
NRS/Enviro Scientist:	Chuck MacDonald	435-781-4441	
NRS/Enviro Scientist:	Jannice Cutler	435-781-3400	
NRS/Enviro Scientist:	Michael Cutler	435-781-3401	
NRS/Enviro Scientist:	Anna Figueroa	435-781-3407	
NRS/Enviro Scientist:	Verlyn Pindell	435-781-3402	
NRS/Enviro Scientist:	Darren Williams	435-781-4447	
NRS/Enviro Scientist:	Nathan Packer	435-781-3405	

Fax: 435-781-4410

**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 one-year period. An additional year extension may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

- |  |  |
|--|--|
| Location Construction<br>(Notify NRS/Enviro Scientist)                     | - Forty-Eight (48) hours prior to construction of location and access roads.   |
| Location Completion<br>(Notify NRS/Enviro 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 Supervisory Petroleum Technician)     | - Twenty-Four (24) hours prior to running casing and cementing all casing strings.   |
| BOP & Related Equipment Tests<br>(Notify Supervisory Petroleum Technician) | - 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)**

**General Surface COAs**

- 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 report will be prepared by a BLM permitted paleontologist and submitted to the AO at the completion of surface disturbing activities.

**Specific Surface COAs**

- Paint all facilities Fuller O'Brian color Carlsbad Canyon (2.5Y 6/2). Any paint brand may be used provided the colors match.
- The authorized officer may prohibit surface disturbing activities during wet and muddy periods to minimize watershed damage. This limitation does not apply to operation and maintenance of producing wells.
- The seed mix for this location shall be:

Galleta grass	<i>Hilaria jamesii</i>	20 lbs. /acre
▪ All pounds are in pure live seed.		
▪ Reseeding may be required if first seeding is not successful.		
- The topsoil from the reserve pit shall be stripped and piled separately near the reserve pit. When the reserve pit is closed, it shall be recontoured and the topsoil respread, and the area shall be seeded in the same manner as the location topsoil.
- Once the location is plugged and abandoned, it shall be recontoured to natural contours, topsoil respread where appropriate, and the entire location seeded with the recommended seed mix. Seeding shall take place by broadcasting the seed and walking it into the soil with a dozer immediately after the dirt work is completed.
- Within 90 calendar days of the approval date for this Application for Permit to Drill (APD), the operator/lessee shall submit to the Authorized Officer (AO), on Sundry Notice Form 3160-5, an Interim Surface Reclamation Plan for surface disturbance on well pads, access roads, and pipelines. At a minimum, this will include the reshaping of the pad to the original contour to the extent possible; the respreading of the top soil up to the rig anchor points; and, the area reseeded using appropriate reclamation methods. The AO will provide written approval or concurrence within 30 calendar days of receipt.

## **DOWNHOLE CONDITIONS OF APPROVAL**

### **SITE SPECIFIC DOWNHOLE CONDITIONS OF APPROVAL**

- Production casing cement shall be brought up and into the surface casing. The minimum cement top is 200 ft above the surface casing shoe.
- A cement Bond Log (CBL) shall be run from the production casing shoe to the surface casing shoe. A field copy of the CBL shall be submitted to the BLM Vernal Field Office.

**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.
- 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 shall 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.
- Chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log CBL will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to [UT\\_VN\\_Welllogs@BLM.gov](mailto:UT_VN_Welllogs@BLM.gov). This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

## OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" Oil and Gas Operations Report OGOR starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 303 231-3650 for reporting information.
- Shall 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  $\frac{1}{4}$  $\frac{1}{4}$ , 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.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.

UTU-0464

6. If Indian, Allottee or Tribe Name

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

UNIT #8910089 00A

8. Well Name and No.

NBU 1022-6C-4

9. API Well No.

4304738528

10. Field and Pool, or Exploratory Area

NATURAL BUTTES

11. County or Parish, State

UINTAH, UTAH

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

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

KERR MCGEE OIL AND GAS ONSHORE LP

3a. Address

1368 SOUTH 1200 EAST, VERNAL, UTAH 84078

3b. Phone No. (include area code)

(435)781-7003

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

1178' FNL, 2192' FWL, LOT 3

NENW, SEC 6-T10S-R22E

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

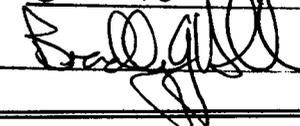
TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/>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

13. Describe Proposed or Completed Operations (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.

THE OPERATOR REQUESTS AUTHORIZATION FOR A ONE YEAR EXTENSION FOR THE SUBJECT WELL LOCATION SO THAT THE DRILLING OPERATIONS MAY BE COMPLETED. THE ORIGINAL APD WAS APPROVED BY THE DIVISION OF OIL, GAS AND MINING ON AUGUST 29, 2006.

