

**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: STUO-08512-ST	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 1022-1313S	
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: 637480 X 4422842 Y 39.946431 -109.390737 1735' FSL, 1764' FWL				11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NESW 13 10S 22E	
AT PROPOSED PRODUCING ZONE: 1900' FSL, 1225' FEL, NESE 39.946915 -109.382575 638177 X 4422908 Y				12. COUNTY: UINTAH	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 27.7 MILES SOUTH OF OURAY, UTAH				13. STATE: UTAH	
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 1735'		16. NUMBER OF ACRES IN LEASE: 600.00		17. NUMBER OF ACRES ASSIGNED TO THIS WELL:	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) REFER TO TOPO C		19. PROPOSED DEPTH: 8,150		20. BOND DESCRIPTION: <del>RLB0005297</del> 22013542	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5293' GL		22. APPROXIMATE DATE WORK WILL START:		23. ESTIMATED DURATION:	

24. **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	32.3#	H-40	2,100	265 SX CLASS G	1.18 YIELD	15.6 PPG
7 7/8"	4 1/2	11.6#	I-80	8,150	1300 SX 50/50 POZ	1.31 YIELD	14.3 PPG

25. **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  DATE 7/31/2007

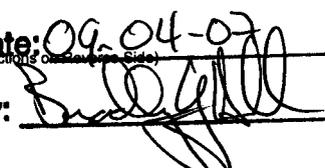
(This space for State use only)

API NUMBER ASSIGNED: 43-047-39474

Approved by the  
Utah Division of  
Oil, Gas and Mining  
APPROVAL:

**RECEIVED**  
**AUG 06 2007**

(11/2001)

Date: 09-04-07  
(See Instructions on Reverse Side)  
By: 

DIV. OF OIL, GAS & MINING

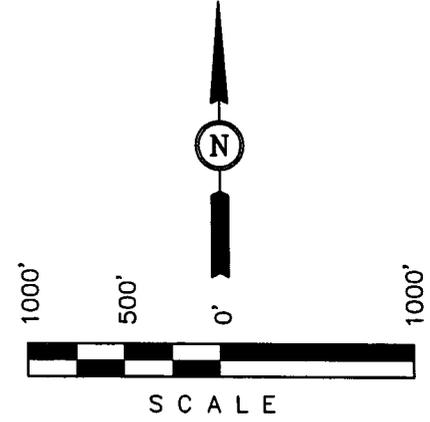
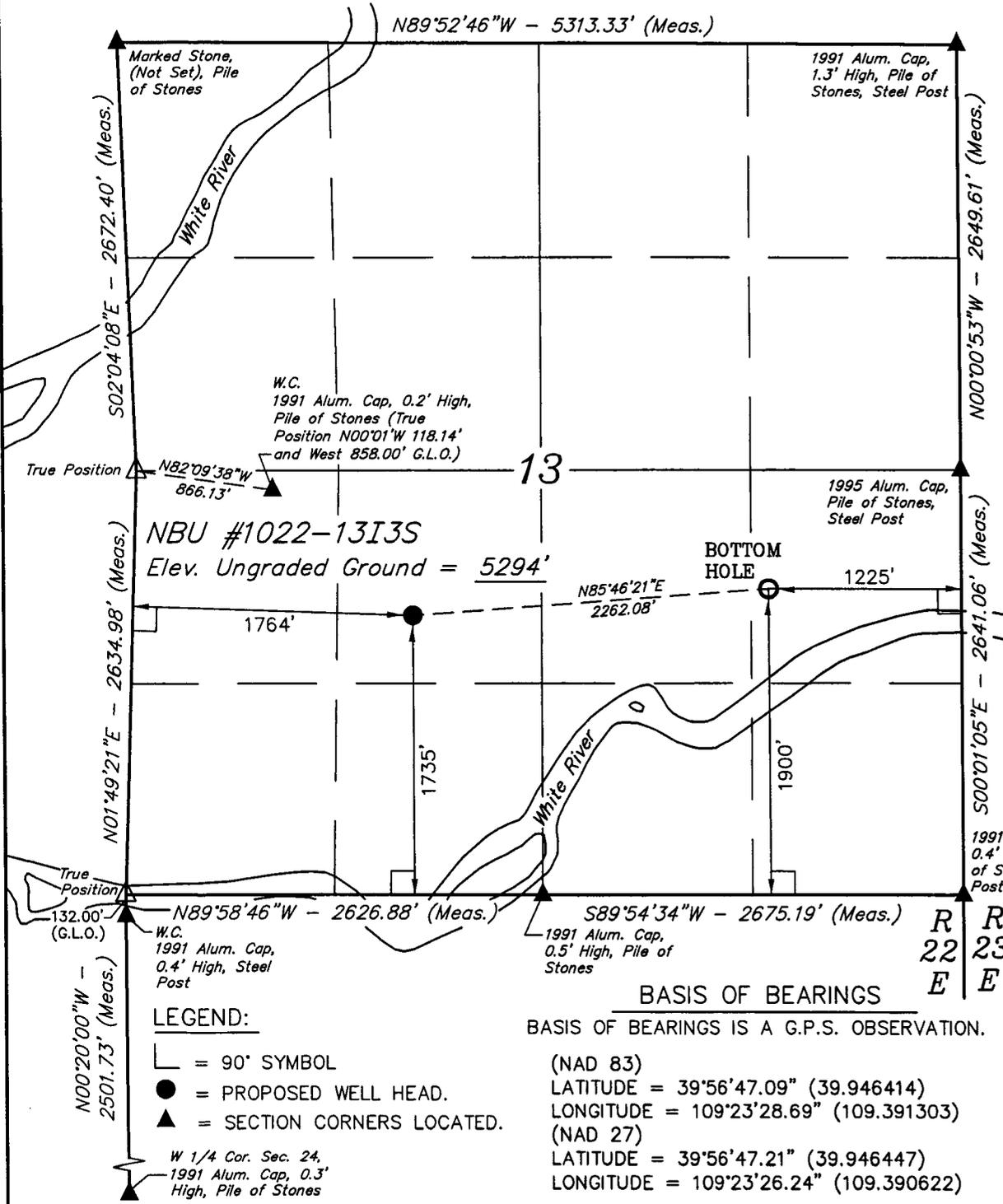
# T10S, R22E, S.L.B.&M.

## Kerr-McGee Oil & Gas Onshore LP

Well location, NBU #1022-13I3S, located as shown in the NE 1/4 SW 1/4 of Section 13, T10S, R22E, S.L.B.&M. Uintah County, Utah.

### BASIS OF ELEVATION

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



CERTIFICATE OF SURVEY  
 REGISTERED LAND SURVEYOR  
 THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEY MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.  
 NO. 164319  
 ROBERT L. KAY  
 REGISTERED LAND SURVEYOR  
 STATE OF UTAH

### LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- W 1/4 Cor. Sec. 24, 1991 Alum. Cap, 0.3' High, Pile of Stones

### BASIS OF BEARINGS

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

(NAD 83)  
 LATITUDE = 39°56'47.09" (39.946414)  
 LONGITUDE = 109°23'28.69" (109.391303)  
 (NAD 27)  
 LATITUDE = 39°56'47.21" (39.946447)  
 LONGITUDE = 109°23'26.24" (109.390622)

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

SCALE 1" = 1000'	DATE SURVEYED: 5-17-07	DATE DRAWN: 6-13-07
PARTY D.K. L.K. K.G.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE Kerr-McGee Oil & Gas Onshore LP	

**NBU 1022-13I3S  
NE/SW SEC. 13, T10S, R22E  
UINTAH COUNTY, UTAH  
UTSTUO-08512-ST**

**ONSHORE ORDER NO. 1**

***DRILLING PROGRAM***

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

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	951'
Top of Birds Nest Water	1252'
Mahogany	1626'
Wasatch	3988'
Mesaverde	6221'
MVU2	7053'
MVL1	7611'
TD	8150'

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Water	Green River	951'
	Top of Birds Nest Water	1252'
	Mahogany	1626'
Gas	Wasatch	3988'
Gas	Mesaverde	6221'
Gas	MVU2	7053'
Gas	MVL1	7611'
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.*

The operator will use fresh water mud with 0-8% Bio Diesel.

6. **Evaluation Program:**

*Please refer to the attached Drilling Program.*

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 8150' TD, approximately equals 5053 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3260 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. **Anticipated Starting Dates:**

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

9. **Variances:**

*Please refer to the attached Drilling Program.*

10. **Other Information:**

*Please refer to the attached Drilling Program.*





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

**CASING PROGRAM**

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				2270	1370	254000
SURFACE	9-5/8"	0 to 2100	32.30	H-40	STC	7780	6350	201000
PRODUCTION	4-1/2"	0 to 8150	11.60	I-80	LTC	2.49	1.29	2.44

- 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 = 0.0 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 3123 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	LEAD	1500	NOTE: If well will circulate water to surface, option 2 will be utilized 65/35 Poz + 6% Gel + 10 pps gilsonite + 25 pps Flocele + 3% salt BWOW	360	35%	12.60	1.81
	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	5,720'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	620	60%	11.00	3.38
	TAIL	2,430'	50/50 Poz/G + 10% salt + 2% gel + .1% R-3	680	60%	14.30	1.31

\*Substitute caliper hole volume plus 15% excess 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**

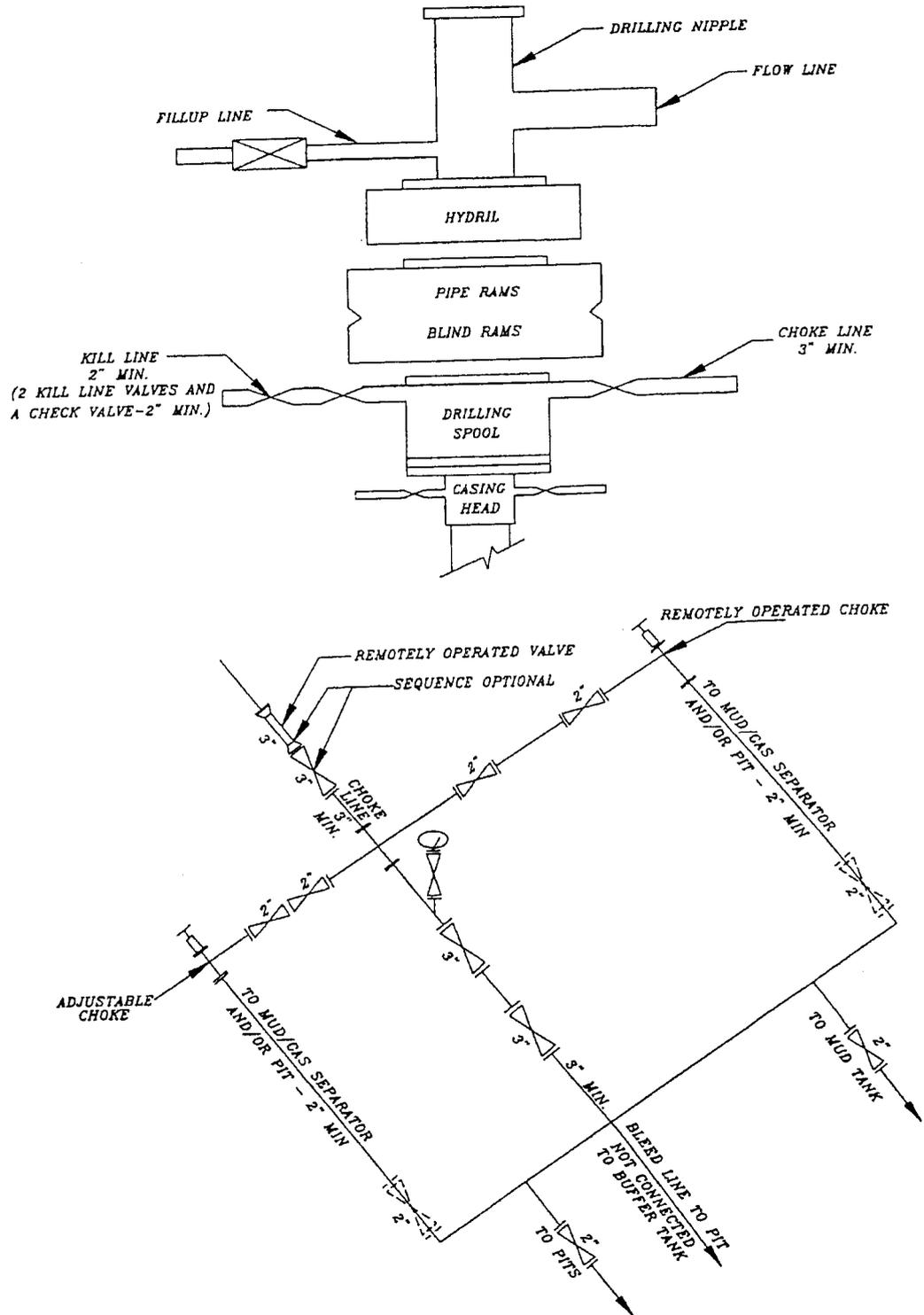
- Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.  
 BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder & tour sheet. Function test rams on each trip. Maintain safety 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 System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: \_\_\_\_\_  
 Brad Laney

DRILLING SUPERINTENDENT: \_\_\_\_\_  
 Randy Bayne

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

# 5M BOP STACK and CHOKE MANIFOLD SYSTEM



**NBU 1022-13I3S  
NE/SW SEC. 13, T10S, R22E  
Uintah County, UT  
UTSTUO-08512-ST**

**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:**

The operator will utilize an existing access road. Refer to Topo Map B for the location of the existing 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.

A 30' rights of way will be required for approximately 12,184' +/- of 6" steel pipeline is proposed. The pipeline shall run from the location into Section 18, T10S, R23E (Lease #UTU-38421) and travel north into Sec. 7, T10S, R23E (Lease #UTU-49226) to tie-in to and existing pipeline. Refer to the attached Topo Map D for pipeline placement.

A 30' rights of way will be required for approximately 12,184' +/- of 10" steel pipeline is proposed. The pipeline shall run from the location into Section 18, T10S, R23E (Lease #UTU-38421) and travel north into Sec. 7, T10S, R23E (Lease #UTU-49226) to tie-in to and existing pipeline. Refer to the attached Topo Map D for pipeline placement.

**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.

Due to difficult topography and proximity to the White River, the reserve pit will be constructed utilizing a double liner and felt. The liner will be approximately 60 mil in thickness versus our standard 20 mil and the reserve pit will also have a leak detection system installed between the liners.

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

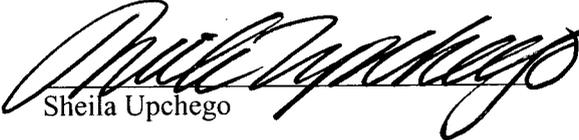
Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

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

7/31/2007  
Date



**Weatherford<sup>®</sup>**

## **Drilling Services**

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## **Proposal**

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### **ANADARKO - KERR McGEE**

NBU#1022-1313

UINTAH COUNTY, UTAH

WELL FILE: PLAN 2

DATE: JULY 12, 2007

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**Weatherford International, Ltd.**

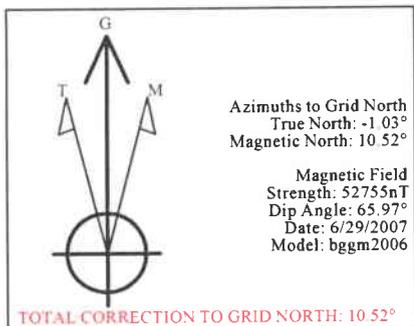
15710 John F. Kennedy Blvd

Houston, Texas 77032 USA

+1.281.260.1300 Main

+1.281.260.4730 Fax

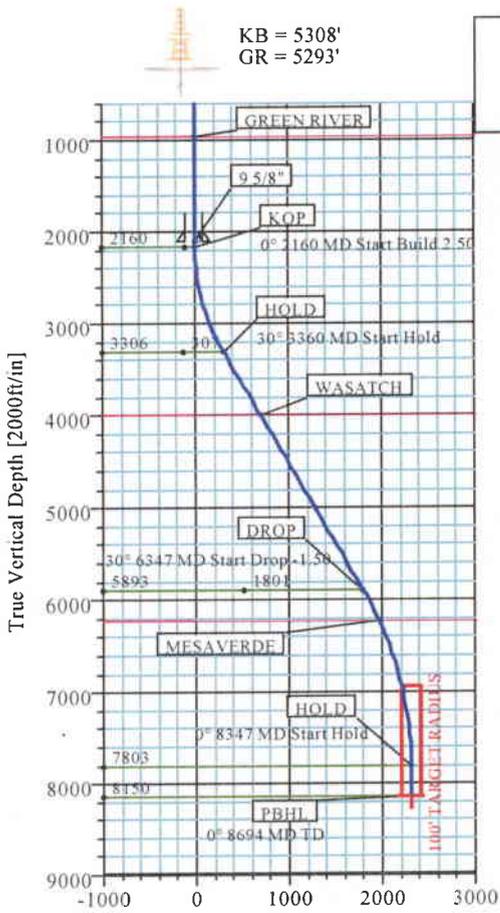
[www.weatherford.com](http://www.weatherford.com)



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	84.45	0.00	0.00	0.00	0.00	0.00	0.00	
2	2160.00	0.00	84.45	2160.00	0.00	0.00	0.00	0.00	0.00	
3	3360.00	30.00	84.45	3305.92	29.69	305.61	2.50	84.45	307.05	
4	6347.02	30.00	84.45	5892.75	174.08	1792.12	0.00	0.00	1800.56	
5	8347.02	0.00	84.45	7802.61	223.56	2301.47	1.50	180.00	2312.30	
6	8694.41	0.00	84.45	8150.00	223.56	2301.47	0.00	0.00	2312.30	PBHL

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
1313	0.00	0.00	14510589.60	2091418.40	39°56'47.000N	109°23'27.276W	N/A

TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	
PBHL	8150.00	223.56	2301.47	14510813.16	2093719.87	Circle (Radius: 100)	

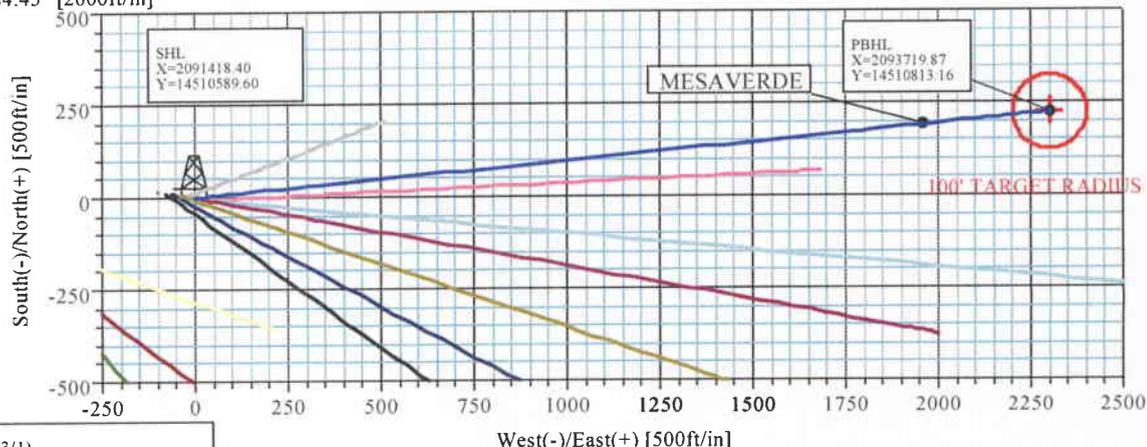


FORMATION TOP DETAILS			
No.	TVDPath	MDPath	Formation
1	951.00	951.00	GREEN RIVER
2	3988.00	4147.60	WASATCH
3	6221.00	6716.33	MESAVERDE

**FIELD DETAILS**  
 UINTAH COUNTY, UTAH (UTM Zone 12N-NAD 27)  
 Geodetic System: Universal Transverse Mercator (USfeet)  
 Ellipsoid: NAD27 (Clarke 1866)  
 Zone: UTM Zone 12, North 114W to 108W  
 Magnetic Model: bggm2006  
 System Datum: Mean Sea Level  
 Local North: Grid North

CASING DETAILS				
No	TVD	MD	Name	Size
1	2100.00	2100.00	9.5/8"	9.62

Vertical Section at 84.45° [2000ft/in]



Plan: Plan #2 (1313/1)



# Weatherford Drilling Services

## DIRECTIONAL PLAN REPORT



<b>Company:</b> Anadarko-Kerr-McGee	<b>Date:</b> 7/13/2007	<b>Time:</b> 09:13:10	<b>Page:</b> 2
<b>Field:</b> Uintah County, Utah (UTM Zone 12N-NAD 27)	<b>Co-ordinate(NE) Reference:</b>	<b>Site:</b> NBU 1022-1313, Grid North	
<b>Site:</b> NBU 1022-1313	<b>Vertical (TVD) Reference:</b>	<b>SITE 5308.0</b>	
<b>Well:</b> 1313	<b>Section (VS) Reference:</b>	<b>Well (0.00N,0.00E,84.45Azi)</b>	
<b>Wellpath:</b> 1	<b>Survey Calculation Method:</b>	<b>Minimum Curvature</b>	<b>Db: Sybase</b>

**Survey**

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
3400.00	30.00	84.45	3340.56	31.62	325.52	327.05	0.00	14510621.22	2091743.92	
3500.00	30.00	84.45	3427.16	36.45	375.28	377.05	0.00	14510626.05	2091793.68	
3600.00	30.00	84.45	3513.76	41.29	425.05	427.05	0.00	14510630.89	2091843.45	
3700.00	30.00	84.45	3600.36	46.12	474.81	477.05	0.00	14510635.72	2091893.21	
3800.00	30.00	84.45	3686.97	50.96	524.58	527.05	0.00	14510640.56	2091942.98	
3900.00	30.00	84.45	3773.57	55.79	574.34	577.05	0.00	14510645.39	2091992.74	
4000.00	30.00	84.45	3860.17	60.62	624.11	627.05	0.00	14510650.22	2092042.51	
4100.00	30.00	84.45	3946.77	65.46	673.88	677.05	0.00	14510655.06	2092092.28	
4147.60	30.00	84.45	3988.00	67.76	697.57	700.85	0.00	14510657.36	2092115.97	WASATCH
4200.00	30.00	84.45	4033.38	70.29	723.64	727.05	0.00	14510659.89	2092142.04	
4300.00	30.00	84.45	4119.98	75.13	773.41	777.05	0.00	14510664.73	2092191.81	
4400.00	30.00	84.45	4206.58	79.96	823.17	827.05	0.00	14510669.56	2092241.57	
4500.00	30.00	84.45	4293.18	84.80	872.94	877.05	0.00	14510674.40	2092291.34	
4600.00	30.00	84.45	4379.79	89.63	922.70	927.05	0.00	14510679.23	2092341.10	
4700.00	30.00	84.45	4466.39	94.46	972.47	977.05	0.00	14510684.06	2092390.87	
4800.00	30.00	84.45	4552.99	99.30	1022.24	1027.05	0.00	14510688.90	2092440.64	
4900.00	30.00	84.45	4639.59	104.13	1072.00	1077.05	0.00	14510693.73	2092490.40	
5000.00	30.00	84.45	4726.20	108.97	1121.77	1127.05	0.00	14510698.57	2092540.17	
5100.00	30.00	84.45	4812.80	113.80	1171.53	1177.05	0.00	14510703.40	2092589.93	
5200.00	30.00	84.45	4899.40	118.63	1221.30	1227.05	0.00	14510708.23	2092639.70	
5300.00	30.00	84.45	4986.00	123.47	1271.06	1277.05	0.00	14510713.07	2092689.46	
5400.00	30.00	84.45	5072.61	128.30	1320.83	1327.05	0.00	14510717.90	2092739.23	
5500.00	30.00	84.45	5159.21	133.14	1370.60	1377.05	0.00	14510722.74	2092789.00	
5600.00	30.00	84.45	5245.81	137.97	1420.36	1427.05	0.00	14510727.57	2092838.76	
5700.00	30.00	84.45	5332.42	142.81	1470.13	1477.05	0.00	14510732.41	2092888.53	
5800.00	30.00	84.45	5419.02	147.64	1519.89	1527.05	0.00	14510737.24	2092938.29	
5900.00	30.00	84.45	5505.62	152.47	1569.66	1577.05	0.00	14510742.07	2092988.06	
6000.00	30.00	84.45	5592.22	157.31	1619.42	1627.05	0.00	14510746.91	2093037.82	
6100.00	30.00	84.45	5678.83	162.14	1669.19	1677.05	0.00	14510751.74	2093087.59	
6200.00	30.00	84.45	5765.43	166.98	1718.96	1727.05	0.00	14510756.58	2093137.36	
6300.00	30.00	84.45	5852.03	171.81	1768.72	1777.05	0.00	14510761.41	2093187.12	
6347.02	30.00	84.45	5892.75	174.08	1792.12	1800.56	0.00	14510763.68	2093210.52	DROP
6400.00	29.21	84.45	5938.82	176.61	1818.17	1826.73	1.50	14510766.21	2093236.57	
6500.00	27.71	84.45	6026.73	181.22	1865.59	1874.37	1.50	14510770.82	2093283.99	
6600.00	26.21	84.45	6115.86	185.60	1910.71	1919.70	1.50	14510775.20	2093329.11	
6700.00	24.71	84.45	6206.15	189.76	1953.49	1962.68	1.50	14510779.36	2093371.89	
6716.33	24.46	84.45	6221.00	190.41	1960.25	1969.47	1.50	14510780.01	2093378.65	MESAVERDE
6800.00	23.21	84.45	6297.54	193.68	1993.90	2003.28	1.50	14510783.28	2093412.30	
6900.00	21.71	84.45	6389.95	197.38	2031.91	2041.48	1.50	14510786.98	2093450.31	
7000.00	20.21	84.45	6483.34	200.83	2067.51	2077.24	1.50	14510790.43	2093485.91	
7100.00	18.71	84.45	6577.62	204.05	2100.66	2110.55	1.50	14510793.65	2093519.06	
7200.00	17.21	84.45	6672.75	207.03	2131.34	2141.37	1.50	14510796.63	2093549.74	
7300.00	15.71	84.45	6768.65	209.77	2159.54	2169.70	1.50	14510799.37	2093577.94	
7400.00	14.21	84.45	6865.26	212.27	2185.22	2195.51	1.50	14510801.87	2093603.62	
7471.05	13.14	84.45	6934.30	213.89	2201.94	2212.30	1.50	14510803.49	2093620.34	INT. TGT CYLINDER
7500.00	12.71	84.45	6962.51	214.52	2208.38	2218.77	1.50	14510804.12	2093626.78	
7600.00	11.21	84.45	7060.34	216.52	2229.00	2239.49	1.50	14510806.12	2093647.40	
7700.00	9.71	84.45	7158.68	218.27	2247.06	2257.63	1.50	14510807.87	2093665.46	
7800.00	8.21	84.45	7257.46	219.78	2262.55	2273.20	1.50	14510809.38	2093680.95	
7900.00	6.71	84.45	7356.61	221.03	2275.46	2286.18	1.50	14510810.63	2093693.86	
8000.00	5.21	84.45	7456.07	222.04	2285.79	2296.55	1.50	14510811.64	2093704.19	
8100.00	3.71	84.45	7555.76	222.79	2293.52	2304.32	1.50	14510812.39	2093711.92	
8200.00	2.21	84.45	7655.63	223.29	2298.65	2309.47	1.50	14510812.89	2093717.05	

