

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. UTU-01188	
6. If Indian, Allottee or Tribe Name UTE Tribe	
7. If Unit or CA Agreement, Name and No. 891008900A	
8. Lease Name and Well No. NBU 921-15C4T	
9. API Well No. 43047-40337	
1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER	10. Field and Pool, or Exploratory Natural Buttes Field
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone	11. Sec., T. R. M. or Blk. and Survey or Area Sec. 15, T 9S, R 21E
2. Name of Operator Kerr-McGee Oil & Gas Onshore, LP	
3a. Address P.O. Box 173779, Denver, CO 80217-3779	3b. Phone No. (include area code) 720.929.6226
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NENW 836' FNL & 2640' FWL LAT 40.041122 LON -109.537228 (NAD 27) At proposed prod. zone N/A 624 796X 44331304 40-0411067 - 109.537184	
12. County or Parish Uintah	
13. State UT	
14. Distance in miles and direction from nearest town or post office* 12.9 miles southeast of Ouray, Utah	15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 836'
16. No. of acres in lease 800	17. Spacing Unit dedicated to this well 20
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 50'	19. Proposed Depth 10,102'
20. BLM/BIA Bond No. on file WYB000291	21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4792' GL
22. Approximate date work will start*	23. Estimated duration 10 days

24. Attachments

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

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

25. Signature 	Name (Printed/Typed) Kevin McIntyre	Date 08/15/2008
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Title
Regulatory Analyst I

Approved by (Signature) 	Name (Printed/Typed) BRADLEY G. HILL	Date 09-03-08
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Title
Office ENVIRONMENTAL MANAGER

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

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

(Continued on page 2)

*(Instructions on page 2)

**Federal Approval of this
Action is Necessary**

RECEIVED
AUG 18 2008
DIV. OF OIL, GAS & MINING

T9S, R21E, S.L.B.&M.

2006 Alum.
Cap, 0.4'
High, Pile of
Stones

S89°58'23"E - 2640.98' (Meas.)

S89°38'30"E - 2645.84' (Meas.)

2006 Alum.
Cap, 0.6'
High, Pile of
Stones

2006 Alum.
Cap, 2.0'
High, Pile of
Stones

N00°13'14"E - 2658.16' (Meas.)

2640'

NBU #921-15C4T
Elev. Ungraded Ground = 4792'

N00°01'41"W - 2646.50' (Meas.)

5/8" Rebar,
Marked 1/4
Stone (Loose)
Pile of Stones

15

Set Marked
Stone, "X"
Marked on Top
of Stone

N00°17'27"W - 2632.19' (Meas.)

N00°02'04"E - 2639.54' (Meas.)

2006 Alum.
Cap, 0.6'
High, Steel
Post

2006 Alum.
Cap, 0.3'
High, Set
Stone

Large Pile
of Stones,
Notched Stone
(Not Set)

N89°35'07"W - 2643.03' (Meas.)

S89°52'10"W - 2640.71' (Meas.)

LEGEND:

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

(NAD 83)
LATITUDE = 40°02'27.91" (40.041086)
LONGITUDE = 109°32'16.50" (109.537917)
(NAD 27)
LATITUDE = 40°02'28.04" (40.041122)
LONGITUDE = 109°32'14.02" (109.537228)

Kerr-McGee Oil & Gas Onshore LP

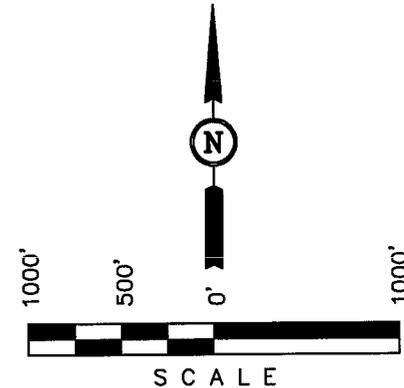
Well location, NBU #921-15C4T, located as shown in the NE 1/4 NW 1/4 of Section 15, T9S, R21E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

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

BASIS OF BEARINGS

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



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Robert Kay
ROBERT KAY
REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REVISED: 08-06-08
REVISED: 07-29-08

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

SCALE 1" = 1000'	DATE SURVEYED: 05-14-08	DATE DRAWN: 05-21-08
PARTY L.K. N.W. C.C.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE Kerr-McGee Oil & Gas Onshore LP	

NBU 921-15C4T
NENW Sec. 15 ,T9S,R21E
UINTAH COUNTY, UTAH
UTU-01188

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. Existing Roads:

Refer to the attached location directions.

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

2. Planned Access Roads:

No new access road is planned, as this is a twin location. Refer to Topo Map B.

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

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

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

Please refer to Topo Map C.

4. Location of Existing & Proposed Facilities:

No new pipeline, as we will be utilizing the existing NBU #298 pipeline. No TOPO D attached.

Please see the Natural Buttes Unit SOP.

Variations to Best Management Practices (BMPs) Requested:

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

Interim Surface Reclamation Plan:

This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the

original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

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

Please see the Natural Buttes SOP.

6. **Source of Construction Materials:**

Please see the Natural Buttes SOP.

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

Please see the Natural Buttes SOP.

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

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

8. **Ancillary Facilities:**

Please see the Natural Buttes SOP.

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

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

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

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

10. Plans for Reclamation of the Surface:

Please see the Natural Buttes SOP.

upon reclamation of the pit the following seed mixture will be used. A total of 12 lbs/acre will be used if the seeds are drilled (24 lbs/acre if the seeds are broadcast). The per acre requirements for *drilled* seed are:

Crested Wheatgrass 12 lbs.

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

11. Surface/Mineral Ownership:

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

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

The mineral ownership is listed below:

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

12. Stipulations**Wildlife Stipulations:**

- Antelope Stipulations:
No construction from May 15 through June 20.

Critical Soils Stipulations:

No construction when wet.

13. Other Information:

A Class III archaeological survey and a paleontological survey have been performed and will be submitted.

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.

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

Kevin McIntyre
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
P.O. Box 173779
Denver, CO 80217-3779
(720) 929-6226

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

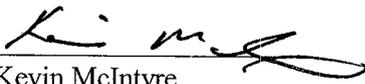
Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

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

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

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond #WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that 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.


Kevin McIntyre

8/15/2008

Date

**NBU 921-15C4T
NENW Sec. 15, T9S,R21E
UINTAH COUNTY, UTAH
UTU-01188**

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers:

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1724'
Bird's Nest	2055'
Mahogany	2438'
Wasatch	5144'
Mesaverde	8029'
MVU2	8990'
MVL1	9561'
TD	10,102'

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River	1724'
	Bird's Nest	2055'
	Mahogany	2438'
Gas	Wasatch	5144'
Gas	Mesaverde	8029'
Gas	MVU2	8990'
Gas	MVL1	9561'
Water	N/A	
Other Minerals	N/A	

3. Pressure Control Equipment (Schematic Attached)

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

4. Proposed Casing & Cementing Program:

Please see the Natural Buttes Unit SOP.

5. Drilling Fluids Program:

Please see the Natural Buttes Unit SOP.

6. **Evaluation Program:**

Please see the Natural Buttes Unit SOP.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 10,102' TVD, approximately equals 6263 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4041 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. **Anticipated Starting Dates:**

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

9. **Variances:**

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

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

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

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

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

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

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet.

The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

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

surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi.

The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

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

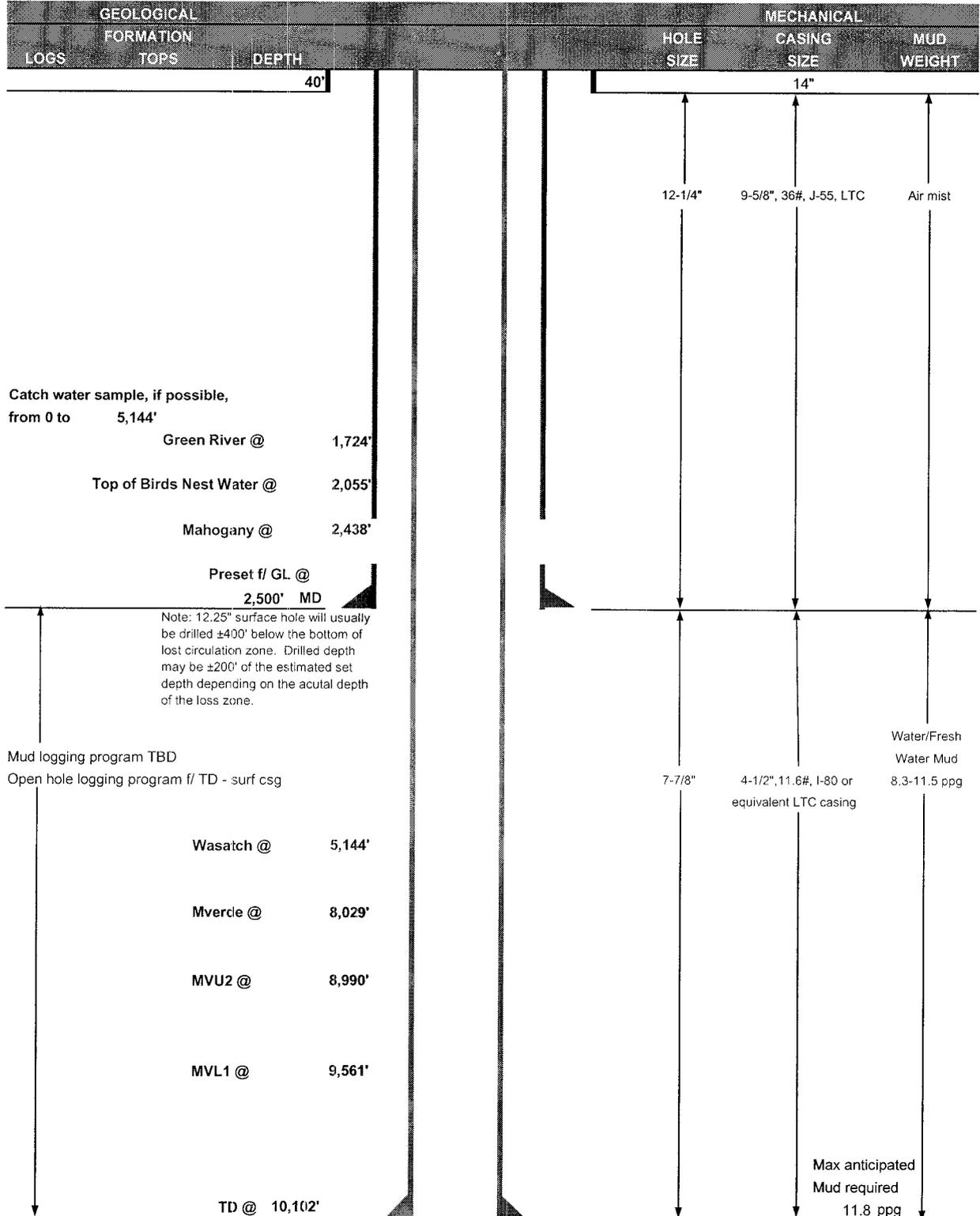
10. Other Information:

