

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

FORM 3

AMENDED REPORT   
(highlight changes)

<b>APPLICATION FOR PERMIT TO DRILL</b>				5. MINERAL LEASE NO: ML-21577	6. SURFACE: State
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>				8. UNIT or CA AGREEMENT NAME: UNIT #891008900A	
2. NAME OF OPERATOR: KERR MCGEE OIL & GAS ONSHORE L.P.				9. WELL NAME and NUMBER: NBU 1021-32A	
3. ADDRESS OF OPERATOR: 1368 S 1200 E CITY VERNAL STATE UT ZIP 84078			PHONE NUMBER: (435) 781-7024	10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 646'FNL, 955'FEL 622348x 39.909561 AT PROPOSED PRODUCING ZONE: 4418490y -109.568631				11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 32 10S 21E	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 18 MILES SOUTH OF OURAY, UTAH				12. COUNTY: UINTAH	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 646'		16. NUMBER OF ACRES IN LEASE: 640.00		17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40.00	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) REFER TO TOPO C		19. PROPOSED DEPTH: 9,160		20. BOND DESCRIPTION: RLB0005237	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5317'GL		22. APPROXIMATE DATE WORK WILL START:		23. ESTIMATED DURATION:	

**PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
12 1/4"	9 5/8	H-40	32.3#	1,800	265 SX CLASS G	1.18 YIELD	15.6 PPG
7 7/8"	4 1/2	I-80	11.6#	9,160	1940 SX 50/50 POZ	1.31 YIELD	14.3 PPG

**ATTACHMENTS**

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

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER     | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN                                   |
| <input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST  
 SIGNATURE *[Signature]* DATE 1/23/2007

(This space for State use only)

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

API NUMBER ASSIGNED: 43-247-39026

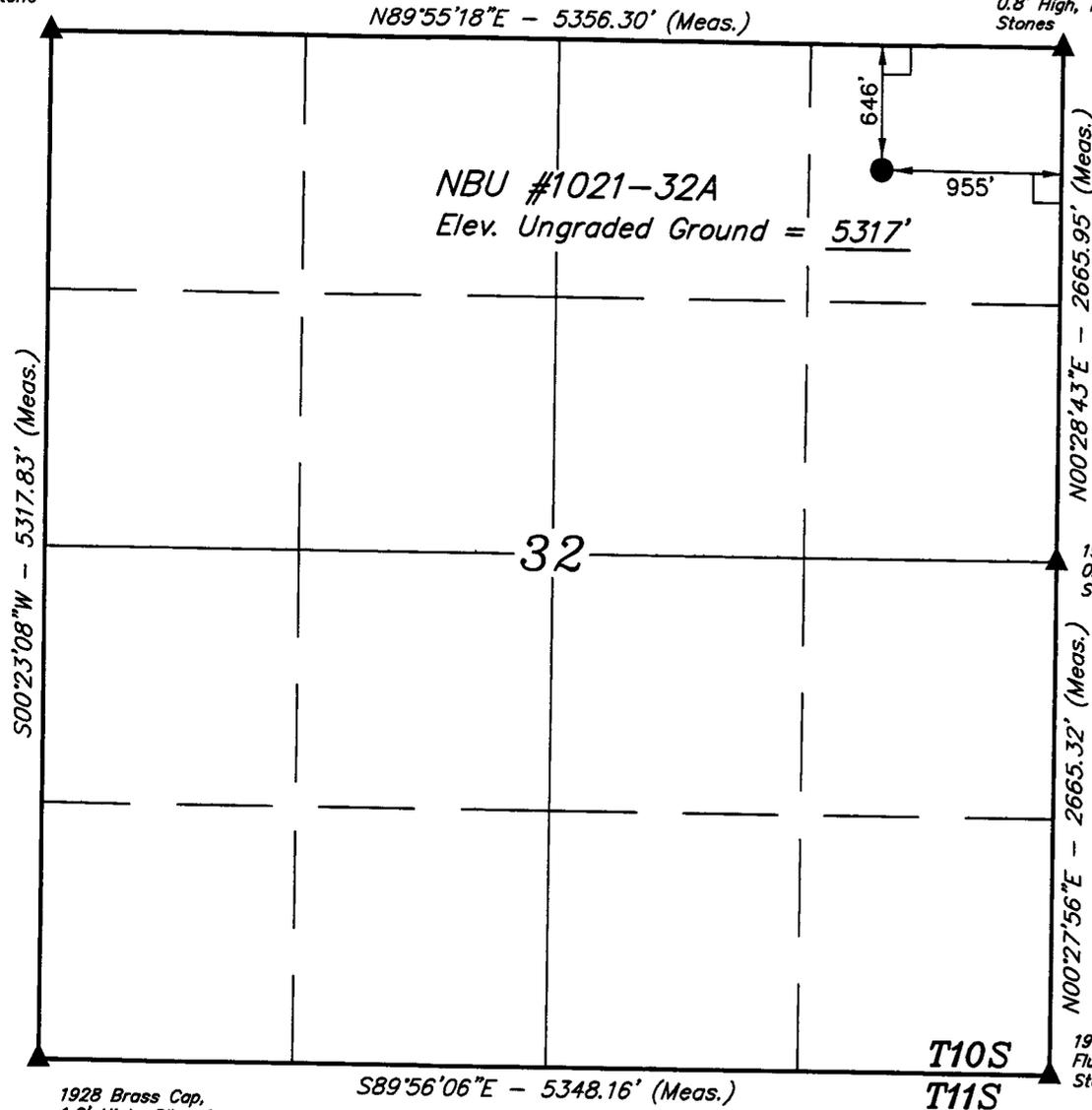
APPROVAL:  
Date: 06-25-07  
By: *[Signature]*

**RECEIVED  
FEB 02 2007**

# T10S, R21E, S.L.B.&M.

1/2" Rebar 0.6' High,  
Pile of Stones, Set  
Stone

1977 Brass Cap,  
0.8' High, Pile of  
Stones

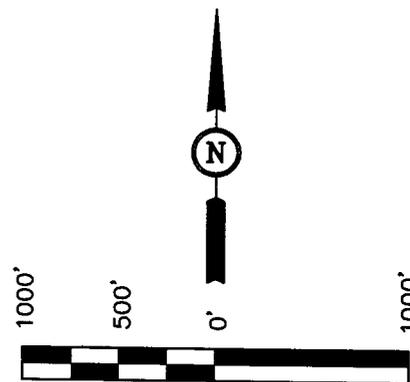


## Kerr-McGee Oil & Gas Onshore LP

Well location, NBU #1021-32A, located as shown in the NE 1/4 NE 1/4 of Section 32, T10S, R21E, S.L.B.&M., Uintah County, Utah.

### BASIS OF ELEVATION

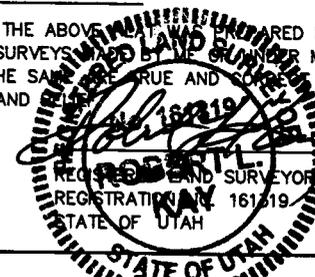
TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE, QUADRANGLE, UTAH, UTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238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



SCALE

### CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE 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.



### BASIS OF BEARINGS

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

(NAD 83)  
 LATITUDE = 39°54'34.22" (39.909506)  
 LONGITUDE = 109°34'09.51" (109.569308)  
 (NAD 27)  
 LATITUDE = 39°54'34.34" (39.909539)  
 LONGITUDE = 109°34'07.03" (109.568619)

### LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

<b>UTAH ENGINEERING &amp; SURVEYING</b> 85 SOUTH 200 EAST - VERNAL, UTAH 84078 (435) 789-1017		
SCALE 1" = 1000'	DATE SURVEYED: 11-22-06	DATE DRAWN: 12-07-06
PARTY L.K. J.M. C.H.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE Kerr-McGee Oil & Gas Onshore LP	

**NBU 1021-32A  
NE/NE SEC. 32, T10S, R21E  
UINTAH COUNTY, UTAH  
ML-21577**

**ONSHORE ORDER NO. 1**

***DRILLING PROGRAM***

**1. Estimated Tops of Important Geologic Markers:**

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	995'
Top of Birds Nest Water	1242'
Mahogany	1774'
Wasatch	4167'
Mesaverde	7008'
MVU2	8000'
MVL1	8512'
TD	9160'

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Water	Green River	995'
	Top of Birds Nest Water	1242'
	Mahogany	1774'
Gas	Wasatch	4167'
Gas	Mesaverde	7008'
Gas	MVU2	8000'
Gas	MVL1	8512'
Water	N/A	
Other Minerals	N/A	

**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 9160' TD, approximately equals 5679 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3664 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 refer to the attached Drilling Program.*

10. **Other Information:**

*Please refer to the attached Drilling Program.*



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE January 23, 2007  
 WELL NAME NBU 1021-32A TD 9,160' MD/TVD  
 FIELD Natural Buttes COUNTY Uintah STATE Utah ELEVATION 5,317' GL KB 5,332'  
 SURFACE LOCATION NE/NE SEC. 32, T10S, R21E 646'FNL, 955'FEL BHL Straight Hole  
 Latitude: 39.909506 Longitude: 109.569308  
 OBJECTIVE ZONE(S) Wasatch/Mesaverde  
 ADDITIONAL INFO Regulatory Agencies: UDOGM (SURF & MINERALS), BLM, Tri-County Health Dept.

GEOLOGICAL		MECHANICAL			
LOGS	FORMATION 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 4,167' Green River @ 0,995' Top of Birds Nest Water @ 1242' Mahogany @ 1,774' Preset ff GL @ 1,800' MD					
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.					
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	Water/Fresh Water Mud 8.3-11.5 ppg
	Wasatch @	4,167'			
	Mverde @	7,008'			
	MVU2 @	8,000'			
	MVL1 @	8,512'			
		TD @ 9,160'			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 1800	32.30	H-40	STC	0.66*****	1.63	4.99
PRODUCTION	4-1/2"	0 to 9160	11.60	I-80	LTC	2.25	1.16	2.17

- 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 3462 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 Option 1	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18	
	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 Option 2	<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>							
	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	3,660'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	400	60%	11.00	3.38	
	TAIL	5,500'	50/50 Poz/G + 10% salt + 2% gel +.1% R-3	1540	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 & tour 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: \_\_\_\_\_



NBU 1021-32A  
NE/NE SEC. 32, T10S, R21E  
Uintah County, UT  
ML-21577

**ONSHORE ORDER NO. 1**

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

**1. Existing Roads:**

Refer to Topo Map A for directions to the location.

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

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

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

**2. Planned Access Roads:**

Approximately 199' +/- of new access road is proposed. Refer to Topo Map B for the location of the proposed access road.

The upgraded and new portions of the access road will be crowned and ditched with a running surface of 18 feet and a maximum disturbed width of 30 feet. Appropriate water control will be installed to control erosion.

***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.***

The access road was centerline flagged during time of staking.

Surfacing material may be necessary, depending upon weather conditions.

Surface disturbance and vehicular traffic will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

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

Please refer to Topo Map C.

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

*The following guidelines will apply if the well is productive.*

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain

fluids (i.e., production tanks, produced water tanks, and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee.

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 required color is Carlsbad Canyon, standard color number 2.5Y 6/2.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

Approximately 178' +/- of 4" pipeline is proposed from the location to a tie-in point. Refer to Topo Map D.

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

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32, T4S, R3E, Water User Claim #43-8496, Application #53617.

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:**

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

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

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

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

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

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.

**8. Ancillary Facilities:**

None are anticipated.

**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.

The reserve pit will be lined, and when the reserve pit is closed, the pit liner will be buried below plow depth.

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

39 inch net wire 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.

The reserve pit fencing will be on three sides during drilling operations, and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Location size may change prior to the drilling of the well due to 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 9 shall be submitted.

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

*Producing Location:*

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

A plastic, nylon reinforced liner will be used, it shall be torn and perforated before backfilling of the reserve pit.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water (s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling, and recontouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

*Dry Hole/Abandoned Location:*

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified.

All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment.

Reseeding operations will be performed after completion of other reclamation operations.

**11. Surface Ownership:**

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

**12. Other Information:**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations, and any applicable Notice of Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites, or other applicable facilities.

A Class III archaeological survey will be submitted when report becomes available.

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 within the boundaries of the Unit.

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

Sheila Upchego  
Senior Land Admin Specialist  
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.

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 State Surety Bond #RLB0005237.

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

1/24/2007

\_\_\_\_\_  
Date

# Kerr-McGee Oil & Gas Onshore LP

NBU #1021-32A

SECTION 32, T10S, R21E, 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; TURN LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 15.6 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 1.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.6 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHEAST; FOLLOW ROAD FLAGS IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 199' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 49.0 MILES.

# Kerr-McGee Oil & Gas Onshore LP

NBU #1021-32A

LOCATED IN UTAH COUNTY, UTAH  
SECTION 32, T10S, R21E, S.L.B.&M.

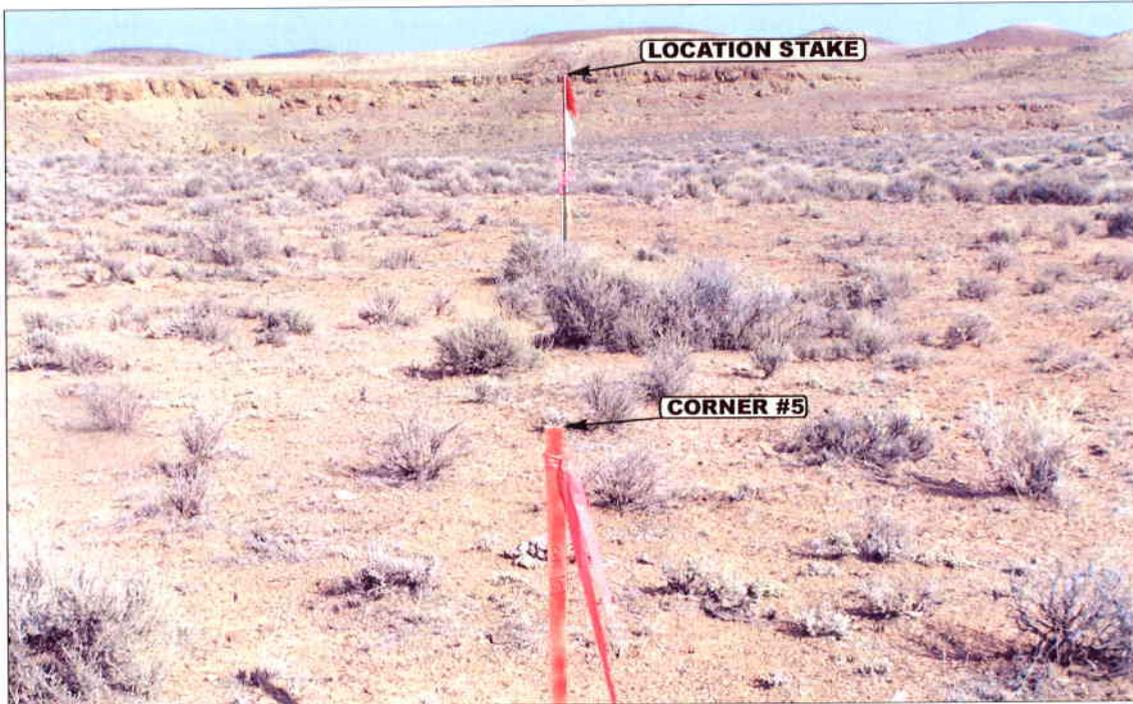


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

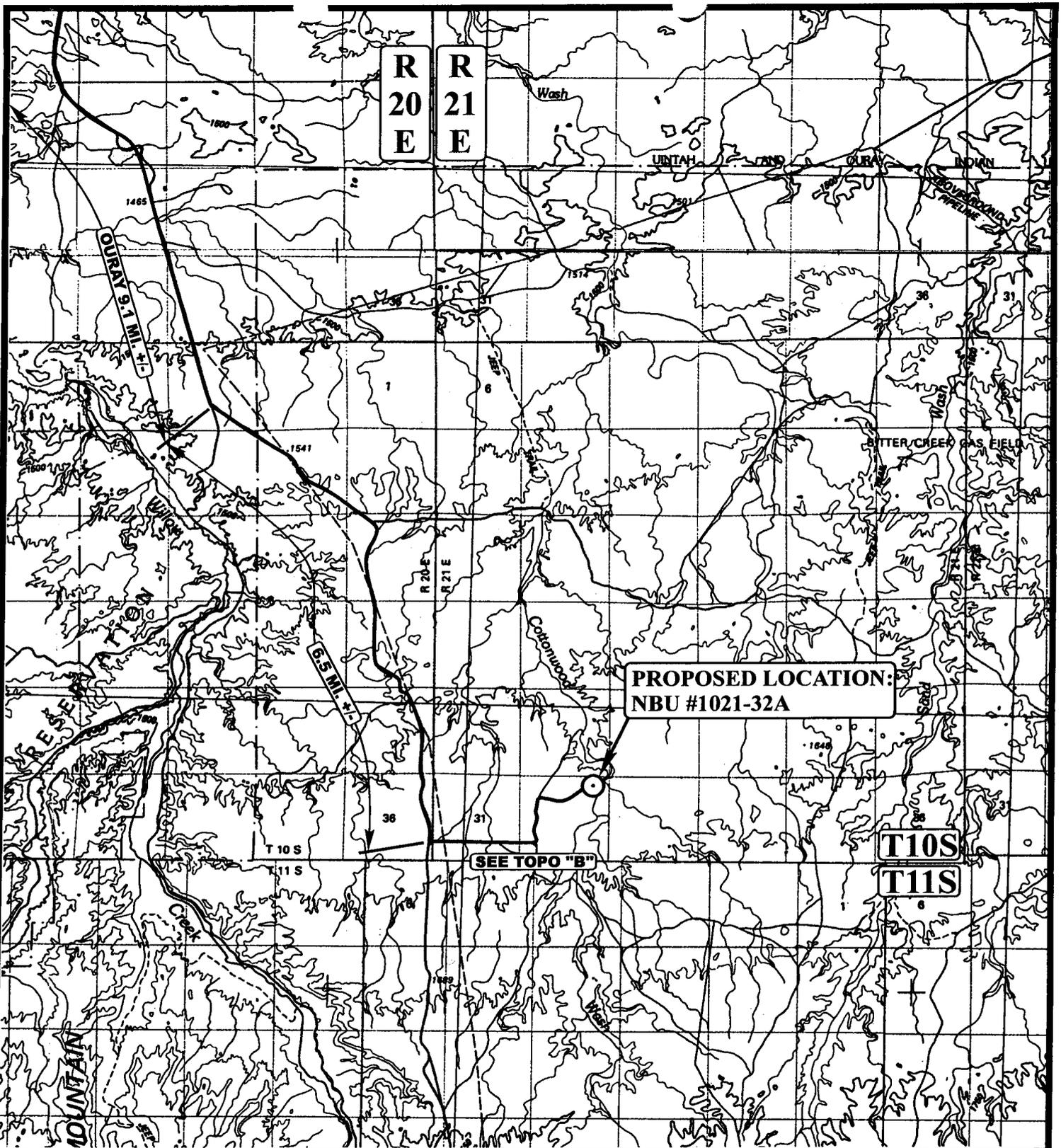
CAMERA ANGLE: SOUTHEASTERLY



- Since 1964 -

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

<b>LOCATION PHOTOS</b>	<b>12</b> MONTH	<b>11</b> DAY	<b>06</b> YEAR	<b>PHOTO</b>
TAKEN BY: L.K.	DRAWN BY: A.A.		REVISED: 00-00-00	



**LEGEND:**

○ PROPOSED LOCATION



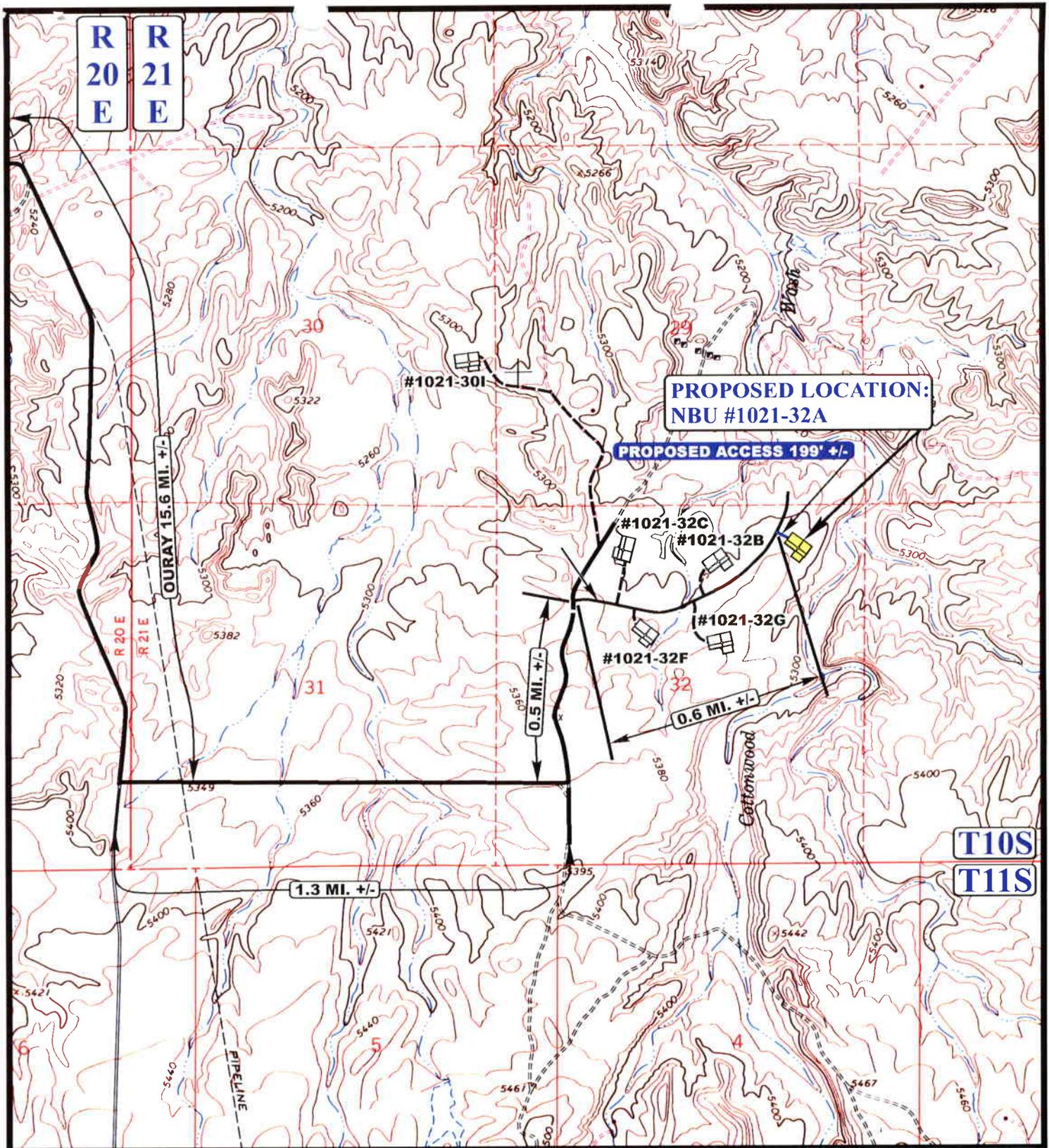
**Kerr-McGee Oil & Gas Onshore LP**

NBU #1021-32A  
 SECTION 32, T10S, R21E, S.L.B.&M.  
 646' FNL 955' FEL

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

**TOPOGRAPHIC** 12 11 06  
 MAP MONTH DAY YEAR  
 SCALE: 1:100,000 DRAWN BY: A.A. REVISED: 00-00-00





**LEGEND:**

- EXISTING ROAD
- PROPOSED ACCESS ROAD

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

**NBU #1021-32A  
SECTION 32, T10S, R21E, S.L.B.&M.  
646' FNL 955' FEL**



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

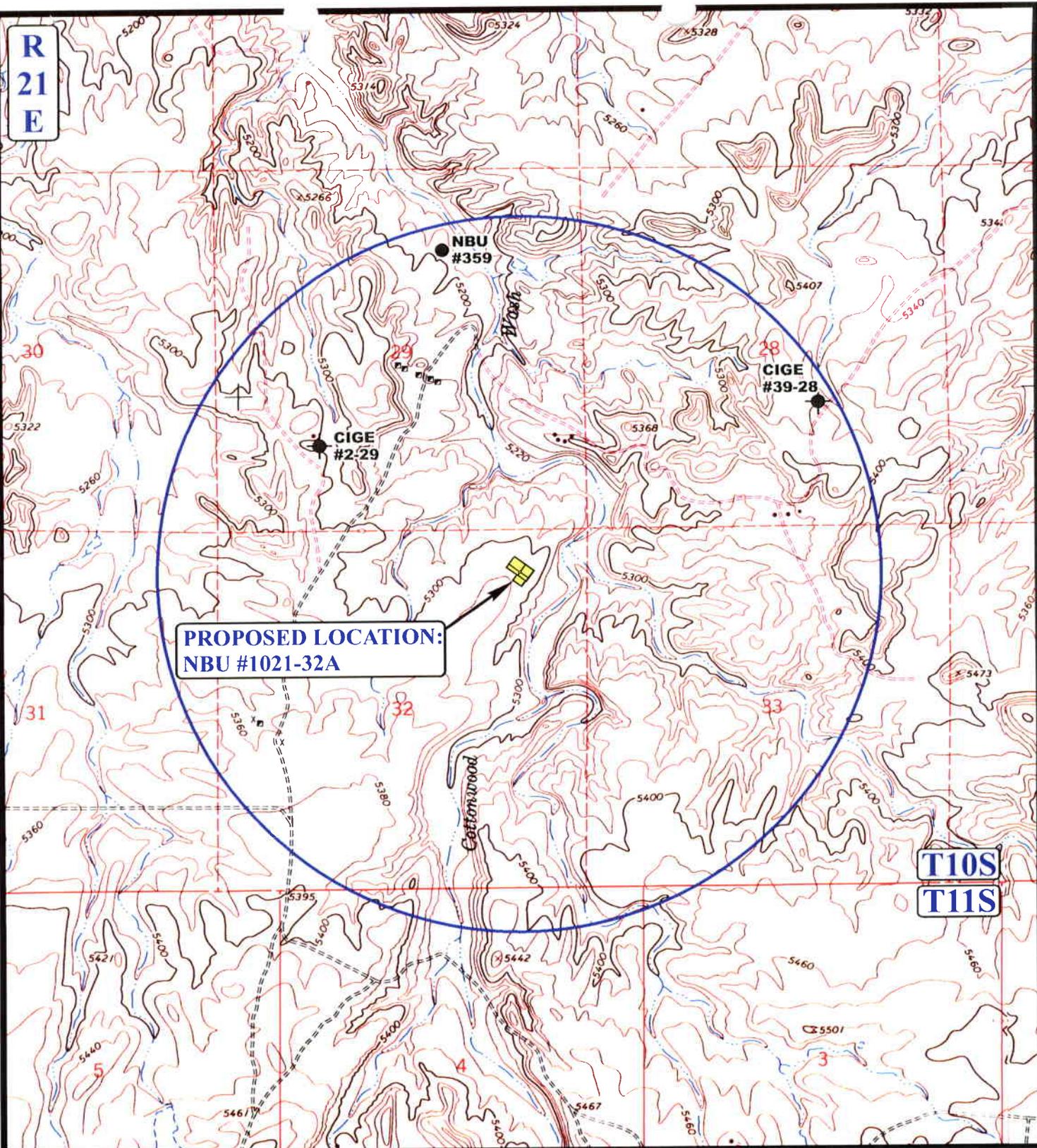
**TOPOGRAPHIC  
MAP**

<b>12</b>	<b>11</b>	<b>06</b>
MONTH	DAY	YEAR



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

R  
21  
E



**PROPOSED LOCATION:  
NBU #1021-32A**

**LEGEND:**

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

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

**NBU #1021-32A  
SECTION 32, T10S, R21E, S.L.B.&M.  
646' FNL 955' FEL**

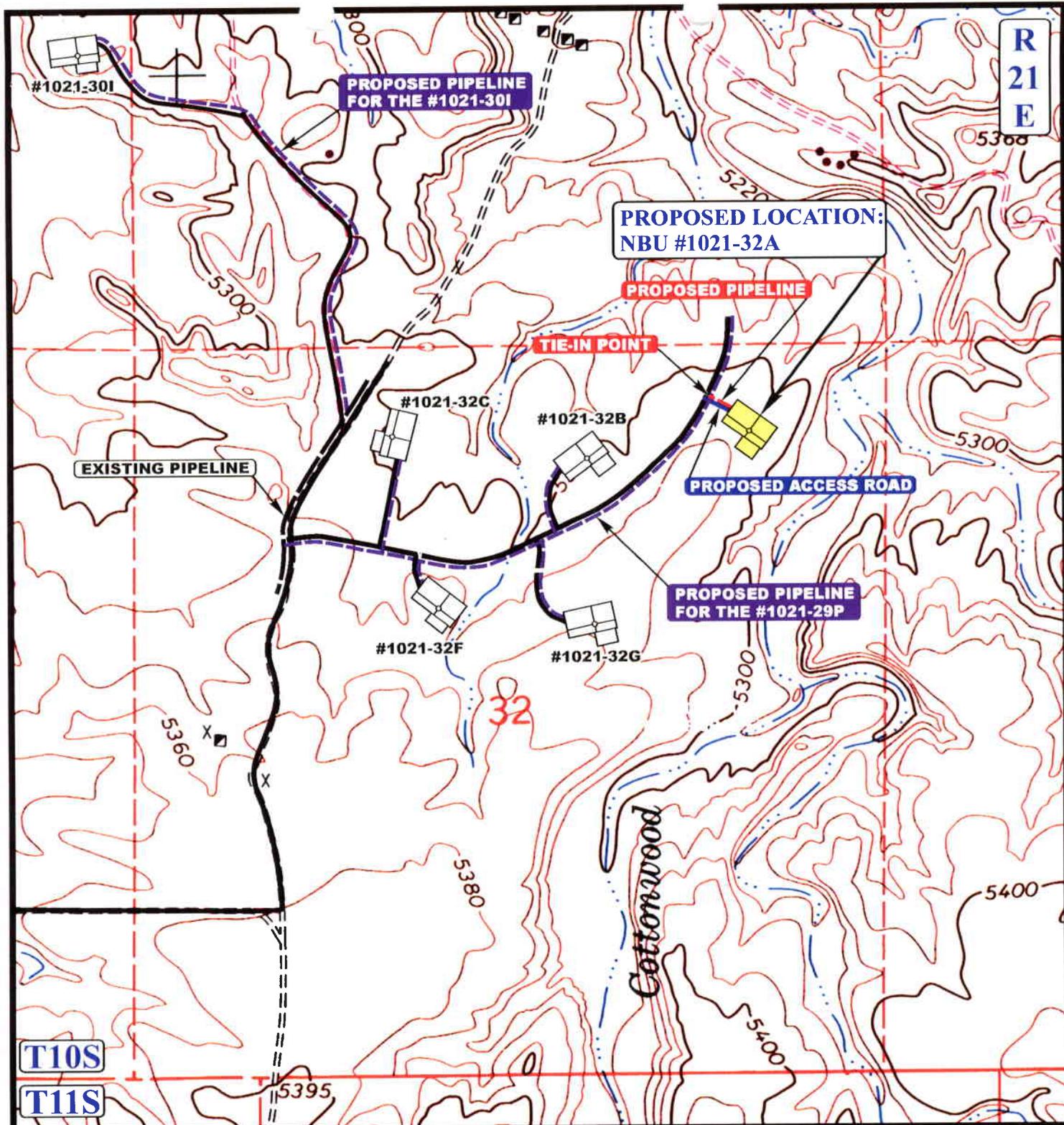


**Uintah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813



<b>TOPOGRAPHIC</b>	<b>12</b>	<b>11</b>	<b>06</b>
<b>MAP</b>	MONTH	DAY	YEAR
SCALE: 1" = 2000'	DRAWN BY: A.A.		REVISED: 00-00-00