# Weatherford Drilling Services

## DIRECTIONAL PLAN REPORT



<b>Company:</b> Anadarko-Kerr-McGee <b>Field:</b> Uintah County, Utah (UTM Zone 12N-NAD 27) <b>Site:</b> NBU 1022-1313 <b>Well:</b> 1313 <b>Wellpath:</b> 1	<b>Date:</b> 7/13/2007 <b>Co-ordinate(NE) Reference:</b> <b>Vertical (TVD) Reference:</b> <b>Section (VS) Reference:</b> <b>Survey Calculation Method:</b>	<b>Time:</b> 09:13:10 <b>Site:</b> NBU 1022-1313, Grid North <b>SITE</b> 5308.0 <b>Well (0.00N,0.00E,84.45Azi)</b> <b>Minimum Curvature</b>	<b>Page:</b> 3 <b>Db:</b> Sybase
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### Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
8300.00	0.71	84.45	7755.59	223.53	2301.18	2312.01	1.50	14510813.13	2093719.58	
8347.02	0.00	84.45	7802.61	223.56	2301.47	2312.30	1.50	14510813.16	2093719.87	HOLD
8400.00	0.00	84.45	7855.59	223.56	2301.47	2312.30	0.00	14510813.16	2093719.87	
8500.00	0.00	84.45	7955.59	223.56	2301.47	2312.30	0.00	14510813.16	2093719.87	
8600.00	0.00	84.45	8055.59	223.56	2301.47	2312.30	0.00	14510813.16	2093719.87	
8694.41	0.00	84.45	8150.00	223.56	2301.47	2312.30	0.00	14510813.16	2093719.87	PBHL

### Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec	<--- Longitude ---> Deg Min Sec
PBHL			8150.00	223.56	2301.47	14510813.16	2093719.87	39 56 48.798 N	109 22 57.675 W
	-Circle (Radius: 100)								
	-Plan hit target								

### Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
2100.00	2100.00	9.62	12.25	9 5/8"

### Annotation

MD ft	TVD ft	
2160.00	2160.00	KOP
3360.00	3305.92	HOLD
6347.02	5892.75	DROP
7471.05	6934.30	INT. TGT CYLINDER
8347.02	7802.61	HOLD
8694.40	8149.99	PBHL

### Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
951.00	951.00	GREEN RIVER		0.00	0.00
4147.60	3988.00	WASATCH		0.00	0.00
6716.33	6221.00	MESAVERDE		0.00	0.00

# Weatherford Drilling Services

## Anticollision Report



**Company:** Anadarko-Kerr-McGee **Date:** 7/17/2007 **Time:** 15:19:46 **Page:** 1  
**Field:** UINTAH COUNTY, UTAH (UTM Zone 12N-NAD 27)  
**Reference Site:** NBU 1022-13I3 **Co-ordinate(NE) Reference:** Site: NBU 1022-13I3, Grid North  
**Reference Well:** 13I3 **Vertical (TVD) Reference:** SITE 5308.0  
**Reference Wellpath:** 1 **Db:** Sybase

**NO GLOBAL SCAN: Using user defined selection & scan criteria**  
**Interpolation Method:** MD **Interval:** 100.00 ft  
**Depth Range:** 0.00 to 8694.41 ft  
**Maximum Radius:** 10000.00 ft  
**Reference:** Plan: Plan #2  
**Error Model:** ISCWSA Ellipse  
**Scan Method:** Closest Approach 3D  
**Error Surface:** Ellipse

**Plan:** Plan #2 **Date Composed:** 7/11/2007  
**Principal:** Yes **Version:** 1  
**Tied-to:** From Surface

**Summary**

Site	Offset Wellpath Well	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
NBU 1022-13K4S	13K4S	1 V0 Plan: Plan #1 V1	2300.00	2301.07	20.84	11.45	2.22	

**Site:** NBU 1022-13K4S  
**Well:** 13K4S  
**Wellpath:** 1 V0 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Semi-Major Axis TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	279.88	3.50	-20.10	20.40			No Data
100.00	100.00	100.00	100.00	0.09	0.09	279.88	3.50	-20.10	20.40	20.22	114.61	
200.00	200.00	200.00	200.00	0.30	0.30	279.88	3.50	-20.10	20.40	19.81	34.18	
300.00	300.00	300.00	300.00	0.51	0.51	279.88	3.50	-20.10	20.40	19.39	20.09	
400.00	400.00	400.00	400.00	0.72	0.72	279.88	3.50	-20.10	20.40	18.97	14.22	
500.00	500.00	500.00	500.00	0.93	0.93	279.88	3.50	-20.10	20.40	18.55	11.01	
600.00	600.00	600.00	600.00	1.14	1.14	279.88	3.50	-20.10	20.40	18.13	8.98	
700.00	700.00	700.00	700.00	1.35	1.35	279.88	3.50	-20.10	20.40	17.71	7.58	
800.00	800.00	800.00	800.00	1.56	1.56	279.88	3.50	-20.10	20.40	17.29	6.56	
900.00	900.00	900.00	900.00	1.76	1.76	279.88	3.50	-20.10	20.40	16.87	5.78	
1000.00	1000.00	1000.00	1000.00	1.97	1.97	279.88	3.50	-20.10	20.40	16.45	5.17	
1100.00	1100.00	1100.00	1100.00	2.18	2.18	279.88	3.50	-20.10	20.40	16.04	4.67	
1200.00	1200.00	1200.00	1200.00	2.39	2.39	279.88	3.50	-20.10	20.40	15.62	4.26	
1300.00	1300.00	1300.00	1300.00	2.60	2.60	279.88	3.50	-20.10	20.40	15.20	3.92	
1400.00	1400.00	1400.00	1400.00	2.81	2.81	279.88	3.50	-20.10	20.40	14.78	3.63	
1500.00	1500.00	1500.00	1500.00	3.02	3.02	279.88	3.50	-20.10	20.40	14.36	3.38	
1600.00	1600.00	1600.00	1600.00	3.23	3.23	279.88	3.50	-20.10	20.40	13.94	3.16	
1700.00	1700.00	1700.00	1700.00	3.44	3.44	279.88	3.50	-20.10	20.40	13.52	2.97	
1800.00	1800.00	1800.00	1800.00	3.65	3.65	279.88	3.50	-20.10	20.40	13.10	2.80	
1900.00	1900.00	1900.00	1900.00	3.86	3.86	279.88	3.50	-20.10	20.40	12.68	2.64	
2000.00	2000.00	2000.00	2000.00	4.07	4.07	279.88	3.50	-20.10	20.40	12.27	2.51	
2100.00	2100.00	2100.00	2100.00	4.28	4.28	279.88	3.50	-20.10	20.40	11.85	2.38	
2200.00	2200.00	2200.31	2200.31	4.49	4.49	195.67	3.62	-19.77	20.44	11.46	2.28	
2300.00	2299.91	2301.07	2300.98	4.70	4.70	198.33	5.03	-16.04	20.84	11.45	2.22	
2400.00	2399.56	2401.81	2401.36	4.91	4.91	203.60	7.98	-8.17	21.82	12.03	2.23	
2500.00	2498.75	2502.49	2501.22	5.14	5.14	210.69	12.48	3.81	23.63	13.42	2.31	
2600.00	2597.30	2603.10	2600.35	5.38	5.38	218.52	18.52	19.87	26.53	15.86	2.49	
2700.00	2695.02	2703.62	2698.54	5.66	5.66	226.09	26.07	39.97	30.69	19.50	2.74	
2800.00	2791.71	2804.03	2795.59	5.98	5.97	232.76	35.12	64.05	36.20	24.39	3.06	
2900.00	2887.21	2904.32	2891.30	6.36	6.33	238.32	45.64	92.05	43.05	30.49	3.43	
3000.00	2981.32	3004.45	2985.48	6.80	6.75	242.83	57.61	123.89	51.18	37.74	3.81	
3100.00	3073.87	3104.43	3077.93	7.33	7.24	246.46	70.98	159.49	60.55	46.08	4.18	
3200.00	3164.67	3203.83	3169.01	7.94	7.80	247.62	84.98	196.73	71.39	55.85	4.59	
3300.00	3253.57	3302.74	3259.84	8.65	8.25	245.50	98.76	233.41	84.03	67.44	5.07	
3400.00	3340.56	3400.67	3350.64	9.45	8.46	240.54	111.65	267.73	99.23	82.01	5.76	
3500.00	3427.16	3497.81	3441.62	10.30	8.69	235.29	123.63	299.60	116.35	98.57	6.54	

# Weatherford Drilling Services

## Anticollision Report



**Company:** Anadarko-Kerr-McGee **Date:** 7/17/2007 **Time:** 15:19:46 **Page:** 2  
**Field:** Uintah County, Utah (UTM Zone 12N-NAD 27)  
**Reference Site:** NBU 1022-13I3 **Co-ordinate(NE) Reference:** Site: NBU 1022-13I3, Grid North  
**Reference Well:** 13I3 **Vertical (TVD) Reference:** SITE 5308.0 **Db:** Sybase  
**Reference Wellpath:** 1

**Site:** NBU 1022-13K4S  
**Well:** 13K4S  
**Wellpath:** 1 V0 Plan: Plan #1 V1

**Inter-Site Error:** 0.00 ft

Reference MD ft	TVD ft	Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
		MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
3600.00	3513.76	3594.14	3532.66	11.18	8.92	230.48	134.70	329.06	135.26	116.98	7.40	
3700.00	3600.36	3689.56	3623.59	12.09	9.16	226.09	144.87	356.12	156.14	137.43	8.35	
3800.00	3686.97	3783.95	3714.23	13.01	9.38	222.12	154.14	380.78	179.07	160.03	9.40	
3900.00	3773.57	3877.23	3804.41	13.95	9.59	218.55	162.52	403.08	204.14	184.81	10.56	
4000.00	3860.17	3969.29	3893.96	14.91	9.78	215.33	170.03	423.07	231.36	211.82	11.84	
4100.00	3946.77	4060.07	3982.74	15.87	9.95	212.45	176.69	440.79	260.75	241.04	13.22	
4200.00	4033.38	4149.49	4070.60	16.85	10.10	209.85	182.52	456.32	292.31	272.44	14.72	
4300.00	4119.98	4237.47	4157.42	17.83	10.22	207.52	187.55	469.71	326.00	306.01	16.31	
4400.00	4206.58	4323.97	4243.07	18.81	10.32	205.42	191.81	481.04	361.79	341.70	18.01	
4500.00	4293.18	4408.94	4327.44	19.81	10.39	203.53	195.33	490.41	399.65	379.46	19.80	
4600.00	4379.79	4492.33	4410.44	20.80	10.44	201.82	198.14	497.89	439.53	419.25	21.67	
4700.00	4466.39	4574.11	4492.00	21.80	10.46	200.26	200.28	503.58	481.37	461.00	23.64	
4800.00	4552.99	4654.26	4572.03	22.81	10.46	198.85	201.78	507.56	525.12	504.67	25.68	
4900.00	4639.59	4732.74	4650.47	23.81	10.44	197.56	202.67	509.94	570.73	550.20	27.79	
5000.00	4726.20	4809.56	4727.29	24.82	10.41	196.38	203.00	510.81	618.15	597.52	29.96	
5100.00	4812.80	4895.08	4812.80	25.83	10.40	195.20	203.00	510.82	666.71	642.28	27.30	
5200.00	4899.40	4981.68	4899.40	26.85	10.46	194.15	203.00	510.82	715.47	690.69	28.87	
5300.00	4986.00	5068.28	4986.00	27.86	10.52	193.24	203.00	510.82	764.39	739.23	30.38	
5400.00	5072.61	5154.89	5072.61	28.88	10.59	192.44	203.00	510.82	813.45	787.90	31.84	
5500.00	5159.21	5241.49	5159.21	29.90	10.66	191.73	203.00	510.82	862.61	836.66	33.24	
5600.00	5245.81	5328.09	5245.81	30.91	10.74	191.09	203.00	510.82	911.86	885.51	34.60	
5700.00	5332.42	5414.69	5332.42	31.94	10.81	190.52	203.00	510.82	961.19	934.42	35.90	
5800.00	5419.02	5501.30	5419.02	32.96	10.89	190.01	203.00	510.82	1010.59	983.39	37.15	
5900.00	5505.62	5587.90	5505.62	33.98	10.97	189.54	203.00	510.82	1060.04	1032.41	38.36	
6000.00	5592.22	5674.50	5592.22	35.00	11.05	189.11	203.00	510.82	1109.55	1081.47	39.52	
6100.00	5678.83	5761.10	5678.83	36.03	11.14	188.72	203.00	510.82	1159.09	1130.57	40.64	
6200.00	5765.43	5847.71	5765.43	37.05	11.23	188.36	203.00	510.82	1208.67	1179.70	41.72	
6300.00	5852.03	5934.31	5852.03	38.08	11.31	188.03	203.00	510.82	1258.29	1228.86	42.76	
6400.00	5938.82	6021.09	5938.82	39.02	11.41	187.67	203.00	510.82	1307.62	1277.79	43.83	
6500.00	6026.73	6109.01	6026.73	39.71	11.50	187.30	203.00	510.82	1354.95	1324.92	45.12	
6600.00	6115.86	6198.14	6115.86	40.37	11.60	186.97	203.00	510.82	1400.00	1369.78	46.33	
6700.00	6206.15	6288.43	6206.15	40.99	11.70	186.68	203.00	510.82	1442.73	1412.33	47.46	
6800.00	6297.54	6379.82	6297.54	41.58	11.81	186.42	203.00	510.82	1483.11	1452.55	48.53	
6900.00	6389.95	6472.23	6389.95	42.13	11.92	186.20	203.00	510.82	1521.10	1490.39	49.53	
7000.00	6483.34	6565.61	6483.34	42.63	12.03	185.99	203.00	510.82	1556.69	1525.84	50.46	
7100.00	6577.62	6659.90	6577.62	43.10	12.15	185.82	203.00	510.82	1589.84	1558.87	51.34	
7200.00	6672.75	6755.03	6672.75	43.53	12.27	185.66	203.00	510.82	1620.53	1589.46	52.16	
7300.00	6768.65	6850.93	6768.65	43.92	12.39	185.52	203.00	510.82	1648.73	1617.57	52.92	
7400.00	6865.26	6947.54	6865.26	44.27	12.51	185.40	203.00	510.82	1674.43	1643.20	53.63	
7500.00	6962.51	7044.79	6962.51	44.58	12.64	185.29	203.00	510.82	1697.60	1666.33	54.29	
7600.00	7060.34	7142.62	7060.34	44.84	12.77	185.20	203.00	510.82	1718.23	1686.94	54.91	
7700.00	7158.68	7240.96	7158.68	45.07	12.90	185.12	203.00	510.82	1736.30	1705.01	55.48	
7800.00	7257.46	7339.74	7257.46	45.26	13.04	185.05	203.00	510.82	1751.81	1720.53	56.00	
7900.00	7356.61	7438.89	7356.61	45.40	13.18	185.00	203.00	510.82	1764.74	1733.49	56.48	
8000.00	7456.07	7538.35	7456.07	45.51	13.32	184.95	203.00	510.82	1775.07	1743.89	56.92	
8100.00	7555.76	7638.04	7555.76	45.58	13.46	184.92	203.00	510.82	1782.81	1751.71	57.32	
8200.00	7655.63	7737.90	7655.63	45.61	13.60	184.90	203.00	510.82	1787.95	1756.95	57.67	
8300.00	7755.59	7837.87	7755.59	45.61	13.75	184.89	203.00	510.82	1790.48	1759.60	57.99	
8400.00	7855.59	7937.87	7855.59	45.59	13.90	269.34	203.00	510.82	1790.77	1731.28	30.10	
8500.00	7955.59	8037.87	7955.59	45.63	14.05	269.34	203.00	510.82	1790.77	1731.09	30.01	
8600.00	8055.59	8137.87	8055.59	45.68	14.20	269.34	203.00	510.82	1790.77	1730.90	29.91	

# Weatherford Drilling Services

## Anticollision Report



<b>Company:</b>	Anadarko-Kerr-McGee	<b>Date:</b>	7/17/2007	<b>Time:</b>	15:19:46	<b>Page:</b>	3
<b>Field:</b>	UINTAH COUNTY, UTAH (UTM Zone 12N-NAD 27)			<b>Co-ordinate(NE) Reference:</b>	Site: NBU 1022-1313, Grid North		
<b>Reference Site:</b>	NBU 1022-1313	<b>Vertical (TVD) Reference:</b>	SITE 5308.0				
<b>Reference Well:</b>	1313	<b>Db:</b> Sybase					
<b>Reference Wellpath:</b>	1						

Site: NBU 1022-13K4S  
 Well: 13K4S  
 Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr	Edge	Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
8694.41	8150.00	8232.28	8150.00	45.72	14.34	269.34	203.00	510.82	1790.77	1730.71	29.82	

## Kerr-McGee Oil & Gas Onshore LP

NBU #1022-13K-3T, #1022-13O4S, #1022-13O1CS, #1022-13O2S,  
#1022-13D4S, #1022-13I3S, #1022-13O1AS, #1022-13J4S, #1022-  
13I4S, #1022-13L4S, #1022-13L3S, #1022-13K3S, #1022-13M2AS,  
#1022-13N2S, #1022-13N1S, #1022-13M2CS & #1022-13M1S  
SECTION 13, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 0.3 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 12.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 1.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 3.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 0.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN SOUTHWESTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 5.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 1.9 MILES TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 58.7 MILES.

# Kerr-McGee Oil & Gas Onshore LP

NBU #1022-13K-3T, #1022-13O4S, #1022-13O1CS, #1022-13O2S,  
 #1022-13K4S, #1022-13I3S, #1022-13O1AS, #1022-13J4S,  
 #1022-13I4S, #1022-13L4S, #1022-13L3S, #1022-13K3S,  
 #1022-13M2AS, #1022-13N2S, #1022-13N1S, #1022-13M2CS  
 & #1022-13M1S

LOCATED IN UINTAH COUNTY, UTAH  
 SECTION 13, T10S, R22E, S.L.B.&M.

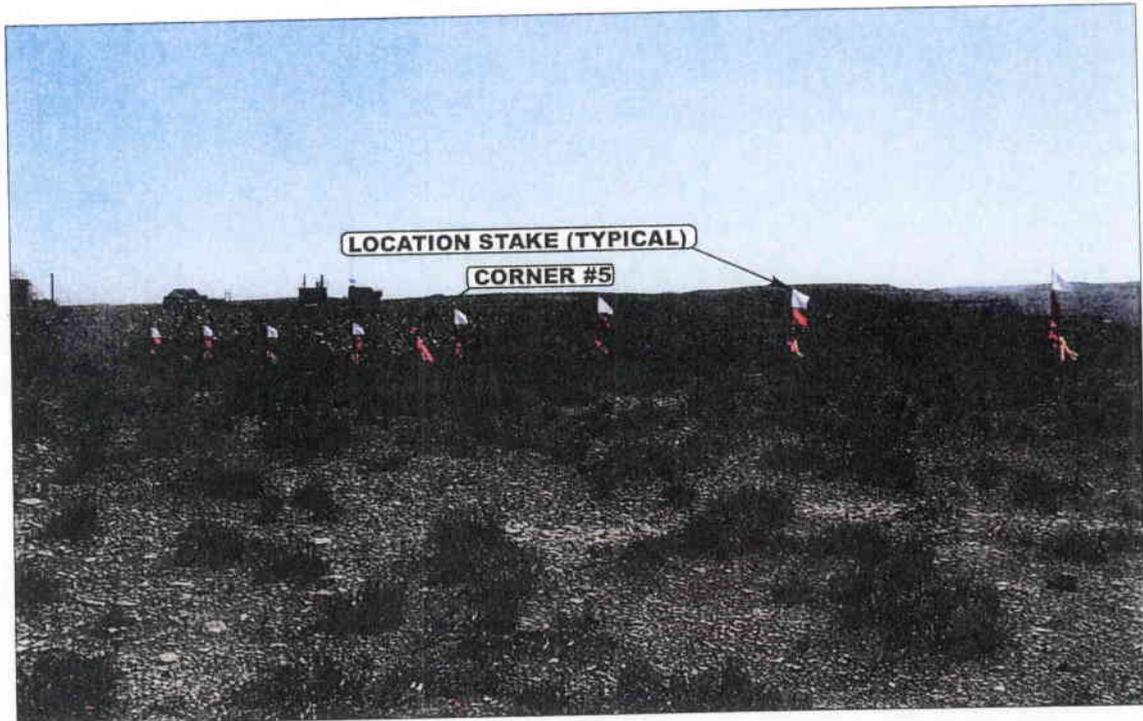


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: SOUTHERLY



PHOTO: VIEW OF EXISTING ACCESS

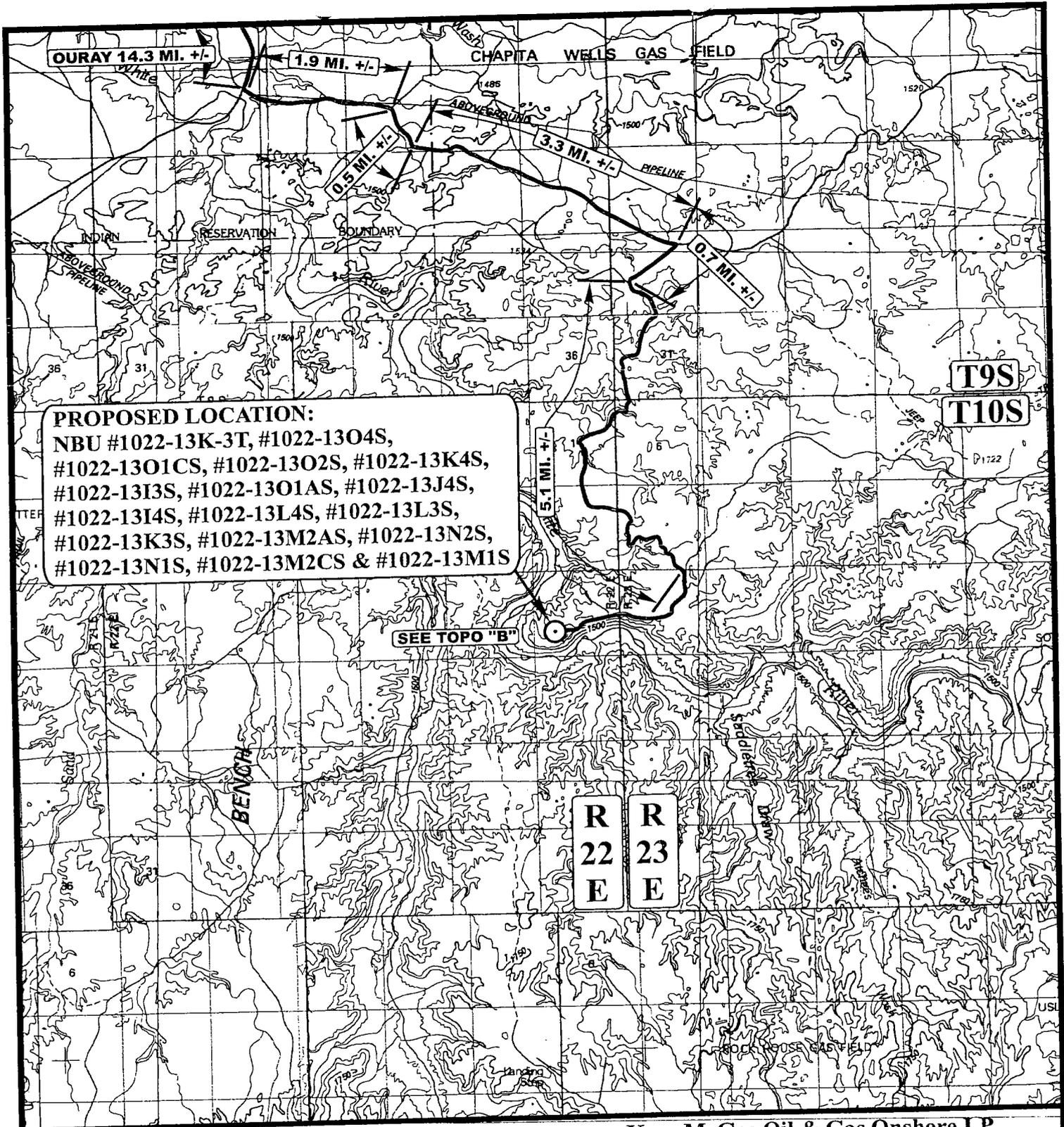
CAMERA ANGLE: WESTERLY



- 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>05</b>	<b>17</b>	<b>07</b>	<b>PHOTO</b>
			MONTH	DAY	YEAR	
TAKEN BY: L.K.	DRAWN BY: C.P.	REVISED: 00-00-00				



**PROPOSED LOCATION:**  
 NBU #1022-13K-3T, #1022-13O4S,  
 #1022-13O1CS, #1022-13O2S, #1022-13K4S,  
 #1022-13I3S, #1022-13O1AS, #1022-13J4S,  
 #1022-13I4S, #1022-13L4S, #1022-13L3S,  
 #1022-13K3S, #1022-13M2AS, #1022-13N2S,  
 #1022-13N1S, #1022-13M2CS & #1022-13M1S

SEE TOPO "B"

R  
22  
E

R  
23  
E

T9S  
T10S

**LEGEND:**

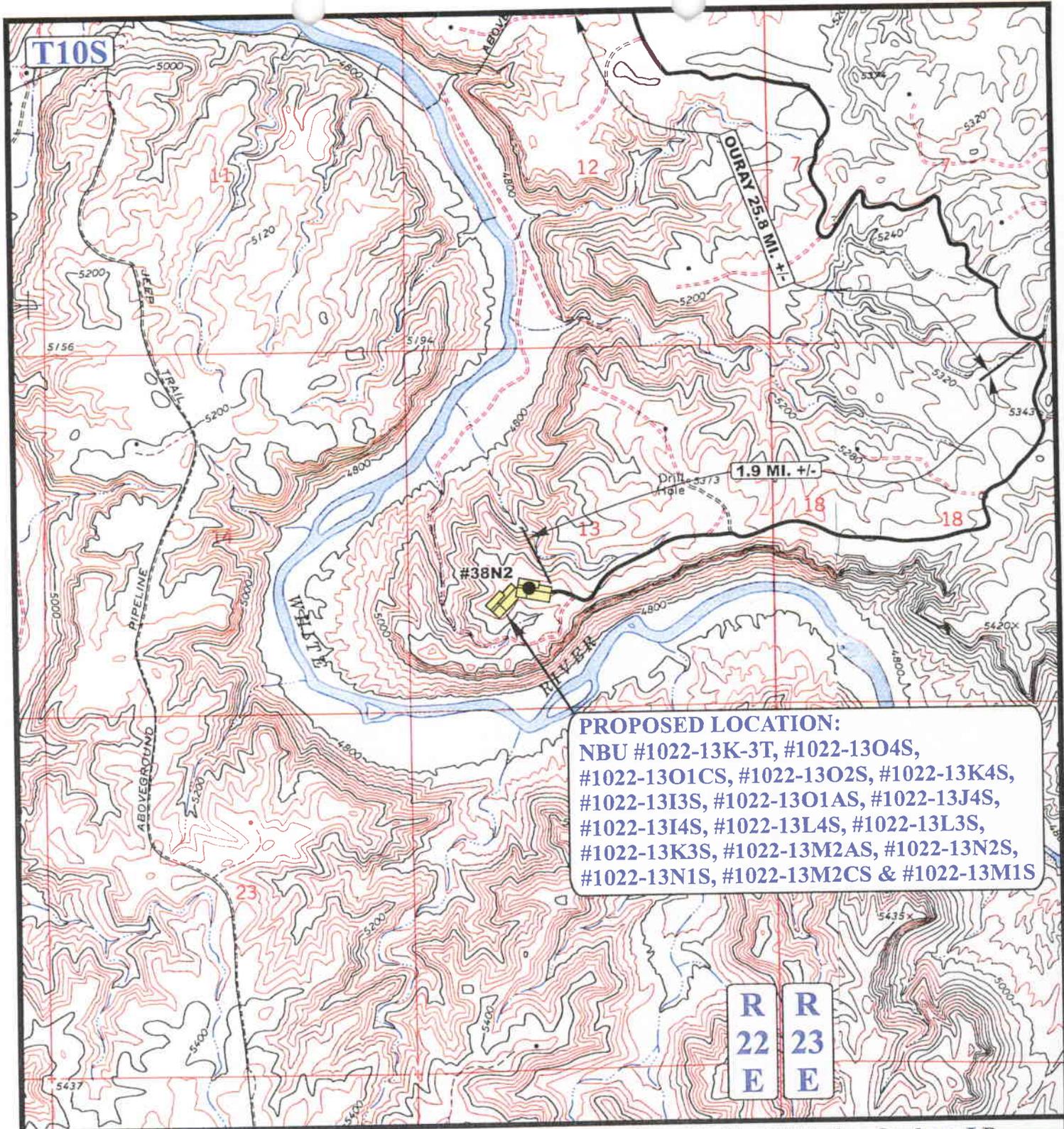
⊙ PROPOSED LOCATION



**Kerr-McGee Oil & Gas Onshore LP**  
 NBU#1022-13K-3T, #1022-13O4S, #1022-13O1CS, #1022-13O2S,  
 #1022-13K4S, #1022-13I3S, #1022-13O1AS, #1022-13J4S,  
 #1022-13I4S, #1022-13L4S, #1022-13L3S, #1022-13K3S,  
 #1022-13M2AS, #1022-13N2S, #1022-13N1S, #1022-13M2CS  
 & #1022-13M1S  
 SECTION 13, T10S, R22E, S.L.B.&M.; SW 1/4