Please see Natural Buttes Unit SOP.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE August 15, 2008
 WELL NAME NBU 921-15C4T TD 10,102' MD/TVD
 FIELD Natural Buttes COUNTY Uintah STATE Utah ELEVATION 4,792' GL KB 4,807'
 SURFACE LOCATION NENW 836' FNL & 2640' FWL Sec. 15, T 9S R 21E BHL Straight Hole
 Latitude: 40.041122 Longitude: -109.537228 NAD 27
 OBJECTIVE ZONE(S) Wasatch/Mesaverde
 ADDITIONAL INFO Regulatory Agencies: BLM (MINERALS), UTE TRIBE (SURFACE), UDOGM, Tri-County Health Dept.





KERR-McGEE OIL & GAS ONSHORE LF DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3520	2020	453000
SURFACE	9-5/8"	0 to 2,500'	36.00	J-55	LTC	0.89	1.73	5.75
						7780	6350	201000
PRODUCTION	4-1/2"	0 to 10102	11.60	I-80	LTC	1.96	1.02	1.97

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)
- 2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)
- (Burst Assumptions: TD = 11.8 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 4041 psi

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)	250	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	100		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE Option 2	NOTE: If well will circulate water to surface, option 2 will be utilized						
	LEAD	2000	Prem cmt + 16% Gel + 10 pps gilsonite + .25 pps Flocele + 3% salt BWOC	230	35%	11.00	3.82
	TAIL	500	Premium cmt + 2% CaCl + .25 pps flocele	180	35%	15.60	1.18
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	4,642'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	510	60%	11.00	3.38
	TAIL	5,460'	50/50 Poz/G + 10% salt + 2% gel +.1% R-3	1530	60%	14.30	1.31

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained
*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

Brad Laney

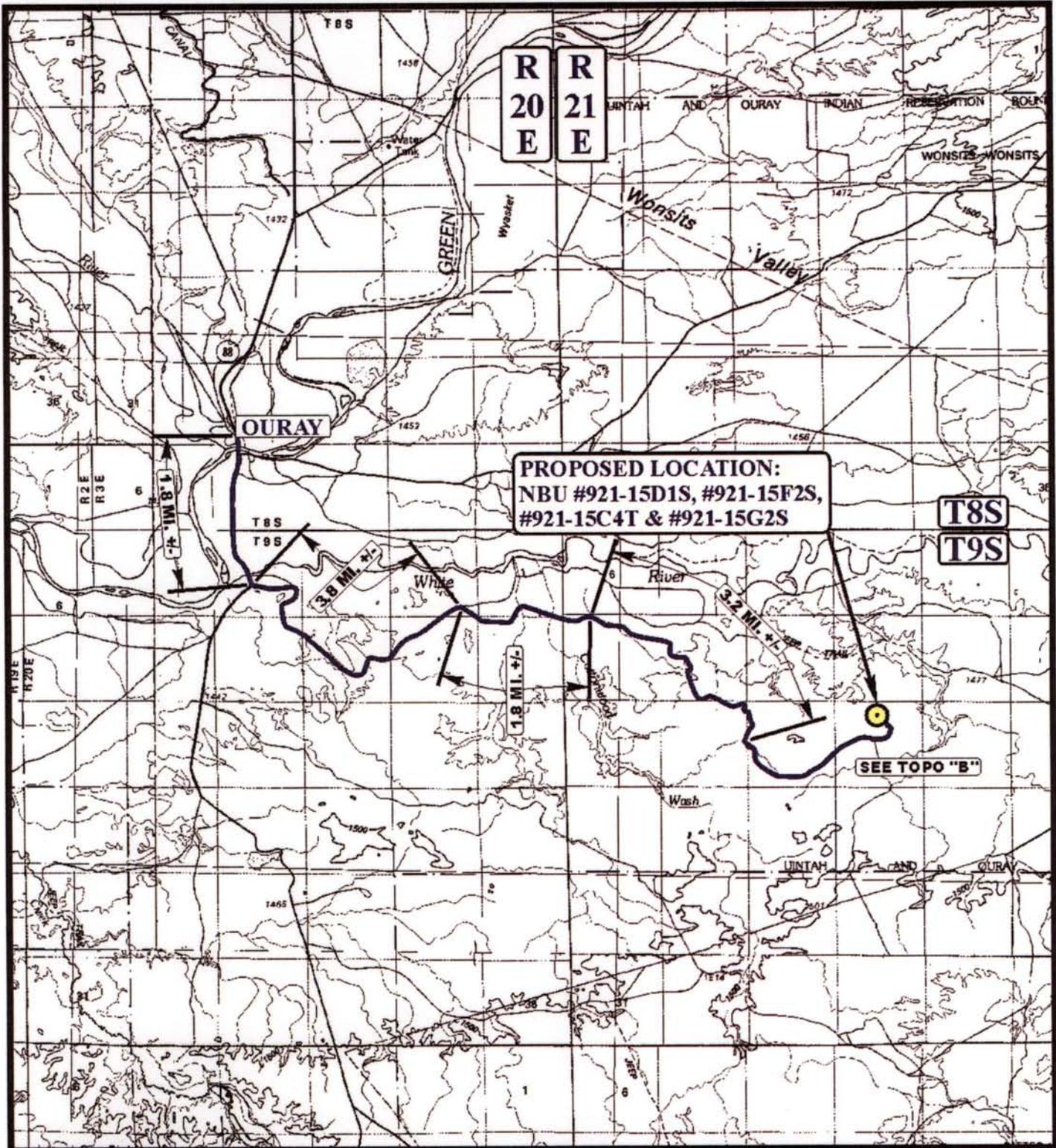
DATE:

DRILLING SUPERINTENDENT:

Randy Bayne

NBU 921-15C4T.xls

DATE:



LEGEND:

 PROPOSED LOCATION



Kerr-McGee Oil & Gas Onshore LP

NBU #921-15D1S, #921-15F2S,
 #921-15C4T & #921-15G2S
 SECTION 15, T9S, R21E, S.L.B.&M.
 N 1/2

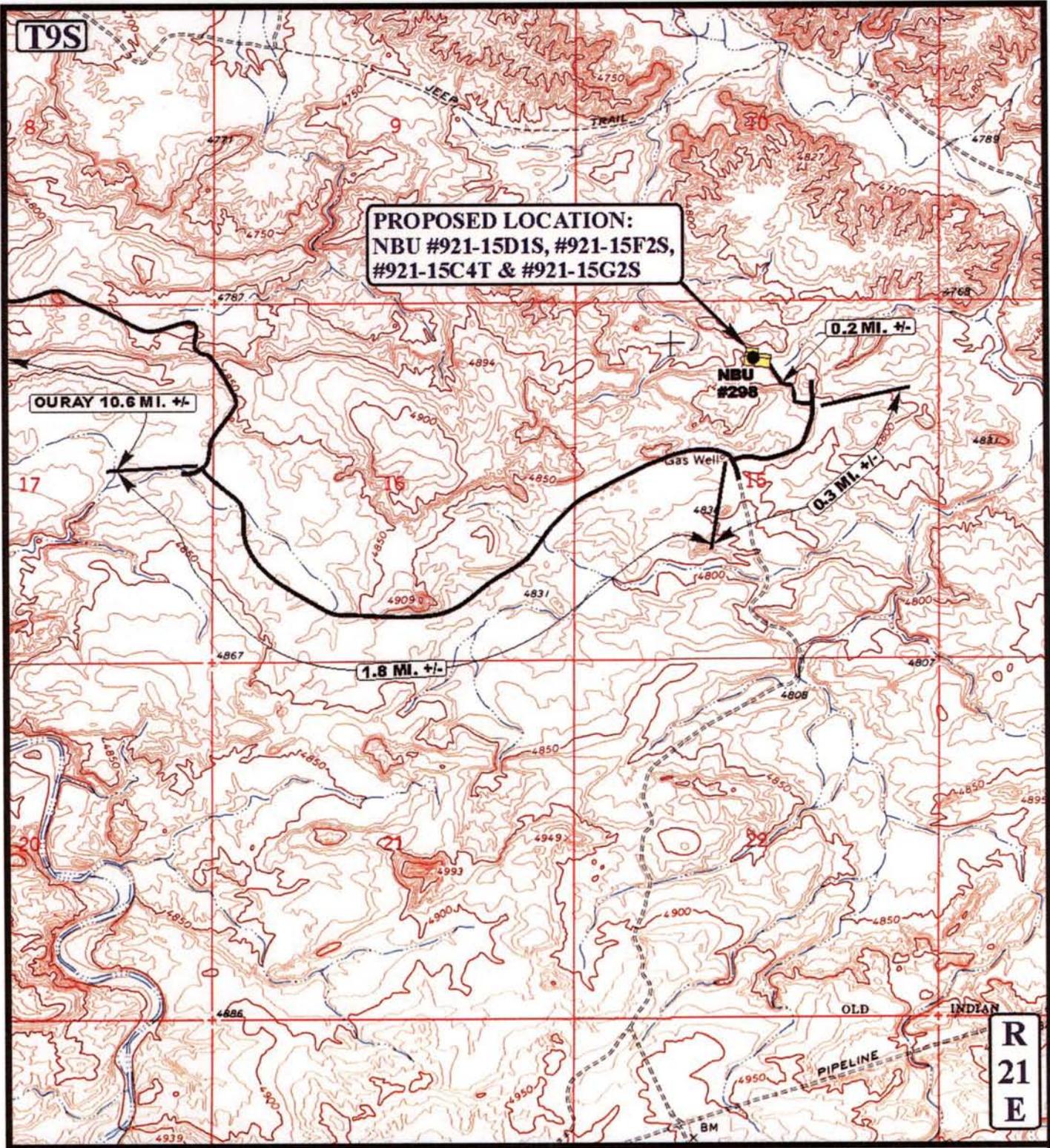


Utah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC 05 20 08
MAP MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: C.C. REVISED: 08-06-08





**PROPOSED LOCATION:
NBU #921-15D1S, #921-15F2S,
#921-15C4T & #921-15G2S**

OURAY 10.6 MI. +/-

1.8 MI. +/-

0.2 MI. +/-

0.3 MI. +/-

NBU #298

Gas Well

LEGEND:

-  EXISTING ROAD
-  PROPOSED ACCESS ROAD

Kerr-McGee Oil & Gas Onshore LP

NBU #921- 15D1S, #921-15F2S,
#921-15C4T & #921-15G2S
SECTION 15, T9S, R21E, S.L.B.&M.
N 1/2



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

TOPOGRAPHIC MAP **05 20 08**
MONTH DAY YEAR
SCALE: 1" = 2000' DRAWN BY: C.C. REVISED: 08-06-08



Kerr-McGee Oil & Gas Onshore LP

NBU #921-15D1S, #921-15F2S,
#921-15C4T & #921-15G2S
SECTION 15, T9S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; TURN LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 3.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 3.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE EXISTING NBU #298 AND THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 43.9 MILES.

Kerr-McGee Oil & Gas Onshore LP
NBU #921-15D1S, #921-15F2S, #921-15C4T & #921-15G2S
 LOCATED IN UINTAH COUNTY, UTAH
 SECTION 15, T9S, R21E, S.L.B.&M.



PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: SOUTHEASTERLY



PHOTO: VIEW OF EXISTING ACCESS

CAMERA ANGLE: NORTHWESTERLY



- Since 1964 -

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

LOCATION PHOTOS	05	21	08	PHOTO
	MONTH	DAY	YEAR	
TAKEN BY: L.K.	DRAWN BY: C.C.	REVISED: 08-06-08		

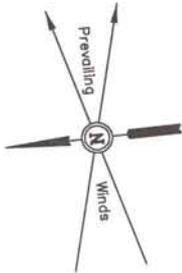
Kerr-McGee Oil & Gas Onshore LP

SITE PLAN LAYOUT FOR

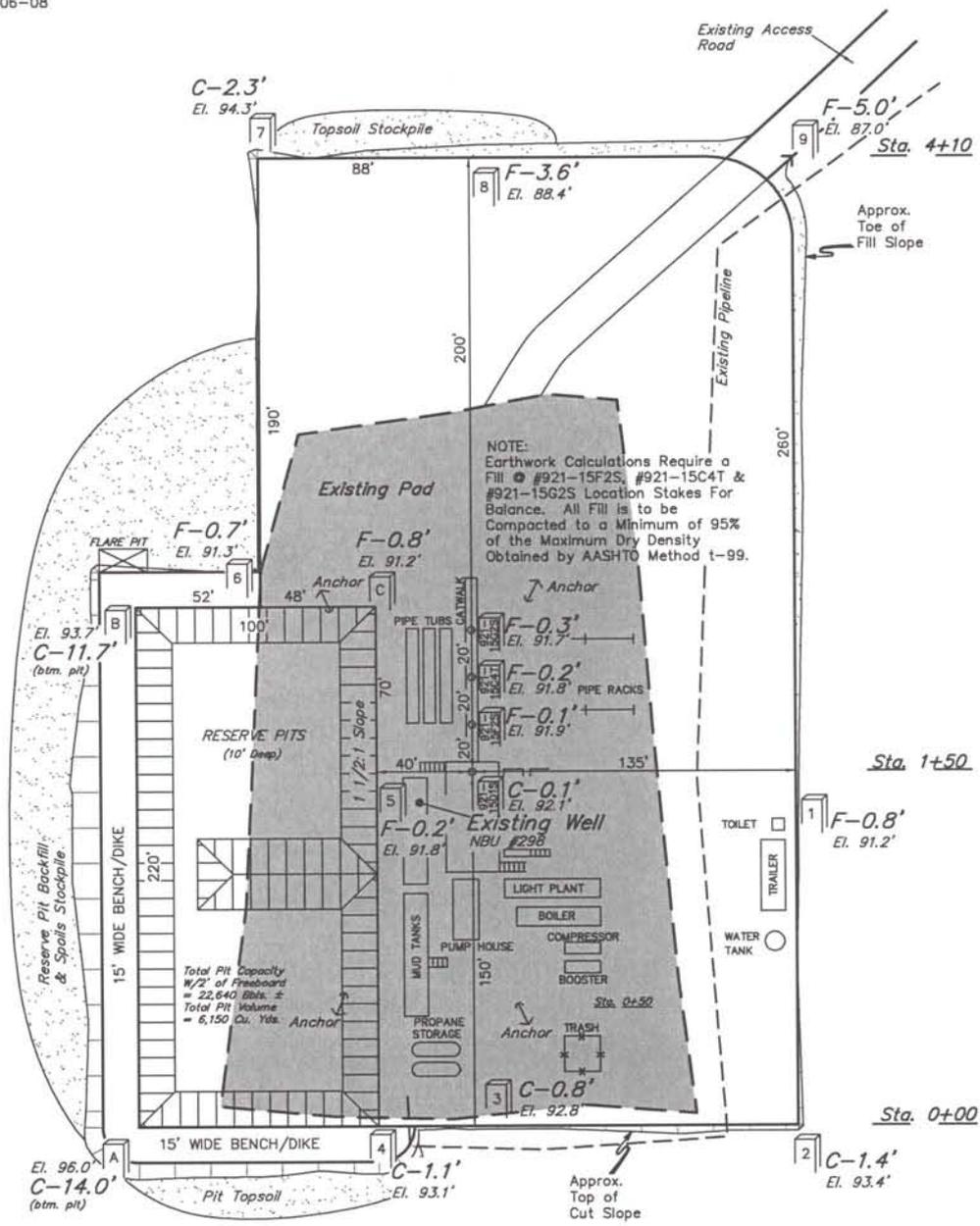
NBU #921-15D1S, #921-15F2S, #921-15C4T & #921-15G2S
SECTION 15, T9S, R21E, S.L.B.&M.

N 1/2

FIGURE #1



SCALE: 1" = 50'
DATE: 05-21-08
Drawn By: C.C.
Revised: 07-29-08
Revised: 08-06-08