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: 07-18-07

By: 

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

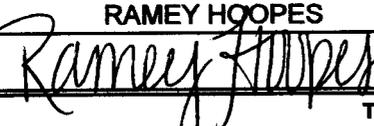
Name (Printed/Typed)

RAMEY HOOPES

Title

LAND SPECIALIST I

Signature



Date

July 3, 2007

THIS SPACE FOR FEDERAL OR STATE USE

Approved by

Title

Date

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

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

(Instructions on reverse)

7-20-07  
RM

RECEIVED

JUL 17 2007

DIV. OF OIL, GAS & MINING

**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

**API:** 4304738528  
**Well Name:** NBU 1022-6C-4  
**Location:** NENW, SEC 6-T10S-R22E  
**Company Permit Issued to:** KERR-MCGEE OIL AND GAS ONSHORE LP  
**Date Original Permit Issued:** 8/29/2006

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 right-of-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

Ramey Hoopes  
Signature

7/3/2007  
Date

Title: LAND SPECIALIST I

Representing: Kerr McGee Oil and Gas Onshore LP

RECEIVED

JUL 17 2007

DIV. OF OIL, GAS & MINING

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

FORM 6

**ENTITY ACTION FORM**

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

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304738528	NBU 1022-6C-4		NENW	6	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<i>B</i>	99999	<i>2900</i>	8/1/2007			<i>8/9/07</i>	
Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL LOCATION ON 08/01/2007 AT 0900 HRS							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304738490	NBU 1022-5M-4T		SWSW	5	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<i>B</i>	99999	<i>2900</i>	8/1/2007			<i>8/9/07</i>	
Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL LOCATION ON 08/01/2007 AT 1300 HRS.							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

**ACTION CODES:**

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

SHEILA UPCHEGO

Name (Please Print)

*[Handwritten Signature]*

Signature

SENIOR LAND SPECIALIST

Title

Date

(5/2000)

To: <i>EARlene Russel</i>	From: <i>Sheila Upchego</i>
Co./Dept: <i>Ut DOR</i>	Co.: <i>KMG</i>
Phone: <i>(801) 538-5330</i>	Phone: <i>(435) 781-7024</i>
Fax: <i>(801) 359-3940</i>	Fax: <i>(435) 781-7094</i>

**RECEIVED**

**AUG 06 2007**

DIV. OF OIL, GAS & MINING

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
**UTU-0464**

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.  
**UNIT #891008900A  
NATURAL BUTTES UNIT**

8. Well Name and No.  
**NBU 1022-6C-4**

9. API Well No.  
**4304738528**

10. Field and Pool, or Exploratory Area  
**NATURAL BUTTES**

11. County or Parish, State  
**UINTAH COUNTY, UTAH**

**SUBMIT IN TRIPLICATE – Other instructions on reverse side**

1. Type of Well  
 Oil Well     Gas Well     Other

2. Name of Operator  
**KERR-McGEE OIL & GAS ONSHORE LP**

3a. Address  
**1368 SOUTH 1200 EAST VERNAL, UT 84078**

3b. Phone No. (include area code)  
**(435) 781-7024**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**NE/NW LOT 3, SEC. 6, T10S, R22E 1178'FNL, 2192'FWL**

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

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

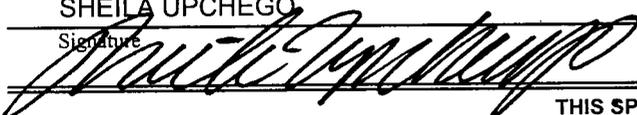
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MIRU BILL MARTIN AIR RIG ON 08/03/2007. DRILLED 12 1/4" SURFACE HOLE TO 2390'. RAN 9 5/8" 51 JTS OF 32.3# H-40 AND 10 JTS OF 36# J-55 SURFACE CSG. LEAD CMT W/350 SX PREM CLASS G @15.8 PPG 1.15 YIELD. NO RETURNS TO PIT. TOP OUT W/100 SX PREM CLASS G @15.8 PPG 1.15 YIELD. DOWN BACKSIDE. 2ND TOP OUT W/125 SX PREM CLASS G @125 SX PREM CLASS G @15.8 PPG 1.15 YIELD. DOWN BACKSIDE. 3RD TOP OUT W/130 SX PREM CLASS G @15.8 PPG 1.15 YIELD. DOWN BACKSIDE GOOD CMT TO SURFACE HOLE STAYED FULL.

WORT.

**RECEIVED  
AUG 16 2007**

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

Name (Printed/Typed) <b>SHEILA UPCHEGO</b>	Title <b>SENIOR LAND ADMIN SPECIALIST</b>
Signature 	Date <b>August 10, 2007</b>

**DIV. OF OIL, GAS & MINING**

**THIS SPACE FOR FEDERAL OR STATE USE**

Approved by	Title	Date
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	

Title 18 U.S.C. Section 1001, 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.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**

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5. Lease Serial No.

UTU-0464

6. If Indian, Allottee or Tribe Name

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

UNIT #891008900A  
NATURAL BUTTES UNIT

8. Well Name and No.

**NBU 1022-6C-4**

9. API Well No.

4304738528

10. Field and Pool, or Exploratory Area

NATURAL BUTTES

11. County or Parish, State

UINTAH COUNTY, UTAH

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

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

**KERR-McGEE OIL & GAS ONSHORE LP**

3a. Address

1368 SOUTH 1200 EAST VERNAL, UT 84078

3b. Phone No. (include area code)

(435) 781-7024

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

NE/NW LOT 3, SEC. 6, T10S, R22E 1178'FNL, 2192'FWL

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

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

13. Describe Proposed or Completed Operations (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 recompleate 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 recompleation 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.