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

**TOPOGRAPHIC MAP** 05 17 07  
 MONTH DAY YEAR  
 SCALE: 1:100,000 DRAWN BY: C.P. REVISED: 00-00-00 **TOPO**



**PROPOSED LOCATION:**  
 NBU #1022-13K-3T, #1022-13O4S,  
 #1022-13O1CS, #1022-13O2S, #1022-13K4S,  
 #1022-13I3S, #1022-13O1AS, #1022-13J4S,  
 #1022-13I4S, #1022-13L4S, #1022-13L3S,  
 #1022-13K3S, #1022-13M2AS, #1022-13N2S,  
 #1022-13N1S, #1022-13M2CS & #1022-13M1S

R R  
 22 23  
 E E

**LEGEND:**

- EXISTING ROAD
- PROPOSED ACCESS ROAD



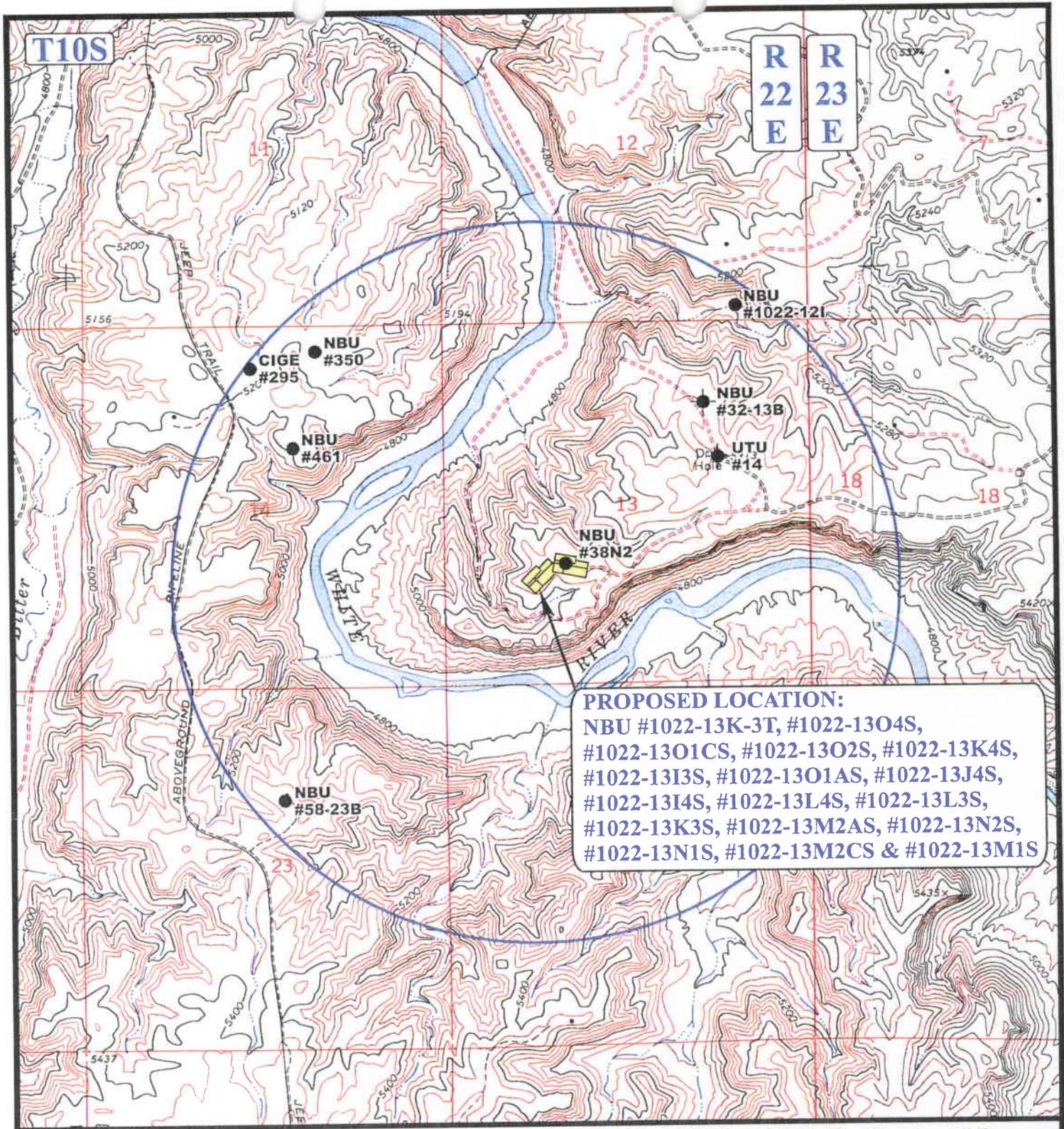
**Kerr-McGee Oil & Gas Onshore LP**

NBU#1022-13K-3T, #1022-13O4S, #1022-13O1CS, #1022-13O2S,  
 #1022-13K4S, #1022-13I3S, #1022-13O1AS, #1022-13J4S,  
 #1022-13I4S, #1022-13L4S, #1022-13L3S, #1022-13K3S,  
 #1022-13M2AS, #1022-13N2S, #1022-13N1S, #1022-13M2CS  
 & #1022-13M1S

SECTION 13, T10S, R22E, S.L.B.&M.; SW 1/4

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

**TOPOGRAPHIC MAP** 05 17 07  
 MONTH DAY YEAR  
 SCALE: 1" = 2000' DRAWN BY: C.P. REVISED: 00-00-00 **B TOPO**



**PROPOSED LOCATION:**  
 NBU #1022-13K-3T, #1022-13O4S,  
 #1022-13O1CS, #1022-13O2S, #1022-13K4S,  
 #1022-13I3S, #1022-13O1AS, #1022-13J4S,  
 #1022-13I4S, #1022-13L4S, #1022-13L3S,  
 #1022-13K3S, #1022-13M2AS, #1022-13N2S,  
 #1022-13N1S, #1022-13M2CS & #1022-13M1S

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

NBU#1022-13K-3T, #1022-13O4S, #1022-13O1CS, #1022-13O2S,  
 #1022-13K4S, #1022-13I3S, #1022-13O1AS, #1022-13J4S,  
 #1022-13I4S, #1022-13L4S, #1022-13L3S, #1022-13K3S,  
 #1022-13M2AS, #1022-13N2S, #1022-13N1S, #1022-13M2CS  
 & #1022-13M1S

SECTION 13, T10S, R22E, S.L.B.&M.; SW 1/4

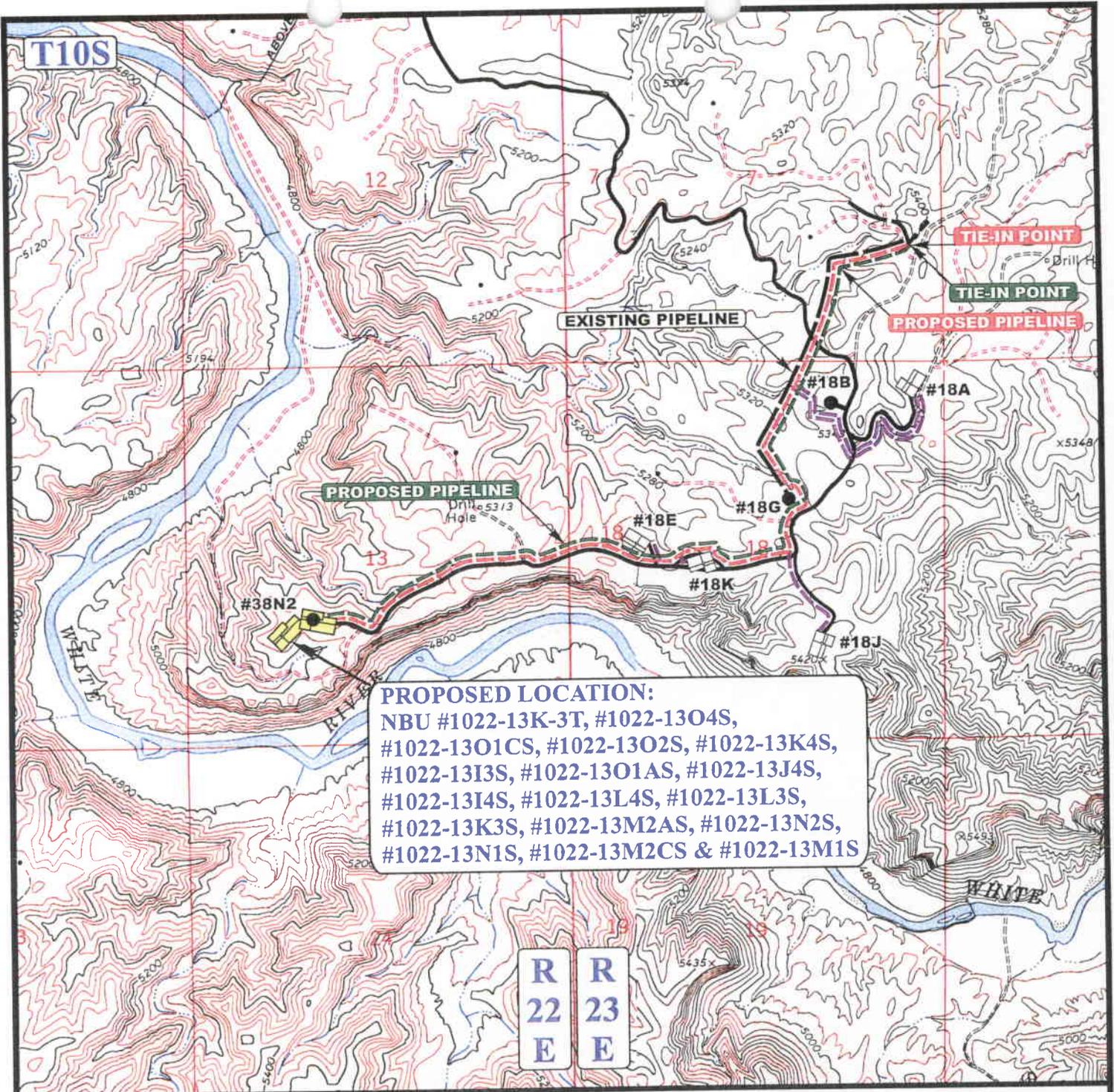
**LEGEND:**

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



**U E L S**  
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 85 South 200 East Vernal, Utah 84078  
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<b>TOPOGRAPHIC</b>	<b>05</b>	<b>17</b>	<b>07</b>	<b>C</b> <b>TOPO</b>
<b>MAP</b>	MONTH	DAY	YEAR	
SCALE: 1" = 2000'	DRAWN BY: C.P.		REVISED: 00-00-00	



APPROXIMATE TOTAL 10" PIPELINE DISTANCE = 12,184' +/-

APPROXIMATE TOTAL 6" PIPELINE DISTANCE = 12,184' +/-

Kerr-McGee Oil & Gas Onshore LP

NBU#1022-13K-3T, #1022-13O4S, #1022-13O1CS, #1022-13O2S,  
 #1022-13K4S, #1022-13I3S, #1022-13O1AS, #1022-13J4S,  
 #1022-13I4S, #1022-13L4S, #1022-13L3S, #1022-13K3S,  
 #1022-13M2AS, #1022-13N2S, #1022-13N1S, #1022-13M2CS  
 & #1022-13M1S

SECTION 13, T10S, R22E, S.L.B.&M.; SW 1/4

**LEGEND:**

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



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

**TOPOGRAPHIC MAP** 05 17 07  
 MONTH DAY YEAR  
 SCALE: 1" = 2000' DRAWN BY: C.P. REVISED: 07-19-07 **D TOPO**

# Kerr-McGee Oil & Gas Onshore LP

NBU #1022-13K-3T, #1022-13O4S, #1022-13O1CS, #1022-13O2S,  
#1022-13K4S, #1022-13I3S, #1022-13O1AS, #1022-13J4S,  
#1022-13I4S, #1022-13L4S, #1022-13L3S, #1022-13K3S,  
#1022-13M2AS, #1022-13N2S, #1022-13N1S, #1022-13M2CS  
& #1022-13M1S

PIPELINE ALIGNMENT  
LOCATED IN UINTAH COUNTY, UTAH  
SECTION 13, T10S, R22E, S.L.B.&M.



PHOTO: VIEW FROM TIE-IN POINT

CAMERA ANGLE: WESTERLY



PHOTO: VIEW OF PIPELINE ALIGNMENT

CAMERA ANGLE: WESTERLY



- Since 1964 -

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

PIPELINE PHOTOS

05 17 07  
MONTH DAY YEAR

PHOTO

TAKEN BY: L.K.

DRAWN BY: C.P.

REVISED: 00-00-00

INTERFERENCE DETAIL FOR

NBU #1022-13K-3T, #1022-13O4S,  
#1022-13O1CS, #1022-13O2S, #1022-13K4S,  
#1022-13I3S, #1022-13O1AS, #1022-13J4S,  
#1022-13I4S, #1022-13L4S, #1022-13L3S,  
#1022-13K3S, #1022-13M2AS, #1022-13N2S,  
#1022-13N1S, #1022-13M2CS & #1022-13M1S  
SECTION 13, T10S, R22E, S.L.B.&M.  
SW 1/4



SCALE: 1" = 50'  
DATE: 6-13-07  
Drawn By: K.G.

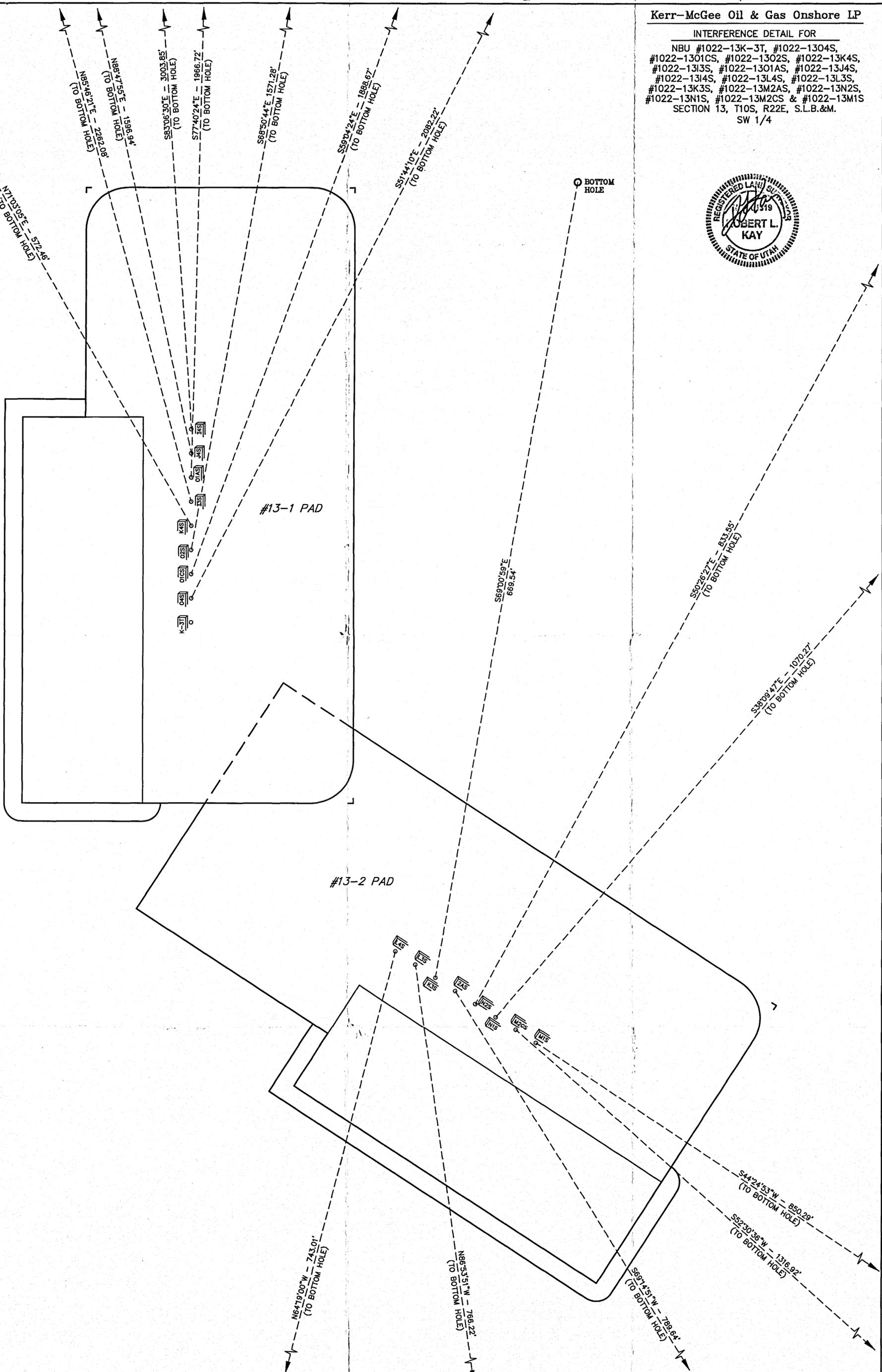


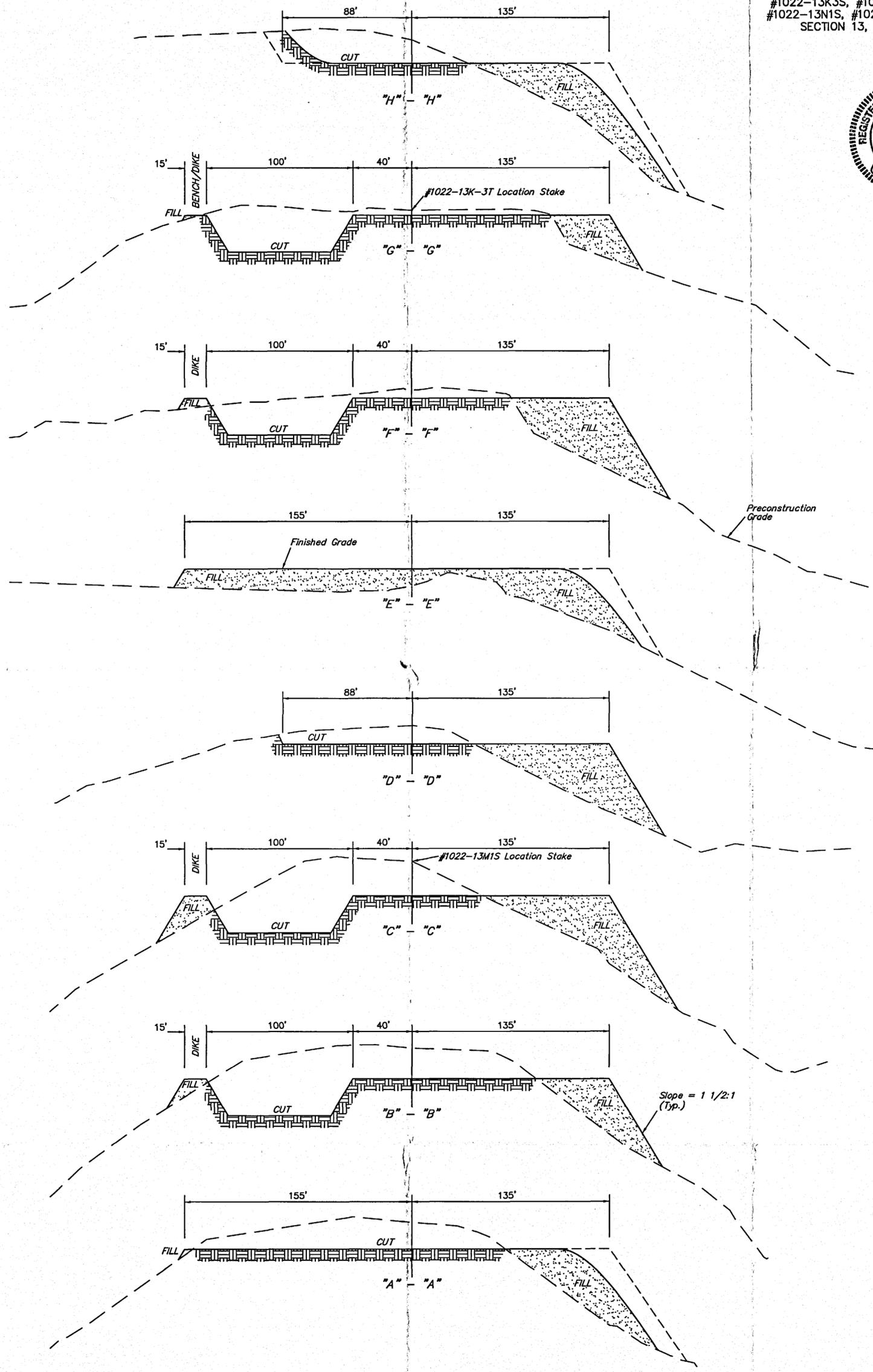
FIGURE #2

TYPICAL CROSS SECTIONS FOR

NBU #1022-13K-3T, #1022-13O4S,  
 #1022-13O1CS, #1022-13O2S, #1022-13K4S,  
 #1022-13I3S, #1022-13O1AS, #1022-13J4S,  
 #1022-13I4S, #1022-13L4S, #1022-13L3S,  
 #1022-13K3S, #1022-13M2AS, #1022-13N2S,  
 #1022-13N1S, #1022-13M2CS & #1022-13M1S  
 SECTION 13, T10S, R22E, S.L.B.&M.  
 SW 1/4



1" = 20'  
 X-Section  
 Scale  
 1" = 50'  
 DATE: 6-13-07  
 Drawn By: K.G.



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

APPROXIMATE YARDAGES FOR #13-1 PAD

CUT	=	3,160 Cu. Yds.
(6") Topsoil Stripping	=	18,230 Cu. Yds.
Remaining Location		
<b>TOTAL CUT</b>	<b>=</b>	<b>21,390 CU.YDS.</b>
<b>FILL</b>	<b>=</b>	<b>13,580 CU.YDS.</b>
<b>EXCESS MATERIAL</b>	<b>=</b>	<b>7,810 Cu. Yds.</b>
Topsoil & Pit Backfill	=	7,810 Cu. Yds.
(1/2 Pit Vol.)		
<b>EXCESS UNBALANCE</b>	<b>=</b>	<b>0 Cu. Yds.</b>
(After Interim Rehabilitation)		

APPROXIMATE YARDAGES FOR #13-2 PAD

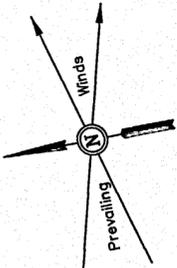
CUT	=	2,860 Cu. Yds.
(6") Topsoil Stripping	=	24,050 Cu. Yds.
Remaining Location		
<b>TOTAL CUT</b>	<b>=</b>	<b>26,910 CU.YDS.</b>
<b>FILL</b>	<b>=</b>	<b>19,710 CU.YDS.</b>
<b>EXCESS MATERIAL</b>	<b>=</b>	<b>7,200 Cu. Yds.</b>
Topsoil & Pit Backfill	=	7,200 Cu. Yds.
(1/2 Pit Vol.)		
<b>EXCESS UNBALANCE</b>	<b>=</b>	<b>0 Cu. Yds.</b>
(After Interim Rehabilitation)		

\* NOTE:  
 FILL QUANTITY INCLUDES  
 5% FOR COMPACTION

LOCATION LAYOUT FOR

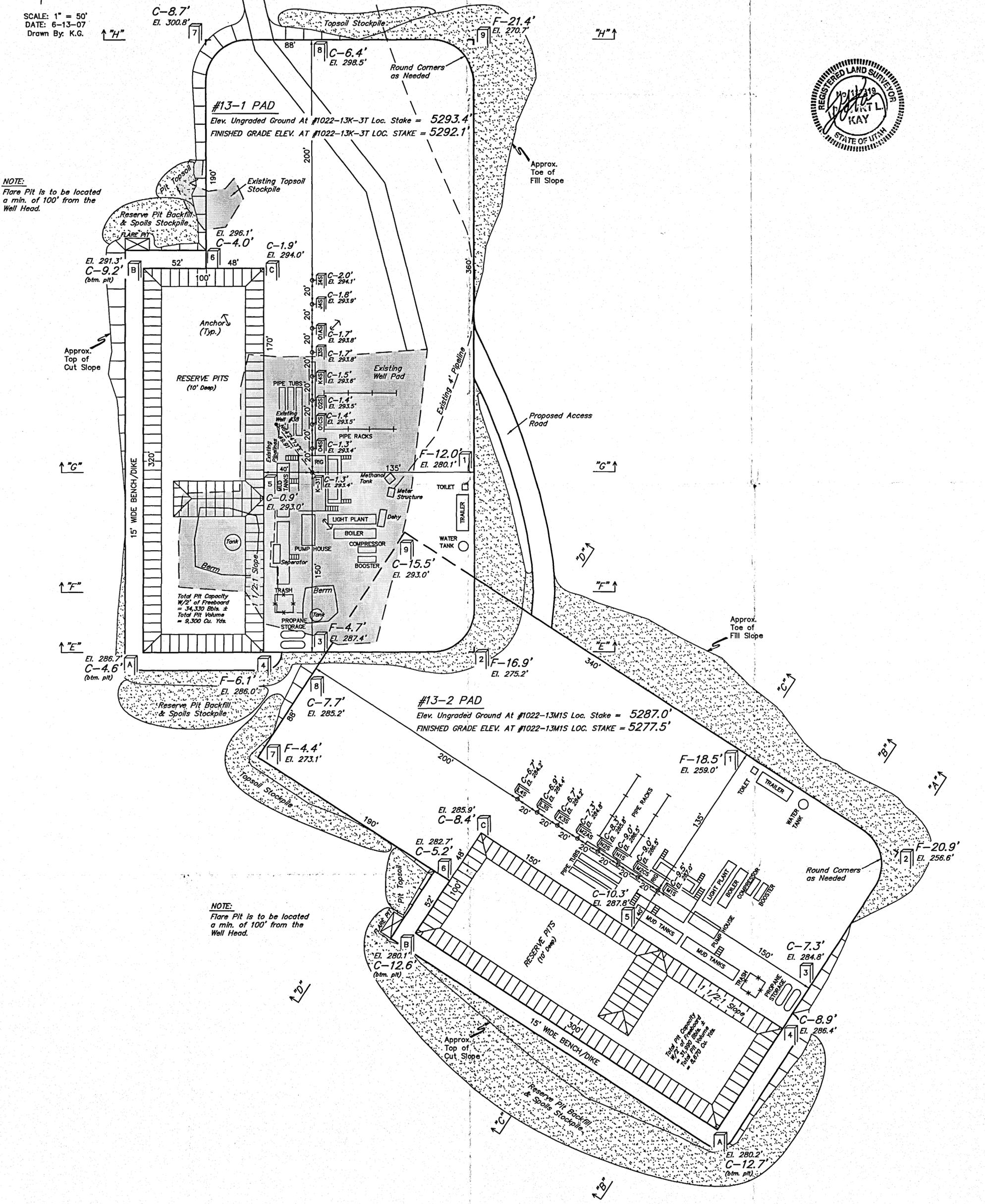
NBU #1022-13K-3T, #1022-13O4S,  
 #1022-13O1CS, #1022-13O2S, #1022-13K4S,  
 #1022-13I3S, #1022-13O1AS, #1022-13J4S,  
 #1022-13I4S, #1022-13L4S, #1022-13L3S,  
 #1022-13K3S, #1022-13M2AS, #1022-13N2S,  
 #1022-13N1S, #1022-13M2CS & #1022-13M1S  
 SECTION 13, T10S, R22E, S.L.B.&M.  
 SW 1/4

FIGURE #1



SCALE: 1" = 50'  
 DATE: 6-13-07  
 Drawn By: K.G.