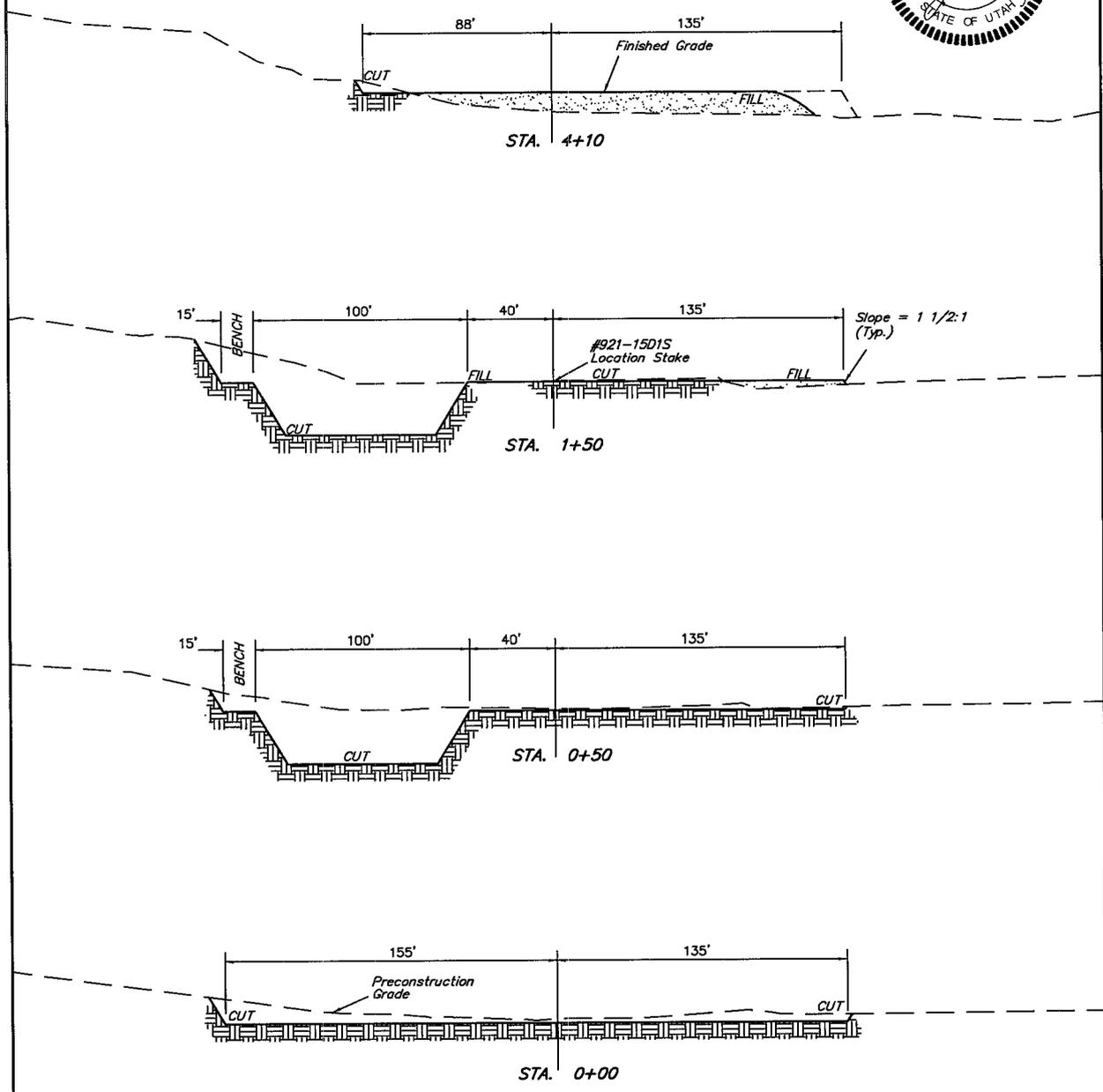
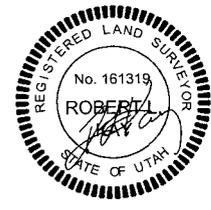
NOTES:

Elev. Ungraded Ground At #921-15D1S Loc. Stake = 4792.1'
FINISHED GRADE ELEV. AT #921-15D1S LOC. STAKE = 4792.0'

Kerr-McGee Oil & Gas Onshore LP
TYPICAL CROSS SECTIONS FOR
NBU #921-15D1S, #921-15F2S, #921-15C4T & #921-15G2S
SECTION 15, T9S, R21E, S.L.B.&M.
N 1/2

FIGURE #2

1" = 20'
 X-Section
 Scale
 1" = 50'
 DATE: 05-21-08
 Drawn By: C.C.
 Revised: 07-29-08
 Revised: 08-06-08



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

* NOTE:
 FILL QUANTITY INCLUDES 5% FOR COMPACTION

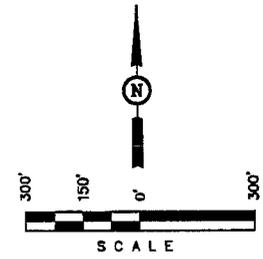
APPROXIMATE YARDAGES

CUT	
(12") Topsoil Stripping	= 2,190 Cu. Yds.
(New Construction Only)	
Remaining Location	= 7,310 Cu. Yds.
TOTAL CUT	= 9,500 CU.YDS.
FILL	= 5,120 CU.YDS.

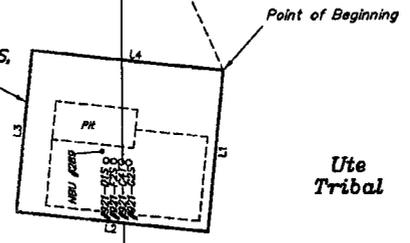
EXCESS MATERIAL	= 4,380 Cu. Yds.
Topsoil & Pit Backfill	= 5,270 Cu. Yds.
(1/2 Pit Vol.)	
DEFICET UNBALANCE	= <890> Cu. Yds.
(After Interim Rehabilitation)	

Kerr-McGee Oil & Gas Onshore LP

**LOCATION SURFACE USE AREA
& ROAD RIGHT-OF-WAY
ON UTE TRIBAL LANDS**
(For NBU #921-15D1S, #921-15F2S,
#921-15C4T & #921-15G2S)
LOCATED IN
SECTION 15, T9S, R21E, S.L.B.&M.
UINTAH COUNTY, UTAH



SURFACE USE AREA
NBU #921-15D1S, #921-15F2S,
#921-15C4T & #921-15G2S
Contains 4.132 Acres



Ute Tribal

Ute Tribal

BASIS OF BEARINGS
BASIS OF BEARINGS IS A G.P.S. OBSERVATION.
ROAD RIGHT-OF-WAY ON UTE TRIBAL LANDS
ROAD RIGHT-OF-WAY CONTAINED WITHIN SURFACE USE AREA.

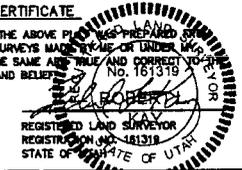
SURFACE USE AREA DESCRIPTION

BEGINNING AT A POINT IN THE NW 1/4 NE 1/4 OF SECTION 15, T9S, R21E, S.L.B.&M. WHICH BEARS S24°05'39"E 655.59' FROM THE NORTH 1/4 CORNER OF SAID SECTION 15, THENCE S06°07'04"W 425.00'; THENCE N83°52'58"W 510.00'; THENCE N08°07'04"E 425.00'; THENCE S83°52'56"E 510.00' TO THE POINT OF BEGINNING. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 4.976 ACRES MORE OR LESS.

LINE TABLE		
LINE	BEARING	LENGTH
L1	S06°07'04"W	425.00'
L2	N83°52'58"W	510.00'
L3	N08°07'04"E	425.00'
L4	S83°52'56"E	510.00'

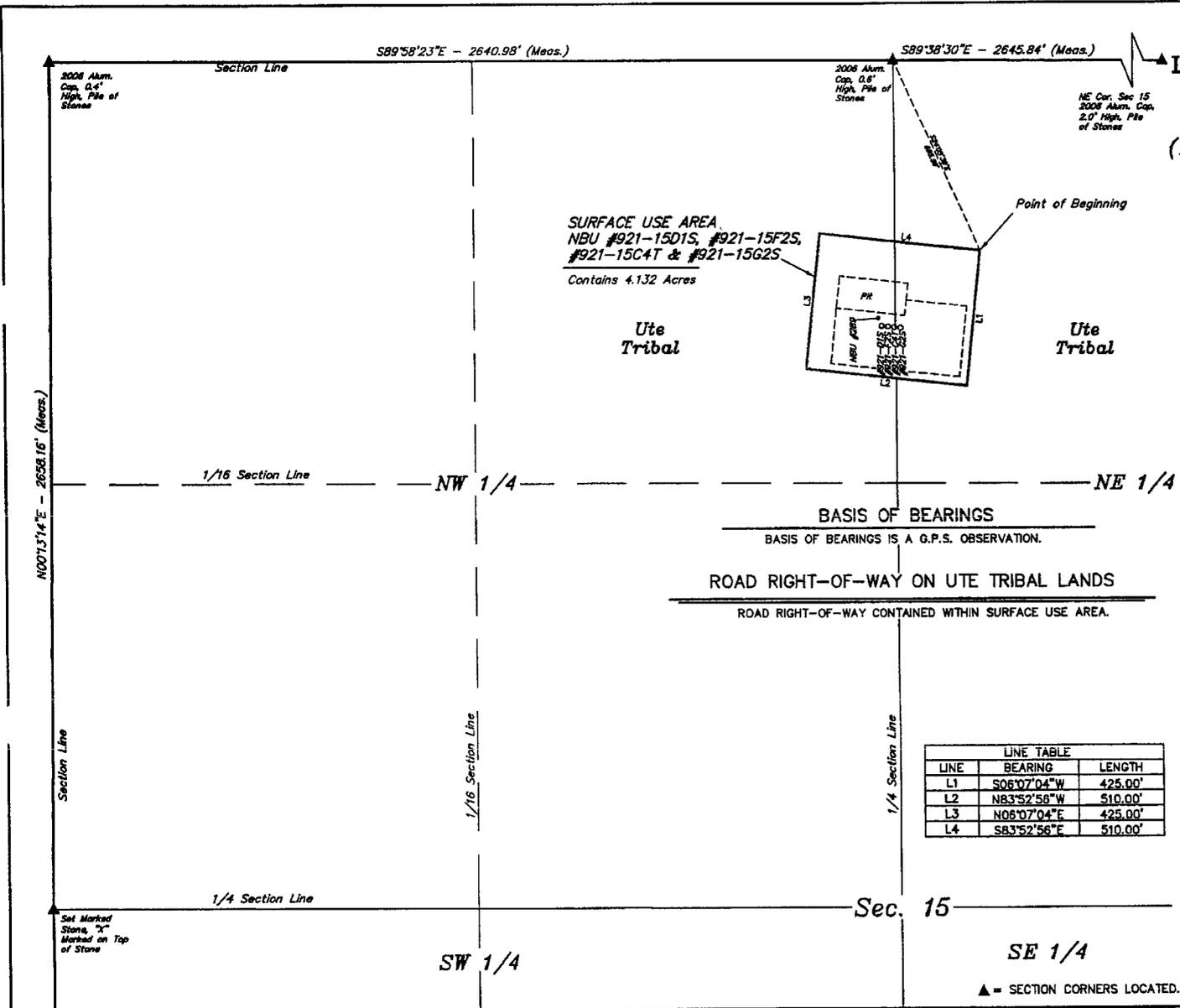
CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEFS.
No. 161319
STATE OF UTAH



UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH - 200 EAST • (435) 788-1017
VERNAL, UTAH - 84078

SCALE 1" = 300'	DATE 05-21-08
PARTY L.K. N.W. C.C.	REFERENCES G.L.O. PLAT
WEATHER WARM	FILE 4 8 6 4 6



Kerr-McGee Oil & Gas Onshore Lr
NBU #921-15D1S, #921-15C2S, #921-15C4T & #921-15G2S
ROAD RIGHT-OF-WAY & SURFACE USE AREA
SECTION 15, T9S, R21E, S.L.B.&M.