**APPROXIMATE TOTAL PIPELINE DISTANCE = 178' +/-**

**LEGEND:**

- PROPOSED ACCESS ROAD
- - - - - EXISTING PIPELINE
- - - - - PROPOSED PIPELINE

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

**NBU #1021-32A**  
**SECTION 32, T10S, R21E, S.L.B.&M.**  
**646' FNL 955' FEL**

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

**TOPOGRAPHIC MAP**  
 12 11 06  
 MONTH DAY YEAR  
 SCALE: 1" = 1000' DRAWN BY: A.A. REVISED: 00-00-00

**D**  
**TOPO**

# Kerr-McGee Oil and Gas Onshore LP

NBU #1021-32A

PIPELINE ALIGNMENT

LOCATED IN UINTAH COUNTY, UTAH

SECTION 32, T10S, R21E, S.L.B.&M.



PHOTO: VIEW FROM TIE-IN POINT

CAMERA ANGLE: SOUTHEASTERLY



- Since 1964 -

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

PIPELINE PHOTOS

12 11 06  
MONTH DAY YEAR

PHOTO

TAKEN BY: L.K. DRAWN BY: A.A. REVISED: 00-00-00

# Kerr-McGee Oil & Gas Onshore LP

FIGURE #1

## LOCATION LAYOUT FOR

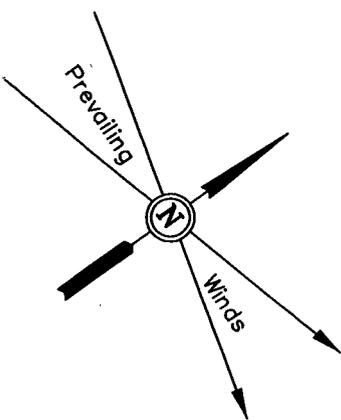
NBU #1021-32A  
SECTION 32, T10S, R21E, S.L.B.&M.

646' FNL 955' FEL

Proposed Access Road

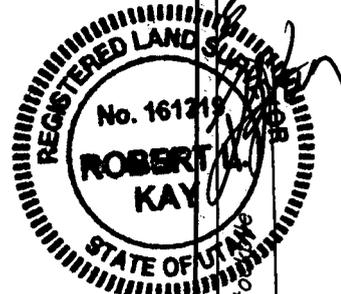
C-2.4'  
El. 18.8'

F-3.0'  
El. 13.4'

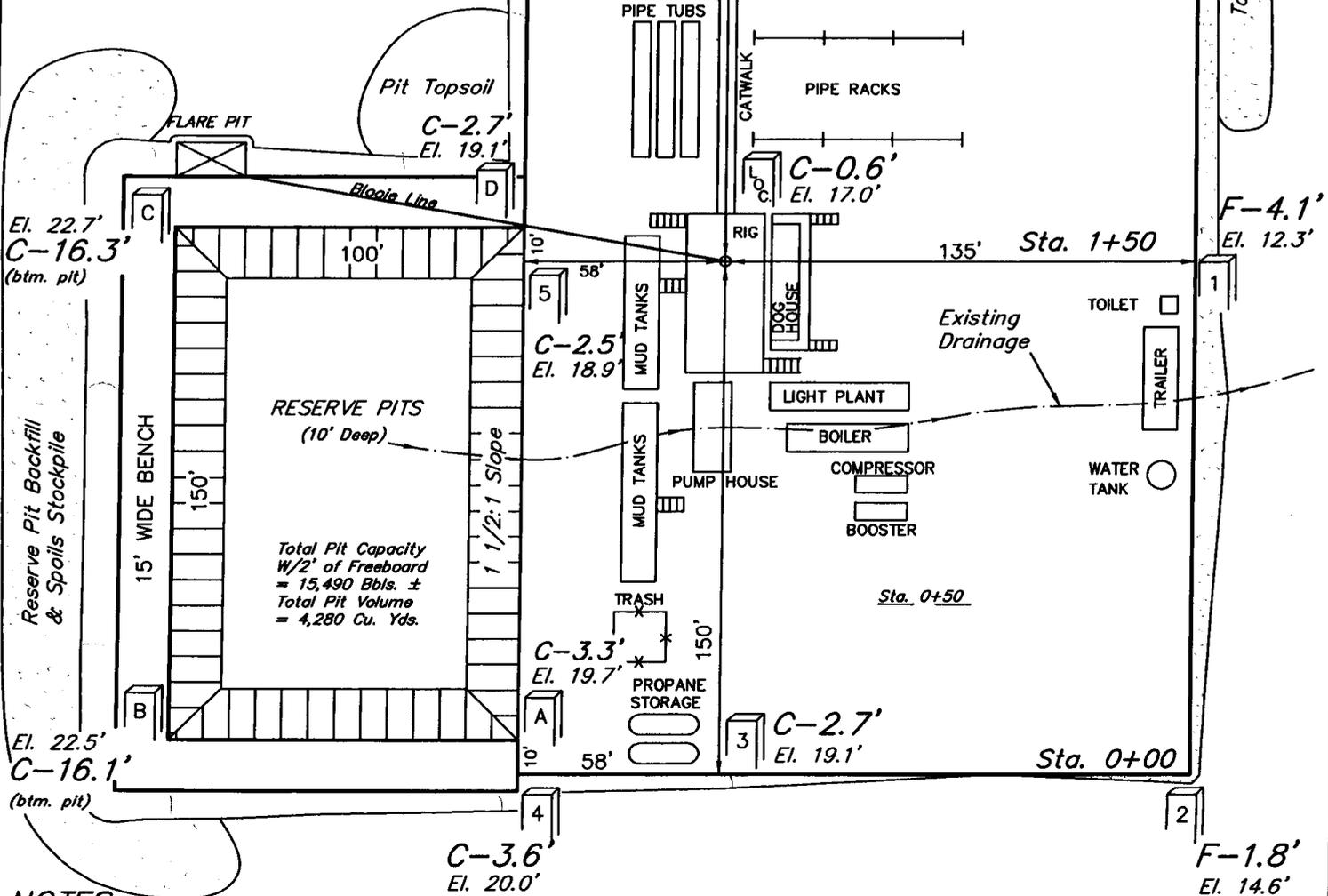


SCALE: 1" = 50'  
DATE: 12-07-06  
Drawn By: C.H.

Approx. Top of Cut Slope



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



**NOTES:**

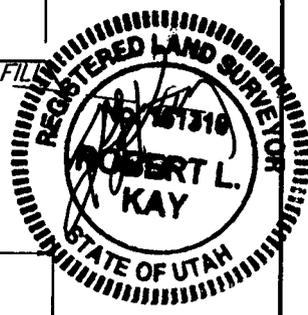
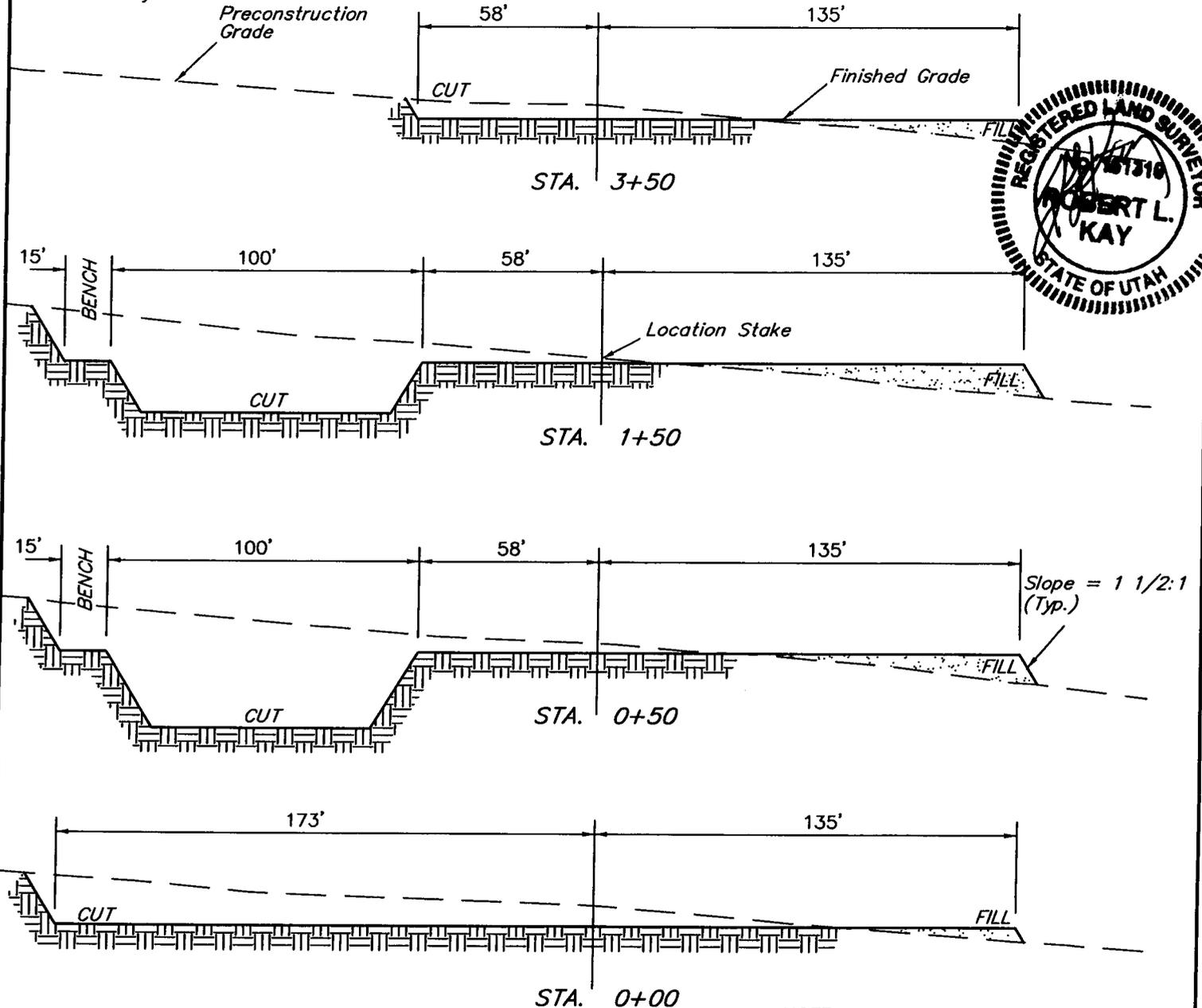
Elev. Ungraded Ground At Loc. Stake = 5317.0'  
FINISHED GRADE ELEV. AT LOC. STAKE = 5316.4'

Kerr-McGee Oil & Gas Onshore LP

FIGURE #2

TYPICAL CROSS SECTIONS FOR  
 NBU #1021-32A  
 SECTION 32, T10S, R21E, S.L.B.&M.  
 646' FNL 955' FEL

1" = 20'  
 X-Section Scale  
 1" = 50'  
 DATE: 12-07-06  
 Drawn By: C.H.



\* NOTE:  
 FILL QUANTITY INCLUDES  
 5% FOR COMPACTION

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

APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 1,830 Cu. Yds.
Remaining Location	= 8,680 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 10,510 CU.YDS.</b>
<b>FILL</b>	<b>= 3,410 CU.YDS.</b>

EXCESS MATERIAL	= 7,100 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 3,970 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	= 3,130 Cu. Yds.

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 02/02/2007

API NO. ASSIGNED: 43-047-39026

WELL NAME: NBU 1021-32A  
 OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )  
 CONTACT: SHEILA UPCHEGO

PHONE NUMBER: 435-781-7024

PROPOSED LOCATION:

NENE 32 100S 210E  
 SURFACE: 0646 FNL 0955 FEL  
 BOTTOM: 0646 FNL 0955 FEL  
 COUNTY: UINTAH  
 LATITUDE: 39.90956 LONGITUDE: -109.5686  
 UTM SURF EASTINGS: 622348 NORTHINGS: 4418490  
 FIELD NAME: NATURAL BUTTES ( 630 )

INSPECT LOCATN BY: / /		
<b>Tech Review</b>	<b>Initials</b>	<b>Date</b>
Engineering	DLD	4/24/07
Geology		
Surface		

LEASE TYPE: 3 - State  
 LEASE NUMBER: ML-21577  
 SURFACE OWNER: 3 - State

PROPOSED FORMATION: WSMVD  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[] Ind[] Sta[] Fee[]  
(No. 22013542 )
- 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' fr u bdy - u n e m m . r r o . 13
- R649-3-11. Directional Drill

COMMENTS: Needs Permit (04-04-07)

STIPULATIONS: 1- STATEMENT OF BASIS  
2- OIL SHALE  
3- Surface Csg Cont Strip



# Application for Permit to Drill

## Statement of Basis

4/16/2007

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Ownr	CBM
252	43-047-39026-00-00		GW	S	No
<b>Operator</b>	KERR-MCGEE OIL & GAS ONSHORE, LP		<b>Surface Owner-APD</b>		
<b>Well Name</b>	NBU 1021-32A		<b>Unit</b>		
<b>Field</b>	UNDESIGNATED		<b>Type of Work</b>		
<b>Location</b>	NENE 32 10S 21E S 0 FL 0 FL GPS Coord (UTM) 622348E 4418490N				

### Geologic Statement of Basis

Kerr McGee proposes to set 1,800' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 4,300'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 32. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill  
APD Evaluator

4/16/2007  
Date / Time

### Surface Statement of Basis

The general area is within the Love area of the Natural Buttes Unit in the upper Cottonwood Wash Drainage. The area is characterized by rolling hills and benches, which are frequently intersected by somewhat gentle draws, which flow into Cottonwood Wash. The draws are occasionally rimmed with steep side hills, which have exposed sand stone bedrock cliffs along the rims. Cottonwood Wash is an ephemeral drainage, which drains northerly approximately 11 miles to the White River. No seeps, springs or streams exist in the area.

This location is approximately 18 miles southeast of Ouray, Utah and is accessed by the Seep Ridge Road then by existing or planned oil field development roads to within 200 feet of the proposed site. New construction will be required from this point.

The proposed location is west and out of the bottom of Cottonwood Wash located on a flat bench. Terrain is slightly rolling with little sideslope. One shallow draw begins within the location and will be covered with fill. No diversions are needed.

Both the surface and minerals are owned by SITLA. Jim Davis represented SITLA at the pre-site investigation. Mr. Davis had no concerns pertaining to this location. The selected location appears to be the best site for drilling and operating a well in the immediate area.

Floyd Bartlett  
Onsite Evaluator

4/4/2007  
Date / Time

### Conditions of Approval / Application for Permit to Drill

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

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, LP  
Well Name NBU 1021-32A  
API Number 43-047-39026-0 APD No 252 Field/Unit UNDESIGNATED  
Location: 1/4,1/4 NENE Sec 32 Tw 10S Rng 21E 0 FL 0 FL  
GPS Coord (UTM) 622351 4418488 Surface Owner

### Participants

Floyd Bartlett (DOGM), Jim Davis (SITLA), Carroll Estes, Tony Keznic, and Clay Einerson (Kerr McGee), David Kay (Uintah Engineering and Land Surveying), and Ben Williams (UDWR)

### Regional/Local Setting & Topography

The general area is within the Love area of the Natural Buttes Unit in the upper Cottonwood Wash Drainage. The area is characterized by rolling hills and benches, which are frequently intersected by somewhat gentle draws, which flow into Cottonwood Wash. The draws are occasionally rimmed with steep side hills, which have exposed sand stone bedrock cliffs along the rims. Cottonwood Wash is an ephemeral drainage, which drains northerly approximately 11 miles to the White River. No seeps, springs or streams exist in the area.

This location is approximately 18 miles southeast of Ouray, Utah and is accessed by the Seep Ridge Road then by existing or planned oil field development roads to within 200 feet of the proposed site. New construction will be required from this point.

The proposed location is west and out of the bottom of Cottonwood Wash located on a flat bench. Terrain is slightly rolling with little sideslope. One shallow draw begins within the location and will be covered with fill. No diversions are needed.

Both the surface and minerals are owned by SITLA.

### Surface Use Plan

#### Current Surface Use

Grazing  
Recreational  
Wildlfe Habitat

#### New Road

Miles	Well Pad	Src Const Material	Surface Formation
0.02	Width 308	Length 350	Onsite
			UNTA

Ancillary Facilities N

### Waste Management Plan Adequate? Y

### Environmental Parameters

Affected Floodplains and/or Wetland N

#### Flora / Fauna

Vegetation is a desert shrub type. A moderate stand of mat saltbrush exists. Lomatium, curly mesquite, cheatgrass and a few spring annuals are also present.

Antelope, cattle, rabbits, coyotes, and small mammals, birds and raptors.

**Soil Type and Characteristics**  
Moderately deep sandy loam.

**Erosion Issues** N

**Sedimentation Issues** N

**Site Stability Issues** N

**Drainage Diversion Required** N

**Berm Required?** N

**Erosion Sedimentation Control Required?** N

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

**Reserve Pit**

<b>Site-Specific Factors</b>		<b>Site Ranking</b>
<b>Distance to Groundwater (feet)</b>	>200	0
<b>Distance to Surface Water (feet)</b>	>1000	0
<b>Dist. Nearest Municipal Well (ft)</b>	>5280	0
<b>Distance to Other Wells (feet)</b>	300 to 1320	10
<b>Native Soil Type</b>	Mod permeability	10
<b>Fluid Type</b>	Fresh Water	5
<b>Drill Cuttings</b>	Normal Rock	0
<b>Annual Precipitation (inches)</b>	<10	0
<b>Affected Populations</b>	<10	0
<b>Presence Nearby Utility Conduits</b>	Not Present	0
	<b>Final Score</b>	25
		1 <b>Sensitivity Level</b>

**Characteristics / Requirements**

The proposed reserve pit is 100' x 150' x 10' deep located in a cut on the southeast corner of the location. A 20 mil liner with a felt sub-liner is planned by Kerr McGee.

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

**Other Observations / Comments**

Ben Williams representing the UDWR stated the area is classified as yearlong critical habitat for antelope. He stated that the lack of water not forage is the limiting factor affecting the herd in the area. He recommended no restrictions for antelope. No other wildlife is expected to be significantly affected. He gave Jim Davis of SITLA and Carroll Estes of Kerr McGee a copy of his wildlife evaluation and a UDWR recommended seed mix to be used when re-vegetating the location.

ATV's were used to access the site.

Floyd Bartlett  
Evaluator

4/4/2007  
Date / Time

Casing Schematic

BHP  $0.052(9160)11.5 = 5478 \text{ psi}$   
anticipate 5679 psi

Gas  $.12(9160) = 1099$   
 $5478 - 1099 = 4379 \text{ psi, MASP}$

BOPE 5M ✓

Burst 2270  
70% 1589

Max P @ surf. shoe  
 $.22(7360) = 1619$   
 $5478 - 1619 = 3859 \text{ psi}$

test to 1589 psi ✓  
✓ 1800 psi max pressure allowed @ shoe (1 psi/ft frac grad.)

Slip. surf. cnt. ✓

✓ Adequate mud 4/24/07

9-5/8"  
MW 8.3  
Frac 19.3

4-1/2"  
MW 11.5

Surface

12.7%

18.7%

TOC @ 0.

Uinta

TOC @ 441.

to surf w/ 9% w/o  
+ surf step ✓

995' Green River  
1242' Birds Nest Water

1774' Mahogany  
Surface  
1800. MD

4167' Wasatch  
4300' ± BMSW

7008' Mesaverde

8000' MV U2

8512' MV L1

Production  
9160. MD

Well name:	<b>2007-04 Kerr McGee NBU 1021-32A</b>	
Operator:	<b>Kerr McGee Oil &amp; Gas Onshore L.P.</b>	
String type:	Surface	Project ID: 43-047-39026
Location:	Uintah County, Utah	

**Design parameters:**

**Collapse**  
Mud weight: 8.300 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**  
Design factor 1.125

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 100 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,400 ft

**Burst:**  
Design factor 1.00

Cement top: 441 ft

**Burst**

Max anticipated surface pressure: 1,584 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 1,800 psi

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

**Non-directional string.**

No backup mud specified.

Tension is based on buoyed weight.  
Neutral point: 1,580 ft

**Re subsequent strings:**

Next setting depth: 9,160 ft  
Next mud weight: 11.500 ppg  
Next setting BHP: 5,472 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 1,800 ft  
Injection pressure: 1,800 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	1800	9.625	32.30	H-40	ST&C	1800	1800	8.876	795.3

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	776	1370	1.766	1800	2270	1.26	51	254	4.98 J

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

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

Date: April 19, 2007  
Salt Lake City, Utah

Remarks:  
Collapse is based on a vertical depth of 1800 ft, a mud weight of 8.3 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>2007-04 Kerr McGee NBU 1021-32A</b>	
Operator:	<b>Kerr McGee Oil &amp; Gas Onshore L.P.</b>	
String type:	Production	Project ID: 43-047-39026
Location:	Uintah County, Utah	

**Design parameters:**

**Collapse**

Mud weight: 11.500 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 203 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 3,457 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 5,472 psi

No backup mud specified.

**Tension:**

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

**Non-directional string.**

Tension is based on buoyed weight.

Neutral point: 7,585 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	9160	4.5	11.60	I-80	LT&C	9160	9160	3.875	799.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	5472	6360	1.162	5472	7780	1.42	88	212	2.41 J

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

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

Date: April 19, 2007  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 9160 ft, a mud weight of 11.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

# 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)

February 7, 2007

**Memorandum**

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2007 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 2007 within the Natural Buttes Unit, Uintah County, Utah.

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

(Proposed PZ Wasatch/MesaVerde)

43-047-39004	NBU 1021-19C	Sec. 19 T. 10S R. 21E 0620 FNL 1904 FWL
43-047-39005	NBU 1021-19D	Sec. 19 T. 10S R. 21E 0637 FNL 0755 FWL
43-047-39006	NBU 1021-19E	Sec. 19 T. 10S R. 21E 2146 FNL 0879 FWL
43-047-39007	NBU 1021-19K	Sec. 19 T. 10S R. 21E 2181 FSL 2092 FWL
43-047-39008	NBU 1021-19N	Sec. 19 T. 10S R. 21E 0462 FSL 1845 FWL
43-047-39009	NBU 1021-29L	Sec. 29 T. 10S R. 21E 1398 FSL 0190 FWL
43-047-39010	NBU 1021-29O	Sec. 29 T. 10S R. 21E 0615 FSL 2115 FEL
43-047-39011	NBU 1021-29N	Sec. 29 T. 10S R. 21E 0250 FSL 1764 FWL
43-047-39012	NBU 1021-29J	Sec. 29 T. 10S R. 21E 1532 FSL 2192 FEL
43-047-39013	NBU 1021-29K	Sec. 29 T. 10S R. 21E 1804 FSL 2143 FWL
43-047-39014	NBU 1021-29I	Sec. 29 T. 10S R. 21E 2060 FSL 0962 FEL
43-047-39015	NBU 1021-29G	Sec. 29 T. 10S R. 21E 2090 FNL 1960 FEL
43-047-39016	NBU 1021-29F	Sec. 29 T. 10S R. 21E 1718 FNL 1529 FWL
43-047-39017	NBU 1021-29E	Sec. 29 T. 10S R. 21E 2635 FNL 1010 FWL
43-047-39018	NBU 1021-29C	Sec. 29 T. 10S R. 21E 0476 FNL 2501 FWL
43-047-39019	NBU 1021-29A	Sec. 29 T. 10S R. 21E 0170 FNL 0627 FEL
43-047-39020	NBU 1021-30I	Sec. 30 T. 10S R. 21E 2131 FSL 0387 FEL
43-047-39021	NBU 1021-30J	Sec. 30 T. 10S R. 21E 1901 FSL 1827 FEL
43-047-39022	NBU 1021-30K	Sec. 30 T. 10S R. 21E 1398 FSL 2686 FWL
43-047-39023	NBU 1021-30L	Sec. 30 T. 10S R. 21E 1602 FSL 0980 FWL
43-047-39024	NBU 1021-30M	Sec. 30 T. 10S R. 21E 0612 FSL 0462 FWL

Page 2

43-047-39025 NBU 1021-30N Sec. 30 T. 10S R. 21E 0942 FSL 1876 FWL  
43-047-39026 NBU 1021-32A Sec. 32 T. 10S R. 21E 0646 FNL 0955 FEL  
43-047-39027 NBU 1021-32B Sec. 32 T. 10S R. 21E 0837 FNL 2117 FEL  
43-047-39028 NBU 1021-32C Sec. 32 T. 10S R. 21E 0664 FNL 1840 FWL  
43-047-39029 NBU 1021-32F Sec. 32 T. 10S R. 21E 1909 FNL 2165 FWL  
43-047-39001 NBU 1021-01G Sec. 01 T. 10S R. 21E 2660 FSL 1765 FEL  
43-047-39002 NBU 1021-01O Sec. 01 T. 10S R. 21E 0245 FSL 2619 FEL  
43-047-39003 NBU 1021-01P Sec. 01 T. 10S R. 21E 0888 FSL 1309 FEL  
43-047-39030 NBU 1022-18A Sec. 18 T. 10S R. 22E 1007 FNL 0512 FEL  
43-047-39031 NBU 1022-24I Sec. 24 T. 10S R. 22E 2045 FSL 1166 FEL  
43-047-39032 NBU 1022-25B Sec. 25 T. 10S R. 22E 0403 FNL 1971 FEL  
43-047-39033 NBU 1022-25H Sec. 25 T. 10S R. 22E 2604 FNL 0825 FEL

Our records indicate the NBU 1022-25H is closer than 460 feet from the Natural Buttes Unit boundary (approximately 36 feet).