FINISHED DRILLING FROM 2390' TO 9100' ON 08/27/2007. RAN 4 1/2" 11.6# I-80 PRODUCTION CSG. LEAD CMT W/514 SX PREM LITE II @12.4 PPG 2.22 YIELD. TAILED CMT W/1082 SX 50/50 POZ @14.3 PPG 1.31 YIELD. DISPLACE W/139 BBLs OF H2O CAUGHT CMT 40 BBLs INTO DISPLACEMENT. STARTED LOSING CIRC OFF AND ON THROUGHOUT DISPLACEMENT 90 BBLs OF CMT TO PIT. BUMP PLUG 3000 PSI FLOAT HELD. LAND CSG.

RELEASED PIONEER RIG 53 ON 08/29/2007 AT 0000 HRS.

**RECEIVED**  
**SEP 04 2007**  
**DIV. OF OIL, GAS & MINING**

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

Name (Printed/Typed)

SHEILA UPCHEGO

Title

SENIOR LAND ADMIN SPECIALIST

Signature

Date

August 29, 2007

THIS SPACE FOR FEDERAL OR STATE USE

Approved by

Title

Date

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

Title 18 U.S.C. Section 1001, 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.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

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

5. Lease Serial No.  
**UTU-0464**

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.  
**UNIT #891008900A  
NATURAL BUTTES UNIT**

8. Well Name and No.  
**NBU 1022-6C-4**

9. API Well No.  
**4304738528**

10. Field and Pool, or Exploratory Area  
**NATURAL BUTTES**

11. County or Parish, State  
**UINTAH, UTAH**

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

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
**KERR MCGEE OIL AND GAS ONSHORE LP**

3a. Address  
**1368 SOUTH 1200 EAST VERNAL, UT 84078**

3b. Phone No. (include area code)  
**435-781-7003**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**1178'FNL-2192'FWL  
NENW SEC 6-T10S-R22E LOT 3**

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)
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<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal
			<input type="checkbox"/> Water Shut-Off
			<input type="checkbox"/> Well Integrity
			<input checked="" type="checkbox"/> Other <b>PRODUCTION START UP</b>

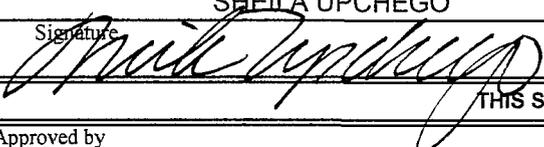
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THE SUBJECT WELL LOCATION WAS PLACED ON PRODUCTION ON 10/13/2007 @ 11:00 AM.

PLEASE REFER TO THE ATTACHED CHRONOLOGICAL WELL HISTORY.

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

Name (Printed/Typed) **SHEILA UPCHEGO** Title **SENIOR LAND ADMIN SPECIALIST**

Signature  Date **October 15, 2007**

THIS SPACE FOR FEDERAL OR STATE USE

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

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 \_\_\_\_\_

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(Instructions on reverse)

**RECEIVED**  
**OCT 24 2007**  
**DIV. OF OIL, GAS & MINING**



Anadarko Petroleum Corporation  
 1368 S. 1200 East  
 Vernal, UT 84078

### CHRONOLOGICAL WELL HISTORY

**NBU 1022-6C-4**

NENW, SEC. 6, T10S, R22E  
 UINTAH COUNTY, UT

DATE	ACTIVITY			STATUS
07/18/07	LOCATION STARTED	PIONEER 53		
08/01/07	LOCATION COMPLETE SET CONDUCTOR	PIONEER 53		P/L IN, WOBR, WOAR
08/03/07	SET AIR RIG SPUD	PIONEER 53		DRLG
08/16/07	TD: 2390' Csg. 9 5/8" @ 2340' RDRT and move to NBU 1022-6C-4.	MW: 8.4	SD: 8/XX/07	DSS: 0
08/17/07	TD: 2390' Csg. 9 5/8" @ 2340' Continue move to NBU 1022-6C-4. Spot rig and RURT.	MW: 8.4	SD: 8/XX/07	DSS: 0
08/20/07	TD: 3480' Csg. 9 5/8" @ 2340' Move to NBU 1022-6C-4. Spot rig and RURT. Lost all power. Work on SCR. NU and test BOPE. PUDS and drill FE. Rotary spud @ 1800 hrs 8/19/07. Drill from 2390'-3480'. DA.	MW: 8.8	SD: 8/19/07	DSS: 1
08/21/07	TD: 5305' Csg. 9 5/8" @ 2340' Drill from 3480'-5305'. DA.	MW: 9.4	SD: 8/19/07	DSS: 2
08/22/07	TD: 6488' Csg. 9 5/8" @ 2340' Drill from 5305'-6100'. Add LCM to control mud loss. Drill to 6488'. DA.	MW: 9.6	SD: 8/19/07	DSS: 3
08/23/07	TD: 7250' Csg. 9 5/8" @ 2340' Drill from 6488'-7250. TFNB @ report time.	MW: 10.1	SD: 8/19/07	DSS: 4
08/24/07	TD: 7697' Csg. 9 5/8" @ 2340' TFNB. Drill from 7250'-7697'. DA.	MW: 10.7	SD: 8/19/07	DSS: 5
8/27/07	TD: 9100' Csg. 9 5/8" @ 2340' Drill from 7697'-8472'. TFNB. Drill to 8559'. Circulate out gas kick. Drill to 9100' TD. Short trip and LDDS @ report time.	MW: 12.4	SD: 8/19/07	DSS: 8
08/28/07				

TD: 9100' Csg. 9 5/8" @ 2340' MW: 12.9 SD: 8/19/07 DSS: 9  
LDDS. RU Baker Atlas and run Triple Combo. Density tool failed. Rerun density tool.