TOTAL ROAD RIGHT-OF-WAY ON UTE TRIBAL LANDS

ROAD RIGHT-OF-WAY CONTAINED WITHIN SURFACE USE AREA.

ENGINEER'S AFFIDAVIT

STATE OF UTAH }
COUNTY OF Uintah } SS

ROBERT L. KAY, BEING FIRST DULY SWORN DEPOSES AND STATES THAT HE IS THE REGISTERED LAND SURVEYOR, FOR Kerr-McGee Oil & Gas Onshore LP, THAT THESE SURVEYS WERE MADE BY HIM (OR UNDER HIS SUPERVISION): THAT HE HAS EXAMINED THE FIELD NOTES OF THE SURVEYS OF THE SURFACE USE AREA AND ROAD RIGHT-OF-WAY AS DESCRIBED AND SHOWN ON THIS MAP, THAT THIS MAP WAS PREPARED UNDER HIS DIRECTION FROM SAID FIELD NOTES; AND THAT SAID RIGHT-OF-WAY, BEGINNING AND ENDING AS SHOWN ON THIS MAP IS ACCURATELY REPRESENTED.



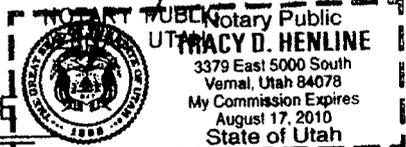
ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN BEFORE ME THIS 17 DAY OF July 2008.

MY COMMISSION EXPIRES Aug 17, 2010.

[Handwritten Signature]

APPLICANT'S CERTIFICATE



I, RANDY BAYNE, DO HEREBY CERTIFY THAT I AM THE AGENT FOR Kerr-McGee Oil & Gas Onshore LP, HEREINAFTER DESIGNATED THE APPLICANT; THAT ROBERT L. KAY WHO SUBSCRIBED TO THE FOREGOING AFFIDAVIT, IS EMPLOYED BY THE APPLICANT AS A LAND SURVEYOR AND THAT HE WAS DIRECTED BY THE APPLICANT TO SURVEY THE LOCATION OF THIS SURFACE USE AREA AND ROAD RIGHT-OF-WAY, BEGINNING AND ENDING AS SHOWN, THAT SAID SURFACE USE AREA AND ROAD RIGHT-OF-WAY ARE ACCURATELY REPRESENTED ON THIS MAP; THAT SUCH SURVEY AS REPRESENTED ON THIS MAP HAS BEEN ADOPTED BY THE APPLICANT AS THE DEFINITE LOCATION OF THE RIGHT-OF-WAY THEREBY SHOWN; AND THAT THE MAP HAS BEEN PREPARED TO BE FILED WITH THE SECRETARY OF THE INTERIOR OR HIS DULY AUTHORIZED REPRESENTATIVE AS PART OF THE APPLICATION FOR SAID RIGHT-OF-WAY TO BE GRANTED THE APPLICANT, ITS SUCCESSORS AND ASSIGNS, WITH THE RIGHT TO CONSTRUCT, MAINTAIN, AND REPAIR IMPROVEMENTS, THEREON AND THEREOVER, FOR SUCH PURPOSES, AND WITH THE FURTHER RIGHT IN THE APPLICANT, ITS SUCCESSORS AND ASSIGNS TO TRANSFER THIS RIGHT-OF-WAY BY ASSIGNMENT, GRANT, OR OTHERWISE.

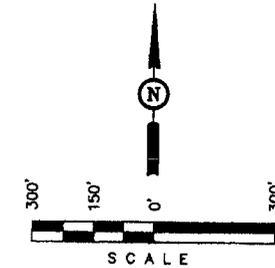
APPLICANT

DRILLING MANAGER

TITLE

Kerr-McGe Oil & Gas Onshore LP

**LOCATION SURFACE USE AREA
& ROAD RIGHT-OF-WAY
ON UTE TRIBAL LANDS**
(For NBU #921-15D1S, #921-15C2S,
#921-15C4T & #921-15G2S)
LOCATED IN
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SURFACE USE AREA
NBU #921-15D1S, #921-15C2S,
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Contains 4.132 Acres

Ute
Tribal

Ute
Tribal

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ROAD RIGHT-OF-WAY ON UTE TRIBAL LANDS
ROAD RIGHT-OF-WAY CONTAINED WITHIN SURFACE USE AREA.

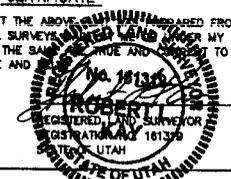
SURFACE USE AREA DESCRIPTION

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CERTIFICATE

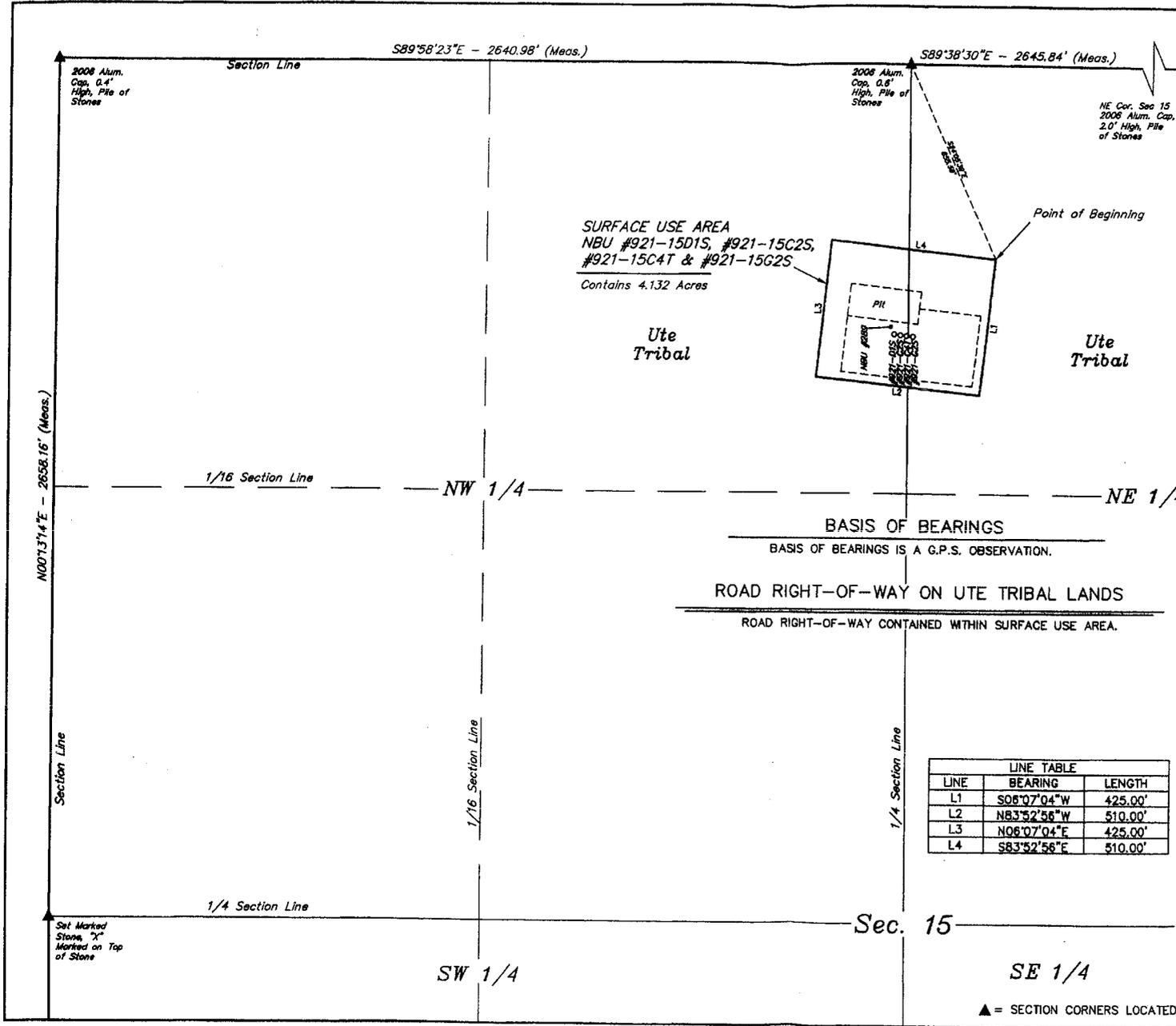
THIS IS TO CERTIFY THAT THE ABOVE DESCRIBED SURFACE USE AREA WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