We have no objections to permitting the wells so long as the unit operator receives an exception to the locating and siting requirements of the State of Utah (R649-3-2).

/s/ Michael L. Coulthard

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

MCoulthard:mc:2-7-07

**From:** Ed Bonner  
**To:** Mason, Diana  
**Date:** 6/22/2007 10:23 AM  
**Subject:** Well Clearance

**CC:** Davis, Jim; Garrison, LaVonne; Hill, Brad; Hunt, Gil

The following wells have been given cultural resources clearance by the Trust Lands Cultural Resources Group:

EOG Resources, Inc

Chapita Wells Unit 1330-32 (API 43 047 39293)  
Chapita Wells Unit 1326-32 (API 43 047 39294)  
Chapita Wells Unit 1327-32 (API 43 047 39295)  
Chapita Wells Unit 1325-32 (API 43 047 39296)  
Chapita Wells Unit 1331-32 (API 43 047 39300)  
Chapita Wells Unit 1328-32 (API 43 047 39301)

Kerr McGee Oil & Gas Onshore LP

NBU 1021-19M (API 43 047 38150)  
NBU 1021-32A (API 43 047 39026)  
NBU 1021-32B (API 43 047 39027)  
NBU 1021-32C (API 43 047 39028)  
NBU 1021-32F (API 43 047 39029)  
NBU 1021-32P (API 43 047 39127)  
NBU 1021-32O (API 43 047 39128)  
NBU 1021-32N (API 43 047 39129)  
NBU 1021-32M (API 43 047 39130)  
NBU 1021-32L (API 43 047 39131)  
NBU 1021-32K (API 43 047 39132)  
NBU 1021-32J (API 43 047 39133)  
NBU 1021-32I (API 43 047 39134)  
NBU 1021-32H (API 43 047 39135)  
NBU 1021-32G (API 43 047 39136)  
NBU 1021-32D (API 43 047 39137)  
NBU 1021-32E (API 43 047 39138)

Parallel Petroleum Corporation

Trail Creek Anticline 1-2-6-25 (API 43 047 38324)

QEP Uinta Basin Inc

GB 7SG-36-8-21 (API 43 047 38765)

If you have any questions regarding this matter please give me a call.



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

June 25, 2007

Kerr-McGee Oil & Gas Onshore, LP  
1368 South 1200 East  
Vernal, UT 84078

Re: Natural Buttes Unit 1021-32A Well, 646' FNL, 955' FEL, NE NE, Sec. 32, T. 10 South, R. 21 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 43-047-39026.

Sincerely,

Gil Hunt  
Associate Director

er  
Enclosures

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



**Operator:** Kerr-McGee Oil & Gas Onshore, LP  
**Well Name & Number** Natural Buttes Unit 1021-32A  
**API Number:** 43-047-39026  
**Lease:** ML 21577

**Location:** NE NE      **Sec.** 32      **T.** 10 South      **R.** 21 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

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

- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment – contact Dan Jarvis
- 24 hours prior to spudding the well – contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program – contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well – contact Dan Jarvis

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

- Plugging and abandonment or significant plug back of this well – contact Dustin Doucet
- Any changes to the approved drilling plan – contact Dustin Doucet

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

- Dan Jarvis at:      (801) 538-5338 office      (801) 942-0873 home
- Carol Daniels at:      (801) 538-5284 office
- Dustin Doucet at:      (801) 538-5281 office      (801) 733-0983 home

#### 3. Reporting Requirements

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

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.
5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
6. 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.
7. Surface casing shall be cemented to the surface.

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

FORM 9

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>			5. LEASE DESIGNATION AND SERIAL NUMBER: <b>ML-21577</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.			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____			7. UNIT or CA AGREEMENT NAME: <b>UNIT # 891008900A</b>
2. NAME OF OPERATOR: <b>KERR MCGEE OIL AND GAS ONSHORE LP</b>			8. WELL NAME and NUMBER: <b>NBU 1021-32A</b>
3. ADDRESS OF OPERATOR: <b>1368 SOUTH 1200 EAST VERNAL UT 84078</b>		PHONE NUMBER: <b>(435) 781-7003</b>	9. API NUMBER: <b>43-047-39026</b>
4. LOCATION OF WELL FOOTAGES AT SURFACE: <b>646' FNL 955' FEL</b>			10. FIELD AND POOL, OR WILDCAT: <b>NATURAL BUTTES</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>NENE 32 10S 21E</b>			COUNTY: <b>UINTAH</b>
			STATE: <b>UTAH</b>

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

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

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

An onsite was conducted on 4/4/07 with a Division of Oil, Gas and Mining Representative and a SITLA Representative. It was decided to change the proposed 4" pipeline approximately 178' +/- to a 4" pipeline approximately 3,850' +/- and a 6" pipeline approximately 3,650' +/-.

Please refer to the Topo D

COPY SENT TO OPERATOR  
Date: 5/24/07  
Initials: GH

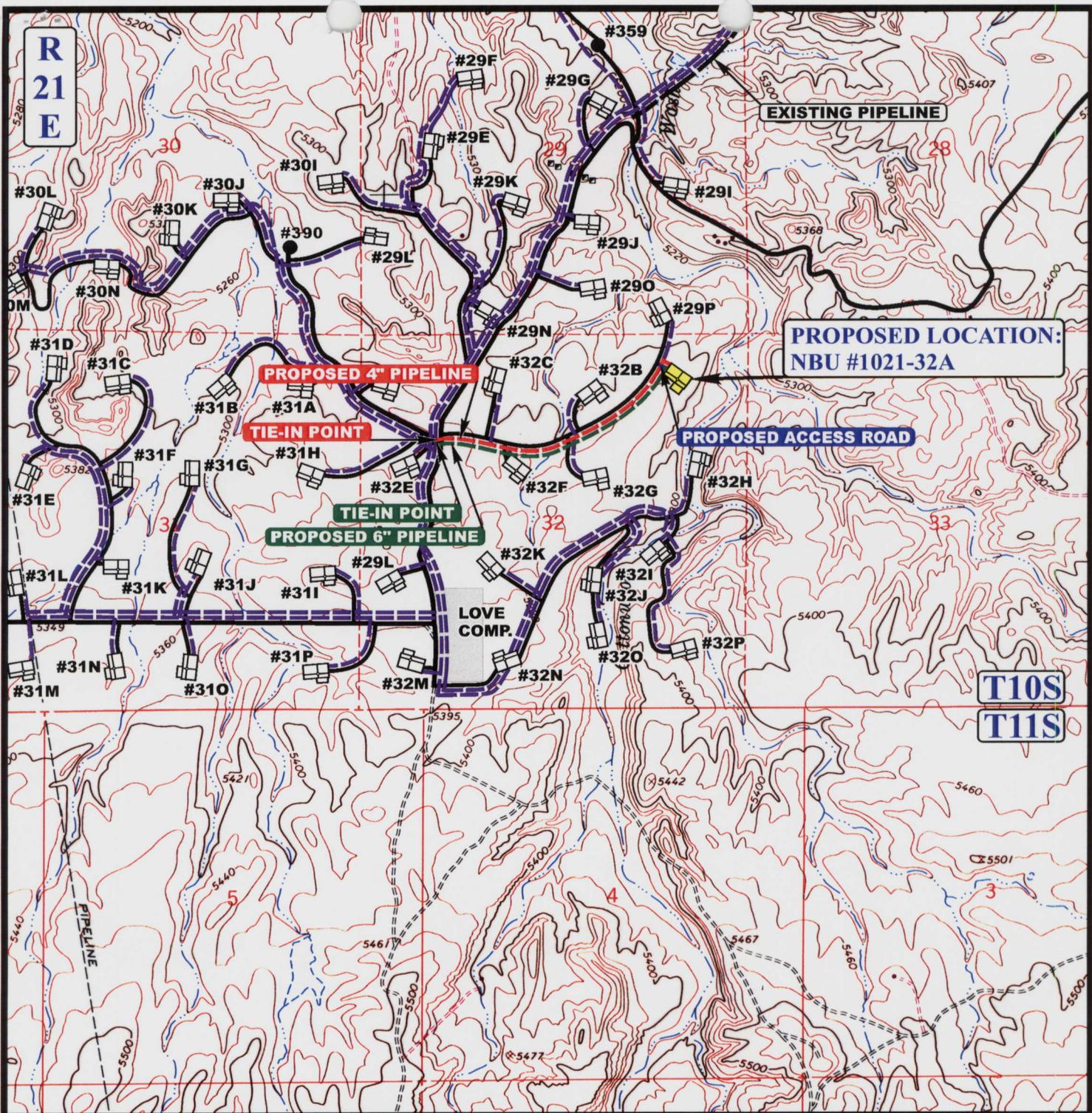
NAME (PLEASE PRINT) <u>RAMEY HOOPES</u>	TITLE <u>LAND SPECIALIST I</u>
SIGNATURE <u>Ramey Hoopes</u>	DATE <u>4/24/2007</u>

(This space for State use only)

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

**MAY 01 2007**

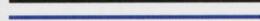
(5/2000) (See Instructions on Reverse Side)



APPROXIMATE TOTAL 6" PIPELINE DISTANCE = 3,650' +/-

APPROXIMATE TOTAL 4" PIPELINE DISTANCE = 3,850' +/-

**LEGEND:**

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



Kerr-McGee Oil & Gas Onshore LP

NBU #1021-32A

SECTION 32, T10S, R21E, S.L.B.&M.

646' FNL 955' FEL



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

**TOPOGRAPHIC**  
**MAP**

12	11	06
MONTH	DAY	YEAR

SCALE: 1"=2000' DRAWN BY: A.A. REVISED: 04-19-07C.P.



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

FORM 9

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		5. LEASE DESIGNATION AND SERIAL NUMBER: <b>ML-21577</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.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: <b>NA</b>
1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME: <b>Natural Buttes Unit</b>
2. NAME OF OPERATOR: <b>Kerr-McGee Oil &amp; Gas Onshore, LP</b>		8. WELL NAME and NUMBER: <b>NBU 1021-32A</b>
3. ADDRESS OF OPERATOR: PO Box 173779 CITY <b>Denver</b> STATE <b>CO</b> ZIP <b>80217-3779</b>		9. API NUMBER: <b>4304739026</b>
4. LOCATION OF WELL FOOTAGES AT SURFACE: <b>646 FNL &amp; 955 FEL</b>		10. FIELD AND POOL, OR WILDCAT: <b>Natural Buttes Field</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>NENE 32 10S 21E</b>		COUNTY: <b>Uintah</b>
		STATE: <b>UTAH</b>

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

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

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

Kerr McGee Oil and Gas Onshore, LP respectfully request a one year extension for NBU 1021-32A, in order to complete drilling operations. The Utah Division of Oil, Gas, and Mining initially approved this APD on 6/25/2007.

Approved by the  
Utah Division of  
Oil, Gas and Mining

**COPY SENT TO OPERATOR**

Date: 7.9.2008

Initials: V/S

Date: 07-08-08  
By: [Signature]

NAME (PLEASE PRINT) <u>Victoria Marques</u>	TITLE <u>Regulatory Intern</u>
SIGNATURE <u>Victoria Marques</u>	DATE <u>6/23/2008</u>

(This space for State use only)

**RECEIVED**  
**JUN 27 2008**  
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:** 4304739026  
**Well Name:** NBU 1021-32A  
**Location:** NENE 646 FNL & 955 FEL Sec. 32 T 10S R 21E  
**Company Permit Issued to:** Kerr McGee Oil and Gas Onshore, LP  
**Date Original Permit Issued:** 6/25/2007

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

Victoria Marques  
Signature

6/23/2008  
Date

Title: Regulatory Intern

Representing: Kerr McGee Oil and Gas Onshore, LP

RECEIVED  
JUN 27 2008  
DIV. OF OIL, GAS & MINING

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21577
<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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 1021-32A
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047390260000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0646 FNL 0955 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 10.0S Range: 21.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> 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: 7/3/2009	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> 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:** June 30, 2009

**By:** 

<b>NAME (PLEASE PRINT)</b> Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 6/30/2009	



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 43047390260000

API: 43047390260000

Well Name: NBU 1021-32A

Location: 0646 FNL 0955 FEL QTR NENE SEC 32 TWNP 100S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 6/25/2007

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: 6/30/2009

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: June 30, 2009

By:

[Handwritten signature]

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21577	

<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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  _____
<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES	

<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 1021-32A
------------------------------------	---

<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047390260000
---	---

<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
---	--	--

<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0646 FNL 0955 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 10.0S Range: 21.0E Meridian: S	<b>COUNTY:</b> UINTAH
<b>STATE:</b> UTAH	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<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 type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: _____
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:			
<input checked="" type="checkbox"/> <b>SPUD REPORT</b> Date of Spud: 2/16/2010			
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:			

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

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.  
 RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON 2/16/2010 AT 13:00 HRS.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 February 17, 2010

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 2/16/2010	

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995  
 Address: P.O. Box 173779  
city DENVER  
state CO zip 80217 Phone Number: (720) 929-6100

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304739026	NBU 1021-32A		NENE	32	10S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<i>B</i>	99999	<i>2900</i>	2/16/2010			<i>2/18/10</i>	
Comments: <i>MIRU PETE MARTIN BUCKET RIG. WSTMVDS</i> SPUD WELL LOCATION ON 2/16/2010 AT 13:00 HRS.							

Well 2

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

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)

ANDY LYTLE

Name (Please Print)

Signature

REGULATORY ANALYST

Title

*[Signature]*  
2/16/2010

Date

RECEIVED

FEB 16 2010

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21577
<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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 1021-32A
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047390260000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0646 FNL 0955 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 10.0S Range: 21.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

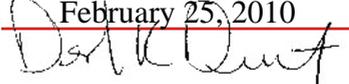
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 3/4/2010  <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 checked="" type="checkbox"/> <b>ALTER CASING</b> <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 type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER:

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

Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) respectfully requests to change the surface casing for this well due to revised drilling practices. The surface casing depth is changing FROM: 1,800' TO: 1,925'. Additionally, the surface casing size is changing FROM: 9-5/8" TO: 8-5/8". Please see the attached drilling program for additional details. All other information remains the same. Please contact the undersigned with any questions and/or comments. Thank you.

**Approved by the  
Utah Division of  
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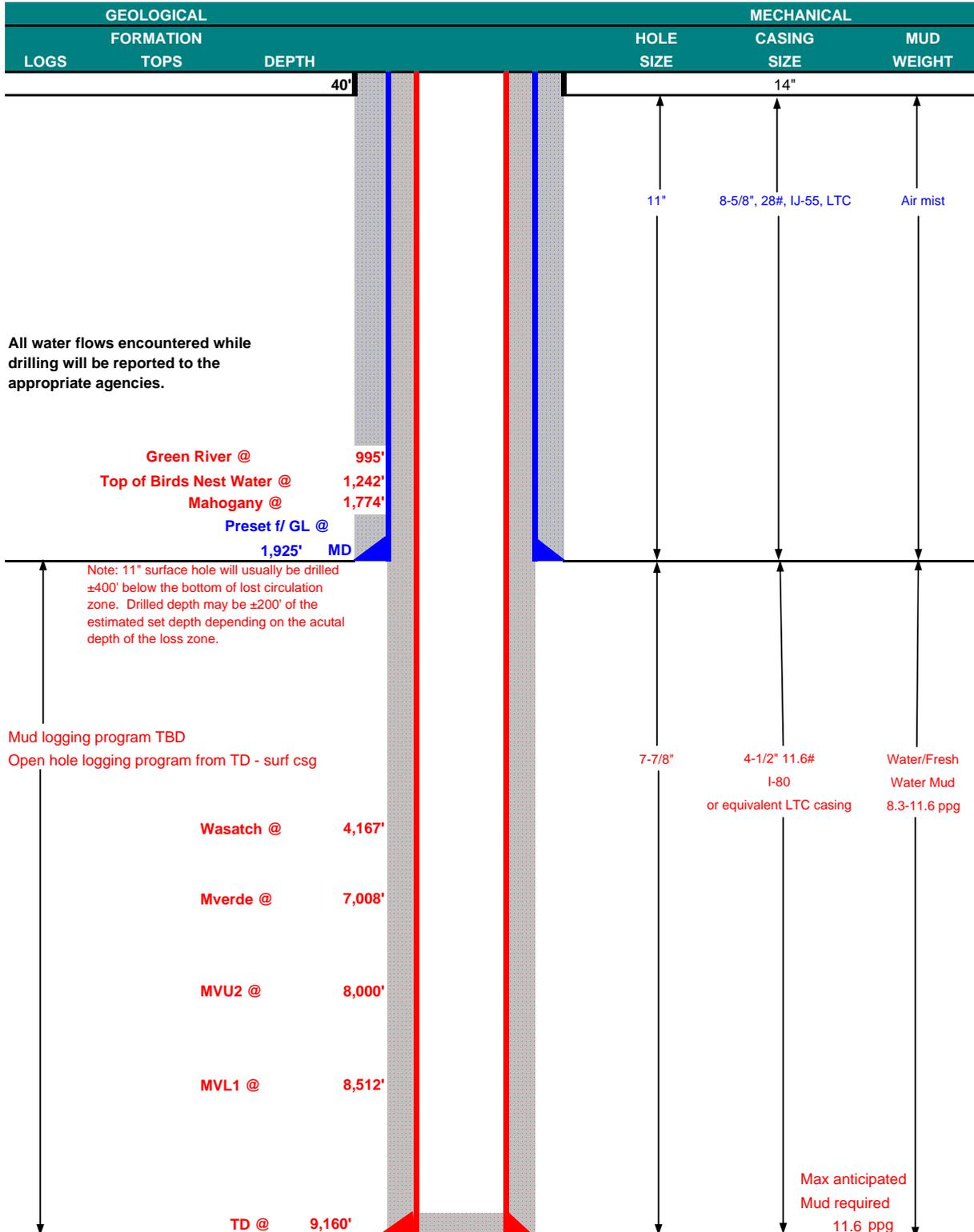
**Date:** February 25, 2010  
**By:** 

<b>NAME (PLEASE PRINT)</b> Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 2/25/2010	



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE February 25, 2010  
 WELL NAME NBU 1021-32A TD 9,160' MD/TVD \_\_\_\_\_  
 FIELD Natural Buttes COUNTY Uintah STATE Utah FINISHED ELEVATION 5,316'  
 SURFACE LOCATION NE/4 NE/4 646' FNL 955' FEL Sec 32 T 10S R 21E BHL Straight Hole  
 Latitude: 39.909539 Longitude: -109.568619 NAD 27 \_\_\_\_\_  
 OBJECTIVE ZONE(S) Wasatch/Mesaverde  
 ADDITIONAL INFO Regulatory Agencies: UDOGM (MINERALS), SITLA (SURFACE), UDOGM, Tri-County Health Dept.





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

### CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,390	1,880	348,000
SURFACE	8-5/8"	0 to 1925	28.00	IJ-55	LTC	0.97	2.09	6.39
PRODUCTION	4-1/2"	0 to 9160	11.60	I-80	LTC	2.22	1.15	2.17

\*Burst on surface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.80

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 = 11.6 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 3,406 psi**

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD  
 (Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient  
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)  
**MABHP 5,422 psi**

### CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
<b>Option 1</b>	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	40		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>					
<b>Option 2</b>	LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite +.25 pps Flocele + 3% salt BWOC	140	35%	11.00	3.82
	TAIL	500	Premium cmt + 2% CaCl + .25 pps flocele	150	35%	15.60	1.18
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,660'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	320	60%	11.00	3.38
	TAIL	5,500'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,540	60%	14.30	1.31

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

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

### FLOAT EQUIPMENT & CENTRALIZERS

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

### ADDITIONAL INFORMATION

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

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

Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

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

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

DRILLING ENGINEER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: \_\_\_\_\_ DATE: \_\_\_\_\_  
 John Merkel (Lovelace) Drilling Program - updated 012510.xls

**RECEIVED February 25, 2010**

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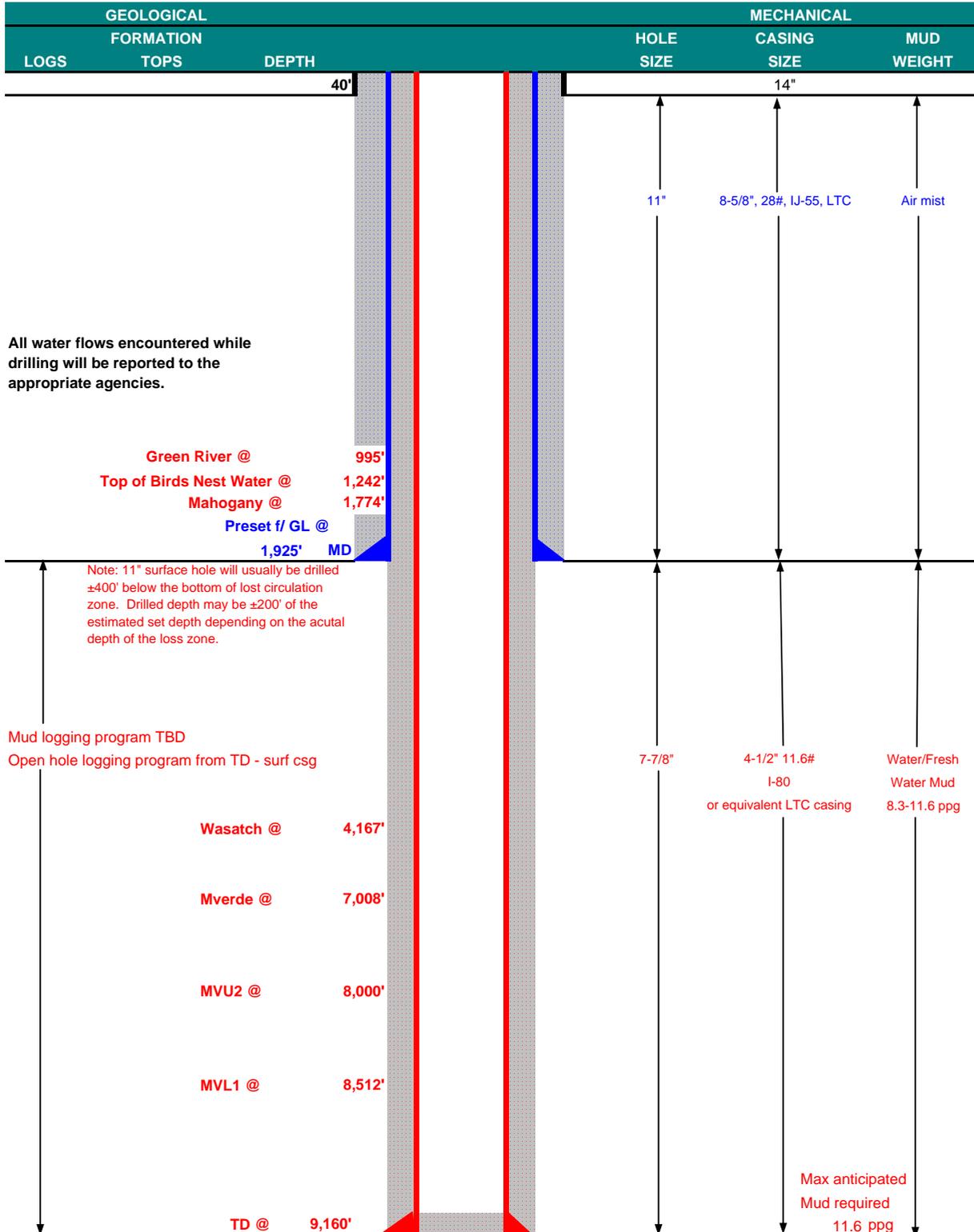
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<input type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
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<input checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 5/19/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER:

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

FINISHED DRILLING FROM 1850' TO 9234' ON MAY 16, 2010. RAN 4 1/2" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS SPACER, LEAD CEMENT W/ 530 SX CLASS G PREM LITE @ 13.0 PPG, 1.76 YD. TAILED CEMENT W/ 136 SX CLASS G POZZOLAN 50/50 POZ MIX @ 14.3 PPG, 1.31 YD. DISPLACED 142.7 BBLS WATER, BUMPED PLUG W/ 3720 PSI. 30 BBL CEMENT TO SURFACE. RD CEMENTERS AND CLEANED PITS. RELEASED PIONEER RIG #69 ON MAY 19, 2010 @ 10:00 HRS.

**Accepted by the Utah Division of Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 May 24, 2010

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 5/20/2010	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21577
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<input checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 5/19/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER:

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

FINISHED DRILLING FROM 1850' TO 9234' ON MAY 16, 2010. RAN 4 1/2" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS SPACER, LEAD CEMENT W/ 530 SX CLASS G PREM LITE @ 13.0 PPG, 1.76 YD. TAILED CEMENT W/ 136 SX CLASS G POZZOLAN 50/50 POZ MIX @ 14.3 PPG, 1.31 YD. DISPLACED 142.7 BBLS WATER, BUMPED PLUG W/ 3720 PSI. 30 BBL CEMENT TO SURFACE. RD CEMENTERS AND CLEANED PITS. RELEASED PIONEER RIG #69 ON MAY 19, 2010 @ 10:00 HRS.

**Accepted by the Utah Division of Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 May 24, 2010

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 5/20/2010	

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

AMENDED REPORT  FORM 8  
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:  
**ML-21577**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME  
**UTU63047A**

8. WELL NAME and NUMBER:  
**NBU 1021-32A**

9. API NUMBER:  
**4304739026**

10. FIELD AND POOL, OR WILDCAT  
**NATURAL BUTTES**

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:  
**NENE 32 10S 21E S**

12. COUNTY  
**UINTAH**

13. STATE  
**UTAH**

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  OTHER \_\_\_\_\_

b. TYPE OF WORK: NEW WELL  HORIZ. LATS.  DEEP-EN  RE-ENTRY  DIFF. RESVR.  OTHER \_\_\_\_\_

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

3. ADDRESS OF OPERATOR: P.O. BOX 173779 CITY **DENVER** STATE **CO** ZIP **80217** PHONE NUMBER: **(720) 929-6100**

4. LOCATION OF WELL (FOOTAGES)  
AT SURFACE: **NENE 646 FNL & 955 FEL S32,T10S,R21E**

*BHL reviewed  
by HSM*

AT TOP PRODUCING INTERVAL REPORTED BELOW:

AT TOTAL DEPTH: **853 fnl 970 fel**

14. DATE SPUDDED: **2/16/2010** 15. DATE T.D. REACHED: **5/16/2010** 16. DATE COMPLETED: **6/5/2010**  
ABANDONED  READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):  
**5316 GL**

18. TOTAL DEPTH: MD **9,234** TVD **9,231**  
19. PLUG BACK T.D.: MD **9,185** TVD **9,182**

20. IF MULTIPLE COMPLETIONS, HOW MANY? \*

21. DEPTH BRIDGE MD PLUG SET: TVD

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

**CBL-HDIL/ZDL/CN/GR**

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

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
11"	8 5/8 J-55	28#		1,826		435			
7 7/8"	4 1/2 I-80	11.6#		9,229		1890			

**25. TUBING RECORD**

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,520							

**26. PRODUCING INTERVALS**

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) MESAVERDE	7,184	8,813	7,184	8,813	7,184 8,813	0.36	145	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B) <i>WSMYD</i>								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

**27. PERFORATION RECORD**

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7184 - 8813	PUMP 9,557 BBLs SLICK H2O & 367,828 LBS 30/50 SAND

**29. ENCLOSED ATTACHMENTS:**

- ELECTRICAL/MECHANICAL LOGS  GEOLOGIC REPORT  DST REPORT  DIRECTIONAL SURVEY  
 SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION  CORE ANALYSIS  OTHER: \_\_\_\_\_

**30. WELL STATUS:**

**RECEIVED**

**JUL 08 2010**

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED: 6/5/2010		TEST DATE: 6/11/2010		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL – BBL: 7	GAS – MCF: 1,499	WATER – BBL: 125	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 1,196	CSG. PRESS. 1,913	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 7	GAS – MCF: 1,499	WATER – BBL: 125	INTERVAL STATUS: PROD

INTERVAL B (As shown in Item #26)

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

INTERVAL C (As shown in Item #26)

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

INTERVAL D (As shown in Item #26)

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

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

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

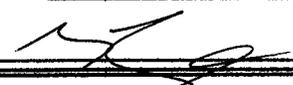
Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER	933				
BIRD'S NEST	1,187				
MAHOGANY	1,666				
WASATCH	4,173	7,023			
MESAVERDE	7,023	9,234	TD		

34. FORMATION (Log) MARKERS:

35. ADDITIONAL REMARKS (Include plugging procedure)

ATTACHED IS THE CHRONOLOGICAL WELL HISTORY AND FINAL SURVEY.