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



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

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 08/06/2007

API NO. ASSIGNED: 43-047-39474

WELL NAME: NBU 1022-1313S  
 OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )  
 CONTACT: SHEILA UPCHEGO

PHONE NUMBER: 435-781-7024

PROPOSED LOCATION:

NESE

NESE  
 NESW 13 100S 220E  
 SURFACE: 1735 FSL 1764 FWL  
 BOTTOM: 1900 FSL 1225 FEL  
 COUNTY: UINTAH  
 LATITUDE: 39.94643 LONGITUDE: -109.3907  
 UTM SURF EASTINGS: 637480 NORTHINGS: 4422842  
 FIELD NAME: NATURAL BUTTES ( 630 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	DVED	8/31/07
Geology		
Surface		

LEASE TYPE: 3 - State  
 LEASE NUMBER: STUO-08512-ST  
 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: 12-2-94  
Siting: 460' fr u5dly & uue mm. Tract
- R649-3-11. Directional Drill

COMMENTS:

Needs Pres to (06-27-07)

STIPULATIONS:

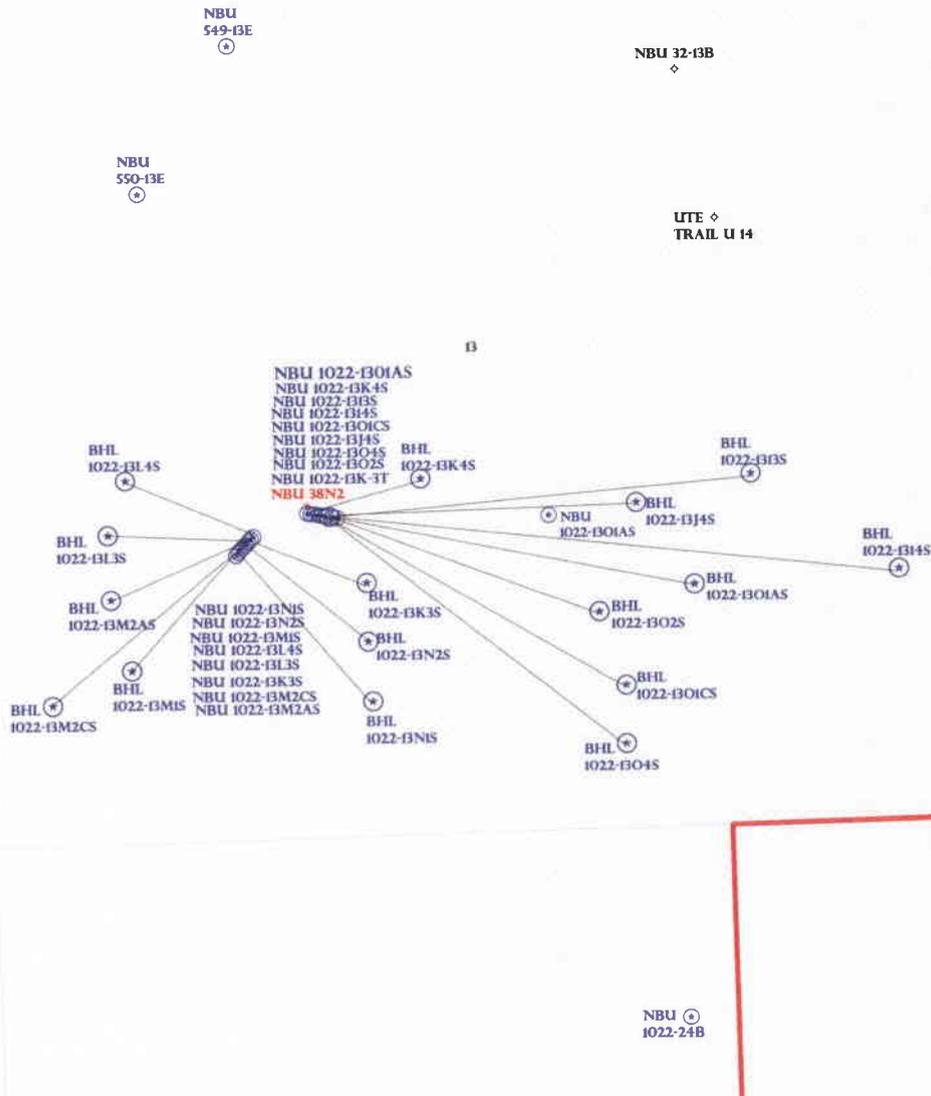
- 1- STATEMENT OF BASIS
- 2- Oil Shale
- 3- Surface Csg Cont Step

T10S R22E

T10S R23E

# NATURAL BUTTES FIELD NATURAL BUTTES UNIT

CAUSE: 173-14 / 12-2-1999



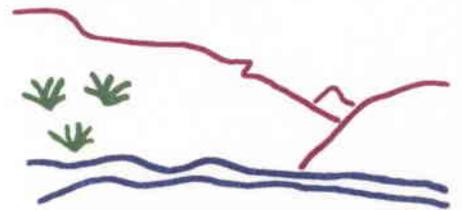
OPERATOR: KERR MCGEE O&G (N2995)

SEC: 13 T.10S R. 22E

FIELD: NATURAL BUTTES (630)

COUNTY: UINTAH

CAUSE: 173-14 / 12-2-1999



Utah Oil Gas and Mining

### Wells Status

- GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- NEW LOCATION
- PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- TEMP. ABANDONED
- TEST WELL
- WATER INJECTION
- WATER SUPPLY
- WATER DISPOSAL
- DRILLING

- ### Field Status
- ABANDONED
  - ACTIVE
  - COMBINED
  - INACTIVE
  - PROPOSED
  - STORAGE
  - TERMINATED

- ### Unit Status
- EXPLORATORY
  - GAS STORAGE
  - NF PP OIL
  - NF SECONDARY
  - PENDING
  - PI OIL
  - PP GAS
  - PP GEOTHERML
  - PP OIL
  - SECONDARY
  - TERMINATED



PREPARED BY: DIANA MASON  
DATE: 8-AUGUST-2007

# Application for Permit to Drill

## Statement of Basis

8/15/2007

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Ownr	CBM
481	43-047-39474-00-00		GW	S	No
<b>Operator</b>	KERR-MCGEE OIL & GAS ONSHORE, LP		<b>Surface Owner-APD</b>		
<b>Well Name</b>	NBU 1022-1313S		<b>Unit</b>		
<b>Field</b>	UNDESIGNATED		<b>Type of Work</b>		
<b>Location</b>	NESW 13 10S 22E S 1735 FSL 1764 FWL GPS Coord (UTM) 637480E 4422842N				

### Geologic Statement of Basis

Kerr McGee proposes to set 2,100' 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 13. 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

8/15/2007  
Date / Time

### Surface Statement of Basis

The general area is in the southeast end of the Natural Buttes Unit, which contains the White River and short rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¼ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43 air miles to the northwest. Access from Ouray, Utah is approximately 27.7 road miles following Utah State, Uintah County and oilfield development roads to the location.

Seventeen new gas wells are proposed on two connected pads. The pads form a dogleg with the upper pad (#13-1) extending in an east-west direction and the lower pad (#13-2) in a northeast to southwest direction. Corners of the pads overlap with fill from the upper pad, corner 2, extending onto the lower pad at corner 9. Finished elevation of the upper pad is 15 feet higher than the lower pad. A road is proposed on the inside of the dog-leg ramping down to the lower pad. The pads are located on top of a medium width to narrow ridge-top elevated about 500 vertical feet above the White River. The White River forms a bend in the area and somewhat surrounds the locations except on the east-northeast sides. Closest horizontal distance to any well is approximately 1550 feet. Slopes from the ridge steepen and become near vertical sandstone ledges short distances from the pads. Soils are shallow with a rocky subsurface. Except for reserve pit construction blasting is not expected to be required. Pad construction will primarily consist of excavating the top of the ridge filling on the sides of the ridge. All fills will catch on existing natural side slopes. No drainage concerns exist. Elongated reserve pits are planned. Pits will be in cut except along corner 'C' on the lower #13-2 pad and corner 'F' on the upper #13-1 pad. Both areas will be reinforced with embankments which include a 15' wide bench and spoils storage. Reserve pits will be lined with double 20 mil. liners and a appropriate thickness of sub felt to cushion all rocks. A pad for a producing gas well (NBU #38-N2) exist on a portion of the upper pad. Area encompassed for the pads not including spoils storage is approximately 6.7 acres.

When the wells are completed the west tank on the west corner of the upper pad will be in view for about 1/8 mile along the river bottom. Even though rafters would have to look behind them to see this tank, Kerr McGee agreed to use a low profile tank for this location.

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# Application for Permit to Drill

## Statement of Basis

8/15/2007

Utah Division of Oil, Gas and Mining

Page 2

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Both the surface and minerals for this location are owned by SITLA. Jim Davis of SITLA attended the pre-site visit and expressed no concerns regarding the proposed location except for those discussed above.

The location appears to be the only site for constructing pads and drilling and operating multiple wells in the area.

It was mutually agreed that the most significant environmental concern with drilling and operating wells in this area was to avoid any leaks or spills from the operations reaching the White River. To reduce chances of this happening, Carroll Estes of Kerr McGee committed to line the pit with a double 20 mil liner with an appropriate thickness of felt sub-liner dependent upon the roughness of the surface of the constructed pit. He also stated they would formulate and follow a plan to monitor the level of fluids in the reserve pit as well as observing the surrounding terrain for any possible leaks. Corrugated metal containments will be constructed around all tanks used for production.

Floyd Bartlett  
Onsite Evaluator

6/27/2007  
Date / Time

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

Category	Condition
Pits	A double synthetic liner each with a minimum thickness of 20 mils and an appropriate thickness of felt sub-liner to cushion the liners 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 1022-1313S  
**API Number** 43-047-39474-0      **APD No** 481      **Field/Unit** UNDESIGNATED  
**Location:** 1/4,1/4 NESW      **Sec** 13      **Tw** 10S      **Rng** 22E      1735 FSL 1764 FWL  
**GPS Coord (UTM)** 637491      4422845      **Surface Owner**

### Participants

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

### Regional/Local Setting & Topography

The general area is in the southeast end of the Natural Buttes Unit, which contains the White River and short rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¼ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43 air miles to the northwest. Access from Ouray, Utah is approximately 27.7 road miles following Utah State, Uintah County and oilfield development roads to the location.

Seventeen new gas wells are proposed on two connected pads. The pads form a dogleg with the upper pad (#13-1) extending in an east-west direction and the lower pad (#13-2) in a northeast to southwest direction. Corners of the pads overlap with fill from the upper pad, corner 2, extending onto the lower pad at corner 9. Finished elevation of the upper pad is 15 feet higher than the lower pad. A road is proposed on the inside of the dog-leg ramping down to the lower pad. The pads are located on top of a medium width to narrow ridge-top elevated about 500 vertical feet above the White River. The White River forms a bend in the area and somewhat surrounds the locations except on the east-northeast sides. Closest horizontal distance to any well is approximately 1550 feet. Slopes from the ridge steepen and become near vertical sandstone ledges short distances from the pads. Soils are shallow with a rocky subsurface. Except for reserve pit construction blasting is not expected to be required. Pad construction will primarily consist of excavating the top of the ridge filling on the sides of the ridge. All fills will catch on existing natural side slopes. No drainage concerns exist. Elongated reserve pits are planned. Pits will be in cut except along corner 'C' on the lower #13-2 pad and corner 'F' on the upper #13-1 pad. Both areas will be reinforced with embankments which include a 15' wide bench and spoils storage. Reserve pits will be lined with double 20 mil. liners and a appropriate thickness of sub felt to cushion all rocks. A pad for a producing gas well (NBU #38-N2) exist on a portion of the upper pad. Area encompassed for the pads not including spoils storage is approximately 6.7 acres.

Both the surface and minerals for this location are owned by SITLA.

### Surface Use Plan

#### **Current Surface Use**

Grazing  
Recreational  
Wildlfe Habitat  
Existing Well Pad

#### **New Road**

Miles	Well Pad	Src Const Material	Surface Formation
0	Width 290	Length 510	Onsite

**Ancillary Facilities** N

**Waste Management Plan Adequate?**

**Environmental Parameters**

**Affected Floodplains and/or Wetland** N

**Flora / Fauna**

Moderately vegetated with black sagebrush, halogeton, shadscale, rabbit brush, broom snakeweed, cheatgrass, six-week fescue and spring annuals.

Antelope, coyote, small mammals and birds. Winter domestic sheep grazing

**Soil Type and Characteristics**

Shallow gravely 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?** Y    **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	20
<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>	<b>35</b>
		<b>1 Sensitivity Level</b>

**Characteristics / Requirements**

The reserve pit is proposed on the northwest corner of the upper pad. Portions of the outer edge will be within partial fill. A 15' wide bench/dike is planned along the outer edge as well as reserve pit spoils storage along the west end. Finished pit dimensions are 100' x 320' x 10' deep. Carroll Estes of Kerr McGee committed to line the pit with a double 20 mil liner with an appropriate thickness of felt sub-liner dependent upon the roughness of the surface of the constructed pit.

**Closed Loop Mud Required?** N    **Liner Required?** Y    **Liner Thickness** 40    **Pit Underlayment Required?** Y

**Other Observations / Comments**

Daniel Emmet represented the Utah Division of Wildlife Resources. Mr. Emmet stated the area is classified as critical yearlong habitat for antelope. He however recommended no stipulations for this species as the loss of forage from this location is not significant and water not forage is the factor limiting the herd population in the area. No other wildlife is expected to be affected. He gave Carrol Estes, representing Kerr McGee, and Jim Davis copies of his evaluation and a DWR recommended seed mix to use when re-vegetating the area.

Floyd Bartlett  
Evaluator

6/27/2007  
Date / Time

2007-08 Kerr McGee NBU 1022-1313S

Casing Schematic

BHP  $0.052(8150)11.6 = 4916 \text{ psi}$   
 anticipate - 5053 psi

Gas  $.12(8150) = 978$   
 MASP = 4075 psi

BOPE 5M ✓

Burst 2270  
 70% 1589 psi

Max P @ surf. shoe

$.22(6050) 1331$

$4916 - 1331 = 3585 \text{ psi}$

max press. @ surf. shoe = 2100 psi (1 psi/ft frac grad.)

test to 1589 psi ✓

✓ Adequate over 8/31/07

Surface

12  
181

TOC @ 0.

Uinta

to surf. w/s? w/o ✓  
 TOC @ 738. 951' Green River \* Surf St. D  
 1252' Birds Nest propose to surface  
 1626' Mahogany

Surface  
 2100. MD  
 2100. TVD

9-5/8"  
 MW 8.3  
 Frac 19.3

3988' Wasatch

4300' ± BMSW

6221' Mesaverde

7053' MV U2

7611' MV L1

4-1/2"  
 MW 11.6

Production  
 8694. MD  
 8150. TVD

Well name:	<b>2007-08 Kerr McGee NBU 1022-1313S</b>	
Operator:	<b>Kerr McGee Oil &amp; Gas Onshore L.P.</b>	Project ID:
String type:	Surface	43-047-39474
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

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 75 °F  
 Bottom hole temperature: 104 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,300 ft

Cement top: 738 ft

**Burst**

Max anticipated surface pressure: 1,848 psi  
 Internal gradient: 0.120 psi/ft  
 Calculated BHP 2,100 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)

Tension is based on buoyed weight.  
 Neutral point: 1,844 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 8,150 ft  
 Next mud weight: 11.600 ppg  
 Next setting BHP: 4,911 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 2,100 ft  
 Injection pressure: 2,100 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	2100	9.625	32.30	H-40	ST&C	2100	2100	8.876	927.9

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	905	1370	1.513	2100	2270	1.08	60	254	4.26 J

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

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

Date: August 27, 2007  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 2100 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.

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

Well name:	<b>2007-08 Kerr McGee NBU 1022-1313S</b>		
Operator:	<b>Kerr McGee Oil &amp; Gas Onshore L.P.</b>		
String type:	Production	Project ID:	43-047-39474
Location:	Uintah County, Utah		

**Design parameters:**

**Collapse**

Mud weight: 11.600 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: 189 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,500 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 3,118 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP 4,911 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)

Tension is based on buoyed weight.  
 Neutral point: 7,266 ft

**Directional Info - Build & Drop**

Kick-off point 2160 ft  
 Departure at shoe: 2312 ft  
 Maximum dogleg: 2.5 °/100ft  
 Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	8694	4.5	11.60	I-80	LT&C	8150	8694	3.875	758.7

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	4911	6360	1.295	4911	7780	1.58	78	212	2.71 J

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

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

Date: August 27, 2007  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 8150 ft, a mud weight of 11.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

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



Kerr McGee Oil and Gas Onshore LP  
1368 SOUTH 1200 EAST • VERNAL, UT 84078  
435-789-4433 • FAX 435-781-7094

July 31, 2007

Diana Whitney  
State of Utah  
Division of Oil, Gas and Mining  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

RE: Directional Drilling R649-3-11  
NBU 1022-13I3S 1735'FSL, 1764'FWL (Surface)  
1900'FSL, 1225'FEL (Bottomhole)  
Uintah County, Utah

Dear Ms. Whitney:

Pursuant to filling of Kerr McGee Oil & Gas Onshore L.P. Application for Permit to Drill regarding the above referenced well on July 31, 2007, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to location and siting of wells.

- NBU 1022-13I3S is located within the Natural Buttes Unit Area.
- Kerr McGee Oil & Gas Onshore L.P., is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr McGee Oil & Gas Onshore L.P., will be able to utilize the existing road and pipeline in the area.
- Furthermore, Kerr McGee Oil & Gas Onshore L.P. hereby certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,



Sheila Upchego  
Senior Land Admin Specialist

RECEIVED

AUG 06 2007

DIV. OF OIL, GAS & MINING

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

August 9, 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)		
43-047-39473	NBU 1022-13K4S	Sec 13 T10S R22E 1739 FSL 1745 FWL
	BHL	Sec 13 T10S R22E 1925 FSL 2280 FWL
43-047-39474	NBU 1022-1313S	Sec 13 T10S R22E 1735 FSL 1764 FWL
	BHL	Sec 13 T10S R22E 1900 FSL 1225 FEL
43-047-39475	NBU 1022-1314S	Sec 13 T10S R22E 1724 FSL 1824 FWL
	BHL	Sec 13 T10S R22E 1360 FSL 0440 FEL
43-047-39476	NBU 1022-1301CS	Sec 13 T10S R22E 1747 FSL 1705 FWL
	BHL	Sec 13 T10S R22E 0775 FSL 1920 FEL
43-047-39477	NBU 1022-13J4S	Sec 13 T10S R22E 1728 FSL 1804 FWL
	BHL	Sec 13 T10S R22E 1760 FSL 1845 FEL
43-047-39478	NBU 1022-1301AS	Sec 13 T10S R22E 1731 FSL 1784 FWL
	BHL	Sec 13 T10S R22E 1310 FSL 1540 FEL
43-047-39479	NBU 1022-1302S	Sec 13 T10S R22E 1743 FSL 1725 FWL
	BHL	Sec 13 T10S R22E 1175 FSL 2055 FEL

43-047-39480	NBU 1022-1304S	Sec 13 T10S R22E 1750 FSL 1686 FWL
	BHL	Sec 13 T10S R22E 0460 FSL 1925 FEL
43-047-39481	NBU 1022-13K3S	Sec 13 T10S R22E 1610 FSL 1343 FWL
	BHL	Sec 13 T10S R22E 1370 FSL 1975 FWL
43-047-39482	NBU 1022-13M1S	Sec 13 T10S R22E 1538 FSL 1275 FWL
	BHL	Sec 13 T10S R22E 0930 FSL 0700 FWL
43-047-39483	NBU 1022-13M2AS	Sec 13 T10S R22E 1595 FSL 1329 FWL
	BHL	Sec 13 T10S R22E 1315 FSL 0600 FWL
43-047-39484	NBU 1022-13N1S	Sec 13 T10S R22E 1566 FSL 1302 FWL
	BHL	Sec 13 T10S R22E 0725 FSL 1990 FWL
43-047-39485	NBU 1022-13L3S	Sec 13 T10S R22E 1624 FSL 1356 FWL
	BHL	Sec 13 T10S R22E 1665 FSL 0590 FWL
43-047-39486	NBU 1022-13L4S	Sec 13 T10S R22E 1638 FSL 1370 FWL
	BHL	Sec 13 T10S R22E 1960 FSL 0690 FWL
43-047-39487	NBU 1022-13N2S	Sec 13 T10S R22E 1581 FSL 1316 FWL
	BHL	Sec 13 T10S R22E 1050 FSL 1975 FWL
43-047-39488	NBU 1022-13M2CS	Sec 13 T10S R22E 1552 FSL 1289 FWL
	BHL	Sec 13 T10S R22E 0750 FSL 0270 FWL
43-047-39489	NBU 1022-13K-3T	Sec 13 T10S R22E 1754 FSL 1666 FWL

Our records indicate the bottom hole location of the NBU 1022-1314S is closer than 460 feet from the Natural Buttes Unit boundary.

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:8-9-07

**From:** Ed Bonner  
**To:** Mason, Diana  
**Date:** 8/20/2007 3:07 PM  
**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:

Cabot Oil & Gas Corporation  
McKenna 21-32 (API 43 037 31863)

Kerr McGee Oil & Gas Onshore LP  
NBU 1022-13K4S (API 43 047 39473)  
NBU 1022-13I3S (API 43 047 39474)  
NBU 1022-13I4S (API 43 047 39475)  
NBU 1022-13O1CS (API 43 047 39476)  
NBU 1022-13J4S (API 43 047 39477)  
NBU 1022-13O1AS (API 43 047 39478)  
NBU 1022-13O2S (API 43 047 39479)  
NBU 1022-13O4S (API 43 047 39480)  
NBU 1022-13K3S (API 43 047 39481)  
NBU 1023-13M1S (API 43 047 39482)  
NBU 1022-13M2AS (API 43 047 39483)  
NBU 1022-13N1S (API 43 047 39484)  
NBU 1022-13L3S (API 43 047 39485)  
NBU 1022-13L4S (API 43 047 39486)  
NBU 1022-13N2S (API 43 047 39487)  
NBU 1022-13M2SC (API 43 047 39488)  
NBU 1022-13K-3T (API 43 047 39489)

Petro-Canada Resources (USA), Inc  
State 16-41 (API 43 015 30721)  
State 32-44 (API 43 015 30722)

Royale Energy, Inc  
Vernal Equinox 2-2 (API 43 019 31552)

XTO Energy, Inc  
State of Utah 16-8-31-13 (API 43 015 30719)  
State of Utah 16-8-31-33D (API 43 015 30718)

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

September 4, 2007

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

Re: Natural Buttes Unit 1022-1313S Well, 1735' FSL, 1764' FWL, NE SW, Sec. 13,  
T. 10 South, R. 22 East, Bottom Location 1900' FSL, 1225' FEL, NE SE, Sec. 13,  
T. 10 South, R. 22 East, Uintah County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-39474.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

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



**Operator:** Kerr McGee Oil & Gas Onshore LP  
**Well Name & Number** Natural Buttes Unit 1022-13I3S  
**API Number:** 43-047-39474  
**Lease:** STUO-08512-ST

**Location:** NE SW **Sec.** 13 **T.** 10 South **R.** 22 East  
**Bottom Location:** NE SE **Sec.** 13 **T.** 10 South **R.** 22 East

### Conditions of Approval

#### 1. General

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

#### 2. Notification Requirements

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 Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.
7. 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.
8. Surface casing shall be cemented to the surface.

# DIVISION OF OIL, GAS AND MINING

## **SPUDDING INFORMATION**

Name of Company: KERR-McGEE OIL & GAS ONSHORE, LP

Well Name: NBU 1022-13I3S

Api No: 43-047-39474 Lease Type: STATE

Section 13 Township 10S Range 22E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # BUCKET

### **SPUDDED:**

Date 11/15/07

Time 7:00 AM

How DRY

**Drilling will Commence:** \_\_\_\_\_

Reported by SHEILA UPCHEGO

Telephone # (435) 781-7024

Date 11/16/07 Signed CHD

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

FORM 6

ENTITY ACTION FORM

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

Well 1 43047-39475

API Number	Well Name		QQ	Sec	Twp	Rng	County
<del>4304739474</del>	NBU 1022-1314S		NESW	13	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	11/15/2007			<u>11/26/07</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 11/15/2007 AT 1900 HRS. <u>BHL = NESE</u>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304739474	NBU 1022-1313S		NESW	13	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	11/15/2007			<u>11/26/07</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 11/15/2007 AT 7:00 AM. <u>BHL = NESE</u>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304739478	NBU 1022-1301AS		NESW	13	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	11/15/2007			<u>11/26/07</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 11/15/2007 AT 11:00 AM <u>BHL = SWSE</u>							

ACTION CODES:

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

SHEILA UPCHEGO

Name (Please Print)

Signature

SENIOR LAND SPECIALIST

11/16/2007

Title

Date

RECEIVED

NOV 19 2007

DIV. OF OIL, GAS & MINING

**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>STUO-08512-ST</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 type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME: <b>UNIT #891008900A</b>
2. NAME OF OPERATOR: <b>KERR MCGEE OIL &amp; GAS ONSHORE LP</b>		8. WELL NAME and NUMBER: <b>NBU 1022-1313S</b>
3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY <b>VERNAL</b> STATE <b>UT</b> ZIP <b>84078</b>		9. API NUMBER: <b>4304739474</b>
4. LOCATION OF WELL FOOTAGES AT SURFACE: <b>1735'FSL, 1764'FWL</b>		10. FIELD AND POOL, OR WILDCAT: <b>NATURAL BUTTES</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>NESW 13 10S 22E</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 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"/> 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 checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of work completion: _____	<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>WELL SPUD</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.

**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 11/15/2007 AT 7:00 AM.**

**RECEIVED**  
**NOV 20 2007**  
**DIV. OF OIL, GAS & MINING**

NAME (PLEASE PRINT) <b>SHEILA UPCHEGO</b>	TITLE <b>SENIOR LAND ADMIN SPECIALIST</b>
SIGNATURE	DATE <b>11/16/2007</b>

**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>STUO-08512-ST</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 type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME: <b>UNIT #891008900A</b>
2. NAME OF OPERATOR: <b>KERR MCGEE OIL &amp; GAS ONSHORE LP</b>		8. WELL NAME and NUMBER: <b>NBU 1022-1313S</b>
3. ADDRESS OF OPERATOR: <b>1368 SOUTH 1200 EAST</b> CITY <b>VERNAL</b> STATE <b>UT</b> ZIP <b>84078</b>		9. API NUMBER: <b>4304739474</b>
4. LOCATION OF WELL FOOTAGES AT SURFACE: <b>1735'FSL, 1764'FWL</b>		10. FIELD AND POOL, OR WILDCAT: <b>NATURAL BUTTES</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>NESW 13 10S 22E</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 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"/> 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 checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<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>SET SURFACE CSG</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.