REVISED: 07-17-08

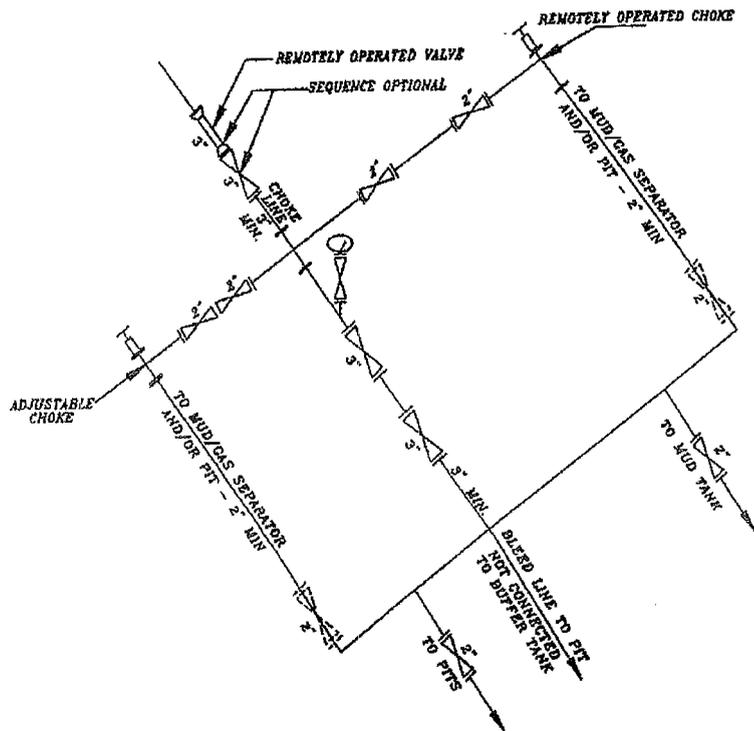
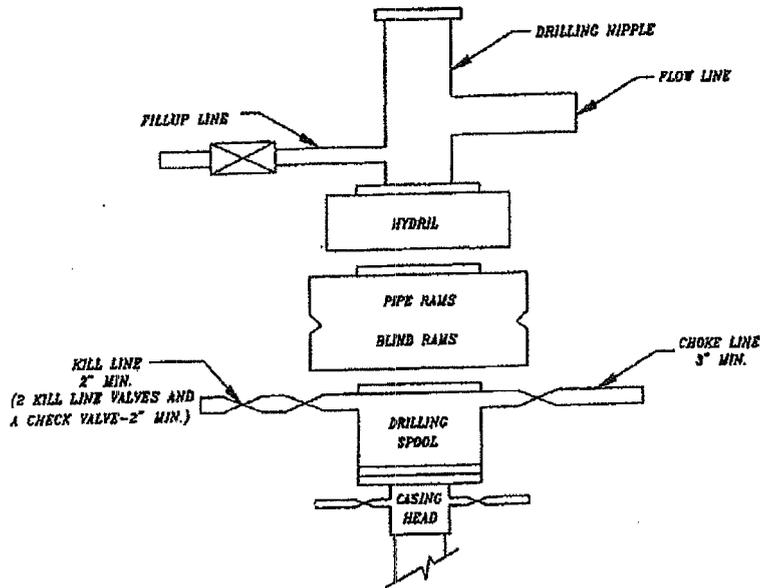
UINTAH ENGINEERING & SURVEYING
85 SOUTH - 200 EAST • (435) 789-1017
VERNAL, UTAH - 84078

SCALE 1" = 300'	DATE 05-21-08
PARTY L.K. N.W. C.C.	REFERENCES G.L.O. PLAT
WEATHER WARM	FILE 4 8 6 4 6



▲ = SECTION CORNERS LOCATED.

EXHIBIT A



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 08/18/2008

API NO. ASSIGNED: 43-047-40337

WELL NAME: NBU 921-15C4T

OPERATOR: KERR-MCGEE OIL & GAS (N2995)

PHONE NUMBER: 720-929-6226

CONTACT: KEVIN MCINTYRE

PROPOSED LOCATION:

NENW 15 090S 210E
 SURFACE: 0836 FNL 2640 FWL
 BOTTOM: 0836 FNL 2640 FWL
 COUNTY: UINTAH
 LATITUDE: 40.04107 LONGITUDE: -109.5372
 UTM SURF EASTINGS: 624796 NORTHINGS: 4433130
 FIELD NAME: NATURAL BUTTES (630)

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

LEASE TYPE: 1 - Federal
 LEASE NUMBER: UTU-01188
 SURFACE OWNER: 2 - Indian

PROPOSED FORMATION: WSMVD
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]
(No. WYB000291)
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit
(No. 43-8496)
- RDCC Review (Y/N)
(Date: _____)
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

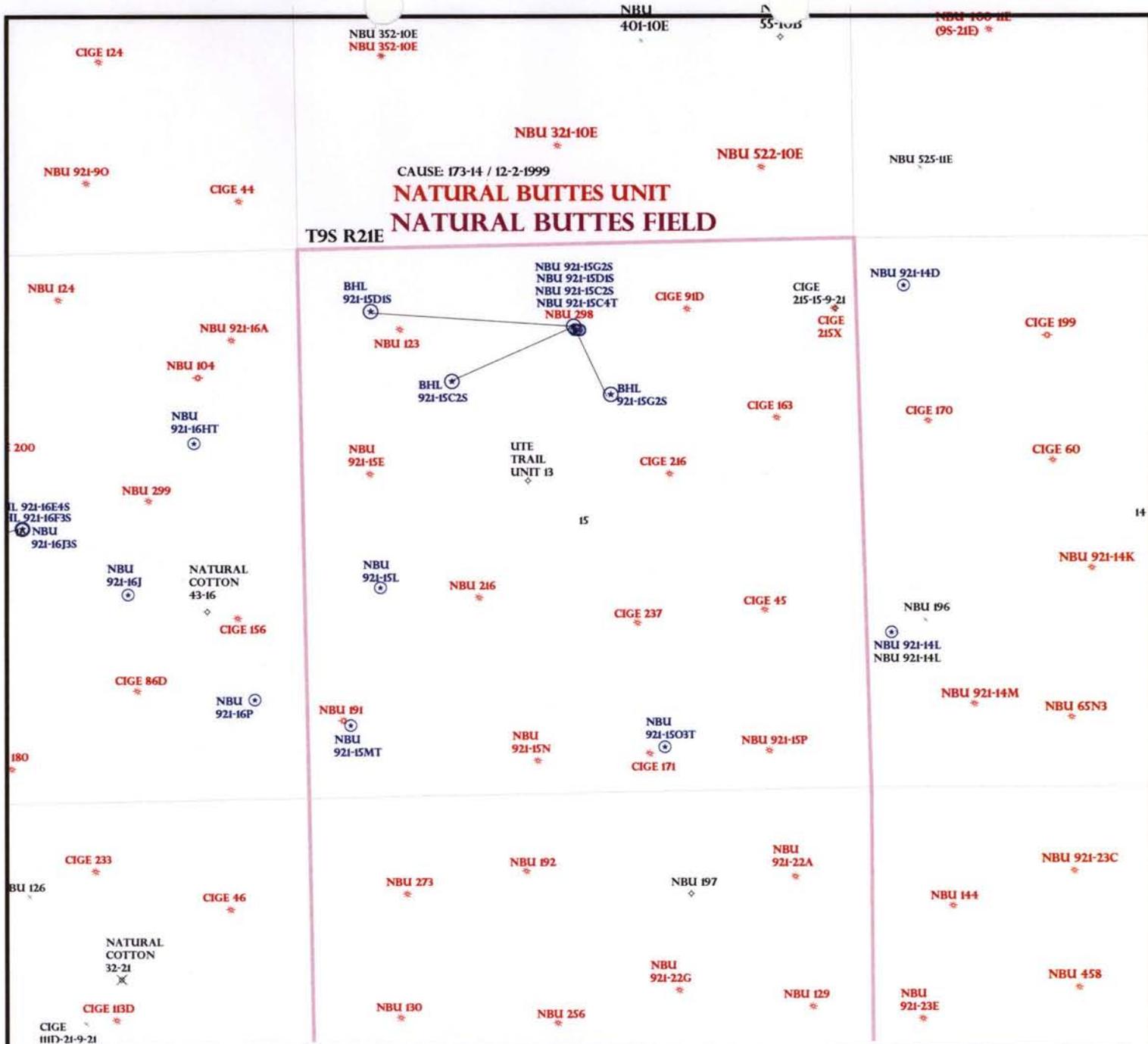
LOCATION AND SITING:

- R649-2-3.
- Unit: NATURAL BUTTES
- R649-3-2. General
Siting: 460' From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit
Board Cause No: 173-14
Eff Date: 12-2-1999
Siting: 460' fr u bdy & uncomm. Tract
- R649-3-11. Directional Drill

COMMENTS: _____

STIPULATIONS: _____

1- Federal Approval
2- OIL SHALE



OPERATOR: KERR MCGEE O&G (N2995)
 SEC: 15 T.9S R. 21E
 FIELD: NATURAL BUTTES (630)
 COUNTY: UINTAH
 CAUSE: 173-14 / 12-2-1999

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

**UTAH
DNR**

OIL, GAS & MINING

PREPARED BY: DIANA MASON
 DATE: 26-AUGUST-2008

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

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)

September 3, 2008

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 2008 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 2008 within the Natural Buttes Unit, Uintah County, Utah. The NBU 921-15C4T was originally permitted under API Number 43-047-40237 which was rescinded (see our memo of July 18, 2008).

API #	WELL NAME	LOCATION
(Proposed PZ Wasatch/MesaVerde)		
43-047-50089	NBU 921-15O3T	Sec 15 T09S R21E 0428 FSL 1913 FEL
43-047-40337	NBU 921-15C4T	Sec 15 T09S R21E 0836 FNL 2640 FWL

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

/s/ Michael L. Coulthard

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



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 3, 2008

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

Re: NBU 921-15C4T Well, 836' FNL, 2640' FWL, NE NW, Sec. 15, T. 9 South, R. 21 East,
Uintah County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-40337.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

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



Operator: Kerr-McGee Oil & Gas Onshore, LP
Well Name & Number NBU 921-15C4T
API Number: 43-047-40337
Lease: UTU-01188

Location: NE NW **Sec.** 15 **T.** 9 South **R.** 21 East

Conditions of Approval

1. General

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

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

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

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

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

3. Reporting Requirements

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

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

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

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

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

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

SUBMIT IN TRIPLICATE - Other Instructions on reverse side.