08/29/07

TD: 9100' Csg. 9 5/8" @ 2340' MW: 12.9 SD: 8/19/07 DSS: 10  
Run and cement 4 1/2" Production Casing. Land casing and release rig @ midnight 8/28/07.  
RDRT.

---

**COMPLETION: AFE#2005324.CMP**

10/04/07

**MIRU**

Days On Completion: 1

Remarks: 7AM [DAY 1] J.S.A.#1 RDMO NBU 1022-7H-4. ROAD RIG TO LOCATION. MIRU, SPOT EQUIPMENT. NDWH, NUBOP. R/U FLOOR & TBG EQUIPMENT. P/U 3-7/8" MILL & RIH ON NEW 2-3/8" J-55 TBG. [SLM] TBG WAS DRIFTED. TAG PBTD @ 9047". POOH & L/D 24 JTS ON FLOAT. CONTINUE POOH STDG BACK TBG. L/D MILL. 7 PM SWI-SDFN

10/05/07

**LOG & PERF**

Days On Completion: 2

Remarks: 7:00AM: HSM, RU CUTTERS, RUN CBL & CCL LOG . COULD NOT GET BELOW 9012', RUN LOG FROM 9012 TO 424', LOG LOOKED OK, ESTIMATED CEMENT TOP @ SURFACE. LAY DOWN LOGGING TOOL. RU DOUBLE JACK & PRESSURE TEST CSG., FRAC VALVES & WELL HEAD TO 7500 PSI, HELD OK. RU CUTTERS & RIH W/ 3 3/8" CSG. GUNS, 23 GM, .36" DIA. HOLES, 90\* PHASING, 4 SPF, COULD NOT GET BELOW 9012. CONSULT W/ ENGINEERING. SHOOT MV FORMATION 9006'-9012' & 8985'-8989' .40 HOLES. RD CUTTERS. CLOSE IN WELL WAITING TO FRAC MON.

10/08/07

**FRAC**

Days On Completion: 5

Remarks: 5 AM. [DAY 3] MIRU HLBRTN, CUTTERS & DELSCO. HELD HLBRTN J.S.A.

[STG#1] P.T. SURFACE LINES TO 8000#. WE-SICP=650#. BRK DN PERFS @ 2947# @ 4 BPM. ISIP=2800, F.G.=.75. PMP'D 3 BBLs 15% HCL AHEAD OF INJ. CALC 32/40 PERFS OPEN. PMP'D 603 BBLs SLK WTR & 13,600# 30/50 SD W/ 8 GAL SAND WEDGE IN LAST 6300# SAND. ISIP=2790, F.G.=.75, NPI=-10, MP=6098, MR=42, AP=3609, AR=38 BPM.

[STG#2] RIH W/ BAKER 8K CBP & PERF GUN. SET CBP @ 8740'. PERF THE M.V. @ 8512'-8515' 3 SPF, 120\* PHAS, 8538'-8542', 8598'-8600' & 8700'-8703' 4 SPF, 90\* PHASING USING 3-3/8" EXP GUN, 23 GM, 0.36, [45 HLS] WHP=1730#. BRK DN PERFS @ 2828# @ 4 BPM. ISIP=2374, F.G.=.72. CALC 38/45 PERFS OPEN. PMP'D 2437 BBLs SLK WTR & 90,900# 30/50 SD W/ 45 GAL SAND WEDGE IN LAST 36,000# SAND. ISIP=3090, F.G.=.80, NPI=716, MP=5971, MR=51, AP=4335, AR=48 BPM.

[STG#3] RIH W/ BAKER 8K CBP & PERF GUN. SET CBP @ 8453'. PERF THE M.V. @ 8232'-8234', 3 SPF, 120\* PHASING, 8318'-8322', 8346'-8349' & 8421'-8423' 4 SPF, 90\* PHASING USING 3-3/8" EXP GUN, 23 GM, 0.36, [42 HLS] WHP=1850#. BRK DN PERFS @ 2614# @ 5 BPM. ISIP=2302, F.G.=.72. CALC 34/42 PERFS OPEN. PMP'D 1891 BBLs SLK WTR & 68,700# 30/50 SD W/ 33 GAL SAND WEDGE IN LAST 28,000# SAND. ISIP=2120, F.G.=.70, NPI=-182, MP=5902, MR=50, AP=3946, AR=49 BPM.

[STG#4] RIH W/ BAKER 8K CBP & PERF GUN. SET CBP @ 7900'. PERF THE M.V. @ 7644'-7648', 7742'-7744', 7823'-7826' & 7868'-7870' USING 3-3/8" EXP GUN, 23 GM, 0.36, 90\* PHASING, 4 SPF, [44 HLS] WHP=200#. BRK DN PERFS @ 2766# @ 4 BPM. ISIP=1918, F.G.=.69. CALC 32/44 PERFS OPEN. PMP'D 1061 BBLs SLK WTR & 35,200# 30/50 SD W/ 15 GAL SAND WEDGE IN LAST 15,000# SAND. ISIP=2497, F.G.=.76, NPI=579, MP=6100, MR=50, AP=4143, AR=49 BPM.