MIRU BILL MARTIN AIR RIG ON 12/02/2007. DRILLED 12 1/4" SURFACE HOLE TO 2160'. RAN 9 5/8" 36# J-55 SURFACE CSG. LEAD CMT W/200 SX HIFILL CLASS G @11.0 PPG 3.82 YIELD. TAILED CMT W/200 SX PREM CLASS G @11.0 PPG 1.15 YIELD. NO RETURNS TO PIT 160 PSI LIFT. TOP OUT W/125 SX PREM CLASS G @15.8 PPG 1.15 YIELD DOWN BACKSIDE. 2ND TOP OUT W/275 SX PREM CLASS G @15.8 PPG 1.15 YIELD DOWN BACKSIDE GOOD CMT TO SURFACE HOLE STAYED FULL.

WORT

NAME (PLEASE PRINT) <b>SHEILA UPCHEGO</b>	TITLE <b>SENIOR LAND ADMIN SPECIALIST</b>
SIGNATURE	DATE <b>12/26/2007</b>

(This space for State use only)

**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>STUO-08512-ST</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 type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____			7. UNIT or CA AGREEMENT NAME: <b>UNIT #891008900A</b>
2. NAME OF OPERATOR: <b>KERR MCGEE OIL &amp; GAS ONSHORE LP</b>			8. WELL NAME and NUMBER: <b>NBU 1022-1313S</b>
3. ADDRESS OF OPERATOR: <b>1368 SOUTH 1200 EAST</b> CITY <b>VERNAL</b> STATE <b>UT</b> ZIP <b>84078</b>		PHONE NUMBER: <b>(435) 781-7024</b>	9. API NUMBER: <b>4304739474</b>
4. LOCATION OF WELL FOOTAGES AT SURFACE: <b>1735'FSL, 1764'FWL</b>			10. FIELD AND POOL, OR WILDCAT: <b>NATURAL BUTTES</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>NESW 13 10S 22E</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 type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will start: _____  <input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of work completion: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<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>PRODUCTION</b>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	<b>START-UP</b>

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

THE SUBJECT WELL LOCATION WAS PLACED ON PRODUCTION ON 05/15/2008 AT 12:00 PM.

PLEASE REFER TO THE ATTACHED CHRONOLOGICAL WELL HISTORY.

NAME (PLEASE PRINT) <b>SHEILA UPCHEGO</b>	TITLE <b>SENIOR LAND ADMIN SPECIALIST</b>
SIGNATURE	DATE <b>5/19/2008</b>

Wins No.: 95388

NBU 1022-1313S

Well Operations Summary Long

Operator KERR-MCGEE OIL & GAS ONSHORE LP	FIELD NAME NATURAL BUTTES	SPUD DATE 11/15/2007	GL 5,293	KB 5310	ROUTE
API 4304739474	STATE UTAH	COUNTY UINTAH	DIVISION ROCKIES		
Long/Lat.: 39.94638 / -109.39109		Q-Q/Sect/Town/Range: / 13 / 10S / 22E	Footages: 1,735.00' FSL 1,784.00' FWL		

Wellbore: NBU 1022-1313S

MTD 3,400	TVD 2,863	PBMD	PBTVD
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<b>EVENT INFORMATION:</b>	EVENT ACTIVITY: DRILLING	START DATE: 11/15/2007
	OBJECTIVE: DEVELOPMENT	END DATE: 3/20/2008
	OBJECTIVE 2: ORIGINAL	DATE WELL STARTED PROD.:
	REASON: WHR PAD#1 - MV	Event End Status: COMPLETE

<b>RIG OPERATIONS:</b>	Begin Mobilization	Rig On Location	Rig Charges	Rig Operation Start	Finish Drilling	Rig Release	Rig Off Location
BILL JRS RATHGEE DRILLIN	12/02/2007	12/02/2007	12/02/2007	12/02/2007	12/19/2007	12/19/2007	12/19/2007

Date	Time Start-End	Duration (hr)	Phase	Code	Subcode	P/U	Operation
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11/15/2007							
SUPERVISOR: LEW WELDON							
	7:00 - 13:00	6.00	DRLCON	02		P	MOVE IN AND RIG UP BUCKET RIG SPUD WELL @ 0700 HR 11/15/07 DRILL AND SET 40' OF SCHEDULE 10 PIPE DRILL RODENT HOLES FOR RIG 83 BLM AND STATE NOTIFIED OF SPUD

12/2/2007							
SUPERVISOR: LEW WELDON							
	12:00 - 18:00	6.00	DRLSUR	02		P	MOVE IN AND RIG UP AIR RIG SPUD WELL @ 1200 HR 12/2/07 DRILL TO 450' AND SDFN
	18:00 - 0:00	6.00	DRLSUR	12		P	SDFN

12/3/2007							
SUPERVISOR: LEW WELDON							
	0:00 - 6:00	6.00	DRLSUR	12		P	SDFN
	6:00 - 17:00	11.00	DRLSUR	02		P	RIH TO 450' DRILL TO 1020' T/D PIOLET HOLE CONDITION HOLE 1 HR AND POOH
	17:00 - 0:00	7.00	DRLSUR	12		P	WAIT ON BILL JR AIR RIG

12/17/2007							
SUPERVISOR: LEW WELDON							
	3:30 - 12:00	8.50	DRLSUR	02		P	MOVE OVER AND RIG UP AIR RIG SPUD WELL @ 0330 HR 12/17/07 DA AT REPORT TIME 1320'
	12:00 - 14:30	2.50	DRLSUR	02		P	HIT TRONA WATER @ 1410' PREPAIR TO CIRCULATE WITH SKID AND FOUND OUT THAT SKID PUMP WAS FROZE UP CALL BIG 4 AND PULL 5 JNTS AND WAIT FOR BIG 4 PUMP TRUCK 1470'

12:00 - 14:30	2.50	DRLSUR	02	P	HIT TRONA WATER @ 1410' PREPAIR TO CIRCULATE WITH SKID AND FOUND OUT THAT SKID PUMP WAS FROZE UP CALL BIG 4 AND PULL 5 JNTS AND WAIT FOR BIG 4 PUMP TRUCK 1470'
14:30 - 17:00	2.50	DRLSUR	12	Z	WAIT FOR BIG 4
17:00 - 20:00	3.00	DRLSUR	02	P	TIH TO 1470' DA CIRCULATING WITH BIG 4 GOT SKID PUMP UNTHAWED REALEASE BIG 4 @ 2000 HR
20:00 - 0:00	4.00	DRLSUR	02	P	RIG DRILLING AHEAD CIRCULATING WITH SKID PUMP 1680'

12/18/2007

SUPERVISOR: LEW WELDON

0:00 - 18:00	18.00	DRLSUR	02	P	RIG T/D @ 2160' CONDITION HOLE 1 HR
18:00 - 19:00	1.00	DRLSUR	05	P	TRIP OUT 2 JNTS PIPE BECAME STUCK CIRCULATE ON WELL
19:00 - 20:30	1.50	DRLSUR	05	X	CIRCULATE ON WELL WITH NO RETURNS NO MOVMENT PULL VERY HARD AND AND PIPE CAME FREE CONTINUE TRIPPING OUT OF THE HOLE
20:30 - 23:00	2.50	DRLSUR	05	P	TRIP DP OUT TO 8" COLLARS AND WELL BEGAN TO UNLOAD WAIT FOR WELL TO BLOW DOWN
23:00 - 0:00	1.00	DRLSUR	12	P	WAIT ON WELL TO BLOW DOWN

12/19/2007

SUPERVISOR: LEW WELDON

0:00 - 3:00	3.00	DRLSUR	12	P	WAIT FOR WELL TO BLOW DOWN
3:00 - 5:00	2.00	DRLSUR	05	P	FINISH TRIPPING OUT OF HOLE
5:00 - 10:00	5.00	DRLSUR	11	P	RUN 2124' OF 9 5/8 CSG AND RIG DOWN AIR RIG
10:00 - 11:00	1.00	DRLSUR	15	P	CEMENT 1ST STAGE WITH 200 SKS LEAD @ 11# 3.82 23 GAL/SK AND 200 SKS TAIL NO RETURNS TO PIT 160 PSI LIFT
11:00 - 11:30	0.50	DRLSUR	15	P	1ST TOP JOB 125 SKS DOWN BS WOC
11:30 - 14:00	2.50	DRLSUR	15	P	2ND TOP JOB 275 SKS DOWN BS GOOD CMT TO SURFACE AND STAYED AT SURFACE
14:00 - 0:00	10.00	DRLSUR	12	P	NO VISIBLE LEAKS PIT 1/2 FULL WORT

**Wins No.: 95388****NBU 1022-1313S****API No.: 4304739474**

3/8/2008

SUPERVISOR: STUART NEILSON

0:00 - 22:30	22.50	DRLPRO	01	C	P	HPJSM W/ RIG ,TRUCK,,CRANE & CAT CREWS SKID RIG TO NBU 1022-1313S
22:30 - 0:00	1.50	DRLPRO	06	D	P	CUT DRLG LINE

3/9/2008

SUPERVISOR: STUART NEILSON

0:00 - 1:00	1.00	DRLPRO	13	A	P	NU BOP
1:00 - 6:00	5.00	DRLPRO	13	C	P	TEST BOP
6:00 - 13:30	7.50	DRLPRO	05	A	P	P/U BIT, MM & DIR TOOLS, INSPECT HWDP ON TIH, TIH 10 STDS D/P, TOUQUE KELLY INSTALL ROT RUBBER & DRIVE BUSHINGS, CENTER STACK
13:30 - 16:30	3.00	DRLPRO	02	F	P	TAG CEMENT @ 1990, DRLG CEMENT & F/E
16:30 - 0:00	7.50	DRLPRO	02	D	P	DRLG - SLIDE F/ 2160 TO 2635 475' @ 63.3' PH BUILD ANGLE TO 11.31 W/ 8.5 PPG - 36 VIS

3/10/2008

SUPERVISOR: STUART NEILSON

0:00 - 11:30	11.50	DRLPRO	02	D	P	DRLG & SLIDE F/ 2635 TO 3187 552' @ 48' PH W/ 8.9 PPG - 40 VIS
11:30 - 12:00	0.50	DRLPRO	06	A	P	SERVICE RIG
12:00 - 0:00	12.00	DRLPRO	02	D	P	DRLG & SLIDE F/ 3187 TO 3641 454' @ 37.8' PH W/ 9.3 PPG - 40 VIS

3/11/2008

SUPERVISOR: SID ARMSTRONG

0:00 - 15:00	15.00	DRLPRO	02	D	P	DRILL - SURVEY F/ 3641 TO 4227 - 586' @ 39.0 FPH W/ 9.3 PPG VIS 42
15:00 - 15:30	0.50	DRLPRO	02	D	P	SER RIG
15:30 - 0:00	8.50	DRLPRO	02	D	P	DRILL - SURVEY F/ 4227 TO 4503 - 276' @ 32.4 FPH W/ 9.4 PPG VIS 42

3/12/2008

SUPERVISOR: SID ARMSTRONG

0:00 - 16:30	16.50	DRLPRO	02	D	P	DRILL-SURVEY F/ 4503 TO 5025 - 522' @ 31.6 FPH W/ 9.5 PPG VIS 42
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0:00 - 16:30	16.50	DRLPRO	02	D	P	DRILL-SURVEY F/ 4503 TO 5025 - 522' @ 31.6 FPH W/ 9.5 PPG VIS 42
16:30 - 17:00	0.50	DRLPRO	06	A	P	SER RIG
17:00 - 0:00	7.00	DRLPRO	02	D	P	DRILL-SURVEY F/ 5025 TO 5241 - 216' @ 30.8 FPH - W/ 9.5 PPG VIS 42

3/13/2008

SUPERVISOR: SID ARMSTRONG

0:00 - 12:30	12.50	DRLPRO	02	D	P	DRILL-SURVEY F/ 5241 TO 5609 - 368' @ 29.44 FPH W/ 9.8 PPG VIS 42
12:30 - 13:00	0.50	DRLPRO	06	A	P	SER RIG
13:00 - 0:00	11.00	DRLPRO	02	D	P	DRILL-SURVEY F/ 5609 TO 5957 - 348' @ 31.6 FPH W/ 9.8 PPG VIS 42

3/14/2008

SUPERVISOR: SID ARMSTRONG

0:00 - 12:30	12.50	DRLPRO	02	D	P	DRILL-SURVEY F/ 5957 TO 6308 - 351' @ 28.08 FPH W/ 9.9 PPG VIS 42
12:30 - 13:00	0.50	DRLPRO	06	A	P	SER RIG
13:00 - 0:00	11.00	DRLPRO	02	D	P	DRILL-SURVEY F/ 6308 TO 6627 - 319' @ 29.0 FPH W/ 10.1 PPG VIS 42

3/15/2008

SUPERVISOR: SID ARMSTRONG

0:00 - 11:00	11.00	DRLPRO	02	D	P	DRILL-SURVEY F/ 6627 TO 6912 - 285' @ 25.9 FPH W/ 10.2 PPG VIS 42
11:00 - 20:00	9.00	DRLPRO	05	A	P	T.F.N.B & MUD MOTOR & C/O M.W.D TOOLS
20:00 - 0:00	4.00	DRLPRO	02	D	P	DRILL-SURVEY F/ 6912 TO 6980 - 68' @ 17.0 FPH W/ 10.3 PPG VIS 42

3/16/2008

SUPERVISOR: SID ARMSTRONG

0:00 - 13:30	13.50	DRLPRO	02	D	P	DRILL-SURVEY F/ 6980 TO 7296 - 316' @ 23.4 FPH W/ 10.6 PPG VIS 43
13:30 - 14:00	0.50	DRLPRO	06	A	P	SER RIG
14:00 - 0:00	10.00	DRLPRO	02	D	P	DRILL-SURVEY F/ 7296 TO 7583 - 287' @ 28.7 FPH W/ 10.7 PPG VIS 44

Wins No.: 95388

NBU 1022-1313S

API No.: 4304739474

14:00 - 0:00	10.00	DRLPRO	02	D	P	DRILL-SURVEY F/ 7296 TO 7583 - 287' @ 28.7 FPH W/ 10.7 PPG VIS 44
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3/17/2008

SUPERVISOR: SID ARMSTRONG

0:00 - 12:00	12.00	DRLPRO	02	D	P	DRILL-SURVEY F/ 7583 TO 7932 - 349 @ 29.0 FPH W/ 11.1 PPG VIS 43
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12:00 - 12:30	0.50	DRLPRO	06	A	P	SER RIG
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12:30 - 13:00	0.50	DRLPRO	02	D	P	DRILL-SURVEY F/ 7932 TO 7955 - 23' @ 46.0 FPH W/ 11.3 VIS 44
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13:00 - 13:30	0.50	DRLPRO	07	A	X	WORK ON RIG PUMP
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13:30 - 0:00	10.50	DRLPRO	02	D	P	DRILL-SURVEY F/ 7955 TO 8282 - 327' @ 31.14 FPH W/ 11.3 PPG VIS 45
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3/18/2008

SUPERVISOR: SID ARMSTRONG

0:00 - 13:00	13.00	DRLPRO	02	D	P	DRILL-SURVEY F/ 8282 TO 8710 - 428' @ 32.9 FPH W/ 11.8 PPG VIS 44
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13:00 - 14:00	1.00	DRLPRO	04	C	P	CIRC BTM UP
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14:00 - 0:00	10.00	DRLPRO	05	E	P	T.O.H & L/D DIR TOOLS & T.I.H
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3/19/2008

SUPERVISOR: SID ARMSTRONG

0:00 - 0:30	0.50	DRLPRO	05	E	P	CONT. T.I.H
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0:30 - 1:30	1.00	DRLPRO	03	E	P	WASH 90' TO BTM ( NO FILL )
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1:30 - 3:00	1.50	DRLPRO	04	C	P	CIRC BTM UP
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3:00 - 7:00	4.00	DRLPRO	05	B	P	T.O.H F/ LOGS
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7:00 - 13:00	6.00	DRLPRO	08	A	P	HELD SAFETY MEETING & R/U BAKER WIRELINE & RUN TRIPLE COMBO @ 8709
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13:00 - 17:00	4.00	DRLPRO	05	A	P	T.I.H
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17:00 - 17:30	0.50	DRLPRO	04	A	P	CIRC BTM UP
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17:30 - 18:30	1.00	DRLPRO	07	A	P	WORK ON PUMPS
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17:30 - 18:30	1.00	DRLPRO	07	A	P	WORK ON PUMPS
18:30 - 19:30	1.00	DRLPRO	04	A	P	CIRC BTM UP
19:30 - 0:00	4.50	DRLPRO	05	D	P	HELD SAFETY MEETING & R/U CALIBER L/D MACHINE & L/D D.P.

3/20/2008  
 SUPERVISOR: SID ARMSTRONG

0:00 - 4:00	4.00	DRLPRO	05	A	P	L/D D.P & STAND BACK BHA & PULL WEAR BUSHING
4:00 - 12:00	8.00	DRLPRO	11	B	P	R/U & RNU PROS STRING & 206 JTS PLUS MAKER JT.
12:00 - 13:00	1.00	DRLPRO	04	A	P	CIRC BTM UP
13:00 - 15:30	2.50	DRLPRO	15	A	P	HELD SAFETY MEETING & PRESSURE TEST LINES 4500 PSI & CEMENT PROD. STRING W/ BJ SER. PUMPED 20 BBLs MUD CLEAN & F/ SCANGER CMT 20 SKS - 9.5 PPG YIELD 8.45 & F/ LEAD CMT 354 SKS - 11.2 PPG YIELD 3.13 F/ TAIL CMT 1238 SKS - 14.3 PPG YIELD 1.31 & DROP PLUG & DISPALCED W/ 134.6 BBLs WATER BUMP PLUG W/ 500 OVER FINAL CIRC PRESSURE OF 2273 & GOT BACK 24 BBLs GOOD CEMENT BACK TO PIT. & HAD FULL RETURNS DURING JOB.
15:30 - 20:30	5.00	DRLPRO	13	A	P	NIPPLE DOWN SET SLIPS 110 K ON STRING & CUT OFF 4 1/2 & WASH & CLEAN OUT PITS
20:30 -		DRLPRO	01	E	P	R/D RIG & PREPAIR F/ SKID & RELEASED RIG @ 20:30 ON 3/20/2008.

EVENT INFORMATION:    EVENT ACTIVITY: COMPLETION    START DATE: 3/30/2008  
 OBJECTIVE: CONSTRUCTION    END DATE: 3/31/2008  
 OBJECTIVE 2: ORIGINAL    DATE WELL STARTED PROD.:  
 REASON: WHR PAD#1 - MV    Event End Status:

RIG OPERATIONS:    Begin Mobilization    Rig On Location    Rig Charges    Rig Operation Start    Finish Drilling    Rig Release    Rig Off Location

Date	Time Start-End	Duration (hr)	Phase	Code	Subcode	P/U	Operation
12/31/2007 SUPERVISOR: SID ARMSTRONG							

Wins No.: 95388

NBU 1022-1313S

API No.: 4304739474

<b>EVENT INFORMATION:</b>	EVENT ACTIVITY: COMPLETION	START DATE: 5/14/2008
	OBJECTIVE: DEVELOPMENT	END DATE: 5/14/2008
	OBJECTIVE 2: ORIGINAL	DATE WELL STARTED PROD.:
	REASON: WHR PAD#1 - MV	Event End Status: COMPLETE

<b>RIG OPERATIONS:</b>	Begin Mobilization	Rig On Location	Rig Charges	Rig Operation Start	Finish Drilling	Rig Release	Rig Off Location
LEED 698 / 698		05/14/2008				04/24/2008	05/14/2008

Date	Time Start-End	Duration (hr)	Phase	Code	Subcode	P/U	Operation
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5/7/2008

SUPERVISOR: DOUG CHIVERS

17:00 - 17:30	0.50	COMP	48			P	HSM. FRACING & PERFORATING
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17:30 - 19:00	1.50	COMP	36	B		P	RIH W / 3 3/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING. PERF 8,631' -37' 4 SPF, 8,546' - 48' 4 SPF, 8,532' - 34' 4 SPF, 40 HOLES. WHP 508 PSI, BRK 4,803 PSI @ 2.6 BPM, ISIP 2,304 PSI, FG .71. PUMP 100 BBLs @ 50 BPM @ 4,400 PSI = 31 OF 40 HOLES OPEN 77%. MP 6,952 PSI, MR 50.1 BPM, AP 4,212 PSI, AR 49.7 BPM, ISIP 2,409 PSI, FG .72, NPI 105. PUMP 2,025 BBLs OF SLK WATER & 64,686 LBS 30/50 SAND & 5,000 LBS 20/40 RESIN SAND. TOTAL PROP 69,686 LBS SWI SDFN
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5/8/2008

SUPERVISOR: DOUG CHIVERS

7:00 - 7:30	0.50	COMP	48			P	HSM. FRACING & PERFORATING [RED WELL]
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7:30 - 19:30 12.00 COMP 36 B P

STG 2 ) DO A IFIT ON BOTTOM SET OF PERFS.  
 PU 4 1/2" CBP & RIH W/ 3 3/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING.  
 SET 8K BAKER CBP @ 8,358' & PERF 8,324' - 28' 4 SPF, 16 HOLES.  
 WHP 1,700 PSI, BRK 2,920 PSI @ 3.0 BPM, ISIP 2,041 PSI, FG .71, 5 MIN 2,041, 10 MIN 2,035, 15 MIN 2,031.  
 PERFORATE 8,293' - 97' 4 SPF, 8,264' - 66' 4 SPF, TOTAL 40 HOLES.  
 PUMP 100 BBLS @ 50 BPM @ 4,500 PSI = 30 OF 40 HOLES OPEN 75%.  
 MP 5,548 PSI, MR 50.3 BPM, AP 4,317 PSI, AR 49.9 BPM, ISIP 2,540 PSI, FG .75, NPI 291.  
 PUMP 1,321 BBLS OF SLK WATER & 39,363 LBS 30/50 SAND & 5,000 LBS 20/40 RESIN SAND. TOTAL PROP 44,363 LBS

STG 3 ) PU 4 1/2" CBP & RIH W/ 3 3/8" EXP GNS, 23 GRM, .36 HOLES, 90 & 120 DEG PHASING.  
 SET 8K BAKER CBP @ 8,200' & PERF 8,165' - 70' 4 SPF, 8,114' - 18' 4 SPF, 8,071' - 74' 3 SPF, 45 HOLES  
 WHP 2,120 PSI, BRK 3,207 PSI @ 2.8 BPM, ISIP 2,364 PSI, FG .73.  
 PUMP 100 BBLS @ 50 BPM @ 4,000 PSI = 45 OF 45 HOLES OPEN 100%.  
 MP 4,762 PSI, MR 50.3 BPM, AP 4,132 PSI, AR 50 BPM, ISIP 2,364 PSI, FG .78, NPI 376.  
 PUMP 2,747 BBLS OF SLK WATER & 96,474 LBS 30/50 SAND & 5,000 LBS 20/40 RESIN SAND. TOTAL PROP 101,474 LBS

STG 4 ) PU 4 1/2" CBP & RIH W/ 3 3/8" EXP GNS, 23 GRM, .36 HOLES, 90 & 120 DEG PHASING.  
 SET 8K BAKER CBP @ 7,752' & PERF 7,717' - 22' 4 SPF, 7,638' - 40' 4 SPF, 7,567' - 70' 3 SPF, 45 HOLES  
 WHP 0 PSI, BRK 2,641 PSI @ 2.9 BPM, ISIP 1,840 PSI, FG .68.  
 PUMP 100 BBLS @ 51.6 BPM @ 4,000 PSI = 35 OF 45 HOLES OPEN 78%.  
 MP 4,710 PSI, MR 53 BPM, AP 3,930 PSI, AR 51.6 BPM, ISIP 2,369 PSI, FG .75, NPI 529.  
 PUMP 2,444 BBLS OF SLK WATER & 85,131 LBS 30/50 SAND & 5,000 LBS 20/40 RESIN SAND. TOTAL PROP 90,131 LBS

STG 5 ) PU 4 1/2" CBP & RIH W/ 3 3/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING.  
 SET 8K BAKER CBP @ 7,346' & PERF 7,309' - 16' 4 SPF, 7,302' - 04' 4 SPF, 7,248' - 50' 4 SPF, 44 HOLES  
 WHP 1,300 PSI, BRK 3,138 PSI @ 2.6 BPM, ISIP 1,840 PSI, FG .68.  
 PUMP 100 BBLS @ 49.7 BPM @ 4,150 PSI = 30 OF 44 HOLES OPEN 68%.  
 MP 4,385 PSI, MR 49.8 BPM, AP 3,898 PSI, AR 49.6 BPM, ISIP 2,210 PSI, FG .74, NPI 805.  
 PUMP 833 BBLS OF SLK WATER & 21,584 LBS 30/50 SAND & 5,000 LBS 20/40 RESIN SAND. TOTAL PROP 26,584 LBS

STG 6 ) PU 4 1/2" CBP & RIH W/ 3 3/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING.  
 SET 8K BAKER CBP @ 7,178' & PERF 7,138' - 48' 4 SPF, 40 HOLES. PERFORM DFIT.  
 WHP 1600 PSI, BRK 2532 PSI @ 4.4 BPM, PMP'D 24 BBLS @ 2027# @ 4.4 BPM. ISIP 1902 PSI, FG .70. MONITOR WELL OVERNIGHT W/ HLBRTN SURFACE PSI GAUGE.

SDFN

5/9/2008

SUPERVISOR: DOUG CHIVERS

7:00 - 7:30 0.50 COMP 48 P

HSM. FRACING & PERFORATING

Wins No.: 95388

NBU 1022-1313S

API No.: 4304739474

7:30	-	9:30	2.00	COMP	36	B	P	STG 6 ) WHP 1,430 PSI, BRK 2,432 PSI @ 4.4 BPM, ISIP 1,902 PSI, FG .70. PUMP 100 BBLS @ 39.5 BPM @ 3,600 PSI = 30 OF 40 HOLES OPEN 75%. MP 4,385 PSI, MR 40 BPM, AP 3,258 PSI, AR 39 BPM, ISIP 2,295 PSI, FG .76, NPI 393. PUMP 2,366 BBLS OF SLK WATER & 79,860 LBS 30/50 SAND & 5,000 LBS 20/40 RESIN SAND. TOTAL PROP 84,860 LBS  KILL PLG ) PU 4 1/2" 8K BAKER CBP. RIH SET @ 7,088'. SWI. WAIT ON RIG FOR DRL OUT.
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5/14/2008

SUPERVISOR: BRAD BURMAN

7:00	-	7:30	0.50	COMP	48		P	JSA#1
7:30	-	19:00	11.50	COMP	44	C	P	7AM [DAY 4] MIRU, SPOT EQUIP. N/D FRAC VALVES, NUBOP. R/U FLOOR & TBG EQUIPMENT. P/U NEW 2-3/8" L-80 TBG & RIH. [SLM] TBG WAS DRIFTED. TAG SD @ 7070'. R/U SWVL & PMP. ESTAB CIRC. P.T. BOP TO 3000#. C/O 10' SD TO CBP# @ 7080'.  [DRLG CBP#1] @ 7080'. DRILL OUT BAKER 8K CBP IN 4 MIN. 50# DIFF. RIH, TAG SD @ 7148'. C/O 30' SD. FCP=25#.  [DRLG CBP#2] @ 7178'. DRILL OUT BAKER 8K CBP IN 5 MIN. 50# DIFF. RIH, TAG SD @ 7310'. C/O 40' SD. FCP=100#.  [DRLG CBP#3] @ 7350'. DRILL OUT BAKER 8K CBP IN 5 MIN. 100# DIFF. RIH, TAG SD @ 7702'. C/O 50' SD. FCP=300#.  [DRLG CBP#4] @ 7752'. DRILL OUT BAKER 8K CBP IN 17 MIN. 50# DIFF. RIH, TAG SD @ 8076'. C/O 124' SD. FCP=300#.  [DRLG CBP#5] @ 8200'. DRILL OUT BAKER 8K CBP IN 7 MIN. 50# DIFF. RIH, TAG SD @ 8312'. C/O 40' SD. FCP=300#.  [DRLG CBP#6] @ 8352'. DRILL OUT BAKER 8K CBP IN 7 MIN. 50# DIFF. RIH, TAG SD @ 8634'. C/O 30' SD TO PBTD @ 8664'. CIRC WELL CLN. R/D SWVL. POOH & L/D 20 JTS ON FLOAT. LAND TBG ON HNGR W/ 253 JTS NEW 2-3/8" L-80 TBG. EOT @ 8039.86' & POBS W/ XN @ 8037.66'. AVG 7.5 MIN/PLUG & C/O 324'. R/D FLOOR & TBG EQUIP. NDBOP, NUWH. DROP BALL DN TBG & PMP OFF THE BIT @ 2400#. OPEN WELL TO PIT ON 20/64 CHOKE. FTP=1000, SICP=1300#. 7 PM TURN WELL OVER TO FBC. LTR @ 7PM=9936 BBLS.  SDFN. NOTE: 309 DELIV 253 LANDED 56 RETURNED.