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

NAME (PLEASE PRINT) ANDREW LYTLE TITLE REGULATORY ANALYST  
 SIGNATURE  DATE 7/1/2010

This report must be submitted within 30 days of

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

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

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

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

Phone: 801-538-5340

Fax: 801-359-3940

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 1021-32A Spud Conductor: 2/16/2010 Spud Date: 2/20/2010  
 Project: UTAH-UINTAH Site: NBU 1021-32A Rig Name No: PIONEER 69/69, PROPETRO/  
 Event: DRILLING Start Date: 2/15/2010 End Date: 5/19/2010  
 Active Datum: RKB @5,335.01ft (above Mean Sea Level) UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
2/20/2010	8:30 - 15:30	7.00	DRLSUR	01	B	P		MIRU,DRESS COND,INSTALL AIR BOWL,R/U DIG DITCH,R/U COMP,BOOSTER,SET DOG HOUSE
	15:30 - 16:00	0.50	DRLSUR	06	A	P		P/U Q507 SERIAL #7019011 MUD MTR
	16:00 - 20:00	4.00	DRLSUR	02	B	P		SPUD 11" HOLE 2-20-2010 @ 16:00 HRS DRLG F/ 44' TO 510'=466'(116') HR,
	20:00 - 20:30	0.50	DRLSUR	10	B	P		WOB=24,ROT=50,MTR=105,GPM=650,PP=1400 ON-1200- OFF-UP/DWN/ROT=45/45/45,
	20:30 - 0:00	3.50	DRLSUR	02	B	P		SURVEY @ 480'= .04 DEGREE - 375.0 AZI DRLG F/ 510' TO 960'=450'(128') HR,WOB=24,ROT=50,MTR=105,GPM=650,PP=1400 ON-1200- OFF, UP/DWN/ROT/48/48/48
2/21/2010	0:00 - 7:30	7.50	DRLSUR	02	B	P		DRL F/ 960' TO 1530'=570'(76' HR) WOB=16,ROT=60,MTR=105,GPM=650,PP ON/1400/OFF/1200,UP/DWN/ROT/60/60/60/
	7:30 - 8:00	0.50	DRLSUR	10	B	P		SURVEY @ 1490=1.6 DEGREE 213.5 AZI
	8:00 - 13:00	5.00	DRLSUR	02	B	P		DRL F/ 1530' TO 1850' TD
	13:00 - 14:30	1.50	DRLSUR	05	C	P		CIRC TO LDDS
	14:30 - 17:00	2.50	DRLSUR	06	D	P		LDDS
	17:00 - 19:00	2.00	DRLSUR	12	C	P		SAFETY MEETING RUN 41 JOINTS 8 5/8 32# J-55 CSNG SHOE AT 1812.6 BAFFLE AND TOP OF SHOE JOINT 1768.3' RELEASE RIG TO NBU 1021-32O ON 2-21-2010 @ 1900
	19:00 - 21:00	2.00	DRLSUR	12	E	P		SAFETY MEETING TEST LINES TO 2000' PSI, PUMP 155 BBLS OF H2O , PUMP 20 BBLS OF GEL WATER. PUMP 130 (88.4 BBLS) SX OF 11#, 3.82 YD, 23 GAL SX HI FILL LEAD CEMENT. PUMP 180 SX (34.8 BBLS) OF 15.8#, 1.15 YD, 5 GAL/SK 2% CALC TAIL CEMENT, DROP PLUG ON FLY AND DISPLACE W/ 112.5 BBLS OF 8.3# H2O, W/ 300 PSI OF LIFT @ 5 BBLS/MIN. LAND PLUG 1000 PSI AND CHECK FLOAT. FLOAT HELD. PUMP 125 SX (25.6 BBLS) OF 4% CALC 15.8# 1.15 YD, 5 GAL/SK CEMENT DOWN BACKSIDE AND STAYED CEMENT TO SURFACE. RIG DOWN CEMENTERS. RDRT ,R/D SUIT CASES ,ELECTRICAL,AIR,WATER ,BLEED ALL SCOPING RAMS,SCOPE IN & LOWER DERRICK
5/5/2010	6:00 - 9:00	3.00	MIRU	01	E	P		SAFETY MEETING W/MOVERS ,CRANE PERSONEL,MOUNTAIN WEST,RIG CREWS ,RDRT ,MOVE RIG 1/4 MILE SET IN & R/U ELECTRICAL,WATER,AIR ,PASON ,RAISE & SCOPE UP DERRICK,MUD PITS,GAS BUSTER,FLARE LINES ,R/U FLOOR ,P/U KELLY,5 TRUCKS ,2 FORKLIFTS & CRANE ON LOC @ 0900 ,TRUCKS RELEASED @ 1300 ,CRANE RELEASED @ 1330 ,8 EXTRA RIG HANDS
	9:00 - 22:00	13.00	MIRU	01	B	P		NIPPLE UP BOP & EQUIPMENT
5/6/2010	22:00 - 0:00	2.00	MIRU	14	A	P		NIPPLE UP BOP
	0:00 - 2:00	2.00	MIRU	14	A	P		SAFETY MEETING W/ BC QUICK TEST ,R/U & TEST FLOOR VALVES,UPPER & LOWER KELLY VALVES,WELL HEAD CONNECTER LEAKING@ 2000 PSI
	2:00 - 5:00	3.00	MIRU	15	A	P		N/D ROTATING HEAD ,CHOKE LINE& BOP CONNECTER ,REPLACE O-RING & RING GASKET ,N/U BOP
	5:00 - 7:30	2.50	MIRU	14	A	S		

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A      Spud Conductor: 2/16/2010      Spud Date: 2/20/2010  
 Project: UTAH-UINTAH      Site: NBU 1021-32A      Rig Name No: PIONEER 69/69, PROPETRO/  
 Event: DRILLING      Start Date: 2/15/2010      End Date: 5/19/2010  
 Active Datum: RKB @5,335.01ft (above Mean Sea Level)      UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:30 - 10:00	2.50	MIRU	15	A	P		TEST PIPE RAMS ,BLIND RAMS ,INSIDE & OUTSIDE KILL LINE & CHOKE LINE VALVES ,HCR ,CHOKE MANIFOLD TO 250 F/ 5 MIN 5000 F/ 10 MIN ,ANNULAR TO 2500 ,CASING TO 1500 F/ 30 MIN ,R/D QUICK TEST
	10:00 - 10:30	0.50	MIRU	14	A	P		INSTALL WEAR RING
	10:30 - 15:00	4.50	MIRU	06	A	P		SAFETY MEETING W/ KIMZEY , R/U & ,P/U Q506 BIT ,21 STRAIGHT MUD MOTOR ,IBS ,NMDC ,& HOS ,INSTALL EXTREMES EM TOOL ,FINISH P/U BHA & 36 JTS DP TO 1708'
	15:00 - 16:00	1.00	MIRU	09	A	P		SLIP & CUT 40' DRLG LINE
	16:00 - 19:00	3.00	MIRU	02	F	P		DRILL CMT ,F,E & OPEN HOLE F/ 1733' TO 1864'
	19:00 - 0:00	5.00	MIRU	02	B	P		SPUD @ 1900 5/6/2010 ,DRILL F/ 1864' TO 2362' ( 498' @ 99.6' HR ) WOB 18,RPM 60 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 82-80-82 ,ON/OFF 1180-900 ,DIFF 250-450 ,WATER W/ GEL & POLY SWEEPS
5/7/2010	0:00 - 15:00	15.00	DRLPRO	02	B	P		DRILL F/ 2362' TO 4205' ( 1843' @ 122.8' HR ) WOB 18-20 ,RPM 55 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 113-115-111 ,ON/OFF 1450-1150 ,DIFF 250-450 ,WATER W/ GEL & POLY SWEEPS
	15:00 - 15:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	15:30 - 19:30	4.00	DRLPRO	02	B	P		DRILL F/ 4205' TO 4724' ( 519' @ 129.7' HR ) WOB 18-20 ,RPM 55 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 117-110-115 ,ON /OFF 1500-1200 ,DIFF 250-450
	19:30 - 22:30	3.00	DRLPRO	05	B	S		TOOK KICK @ 4724' CIRC GAS OUT THROUGH BUSTER , 40 TO 50 ' FLARE , MUD UP ,LOWER VOLUME IN PITS, MIX GEL, TRANSFER HEAVY MUD OVER FROM MUD STORAGE, 10.7 WM TO KILL GAS
	22:30 - 0:00	1.50	DRLPRO	02	B	P		DRILL F/ 4724' TO 4828' ( 104' @ 69.3' HR ) WOB 18-20 ,RPM 55 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 126-100-116 ,ON/OFF 1930-1700 ,DIFF 200-350 ,MW 10.5 ,VIS 39
5/8/2010	0:00 - 17:30	17.50	DRLPRO	02	B	P		DRILL F/ 4828' TO 6067' ( 1239' @ 70.8' HR ) WOB 18-20 ,RPM 50-60 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 140-130-135 ,ON/OFF 2000-1780 ,DIFF 150-325 ,MW 11.3 ,VIS 40
	17:30 - 18:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	18:00 - 0:00	6.00	DRLPRO	02	B	P		DRILL F/ 6067' TO 6351' ( 284' @ 47.3' HR ) WOB 18-22 ,RPM 35-55 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 150=120-134 ,ON/OFF 2490-2200 ,DIFF 150-450 ,MW 10.5 ,VIS 41
5/9/2010	0:00 - 14:30	14.50	DRLPRO	02	B	P		DRILL F/ 6351' TO 6888' ( 537' @ 37.5' HR ) WOB 20-30 ,RPM 35-65 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 148-125-143 ,ON/OFF 2350-2160 ,DIFF 50-300 ,HOLE SLOUGHING OFF AND ON RAISE MW TO 11.8 ,VIS 44
	14:30 - 15:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	15:00 - 0:00	9.00	DRLPRO	02	B	P		DRILL F/ 6888' TO 7109' ( 221' @ 24.5' HR ) WOB 22-28 ,RPM 35-55 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 150-125-145 ,ON/OFF 2500-2250 ,DIFF 75-300 ,MW 12 ,VIS 46
5/10/2010	0:00 - 12:00	12.00	DRLPRO	02	B	P		DRILL F/ 7109' TO 7551' ( 442' @ 36.8' HR ) WOB 22-28 ,RPM 35-65 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 158-129-153 ,ON/OFF 2500-2300 ,DIFF 150-400
	12:00 - 12:30	0.50	DRLPRO	07	A	P		RIG SERVICE

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A      Spud Conductor: 2/16/2010      Spud Date: 2/20/2010  
 Project: UTAH-UINTAH      Site: NBU 1021-32A      Rig Name No: PIONEER 69/69, PROPETRO/  
 Event: DRILLING      Start Date: 2/15/2010      End Date: 5/19/2010  
 Active Datum: RKB @5,335.01ft (above Mean Sea Level)      UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
5/11/2010	12:30 - 16:30	4.00	DRLPRO	02	B	P		DRILL F/ 7551' TO 7678' ( 127' @ 31.7' HR ) WOB 22-30 ,RPM 35-60 ,MMRPM 95 ,SPM 115 ,GPM 435 ,UP/SO/ROT 160-130-155 ,ON/OFF 2500-2300 ,DIFF 200-400
	16:30 - 17:00	0.50	DRLPRO	05	C	P		CIRC, PUMP PILL ,DROP SURVEY
	17:00 - 21:30	4.50	DRLPRO	06	A	P		TFNB L/D IBS ,MOTOR & BIT ,BIT & 10' OF 1ST NMDC BALLED UP ,TIGHT @ 6049,5102,5004,4863,4681,3026,2807
	21:30 - 0:00	2.50	DRLPRO	06	A	P		P/U NEW Q506F BIT,1.5 DEG .16 GPR MOTOR & EXTREMES EM TOOL , SCRIBE EM TOOL,START TIH
	0:00 - 2:30	2.50	DRLPRO	06	A	P		TIH TO SHOE ,FILL PIPE ,TEST EM TOOL FAILED, RUN 5 STDS TOOL FAILED ,RUN 5 MORE STDS TOOL FAILED
	2:30 - 4:30	2.00	DRLPRO	06	A	Z		TOOH L/D EM TOOL
	4:30 - 7:30	3.00	DRLPRO	21	D	Z		WORK ON EM TOOL ,EM TOOL TRANSMITTER NOT WORKING ,WAIT ON MUD PULSE SUB
	7:30 - 9:30	2.00	DRLPRO	06	A	Z		P/U EXTREMES MUD PULSE & SCRIBE ,TIH 4 STDS DCS TEST MUD PULSE FAILED ,TIH TO 2150 ( OPEN HOLE ) TEST MUD PULSE FAILED
	9:30 - 10:00	0.50	DRLPRO	05	C	Z		CIRC,MIX & PUMP PILL
	10:00 - 12:00	2.00	DRLPRO	06	A	Z		TOOH ,RELEASED EXTREME ENGINEERING ,L/D 2 NMDCS & HOS
5/12/2010	12:00 - 20:00	8.00	DRLPRO	21	D	S		WAIT ON SCIENTIFICS MWD TOOLS & OPERATOR, UNLOAD TOOLS ,BUILD TOOL ,SET UP EQUIPMENT
	20:00 - 21:00	1.00	DRLPRO	06	A	P		P/U 2 NMPC,HOS,NMDC,GAP SUB ( GAP SUB SET IN SLIPS , WHILE BACKING INTO LAST NMPC UNSCREWED BELOW GAP SUB ,DROPPED BIT,MOTOR ,2 NMPC,HOS,NMDC DOWN HOLE )
	21:00 - 0:00	3.00	DRLPRO	21	E	X		WAIT ON FISHING TOOLS
	0:00 - 6:00	6.00	DRLPRO	19	A	X		P/U SCREW IN SUB ,BUMPER SUB ,JARS TIH HIT A BRIDGE @ 6708'
	6:00 - 7:30	1.50	DRLPRO	19	A	X		ATTEMPTED TO CIRCULATE AND UNPLUG THE FISHING ASSEMBLY.
	7:30 - 14:00	6.50	DRLPRO	06	A	X		TOH TO LD FISHING ASSEMBLY. FOUND A SHALE PLUG IN THE ENERGIZER AND THE BOTTOM JT. OF DP. LD 1 JT OF DP, ENERGIZER, AND SCREW IN SUB
	14:00 - 18:00	4.00	DRLPRO	06	F	X		PU BIT, AND BS TIH TO CLEAN OUT TO THE FISH
	18:00 - 18:30	0.50	DRLPRO	03	E	X		WASHED THROUGH A BRIDGE 6140' - 6160'
	18:30 - 19:30	1.00	DRLPRO	06	E	X		TIH TAGGED FILL @ 6708'
	19:30 - 0:00	4.50	DRLPRO	03	E	X		WASHING AND REAMING 6708' - 7083' SMALL CUTTING AND LARGE SHALE (1" - 2") FROM THE WALL. PRESSURING UP AT TIMES.
5/13/2010	0:00 - 6:30	6.50	DRLPRO	03	E	X		WASHED AND REAMED F/7038' - 7596' TOP OF FISH
	6:30 - 7:30	1.00	DRLPRO	05	C	X		CIRCULATED THE HOLE CLEAN AND SPOTTED A 50 BBL. 65VIS/14# PILL BEFORE TRIPPING.
	7:30 - 11:30	4.00	DRLPRO	06	A	X		TOH TO CHANGE OUT THE BHA FOR FISHING
	11:30 - 13:00	1.50	DRLPRO	06	A	X		LD THE BIT/BS AND PU THE FISHING ASSEMBLY. SCREW IN SUB/CIRCULATING SUB/ BUMPER SUB/JAR/7 DC/3 HWDP/ENERGIZER.
	13:00 - 14:00	1.00	DRLPRO	19	A	X		TIH TO THE SHOE
	14:00 - 15:00	1.00	DRLPRO	09	A	P		SLIPPED AND CUT 120' OF LINE
	15:00 - 15:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	15:30 - 19:30	4.00	DRLPRO	19	A	X		TIH TO THE TOP OF THE FISH 7596'
	19:30 - 20:30	1.00	DRLPRO	05	F	X		CIRCULATED BOTTOMS UP AND CLEANED THE TOP OF THE FISH

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A      Spud Conductor: 2/16/2010      Spud Date: 2/20/2010  
 Project: UTAH-UINTAH      Site: NBU 1021-32A      Rig Name No: PIONEER 69/69, PROPETRO/  
 Event: DRILLING      Start Date: 2/15/2010      End Date: 5/19/2010  
 Active Datum: RKB @5,335.01ft (above Mean Sea Level)      UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
5/14/2010	20:30 - 21:00	0.50	DRLPRO	19	A	X		SCREWED INTO THE FISH WHILE CIRCULATING SLOW. PU 400# OF CIRCULATING PRESSURE. PUT IN 9 TOTAL ROUNDS OF TOURQUE GOT 5 ROUNDS BACK. PU AND PULLED 40K OVER. HAD 10K EXTRA STRING WT.
	21:00 - 21:30	0.50	DRLPRO	05	C	X		CIRCULATED AND PUMPED A SLUG TO TOH
	21:30 - 0:00	2.50	DRLPRO	19	A	X		TOH W/ THE FISH
	0:00 - 3:00	3.00	DRLPRO	19	A	X		TOH / LD FISHING TOOLS AND THE FISH. RECOVERED ALL OF THE TOOLS. THE MONEL BOX END WILL HAVE TO BE RE CUT FROM CLEANING OUT TO IT. THE REST OF THE ASSEMBLY HAD NO APPARENT DAMAGE.
	3:00 - 12:00	9.00	DRLPRO	06	A	P		PU A NEW DRILLING AND DIRECTIONAL ASSEMBLY TIH. LD A TOTAL OF 10 JTS. WASHED THROUGH BRIDGES @ 5412' AND 6135'. BROKE CIRCULATION @ SHOE AND 5000'
5/15/2010	12:00 - 13:30	1.50	DRLPRO	03	E	P		WASHED/REAMED CLEANED UP THE BOTTOM 110'
	13:30 - 0:00	10.50	DRLPRO	02	B	P		DRILLED F/ 7678' - 7855' W/ 20K 55RPM/ROTARY, 70 RPM/MOTOR      SLIDE F/ 7678' - 7686'/8', 7720' - 7727'/7', 7750' - 7760'/10', 7812' - 7827'/15'. TOTAL OF 40' SLIDE TO NORTH
	0:00 - 16:00	16.00	DRLPRO	02	B	P		DRILL/SLIDE F/ 7855 - 8348', 493'/16 HR, 30.8'/HR. 20 - 25K WOB. ROTARY/55 RPM, MOTOR/70 RPM. ON BOTTOM/2700#, OFF BOTTOM/2530#. DIFF 170PSI. SLIDE/35' 8064' - 8074', 8159' - 8169', 8191' - 8196', 8285' - 8295'. PU/SO/ROT - 175/145/160 RIG SERVICE
	16:00 - 16:30	0.50	DRLPRO	07	A	P		
	16:30 - 0:00	7.50	DRLPRO	02	B	P		DRILL/SLIDE F/ 8348' - 8542', 194'/7.5 HR, 25.8'/HR. 20 - 25K WOB. ROTARY/55 RPM, MOTOR/70 RPM. ON BOTTOM/2650#, OFF BOTTOM/2500#. DIFF 150PSI. SLIDE/27' 8348'-8360', 8443' - 8453', 8506 - 8511. PU/SO/ROT 180/145/165
5/16/2010	0:00 - 15:30	15.50	DRLPRO	02	B	P		DRILL ROT/SLIDE F/8542' - 9012', 470'/15.5 HR, 30.3'/HR. 20 - 25K WOB. ROTARY/55 RPM, MOTOR/70 RPM. ON BOTTOM/2700#. OFF BOTTOM/2500#. DIFF 200PSI. SLIDE/17' 8542' - 8552', 8569' - 8575'. PU/SO/ROT 180/145/165 RIG SERVICE
	15:30 - 16:00	0.50	DRLPRO	07	A	P		
	16:00 - 22:30	6.50	DRLPRO	02	B	P		DRILL ROT F/9012' - 9234', 222'/6.5 HR, 34.2'/HR. 20 - 25K WOB. ROTARY/55 RPM, MOTOR/70 RPM. ON BOTTOM/2700#, OFF BOTTOM/2500#. DIFF 200PSI. PU/SO/ROT 185/165/174
	22:30 - 23:30	1.00	DRLPRO	05	C	P		CIRCULATE TO SHORT TRIP 48 VIS 12.5 WT.
	23:30 - 0:00	0.50	DRLPRO	06	E	P		SHORT TRIP FOR LOGS
5/17/2010	0:00 - 1:00	1.00	DRLPRO	06	E	P		FINISHED SHORT TRIPPING 32 STANDS
	1:00 - 2:30	1.50	DRLPRO	05	C	P		CIRCULATED AND CONDITIONED THE HOLE F/ LOGS 48/VIS, WT/12.5, WL/8.
	2:30 - 7:30	5.00	DRLPRO	06	B	P		TOH F/ LOGS USED THE PIPE SPINNERS TO COME OUT W/ BENT MOTOR. NO OBVIOUS TIGHT SPOTS OR ABNORMAL DRAG.
	7:30 - 8:30	1.00	DRLPRO	06	B	P		LD THE MWD TOOLS AND BENT MOTOR. RELEASED SCIENTIFIC FOR THIS WELL. @ 08:30 5/17/2010
	8:30 - 12:00	3.50	DRLPRO	11	D	P		HELD A S/M RIGGED UP BAKER ATLAS AND ATTEMPTED TO LOG. LOGS STOPPED @ 4538'. RIGGED DOWN BAKER ATLAS
	12:00 - 15:00	3.00	DRLPRO	06	F	P		TIH TO WIPE OUT BRIDGES FOR LOGGING.

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A      Spud Conductor: 2/16/2010      Spud Date: 2/20/2010  
 Project: UTAH-UINTAH      Site: NBU 1021-32A      Rig Name No: PIONEER 69/69, PROPETRO/  
 Event: DRILLING      Start Date: 2/15/2010      End Date: 5/19/2010  
 Active Datum: RKB @5,335.01ft (above Mean Sea Level)      UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
5/18/2010	15:00 - 21:00	6.00	DRLPRO	03	E	X		WASHED AND REAMED F/ 4530' - 4899'. HEAVY SLOUGHING SHALE IN THE SAME AREA THE SHALLOW GAS CAME IN. BROUGHT THE MUD WT TO 12.8+
	21:00 - 23:45	2.75	DRLPRO	06	F	X		TIH TO 9178' BROKE CIRCULATION @ 6000' AND 8000'
	23:45 - 0:00	0.25	DRLPRO	03	E	P		WASHED TO BOTTOM 9178' - 9234'
	0:00 - 3:00	3.00	DRLPRO	05	A	P		CIRCULATED TO LDDP. RAISED THE WEIGHT TO 13# 48 VIS. HELD A SM AND RU THE LD TRUCK LDDP TO 1800'. WE WERE SWABBING THE WELL WHEN WE GOT THE BHA INTO THE SURFACE CASING. SWABBED IN APP. 6 BBL.
	3:00 - 8:00	5.00	DRLPRO	06	B	P		WE STOPPED AND PUMPED DOWN THE DP TO FILL THE HOLE BELOW THE BIT AND WASH SOME OF THE CUTTING OFF THE BHA TO ALLOW FOR FILLING FROM THE SURFACE
	8:00 - 8:30	0.50	DRLPRO	05	J	S		FINISHED LDDP AND BROKE THE KELLY
	8:30 - 12:00	3.50	DRLPRO	06	B	P		RU BAKER ATLAS AND RAN TRIPLE COMBO LOG. LOGGERS TD @ 9234'
	12:00 - 18:30	6.50	DRLPRO	11	D	P		SM AND RU KIMSEY TO RUN 4 1/2 CASING
5/19/2010	18:30 - 19:00	0.50	DRLPRO	12	A	P		RU AND RAN 218 JTS OF 4 1/2, 11.6#, I-80, BTC CASG LANDED @ 9229' SHOE/9228, FC/9184.5, MARKER /4107.6'.
	19:00 - 0:00	5.00	DRLPRO	12	C	P		FINISHED THE CSG RUN. RAN 218 JTS OF 4 1/2, 11.6#, I-80, BTC CSG LANDED @ 9229' SHOE/9228, FC/9184.5, MARKER /4107.6'.
	0:00 - 1:30	1.50	DRLPRO	12	C	P		MANDRELL SET @ 18' KB
	1:30 - 3:00	1.50	DRLPRO	05	D	P		CIRCULATED THE CASING. HELD A SM W/ BJ AND RU BJ TO CEMENT.
	3:00 - 6:00	3.00	DRLPRO	12	E	P		HELD A SM. PRESSURE TESTED TO 4000 PSI. PUMPED 40 BBL. OF WATER SPACER/ LEAD CMT; 530 SKS PREM. LITE II, 13 PPG, 1.76 YLD, 8.84 GPS H2O, .05 PPS STATIC FREE + 0.4% BWOC R-3 + 0.25 PPS CELLOFLAKE + 5PPS KOL SEAL + 6% BWOC BENTONITE. TAIL CEMENT: 1360 SKS OF 50/50 POZ CLASS G CEMENT, 14.3 PPG, 1.31 YLD, 5.9 GPS H2O, .05PPS STATIC FREE + 10% BWOW SODIUM CHLORIDE + .2% BWOC R-3 + 0.002 GPS FP-6L + 2% BWOC BENTONITE/ DIPLACED WITH 142.7 BBL. OF CLAYTREAT H2O, 8 GL OF CLAYTREAT = 1GL OF MAGNACIDE. FINAL LIFT PSI 2950 PSI. PLUG BUMPED W/ 3720 PSI. 1.5 BBL WASHBACK. PD @ 05:25 5/19/2010. 30 BBL. OF CEMENT TO SURFACE.
6:00 - 10:00	4.00	DRLPRO	01	E	P		CLEAN UP RD CEMENTERS ND THE BOP, CLEANED THE PITS. RIG RELEASED @ 10:00 5/19/2010	