[STG#5] RIH W/ BAKER 8K CBP & PERF GUN. SET CBP @ 7449'. PERF THE M.V. @ 7195'-7198' 3 SPF, 120\* PHASING, 7240'-7244', 7349'-7351' & 7416'-7419' 4 SPF, 90\* PHASING USING 3-3/8" EXP GUN, 23 GM, 0.36, [45 HLS] WHP= 0#. BRK DN PERFS @ 2107 @ 5 BPM. ISIP=1515, F.G.=.65. CALC 31/45 PERFS OPEN. PMP'D 1345 BBLS SLK WTR & 46,700# 30/50 SD W/ 21 GAL SAND WEDGE IN LAST 19,600# SAND. ISIP=2083, F.G.=.73, NPI=568, MP=5911, MR=51, AP=3491, AR=50 BPM.

[STG#6] RIH W/ BAKER 8K CBP & PERF GUN. SET CBP @ 7055'. PERF THE WASATCH @ 6716'-6720' 4 SPF, 90\* PHASING, 6818'-6821' 3 SPF, 120\* PHASING & THE M.V. @ 7020'-7025' 4 SPF, 90\* PHASING, [45 HLS] WHP= 1266#. BRK DN PERFS @ 1700# @ 9 BPM. ISIP=1351, F.G.=.64. CALC 35/45 PERFS OPEN. PMP'D 1714 BBLS SLK WTR & 61,900# 30/50 SD W/ 29 GAL SAND WEDGE IN LAST 25,000# SAND. ISIP=2121, F.G.=.75, NPI=770, MP=5231, MR=51, AP=3322, AR=50 BPM.

[STG#7] RIH W/ BAKER 8K CBP & PERF GUN. SET CBP @ 6357'. PERF THE WASATCH @ 6136'-6139', 6161'-6164', 6294'-6296' 3 SPF, 120\* PHASING & 6323'-6327' 4 SPF, 90\* PHASING USING 3-1/8" H.S.C. GUN, 12 GM, 0.34, [40 HLS] WHP= 0#. BRK DN PERFS @ 1630# @ 5 BPM. ISIP=1313, F.G.=.65. CALC 37/40 PERFS OPEN. PMP'D 604 BBLS SLK WTR & 19,600# 30/50 SD W/ 9-1/2 GAL SAND WEDGE IN LAST 7700# SAND. ISIP=1694, F.G.=.71, NPI=381, MP=5342, MR=51, AP=3142, AR=50 BPM.

[STG#8] RIH W/ BAKER 8K CBP & PERF GUN. SET CBP @ 5456'. PERF THE WASATCH @ 5316'-5320' USING 3-1/8" HSC GUN, 12 GM, 0.34, 90\* PHASING, 4 SPF, [16 HLS] WHP=0#. POOH & L/D WIRELINE TOOLS. DELSCO RIH W/ D.H. PSI GAUGE & SET @ 5306'. PERFORM DFIT TEST W/ HLBRTN. BRK DN PERFS @ 803# @ 4.5 BPM. WELL SUCKED 24 BBLS 2% KCL @ -13# @ 5 TO 15 BPM. ISIP=-33, F.G.=.44, 5 MIN=-28, 10 MIN=-27, 15 MIN=-28. LEAVE D.H. GAUGE IN WELL

10/09/07

#### FRAC

Days On Completion: 6

Remarks: 10 AM [DAY 4] HELD HLBRTN J.S.A. OVERNIGHT SICP=0#. POOH W/ D.H. PSI GAUGE. L/D GAUGE. RDMO DELSCO. RIH W/ PERF GUN & PERF THE REMAINING WASATCH. @ 5183'-5185', 5231'-5234', 3 SPF, 120\* PHASING & 5423'-5426' 4 SPF, 90\* PHASING USING 3-1/8" H.S.C. GUN, 12 GM, 0.34, [27 HLS] F.L. @ 1100'. WHP=0# AFTER 2ND PERF. BRK DN PERFS @ 910# @ 5 BPM. ISIP=4, F.G.=.44. PMP'D 3 BBLS 15% HCL AHEAD OF INJ. CALC 30/43 PERFS OPEN. PMP'D 1712 BBLS SLK WTR & 60,600# 30/50 SD W/ 27 GAL SAND WEDGE IN LAST 26,000# SAND. ISIP=1190, F.G.=.67, NPI=1186, MP=3802, MR=51, AP=2230, AR=51 BPM.

[KILL PLUG] RIH W/ BAKER 8K CBP & SET @ 5110'. POOH & L/D WIRE LINE TOOLS. RDMO CUTTERS & HLBRTN. TOTAL 30/50 SD W/ SAND WEDGE=397,200# & TOTAL FLUID=11,367 BBLS. R/D FLOOR & TBG EQUIPMENT. N/D FRAC VALVES, NUBOP. R/U FLOOR & TBG EQUIPMENT. P/U 3-7/8" BIT, POBS W/ BIG R & RIH ON NEW 2-3/8" J-55 TBG. TAG CBP#1 @ 5110'. R/U SWVL & RIG PUMP. ESTABLISH CIRCULATION 2% KCL WTR. P.T. BOP TO 3000#. [HELD GOOD]

[DRLG CBP#1] @ 5110'. DRILL OUT BAKER 8K CBP IN 4 MIN. WELL WENT ON A EXTREME VACUM. ATTEMPT TO REGAIN CIRCULATION W/ 100 BBLS 2% KCL WTR @ 5 TO 6 BPM. NO LUCK. CALL FOR FOAM UNIT. 6 PM SWI-SDFN PREP TO DRILL OUT [8] CBP'S IN AM.