5/15/2008

SUPERVISOR: MARK BONNIE

7:00	-				33	A		7 AM FLBK REPORT: CP 2200#, TP 1625#, 20/64" CK, 55 BWPH, MEDIUM SAND, LIGHT GAS TTL BBLS RECOVERED: 796 BBLS LEFT TO RECOVER: 10,940
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**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: <b>STUO-08512-ST</b>	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
7. UNIT or CA AGREEMENT NAME <b>UNIT #891008900A</b>	
8. WELL NAME and NUMBER: <b>NBU 1022-131S</b>	
9. API NUMBER: <b>4304739474</b>	
10. FIELD AND POOL, OR WILDCAT <b>NATURAL BUTTES</b>	
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>NESW 13 10S 22E</b>	
12. COUNTY <b>UINTAH</b>	13. STATE <b>UTAH</b>

14. DATE SPUDED: <b>11/15/2007</b>	15. DATE T.D. REACHED: <b>3/18/2008</b>	16. DATE COMPLETED: <b>5/15/2008</b>	ABANDONED <input type="checkbox"/>	READY TO PRODUCE <input checked="" type="checkbox"/>	17. ELEVATIONS (DF, RKB, RT, GL): <b>5293'GL</b>
18. TOTAL DEPTH: MD <b>8,710</b> TVD <b>8,173</b>	19. PLUG BACK T.D.: MD <b>8,664</b> TVD <b>8,127</b>	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) <b>CBL-CCL-GR</b>			23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (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			
12 1/4"	9 5/8 J-55	36#		2,160		800			
7 7/8"	4 1/2 I-80	11.6#		8,710		1592			

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"	8,040							

26. PRODUCING INTERVALS					27. PERFORATION RECORD				
FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS	
(A) MESAVERDE	7,138	8,646			7,138 8,646	0.36	254	Open <input checked="" type="checkbox"/>	Squeezed <input type="checkbox"/>
(B) <b>WSMVD</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"/>

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7138'-8646'	PMP 11,736 BBLS SLICK H2O & 147,104# 30/50 SD

29. ENCLOSED ATTACHMENTS:	30. WELL STATUS:
<input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS <input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION <input type="checkbox"/> GEOLOGIC REPORT <input type="checkbox"/> CORE ANALYSIS <input type="checkbox"/> DST REPORT <input type="checkbox"/> OTHER:	<input checked="" type="checkbox"/> DIRECTIONAL SURVEY <b>RECEIVED</b> <b>PROD</b>

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 5/15/2008		TEST DATE: 5/25/2008		HOURS TESTED: 24		TEST PRODUCTION RATES: →		OIL – BBL: 0	GAS – MCF: 1,880	WATER – BBL: 408	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 970	CSG. PRESS. 1,430	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 1,880	WATER – BBL: 408	INTERVAL STATUS: PROD	

INTERVAL B (As shown in item #26)

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

INTERVAL C (As shown in item #26)

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

INTERVAL D (As shown in item #26)

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

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

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
WASATCH MESAVERDE	4,181 6,592	6,592			

35. ADDITIONAL REMARKS (Include plugging procedure)

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

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST  
 SIGNATURE  DATE 6/16/2008

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



**Weatherford<sup>®</sup>**

## **Drilling Services**

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## **Completion**

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### **ANADARKO - KERR McGEE**

NBU#1022-13I3S

UINTAH COUNTY, UTAH

WELL FILE: 4013874C

DATE: MARCH 19, 2008

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**Weatherford International, Ltd.**

15710 John F. Kennedy Blvd

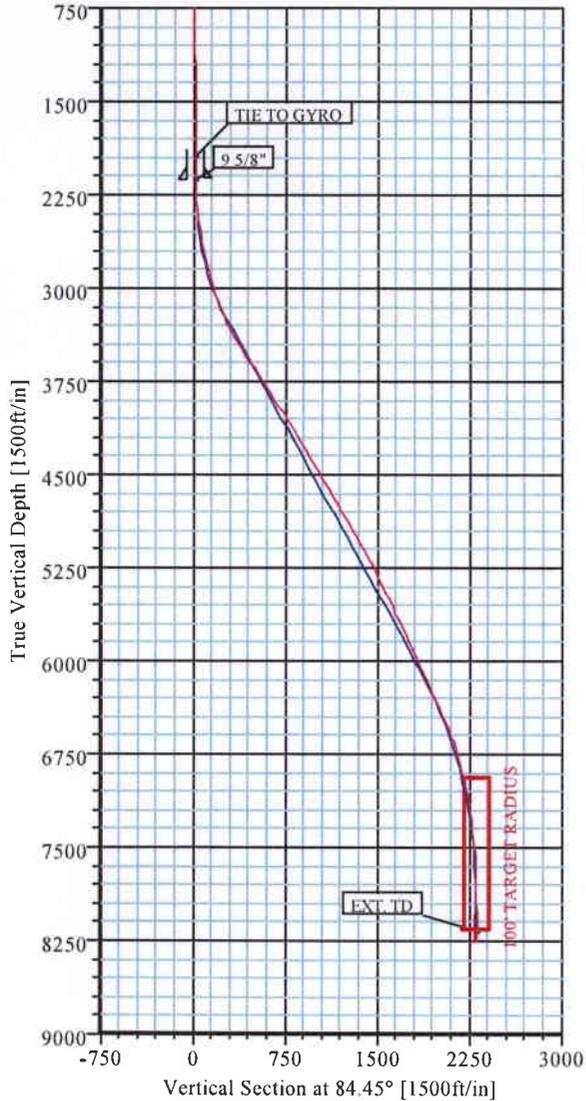
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+1.281.260.1300 Main

+1.281.260.4730 Fax

[www.weatherford.com](http://www.weatherford.com)

KB = 5308'  
 GR = 5293'



LEGEND

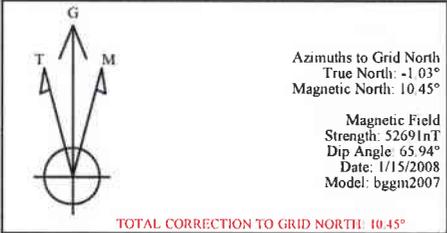
- 1313S.1.Plan #3
- 1313S.1.GYRO SVY
- WFT MWD SVY

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
1313S	0.00	0.00	14510589.60	2091418.40	39°56'47.000N	109°23'27.276W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	8150.00	223.56	2301.47	14510813.16	2093719.87	Circle (Radius: 100)

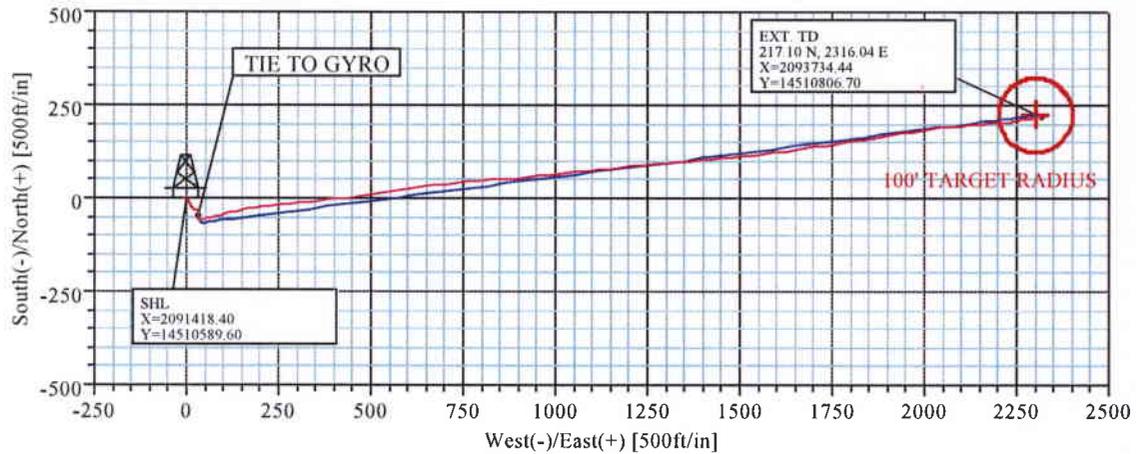


FIELD DETAILS

UINTAH COUNTY, UTAH (UTM Zone 12N-NAD 27)

Geodetic System: Universal Transverse Mercator (USfeet)  
 Ellipsoid: NAD27 (Clarke 1866)  
 Zone: UTM Zone 12, North 114W to 108W  
 Magnetic Model: bggm2007

System Datum: Mean Sea Level  
 Local North: Grid North



Survey: WFT MWD SVY (1313S/1)

No	MD	Inc	Az	TVD	+N/-S EXT. TD	+E/-W	DLeg	TFace	VSec
104	8710.00	3.79	86.91	8173.50	217.10	2316.04	0.00	0.00	2326.18

Survey: WFT MWD SVY (1313S/1)  
 Created By: Russell Joyner  
 Date: 3/19/2008

# Weatherford

## SURVEY REPORT - GEOGRAPHIC



<b>Company:</b> Anadarko-Kerr-McGee	<b>Date:</b> 3/19/2008	<b>Time:</b> 10:25:08	<b>Page:</b> 1
<b>Field:</b> UINTAH COUNTY, UTAH (UTM Zone 12N-NAD 27)	<b>Co-ordinate(NE) Reference:</b> Site: NBU 1022-1313S, Grid North		
<b>Site:</b> NBU 1022-1313S	<b>Vertical (TVD) Reference:</b> SITE 5308.0		
<b>Well:</b> 1313S	<b>Section (VS) Reference:</b> Well (0.00N,0.00E,84.45Azi)		
<b>Wellpath:</b> 1	<b>Survey Calculation Method:</b> Minimum Curvature	<b>Db:</b> Sybase	

<b>Survey:</b> WFT MWD SVY	<b>Start Date:</b> 3/10/2008	
<b>Company:</b> WEATHERFORD	<b>Engineer:</b> L WINCHELL	
<b>Tool:</b> MWD;MWD - Standard	<b>Tied-to:</b> User Defined	

**Field:** UINTAH COUNTY, UTAH (UTM Zone 12N-NAD 27)

<b>Map System:</b> Universal Transverse Mercator (USfeet)	<b>Map Zone:</b> UTM Zone 12, North 114W to 108W
<b>Geo Datum:</b> NAD27 (Clarke 1866)	<b>Coordinate System:</b> Site Centre
<b>Sys Datum:</b> Mean Sea Level	<b>Geomagnetic Model:</b> bggm2007

**Site:** NBU 1022-1313S

<b>Site Position:</b>	<b>Northing:</b> 14510589.60 ft	<b>Latitude:</b> 39 56 47.000 N
<b>From:</b> Map	<b>Easting:</b> 2091418.40 ft	<b>Longitude:</b> 109 23 27.276 W
<b>Position Uncertainty:</b> 0.00 ft		<b>North Reference:</b> Grid
<b>Ground Level:</b> 5293.00 ft		<b>Grid Convergence:</b> 1.03 deg

<b>Well:</b> 1313S	<b>Slot Name:</b>
<b>Well Position:</b> +N/-S 0.00 ft	<b>Northing:</b> 14510589.60 ft
+E/-W 0.00 ft	<b>Easting:</b> 2091418.40 ft
<b>Position Uncertainty:</b> 0.00 ft	<b>Latitude:</b> 39 56 47.000 N
	<b>Longitude:</b> 109 23 27.276 W

<b>Wellpath:</b> 1	<b>Drilled From:</b> Surface	
<b>Current Datum:</b> SITE	<b>Tie-on Depth:</b> 0.00 ft	
<b>Magnetic Data:</b> 1/15/2008	<b>Above System Datum:</b> Mean Sea Level	
<b>Field Strength:</b> 52691 nT	<b>Declination:</b> 11.48 deg	
<b>Vertical Section:</b> Depth From (TVD)	<b>Mag Dip Angle:</b> 65.94 deg	
ft	+N/-S	Direction
ft	ft	deg
0.00	0.00	84.45

**Survey**

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comme
1944.00	3.25	168.63	1942.95	-45.23	31.00	0.00	26.49	14510544.37	2091449.40	TIE TO GYRO
2124.00	2.02	171.77	2122.76	-53.37	32.46	0.69	27.15	14510536.23	2091450.86	9 5/8"
2199.00	1.51	174.59	2197.72	-55.66	32.75	0.69	27.21	14510533.94	2091451.15	
2260.00	1.85	134.97	2258.70	-57.16	33.52	1.94	27.84	14510532.44	2091451.92	
2322.00	3.77	91.55	2320.63	-57.92	36.26	4.42	30.49	14510531.68	2091454.66	
2383.00	5.31	85.08	2381.44	-57.73	41.08	2.66	35.31	14510531.87	2091459.48	
2445.00	7.94	77.95	2443.02	-56.59	48.13	4.44	42.43	14510533.01	2091466.53	
2506.00	10.94	75.83	2503.18	-54.29	57.86	4.95	52.34	14510535.31	2091476.26	
2568.00	11.31	76.33	2564.02	-51.42	69.48	0.62	64.18	14510538.18	2091487.88	
2630.00	11.38	73.95	2624.81	-48.29	81.26	0.76	76.21	14510541.31	2091499.66	
2691.00	11.94	72.45	2684.55	-44.72	93.06	1.04	88.30	14510544.88	2091511.46	
2753.00	12.81	76.20	2745.11	-41.15	105.85	1.91	101.38	14510548.45	2091524.25	
2815.00	14.00	78.20	2805.42	-37.97	119.87	2.06	115.64	14510551.63	2091538.27	
2877.00	14.81	76.33	2865.47	-34.57	134.91	1.51	130.94	14510555.03	2091553.31	
2940.00	16.13	77.83	2926.19	-30.82	151.29	2.19	147.60	14510558.78	2091569.69	
3002.00	17.00	80.58	2985.61	-27.52	168.65	1.89	165.20	14510562.08	2091587.05	
3065.00	19.25	82.83	3045.48	-24.72	188.04	3.74	184.77	14510564.88	2091606.44	
3127.00	20.38	83.83	3103.81	-22.28	208.92	1.90	205.78	14510567.32	2091627.32	
3189.00	22.31	83.95	3161.56	-19.88	231.35	3.11	228.35	14510569.72	2091649.75	
3250.00	24.31	84.70	3217.58	-17.50	255.37	3.31	252.48	14510572.10	2091673.77	
3312.00	26.00	83.58	3273.69	-14.80	281.59	2.83	278.84	14510574.80	2091699.99	
3374.00	27.19	83.08	3329.13	-11.57	309.15	1.95	306.59	14510578.03	2091727.55	
3436.00	28.88	83.58	3383.86	-8.19	338.10	2.75	335.72	14510581.41	2091756.50	
3498.00	31.16	84.67	3437.54	-5.03	368.95	3.78	366.73	14510584.57	2091787.35	

# Weatherford

## SURVEY REPORT - GEOGRAPHIC



<b>Company:</b> Anadarko-Kerr-McGee	<b>Date:</b> 3/19/2008	<b>Time:</b> 10:25:08	<b>Page:</b> 2
<b>Field:</b> UINTAH COUNTY, UTAH (UTM Zone 12N-NAD 27)	<b>Co-ordinate(NE) Reference:</b>	<b>Site:</b> NBU 1022-1313S, Grid North	
<b>Site:</b> NBU 1022-1313S	<b>Vertical (TVD) Reference:</b>	<b>SITE</b> 5308.0	
<b>Well:</b> 1313S	<b>Section (VS) Reference:</b>	<b>Well</b> (0.00N,0.00E,84.45Azi)	
<b>Wellpath:</b> 1	<b>Survey Calculation Method:</b>	<b>Minimum Curvature</b>	<b>Db:</b> Sybase

**Survey**

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft
3560.00	33.50	85.45	3489.92	-2.18	401.98	3.83	399.89	14510587.42	2091820.38
3622.00	33.44	83.33	3541.64	1.16	436.01	1.89	434.08	14510590.76	2091854.41
3682.00	32.94	82.45	3591.85	5.22	468.60	1.16	466.91	14510594.82	2091887.00
3744.00	32.94	81.20	3643.89	10.02	501.97	1.10	500.58	14510599.62	2091920.37
3806.00	34.06	82.58	3695.59	14.84	535.84	2.18	534.77	14510604.44	2091954.24
3867.00	33.88	82.45	3746.18	19.28	569.64	0.32	568.83	14510608.88	2091988.04
3929.00	33.25	81.58	3797.84	24.04	603.58	1.28	603.08	14510613.64	2092021.98
3991.00	32.13	80.45	3850.02	29.26	636.66	2.06	636.50	14510618.86	2092055.06
4052.00	31.88	81.70	3901.75	34.28	668.59	1.16	668.77	14510623.88	2092086.99
4114.00	32.38	84.33	3954.25	38.28	701.32	2.40	701.73	14510627.88	2092119.72
4176.00	31.88	84.70	4006.76	41.44	734.14	0.87	734.71	14510631.04	2092152.54
4237.00	31.88	83.83	4058.56	44.65	766.19	0.75	766.92	14510634.25	2092184.59
4299.00	31.75	85.45	4111.24	47.71	798.73	1.39	799.60	14510637.31	2092217.13
4360.00	31.88	86.45	4163.08	49.98	830.81	0.89	831.75	14510639.58	2092249.21
4421.00	31.94	85.95	4214.86	52.12	862.98	0.44	863.98	14510641.72	2092281.38
4483.00	31.75	85.08	4267.53	54.67	895.59	0.80	896.68	14510644.27	2092313.99
4545.00	31.75	84.59	4320.25	57.61	928.09	0.42	929.31	14510647.21	2092346.49
4605.00	31.88	84.45	4371.23	60.63	959.57	0.25	960.94	14510650.23	2092377.97
4666.00	32.13	83.83	4422.96	63.93	991.73	0.68	993.27	14510653.53	2092410.13
4728.00	32.50	83.33	4475.36	67.64	1024.67	0.74	1026.41	14510657.24	2092443.07
4790.00	31.75	84.45	4527.87	71.15	1057.45	1.54	1059.37	14510660.75	2092475.85
4850.00	31.56	84.70	4578.94	74.13	1088.80	0.38	1090.86	14510663.73	2092507.20
4912.00	31.25	84.58	4631.86	77.15	1120.96	0.51	1123.17	14510666.75	2092539.36
4974.00	30.50	84.45	4685.07	80.19	1152.63	1.21	1154.98	14510669.79	2092571.03
5035.00	30.50	84.45	4737.63	83.18	1183.45	0.00	1185.94	14510672.78	2092601.85
5097.00	31.17	84.73	4790.87	86.18	1215.08	1.11	1217.72	14510675.78	2092633.48
5159.00	30.06	84.95	4844.22	89.02	1246.53	1.80	1249.30	14510678.62	2092664.93
5220.00	29.44	84.95	4897.18	91.68	1276.68	1.02	1279.56	14510681.28	2092695.08
5282.00	29.19	84.95	4951.24	94.35	1306.92	0.40	1309.92	14510683.95	2092725.32
5343.00	29.00	85.08	5004.55	96.93	1336.47	0.33	1339.58	14510686.53	2092754.87
5405.00	29.00	84.95	5058.77	99.54	1366.41	0.10	1369.64	14510689.14	2092784.81
5465.00	28.44	84.83	5111.39	102.11	1395.13	0.94	1398.47	14510691.71	2092813.53
5527.00	27.94	84.45	5166.04	104.85	1424.29	0.86	1427.76	14510694.45	2092842.69
5589.00	27.31	84.70	5220.97	107.57	1452.91	1.03	1456.50	14510697.17	2092871.31
5652.00	27.13	84.08	5276.99	110.38	1481.59	0.53	1485.32	14510699.98	2092899.99
5716.00	27.06	83.70	5333.97	113.48	1510.57	0.29	1514.47	14510703.08	2092928.97
5779.00	26.94	83.58	5390.10	116.65	1539.00	0.21	1543.07	14510706.25	2092957.40
5843.00	26.31	83.05	5447.32	119.99	1567.48	1.05	1571.74	14510709.59	2092985.88
5906.00	26.19	82.45	5503.82	123.51	1595.13	0.46	1599.59	14510713.11	2093013.53
5970.00	26.19	82.20	5561.25	127.28	1623.12	0.17	1627.82	14510716.88	2093041.52
6034.00	25.75	81.45	5618.79	131.26	1650.86	0.86	1655.82	14510720.86	2093069.26
6098.00	25.44	82.45	5676.51	135.14	1678.23	0.83	1683.44	14510724.74	2093096.63
6161.00	25.38	82.70	5733.41	138.63	1705.04	0.20	1710.46	14510728.23	2093123.44
6225.00	25.00	81.95	5791.32	142.27	1732.04	0.78	1737.68	14510731.87	2093150.44
6289.00	24.88	81.83	5849.36	146.07	1758.75	0.20	1764.64	14510735.67	2093177.15
6353.00	24.63	81.83	5907.48	149.88	1785.28	0.39	1791.41	14510739.48	2093203.68
6417.00	24.25	80.95	5965.74	153.84	1811.46	0.82	1817.85	14510743.44	2093229.86
6480.00	24.31	80.83	6023.17	157.95	1837.04	0.12	1843.70	14510747.55	2093255.44
6544.00	24.94	81.08	6081.35	162.14	1863.37	1.00	1870.32	14510751.74	2093281.77
6608.00	25.06	81.41	6139.35	166.25	1890.11	0.29	1897.33	14510755.85	2093308.51
6671.00	24.63	80.58	6196.52	170.39	1916.25	0.88	1923.75	14510759.99	2093334.65
6735.00	24.38	79.52	6254.76	174.98	1942.40	0.79	1950.21	14510764.58	2093360.80

Comme

# Weatherford

## SURVEY REPORT - GEOGRAPHIC



<b>Company:</b> Anadarko-Kerr-McGee	<b>Date:</b> 3/19/2008	<b>Time:</b> 10:25:08	<b>Page:</b> 3
<b>Field:</b> UINTAH COUNTY, UTAH (UTM Zone 12N-NAD 27)	<b>Co-ordinate(NE) Reference:</b>	<b>Site:</b> NBU 1022-13I3S, Grid North	
<b>Site:</b> NBU 1022-13I3S	<b>Vertical (TVD) Reference:</b>	<b>SITE:</b> 5308.0	
<b>Well:</b> 13I3S	<b>Section (VS) Reference:</b>	<b>Well:</b> (0.00N,0.00E,84.45Azi)	
<b>Wellpath:</b> 1	<b>Survey Calculation Method:</b>	<b>Minimum Curvature</b>	<b>Db:</b> Sybase

**Survey**

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft
6798.00	24.88	80.70	6312.02	179.49	1968.26	1.11	1976.39	14510769.09	2093386.66
6862.00	25.13	80.70	6370.03	183.86	1994.96	0.39	2003.39	14510773.46	2093413.36
6926.00	24.63	83.70	6428.09	187.52	2021.63	2.12	2030.28	14510777.12	2093440.03
6990.00	24.94	84.08	6486.19	190.37	2048.30	0.54	2057.11	14510779.97	2093466.70
7053.00	22.88	86.20	6543.78	192.56	2073.74	3.54	2082.64	14510782.16	2093492.14
7117.00	21.00	85.08	6603.15	194.36	2097.58	3.01	2106.55	14510783.96	2093515.98
7181.00	18.13	84.08	6663.45	196.38	2118.91	4.51	2127.97	14510785.98	2093537.31
7245.00	17.06	83.95	6724.45	198.39	2138.16	1.67	2147.32	14510787.99	2093556.56
7309.00	17.00	84.45	6785.64	200.29	2156.80	0.25	2166.06	14510789.89	2093575.20
7373.00	16.31	85.45	6846.96	201.90	2175.07	1.17	2184.40	14510791.50	2093593.47
7436.00	14.94	87.33	6907.63	202.98	2192.00	2.32	2201.36	14510792.58	2093610.40
7500.00	13.38	86.95	6969.68	203.76	2207.64	2.44	2217.00	14510793.36	2093626.04
7564.00	11.00	86.08	7032.24	204.57	2221.13	3.73	2230.50	14510794.17	2093639.53
7628.00	9.56	83.45	7095.21	205.60	2232.50	2.37	2241.92	14510795.20	2093650.90
7692.00	7.81	77.58	7158.47	207.14	2242.03	3.06	2251.55	14510796.74	2093660.43
7755.00	6.88	79.08	7220.95	208.77	2249.91	1.51	2259.56	14510798.37	2093668.31
7817.00	6.06	77.70	7282.56	210.18	2256.76	1.35	2266.51	14510799.78	2093675.16
7881.00	4.88	77.95	7346.27	211.46	2262.72	1.84	2272.57	14510801.06	2093681.12
7944.00	4.69	76.45	7409.05	212.63	2267.85	0.36	2277.78	14510802.23	2093686.25
8008.00	4.00	77.58	7472.86	213.72	2272.57	1.09	2282.59	14510803.32	2093690.97
8072.00	3.63	79.45	7536.72	214.57	2276.74	0.61	2286.82	14510804.17	2093695.14
8136.00	3.44	82.33	7600.60	215.20	2280.64	0.41	2290.76	14510804.80	2093699.04
8199.00	3.31	83.95	7663.49	215.64	2284.32	0.26	2294.47	14510805.24	2093702.72
8295.00	3.25	86.83	7759.33	216.08	2289.79	0.18	2299.96	14510805.68	2093708.19
8390.00	3.50	89.95	7854.17	216.24	2295.38	0.33	2305.53	14510805.84	2093713.78
8454.00	3.56	85.58	7918.05	216.39	2299.31	0.43	2309.46	14510805.99	2093717.71
8558.00	3.81	89.20	8021.83	216.69	2305.99	0.33	2316.14	14510806.29	2093724.39
8659.00	3.79	86.91	8122.61	216.91	2312.68	0.15	2322.81	14510806.51	2093731.08
8710.00	3.79	86.91	8173.50	217.10	2316.04	0.00	2326.18	14510806.70	2093734.44

**Formations**

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
	0.00	GREEN RIVER		0.00	0.00
4153.89	3988.00	WASATCH		0.00	0.00
6697.92	6221.00	MESAVERDE		0.00	0.00

<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> STUO-08512-ST
<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 1022-13I3S
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047394740000
<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> 1735 FSL 1764 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NESW Section: 13 Township: 10.0S Range: 22.0E 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 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 checked="" type="checkbox"/> <b>PRODUCTION START OR RESUME</b> <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 checked="" type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion: 11/8/2009			
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:			
<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.**

THIS WELL RETURNED TO PRODUCTION ON 11/8/2009.