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. UTU-01188
2. Name of Operator Kerr-McGee Oil & Gas Onshore, LP		6. If Indian, Allottee, or Tribe Name Ute Tribe
3a. Address P.O. Box 173779, Denver, CO 80217-3779	3b. Phone No. (include area code) 720.929.6226	7. If Unit or CA. Agreement Name and/or No. 891008900A
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) NE NW Sec. 15 T 9S R 21E 836 FNL 2640 FWL		8. Well Name and No. NBU 921-15C4T
		9. API Well No. 43-047-40337
		10. Field and Pool, or Exploratory Area Natural Buttes
		11. County or Parish, State Uintah

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

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

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

Kerr-McGee Oil & Gas Onshore, LP, respectfully submits the following revised TOPO D for NBU 921-15C4T, per the conditions of the tribal onsite.

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

Name (Printed/ Typed) Kevin McIntyre	Title Regulatory Analyst
Signature <i>Kevin McIntyre</i>	Date 10/7/08

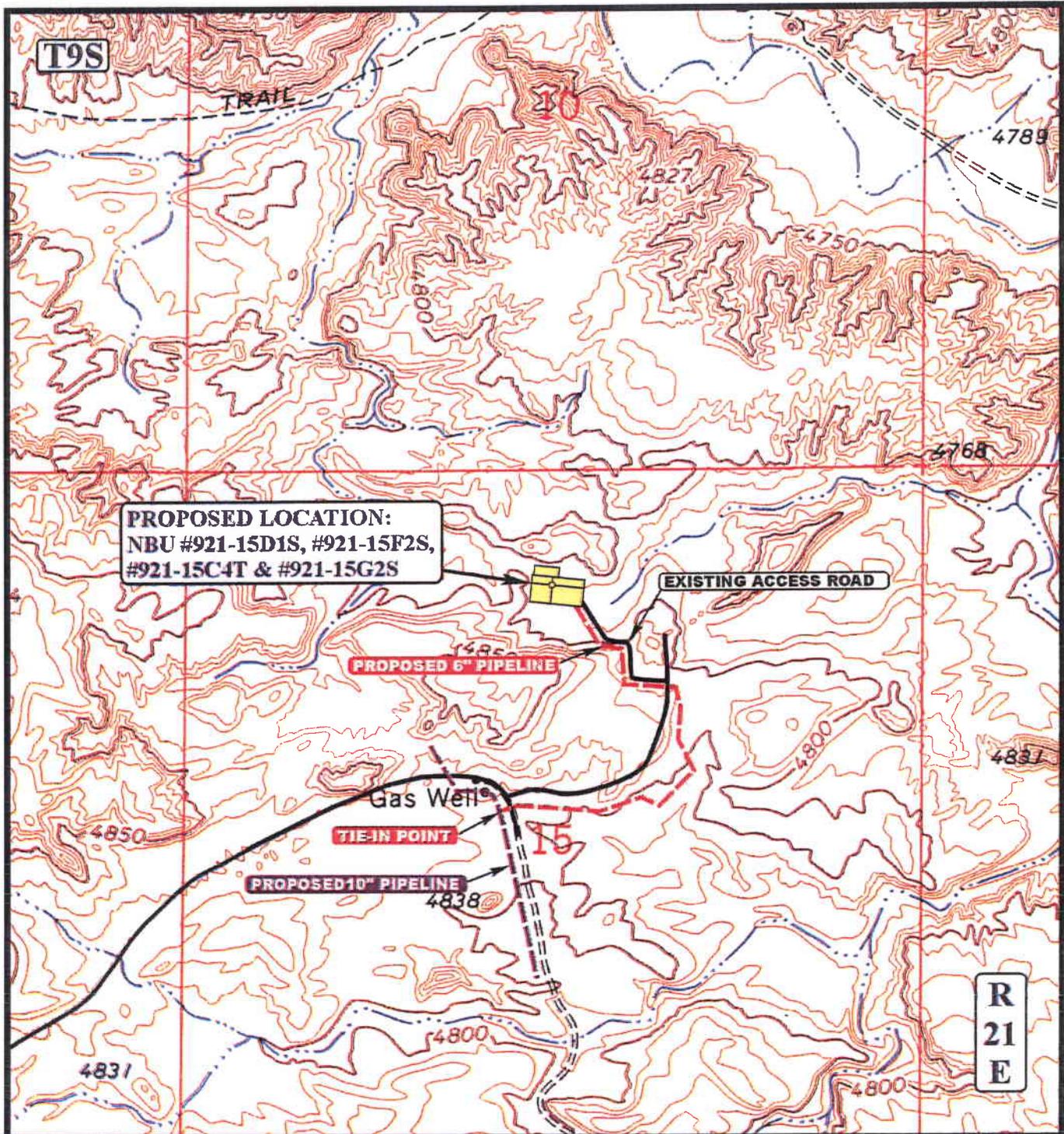
THIS SPACE FOR FEDERAL OR STATE OFFICE USE

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

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

RECEIVED

OCT 08 2008



PROPOSED LOCATION:
 NBU #921-15D1S, #921-15F2S,
 #921-15C4T & #921-15G2S

EXISTING ACCESS ROAD

PROPOSED 6" PIPELINE

Gas Well

TIE-IN POINT

PROPOSED 10" PIPELINE

**R
21
E**

APPROXIMATE TOTAL PIPELINE DISTANCE = 3,169' +/-

LEGEND:

-  PROPOSED ACCESS ROAD
-  PROPOSED 6" PIPELINE
-  PROPOSED 10" PIPELINE (SERVICING OTHER WELLS)



Kerr-McGee Oil & Gas Onshore LP

NBU #921-15D1S, #921-15F2S,
 #921-15C4T & #921-15G2S
 SECTION 15, T9S, R21E, S.L.B.&M.
 N 1/2



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

**TOPOGRAPHIC
MAP**

05 20 08
 MONTH DAY YEAR



SCALE: 1" = 1000' DRAWN BY: C.C. REV. J.H. 9-10-08

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:
UTU-01188

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Ute Tribe

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.

7. UNIT or CA AGREEMENT NAME:
891008900A

1. TYPE OF WELL
OIL WELL GAS WELL OTHER _____

8. WELL NAME and NUMBER:
NBU 921-15C4T

2. NAME OF OPERATOR:
Kerr-McGee Oil & Gas Onshore, LP

9. API NUMBER:
4304740337

3. ADDRESS OF OPERATOR:
P.O. Box 173779 CITY **Denver** STATE **CO** ZIP **80217-3779** PHONE NUMBER: **(720) 929-6226**

10. FIELD AND POOL, OR WILDCAT:
Natural Buttes Field

4. LOCATION OF WELL
FOOTAGES AT SURFACE: **836 FNL & 2640 FWL**
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: **NENW 15 9S 21E**

COUNTY: **Uintah**
STATE: **UTAH**

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> 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"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<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"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

Kerr-McGee Oil & Gas Onshore, LP, respectfully requests to change the name of this well from NBU 921-15C4T to NBU 921-15C4S.

The surface location will remain at NENW 836' FNL & 2640' FWL in Section 15 of T9S R21E.

The bottom hole location will be placed at NENW 801' FNL & 2590' FWL in Section 15 of T9S R21E.

A revised plat and a directional drilling program are attached.

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

624781X 40.041166
44331414 -109.537362

Date: 12-22-08
By: [Signature]

NAME (PLEASE PRINT) Kevin McIntyre TITLE Regulatory Analyst

SIGNATURE [Signature] DATE 12/10/2008

(This space for State use only)

COPY SENT TO OPERATOR
Date: 12-30-2008
Initials: KS

(See Instructions on Reverse Side)

RECEIVED
DEC 15 2008
DIV. OF OIL, GAS & MINING

T9S, R21E, S.L.B.&M.

Kerr-McGee Oil & Gas Onshore LP

Well location, NBU #921-15C4S, located as shown in the NE 1/4 NW 1/4 of Section 15, T9S, R21E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

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

BASIS OF BEARINGS

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

2006 Alum.
Cap, 0.4"
High, Pile of
Stones

S89°58'23"E - 2640.98' (Meas.)

S89°38'30"E - 2645.84' (Meas.)

2006 Alum.
Cap, 0.6"
High, Pile of
Stones

2006 Alum.
Cap, 2.0"
High, Pile of
Stones

Bottom Hole

2590'

2640'

See Detail "A"
Below Left

NBU #921-15C4S
Elev. Ungraded Ground = 4792'

LINE TABLE		
LINE	BEARING	LENGTH
L1	N55°05'32"W	60.63'

5/8" Rebar,
Marked 1/4
Stone (Loose)
Pile of Stones

15

Set Marked
Stone, "X"
Marked on Top
of Stone

Detail "A"
No Scale

801'

836'

2590'

2640'

BHL

SL

2006 Alum.
Cap, 0.6"
High, Steel
Post

2006 Alum.
Cap, 0.3"
High, Set
Stones

Large Pile
of Stones,
Notched Stone
(Not Set)

N89°35'07"W - 2643.03' (Meas.)

S89°52'10"W - 2640.71' (Meas.)