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 1021-32A		Spud Conductor: 2/16/2010		Spud Date: 2/20/2010	
Project: UTAH-UINTAH			Site: NBU 1021-32A		Rig Name No: PIONEER 69/69, PROPETRO/
Event: DRILLING			Start Date: 2/15/2010		End Date: 5/19/2010
Active Datum: RKB @5,335.01ft (above Mean Sea Leve			UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	10:00 - 10:01	0.02	DRLPRO					<p>CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used:</p> <p>SPUD DATE/TIME: 2/20/2010 16:00</p> <p>SURFACE HOLE: Surface From depth:58 Surface To depth: 1,850 Total SURFACE hours: 12.50 Surface Casing size:8 5/8 # of casing joints ran: 43 Casing set MD:1,826.0 # sx of cement:435 Cement blend (ppg:):11,13 Cement yield (ft3/sk): LEAD 3.82 TAIL 1.15 # of bbls to surface: NA Describe cement issues: Describe hole issues:</p> <p>PRODUCTION: Rig Move/Skid start date/time: 5/5/2010 8:00 Rig Move/Skid finish date/time:5/5/2010 13:00 Total MOVE hours: 5.0 Prod Rig Spud date/time: 5/6/2010 16:00 Rig Release date/time: 5/19/2010 10:00 Total SPUD to RR hours:306.0 Planned depth MD 9,234 Planned depth TVD 9,234 Actual MD: 9,234 Actual TVD: 9,231 Open Wells \$: \$815,684 AFE \$: \$730,023 Open wells \$/ft:\$88.33</p> <p>PRODUCTION HOLE: Prod. From depth: 1,826 Prod. To depth:9,234 Total PROD hours: 146.5 Log Depth: 9234 Production Casing size: 4 1/2 # of casing joints ran: 218 Casing set MD:9,229.0 # sx of cement:1,890 Cement blend (ppg:):LEAD 13 TAIL 14.3 Cement yield (ft3/sk): LEAD 1.76 TAIL 1.31 Est. TOC (Lead &amp; Tail) or 2 Stage : LEAD 18' TAIL 3000' Describe cement issues: Describe hole issues:</p> <p>DIRECTIONAL INFO: KOP: Max angle: Departure: Max dogleg MD:</p>

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A	Spud Conductor: 2/16/2010	Spud Date: 2/20/2010
Project: UTAH-UINTAH	Site: NBU 1021-32A	Rig Name No: LEED 698/698
Event: COMPLETION	Start Date: 5/28/2010	End Date: 6/3/2010
Active Datum: RKB @5,335.01ft (above Mean Sea Leve		
UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
5/28/2010	7:00 - 12:00	5.00	COMP	30	A	P		<p>7AM [DAY 1] JSA -- MIRU</p> <p>ROAD RIG FROM NBU 1021-32B TO NBU 1021-32A. ATTEMPT TO RIG UP, TO WINDY. NOTE: PRIOR TO MIRU, CASED HOLE SOLUTIONS RAN A CBL-CCL-GR LOG FROM 9151' TO SURFACE. EST CMT TOP @ SURFACE. MAX TEMP ON O.H. LOG 170*</p>
6/1/2010	7:00 -		COMP	30		P		<p>SDF-HOL-WE</p> <p>7AM [DAY 2] JSA-- P/U TBG, P.T. &amp; PERFING</p> <p>MIRU, NDWH. NUBOP. R/U FLOOR &amp; TBG EQUIPMENT. P/U 3-7/8" MILL &amp; NEW 2-3/8" L-80 TBG &amp; RIH. [SLM] TBG WAS DRIFTED. EOT @ 8900'.</p> <p>POOH STDG BACK TBG. L/D MILL. RD FLOOR &amp; TBG EQUIPMENT, NDBOP, NU FRAC VALVES.</p> <p>MIRU B&amp;C QUICK TEST. P.T. FRAC VALVES &amp; CSG TO 7000#. RDMO B&amp;C.</p> <p>[STG#1] MIRU CASED HOLE SOLUTIONS. RIH W/ PERF GUNS &amp; PERF THE M.V. @ 8810-8813, 8770-8771, 8733-8735, &amp; 8697-8698 USING 3-3/8" EXP GUNS, 23 GM, 0.36, 3 SPF, 120* PHS, [21 HOLES] WHP=0#. POOH &amp; L/D WIRELINE TOOLS.</p> <p>SWI-SDFN. PREP TO FRAC W/ FRAC TECH IN AM.</p>

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A      Spud Conductor: 2/16/2010      Spud Date: 2/20/2010  
 Project: UTAH-UINTAH      Site: NBU 1021-32A      Rig Name No: LEED 698/698  
 Event: COMPLETION      Start Date: 5/28/2010      End Date: 6/3/2010  
 Active Datum: RKB @5,335.01ft (above Mean Sea Level)      UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
6/2/2010	7:00 - 17:30	10.50	COMP	36		P		<p>7AM [DAY 3] HLD FRAC TECH JSA</p> <p>MIRU FRAC TECH. P.T. SURFACE LINES TO 8000#.</p> <p>[STG#1] SICP=0#. BRK DN PERFS @ 3580# @ 8 BPM. BULL HEAD 3 BBLS 15% HCL. PERFORM STEP DOWN TEST AS PER PROCEDURE. ISIP=2944, FG=.77. CALCULATE ALL PERFS OPEN. PMP'D 2088 BBLS SLK WTR &amp; 75,861# 30/50 TEXAS GOLD SAND W/ 5000# RC SAND @ TAIL. ISIP=2956, FG=.77, NPI=12, MP=6533, MR=51, AP=5075, AR=50 BPM.</p> <p>[STG#2] RIH W/ HLBRTN 8K CBP &amp; PERF GUNS. SET CBP @ 8678'. PERF THE M.V. @ 8646-8648, 8602-8606, &amp; 8557-8558 USING 3-3/8" EXP GUNS, 23 GM, 0.36, 3 SPF, [21 HOLES] WHP=1786#. BRK DN PERFS @ 4379# @ 9 BPM. PERFORM STEP DOWN TEST. ISIP=3222, FG=.81. CALCULATE ALL PERFS OPEN. PMP'D 2948 BBLS SLK WTR &amp; 118,991# 30/50 TEXAS GOLD SAND W/ 5000# R.C. SAND @ TAIL. ISIP=3088, FG=.79, NPI=-134, MP=6657, MR=51, AP=5430, AR=51 BPM. CUT SAND EARLY-- WANTING TO SCREEN OUT. DID NOT GET A GOOD ISIP ON AFTER FRAC. FRAC TECH HAND OPENED BLEED OFF.</p> <p>[STG#3] RIH W/ HLBRTN 8K CBP &amp; PERF GUNS. SET CBP @ 8544'. PERF THE M.V. @ 8512-8514, 8468-8470, 8442-8444, &amp; 8411-8412 USING 3-3/8" EXP GUNS, 23 GM, 0.36, 3 SPF, 120* PHS, [21 HOLES] WHP=1820#. BRK DN PERFS @ 5340# @ 10 BPM. PERFORM STEP DOWN TEST. ISIP=3293, FG=.82, CALCULATE ALL PERFS OPEN. PMP'D 817 BBLS SLK WTR &amp; 27,368# 30/50 TEXAS GOLD SAND W/ 5000# RC SAND @ TAIL. ISIP=3299, FG=.82, NPI=6, MP=6510, MR=50, AP=5644, AR=50 BPM.</p> <p>[STG#4] RIH W/ HLBRTN 8K CBP &amp; PERF GUNS. SET CBP @ 7748'. PERF THE M.V. @ 7716-7718, 7658-7662 &amp; 7641-7642 USING 3-3/8" EXP GUNS, 23 GM, 0.36, 3 SPF, 120* PHS, [21 HOLES] WHP=1030. BRK DN PERFS @ 3600# @ 10 BPM. PERFORM STEP DOWN TEST. ISIP=3039#, FG=.83. CALCULATE ALL PERFS OPEN. PMP'D 798 BBLS SLK WTR &amp; 25,182# 30/50 TEXAS GOLD SAND W/ 5000# RC SAND @ TAIL. ISIP=3110, FG=.84, NPI=71, MP=6232, MR=50, AP=5275, AR=50 BPM.</p> <p>[STG#5] RIH W/ HLBRTN 8K CBP &amp; PERF GUNS. SET CBP @ 7440'. PERF THE M.V. @ 7400-7410 USING 3-3/8" EXP GUNS, 23 GM, 0.36, 4 SPF, 90* PHS, [40 HOLES] WHP=730#. BRK DN PERFS @ 3323# @ 12 BPM. PERFORM STEP DOWN TEST. ISIP=1963, FG=.70. CALCULATE ALL PERFS OPEN. PMP'D 1650 BBLS SLK WTR &amp; 68,529# 30/50 TEXAS GOLD SAND W/ 5000# RC SAND @ TAIL. ISIP=2477, FG=.77, NPI=514, MP=6043, MR=53, AP=3730, AR=52 BPM.</p> <p>[STG#6] RIH W/ HLBRTN 8K CBP &amp; PERF GUNS. SET CBP @ 7258'. PERF THE M.V. @ 7224-7228 &amp;</p>

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A	Spud Conductor: 2/16/2010	Spud Date: 2/20/2010
Project: UTAH-UINTAH	Site: NBU 1021-32A	Rig Name No: LEED 698/698
Event: COMPLETION	Start Date: 5/28/2010	End Date: 6/3/2010
Active Datum: RKB @5,335.01ft (above Mean Sea Level)   UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
								<p>7184-7187 USING 3-3/8" EXP GUNS, 23 GM, 0.36, 3 SPF, 120* PHS,[21 HOLES] WHP=1244. BRK DN PERFS @ 3323# @ 15 BPM. PERFORM STEP DOWN TEST. ISIP=2312, FG=.75. CALCULATE ALL PERFS OPEN. PMP'D 1256 BBLS SLK WTR &amp; 51,897# 30/50 TEXAS GOLD SAND W/ 5000# RC @ TAIL. ISIP=2743, FG=.81, NPI=431, MP=6255, MR=51, AP=4180, AR=50 BPM.</p> <p>[KILL PLUG] RIH W/ HLBRTN 8K CBP &amp; SET @ 7134'. POOD &amp; L/D WIRE LINE TOOLS. RDMO FRAC TECH &amp; CASED HOLE SOLUTIONS. GRAND TOTAL 30/50 &amp; R.C. SAND =367,828# &amp; TOTAL FLUID=9557 BBLS.</p> <p>5:30PM SWI-SDFN. PREP TO D/O 6 CBP'S &amp; LAND TBG IN AM</p>

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A		Spud Conductor: 2/16/2010		Spud Date: 2/20/2010	
Project: UTAH-UINTAH			Site: NBU 1021-32A		Rig Name No: LEED 698/698
Event: COMPLETION			Start Date: 5/28/2010		End Date: 6/3/2010
Active Datum: RKB @5,335.01ft (above Mean Sea Level) UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0					

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
6/3/2010	7:00 -		COMP	30		P		<p>7AM [DAY 4] JSA DRLG PLUGS &amp; WORKING W/ SWWL.</p> <p>NDFV, NU TBG HEAD &amp; BOP. R/U FLOOR &amp; TBG EQUIPMENT. P/U 3-7/8" SEALED BRG BIT, POBS W/ XN NIPPLE &amp; RIH OUT OF DERRICK ON NEW 2-3/8" L-80 TBG. TAG SAND 7104'. R/U SWWL &amp; RIG PUMP. P.T. BOP TO 2500#. ESTABLISH CIRCULATION W/ RIG PUMP. C/O 30' SAND TO CBP#1.</p> <p>[DRLG CBP#1] @ 7134'. DRILL OUT HLBRTN 8K CBP IN 7 MIN. 100# INCREASE. RIH &amp; C/O 30' SAND TO CBP#2. FCP=100#</p> <p>[DRLG CBP#2] @ 7258'. DRILL OUT HLBRTN 8K CBP IN 7 MIN. 150# INCREASE. RIH &amp; C/O 30' SAND TO CBP#3. FCP=150#.</p> <p>[DRLG CBP#3] @ 7440'. DRILL OUT HLBRTN 8K CBP IN 8 MIN. 75# INCREASE. RIH &amp; C/O 30' SAND TO CBP#4. FCP=200#.</p> <p>[DRLG CBP#4] @ 7748'. DRILL OUT HLBRTN 8K CBP IN 3 MIN. 50# INCREASE. RIH &amp; C/O 30' SAND TO CBP#5. FCP=275#.</p> <p>[DRLG CBP#5] @ 8544'. DRILL OUT HLBRTN 8K CBP IN 5 MIN. 0# INCREASE. RIH &amp; C/O 45' SAND TO CBP#6. FCP=225#.</p> <p>[DRLG CBP#6] @ 8678'. DRILL OUT HLBRTN 8K CBP IN 6 MIN. 100# INCREASE. RIH &amp; C/O 114' SAND TO PBTD @ 9184'. CIRCULATE WELL CLEAN. R/D SWWL. FCP=325#. POOH &amp; L/D 22 JTS ON FLOAT. LAND TBG ON HNGR W/ 269 JTS NEW 2-3/8" L-80 TBG. EOT @ 8520.38' &amp; POBS W/ XN @ 8418.18'. AVG 6 MIN/PLUG &amp; C/O 309' SAND. R/D FLOOR &amp; TBG EQUIPMENT. NDBOP, NUWH. DROP BALL DN TBG &amp; PMP OFF THE BIT @ 2900#. OPEN WELL TO FBT ON OPEN CHOKE. FTP=150#, SICP=1250#.</p> <p>TURN WELL OVER TO TEAM FBC. LTR @ 3:30 PM=6157 BBLs. RACK EQUIPMENT. RIG DOWN RIG.</p> <p>5 PM SDFN</p> <p>315 JTS DELIVERED 269 JTS LANDED 46 JTS RETURNED</p>
6/4/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 1125#, TP 1200#, 20/64" CK, 57 BWPH, HEAVY SAND, - GAS TTL BBLs RECOVERED: 4742 BBLs LEFT TO RECOVER: 4815</p>
	9:15 -		PROD	50				<p>WELL TURNED TO SALES @0915 HR ON 6/5/2010 - 650 MCFD, 1224 BWPD, CP 1900#, FTP 1150#, CK 20/64"</p>
6/5/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 1700#, TP 1225#, 20/64" CK, 51 BWPH, HEAVY SAND, - GAS TTL BBLs RECOVERED: 6042 BBLs LEFT TO RECOVER: 3515</p>

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A	Spud Conductor: 2/16/2010	Spud Date: 2/20/2010
Project: UTAH-UINTAH	Site: NBU 1021-32A	Rig Name No: LEED 698/698
Event: COMPLETION	Start Date: 5/28/2010	End Date: 6/3/2010
Active Datum: RKB @5,335.01ft (above Mean Sea Level) UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
6/6/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2650#, TP 1350#, 20/64" CK, 43 BWPH, MED SAND, 1.4 GAS TTL BBLS RECOVERED: 7148 BBLS LEFT TO RECOVER: 2409
6/7/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2375#, TP 1300#, 20/64" CK, 37 BWPH, MED SAND, 1 GAS TTL BBLS RECOVERED: 8012 BBLS LEFT TO RECOVER: 1545
6/8/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2350#, TP 1300#, 20/64" CK, 37 BWPH, MED SAND, 1.2 GAS TTL BBLS RECOVERED: 8086 BBLS LEFT TO RECOVER: 1471
6/9/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2075#, TP 1275#, 20/64" CK, 18 BWPH, CLEAN SAND, 1.5 GAS TTL BBLS RECOVERED: 9385 BBLS LEFT TO RECOVER: 172

## 1 General

### 1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

### 1.2 Well Information

Well	NBU 1021-32A	Wellbore No.	OH
Well Name	NBU 1021-32A	Common Name	NBU 1021-32A
Project	UTAH-UINTAH	Site	NBU 1021-32A
Vertical Section		North Reference	True
Azimuth		Origin E/W	
Origin N/S		UWI	NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/9 55.00/0/0
Spud Date	2/20/2010	Active Datum	RKB @5,335.01ft (above Mean Sea Level)

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	APC
Started	2/20/2010	Ended	
Tool Name		Engineer	Anadarko

#### 2.1.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
14.00	0.00	0.00	14.00	0.00	0.00

#### 2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
2/20/2010	Tie On	14.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2/20/2010	NORMAL	494.00	0.04	220.00	494.00	-0.13	-0.11	-0.13	0.01	0.01	0.00	220.00

### 2.2 Survey Name: Survey #2

Survey Name	Survey #2	Company	APC
Started	2/21/2010	Ended	
Tool Name		Engineer	Anadarko

#### 2.2.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
14.00	0.00	0.00	14.00	0.00	0.00

#### 2.2.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
2/21/2010	Tie On	14.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 2.2.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
2/21/2010	NORMAL	1,504.00	1.60	213.50	1,503.81	-17.35	-11.48	-17.35	0.11	0.11	0.00	213.50
	NORMAL	1,814.00	1.90	206.00	1,813.67	-25.58	-16.12	-25.58	0.12	0.10	-2.42	-41.15
5/6/2010	NORMAL	1,996.00	2.11	216.70	1,995.55	-30.97	-19.45	-30.97	0.24	0.12	5.88	66.13
	NORMAL	2,520.01	1.49	200.70	2,519.30	-45.08	-27.62	-45.08	0.15	-0.12	-3.05	-148.78
5/7/2010	NORMAL	2,968.01	1.41	202.20	2,967.16	-55.63	-31.76	-55.63	0.02	-0.02	0.33	155.37
	NORMAL	3,460.01	1.58	190.51	3,458.99	-67.91	-35.29	-67.91	0.07	0.03	-2.38	-66.79
	NORMAL	3,930.01	1.67	176.09	3,928.80	-81.11	-36.00	-81.11	0.09	0.02	-3.07	-84.86
	NORMAL	4,400.01	1.60	173.63	4,398.61	-94.46	-34.81	-94.46	0.02	-0.01	-0.52	-136.15
5/8/2010	NORMAL	4,930.01	1.41	168.98	4,928.43	-108.22	-32.74	-108.22	0.04	-0.04	-0.88	-149.58
	NORMAL	5,340.01	1.49	170.21	5,338.30	-118.42	-30.87	-118.42	0.02	0.02	0.30	21.87
	NORMAL	5,840.01	1.93	177.76	5,838.08	-133.24	-29.43	-133.24	0.10	0.09	1.51	30.92
	NORMAL	6,345.01	1.93	171.52	6,342.79	-150.15	-27.85	-150.15	0.04	0.00	-1.24	-93.12
5/9/2010	NORMAL	6,660.01	1.76	165.46	6,657.63	-160.08	-25.85	-160.08	0.08	-0.05	-1.92	-134.07
5/10/2010	NORMAL	7,458.02	1.58	163.97	7,455.29	-182.51	-19.74	-182.51	0.02	-0.02	-0.19	-167.18
	NORMAL	7,600.02	1.60	149.00	7,597.24	-186.09	-18.18	-186.09	0.29	0.01	-10.54	-94.74
5/15/2010	NORMAL	7,906.02	0.62	192.18	7,903.18	-191.38	-16.32	-191.38	0.40	-0.32	14.11	159.71
5/15/2010	NORMAL	8,098.02	1.08	136.26	8,095.17	-193.70	-15.29	-193.70	0.47	0.24	-29.12	-90.95
5/15/2010	NORMAL	8,354.02	1.20	214.61	8,351.13	-197.65	-15.15	-197.65	0.56	0.05	30.61	125.47
5/15/2010	NORMAL	8,481.02	1.18	194.13	8,478.10	-200.01	-16.22	-200.01	0.33	-0.02	-16.13	-102.90
5/16/2010	NORMAL	8,576.02	0.50	200.00	8,573.09	-201.35	-16.60	-201.35	0.72	-0.72	6.18	175.72
5/16/2010	NORMAL	8,666.02	0.54	144.24	8,663.09	-202.06	-16.49	-202.06	0.54	0.04	-61.96	-113.72
5/16/2010	NORMAL	8,756.02	0.53	147.52	8,753.08	-202.76	-16.02	-202.76	0.04	-0.01	3.64	109.72
5/16/2010	NORMAL	8,953.02	0.44	170.25	8,950.08	-204.27	-15.40	-204.27	0.11	-0.05	11.54	126.14
5/16/2010	NORMAL	9,174.02	0.67	162.64	9,171.07	-206.34	-14.87	-206.34	0.11	0.10	-3.44	-21.60
	NORMAL	9,234.02	0.67	162.64	9,231.06	-207.01	-14.66	-207.01	0.00	0.00	0.00	0.00

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21577
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</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.		<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well		<b>8. WELL NAME and NUMBER:</b> NBU 1021-32A
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>9. API NUMBER:</b> 43047390260000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6515 Ext	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0646 FNL 0955 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 10.0S Range: 21.0E Meridian: S		<b>COUNTY:</b> UINTAH
		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 6/24/2011  <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 checked="" type="checkbox"/> OTHER	
	<input checked="" 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 checked="" type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Wellhead Repair"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>The operator requests approval to conduct wellhead repair/re-completion operations on the subject well location. The operator proposes to re-complete the Wasatch formation. The operator also requests authorization to commingle the newly Wasatch and existing Mesaverde formations. Please refer to the attached wellhead repair/re-completion procedures.</p>		
		<p><b>Approved by the Utah Division of Oil, Gas and Mining</b></p> <p><b>Date:</b> <u>07/05/2011</u></p> <p><b>By:</b> <u><i>Derek Duff</i></u></p>
<b>NAME (PLEASE PRINT)</b> Gina Becker	<b>PHONE NUMBER</b> 720 929-6086	<b>TITLE</b> Regulatory Analyst II
<b>SIGNATURE</b> N/A		<b>DATE</b> 6/24/2011

# Greater Natural Buttes Unit



**NBU 1021-32A**

**WELLHEAD CHANGEOUT & RE-COMPLETIONS PROCEDURE**

**DATE:6/2/2011**

**AFE#:**

**WO#:** (For Wellhead Changeout)

**API#:4304739026**

**USER ID:OOT937** (Frac Invoices Only)

**COMPLETIONS ENGINEER:** Zachary Garrity, Denver, CO  
(720)-929-6180 (Office)  
(406)-781-6427 (Cell)

**SIGNATURE:**

**ENGINEERING MANAGER: JEFF DUFRESNE**

**SIGNATURE:**

**REMEMBER SAFETY FIRST!**

**Name:** NBU 1021-32A  
**Location:** NE NE Section 32 T10S R21E  
**LAT:** 39.909506 **LONG:** -109.569308 **COORDINATE:** NAD83 (Surface Location)  
**Uintah County, UT**  
**Date:** 6/2/2011

**ELEVATIONS:** 5317' GL 5335' KB *Frac Registry TVD: 9231*

**TOTAL DEPTH:** 9234' **PBTD:** 9184'  
**SURFACE CASING:** 8 5/8", 28# J-55 LT&C @ 1827'  
**PRODUCTION CASING:** 4 1/2", 11.6#, I-80 BT&C @ 9229'  
 Marker Joint **4099-4120'**

**TUBULAR PROPERTIES:**

	BURST (psi)	COLLAPSE (psi)	DRIFT DIA. (in.)	CAPACITIES	
				(bbl/ft)	(gal/ft)
2 3/8" 4.7# J-55 tbg	7,700	8,100	1.901"	0.00387	0.1624
4 1/2" 11.6# I-80 (See above)	7780	6350	3.875"	0.0155	0.6528
2 3/8" by 4 1/2" Annulus				0.0101	0.4227

**TOPS:**

933' Green River Top  
 1187' Bird's Nest Top  
 1666' Mahogany Top  
 4173' Wasatch Top  
 7023' Mesaverde Top

**BOTTOMS:**

7023' Wasatch Bottom  
 9234' Mesaverde Bottom (TD)

**T.O.C. @ Surface** (CasedHole Solutions CBL – 5/26/2010)

**GENERAL:**

- A minimum of **5** tanks (cleaned lined 500 bbl) of recycled water will be required. Note: Use biocide in tanks and the water needs to be at least 45°F at pump time.
- All perforation depths are from Bakers Induction-Density-Neutron log dated 5/18/2010
- **3** fracturing stages required for coverage.
- Procedure calls for **4** CBP's (**8000** psi) .
- Calculate open perforations after each breakdown. If less than 60% of the perforations appear to be open, ball out with 15% HCl.
- Pump scale inhibitor at 3 gpt (in pad and until 1.25 ppg ramp up is reached) and 10 gpt in all flushes except the final stage. Remember to pre-load the casing with scale inhibitor for the very first stage with 10 gpt.
- 30/50 mesh Ottawa sand, **Slickwater frac.**
- Maximum surface pressure **6200** psi.

- Flush volumes are the sum of slick water and acid used during displacement (include scale inhibitor as mentioned above). Stage acid and scale inhibitor if necessary to cover the next perforated interval.
- **Call flush at 0 PPG @ inline densimeters. Slow to 5 bbl/min over last 10-20 bbls of flush. Flush to top perf.**
- **If distance between plug and top perf of previous stage is less than 50', it is considered to be tight spacing - over flush stage by 5 bbls (from top perf)**
- Pump 20/40 mesh curable resin coated sand last **2,500#** of all frac stages
- Tubing Currently Landed @~8,520
- Originally completed on 6/2/2010
- **Note: Equipment to have on location:**
  - 2 jts 4-1/2" x 11.6# x 8rd
  - 2 jts 4-1/2" x 11.6" x Butress
  - Butress x 8rd change overs.
  - Elevators for 4-1/2" csg.
  - Tongs for 4-1/2" csg.
  - All Weatherford well head parts needed, with Weatherford hand.

### **Existing Perforations:**

<b>PERFORATIONS</b>									
<b>Formation</b>	<b>Zone</b>	<b>Top</b>	<b>Btm</b>	<b>spf</b>	<b>Shots</b>	<b>Date</b>	<b>Reason</b>	<b>Comments</b>	<b>Producing</b>
MESAVERDE		7184	7187	3	9	06/02/2010	PRODUCTION		Yes
MESAVERDE		7224	7228	3	12	06/02/2010	PRODUCTION		Yes
MESAVERDE		7400	7410	4	40	06/02/2010	PRODUCTION		Yes
MESAVERDE		7641	7642	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		7658	7662	3	12	06/02/2010	PRODUCTION		Yes
MESAVERDE		7716	7718	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8411	8412	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8442	8444	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8468	8470	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8512	8514	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8557	8558	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8602	8606	3	12	06/02/2010	PRODUCTION		Yes
MESAVERDE		8646	8648	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8697	8698	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8733	8735	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8770	8771	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8810	8813	3	9	06/02/2010	PRODUCTION		Yes

### **Relevant History:**

**6/2/2010** – Original completion to Mesaverde (6 stage frac)

**8/30/2010** – Slickline ran to TD and set down at 9162'. Ran broach and set down at 8500'. Came out tubing was clean, dropped and chased titanium spring to bottom.

**5/5/2011** – Slickline ran to TD and set down at 9177'. Ran broach and set down at 8515'. Came out tubing was clean. There was barium scale on the spring plunger, so blew tubing clean dropped and chased titanium spring and viper plunger to bottom.

**H2S History:**

Production Date	Gas (avg mcf/day)	Water (avg bbl/day)	Oil (avg bbl/day)	LGR (bbl/Mmcf)	Max H2S - Separator (ppm)
5/31/2011	0.00	0.00	0.00	#NA	
4/30/2011	156.20	9.57	4.30	88.78	
3/31/2011	254.61	32.03	3.03	137.72	
2/28/2011	297.18	39.89	8.29	162.12	0.00
1/31/2011	272.06	22.32	7.97	111.34	2.00
12/31/2010	287.77	40.48	4.94	157.83	1.00
11/30/2010	353.27	47.67	4.93	148.90	

**PROCEDURES:** Prior to initiating back-off or casing cutting activities the UDOGM will be notified. Specifically, Mr. Dave Hackford (435-722-7589) will be called, and if not available, Dan Jarvis (801-538-5338) and or Dustin Doucet (801-538-5281) will be notified. No work will be accomplished prior to notifying the appropriate UDOGM representative.