10/10/07

#### DRILL CBP'S

Days On Completion: 7

Remarks: 7AM [DAY 5] J.S.A. #5 MIRU WTRFD FOAM UNIT. SICP=VACUM. EOT @ 5110'. RIH, TAG SD @ 5426'. ESTABLISH CIRCULATION W/ WTRFD FOAM UNIT IN 30 MIN. C/O 30' SD. [DRLG CBP#2] @ 5456'. DRILL OUT BAKER 8K CBP IN 5 MIN. 30# DIFF. RIH, TAG SD @ 6337'. C/O 20' SD. FCP=25#. R/D FOAM UNIT. [DRLG CBP#3] @ 6357'. DRILL OUT

BAKER 8K CBP IN 6 MIN. 75# DIFF. RIH, TAG SD @ 7022'. C/O 33' SD. FCP=50#. [DRLG CBP#4] @ 7055'. DRILL OUT BAKER 8K CBP IN 6 MIN. 100# DIFF. RIH, TAG SD @ 7420'. C/O 29' SD. FCP=75#. [DRLG CBP#5] @ 7449'. DRILL OUT BAKER 8K CBP IN 6 MIN. 50# DIFF. RIH, TAG SD @ 7870' C/O 30' SD. FCP=100#. [DRLG CBP#6] @ 7900'. DRILL OUT BAKER 8K CBP IN 6 MIN. 50# DIFF. RIH, TAG SD @ 8430'. C/O 23' SD. FCP=175#. [DRLG CBP#7] @ 8453'. DRILL OUT BAKER 8K CBP IN 7 MIN. 100# DIFF. RIH, TAG SD @ 8710'. C/O 30' SD. FCP=450#. [DRLG CBP#8] @ 8740'. DRILL OUT BAKER 8K CBP IN 6 MIN. 50# DIFF. RIH, TAG PBTB @ 9047'. CIRC WELL CLN. FCP=700#. R/D SWVL. POOH & L/D 36 JTS ON FLOAT.LAND TBG ON HANGER W/ 258 JTS NEW 2-3/8" J-55 TBG. EOT @ 7966.82' & BIG R @ 7964.62'. AVG 5 MIN/ PLUG & C/O 195' SAND. R/D FLOOR & TBG EQUIPMENT. FCP=1100#. NDBOP, NUWH. DROP BALL DN TBG & PMP OFF THE BIT @ 2000#. WAIT 30 MIN FOR BIT TO FALL TO BTM. OPEN WELL TO FBT ON 20/64 CHOKE. FTP=2100#, SICP=2050#. 95% RECYCLE WTR FOR FRAC. 4 PM TURN WELL OVER TO FBC. LTR @ 4 PM= 9727 BBLS. RACK EQUIPMENT.

NOTE: 298 JTS NEW 2-3/8" J-55 OUTBOUND TBG.  
258 JTS LANDED IN WELL.  
39 RETURNED-- 1 BAD JT LEFT ON GROUND TO BE HL'D TO JUNK PILE.

- 10/11/07**      **FLOWBACK REPORT:** CP 2500#, TP 2200#, CK 20/64", 50 BWPH, LOAD REC'D 865 BBLS, LLTR 10502 BBLS
- 10/12/07**      **FLOWBACK REPORT:** CP 2400#, TP 2000#, CK 20/64", 34 BWPH, LOAD REC'D 1825 BBLS, LLTR 9542 BBLS
- 10/13/07**      **WELL WENT ON SALES:** @ 11:00 AM, 1800 MCF, 2210 TBG, 2490 CSG, 16/64 CK, 18 BBWH  
**FLOWBACK REPORT:** CP 2300#, TP 2000#, CK 20/64", 18 BWPH, LOAD REC'D 2439 BBLS, LLTR 8928 BBLS
- 10/14/07**      **ON SALES:** 1120 MCF, 0 BC, 432 BW, TP: 1964#, CP: 2349#, 15/64 CHK, 20 HRS, LP: 3229#.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires: November 30, 2000

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.  
**UTU-0464**

1a. Type of Well  Oil Well  Gas  Dry Other  
b. Type of Completion:  New  Work Over  Deepen  Plug Back  Diff. Resvr.  
Other \_\_\_\_\_

6. If Indian, Allottee or Tribe Name

2. Name of Operator  
**KERR-MCGEE OIL & GAS ONSHORE LP**

7. Unit or CA Agreement Name and No.  
**UNIT #891008900A NBU UNIT**

3. Address **1368 SOUTH 1200 EAST, VERNAL, UTAH 84078**  
3a. Phone No. (include area code) **(435) 781-7024**

8. Lease Name and Well No.  
**NBU 1022-6C-4**

4. Location of Well (Report locations clearly and in accordance with Federal requirements)\*  
At surface **NE/NW LOT 3, 1178'FNL, 2192'FEL**

9. API Well No.  
**4304738528**

At top prod. interval reported below  
At total depth

10. Field and Pool, or Exploratory  
**NATURAL BUTTES**

14. Date Spudded **08/01/07**  
15. Date T.D. Reached **08/27/07**  
16. Date Completed  D & A  Ready to Prod. **10/13/07**