Accepted by the  
 Utah Division of  
 Oil, Gas and Mining  
**FOR RECORD ONLY**  
 December 03, 2009

<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> 12/3/2009

<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> STUO-08512-ST			
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 1022-13I3S			
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		<b>9. API NUMBER:</b> 43047394740000			
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1735 FSL 1764 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NESW Section: 13 Township: 10.0S Range: 22.0E Meridian: S		<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES			
<b>PHONE NUMBER:</b> 720 929-6515 Ext		<b>COUNTY:</b> UINTAH			
<b>STATE:</b> UTAH					
<b>11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</b>					
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>				
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 9/29/2011  <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:	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <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         </td> <td style="width: 33%; vertical-align: top;"> <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         </td> <td style="width: 33%; vertical-align: top;"> <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            OTHER: <input style="width: 50px;" type="text"/> </td> </tr> </table>		<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 checked="" type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 50px;" type="text"/>
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<b>12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.</b> The operator requests authorization to recomplate the subject well. The operator requests approval to recomplate the Wasatch and the Mesaverde formations. The operator will commingle the Wasatch and the Mesaverde formations. Please see the attached procedure. Thank you.					
<b>NAME (PLEASE PRINT)</b> Jaime Scharnowske		<b>PHONE NUMBER</b> 720 929-6304			
<b>SIGNATURE</b> N/A		<b>TITLE</b> Regularatory Analyst			
<b>DATE</b> 9/29/2011		<b>DATE</b> 10/06/2011 <b>By:</b> <u>Dark K. Quist</u>			

# Greater Natural Buttes Unit



**NBU 1022-13I3S**  
**RE-COMPLETIONS PROCEDURE**

**DATE:9/19/2011**  
**AFE#:2064452**  
**API#:4304739474**  
**USER ID:rachappe** (Frac Invoices Only)

**COMPLETIONS ENGINEER:** RACHAEL HILL, Denver, CO  
(720)-929-6599 (Office)  
(303)-907-9167 (Cell)

**SIGNATURE:**

**ENGINEERING MANAGER:** JEFF DUFRESNE

**SIGNATURE:**

**REMEMBER SAFETY FIRST!**

**Name:** NBU 1022-1313S  
**Location:** SW NE SE SEC 13 T10S R22E  
**LAT: 39.946414**      **LONG: -109.391303**      **COORDINATE: NAD83 (Surface)**  
**Uintah County, UT**  
**Date:** 9/19/11

**ELEVATIONS:**      5293' GL      5310' KB      *Frac Registry TVD: 8173*

**TOTAL DEPTH:** 8710'      **PBTD:** 8665'  
**SURFACE CASING:** 9 5/8", 36# J-55 LT&C @ 2146'  
**PRODUCTION CASING:** 4 1/2", 11.6#, I-80 LT&C @ 8710'  
 Marker Joint **4166-4187'**

**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:**

1045' Green River Top  
 1296' Bird's Nest Top  
 1763' Mahogany Top  
 4181' Wasatch Top  
 6563' Mesaverde Top

**BOTTOMS:**

6563' Wasatch Bottom  
 8710' Mesaverde Bottom (TD)

**T.O.C. @ 1726'**

**GENERAL:**

- A minimum of **7** 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 3/19/2008
- **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)**
- Tubing Currently Landed @~8040
- Originally completed on 5/9/2008

**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>
MESA VERDE		7138	7148	4	40	04/29/2008	PRODUCTION		Yes
MESA VERDE		7248	7250	4	8	04/29/2008	PRODUCTION		Yes
MESA VERDE		7302	7304	4	8	04/29/2008	PRODUCTION		Yes
MESA VERDE		7309	7316	4	28	04/29/2008	PRODUCTION		Yes
MESA VERDE		7567	7570	3	9	04/29/2008	PRODUCTION		Yes
MESA VERDE		7636	7640	4	16	04/29/2008	PRODUCTION		Yes
MESA VERDE		7717	7722	4	20	04/29/2008	PRODUCTION		Yes
MESA VERDE		8071	8074	3	9	04/29/2008	PRODUCTION		Yes
MESA VERDE		8114	8118	4	16	04/29/2008	PRODUCTION		Yes
MESA VERDE		8165	8170	4	20	04/29/2008	PRODUCTION		Yes
MESA VERDE		8264	8266	4	8	04/29/2008	PRODUCTION		Yes
MESA VERDE		8293	8297	4	16	04/29/2008	PRODUCTION		Yes
MESA VERDE		8324	8328	4	16	04/29/2008	PRODUCTION		Yes
MESA VERDE		8532	8534	4	8	04/29/2008	PRODUCTION		Yes
MESA VERDE		8546	8548	4	8	04/29/2008	PRODUCTION		Yes
MESA VERDE		8631	8637	4	24	04/29/2008	PRODUCTION		Yes

**Relevant History:**

Periodic Slickline Operations. Last Slickline Report shows fluid level @~7600; Seat Nipple @~7981; SN Type X.

**H2S History:**

NBU 1022-1313S	
Date	H2S H2S_SEPARATO R_PPM
10/1/2008	0.00
11/1/2008	0.00
12/1/2008	20.00
1/1/2009	45.00
2/1/2009	0.00
3/1/2009	40.00
4/1/2009	0.00
5/1/2009	10.00
6/1/2009	30.00
7/1/2009	7.00
8/1/2009	40.00
9/1/2009	25.00
10/1/2009	0.00
11/1/2009	18.00
12/1/2009	0.00
1/1/2010	40.00
2/1/2010	53.00
3/1/2010	30.00
4/1/2010	55.00

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

1. MIRU. Control well with recycled water and biocide as required. ND WH, NU BOP's and test.
2. TOOH with 2-3/8", 4.7#, J-55 (or N-80) tubing (currently landed at ~8040'). Visually inspect for scale and consider replacing if needed.
3. If tbg looks ok consider running a gauge ring to 7106 (50' below proposed CBP). Otherwise P/U a mill and C/O to 7106 (50' below proposed CBP).
4. Set 8000 psi CBP at ~ 7056'. ND BOPs and 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 9-5/8" annulus with pressure relief valve in line. 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.

5. Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:
- | Zone      | From | To   | spf | # of shots |
|-----------|------|------|-----|------------|
| MESAVERDE | 7020 | 7026 | 4   | 24         |
6. 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 ~7020' and trickle 250gal 15%HCL w/ scale inhibitor in flush .
7. Set 8000 psi CBP at ~6720'. Perf the following 3-3/8" gun, 23 gm, 0.36"hole:
- | Zone      | From | To   | spf | # of shots |
|-----------|------|------|-----|------------|
| WASATCH   | 6502 | 6505 | 4   | 12         |
| MESAVERDE | 6602 | 6604 | 4   | 8          |
| MESAVERDE | 6689 | 6690 | 4   | 4          |
8. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 2 on attached listing. Under-displace to ~6502' and trickle 250gal 15%HCL w/ scale inhibitor in flush.
9. Set 8000 psi CBP at ~6055'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole:
- | Zone    | From | To   | spf | # of shots |
|---------|------|------|-----|------------|
| WASATCH | 5938 | 5940 | 4   | 8          |
| WASATCH | 6000 | 6002 | 4   | 8          |
| WASATCH | 6023 | 6025 | 4   | 8          |
10. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 3 on attached listing. Under-displace to ~5938' flush only with recycled water.
11. Set 8000 psi CBP at~5888'.
12. TIH with 3 7/8" mill, pump open sub, XN nipple and tubing.
13. Mill 3 plugs and clean out to a depth of 7056'. THE WELL WILL BE COMMINGLED AT THIS TIME.
14. Land tubing at 5908', drop ball and pump open sub. Flow back completion load. RDMO
15. MIRU, POOH tbg and mill. TIH with POBS and mill.
16. Mill last plug @ 7056' clean out to PBSD at 8665'. Land tubing at ±8040' pump off bit and bit sub . This well WILL be commingled at this time.
17. Clean out well with foam and/or swabbing unit until steady flow has been established from recomplete.
- 18. Leave surface casing valve open.** Monitor and report any flow from surface casing. RDMO

**For design questions, please call  
Rachael Hill, Denver, CO  
(720)-929-6599 (Office)  
(303)-907-9167 (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 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

Rachael Hill: 303-907-9167, 720-929-6599

Production Engineer

Ben Smiley: 936-524-4231, 435-781-7010

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

Service Company Supplied Chemicals - Job Totals

Friction Reducer	46	gals @	0.5	GPT
Surfactant	91	gals @	1.0	GPT
Clay Stabilizer	91	gals @	1.0	GPT
15% Hcl	750	gals @	250	gal/stg
Iron Control for acid	4	gals @	5.0	GPT of acid
Surfactant for acid	1	gals @	1.0	GPT of acid
Corrosion Inhibitor for acid	2	gals @	2.0	GPT of acid



Name NBU 1022-13I3S  
 Perforation and CBP Summary

Stage	Zones	Perforations		SPF	Holes	Fracture Coverage		
		Top, ft	Bottom, ft					
1	MESAVERDE	7020	7026	4	24	7009.5	to	7029
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	# of Perfs/stage				24	CBP DEPTH	6,720	
2	WASATCH	6502	6505	4	12	6491.5	to	6523.5
	MESAVERDE	6602	6604	4	8	6569.5	to	6615
	MESAVERDE	6689	6690	4	4	6685.5	to	6693.5
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
# of Perfs/stage				24	CBP DEPTH	6,055		
3	WASATCH	5938	5940	4	8	5925	to	5946
	WASATCH	6000	6002	4	8	5999.5	to	6006
	WASATCH	6023	6025	4	8	6020	to	6027.5
	WASATCH							
	WASATCH							
	WASATCH							
	WASATCH							
	WASATCH							
# of Perfs/stage				24	CBP DEPTH	5,888		
Totals					72			

NBU 1022-131-3S						
MD	TVD	INC		MD	TVD	INC
0	0	0		4728	4475.36	32.5
100	99.99	1		4790	4527.87	31.75
200	199.98	1.25		4850	4578.94	31.56
300	299.95	1.5		4912	4631.86	31.25
400	399.91	1.5		4974	4685.07	30.5
500	499.87	1.75		5035	4737.63	30.5
600	599.82	2		5097	4790.87	31.17
700	699.75	2.25		5159	4844.22	30.06
800	799.66	2.5		5220	4897.18	29.44
900	899.57	2.5		5282	4951.24	29.19
1000	999.46	2.75		5343	5004.5	29.19
1100	1099.36	2.5		5405	5058.67	29
1200	1199.28	2.25		5465	5111.29	28.44
1300	1299.22	1.75		5527	5165.94	27.94
1400	1399.19	0.75		5589	5220.87	27.31
1500	1499.18	0.75		5652	5276.89	27.13
1600	1599.17	1		5716	5333.87	27.06
1700	1699.15	1.5		5779	5390	26.94
1800	1799.1	2.25		5843	5447.22	26.31
1900	1899.01	2.5		5907	5504.62	26.19
1944	1942.95	3.25		5970	5561.15	26.19
2199	2197.73	1.51		6034	5618.69	25.75
2260	2258.7	1.85		6098	5676.41	25.44
2322	2320.63	3.77		6161	5733.31	25.38
2383	2381.44	5.31		6225	5791.23	25
2445	2443.02	7.94		6289	5849.26	24.88
2506	2503.19	10.94		6353	5907.38	24.63
2568	2564.02	11.31		6417	5965.64	24.25
2630	2624.81	11.38		6480	6023.07	24.31
2691	2684.55	11.94		6544	6081.25	24.94
2753	2745.11	12.81		6608	6139.25	25.06
2815	2805.42	14		6671	6196.42	24.63
2877	2865.47	14.81		6735	6254.55	24.83
2940	2926.19	16.13		6798	6311.72	24.88
3002	2985.61	17		6862	6369.72	25.13
3065	3045.49	19.25		6926	6427.78	24.63
3127	3103.81	20.38		6990	6485.89	24.94
3189	3161.56	22.31		7053	6543.48	22.88
3250	3217.58	24.31		7117	6602.84	21
3312	3273.69	26		7181	6663.14	18.13
3374	3329.13	27.19		7245	6724.14	17.06
3436	3383.86	28.88		7309	6785.34	17
3498	3437.54	31.16		7373	6846.65	16.31
3560	3489.92	33.5		7436	6907.32	14.94
3622	3541.64	33.44		7500	6969.38	13.38
3682	3591.85	32.94		7564	7031.93	11
3744	3643.89	32.94		7628	7094.9	9.56
3806	3695.59	34.06		7692	7158.16	7.81
3867	3746.18	33.88		7755	7220.65	6.88
3929	3797.84	33.25		7817	7282.25	6.06
3991	3850.02	32.13		7881	7345.96	4.88
4052	3901.75	31.88		7944	7408.74	4.69
4114	3954.25	32.38		8008	7472.55	4
4176	4006.76	31.88		8072	7536.41	3.63
4237	4058.56	31.88		8136	7600.29	3.44
4299	4111.24	31.75		8199	7663.18	3.31
4360	4163.08	31.88		8295	7759.02	3.25
4421	4214.86	31.94		8390	7853.86	3.5
4483	4267.53	31.75		8454	7917.74	3.56
4545	4320.25	31.75		8558	8021.52	3.81
4605	4371.24	31.88		8659	8122.3	3.79
4666	4422.96	32.13		8710	8173.19	3.78

**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:  
**UO-08512 ST**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

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

8. WELL NAME and NUMBER:  
**NBU 1022-1313S**

9. API NUMBER:  
**4304739474**

10. FIELD AND POOL, OR WLD/CA/T  
**NATURAL BUTTES**

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:  
**NESW 13 10S 22E S**

12. COUNTY  
**UINTAH**

13. STATE  
**UTAH**

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 **RECOMPLETION**

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) 929-6304**

4. LOCATION OF WELL (FOOTAGES)  
AT SURFACE: **NESW 1735 FSL 1764 FWL S13,T10S,R22E**  
AT TOP PRODUCING INTERVAL REPORTED BELOW: **NESE 1858 FSL 1942 FEL S13,T10S,R22E**  
AT TOTAL DEPTH: **NESE 1951 FSL 1221 FEL S13,T10S,R22E**

14. DATE SPUDDED: **11/15/2007** 15. DATE T.D. REACHED: **3/18/2008** 16. DATE COMPLETED: **1/11/2012** ABANDONED  READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):  
**5293**

18. TOTAL DEPTH: MD **8,710** TVD **8,173** 19. PLUG BACK T.D.: MD **8,664** TVD **8,127** 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/CCL/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#	0	40		28			
12 1/4"	9 5/8" J-55	36#	0	2,160		800			
7 7/8"	4 1/2" I-80	11.6#	0	8,710		1,592			

**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"	8,059							

**26. PRODUCING INTERVALS**

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) WASTACH	5,938	6,505			5,938 6,505	0.36	36	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B) MESAVERDE	6,602	7,026			6,602 7,026	0.36	36	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
5938 - 7026	PUMP BBLs SLICK H2O & LBS 30/50 OTTAWA SAND 3 STAGES

**RECEIVED**  
**JUL 03 2012**

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: 1/11/2012	TEST DATE: 4/19/2012	HOURS TESTED: 24	TEST PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 879	WATER - BBL: 0	PROD. METHOD: FLOWING
CHOKE SIZE: 48/64	TBG. PRESS. 334	CSG. PRESS. 918	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	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: →	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: →	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: →	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	1,045
				BIRD'S NEST	1,296
				MAHOGANY	1,763
				WASATCH	4,181
				MESAVERDE	6,563

**35. ADDITIONAL REMARKS (Include plugging procedure)**

Attached is the recompletion history and perforation report. Test information is production from all Wasatch/Mesaverde perforations. Casing in the well is as previously reported on the original Completion Report. New recompletion perforations are: Wasatch 5938-6505 & Mesaverde 6602-7026. Existing Perforations were: Mesaverde 7138-8646. The Iso Plug separating new and old perforations was drilled out 4/17/12.

**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 6/26/2012

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  
 1594 West North Temple, Suite 1210  
 Box 145801  
 Salt Lake City, Utah 84114-5801

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

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 1022-13I3S YELLOW

Spud Date: 11/15/2007

Project: UTAH-UINTAH

Site: WHITE RIVER PAD

Rig Name No: MILES 3/3

Event: RECOMPL/RESEREVEADD

Start Date: 12/30/2011

End Date:

Active Datum: RKB @5,310.00usft (above Mean Sea Level)

UWI: NBU 1022-13I-3S

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/30/2011	7:00 - 7:15	0.25	COMP	48		P		JSA- ND/NU. POOH AS SCAN TBG. EWL. PRES TEST.
	7:15 - 11:00	3.75	COMP	31	I	P		BWD. ND WH. NU BOP. RU FLOOR. UNLAND AND LD 4" 10K HANGER. RU B&C. SCAN AND SORT AS POOH AS LD 252-JTS 2-3/8" L-80 TBG. HAD 138-JTS YELLOW AND 114-JTS RED. RD B&C. MOVE TBG TRAILERS.
	11:00 - 13:30	2.50	COMP	34	I	P		RU CASED HOLE EWL. RIH W/ 3.625" GR/JB TO 7105'. RIH W/ 4-1/2" CIBP. SET ISOLATION PLUG AT 7056'. RD EWL.
	13:30 - 16:00	2.50	COMP	30	C	P		RD FLOOR. ND BOP. NU FRAC VALVES. FILL CSG W/ 70 BBLs. PRES TEST TO 1000#. HAVE INSIDE FRAC VALVE LEAKING. RDSU. MOVE OVER TO 13Q-1AS. RUSU.
								(PRES TEST SURFACE CSG TO 900#. LOST 170# IN 5 MIN.)
1/4/2012	9:00 - 10:00	1.00	COMP	33	C	P		RU B&C.
								PRES TO 1030# FOR 15 MIN. END AT 1022#. LOST 8#.
								PRES TO 3560# FOR 15 MIN. END AT 3532#. LOST 28#.
								PRES TO 6200# FOR 30 MIN. END AT 6155#. LOST 45#.
								BLEED OFF AND RD B&C.
1/5/2012								

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-13I3S YELLOW

Spud Date: 11/15/2007

Project: UTAH-UINTAH

Site: WHITE RIVER PAD

Rig Name No: MILES 3/3

Event: RECOMPL/RESERVEADD

Start Date: 12/30/2011

End Date:

Active Datum: RKB @5,310.00usft (above Mean Sea Level)

UWI: NBU 1022-13I-3S

Date	Time Start/End	Duration (hr)	Phase	Code	Sub-Code	P/U	MD From (usft)	Operation
	12:00 - 18:00	6.00	COMP	36	B	P		<p>PERF STAGE 1# AS PER DES. 3 1/8 EXP GUN 23 GM. .36 HOLE 90 DEG PHASING</p> <p>FRAC STAGE 1# WHP 0 PSI, BRK 2550 PSI @ 6.4 BPM. ISIP 1800 PSI, FG .70.                      CALC PERFS OPEN @ 50.5 BPM @ 4800 PSI = 91% HOLES OPEN.                      ISIP 2510 PSI, FG .79, NPI 710 PSI.                      MP 5469 PSI, MR 50.4 BPM, AP 3826 PSI, AR 48.2 BPM,                      PUMPED 30/50 OWATTA SAND.</p> <p>PERF STAGE 2# AS PER DES. 3 1/8 EXP GUN 23 GM, .36 HOLES, 90 DEG PHASING. SET CBP @ 6720.</p> <p>FRAC STAGE 2# WHP 520 PSI, BRK 2673 PSI @ 6.5 BPM. ISIP 1245 PSI, FG .62.                      CALC PERFS OPEN @ 50.7 BPM @ 3800 PSI = 95% HOLES OPEN.                      ISIP 2040 PSI, FG .74, NPI 795 PSI.                      MP 4513 PSI, MR 50.9 BPM, AP 3584 PSI, AR 47.4 BPM,                      PUMPED 30/50 OWATTA SAND.</p>
1/6/2012	7:00 - 18:00	11.00	COMP	36	B	P		<p>PERF STG 3)PU 4 1/2 8K HAL CBP &amp; 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 5558' P/U PERF AS PER DESIGN.</p> <p>FRAC STG 3)WHP 290 PSI, BRK 2740 PSI @ 6.1 BPM. ISIP 1076 PSI, FG .61.                      CALC PERFS OPEN @ 00.0 BPM @ 0000 PSI = 91% HOLES OPEN.                      ISIP 1745 PSI, FG .72, NPI 669 PSI.                      MP 4386 PSI, MR 52 BPM, AP 3656 PSI, AR 51.9 BPM,                      PUMPED 30/50 OWATTA SAND.</p> <p>PU 4 1/2 8K HAL CBP.</p> <p>TOTAL SAND = 65,216#                      TOTAL CLFL = 2825 BBLS                      SAFETY = JSA</p>
1/11/2012	7:00 - 7:15	0.25	COMP	48		P		

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 1022-1313S YELLOW

Spud Date: 11/15/2007

Project: UTAH-UINTAH

Site: WHITE RIVER PAD

Rig Name No: MILES 3/3

Event: RECOMPL/RESEREVEADD

Start Date: 12/30/2011

End Date:

Active Datum: RKB @5,310.00usft (above Mean Sea Level)

UWI: NBU 1022-131-3S

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 18:00	10.75	COMP	30		P		<p>SICP= 0# RDMO 1022-130-2S. MIRU. NDWH. NUBOP. P/U &amp; RIH W/ 3-7/8" MILL + PUMP OPEN BIT SUB + XN + 186 JTS 2-3/8" J-55 4.7# TBNG. T/U ON KILL CBP @ 5907'. TEST BOP'S GOOD @ 3000#. BREAK CIRCULATION &amp; BEGIN D/O AS FOLLOWS:</p> <p>CBP #1) DRLG OUT BAKER 8K CBP @ 5907' IN 10 MIN. 100 LBS DIFF. PSI. RIH, TAG SND @ 6036'. C/O 30' OF SND. FCP = 100 PSI.</p> <p>CBP #2) DRLG OUT BAKER 8K CBP @ 6066" IN 9 MIN. 100 LBS DIFF. PSI. RIH, TAG SND @ 6708'. C/O 20' OF SND. FCP = 100 PSI.</p> <p>CBP #3) DRLG OUT BAKER 8K CBP @ 6728' IN 10 MIN. 200 LBS DIFF. PSI. RIH, TAG SND @ 6290'. C/O 21' OF SND. FCP = 250 PSI.</p> <p>WASH DOWN TO ISOLATION CBP @7056' W/ BHA + 223 JTS. 2-3/8" J-55 TBNG. CIRC BOTTOMS UP X2. L/D 36 JTS. LAND WELL ON HANGER W/ 187 JTS 2-3/8" J-55 Y-BND + MILL + PUMP OPEN SUB + XN. EOT@ 5925.18'. NDBOP. NUWH. DROP BALL &amp; PUMP OPEN BIT SUB @ 900#. MIRU B&amp;C + TEST SURFACE EQUIP TO THE HAL SEPERATOR @ 2500#. PRESSURE LEAKED OFF W/ NO VISIBLE SURFACE LEAKS. TBNG MASTER VALVE IS LEAKING. SPOKE W/ SUPERVISOR &amp; WAS CLEARED TO FLOW BACK WELL. TURN WELL OVER TO FLOWBACK CREW. R/D RIG. SDFN.</p> <p>NOTE: WELL FLOWING W/ SICP @750# FTP@ 250# AND CLIMBING. WATER RECOV =300 BBLS. TWLTR = +/- 2550 BBLS</p> <p>KB = 17 187 JTS 2-3/8" J-55 TBNG. = 5904.27' XN = 1.33' PUMP OPEN SUB = 1.44' 3-7/8" MILL = .31' EOT@ 5925.18'</p>
	19:30 -		PROD	50				WELL TURNED TO SALES @ 1930 HR ON 1/11/12 - 400 MCFD, 1560 BWPD, FCP 700#, FTP 350#, 20/64 CK
1/15/2012	15:04 -		PROD	50				WELL IP'D ON 1/15/12 - 1123 MCFD, 0 BOPD, 3 BWPD, CP 758 #, FTP 294#, CK 48/64", LP 93#, 24 HRS

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 1022-13I3S YELLOW

Spud Date: 11/15/2007

Project: UTAH-UINTAH

Site: WHITE RIVER PAD

Rig Name No: ROCKY MOUNTAIN WELL SERVICE  
3/3

Event: WELL WORK EXPENSE

Start Date: 4/2/2012

End Date: 4/17/2012

Active Datum: RKB @5,310.00usft (above Mean Sea Level)

UWI: NBU 1022-13I-3S

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/16/2012	7:00 - 7:15	0.25	COMP	48		P		HSM - JSA
	7:15 - 16:00	8.75	COMP	31	I	P		MIRU, PUMP 50 BBLS TMAC TO CONTROL WELL, NDWH, NUBOP, POOH W/ 93 STANDS TBG, PUMP 50 BBLS TMAC TO CONTROL WELL, L/D PUMP OPEN BIT SUB, P/U 3 7/8" BIT, POBS, & USED XN SN, RIH W/ 93 STANDS TBG, P/U 36 JTS TBG OFF FLOAT, TAG FILL @ 7,030', R/U PWR SWIVEL, SWMFN.
4/17/2012	7:00 - 7:15	0.25	COMP	48		P		HSM - JSA
	7:15 - 16:30	9.25	COMP	44	C	P		SICP 1050 PSI, OPEN WELL, R/U WEATHERFORD FOAM UNIT & BREAK CIRC, C/O 26' OF SAND, TAG CIBP @ 7,056', D/O CIBP PLUG IN 60 MIN, 500 PSI INCREASE, CSG PRESS 700 PSI, P/U 2 3/8" TBG OFF FLOAT RIH W/ 50 JTS, TAG FILL @ 8611', C/O 15' SAND TAG OLD POBS @ 8626', DRL FOR 75 MIN, PUSH DOWN TO 8640', 3' BELOW BTM PERF, CIRC WELL CLEAN, R/D PWR SWIVEL & FOAM UNIT, POOH L/D 19 JTS TBG ON FLOAT, LAND W/ 254 JTS 2 3/8" J-55 TBG EOT @ 8059.37'. R/D FLOOR & TBG EQUIP, NDBOP, NUWH, DROP BALL & PUMP OFF BIT SUB @ 900 PSI. LET BIT FALL FOR 20 MIN. TURN OVER TO PROD CSG 1050 PSI TBG 0 PSI, SHUT IN TO BUILD PRESS, RDMO, MOVE TO NBU 1022-13O2S, SDFN.
								KB - 17' 4 1/16" HANGER - .83' 254 JTS 2 3/8" L-80 - 8039.34' POBS - 2.20' EOT @ 8059.37'
								TWTR = 300 BBLS TWR = 307 BBLS TWLTR = 0 BBLS

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-13I3S YELLOW	Wellbore No.	OH
Well Name	NBU 1022-13I3S	Wellbore Name	NBU 1022-13I3S
Report No.	1	Report Date	12/27/2011
Project	UTAH-UINTAH	Site	WHITE RIVER PAD
Rig Name/No.		Event	RECOMPL/RESEREVEADD
Start Date	12/30/2011	End Date	
Spud Date	11/15/2007	Active Datum	RKB @5,310.00usft (above Mean Sea Level)
UWI	NBU 1022-13I-3S		

1.3 General

Contractor	CASED HOLE SOLUTIONS	Job Method	PERFORATE	Supervisor	FRANK WINN
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

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

1.5 Summary

Gross Interval	5,938.0 (usft)-7,026.0 (usft)	Start Date/Time	1/4/2012 12:00AM
No. of Intervals	7	End Date/Time	1/4/2012 12:00AM
Total Shots	72	Net Perforation Interval	18.00 (usft)
Avg Shot Density	4.00 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