**NBU 1021-32A – WELLHEAD REPLACEMENT PROCEDURE****PREP-WORK PRIOR TO MIRU:**

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

**WORKOVER PROCEDURE:**

1. MIRU workover rig.
2. Kill well with 10# brine / KCL (dictated by well pressure ).

3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
4. TOOH with 2-3/8", 4.7#, J-55 (or N-80) tubing (currently landed at ~8520'). Visually inspect for scale and consider replacing if needed.
5. If tbg looks ok consider running a gauge ring to 7184' (50' below proposed CBP). Otherwise P/U a mill and C/O to 7184' (50' below proposed CBP).
6. Rig up wireline service. RIH and set CBP @ ~7134'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service. TIH w/ tubing and seating nipple. Land tubing ±60' above cement. RDMO.
7. Monitor well pressures. If surface casing is dead. MIRU. ND WH and NU BOP. POOH w/ tubing.
8. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

**CUT/PATCH PROCEDURE:**

1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.
2. POOH, LD cutters and casing.
3. PU 7 3/8" overshot with 4 1/2" right hand standard wicker grapple, 1 - 4 3/4" drill collar with 3 1/2" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' utilize >7000 ft-lb torque pipe as needed. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to ±7000 ft-lbs, count number of turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out, release overshot, POOH, and lay down.
4. TIH w/ skirted mill and dress off the fish top for approximately 1/2 hour. TOOH.
5. PU & RIH w/ 4 1/2" 10k external casing patch on 4 1/2" P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.
6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 3500 psi.
7. Install slips. Land casing w/ 80,000# tension.
8. Cut-off and dress 4 1/2" casing stub.

9. NU frac valves. Test frac valves and casing to 1000 and 3500 psi for 15 minutes each and to 6200 psi for 30 minutes. As per standard operating procedure install steel blowdown line to reserve pit from 4-1/2" X 8-5/8" annulus with pressure relief valve in line. Pressure relief will be set to release at 500 psig. Lock **OPEN** the Braden head valve. Annulus will be monitored throughout stimulation. If release occurs, stimulation will be shut down. Well conditions will be assessed and actions taken as necessary to secure the well. UDOGM will be notified if a release to the annulus occurs.
10. RDMO. Turn well over to completions ops.

**BACK-OFF PROCEDURE:**

1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.
2. POOH, LD cutters and casing.
3. PU 4 1/2" overshot. RIH, latch fish. Pick string weight to neutral.
4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.
5. Back-off casing, POOH.
6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to ±7000 ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.
7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 3500 psi.
8. Install slips. Land casing w/ 80,000# tension.
9. Cut-off and dress 4 1/2" casing stub.
10. NU frac valves. Test frac valves and casing to 1000 and 3500 psi for 15 minutes each and to 6200 psi for 30 minutes. As per standard operating procedure install steel blowdown line to reserve pit from 4-1/2" X 8-5/8" annulus with pressure relief valve in line. Pressure relief will be set to release at 500 psig. Lock **OPEN** the Braden head valve. Annulus will be monitored throughout stimulation. If release occurs, stimulation will be shut down. Well conditions will be assessed and actions taken as necessary to secure the well. UDOGM will be notified if a release to the annulus occurs.
11. RDMO. Turn well over to completions ops.

**RECOMPLETE – PROCEDURE: (If using any chemicals for pickling tubing or H2S Scavenging, have MSDS for all chemicals prior to starting work.)**

1. MIRU
2. Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:
 

Zone	From	To	spf	# of shots
WASATCH	5866	5870	3	12
WASATCH	5891	5894	4	12
3. Breakdown perfs and establish injection rate (include scale inhibitor in fluid). Spot 250 gals of 15% HCL and let soak 5-10 min. Fracture as outlined in Stage 1 on attached listing. Under-displace to ~5866' and trickle 250gal 15%HCL w/ scale inhibitor in flush .
4. Set 8000 psi CBP at ~5,376'. Perf the following 3-3/8" gun, 23 gm, 0.36"hole:
 

Zone	From	To	spf	# of shots
WASATCH	5180	5183	3	9
WASATCH	5226	5228	3	6
WASATCH	5323	5326	3	9
5. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 2 on attached listing. Under-displace to ~5180' and trickle 250gal 15%HCL w/ scale inhibitor in flush.
6. Set 8000 psi CBP at ~4,750'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole:
 

Zone	From	To	spf	# of shots
WASATCH	4694	4700	4	24
7. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 3 on attached listing. Under-displace to ~4694' and flush only with recycled water.
8. Set 8000 psi CBP at~4,644'.
9. ND Frac Valves, NU and Test BOPs.
10. TIH with 3 7/8" bit, pump off sub, SN and tubing.
11. Drill plugs and clean out to PBSD. Shear off bit and land tubing at ±8,520' unless indicated otherwise by the well's behavior. The well will be commingled at this time.
12. Clean out well with foam and/or swabbing unit until steady flow has been established from completion.
13. **Leave surface casing valve open.** Monitor and report any flow from surface casing. RDMO

**For design questions, please call  
Zachary Garrity, Denver, CO  
(720)-929-6180 (Office)  
(406)-781-6427 (Cell)**

**For field implementation questions, please call  
Jeff Samuels, Vernal, UT  
(435)-781-7046 (Office)**

NOTES:

**If using any chemicals for pickling tubing or H2S Scavenging, have MSDS for all chemicals prior to starting work**

**Verify that the Braden head valve is locked OPEN.**

Acid Pickling and H2S Procedures (If Required)

**\*\*PROCEDURE FOR PUMPING ACID DOWN TBG**

WHEN FINDING SCALE IN TUBING THAT IS ACID SOLUBLE, ENSURE THAT PLUNGER EQUIPMENT IS REMOVED AND ABLE TO PUMP DOWN TBG. INSTALL A 'T' IN PUMP LINE W/2" VALVE THAT NALCO CAN TIE INTO. HAVE 60 BBLS 2% KCL MIXED W/ 10-15 GAL H2S SCAVENGER IN RIG FLAT TANK. (WE USED THE RIG FLAT TANK FOR MIXING CHEMICAL SO WE DIDN'T HAVE THE CHEMICAL IN ALL FLUIDS ON LOCATION, ONLY WHAT WE NEEDED TO PUMP DOWN HOLE)

1. PUMP 5-10 BBLS 2% KCL DOWN TBG (NALCO CANNOT PUMP AGAINST PRESSURE)
2. NALCO WILL PUMP 3 DRUMS HCL (31%) INTO PUMP LINE.
3. FLUSH BEHIND ACID WITH 10-15 BBL 2% KCL
4. PUMP 2—30 BBL 2% W/ H2S SCAVENGER DOWN TBG.
5. PUMP REMAINDER OF 2% W/ H2S SCAVENGER DOWN CASING AND SHUT WELL IN FOR MINIMUM OF 2 HRS.
6. OVER DISPLACE DOWN TBG AND CSG TO FLUSH ACID AND SCAVENGER INTO FORMATION
7. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

**\*\* PROCEDURE FOR PUMPING H2S SCAVENGER WITHOUT ACID**

PRIOR TO RIG MOVING ON OR AS RIG PULLS ONTO LOCATION. TEST CASING, TUBING AND SEPARATOR FOR H2S. IF FOUND MAKE SURE THAT PLUNGER SYSTEM IS REMOVED (IT IS POSSIBLE TO PUMP AROUND PLUNGERS BUT SOME WILL HAVE A STANDING VALVE IN SEATING NIPPLE).

1. MIX 10-15 GAL H2S SCAVENGER WITH 60-100 BBL 2% KCL IN RIG FLAT TANK.
2. PUMP 25 BBLS MIXTURE DOWN TUBING AND REST DOWN CASING. SHUT WELL IN FOR 2 HOURS.
3. IF WELL HAS PRESSURE AFTER 2 HOURS – RETEST CASING AND TUBING FOR H2S.
4. FLUSH TUBING AND CASING PUSHING H2S SCAVENGER INTO FORMATION.
5. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

\*\* As per APC standard operating procedure, APC foreman will verify ALL volumes pumped and record on APC Volume Report Form

Key Contact information

Completion Engineer

Zachary Garrity: 406-781-6427, 720-929-6180

Production Engineer

Jordan Portillo: 435/781-9785, 435/828-6221

Completion Supervisor Foreman

Jeff Samuels: 435-828-6515, 435-781-7046

Completion Manager

Jeff Dufresne: 720-929-6281, 303-241-8428

Vernal Main Office

435-789-3342

Emergency Contact Information—Call 911

Vernal Regional Hospital Emergency: 435-789-3342

Police: (435) 789-5835

Fire: 435-789-4222



Name NBU 1021-32A Recomplete  
Perforation and CBP Summary

Stage	Zones	Perforations		SPF	Holes	Fracture Coverage		
		Top, ft	Bottom, ft					
1	WASATCH	5866	5870	3	12	5856	to	5875
	WASATCH	5891	5894	4	12	5887	to	5895.5
	# of Perfs/stage				24	CBP DEPTH		5,376
2	WASATCH	5180	5183	3	9	5175.5	to	5186.5
	WASATCH	5226	5228	3	6	5222	to	5235.5
	WASATCH	5323	5326	3	9	5305	to	5330
	# of Perfs/stage				24	CBP DEPTH		4,750
3	WASATCH	4694	4700	4	24	4687.5	to	4702
	# of Perfs/stage				24	CBP DEPTH		4,644
<b>Totals</b>								
					72			

DIRECTIONAL SURVEY NBU 1021-32A					
MD	TVD	EW	NS	INC	AZI
0	0	0	0	0	0
14	14	0	0	0	0
494	494.0	-0.1	-0.1	0.0	220.0
1504	1503.9	-8.1	-12.2	1.6	213.5
1814	1813.7	-12.8	-20.4	1.9	206.0
1996	1995.6	-16.1	-25.8	2.1	216.7
2520	2519.4	-24.3	-39.9	1.5	200.7
2968	2967.2	-28.4	-50.4	1.4	202.2
3460	3459.0	-31.9	-62.7	1.6	190.5
3930	3928.9	-32.6	-75.9	1.7	176.1
4400	4398.7	-31.4	-89.3	1.6	173.6
4930	4928.5	-29.4	-103.0	1.4	169.0
5340	5338.4	-27.5	-113.2	1.5	170.2
5840	5838.1	-26.1	-128.1	1.9	177.8
6345	6342.8	-24.5	-145.0	1.9	171.5
6660	6657.7	-22.5	-154.9	1.8	165.5
7458	7455.3	-16.4	-177.3	1.6	164.0
7600	7597.3	-14.8	-180.9	1.6	149.0
7625	7622.3	-14.5	-181.5	1.4	158.2
7906	7903.2	-13.5	-186.3	0.6	192.6
8098	8095.2	-13.7	-189.1	1.1	176.3
8354	8351.2	-15.0	-193.7	1.2	214.6
8481	8478.1	-16.1	-196.1	1.2	194.1
8576	8573.1	-16.5	-197.4	0.5	200.1
8666	8663.1	-16.4	-198.1	0.5	144.2
8763	8760.1	-15.9	-198.9	0.5	147.5
8953	8950.1	-15.3	-200.3	0.4	170.3
9177	9174.1	-14.7	-202.4	0.7	162.6
9234	9231.1	-14.5	-203.1	0.7	162.6

<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>		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21577
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.		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>1. TYPE OF WELL</b> Gas Well		<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>8. WELL NAME and NUMBER:</b> NBU 1021-32A
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		<b>9. API NUMBER:</b> 43047390260000
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0646 FNL 0955 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 10.0S Range: 21.0E Meridian: S		<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
		<b>COUNTY:</b> UINTAH
		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<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 checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 9/6/2011	<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"/> SPUD REPORT Date of Spud:	<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 checked="" type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION	
<input type="checkbox"/> DRILLING REPORT Report Date:	<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 HAS PERFORMED A RECOMPLETION ON THE SUBJECT WELL. THE OPERATOR HAS RECOMPLETED THE WASATCH FORMATION. THE OPERATOR HAS COMMINGLED THE NEWLY WASATCH FORMATION WITH THE EXISTING MESAVERDE FORMATION. THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 09/06/2011 AT 4:30 PM. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.		
<b>Accepted by the          Utah Division of          Oil, Gas and Mining          FOR RECORD ONLY</b>		
<b>NAME (PLEASE PRINT)</b> Sheila Wopsock	<b>PHONE NUMBER</b> 435 781-7024	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 9/8/2011	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21577
<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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 1021-32A
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047390260000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6515 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0646 FNL 0955 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 10.0S Range: 21.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> 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: 10/20/2011	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Drill Out ISO Plug"/>

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

The subject well was recently recompleted to the Wasatch formation. The newly recompleted Wasatch delivered to sales on 09/06/2011. This well is not commingled yet with the existing perforations. The operator requests authorization to drill out the isolation plug and commingle the well. Please see the attached revised procedure. Thank you.

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

Date: 11/10/2011  
 By: *Derek Duff*

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 10/19/2011	

# Greater Natural Buttes Unit



**NBU 1021-32A**

**WELLHEAD CHANGEOUT & RE-COMPLETIONS PROCEDURE**

**DATE:6/2/2011**

**AFE#:2059429**

**WO#:** (For Wellhead Changeout)

**API#:4304739026**

**USER ID:OOT937** (Frac Invoices Only)

**COMPLETIONS ENGINEER:** Zachary Garrity, Denver, CO  
(720)-929-6180 (Office)  
(406)-781-6427 (Cell)

**SIGNATURE:**

**ENGINEERING MANAGER: JEFF DUFRESNE**

**SIGNATURE:**

**REMEMBER SAFETY FIRST!**

**Name:** NBU 1021-32A  
**Location:** NE NE Section 32 T10S R21E  
**LAT:** 39.909506 **LONG:** -109.569308 **COORDINATE:** NAD83 (Surface Location)  
**Uintah County, UT**  
**Date:** 6/2/2011

**ELEVATIONS:** 5317' GL 5335' KB *Frac Registry TVD: 9231*

**TOTAL DEPTH:** 9234' **PBTD:** 9184'  
**SURFACE CASING:** 8 5/8", 32# J-55 LT&C @ 1827'  
**PRODUCTION CASING:** 4 1/2", 11.6#, I-80 BT&C @ 9229'  
 Marker Joint **4099-4120'**

**TUBULAR PROPERTIES:**

	BURST (psi)	COLLAPSE (psi)	DRIFT DIA. (in.)	CAPACITIES	
				(bbl/ft)	(gal/ft)
2 3/8" 4.7# J-55 tbg	7,700	8,100	1.901"	0.00387	0.1624
4 1/2" 11.6# I-80 (See above)	7780	6350	3.875"	0.0155	0.6528
2 3/8" by 4 1/2" Annulus				0.0101	0.4227

**TOPS:**

933' Green River Top  
 1187' Bird's Nest Top  
 1666' Mahogany Top  
 4173' Wasatch Top  
 7023' Mesaverde Top

**BOTTOMS:**

7023' Wasatch Bottom  
 9234' Mesaverde Bottom (TD)

**T.O.C. @ Surface** (CasedHole Solutions CBL – 5/26/2010)

**GENERAL:**

- A minimum of **5** tanks (cleaned lined 500 bbl) of recycled water will be required. Note: Use biocide in tanks and the water needs to be at least 45°F at pump time.
- All perforation depths are from Bakers Induction-Density-Neutron log dated 5/18/2010
- **3** fracturing stages required for coverage.
- Procedure calls for **4** CBP's (**8000** psi) .
- Calculate open perforations after each breakdown. If less than 60% of the perforations appear to be open, ball out with 15% HCl.
- Pump scale inhibitor at 3 gpt (in pad and until 1.25 ppg ramp up is reached) and 10 gpt in all flushes except the final stage. Remember to pre-load the casing with scale inhibitor for the very first stage with 10 gpt.
- 30/50 mesh Ottawa sand, **Slickwater frac.**
- Maximum surface pressure **6200** psi.

- Flush volumes are the sum of slick water and acid used during displacement (include scale inhibitor as mentioned above). Stage acid and scale inhibitor if necessary to cover the next perforated interval.
- **Call flush at 0 PPG @ inline densimeters. Slow to 5 bbl/min over last 10-20 bbls of flush. Flush to top perf.**
- **If distance between plug and top perf of previous stage is less than 50', it is considered to be tight spacing - over flush stage by 5 bbls (from top perf)**
- Pump 20/40 mesh curable resin coated sand last 2,500# of all frac stages
- Tubing Currently Landed @~8,520
- Originally completed on 6/2/2010
- **Note: Equipment to have on location:**
  - 2 jts 4-1/2" x 11.6# x 8rd
  - 2 jts 4-1/2" x 11.6" x Butress
  - Butress x 8rd change overs.
  - Elevators for 4-1/2" csg.
  - Tongs for 4-1/2" csg.
  - All Weatherford well head parts needed, with Weatherford hand.

### Existing Perforations:

<u>PERFORATIONS</u>									
<u>Formation</u>	<u>Zone</u>	<u>Top</u>	<u>Btm</u>	<u>spf</u>	<u>Shots</u>	<u>Date</u>	<u>Reason</u>	<u>Comments</u>	<u>Producing</u>
MESAVERDE		7184	7187	3	9	06/02/2010	PRODUCTION		Yes
MESAVERDE		7224	7228	3	12	06/02/2010	PRODUCTION		Yes
MESAVERDE		7400	7410	4	40	06/02/2010	PRODUCTION		Yes
MESAVERDE		7641	7642	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		7658	7662	3	12	06/02/2010	PRODUCTION		Yes
MESAVERDE		7716	7718	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8411	8412	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8442	8444	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8468	8470	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8512	8514	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8557	8558	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8602	8606	3	12	06/02/2010	PRODUCTION		Yes
MESAVERDE		8646	8648	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8697	8698	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8733	8735	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8770	8771	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8810	8813	3	9	06/02/2010	PRODUCTION		Yes

### Relevant History:

**6/2/2010** – Original completion to Mesaverde (6 stage frac)

**8/30/2010** – Slickline ran to TD and set down at 9162'. Ran broach and set down at 8500'. Came out tubing was clean, dropped and chased titanium spring to bottom.

**5/5/2011** – Slickline ran to TD and set down at 9177'. Ran broach and set down at 8515'. Came out tubing was clean. There was barium scale on the spring plunger, so blew tubing clean dropped and chased titanium spring and viper plunger to bottom.

**H2S History:**

Production Date	Gas (avg mcf/day)	Water (avg bbl/day)	Oil (avg bbl/day)	LGR (bbl/Mmcf)	Max H2S - Separator (ppm)
5/31/2011	0.00	0.00	0.00	#NA	
4/30/2011	156.20	9.57	4.30	88.78	
3/31/2011	254.61	32.03	3.03	137.72	
2/28/2011	297.18	39.89	8.29	162.12	0.00
1/31/2011	272.06	22.32	7.97	111.34	2.00
12/31/2010	287.77	40.48	4.94	157.83	1.00
11/30/2010	353.27	47.67	4.93	148.90	

**PROCEDURES:** Prior to initiating back-off or casing cutting activities the UDOGM will be notified. Specifically, Mr. Dave Hackford (435-722-7589) will be called, and if not available, Dan Jarvis (801-538-5338) and or Dustin Doucet (801-538-5281) will be notified. No work will be accomplished prior to notifying the appropriate UDOGM representative.

**NBU 1021-32A – WELLHEAD REPLACEMENT PROCEDURE****PREP-WORK PRIOR TO MIRU:**

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

**WORKOVER PROCEDURE:**

1. MIRU workover rig.
2. Kill well with 10# brine / KCL (dictated by well pressure ).

3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
4. TOOH with 2-3/8", 4.7#, J-55 (or N-80) tubing (currently landed at ~8520'). Visually inspect for scale and consider replacing if needed.
5. If tbg looks ok consider running a gauge ring to 7184' (50' below proposed CBP). Otherwise P/U a mill and C/O to 7184' (50' below proposed CBP).
6. Rig up wireline service. RIH and set CBP @ ~7134'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service. TIH w/ tubing and seating nipple. Land tubing ±60' above cement. RDMO.
7. Monitor well pressures. If surface casing is dead. MIRU. ND WH and NU BOP. POOH w/ tubing.
8. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

**CUT/PATCH PROCEDURE:**

1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.
2. POOH, LD cutters and casing.
3. PU 7 3/8" overshot with 4 1/2" right hand standard wicker grapple, 1 - 4 3/4" drill collar with 3 1/2" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' utilize >7000 ft-lb torque pipe as needed. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to ±7000 ft-lbs, count number of turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out, release overshot, POOH, and lay down.
4. TIH w/ skirted mill and dress off the fish top for approximately 1/2 hour. TOOH.
5. PU & RIH w/ 4 1/2" 10k external casing patch on 4 1/2" P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.
6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 3500 psi.
7. Install slips. Land casing w/ 80,000# tension.
8. Cut-off and dress 4 1/2" casing stub.

9. NU frac valves. Test frac valves and casing to 1000 and 3500 psi for 15 minutes each and to 6200 psi for 30 minutes. As per standard operating procedure install steel blowdown line to reserve pit from 4-1/2" X 8-5/8" annulus with pressure relief valve in line. Pressure relief will be set to release at 500 psig. Lock **OPEN** the Braden head valve. Annulus will be monitored throughout stimulation. If release occurs, stimulation will be shut down. Well conditions will be assessed and actions taken as necessary to secure the well. UDOGM will be notified if a release to the annulus occurs.
10. RDMO. Turn well over to completions ops.

**BACK-OFF PROCEDURE:**

1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.
2. POOH, LD cutters and casing.
3. PU 4 1/2" overshot. RIH, latch fish. Pick string weight to neutral.
4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.
5. Back-off casing, POOH.
6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to ±7000 ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.
7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 3500 psi.
8. Install slips. Land casing w/ 80,000# tension.
9. Cut-off and dress 4 1/2" casing stub.
10. NU frac valves. Test frac valves and casing to 1000 and 3500 psi for 15 minutes each and to 6200 psi for 30 minutes. As per standard operating procedure install steel blowdown line to reserve pit from 4-1/2" X 8-5/8" annulus with pressure relief valve in line. Pressure relief will be set to release at 500 psig. Lock **OPEN** the Braden head valve. Annulus will be monitored throughout stimulation. If release occurs, stimulation will be shut down. Well conditions will be assessed and actions taken as necessary to secure the well. UDOGM will be notified if a release to the annulus occurs.
11. RDMO. Turn well over to completions ops.

**RECOMPLETE – PROCEDURE: (If using any chemicals for pickling tubing or H2S Scavenging, have MSDS for all chemicals prior to starting work.)**

1. MIRU
2. Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:
 

Zone	From	To	spf	# of shots
WASATCH	5866	5870	3	12
WASATCH	5891	5894	4	12
3. Breakdown perfs and establish injection rate (include scale inhibitor in fluid). Spot 250 gals of 15% HCL and let soak 5-10 min. Fracture as outlined in Stage 1 on attached listing. Under-displace to ~5866' and trickle 250gal 15%HCL w/ scale inhibitor in flush .
4. Set 8000 psi CBP at ~5,376'. Perf the following 3-3/8" gun, 23 gm, 0.36"hole:
 

Zone	From	To	spf	# of shots
WASATCH	5180	5183	3	9
WASATCH	5226	5228	3	6
WASATCH	5323	5326	3	9
5. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 2 on attached listing. Under-displace to ~5180' and trickle 250gal 15%HCL w/ scale inhibitor in flush.
6. Set 8000 psi CBP at ~4,750'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole:
 

Zone	From	To	spf	# of shots
WASATCH	4694	4700	4	24
7. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 3 on attached listing. Under-displace to ~4694' and flush only with recycled water.
8. Set 8000 psi CBP at~4,644'.
9. TIH with 3 7/8" mill, pump open sub, XN nipple and tubing.
10. Mill 3 plugs and clean out to a depth of 5900'.
11. Land tubing at 5800', drop ball and pump open sub. Flow back completion load. RDMO
12. MIRU, POOH tbg and mill. TIH with POBS and mill.
13. Mill last plug @ 7134' clean out to PBSD at 9184'. Land tubing at ±8,520' pump off bit and bit sub. This well WILL be commingled at this time.
14. Clean out well with foam and/or swabbing unit until steady flow has been established from completion.
15. **Leave surface casing valve open.** Monitor and report any flow from surface casing. RDMO

**For design questions, please call  
Zachary Garrity, Denver, CO**

**(720)-929-6180 (Office)**  
**(406)-781-6427 (Cell)**

**For field implementation questions, please call**  
**Jeff Samuels, Vernal, UT**  
**(435)-781-7046 (Office)**

**NOTES:**

**If using any chemicals for pickling tubing or H<sub>2</sub>S Scavenging, have MSDS for all chemicals prior to starting work**

**Verify that the Braden head valve is locked OPEN.**

Acid Pickling and H2S Procedures (If Required)

**\*\*PROCEDURE FOR PUMPING ACID DOWN TBG**

WHEN FINDING SCALE IN TUBING THAT IS ACID SOLUBLE, ENSURE THAT PLUNGER EQUIPMENT IS REMOVED AND ABLE TO PUMP DOWN TBG. INSTALL A 'T' IN PUMP LINE W/2" VALVE THAT NALCO CAN TIE INTO. HAVE 60 BBL 2% KCL MIXED W/ 10-15 GAL H2S SCAVENGER IN RIG FLAT TANK. (WE USED THE RIG FLAT TANK FOR MIXING CHEMICAL SO WE DIDN'T HAVE THE CHEMICAL IN ALL FLUIDS ON LOCATION, ONLY WHAT WE NEEDED TO PUMP DOWN HOLE)

1. PUMP 5-10 BBL 2% KCL DOWN TBG (NALCO CANNOT PUMP AGAINST PRESSURE)
2. NALCO WILL PUMP 3 DRUMS HCL (31%) INTO PUMP LINE.
3. FLUSH BEHIND ACID WITH 10-15 BBL 2% KCL
4. PUMP 2—30 BBL 2% W/ H2S SCAVENGER DOWN TBG.
5. PUMP REMAINDER OF 2% W/ H2S SCAVENGER DOWN CASING AND SHUT WELL IN FOR MINIMUM OF 2 HRS.
6. OVER DISPLACE DOWN TBG AND CSG TO FLUSH ACID AND SCAVENGER INTO FORMATION
7. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

**\*\* PROCEDURE FOR PUMPING H2S SCAVENGER WITHOUT ACID**

PRIOR TO RIG MOVING ON OR AS RIG PULLS ONTO LOCATION. TEST CASING, TUBING AND SEPARATOR FOR H2S. IF FOUND MAKE SURE THAT PLUNGER SYSTEM IS REMOVED (IT IS POSSIBLE TO PUMP AROUND PLUNGERS BUT SOME WILL HAVE A STANDING VALVE IN SEATING NIPPLE).

1. MIX 10-15 GAL H2S SCAVENGER WITH 60-100 BBL 2% KCL IN RIG FLAT TANK.
2. PUMP 25 BBL MIXTURE DOWN TUBING AND REST DOWN CASING. SHUT WELL IN FOR 2 HOURS.
3. IF WELL HAS PRESSURE AFTER 2 HOURS – RETEST CASING AND TUBING FOR H2S.
4. FLUSH TUBING AND CASING PUSHING H2S SCAVENGER INTO FORMATION.
5. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

\*\* As per APC standard operating procedure, APC foreman will verify ALL volumes pumped and record on APC Volume Report Form

Key Contact information

Completion Engineer

Zachary Garrity: 406-781-6427, 720-929-6180

Production Engineer

Jordan Portillo: 435/781-9785, 435/828-6221

Completion Supervisor Foreman

Jeff Samuels: 435-828-6515, 435-781-7046

Completion Manager

Jeff Dufresne: 720-929-6281, 303-241-8428

Vernal Main Office

435-789-3342

Emergency Contact Information—Call 911

Vernal Regional Hospital Emergency: 435-789-3342

Police: (435) 789-5835

Fire: 435-789-4222



Name NBU 1021-32A Recomplete  
Perforation and CBP Summary

Stage	Zones	Perforations		SPF	Holes	Fracture Coverage		
		Top, ft	Bottom, ft					
1	WASATCH	5866	5870	3	12	5856	to	5875
	WASATCH	5891	5894	4	12	5887	to	5895.5
	# of Perfs/stage				24	CBP DEPTH		5,376
2	WASATCH	5180	5183	3	9	5175.5	to	5186.5
	WASATCH	5226	5228	3	6	5222	to	5235.5
	WASATCH	5323	5326	3	9	5305	to	5330
	# of Perfs/stage				24	CBP DEPTH		4,750
3	WASATCH	4694	4700	4	24	4687.5	to	4702
	# of Perfs/stage				24	CBP DEPTH		4,644
<b>Totals</b>								
					72			

DIRECTIONAL SURVEY NBU 1021-32A					
MD	TVD	EW	NS	INC	AZI
0	0	0	0	0	0
14	14	0	0	0	0
494	494.0	-0.1	-0.1	0.0	220.0
1504	1503.9	-8.1	-12.2	1.6	213.5
1814	1813.7	-12.8	-20.4	1.9	206.0
1996	1995.6	-16.1	-25.8	2.1	216.7
2520	2519.4	-24.3	-39.9	1.5	200.7
2968	2967.2	-28.4	-50.4	1.4	202.2
3460	3459.0	-31.9	-62.7	1.6	190.5
3930	3928.9	-32.6	-75.9	1.7	176.1
4400	4398.7	-31.4	-89.3	1.6	173.6
4930	4928.5	-29.4	-103.0	1.4	169.0
5340	5338.4	-27.5	-113.2	1.5	170.2
5840	5838.1	-26.1	-128.1	1.9	177.8
6345	6342.8	-24.5	-145.0	1.9	171.5
6660	6657.7	-22.5	-154.9	1.8	165.5
7458	7455.3	-16.4	-177.3	1.6	164.0
7600	7597.3	-14.8	-180.9	1.6	149.0
7625	7622.3	-14.5	-181.5	1.4	158.2
7906	7903.2	-13.5	-186.3	0.6	192.6
8098	8095.2	-13.7	-189.1	1.1	176.3
8354	8351.2	-15.0	-193.7	1.2	214.6
8481	8478.1	-16.1	-196.1	1.2	194.1
8576	8573.1	-16.5	-197.4	0.5	200.1
8666	8663.1	-16.4	-198.1	0.5	144.2
8763	8760.1	-15.9	-198.9	0.5	147.5
8953	8950.1	-15.3	-200.3	0.4	170.3
9177	9174.1	-14.7	-202.4	0.7	162.6
9234	9231.1	-14.5	-203.1	0.7	162.6

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21577
<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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 1021-32A
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047390260000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6515 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0646 FNL 0955 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 10.0S Range: 21.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> 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: 10/20/2011	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Drill Out ISO Plug"/>

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

The subject well was recently recompleted to the Wasatch formation. The newly recompleted Wasatch delivered to sales on 09/06/2011. This well is not commingled yet with the existing perforations. The operator requests authorization to drill out the isolation plug and commingle the well. Please see the attached revised procedure. Thank you.