11. Sec., T., R., M., or Block and Survey or Area **SEC.6, T10S, R22E**

12. County or Parish **UINTAH**  
13. State **UTAH**

17. Elevations (DF, RKB, RT, GL)\*  
**4983'GL**

18. Total Depth: MD **9100'** TVD  
19. Plug Back T.D.: MD **9047'** TVD  
20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)  
**CBL-CCL-GR, COMP 2-DPNSILG/CN/GR/AOL**

22. Was well cored?  No  Yes (Submit copy)  
Was DST run?  No  Yes (Submit copy)  
Directional Survey?  No  Yes (Submit copy)

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

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cemen-ter Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20"	14"	36.7#		40'		28 SX			
12 1/4"	9 5/8"	32.3# 36#		2390'		830 SX			
7 7/8"	4 1/2"	11.6#		9100'		1596 SX			

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Set (MD)
2 3/8"	7967'							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WASATCH	5183'	6327'	5183'-6327'	0.34	83	OPEN
B) WASATCH/MESAVERDE	6716'	7025'	6716'-7025'	0.36	45	OPEN
C) MESAVERDE	7195'	9013'	7195'-9013'	0.36	216	OPEN
D)						

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WASATCH	5183'	6327'	5183'-6327'	0.34	83	OPEN
B) WASATCH/MESAVERDE	6716'	7025'	6716'-7025'	0.36	45	OPEN
C) MESAVERDE	7195'	9013'	7195'-9013'	0.36	216	OPEN
D)						

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

Depth Interval	Amount and type of Material
5183'-6327'	PMP 2316 BBLs SLICK H2O & 80,200# 30/50 SD
6716'-7025'	PMP 1714 BBLs SLICK H2O & 61,900# 30/50 SD
7195'-9013'	PMP 7337 BBLs SLICK H2O & 255,100# 30/50 SD

RECEIVED  
NOV 20 2007

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
10/13/07	10/15/07	15	→	0	2,120	400			FLOWS FROM WELL
Choke Size	Tbg. Press. Flwg. 1948#	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Well Status	
15/64	SI	2312#	→	0	2120	400		PRODUCING GAS WELL	

DIV. OF OIL, GAS & MINING

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
10/13/07	10/15/07	15	→	0	2120	400			FLOWS FROM WELL
Choke Size	Tbg. Press. Flwg. 1948#	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Well Status	
15/64	SI	2312#	→	0	2120	400		PRODUCING GAS WELL	

(See instructions and spaces for additional data on reverse side)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
10/13/07	10/15/07	15	→	0	2120	400			FLOWS FROM WELL
Choke Size	Tbg. Press. Flwg. 1948# Sl	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
15/64	Sl	2312#	→	0	2120	400			PRODUCING GAS WELL

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. Sl	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
	Sl		→						

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

SOLD

30. Summary of Porous Zones (Include Aquifers):

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

31. Formation (Log) Markers

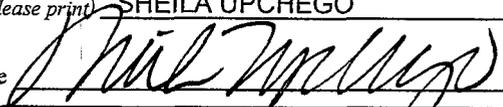
Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
WASATCH MESAVERDE	4997' 7148'	7148'			

32. Additional remarks (include plugging procedure):

33. Circle enclosed attachments:

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

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

Name (please print) SHEILA UPCHEGO Title SENIOR LAND ADMIN SPECIALIST  
 Signature  Date 11/12/07

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.

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-0464
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:  7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	8. WELL NAME and NUMBER: NBU 1022-6C-4
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	9. API NUMBER: 43047385280000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1178 FNL 2192 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 06 Township: 10.0S Range: 22.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES  COUNTY: UINTAH  STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 1/14/2014  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> ACIDIZE  <input type="checkbox"/> CHANGE TO PREVIOUS PLANS  <input type="checkbox"/> CHANGE WELL STATUS  <input type="checkbox"/> DEEPEN  <input type="checkbox"/> OPERATOR CHANGE  <input type="checkbox"/> PRODUCTION START OR RESUME  <input type="checkbox"/> REPERFORATE CURRENT FORMATION  <input type="checkbox"/> TUBING REPAIR  <input type="checkbox"/> WATER SHUTOFF  <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING  <input type="checkbox"/> CHANGE TUBING  <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS  <input type="checkbox"/> FRACTURE TREAT  <input type="checkbox"/> PLUG AND ABANDON  <input type="checkbox"/> RECLAMATION OF WELL SITE  <input type="checkbox"/> SIDETRACK TO REPAIR WELL  <input type="checkbox"/> VENT OR FLARE  <input type="checkbox"/> SI TA STATUS EXTENSION  <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR  <input type="checkbox"/> CHANGE WELL NAME  <input type="checkbox"/> CONVERT WELL TYPE  <input type="checkbox"/> NEW CONSTRUCTION  <input type="checkbox"/> PLUG BACK  <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION  <input checked="" type="checkbox"/> TEMPORARY ABANDON  <input type="checkbox"/> WATER DISPOSAL  <input type="checkbox"/> APD EXTENSION  OTHER: <input style="width: 100px;" type="text"/>

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

The operator requests authorization to Temporarily Abandon or Shut-In the subject well to accommodate recompletion drilling operations for the referenced well location. Please see the attached procedure. Thank you.