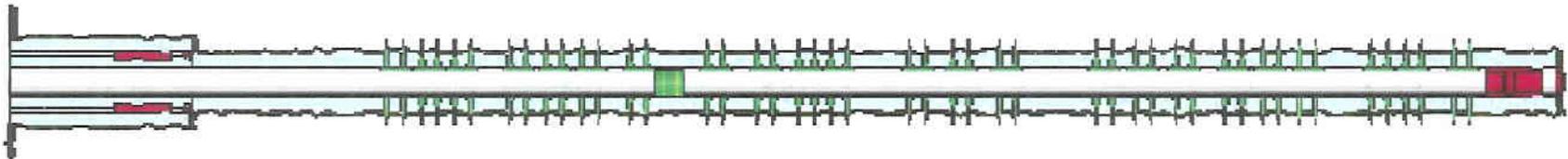
Date	Formation/Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
1/4/2012 12:00AM	WASATCH/			5,938.0	5,940.0	4.00		0.360	EXPENDIBLE/	3.125	90.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
1/4/2012 12:00AM	WASATCH/			6,000.0	6,002.0	4.00		0.360	EXPENDIBLE/	3.125	90.00		23.00	PRODUCTIO N	
1/4/2012 12:00AM	WASATCH/			6,023.0	6,025.0	4.00		0.360	EXPENDIBLE/	3.125	90.00		23.00	PRODUCTIO N	
1/4/2012 12:00AM	WASATCH/			6,502.0	6,505.0	4.00		0.360	EXPENDIBLE/	3.125	90.00		23.00	PRODUCTIO N	
1/4/2012 12:00AM	MESA VERDE/			6,602.0	6,604.0	4.00		0.360	EXPENDIBLE/	3.125	90.00		23.00	PRODUCTIO N	
1/4/2012 12:00AM	MESA VERDE/			6,689.0	6,690.0	4.00		0.360	EXPENDIBLE/	3.125	90.00		23.00	PRODUCTIO N	
1/4/2012 12:00AM	MESA VERDE/			7,020.0	7,026.0	4.00		0.360	EXPENDIBLE/	3.125	90.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic







## NBU 1022-13I3S

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### Water Shut Off

**White River Pad**  
Sec. 13 10S 22E  
Uintah County, UT

DATE: 7/23/2014  
WO#:

### CONTACT INFORMATION:

FOREMAN	Ryan Kunkel	435-828-4624
MECHANICAL LEAD	Troy Reynolds	435-828-0011
OPERATOR	Nate Adamson	435-828-0354
OPERATOR	Jeremy Gudac	435-828-8116
ENGINEER	Boone Bajgier	713-416-4816





### PERFORATIONS

Date	Formation	Zone	Top	Btm	SPF	No. Holes	Diameter	Phasing	Reason	Status
01/04/2012	WASATCH		5938	5940	4	8	0.36	90	PRODUCTION	OPEN
01/04/2012	WASATCH		6000	6002	4	8	0.36	90	PRODUCTION	OPEN
01/04/2012	WASATCH		6023	6025	4	8	0.36	90	PRODUCTION	OPEN
01/04/2012	WASATCH		6502	6505	4	12	0.36	90	PRODUCTION	OPEN
01/04/2012	MESA VERDE		6602	6604	4	8	0.36	90	PRODUCTION	OPEN
01/04/2012	MESA VERDE		6689	6690	4	4	0.36	90	PRODUCTION	OPEN
01/04/2012	MESA VERDE		7020	7026	4	24	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		7138	7148	4	40	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		7248	7250	4	8	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		7302	7304	4	8	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		7309	7316	4	28	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		7567	7570	3	9	0.36	120	PRODUCTION	OPEN
04/29/2008	MESA VERDE		7636	7640	4	16	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		7717	7722	4	20	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		8071	8074	3	9	0.36	120	PRODUCTION	OPEN
04/29/2008	MESA VERDE		8114	8118	4	16	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		8165	8170	4	20	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		8264	8266	4	8	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		8293	8297	4	16	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		8324	8328	4	16	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		8532	8534	4	8	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		8546	8548	4	8	0.36	90	PRODUCTION	OPEN
04/29/2008	MESA VERDE		8631	8637	4	24	0.36	90	PRODUCTION	OPEN

### WELL HISTORY

- Completion – on sales 5/16/2008
- Workover – worked over for barium scale and cleaned out to PBTD on 1/20/2009
- Recompletion – perforated and fractured upper zones in January 2012
- Production – ~150 MCFD loss

### SYMPTOMS

- After the recompletion isolation plug was drilled out, the well turned to an exponential decline and production dropped off significantly within the following year.
- During that time, LGR climbed toward its original LGR pre recompletion.
- Pre Recompletion LGR: ~90 BBL/MMCF
- Post Recompletion well could not produce and has not been able to produce consistently for over 15 months. (No discernable consistent LGR due to no production)
- Well has unsuccessfully tried running on continuous foamer, tubing raises, and tubing stops.





**PROCEDURE:**

- MIRU, blow well down, and control casing/tubing pressures with water.
- NDWH & NUBOP.
- Unland tubing. **Current EOT ~8,059'**.
- RIH & tag for fill (**Bottom open perf @ 8,637'**). If tubing tags above 8,400', call engineer to discuss.
- POOH and scan tubing, once first joint fails (+30% wall loss), break every connection and visually inspect for pins and upsets from corrosion. LD all scaled/damaged joints.
- RU slickline and RIH CIBP to 8,350'. Set plug at depth to shut off perforations at bottom of well (highlighted on perforation detail in red). RD slickline.
- Confirm BHA contains a seat nipple. TIH and land **EOT @ ~8,059' (old EOT)**. Broach entire tubing string with 1.910" broach to surface in one run after landing EOT.
- NDBOP and NUWH.
- Notify CDC, foreman, & operators of RDMO.

<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> STUO-08512-ST	
<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>8. WELL NAME and NUMBER:</b> NBU 1022-13I3S	
<b>9. API NUMBER:</b> 43047394740000	
<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES	
<b>11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</b>	
<b>1. TYPE OF WELL</b> Gas Well	
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6100
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1735 FSL 1764 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NESW Section: 13 Township: 10.0S Range: 22.0E Meridian: S	<b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 10/2/2014	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input checked="" type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The water shut-off on the NBU 1022-13I3S has been completed, please see the attached operations summary report.

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

**FOR RECORD ONLY**

October 10, 2014

<b>NAME (PLEASE PRINT)</b> Doreen Green	<b>PHONE NUMBER</b> 435 781-9758	<b>TITLE</b> Regulatory Analyst II
<b>SIGNATURE</b> N/A	<b>DATE</b> 10/10/2014	

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 1022-1313S YELLOW			Spud Date: 11/15/2007		
Project: UTAH-UINTAH		Site: WHITE RIVER PAD		Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3	
Event: WELL WORK EXPENSE		Start Date: 9/15/2014		End Date: 9/18/2014	
Active Datum: RKB @5,310.00usft (above Mean Sea Level)			UWI: NBU 1022-131-3S		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/17/2014	7:00 - 7:15	0.25	MAINT	48		P		JSA-SAFETY MEETING
	7:15 - 9:00	1.75	MAINT	30	A	P		MIRU SERVICE UNIT
	9:00 - 11:00	2.00	MAINT	30	F	P		980# ON WELL, BLOW DN TO TK, PUMP 40 BBLs WTR DN TBG TO CONTROL WELL, N/D WH, N/U BOPS, P/O HANGER, RIH TAG PBTD 8626',
	11:00 - 15:00	4.00	MAINT	31	I	P		R/U SCAN TECH, TOO H W/ 2 3/8" L-80 TBG, FOUND 130 JTS YELLOW BAND AND 124 JTS RED BAND, NO HOLE IN TBG, SHUT WELL IN SDFN
9/18/2014	7:00 - 7:15	0.25	MAINT	48		P		HSM, JSA
	7:15 - 9:30	2.25	MAINT	34	I	P		530# SICP, CONTROL WELL W/ 30 BBLs T-MAC, MIRU CUTTERS WIRELINE, RIH W/ GAUGE RING TO 8360, POOH W/ GAUGE RING, RIH W/ CIBP, SET CIBP @ 8350', POOH, DUMP BAIL 2SX CMT ON CIBP, POOH, RD CUTTERS
	9:30 - 14:00	4.50	MAINT	31	I	P		MU XN NIPPLE, TIH W/ 2-3/8" TBG, LAND TBG ON HANGER W/ 254 JTS TBG, BROACH TBG TO XN W/ 1.910 BROACH
	14:00 - 15:30	1.50	MAINT	30	C	P		ND BOP'S, NU WH, SWI, RDMO
								KB 17' HANGER .83' 254 JTS 2-3/8" J-55 8022.92' XN 1.05' EOT @ 8041.80'
9/29/2014	7:00 - 11:00	4.00	MAINT	35		P		RIH with JDC and stacked out @ 14'. Attempted 3 times to latch plunger and was unable to. Began to beat down and fell through. RIH with Broach (1.9055") to SN @ 8048'. Set BS and pushed plunger to BS. RTP
	7:00 - 14:30	7.50	PROD	42		P		SWABBING
9/30/2014	7:00 - 10:30	3.50	PROD	42		P		SWABBING
10/1/2014	7:00 - 19:00	12.00	PROD	42		P		SWABBING
10/2/2014	7:00 - 18:00	11.00	PROD	42		P		SWABBING

<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> STUO-08512-ST	
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<b>9. API NUMBER:</b> 43047394740000	
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<b>COUNTY:</b> UINTAH	
<b>STATE:</b> UTAH	

**SUNDRY NOTICES AND REPORTS ON WELLS**

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<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1735 FSL 1764 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NESW Section: 13 Township: 10.0S Range: 22.0E Meridian: S	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 5/5/2015	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
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	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The NBU 1022-1313S well was returned to production on 5/5/2015.  
Thank you.

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

**FOR RECORD ONLY**

May 12, 2015

<b>NAME (PLEASE PRINT)</b> Jennifer Thomas	<b>PHONE NUMBER</b> 720 929-6808	<b>TITLE</b> Regulatory Specialist
<b>SIGNATURE</b> N/A	<b>DATE</b> 5/8/2015	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9  <b>5.LEASE DESIGNATION AND SERIAL NUMBER:</b> STUO-08512-ST
<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
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<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047394740000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6454
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1735 FSL 1764 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NESW Section: 13 Township: 10.0S Range: 22.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

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TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 9/30/2016	<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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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, LP respectfully requests to plug and abandon the NBU 1022-13I3S well. Please see the attached procedure for details. Thank you.

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

**Date:** October 18, 2016

**By:** 

**Please Review Attached Conditions of Approval**

<b>NAME (PLEASE PRINT)</b> Candice Barber	<b>PHONE NUMBER</b> 435 781-9749	<b>TITLE</b> HSE Representative
<b>SIGNATURE</b> N/A	<b>DATE</b> 9/30/2016	



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

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Sundry Conditions of Approval Well Number 43047394740000**

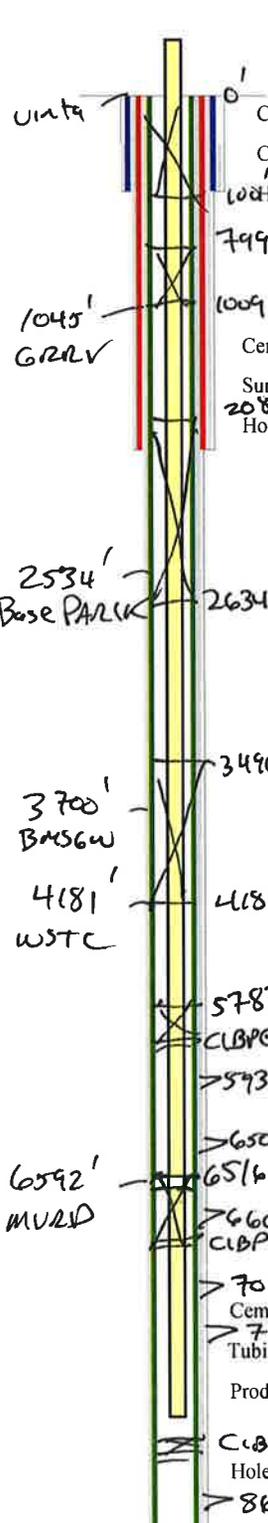
- 1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338.**
- 2. Amend Plug #1: A 100' cement plug ( $\pm 8$  sx) should be spotted on top of the CIBP @ 6616' from  $\pm 6616'$  to 6516'.**
  - 3. All balanced plugs shall be tagged to ensure that they are at the depth specified.**
  - 4. All annuli shall be cemented from a minimum depth of 100' to the surface.**
- 5. The interval between plugs shall be filled with noncorrosive fluid of adequate density to prevent migration of formation water into or through the well bore (R649-3-24-3.5).**
- 6. Surface reclamation shall be done in accordance with R649-3-34 – Well Site Restoration.**
- 7. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.**
- 8. If there are any changes to the procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 (ofc) or 801-733-0983 (home) prior to continuing with the procedure.**
- 9. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.**

10/18/2016

### Wellbore Diagram

r263

API Well No: 43-047-39474-00-00 Permit No: Well Name/No: NBU 1022-1313S  
 Company Name: KERR-MCGEE OIL & GAS ONSHORE, L.P.  
 Location: Sec: 13 T: 10S R: 22E Spot: NESW String Information  
 Coordinates: X: 637418 Y: 4423047  
 Field Name: NATURAL BUTTES  
 County Name: UINTAH



Plug # 6  
 $85x = 105'$   
 TOC @ SURFACE ✓

Plug # 5  
 $(65x)(1.15)(11.459) = 210'$   
 TOC @ 799' ✓

Plug # 4  
 $(425x)(1.15)(11.459) = 553'$   
 TOC @ 2081' ✓

Plug # 3  
 $(525x)(1.15)(11.459) = 685'$   
 TOC @ 3496' ✓

Plug # 2  
 $(85x)(1.15)(11.459) = 105'$   
 TOC @ 5783' ✓

\* Amend Plug # 1  
 $100' / (1.15)(11.459) = 85x$   
 TOC @ 6516' ✓

String	Bottom (ft sub)	Diameter (inches)	Weight (lb/ft)	Length (ft)	Capacity (f/cf)
HOL1	40	20			
COND	40	14	36.7	40	
HOL2	2160	12.25			
SURF	2160	9.625	36	2160	
HOL3	8710	7.875			
PROD	8710	4.5	11.6	8710	11.459
T1	8040	2.375			

$9 \frac{5}{8}'' \times 4 \frac{1}{2}'' \rightarrow 3.090$

**Cement Information**

String	BOC (ft sub)	TOC (ft sub)	Class	Sacks
COND	40		UK	28
PROD	8710	0	HG	354
PROD	8710	0	50	1238
SURF	2160	0	HG	200
SURF	2160	0	G	600

**Perforation Information**

Top (ft sub)	Bottom (ft sub)	Shts/Ft	No Shts	Dt Squeeze
7138	8637			
5938	6505			
6602	7026			

**Formation Information**

Formation	Depth
UNTA	0
GRRV	1045
TRONA	1296
MHGBN	1728
PARCK	2534
BMSW	3700
WSTC	4181
MVRD	6592

TD: 8710 TVD: 8173 PBTD: 8664

**NBU 1022-13I3S**  
**1735' FSL & 1764' FWL**  
**NESW SEC. 13, T10S, R22E**  
**UINTAH UT**

**KBE:** 5310' **API NUMBER:** 4304739474  
**GLE:** 5293' **LEASE NUMBER:** STUO-08512-ST  
**TD:** 8710' **LAT/LONG:** 39.946414/-109.391303  
**PBTD:** 8648'

**CASING :** 12.25" hole  
**SURFACE** 9.625" 36# J-55 @ 2145'

**PRODUCTION** 7.875" hole  
 4.5" 11.6# I-80 @ 8700'  
 Est. TOC @ 0' CBL

**PERFORATIONS:** WASATCH-MESAVERDE TOP-BOTTOM 5938'-8637'

**TUBING:** 2.375" 7.7# J-55 tbg at 8025'

Tubular/Borehole	ID	Drift inches	Collapse psi	Burst psi	Capacities		
	inches				Gal./ft.	Cuft/ft.	Bbl./ft.
2.375" 4.7# J-55 tbg	1.995	1.901	8100	7700	0.1624	0.02171	0.00387
2.375" 4.7# P-110 tbg	1.995	1.901	13800	15400	0.1624	0.02171	0.00387
2.375" 4.7# L-80 tbg	1.995	1.901	11780	11200	0.1624	0.02171	0.00387
4.5" 11.6# I-80 csg	4	3.875	6350	7780	0.65282	0.08727	0.01554
9.625" 36# J-55 csg	8.921	8.765	2020	3520	3.24699	0.43406	0.07731

Annular Capacities	Gal./ft.	Cuft/ft.	Bbl./ft.
2.375" tbg. X 4.5" csg	0.42272	0.05651	0.01006
4.5" csg. X 9.625" csg	2.42077	0.32361	0.05764
4.5" csg X 7.875 borehole	1.70406	0.2278	0.04057

**GEOLOGIC INFORMATION:**

Formation	Depth to top, ft.
Uinta	Surface
Top Green River	904'
Top Mahogany	1728'
Base Parachute	2534'
Top Wasatch	4181'
Top Mesaverde	6616'

<http://digitallibrary.utah.gov/awweb/awarchive?type=file&item=55737>

BMSW Elevation ~1710' MSL  
 BMSW Depth ~3600'

**NBU 1022-1313S PLUG & ABANDONMENT PROCEDURE**

**GENERAL**

- H2S MAY BE PRESENT. CHECK FOR H2S AND TAKE APPROPRIATE PRECAUTIONS.
- BLOW DOWN BRADEN HEAD AND SURFACE CASING AS NEEDED AS PER SOP.
- CEMENT QUANTITIES BELOW ASSUME NEAT CLASS G, 15.8ppg, YIELD 1.145 CUFT/SX. IF A DIFFERENT PRODUCT IS USED, WELLSITE PERSONNEL ARE RESPONSIBLE FOR CORRECTING QUANTITIES TO YIELD THE STATED SLURRY VOLUME.
- TREATED FRESH WATER WILL BE PLACED BETWEEN ALL PLUGS INSTEAD OF BRINE.
- ALL DISPLACEMENT FLUID SHALL CONTAIN CORROSION INHIBITOR AND BIOCIDES. PREMIX 5 GALLONS PER 100 BBLs FLUID AND IS TO BE PLACED BETWEEN ALL PLUGS.
- NOTIFY APPROPRIATE AGENCY 48 HOURS BEFORE MOVING ON LOCATION.

PERTINENT WELL HISTORY: SN @ 8042', CIBP @ 8350'

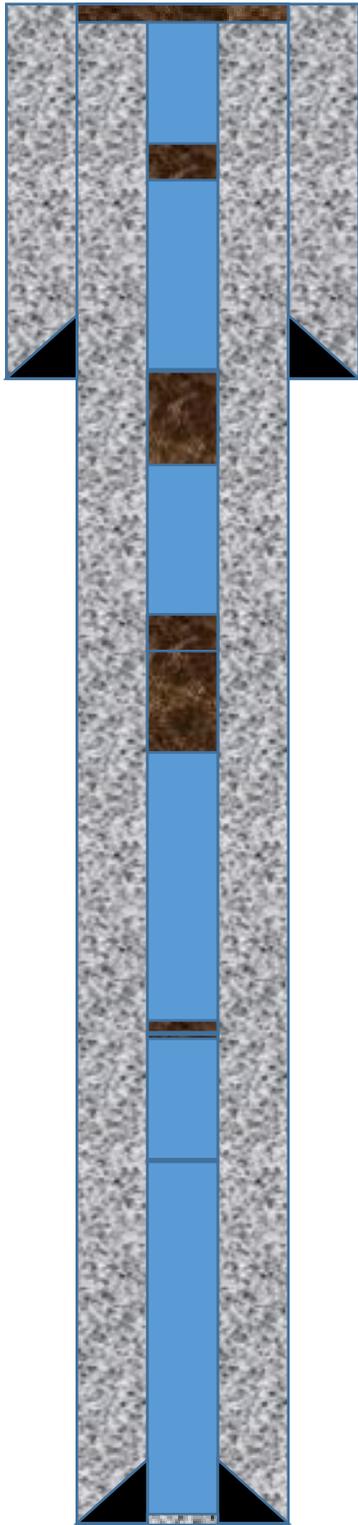
**PROCEDURE**

**Note:** Approx. **126 SXS** Class "G" cement needed for procedure & **(2) 4.5" CIBP**

**Note: YES GYRO ON RECORD.** (IF GYRO NEEDED, A GPS READING WILL NEED TO BE TAKEN AT THE WELL SITE AND RECORDED IN OPENWELLS. PLEASE TAKE IT TO THE 6TH DECIMAL PLACE).

1. MIRU. KILL WELL AS NEEDED. ND WH, NU AND TEST BOPE.
2. POOH W/ TBG & L/D SAME. RU WIRELINE AND MAKE A GAUGE RING RUN TO CHECK FOR FILL PER FOREMAN DISCRETION.
3. ISOLATE MESAVERDE PERFORATIONS (> 6616'): RIH ON WIRELINE W/ 4.5" CIBP. SET @ ~6616'. RELEASE CIBP.
4. ISOLATE PERFORATIONS (8637'-5938'): RIH ON WIRELINE OR TUBING W/ 4.5" CIBP. SET @ ~5888', (50' above top perf at 5938'). RELEASE CIBP, PUH 10', CIRC ENTIRE HOLE W/ TREATED FRESH WATER AND PRESSURE TEST CASING. SET A 105FT BALANCED CMT PLUG F/ 5888' to 5783' (8 SXS, 9.16 FT3, 1.64 BBLs).
5. PROTECT WASATCH TOP (4181') & BMSW (3600'): PUH WITH TUBING AND PUMP A MINIMUM OF (682FT) CMT F/ 4181' to 3499' (52 SXS, 59.54 FT3, 10.6 BBLs).
6. PROTECT PARACHUTE BASE (2534') & CASING SHOE (2145'): PUH WITH TUBING AND PUMP A MINIMUM OF (551FT) CMT F/ 2634' to 2083' (42 SXS, 48.09 FT3, 8.56 BBLs).
7. PROTECT GREEN RIVER (904'): PUH WITH TUBING AND PUMP A MINIMUM OF (210FT) CMT F/ 1009' to 799' (16 SXS, 18.32 FT3, 3.27 BBLs).
8. PROTECT SURFACE (101'): PUH WITH TUBING AND PUMP A MINIMUM OF (105 FT) CMT F/ 105'-0' (8 SXS, 9.16 FT3, 1.64 BBLs). POOH AND RUN 1 INCH TUBING DOWN THE PRODUCTION/SURFACE CASING ANNULUS TO AS DEEP AS POSSIBLE AND CEMENT TO SURFACE. TOC INDICATES CEMENT TO SURFACE
9. CUT OFF WELLHEAD AND INSTALL MARKER PER REGULATIONS.
10. RDMO. TURN OVER TO OPERATIONS FOR SURFACE REHAB. SURFACE RECLAMATION TO BE PERFORMED IN ACCORDANCE TO REGULATIONS.

# NBU 1022-13I3S



Total SXS: 126, Total CIBP: 2

<- Plug for Surface at 0' from 0' to 105' with 8SXS, 105ft.  
<- TOC at 0'

<- Plug for GreenRiver at 904' from 1009' to 799' with 16SXS, 210ft.

<- Mahogany at 1728'

<- Surface Shoe at 2145'

<- Plug for Surface Shoe & Parachute Base' from 2634' to 2083' with 42SXS, 551ft.

<- Parachute Base at 2534'

<- BMSW at 3600'

<- Plug for BMSW \* Wasatch from 4181' to 3499' with 52SXS, 682ft.

<- Wasatch at 4181'

<- Plug above CIBP at 5888' from 5888' to 5783' with 8SXS, 105ft.

<-CIBP Above Perfs at 5888'

<-Top Perf at 5938'

<-CIBP for Mesaverde at 6616'

<-PBSD at 8648'

<- Production Casing Shoe at 8700'

<-TD at 8710'

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> STUO-08512-ST
<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 1022-1313S
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>9. API NUMBER:</b> 43047394740000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6456	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1735 FSL 1764 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NESW Section: 13 Township: 10.0S Range: 22.0E 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 checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 11/2/2016  <input type="checkbox"/> SPUD REPORT Date of Spud:  <input type="checkbox"/> DRILLING REPORT Report Date:	<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 checked="" 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 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 style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
Kerr-McGee Oil & Gas Onshore, LP has plugged and abandoned the NBU 1022-1313S well on 11/02/2016. Please see the operations summary report for details. Thank you.		
<b>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 28, 2016</b>		
<b>NAME (PLEASE PRINT)</b> Candice Barber	<b>PHONE NUMBER</b> 435 781-9749	<b>TITLE</b> HSE Representative
<b>SIGNATURE</b> N/A		<b>DATE</b> 11/9/2016

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

Well: NBU 1022-1313S YELLOW				Spud date: 11/15/2007			
Project: UTAH-UINTAH			Site: WHITE RIVER PAD			Rig name no.: MILES 4/4	
Event: ABANDONMENT			Start date: 11/1/2016		End date: 11/2/2016		
Active datum: RKB @5,310.00usft (above Mean Sea Level)				UWI: NBU 1022-131-3S			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
11/1/2016	7:00 - 7:30	0.50	ABANDP	48		P		HSM, MIXING & PUMPING H2S SCAVENGER.
	7:30 - 9:30	2.00	ABANDP	30	E	P		FCP & FCP 40 PSI, MIX 60 BBLS OF H2S SCAVENGER CONTROL TBG W/ 25 BBLS & CSG W/ 30 BBLS, ND WH UNLAND TBG NOT STUCK. NU BOPS RU FLOOR.
	9:30 - 13:30	4.00	ABANDP	45	A	P		UNLAND L/D HANGER, RU & SCAN OUT W/ 254 JTS 23/8 J-55.217 YB 37 RB, ALL BAD DUE TO PITTING.
	13:30 - 17:00	3.50	ABANDP	34	I	P		RU WL, RIH W/ GR TO 6700', POOH RIH SET CIBP @ 6616', DUMP BAIL 8 SXS CMT 4 RUNS RD WL. SWI SDFN
11/2/2016	7:00 - 7:30	0.50	ABANDP	48		P		HSM, CIRC WELL TO FB TNK CHECKING FOR H2S.
	7:30 - 9:30	2.00	ABANDP	31	I	P		SICP 100, CONTROL WELL W/ 20 BBLS. PU CIBP & 184 JTS 23/8 J-55 SET CIBP @ 5870' L/D 1 JT EOT @ 5860'.
	9:30 - 16:00	6.50	ABANDP	51	D			CIRC WELL W/ 90 BBLS T-MAC. TEST CSG TO 500 OK, PUMPED 2.6 BBLS FRESH, 2 BBLS 10 SXS 15.8# 1.15 YEILD G CMT, 1 BBL FRESH, DISPL W/ 21.1 BBLS T-MAC. L/D 52 JTS EOT @ 4182'. PUMPED 2.6 BBLS FRESH, 10.6 BBLS 52 SXS 15.8# 1.15 YEILD G CMT, 1 BBL FRESH, DISPL W/ 12.2 BBLS T-MAC. L/D 48 JTS EOT @ 2653'. PUMPED 2.6 BBLS FRESH, 8.6 BBLS 42 SXS 15.8# 1.15 YEILD G CMT, 1 BBL FRESH, DISPL W/ 6.8 BBLS T-MAC. L/D 51 JT EOT @ 1029'. PUMPED 2.6 BBLS FRESH, 3.27 BBLS 16 SXS 15.8# 1.15 YEILD G CMT, 1 BBL FRESH, DISPL W/ 2 BBLS T-MAC. L/D REM 32 JTS, ND BOPS RIG DOWN RIG, DIG & CUT WH, TOP OFF 41/2 & 95/8 W/ CMT WELD ON PLATE P&A FINISHED.