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

Date: 11/10/2011  
 By: *Derek Duff*

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 10/19/2011	

# Greater Natural Buttes Unit



**NBU 1021-32A**

**WELLHEAD CHANGEOUT & RE-COMPLETIONS PROCEDURE**

**DATE:6/2/2011**

**AFE#:2059429**

**WO#:** (For Wellhead Changeout)

**API#:4304739026**

**USER ID:OOT937** (Frac Invoices Only)

**COMPLETIONS ENGINEER:** Zachary Garrity, Denver, CO  
(720)-929-6180 (Office)  
(406)-781-6427 (Cell)

**SIGNATURE:**

**ENGINEERING MANAGER: JEFF DUFRESNE**

**SIGNATURE:**

**REMEMBER SAFETY FIRST!**

**Name:** NBU 1021-32A  
**Location:** NE NE Section 32 T10S R21E  
**LAT:** 39.909506 **LONG:** -109.569308 **COORDINATE:** NAD83 (Surface Location)  
**Uintah County, UT**  
**Date:** 6/2/2011

**ELEVATIONS:** 5317' GL 5335' KB *Frac Registry TVD: 9231*

**TOTAL DEPTH:** 9234' **PBTD:** 9184'  
**SURFACE CASING:** 8 5/8", 32# J-55 LT&C @ 1827'  
**PRODUCTION CASING:** 4 1/2", 11.6#, I-80 BT&C @ 9229'  
 Marker Joint **4099-4120'**

**TUBULAR PROPERTIES:**

	BURST (psi)	COLLAPSE (psi)	DRIFT DIA. (in.)	CAPACITIES	
				(bbl/ft)	(gal/ft)
2 3/8" 4.7# J-55 tbg	7,700	8,100	1.901"	0.00387	0.1624
4 1/2" 11.6# I-80 (See above)	7780	6350	3.875"	0.0155	0.6528
2 3/8" by 4 1/2" Annulus				0.0101	0.4227

**TOPS:**

933' Green River Top  
 1187' Bird's Nest Top  
 1666' Mahogany Top  
 4173' Wasatch Top  
 7023' Mesaverde Top

**BOTTOMS:**

7023' Wasatch Bottom  
 9234' Mesaverde Bottom (TD)

**T.O.C. @ Surface** (CasedHole Solutions CBL – 5/26/2010)

**GENERAL:**

- A minimum of **5** tanks (cleaned lined 500 bbl) of recycled water will be required. Note: Use biocide in tanks and the water needs to be at least 45°F at pump time.
- All perforation depths are from Bakers Induction-Density-Neutron log dated 5/18/2010
- **3** fracturing stages required for coverage.
- Procedure calls for **4** CBP's (**8000** psi) .
- Calculate open perforations after each breakdown. If less than 60% of the perforations appear to be open, ball out with 15% HCl.
- Pump scale inhibitor at 3 gpt (in pad and until 1.25 ppg ramp up is reached) and 10 gpt in all flushes except the final stage. Remember to pre-load the casing with scale inhibitor for the very first stage with 10 gpt.
- 30/50 mesh Ottawa sand, **Slickwater frac.**
- Maximum surface pressure **6200** psi.

- Flush volumes are the sum of slick water and acid used during displacement (include scale inhibitor as mentioned above). Stage acid and scale inhibitor if necessary to cover the next perforated interval.
- **Call flush at 0 PPG @ inline densimeters. Slow to 5 bbl/min over last 10-20 bbls of flush. Flush to top perf.**
- **If distance between plug and top perf of previous stage is less than 50', it is considered to be tight spacing - over flush stage by 5 bbls (from top perf)**
- Pump 20/40 mesh curable resin coated sand last **2,500#** of all frac stages
- Tubing Currently Landed @~8,520
- Originally completed on 6/2/2010
- **Note: Equipment to have on location:**
  - 2 jts 4-1/2" x 11.6# x 8rd
  - 2 jts 4-1/2" x 11.6" x Butress
  - Butress x 8rd change overs.
  - Elevators for 4-1/2" csg.
  - Tongs for 4-1/2" csg.
  - All Weatherford well head parts needed, with Weatherford hand.

### Existing Perforations:

<u>PERFORATIONS</u>									
<u>Formation</u>	<u>Zone</u>	<u>Top</u>	<u>Btm</u>	<u>spf</u>	<u>Shots</u>	<u>Date</u>	<u>Reason</u>	<u>Comments</u>	<u>Producing</u>
MESAVERDE		7184	7187	3	9	06/02/2010	PRODUCTION		Yes
MESAVERDE		7224	7228	3	12	06/02/2010	PRODUCTION		Yes
MESAVERDE		7400	7410	4	40	06/02/2010	PRODUCTION		Yes
MESAVERDE		7641	7642	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		7658	7662	3	12	06/02/2010	PRODUCTION		Yes
MESAVERDE		7716	7718	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8411	8412	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8442	8444	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8468	8470	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8512	8514	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8557	8558	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8602	8606	3	12	06/02/2010	PRODUCTION		Yes
MESAVERDE		8646	8648	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8697	8698	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8733	8735	3	6	06/02/2010	PRODUCTION		Yes
MESAVERDE		8770	8771	3	3	06/02/2010	PRODUCTION		Yes
MESAVERDE		8810	8813	3	9	06/02/2010	PRODUCTION		Yes

### Relevant History:

**6/2/2010** – Original completion to Mesaverde (6 stage frac)

**8/30/2010** – Slickline ran to TD and set down at 9162'. Ran broach and set down at 8500'. Came out tubing was clean, dropped and chased titanium spring to bottom.

**5/5/2011** – Slickline ran to TD and set down at 9177'. Ran broach and set down at 8515'. Came out tubing was clean. There was barium scale on the spring plunger, so blew tubing clean dropped and chased titanium spring and viper plunger to bottom.

**H2S History:**

Production Date	Gas (avg mcf/day)	Water (avg bbl/day)	Oil (avg bbl/day)	LGR (bbl/Mmcf)	Max H2S - Separator (ppm)
5/31/2011	0.00	0.00	0.00	#NA	
4/30/2011	156.20	9.57	4.30	88.78	
3/31/2011	254.61	32.03	3.03	137.72	
2/28/2011	297.18	39.89	8.29	162.12	0.00
1/31/2011	272.06	22.32	7.97	111.34	2.00
12/31/2010	287.77	40.48	4.94	157.83	1.00
11/30/2010	353.27	47.67	4.93	148.90	

**PROCEDURES:** Prior to initiating back-off or casing cutting activities the UDOGM will be notified. Specifically, Mr. Dave Hackford (435-722-7589) will be called, and if not available, Dan Jarvis (801-538-5338) and or Dustin Doucet (801-538-5281) will be notified. No work will be accomplished prior to notifying the appropriate UDOGM representative.

**NBU 1021-32A – WELLHEAD REPLACEMENT PROCEDURE****PREP-WORK PRIOR TO MIRU:**

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

**WORKOVER PROCEDURE:**

1. MIRU workover rig.
2. Kill well with 10# brine / KCL (dictated by well pressure ).

3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
4. TOOH with 2-3/8", 4.7#, J-55 (or N-80) tubing (currently landed at ~8520'). Visually inspect for scale and consider replacing if needed.
5. If tbg looks ok consider running a gauge ring to 7184' (50' below proposed CBP). Otherwise P/U a mill and C/O to 7184' (50' below proposed CBP).
6. Rig up wireline service. RIH and set CBP @ ~7134'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service. TIH w/ tubing and seating nipple. Land tubing ±60' above cement. RDMO.
7. Monitor well pressures. If surface casing is dead. MIRU. ND WH and NU BOP. POOH w/ tubing.
8. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

#### **CUT/PATCH PROCEDURE:**

1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.
2. POOH, LD cutters and casing.
3. PU 7 3/8" overshot with 4 1/2" right hand standard wicker grapple, 1 - 4 3/4" drill collar with 3 1/2" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' utilize >7000 ft-lb torque pipe as needed. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to ±7000 ft-lbs, count number of turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out, release overshot, POOH, and lay down.
4. TIH w/ skirted mill and dress off the fish top for approximately 1/2 hour. TOOH.
5. PU & RIH w/ 4 1/2" 10k external casing patch on 4 1/2" P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.
6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 3500 psi.
7. Install slips. Land casing w/ 80,000# tension.
8. Cut-off and dress 4 1/2" casing stub.

9. NU frac valves. Test frac valves and casing to 1000 and 3500 psi for 15 minutes each and to 6200 psi for 30 minutes. As per standard operating procedure install steel blowdown line to reserve pit from 4-1/2" X 8-5/8" annulus with pressure relief valve in line. Pressure relief will be set to release at 500 psig. Lock **OPEN** the Braden head valve. Annulus will be monitored throughout stimulation. If release occurs, stimulation will be shut down. Well conditions will be assessed and actions taken as necessary to secure the well. UDOGM will be notified if a release to the annulus occurs.
10. RDMO. Turn well over to completions ops.

**BACK-OFF PROCEDURE:**

1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.
2. POOH, LD cutters and casing.
3. PU 4 1/2" overshot. RIH, latch fish. Pick string weight to neutral.
4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.
5. Back-off casing, POOH.
6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to ±7000 ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.
7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 3500 psi.
8. Install slips. Land casing w/ 80,000# tension.
9. Cut-off and dress 4 1/2" casing stub.
10. NU frac valves. Test frac valves and casing to 1000 and 3500 psi for 15 minutes each and to 6200 psi for 30 minutes. As per standard operating procedure install steel blowdown line to reserve pit from 4-1/2" X 8-5/8" annulus with pressure relief valve in line. Pressure relief will be set to release at 500 psig. Lock **OPEN** the Braden head valve. Annulus will be monitored throughout stimulation. If release occurs, stimulation will be shut down. Well conditions will be assessed and actions taken as necessary to secure the well. UDOGM will be notified if a release to the annulus occurs.
11. RDMO. Turn well over to completions ops.

**RECOMPLETE – PROCEDURE: (If using any chemicals for pickling tubing or H2S Scavenging, have MSDS for all chemicals prior to starting work.)**

1. MIRU
2. Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:
 

Zone	From	To	spf	# of shots
WASATCH	5866	5870	3	12
WASATCH	5891	5894	4	12
3. Breakdown perfs and establish injection rate (include scale inhibitor in fluid). Spot 250 gals of 15% HCL and let soak 5-10 min. Fracture as outlined in Stage 1 on attached listing. Under-displace to ~5866' and trickle 250gal 15%HCL w/ scale inhibitor in flush .
4. Set 8000 psi CBP at ~5,376'. Perf the following 3-3/8" gun, 23 gm, 0.36"hole:
 

Zone	From	To	spf	# of shots
WASATCH	5180	5183	3	9
WASATCH	5226	5228	3	6
WASATCH	5323	5326	3	9
5. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 2 on attached listing. Under-displace to ~5180' and trickle 250gal 15%HCL w/ scale inhibitor in flush.
6. Set 8000 psi CBP at ~4,750'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole:
 

Zone	From	To	spf	# of shots
WASATCH	4694	4700	4	24
7. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 3 on attached listing. Under-displace to ~4694' and flush only with recycled water.
8. Set 8000 psi CBP at~4,644'.
9. TIH with 3 7/8" mill, pump open sub, XN nipple and tubing.
10. Mill 3 plugs and clean out to a depth of 5900'.
11. Land tubing at 5800', drop ball and pump open sub. Flow back completion load. RDMO
12. MIRU, POOH tbg and mill. TIH with POBS and mill.
13. Mill last plug @ 7134' clean out to PBSD at 9184'. Land tubing at ±8,520' pump off bit and bit sub. This well WILL be commingled at this time.
14. Clean out well with foam and/or swabbing unit until steady flow has been established from completion.
15. **Leave surface casing valve open.** Monitor and report any flow from surface casing. RDMO

**For design questions, please call  
Zachary Garrity, Denver, CO**

**(720)-929-6180 (Office)**  
**(406)-781-6427 (Cell)**

**For field implementation questions, please call**  
**Jeff Samuels, Vernal, UT**  
**(435)-781-7046 (Office)**

**NOTES:**

**If using any chemicals for pickling tubing or H<sub>2</sub>S Scavenging, have MSDS for all chemicals prior to starting work**

**Verify that the Braden head valve is locked OPEN.**

Acid Pickling and H2S Procedures (If Required)

**\*\*PROCEDURE FOR PUMPING ACID DOWN TBG**

WHEN FINDING SCALE IN TUBING THAT IS ACID SOLUBLE, ENSURE THAT PLUNGER EQUIPMENT IS REMOVED AND ABLE TO PUMP DOWN TBG. INSTALL A 'T' IN PUMP LINE W/2" VALVE THAT NALCO CAN TIE INTO. HAVE 60 BBL 2% KCL MIXED W/ 10-15 GAL H2S SCAVENGER IN RIG FLAT TANK. (WE USED THE RIG FLAT TANK FOR MIXING CHEMICAL SO WE DIDN'T HAVE THE CHEMICAL IN ALL FLUIDS ON LOCATION, ONLY WHAT WE NEEDED TO PUMP DOWN HOLE)

1. PUMP 5-10 BBL 2% KCL DOWN TBG (NALCO CANNOT PUMP AGAINST PRESSURE)
2. NALCO WILL PUMP 3 DRUMS HCL (31%) INTO PUMP LINE.
3. FLUSH BEHIND ACID WITH 10-15 BBL 2% KCL
4. PUMP 2—30 BBL 2% W/ H2S SCAVENGER DOWN TBG.
5. PUMP REMAINDER OF 2% W/ H2S SCAVENGER DOWN CASING AND SHUT WELL IN FOR MINIMUM OF 2 HRS.
6. OVER DISPLACE DOWN TBG AND CSG TO FLUSH ACID AND SCAVENGER INTO FORMATION
7. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

**\*\* PROCEDURE FOR PUMPING H2S SCAVENGER WITHOUT ACID**

PRIOR TO RIG MOVING ON OR AS RIG PULLS ONTO LOCATION. TEST CASING, TUBING AND SEPARATOR FOR H2S. IF FOUND MAKE SURE THAT PLUNGER SYSTEM IS REMOVED (IT IS POSSIBLE TO PUMP AROUND PLUNGERS BUT SOME WILL HAVE A STANDING VALVE IN SEATING NIPPLE).

1. MIX 10-15 GAL H2S SCAVENGER WITH 60-100 BBL 2% KCL IN RIG FLAT TANK.
2. PUMP 25 BBL MIXTURE DOWN TUBING AND REST DOWN CASING. SHUT WELL IN FOR 2 HOURS.
3. IF WELL HAS PRESSURE AFTER 2 HOURS – RETEST CASING AND TUBING FOR H2S.
4. FLUSH TUBING AND CASING PUSHING H2S SCAVENGER INTO FORMATION.
5. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

\*\* As per APC standard operating procedure, APC foreman will verify ALL volumes pumped and record on APC Volume Report Form

Key Contact information

Completion Engineer

Zachary Garrity: 406-781-6427, 720-929-6180

Production Engineer

Jordan Portillo: 435/781-9785, 435/828-6221

Completion Supervisor Foreman

Jeff Samuels: 435-828-6515, 435-781-7046

Completion Manager

Jeff Dufresne: 720-929-6281, 303-241-8428

Vernal Main Office

435-789-3342

Emergency Contact Information—Call 911

Vernal Regional Hospital Emergency: 435-789-3342

Police: (435) 789-5835

Fire: 435-789-4222



Name NBU 1021-32A Recomplete  
Perforation and CBP Summary

Stage	Zones	Perforations		SPF	Holes	Fracture Coverage		
		Top, ft	Bottom, ft					
1	WASATCH	5866	5870	3	12	5856	to	5875
	WASATCH	5891	5894	4	12	5887	to	5895.5
	# of Perfs/stage				24	CBP DEPTH		5,376
2	WASATCH	5180	5183	3	9	5175.5	to	5186.5
	WASATCH	5226	5228	3	6	5222	to	5235.5
	WASATCH	5323	5326	3	9	5305	to	5330
	# of Perfs/stage				24	CBP DEPTH		4,750
3	WASATCH	4694	4700	4	24	4687.5	to	4702
	# of Perfs/stage				24	CBP DEPTH		4,644
<b>Totals</b>								
					72			

DIRECTIONAL SURVEY NBU 1021-32A					
MD	TVD	EW	NS	INC	AZI
0	0	0	0	0	0
14	14	0	0	0	0
494	494.0	-0.1	-0.1	0.0	220.0
1504	1503.9	-8.1	-12.2	1.6	213.5
1814	1813.7	-12.8	-20.4	1.9	206.0
1996	1995.6	-16.1	-25.8	2.1	216.7
2520	2519.4	-24.3	-39.9	1.5	200.7
2968	2967.2	-28.4	-50.4	1.4	202.2
3460	3459.0	-31.9	-62.7	1.6	190.5
3930	3928.9	-32.6	-75.9	1.7	176.1
4400	4398.7	-31.4	-89.3	1.6	173.6
4930	4928.5	-29.4	-103.0	1.4	169.0
5340	5338.4	-27.5	-113.2	1.5	170.2
5840	5838.1	-26.1	-128.1	1.9	177.8
6345	6342.8	-24.5	-145.0	1.9	171.5
6660	6657.7	-22.5	-154.9	1.8	165.5
7458	7455.3	-16.4	-177.3	1.6	164.0
7600	7597.3	-14.8	-180.9	1.6	149.0
7625	7622.3	-14.5	-181.5	1.4	158.2
7906	7903.2	-13.5	-186.3	0.6	192.6
8098	8095.2	-13.7	-189.1	1.1	176.3
8354	8351.2	-15.0	-193.7	1.2	214.6
8481	8478.1	-16.1	-196.1	1.2	194.1
8576	8573.1	-16.5	-197.4	0.5	200.1
8666	8663.1	-16.4	-198.1	0.5	144.2
8763	8760.1	-15.9	-198.9	0.5	147.5
8953	8950.1	-15.3	-200.3	0.4	170.3
9177	9174.1	-14.7	-202.4	0.7	162.6
9234	9231.1	-14.5	-203.1	0.7	162.6

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

AMENDED REPORT  FORM 8  
(highlight changes)

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

5. LEASE DESIGNATION AND SERIAL NUMBER:  
**ML 21577**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME  
**UTU63047A**

8. WELL NAME and NUMBER:  
**NBU 1021-32A**

9. API NUMBER:  
**4304739026**

10. FIELD AND POOL, OR WILDCAT  
**NATURAL BUTTES**

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:  
**NENE 32 10S 21E S**

12. COUNTY  
**UINTAH**

13. STATE  
**UTAH**

14. DATE SPUNDED: **2/16/2010**

15. DATE T.D. REACHED: **5/16/2010**

16. DATE COMPLETED: **9/6/2011**

ABANDONED  READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):  
**GL 5316**

18. TOTAL DEPTH: MD **9,234**

TVD **9,231**

19. PLUG BACK T.D.: MD **9,185**

TVD **9,182**

20. IF MULTIPLE COMPLETIONS, HOW MANY? \*

21. DEPTH BRIDGE MD **6,000**

PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)  
**CBL-HDIL/ZDL/CN/GR**

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

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
11"	8 5/8" IJ-55	28#		1,826		435		0	
7 7/8"	4 1/2" I-80	11.6#		9,229		1,890			

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	5,804							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) WASATCH	4,694	5,894			4,694 5,894	0.36	72	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

27. PERFORATION RECORD

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
4694 - 5894	PUMP 2,005 BBLS SLICK H2O & 59,816 LBS SAND

29. ENCLOSED ATTACHMENTS:

ELECTRICAL/MECHANICAL LOGS  GEOLOGIC REPORT  DST REPORT  DIRECTIONAL SURVEY

SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION  CORE ANALYSIS  OTHER: \_\_\_\_\_

30. WELL STATUS:  
**PROD**

**RECEIVED**

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED: 9/6/2011		TEST DATE: 9/11/2011		HOURS TESTED: 24		TEST PRODUCTION RATES: →		OIL - BBL: 0	GAS - MCF: 3,608	WATER - BBL: 80	PROD. METHOD: FLOWING
CHOKE SIZE: 18/64	TBG. PRESS. 436	CSG. PRESS. 1,768	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 3,608	WATER - BBL: 80	INTERVAL STATUS: PROD	

INTERVAL B (As shown in Item #26)

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

INTERVAL C (As shown in Item #26)

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

INTERVAL D (As shown in Item #26)

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

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

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER	933				
BIRD'S NEST	1,187				
MAHOGANY	1,666				
WASATCH	4,173	7,023			
MESAVERDE	7,023	9,234	TD		

35. ADDITIONAL REMARKS (Include plugging procedure)

Attached is the chronological recompletion history and perforation report.

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

NAME (PLEASE PRINT) JAIME SCHARNOWSKE TITLE REGULATORY ANALYST  
 SIGNATURE *Jaime Scharnowske* DATE 12/12/2011

This report must be submitted within 30 days of

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

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

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

Send to: Utah Division of Oil, Gas and Mining Phone: 801-538-5340  
 1594 West North Temple, Suite 1210  
 Box 145801 Fax: 801-359-3940  
 Salt Lake City, Utah 84114-5801

**US ROCKIES REGION**

**Operation Summary Report**

Well: NBU 1021-32A		Spud Conductor: 2/16/2010		Spud Date: 2/20/2010				
Project: UTAH-UINTAH		Site: NBU 1021-32A		Rig Name No: MILES 3/3				
Event: RECOMPL/RESEREVEADD		Start Date: 9/1/2011		End Date: 9/2/2011				
Active Datum: RKB @5,335.01ft (above Mean Sea Level)		UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/1/2011	8:00 - 12:00	4.00	COMP	48		P		HSM, R/U, OVERHEAD LOADS, MIRU SUPERIORFRAC EQUIP & J-W WIRELINE. PRESSURE TEST SURFACE LINES 7200#

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 1021-32A		Spud Conductor: 2/16/2010		Spud Date: 2/20/2010	
Project: UTAH-UINTAH			Site: NBU 1021-32A		Rig Name No: MILES 3/3
Event: RECOMPL/RESEREVEADD			Start Date: 9/1/2011		End Date: 9/2/2011
Active Datum: RKB @5,335.01ft (above Mean Sea Level)			UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	12:00 - 12:00	0.00	COMP	36	E	P		<p>PERF &amp; FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND &amp; SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLUID, SAND AND CHEMICAL VOLUME PUMP'D</p> <p>P/U RIH W/ PERF GUN,, PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #1] WHP=149#, BRK DN PERFS=1,811#, @=4.7 BPM, INJ RT=50.4, INJ PSI=5,578#, INITIAL ISIP=1,482#, INITIAL FG=.69, FINAL ISIP=2,386#, FINAL FG=.84, AVERAGE RATE=50.1, AVERAGE PRESSURE=4,674#, MAX RATE=51.2, MAX PRESSURE=5,775#, NET PRESSURE INCREASE=904#, 16/24 66% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP &amp; PERF GUN, SET CBP @=5,356', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #2] WHP=825#, BRK DN PERFS=2,700#, @=4.7 BPM, INJ RT=50.5, INJ PSI=4,597#, INITIAL ISIP=1,370#, INITIAL FG=.70, FINAL ISIP=2,060#, FINAL FG=.83, AVERAGE RATE=50.6, AVERAGE PRESSURE=4,002#, MAX RATE=51.4, MAX PRESSURE=4,800#, NET PRESSURE INCREASE=690#, 18/24 76% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP &amp; PERF GUN, SET CBP @=4,730', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #3] WHP=224#, BRK DN PERFS=2,469#, @=4.9 BPM, INJ RT=4,282, INJ PSI=4,282#, INITIAL ISIP=1,247#, INITIAL FG=.70, FINAL ISIP=2,477#, FINAL FG=.97, AVERAGE RATE=50.7, AVERAGE PRESSURE=4,163#, MAX RATE=52.1, MAX PRESSURE=4,879#, NET PRESSURE INCREASE=1,230#, 18/20 76% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @=4,644'</p> <p>TOTAL FLUID PUMP'D=2,005 TOTAL SAND PUMP'D=59,816#</p>
9/2/2011	7:00 - 7:15	0.25	COMP	48		P		<p>JSA- RUSU. ND/NU. PU TBG. PWR SWI EL. D/O PLUGS.</p>

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A      Spud Conductor: 2/16/2010      Spud Date: 2/20/2010  
 Project: UTAH-UINTAH      Site: NBU 1021-32A      Rig Name No: MILES 3/3  
 Event: RECOMPL/RESEREVEADD      Start Date: 9/1/2011      End Date: 9/2/2011  
 Active Datum: RKB @5,335.01ft (above Mean Sea Level)      UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 9:30	2.25	COMP	30	A	P		ROAD RIG TO LOCATIO. RD FRAC STAND. SPOT AND RUSU. ND FRAC VALVES. NU TBG HEAD AND BOP. RU FLOOR AND TBG EQUIP. SPOT TBG TRAILER
	9:30 - 12:15	2.75	COMP	31	I	P		MU 3-7/8" MILL, PMP OPEN BIT SUB, 1.87" XN. RIH AS MEAS AND PU 2-3/8" J-55 PROD TBG. RU PWR SWMVEL W/ #147. FILL TBG. PRES TEST TO 2800#. GOOD. EST CIRC AND MILL OUT PLUGS.
	12:15 - 17:00	4.75	COMP	44	C	P		#1- C/O 25' SAND TO CBP AT 4644'. MILL OUT IN 18 MIN. 500# INC ON CSG. FCP 300. RIH. #2- C/O 35' SAND TO CBP AT 4730'. MILL OUT IN 16 MIN. 500# INC ON CSG. FCP 500. RIH. #3- C/O 40' SAND TO CBP AT 5356'. MILL OUT IN 16 MIN. 300# INC ON CSG. FCP 800. RIH. CIBP AT 6000'- TAG AT 5963' W/ 189-JTS IN (69' BELOW PERFS).  RD PWR SWMVEL. POOH AS LD 6-JTS TBG. PU 7" 5K HANGER. LUB IN AND LAND 183-JTS 2-3/8" J-55 TBG W/ EOT AT 5803.50'. RD FLOOR. ND BOP. NU WH. PUMP OPEN BIT SUB AT 1300#. SITP- 250. SICP - 1900. SURFACE CSG-OPEN NO FLOW OR BLOW. HOOK UP TO HAL 9000 AND TURN OVER TO FBC ON SALES.  TBG DETAIL    KB            18.00 7" 5K HANGER                            1.00 183-JTS J-55                                5781.44 MILL W/PMP OPEN SUB                    3.06 MILL AT                                        5803.50
9/7/2011	7:00 -			33	A			TWTR 2005 / TWR 500 / LTR 1505 7 AM FLBK REPORT: CP 1950#, TP 1750#, 18/64" CK, 15 BWPH, LIGHT SAND, - GAS TTL BBLS RECOVERED: 875 BBLS LEFT TO RECOVER: 1130
9/8/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 1950#, TP 1800#, 16/64" CK, 2 BWPH, LIGHT SAND, - GAS TTL BBLS RECOVERED: 952 BBLS LEFT TO RECOVER: 1053
9/9/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 1900#, TP 1750#, 18/64" CK, 6 BWPH, LIGHT SAND, - GAS TTL BBLS RECOVERED: 1096 BBLS LEFT TO RECOVER: 909

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1021-32A	Wellbore No.	OH
Well Name	NBU 1021-32A	Wellbore Name	NBU 1021-32A
Report No.	1	Report Date	9/1/2011
Project	UTAH-UINTAH	Site	NBU 1021-32A
Rig Name/No.	MILES 3/3	Event	RECOMPL/RESERVEADD
Start Date	9/1/2011	End Date	9/2/2011
Spud Date	2/20/2010	Active Datum	RKB @5,335.01ft (above Mean Sea Level)
UWI	NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0		

1.3 General

Contractor	JW WIRELINE	Job Method	PERFORATE	Supervisor	DAVE DANIELS
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

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

1.5 Summary

Gross Interval	4,694.0 (ft)-5,894.0 (ft)	Start Date/Time	8/17/2011 12:00AM
No. of Intervals	6	End Date/Time	8/17/2011 12:00AM
Total Shots	72	Net Perforation Interval	21.00 (ft)
Avg Shot Density	3.43 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

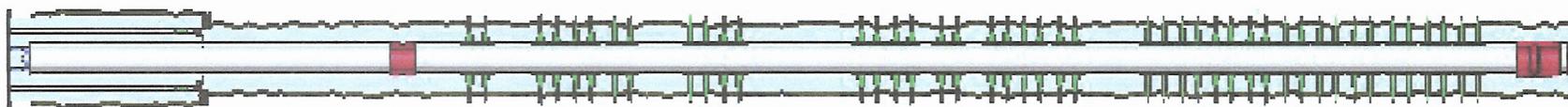
Date	Formation/Reservoir	CCL@ (ft)	CCL-T S (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
8/17/2011 12:00AM	WASATCH/			4,694.0	4,700.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO	N

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (ft)	CCL-T S (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
8/17/2011 12:00AM	WASATCH/			5,180.0	5,183.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/17/2011 12:00AM	WASATCH/			5,226.0	5,228.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/17/2011 12:00AM	WASATCH/			5,323.0	5,326.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/17/2011 12:00AM	WASATCH/			5,866.0	5,870.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/17/2011 12:00AM	WASATCH/			5,891.0	5,894.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



DEPARTMENT OF NATURAL RESOURCES

AMENDED REPORT

DIVISION OF OIL, GAS AND MINING

Original Filing Date: 12/1/2011

DESIGNATION OF WORKOVER OR RECOMPLETION

1. Name of Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.				2. Utah Account Number 82995.1		5. Well Name and Number NBU 1021-32A	
3. Address of Operator P.O. Box 173779		City Denver		State CO		Zip 80217	
4. Phone Number 720 929-6515				6. API Number 4304739026			
9. Location of Well Footage: 0646 FNL 0955 FEL County: UINTAH QQ, Sec, Twnp, Rnge: NENE 32 100S 210E State: UTAH						7. Field Name NATURAL BUTTES	
						8. Field Code Number 630	

COMPLETE ALL SECTIONS. ATTACH ADDITIONAL SHEETS IF NEEDED.