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

Date: January 15, 2014

By: *Derek Quist*

NAME (PLEASE PRINT) Matthew P Wold	PHONE NUMBER 720 929-6993	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 1/14/2014	

Well Name: **NBU 1022-6C-4**  
 Surface Location: NENW Lot 3, Sec. 6, T10, R22E  
 Uintah County, UT

12/19/2013

**Recommended action for disposition of well bore:**

This well will be temporarily abandoned to accommodate drilling operations in one of 2 ways. We will either plug the wellbore as outlined in the attached procedure or Shut-In in the following manner: a) Set a tubing plug near EOT, install a flange over the tbg hanger, removal of master valve, set VR plugs in casing head at surface, and removal of casing wing valves, replaced with blind flanges.

API: 4304738528 LEASE#: UTU-0464  
 ELEVATIONS: 4983' GL 5007' KB  
 TOTAL DEPTH: 9100' PBSD: 9047'  
 SURFACE CASING: 9 5/8" 32.3H, 36# @ 2390'  
 PRODUCTION CASING: 4 1/2" 11.6# I-80 @ 9100'  
 TOC @ Surface per CBL  
 PRODUCTION TUBING: 2 3/8" 4.7 J-55 @ 7967', per CMP rpt 10/1/07  
 PERFORATIONS: MESAVERDE 7020' - 9013'  
 WASATCH 5183' - 6821'

Tubular/Borehole	Drift inches	Collapse psi	Burst psi	Capacities		
				Gal./ft.	Cuft./ft.	Bbl./ft.
2.375" 4.7# J-55 tbg.	1.901	8100	7700	0.1624	0.02171	0.00387
4.5" 11.6# I-80	3.875	6350	7780	0.6528	0.0872	0.0155
9.625" 32.3# H-40	8.845	1400	2270	3.3055	0.4418	0.0787
9.625" 36# J-55	8.765	2020	3520	3.247	0.434	0.0773
Annular Capacities						
2.375" tbg. X 4 1/2" 11.6# csg				0.4227	0.0565	0.01
4.5" csg X 9 5/8" 36# csg				2.227	0.2977	0.053
4.5" csg X 7.875 borehole				1.704	0.2278	0.0406
9.625" csg X 12 1/4" borehole				2.3428	0.3132	0.0558

**GEOLOGICAL TOPS:**  
 4997' Wasatch  
 7148' Mesaverde

**NBU 1022-6C-4 TEMPORARY ABANDONMENT PROCEDURE**

**GENERAL**

- H2S MAY BE PRESENT. CHECK FOR H2S AND TAKE APPROPRIATE PRECAUTIONS.
- CEMENT QUANTITIES BELOW ASSUME NEAT CLASS G, YIELD 1.145 CUFT./SX. IF A DIFFERENT PRODUCT IS USED, WELLSITE PERSONNEL ARE RESPONSIBLE FOR CORRECTING QUANTITIES TO YIELD THE STATED SLURRY VOLUME. WHEN SQUEEZING, INCLUDE 10% EXCESS PER 1000' OF DEPTH.
- TREATED FRESH WATER WILL BE PLACED BETWEEN ALL PLUGS INSTEAD OF BRINE.
- ALL DISPLACEMENT FLUID SHALL CONTAIN CORROSION INHIBITOR AND BIOCIDES. PREMIX 5 GALLONS PER 100 BBLS FLUID.
- NOTIFY BLM/UDOGM 24 HOURS BEFORE MOVING ON LOCATION.

**PROCEDURE**

**Note: An estimated 39 sx of cement needed to perform procedure.**

**Note: No gyro ran previously.**

1. MIRU. KILL WELL AS NEEDED (TO INCLUDE SURFACE CSG PRESSURE). ND WH, NU AND TEST BOPE.
2. POOH W/ TBG & L/D SAME. RU WIRELINE AND MAKE A GAUGE RING RUN TO ENSURE WELLBORE IS CLEAN.
3. RUN GYRO SURVEY.
4. **PLUG #1, ISOLATE MV/WASPERFORATIONS (5183' - 9013') & TOP OF WASATCH (4997')**: RIH W/ 4 ½" CBP. SET @ ~5150'. RELEASE CBP, PUH 10', BRK CIRC W/ FRESH WATER. PRESSURE TEST CASING TO 500 PSI. INFORM ENGINEERING IF IT DOESN'T TEST. DISPLACE A MINIMUM OF **20 SX/ 4.0 BBL/ 22.7 CUFT.** ON TOP OF PLUG. PUH ABOVE TOC (~4890'). REVERSE CIRCULATE W/ TREATED FRESH WATER (~12 BBLS).
5. **PLUG #2, PROTECT BASE OF USDW (~3983')**: PUH TO ~4100'. BRK CIRC W/ FRESH WATER. DISPLACE A MINIMUM OF **19 SX / 3.9 BBL / 21.8 CUFT** AND BALANCE PLUG W/ TOC @ ~3850' (~250' COVERAGE). PUH ABOVE TOC. REVERSE CIRCULATE W/ TREATED FRESH WATER (~65 BBLS).
6. LOWER WELLHEAD TO GROUND LEVEL TO ACCOMMODATE DRILLING OPS AND INSTALL MARKER PER UDOGM GUIDELINES.
7. RDMO. TURN OVER TO DRILLING OPERATIONS.

ALM 12/19/2013