10. TYPE OF WORK (Check all that apply)		11. WORK PERIOD	
<input type="checkbox"/> Production enhancement	<input checked="" type="checkbox"/> Recompletion	Date work commenced	9/1/2011 90 Days From
<input type="checkbox"/> Convert to injection	<input type="checkbox"/> Repair well	Date work completed	9/2/2011 Completion

12. THE FOLLOWING EXPENSES FOR OPERATIONS ARE SUBMITTED FOR DESIGNATION AS WORKOVER OR RECOMPLETION EXPENSES:

	Expenses	Approved By State
a. Location preparation and cleanup	0.00	0.00
b. Move-in, rig-up, and rig-down (including trucking)	1760.00	1760.00
c. Rig charges (including fuel)	4500.00	4500.00
d. Drill pipe or other working string	0.00	0.00
e. Water and chemicals for circulating fluid (including water hauling)	13084.25	13084.25
f. Equipment purchase	0.00	0.00
g. Equipment rental	9270.00	9270.00
h. Cementing	0.00	0.00
i. Perforating	13264.00	13264.00
j. Acidizing	0.00	0.00
k. Fracture stimulation	87226.00	87226.00
l. Logging services	0.00	0.00
m. Supervision and overhead	1750.00	1750.00
n. Other (itemize)	0.00	0.00
FLOWBACK CREW	11000.00	11000.00
0	0.00	0.00
0	0.00	0.00
o. Total submitted expenses	141854.25	
p. Total approved expenses (State use only)		141854.25

13. LIST CONTRACTORS PROVIDING SERVICES VALUED AT MORE THAN \$3,000.

Contractor	Location (City, State)	Services Provided
Casedhole Solutions	Vernal UT	PERFORATING
CHARLES HOLSTON INC	Vernal UT	FRAC TANKS
DELSCO NORTHWEST INC	ROOSEVELT UT	FLOWBACK CREW
HALLIBURTON ENERGY SERVICES INC	Vernal UT	SET CBP
MILES WELL SERVICE	Neola UT	Rig
NALCO ENERGY SERVICES	Vernal Ut	CHEMICALS
RNI TRUCKING	ROOSEVELT UT	Water Trucking To and from Location
SUPERIOR ENERGY SERVICES	Vernal UT	Frac

14. LIST WORKING INTEREST OWNERS WHO TAKE PRODUCT IN KIND AND ARE AUTHORIZED TO SHARE IN THE TAX CREDIT.

Name	Address	Utah Account No.	Percent of Interest

I hereby certify that this report is true and complete to the best of my knowledge.

NAME (PLEASE PRINT)	Sheila Wopsock	TITLE	Regulatory Analyst	PHONE	435 781-7024
SIGNATURE	Sheila Wopsock	DATE	December 1, 2011	E-MAIL	sheila.wopsock@anada

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21577
<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.		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 1021-32A	
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>9. API NUMBER:</b> 43047390260000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6511	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0646 FNL 0955 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 10.0S Range: 21.0E Meridian: S		<b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input checked="" type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> OTHER	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <b>8/25/2011</b>	<input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> DRILLING REPORT Report Date:	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The operator has concluded the wellhead/casing repairs on the subject well location. Please see the attached chronological history for the details of the operations.		
<b>Accepted by the          Utah Division of          Oil, Gas and Mining          FOR RECORD ONLY          January 26, 2012</b>		
<b>NAME (PLEASE PRINT)</b> Jaime Scharnowske	<b>PHONE NUMBER</b> 720 929-6304	<b>TITLE</b> Regularatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 1/24/2012	

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A		Spud Conductor: 2/16/2010		Spud Date: 2/20/2010				
Project: UTAH-UINTAH		Site: NBU 1021-32A		Rig Name No: MILES 3/3				
Event: WELL WORK EXPENSE		Start Date: 8/17/2011		End Date: 8/25/2011				
Active Datum: RKB @5,335.00ft (above Mean Sea Leve		UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/23/2011	16:00 - 18:30	2.50	WO/REP	30	A	P		ROAD RIG FROM NBU 1021-32G TO LOCATION. SPOT AND RUSU. SITP 450. SICP 450. PMP 20 BBLS DOWN TBG. ND WH. NU BOP. RU FLOOR AND TBG EQUIP. SDFN.
8/24/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA- WELL CONTROL. POOH W/ TBG. WIRELINE.
	7:15 - 10:00	2.75	WO/REP	31	I	P		SITP 700, SICP 700, SURFACE OPEN. PMP 20 BBLS DOWN TBG. PMP 20 BBLS DOWN CSG. UNLAND TBG FROM 8520'. LD 7" 5K HANGER. POOH AS LD 73-JTS AND SB 194-JTS. (267-JTS J-55 TOTAL OUT).
	10:00 - 12:30	2.50	WO/REP	34	I	P		(WAIT ON GUAGE RING) RU SINGLE SHOT EWL. RIH W/ 3-5/8" GR TO 6100'. RIH W/ BAKER 4-1/2" CIBP. SET AT 6000'. RD EWL.
	12:30 - 14:00	1.50	WO/REP	31	I	P		RIH W/ 2-3/8" J-55 TBG. LD 14-JTS. FIN RIH. HAVE 180-JTS IN, EOT AT 5687'.
	14:00 - 15:00	1.00	WO/REP	33	C	P		FILL TBG W/ 50 BBLS. CIRC OUT GAS. FILL SURFACE CSG W/ 1/2 BBL. PRES TEST 4-1/2" TO 2250#. LOST 50 PSI IN 10 MIN. SURFACE CSG TRICKLED ALL 10 MIN. CIBP TEST GOOD. BLEED OFF PRES.
	15:00 - 17:30	2.50	WO/REP	31	I	P		POOH AS LD 180-JTS. RD FLOOR AND TBG EQUIP. FILL 4-1/2" CSG. SDFN
8/25/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA- WELLHEAD REPAIR.
	7:15 - 13:00	5.75	WO/REP	31		P		SICP 0. SURFACE CSG OPEN- HAVE SMALL TRICLE OF WTR FROM SURFACE CSG. HOLD JHA W/ ALL PARTIES. ND BOP. ND TBG HEAD. REMOVE CAP AND H-PLATE. MEAS CMT AT 27' DOWN. RU PWR SWIVEL AND CUTTER ASSY. MAKE INTERNAL CUT AT 1'. RD SWIVEL AND CUTTER ASSY. REMOVE HANGER MANDRELL. PU 5-7/8" OVERSHOT AND SHORT DC. LATCH ONTO 4-1/2" CSG. RU W'FORD CSG CREW. UNSCREW 4-1/2" PUP JT (DID NOT NEED BACKOFF SHOT). LD OVERSHOT ASSY AND PUP JT. PU NEW 4-1/2" BUTTRESS PUP JT. SCRES CSG BACK TOGETHER. TORQUE TO 7000#. NO EXTRA TURNS. RD CSG CREW. RU B&C. PULL ST WT TO 90k. PRES TEST- 9:23 PRES TO 1077 PSI, 9:38 PSI AT 1067 (LOST 10 PSI IN 15 MIN), 9:41 PRES TO 3522 PSI, 10:11 PRES AT 3492 PSI (LOST 30 PSI IN 30 MIN). BLEED OFF. SET SLIPS AT 90K. CUT OFF AND DRESS 4-1/2" CSG. INSTALL H-PLATE. NU SPOOL. NU FRAC VALVES. PRES TEST FOR FRAC. 1015 PSI AT 1:00 PM, 997 PSI AT 1:15 PM (LOST 18 PSI IN 15 MIN). 3542 PSI AT 1:18 PM, 3518 PSI AT 1:33 PM (LOST 24 PSI IN 15 MIN). 6235 PSI AT 1:36 PM, 6185 PSI AT 2:06 PM (LOST 50 PSI IN 30 MIN). BLEED OFF. RD B&C. SWI. WAITING FOR FRAC.

<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.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21577
<b>1. TYPE OF WELL</b> Gas Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		<b>8. WELL NAME and NUMBER:</b> NBU 1021-32A
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0646 FNL 0955 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 10.0S Range: 21.0E Meridian: S		<b>9. API NUMBER:</b> 43047390260000
<b>PHONE NUMBER:</b> 720 929-6511		<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
<b>COUNTY:</b> UINTAH		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> OTHER	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 2/23/2012	<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 type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="DRILLED OUT ISO PLUG"/>	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<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 type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION	
<input type="checkbox"/> DRILLING REPORT Report Date:	<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 type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. <p style="text-align: center;">             THE OPERATOR HAS DRILLED OUT THE ISOLATION PLUG AND HAS COMMINGLED THE NEWLY WASATCH FORMATION ALONG WITH THE EXISITING MESAVERDE FROMATION. THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 02/23/2012 AT 0845 HRS.           </p> <div style="text-align: right; margin-top: 20px;"> <p> <b>Accepted by the              Utah Division of              Oil, Gas and Mining</b>  <b>FOR RECORD ONLY</b>              March 01, 2012           </p> </div>		
<b>NAME (PLEASE PRINT)</b> Sheila Wopsock	<b>PHONE NUMBER</b> 435 781-7024	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 2/24/2012	

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

AMENDED REPORT  FORM 8  
(highlight changes)

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

5. LEASE DESIGNATION AND SERIAL NUMBER:  
**ML 21577**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME  
**UTU63047A**

8. WELL NAME and NUMBER:  
**NBU 1021-32A**

9. API NUMBER:  
**4304739026**

10. FIELD AND POOL, OR WILDCAT  
**NATURAL BUTTES**

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:  
**NENE 32 10S 21E S**

12. COUNTY  
**UINTAH**

13. STATE  
**UTAH**

14. DATE SPURRED: **2/16/2010**

15. DATE T.D. REACHED: **5/16/2010**

16. DATE COMPLETED: **9/6/2011**

ABANDONED  READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):  
**GL 5316**

18. TOTAL DEPTH: MD **9,234** TVD **9,231**

19. PLUG BACK T.D.: MD **9,185** TVD **9,182**

20. IF MULTIPLE COMPLETIONS, HOW MANY? \*

21. DEPTH BRIDGE MD PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)  
**CBL-HDIL/ZDL/CN/GR**

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

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
11"	8 5/8" IJ-55	28#		1,826		435		0	
7 7/8"	4 1/2" I-80	11.6#		9,229		1,890			

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	5,804							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) WASATCH	4,694	5,894		
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
4,694 5,894	0.36	72	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
4694 - 5894	PUMP 2,005 BBLs SLICK H2O & 59,816 LBS SAND

29. ENCLOSED ATTACHMENTS:

ELECTRICAL/MECHANICAL LOGS  GEOLOGIC REPORT  DST REPORT  DIRECTIONAL SURVEY

SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION  CORE ANALYSIS  OTHER: \_\_\_\_\_

30. WELL STATUS:  
**PROD**

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED: 9/6/2011		TEST DATE: 2/23/2012		HOURS TESTED: 24		TEST PRODUCTION RATES: →		OIL – BBL: 22	GAS – MCF: 300	WATER – BBL: 0	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS.: 189	CSG. PRESS.: 672	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 22	GAS – MCF: 300	WATER – BBL: 0	INTERVAL STATUS: PROD	

INTERVAL B (As shown in Item #26)

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

INTERVAL C (As shown in Item #26)

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

INTERVAL D (As shown in Item #26)

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

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

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

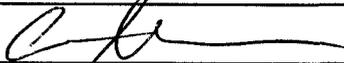
34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER	933
				BIRD'S NEST	1,187
				MAHOGANY	1,666
				WASATCH	4,173
				MESAVERDE	7,023

35. ADDITIONAL REMARKS (Include plugging procedure)

When the original recompletion report dated 12/12/2011 was filed a CIBP was in the hole at 6000' separating the new Wasatch from the existing Mesaverde. The well had production & sales but was not commingled. The CIBP was drilled out in February, 2012 and the Wasatch and Mesaverde are now commingled and reflected in the initial production information in Section 31. An updated recompletion chrono is attached to reflect this work.

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

NAME (PLEASE PRINT) CARA MAHLER TITLE REGULATORY ANALYST  
 SIGNATURE  DATE 5/9/2012

This report must be submitted within 30 days of

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

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

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

Send to: Utah Division of Oil, Gas and Mining Phone: 801-538-5340  
 1594 West North Temple, Suite 1210  
 Box 145801 Fax: 801-359-3940  
 Salt Lake City, Utah 84114-5801

**US ROCKIES REGION**

**Operation Summary Report**

Well: NBU 1021-32A		Spud Conductor: 2/16/2010		Spud Date: 2/20/2010				
Project: UTAH-UINTAH		Site: NBU 1021-32A		Rig Name No: ROYAL WELL SERVICE 2/2, MILES 3/3, SWABBCO 6/6				
Event: RECOMPL/RESEREVEADD		Start Date: 9/1/2011		End Date: 2/22/2012				
Active Datum: RKB @5,335.00usft (above Mean Sea Level)		UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/1/2011	8:00 - 12:00	4.00	COMP	48		P		HSM, R/U, OVERHEAD LOADS, MIRU SUPERIORFRAC EQUIP & J-W WIRELINE. PRESSURE TEST SURFACE LINES 7200#

**US ROCKIES REGION**

**Operation Summary Report**

Well: NBU 1021-32A		Spud Conductor: 2/16/2010		Spud Date: 2/20/2010	
Project: UTAH-UINTAH		Site: NBU 1021-32A		Rig Name No: ROYAL WELL SERVICE 2/2, MILES 3/3, SWABBCO 6/6	
Event: RECOMPL/RESEREVEADD		Start Date: 9/1/2011		End Date: 2/22/2012	
Active Datum: RKB @5,335.00usft (above Mean Sea Level)			UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:00 - 12:00	0.00	COMP	36	E	P		<p>PERF &amp; FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND &amp; SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLUID, SAND AND CHEMICAL VOLUME PUMP'D</p> <p>P/U RIH W/ PERF GUN,, PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #1] WHP=149#, BRK DN PERFS=1,811#, @=4.7 BPM, INJ RT=50.4, INJ PSI=5,578#, INITIAL ISIP=1,482#, INITIAL FG=.69, FINAL ISIP=2,386#, FINAL FG=.84, AVERAGE RATE=50.1, AVERAGE PRESSURE=4,674#, MAX RATE=51.2, MAX PRESSURE=5,775#, NET PRESSURE INCREASE=904#, 16/24 66% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP &amp; PERF GUN, SET CBP @=5,356', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #2] WHP=825#, BRK DN PERFS=2,700#, @=4.7 BPM, INJ RT=50.5, INJ PSI=4,597#, INITIAL ISIP=1,370#, INITIAL FG=.70, FINAL ISIP=2,060#, FINAL FG=.83, AVERAGE RATE=50.6, AVERAGE PRESSURE=4,002#, MAX RATE=51.4, MAX PRESSURE=4,600#, NET PRESSURE INCREASE=690#, 18/24 76% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP &amp; PERF GUN, SET CBP @=4,730', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #3] WHP=224#, BRK DN PERFS=2,469#, @=4.9 BPM, INJ RT=4,282, INJ PSI=4,282#, INITIAL ISIP=1,247#, INITIAL FG=.70, FINAL ISIP=2,477#, FINAL FG=.97, AVERAGE RATE=50.7, AVERAGE PRESSURE=4,163#, MAX RATE=52.1, MAX PRESSURE=4,879#, NET PRESSURE INCREASE=1,230#, 18/20 76% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @=4,644'</p> <p>TOTAL FLUID PUMP'D=2,005 TOTAL SAND PUMP'D=59,816# JSA- RUSU. ND/NU. PU TBG. PWR SWM EL. D/O PLUGS.</p>
9/2/2011	7:00 - 7:15	0.25	COMP	48		P		

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 1021-32A		Spud Conductor: 2/16/2010		Spud Date: 2/20/2010	
Project: UTAH-UINTAH		Site: NBU 1021-32A		Rig Name No: ROYAL WELL SERVICE 2/2, MILES 3/3, SWABBCO 6/6	
Event: RECOMPL/RESEREVEADD		Start Date: 9/1/2011		End Date: 2/22/2012	
Active Datum: RKB @5,335.00usft (above Mean Sea Level)		UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 9:30	2.25	COMP	30	A	P		ROAD RIG TO LOCATIO. RD FRAC STAND. SPOT AND RUSU. ND FRAC VALVES. NU TBG HEAD AND BOP. RU FLOOR AND TBG EQUIP. SPOT TBG TRAILER
	9:30 - 12:15	2.75	COMP	31	I	P		MU 3-7/8" MILL, PMP OPEN BIT SUB, 1.87" XN. RIH AS MEAS AND PU 2-3/8" J-55 PROD TBG. RU PWR SWIVEL W/ #147. FILL TBG. PRES TEST TO 2800#. GOOD. EST CIRC AND MILL OUT PLUGS.
	12:15 - 17:00	4.75	COMP	44	C	P		#1- C/O 25' SAND TO CBP AT 4644'. MILL OUT IN 18 MIN. 500# INC ON CSG. FCP 300. RIH. #2- C/O 35' SAND TO CBP AT 4730'. MILL OUT IN 16 MIN. 500# INC ON CSG. FCP 500. RIH. #3- C/O 40' SAND TO CBP AT 5356'. MILL OUT IN 16 MIN. 300# INC ON CSG. FCP 800. RIH. CIBP AT 6000'- TAG AT 5963' W/ 189-JTS IN (69' BELOW PERFS).  RD PWR SWIVEL. POOH AS LD 6-JTS TBG. PU 7" 5K HANGER. LUB IN AND LAND 183-JTS 2-3/8" J-55 TBG W/ EOT AT 5803.50'. RD FLOOR. ND BOP. NU WH. PUMP OPEN BIT SUB AT 1300#. SITP- 250. SICP - 1900. SURFACE CSG-OPEN NO FLOW OR BLOW. HOOK UP TO HAL 9000 AND TURN OVER TO FBC ON SALES.  TBG DETAIL      KB            18.00 7" 5K HANGER                    1.00 183-JTS J-55                      5781.44 MILL W/ PMP OPEN SUB            3.06 MILL AT                            5803.50
9/7/2011	7:00 -			33	A			TWTR 2005 / TWR 500 / LTR 1505 7 AM FLBK REPORT: CP 1950#, TP 1750#, 18/64" CK, 15 BWPH, LIGHT SAND, - GAS TTL BBLs RECOVERED: 875 BBLs LEFT TO RECOVER: 1130
9/8/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 1950#, TP 1800#, 16/64" CK, 2 BWPH, LIGHT SAND, - GAS TTL BBLs RECOVERED: 952 BBLs LEFT TO RECOVER: 1053
9/9/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 1900#, TP 1750#, 18/64" CK, 6 BWPH, LIGHT SAND, - GAS TTL BBLs RECOVERED: 1096 BBLs LEFT TO RECOVER: 909
9/10/2011	7:00 -			50				WELL IP'D ON 9/11/11 - 3608 MCFD, 0 BOPD, 80 BWPD, CP 1768#, FTP 436#, CK 18/64", LP 269#, 24 HRS
1/12/2012	7:00 - 7:15	0.25	WO/REP	48		P		JSA= WELL CONTROL

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 1021-32A		Spud Conductor: 2/16/2010		Spud Date: 2/20/2010	
Project: UTAH-UINTAH		Site: NBU 1021-32A		Rig Name No: ROYAL WELL SERVICE 2/2, MILES 3/3, SWABBCCO 6/6	
Event: RECOMPL/RESEREVEADD		Start Date: 9/1/2011		End Date: 2/22/2012	
Active Datum: RKB @5,335.00usft (above Mean Sea Level)			UWI: NE/NE/0/10/S/21/E/32/0/0/6/PM/N/646.00/E/0/955.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	WO/REP	30		P		<p>FWP= 200 PSI RU RIG &amp; PUMP CONTROL TUBING W/ 20 BBLS TMAC ND WELL HEAD NU BOPS RU FLOOR &amp; TUBING EQUIP UNLAND TUBING LD HNGR TALLY &amp; PU 6 JNTS 2-3/8" J-55 TUBING TAG @ 5955' POOH LD 6 JNTS + 37 JNTS FROM STRING CONTINUE TO POOH STAND BACK REMAINING TUBING LD BHA PI NOTCHED 1.87XN RIH W/ 146 JNTS LAND TUBING ON HNGR EOT @ 4631.19' RU SAND LINE RIH W/ BROACH TO XN NPL RD FLOOR &amp; TUBING EQUIP ND BOPS NU WELLHEAD SIW RD RIG PREP TO MOVE IN AM</p> <p>K.B.=.....18.00            HNGR=.....1.00            146 JNTS 2-3/8" J-55=.....4612.14            NOTCHE 1.87XN=.....1.05            EOT=.....4631.19</p>
2/17/2012	6:45 - 7:00	0.25	WO/REP	48		P		HSM & JSA W/ROYAL WELL SERVICE.
	7:00 - 9:00	2.00	WO/REP	49	A	Z		RIG WILL NOT START - WORK ON RIG.
	9:00 - 17:30	8.50	WO/REP	30	A			ROAD RIG FROM NBU 921-26A PAD. MIRU - SPOT EQUIP. SITP 250 PSI, SICP 250 PSI. PMP 10 BBLS DWN TBG & 20 BBLS DWN CSG TO CONTROL WELL. NDWH, NU BOPs. L/D TBG HNGR. POOH W/146 JTS 2 3/8" TBG & L/D BHA. P/U 3 7/8" MILL & BIT SUB. TALLY TBG & RIH W/189 JTS 2 3/8" TBG. TAG FILL @ 5960'. CIBP @ 6000'. L/D 1 JT. EOT @ 5931'. R/D TBG EQUIP, R/U PWR SWWL. SWI - SDFWE. ((NOTE - SURFACE CASING BUILDING PRESSURE & POP OFF GOING OFF @ 450 PSI.))
2/21/2012	6:45 - 7:00	0.25	COMP	48		P		HSM & JSA W/ROYAL WELL SERVICE & WEATHERFORD FOAM.
	7:00 - 17:00	10.00	COMP	44	D	P		EOT @ 5930'. SITP 100 PSI, SICP 500 PSI. BLOW DWN TBG. MIRU WEATHERFORD FOAM UNIT. R/U PWR SWWL & PMP. INSTALL STRING FLOAT. EST CIRC W/FOAM. (1 HR) C/O FILL FROM 5960' TO 6000'. D/O CIBP @ 6000' IN 90 MIN. R/D PWR SWWL, R/U TBG EQUIP. REMOVE STING FLOAT. RIH W/TBG & TAG FILL @ 8515'. L/D 1 JT. R/D TBG EQUIP, R/U PWR SWWL. INSTALL STRING FLOAT. EST CIRC W/FOAM. D/O HARD SCALE FROM 8515' TO 8840' - 325'. RIH W/TBG TO 8930' & CIRC WELL CLEAN. (BTM PERF @ 8813') R/D PWR SWWL, R/U TBG EQUIP. POOH & L/D 31 JTS ON FLOAT. (42 JTS TOTAL). EOT @ 7982'. SWI - SDFN. FREEZE PROTECT WH & SURFACE EQUIP.
2/22/2012	6:45 - 7:00	0.25	COMP	48		P		HSM & JSA W/ROYAL WELL SERVICE

**US ROCKIES REGION**

**Operation Summary Report**

Well: NBU 1021-32A		Spud Conductor: 2/16/2010	Spud Date: 2/20/2010
Project: UTAH-UINTAH		Site: NBU 1021-32A	Rig Name No: ROYAL WELL SERVICE 2/2, MILES 3/3, SWABBCO 6/6
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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 15:00	8.00	COMP	31	I	P		SITP 700 PSI, SICP 900 PSI. EOT @ 7982'. PMP 10 BBLs DWN TBG TO CONTROL WELL. CONT. TO POOH W/TBG & L/D MILL & SUB. P/U XN NIPPLE & N/C. RIH ON 254 JTS USED 2 3/8" 4.7# L80 TBG. LND TBG ON HNGR @ 7992.21. R/D TBG EQUIP & FLOOR. ND BOPs, NUWH. SWI - NOTIFY CDC.  KB 18.00' HANGER 0.83' 254 JTS TUBING 7971.00' XN NIPPLE 1.33' N/C 1.05' EOT @ 7992.21' XN NIPPLE @ 7989.83'  110 BBLs USED TO CONTROL WELL.