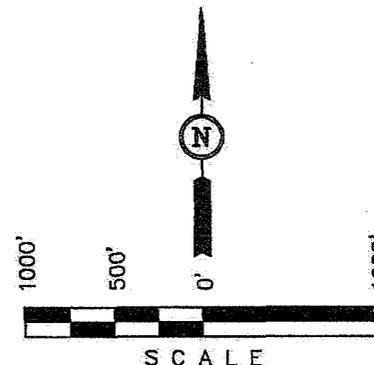
LEGEND:

└─ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 40°02'28.25" (40.041181)	LATITUDE = 40°02'27.91" (40.041086)
LONGITUDE = 109°32'17.14" (109.536094)	LONGITUDE = 109°32'16.50" (109.537917)
NAD 27 (TARGET BOTTOM HOLE)	NAD 27 (SURFACE LOCATION)
LATITUDE = 40°02'28.38" (40.041217)	LATITUDE = 40°02'28.04" (40.041122)
LONGITUDE = 109°32'14.66" (109.537406)	LONGITUDE = 109°32'14.02" (109.537228)



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REVISED: 07-29-08

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

SCALE 1" = 1000'	DATE SURVEYED: 05-14-08	DATE DRAWN: 05-21-08
PARTY L.K. N.W. C.C.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE Kerr-McGee Oil & Gas Onshore LP	



December 10, 2008

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

RE: Directional Drilling R649-3-11
NBU 921-15C4S
T9S R21E
Section 15: NENW
NENW 836' FNL & 2640' FWL (surface)
NENW 801' FNL & 2590' FWL (bottom hole)
Uintah County, Utah

Dear Ms. Mason:

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

- Kerr-McGee's NBU 921-15C4S is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,

KERR-McGEE OIL & GAS ONSHORE LP

A handwritten signature in black ink, appearing to read 'Kevin McIntyre', with a horizontal line underneath.

Kevin McIntyre
Regulatory Analyst



WeatherfordTM

Drilling Services

Proposal



ANADARKO - KERR McGEE

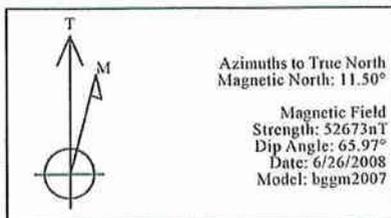
NBU 921-15C4T

UINTAH COUNTY, UTAH

WELL FILE: PLAN2

DATE: JUNE 30, 2008

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



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	500.00	4.00	335.00	499.84	6.32	-2.95	2.00	335.00	6.02	
4	560.00	4.00	335.00	559.69	10.12	-4.72	0.00	0.00	9.63	
5	960.00	0.00	286.54	959.37	22.77	-10.62	1.00	180.00	21.68	
6	2560.63	0.00	286.54	2560.00	22.77	-10.62	0.00	335.00	21.68	
7	2810.63	5.00	286.54	2809.68	25.87	-21.07	2.00	0.00	32.04	
8	2904.03	0.00	286.54	2902.72	28.19	-28.87	0.00	0.00	39.78	
9	3404.03	0.00	286.54	3402.09	34.40	-49.77	1.00	180.00	60.50	
10	10101.94	0.00	286.54	10100.00	34.40	-49.77	0.00	0.00	60.50	PBHL 15C4T

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
NBU 921 15C4T	-4.05	39.66	628053.10	2549484.46	40°02'28.040N	109°32'14.020W	N/A

FORMATION TOP DETAILS			
No.	TVDPath	MDPath	Formation
1	1724.00	1724.63	Green River
2	5144.00	5145.94	Wasatch
3	8029.00	8030.94	Mesaverde

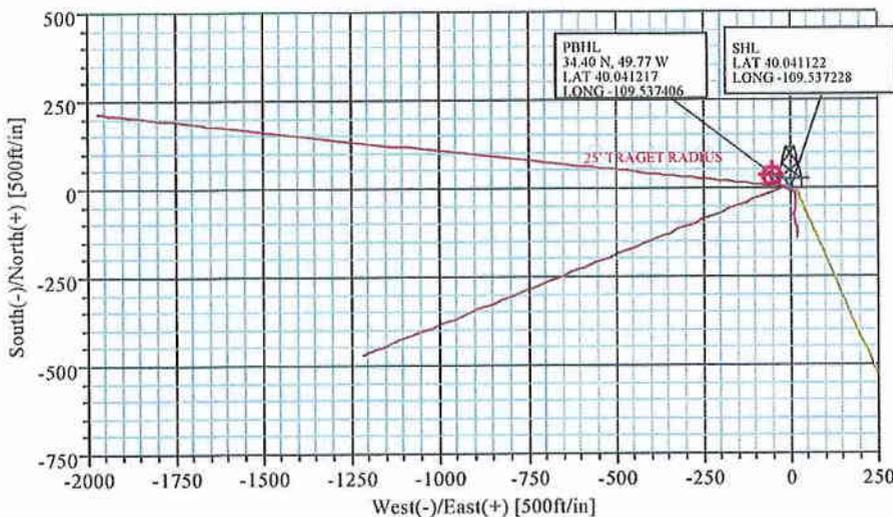
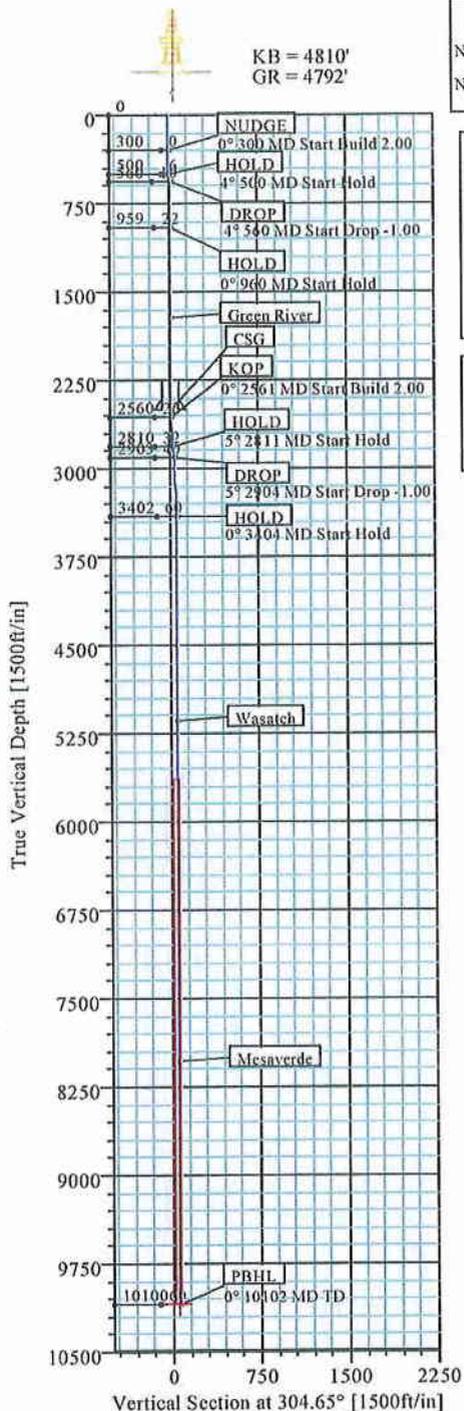
FIELD DETAILS
UINTAH COUNTY, UTAH (NAD 27)
 Geodetic System: US State Plane Coordinate System 1927
 Ellipsoid: NAD27 (Clarke 1866)
 Zone: Utah, Central Zone
 Magnetic Model: bggm2007
 System Datum: Mean Sea Level
 Local North: True North

CASING DETAILS				
No.	TVD	MD	Name	Size
1	2500.00	2500.63	CSG	0.00

LEGEND

 EXISTING WELL 298 (1)
 NBU 921-15DIS (1)
 NBU 921-15F2S (1)
 NBU 921-15G2S (1)
 Plan #2

TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL 15C4T	10100.00	34.40	-49.77	40°02'28.380N	109°32'14.660W	Circle (Radius: 25)



Weatherford WELL PLAN REPORT

Company: Anadarko-Kerr-McGee Field: UINTAH COUNTY, UTAH (NAD 27) Site: NBU 921-15F PAD Well: NBU 921 15C4T Wellpath: 1	Date: 6/30/2008 Time: 14:33:42 Page: 1 Co-ordinate(NE) Reference: Well: NBU 921 15C4T, True North Vertical (TVD) Reference: SITE 4810.0 Section (VS) Reference: Well (0.00N,0.00E,304.65Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
---	--

Plan: Plan #2 Principal: Yes	Date Composed: 6/26/2008 Version: 1 Tied-to: From Surface
---	--

Field: UINTAH COUNTY, UTAH (NAD 27)	
Map System: US State Plane Coordinate System 1927 Geo Datum: NAD27 (Clarke 1866) Sys Datum: Mean Sea Level	Map Zone: Utah, Central Zone Coordinate System: Well Centre Geomagnetic Model: bggm2007

Site: NBU 921-15F PAD	
Site Position: From: Geographic Position Uncertainty: 0.00 ft Ground Level: 4792.00 ft	Northing: 628056.28 ft Latitude: 40 2 28.080 N Easting: 2549444.72 ft Longitude: 109 32 14.530 W North Reference: True Grid Convergence: 1.26 deg

Well: NBU 921 15C4T Well Position: +N/-S -4.05 ft Northing: 628053.10 ft Latitude: 40 2 28.040 N +E/-W 39.66 ft Easting: 2549484.46 ft Longitude: 109 32 14.020 W Position Uncertainty: 0.00 ft	Slot Name:
---	-------------------

Wellpath: 1 Current Datum: SITE Height 4810.00 ft Magnetic Data: 6/26/2008 Field Strength: 52673 nT Vertical Section: Depth From (TVD) +N/-S ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 11.50 deg Mag Dip Angle: 65.97 deg +E/-W Direction
0.00	0.00
0.00	304.65

Plan Section Information										
MD	Incl	Azim	TVD	+N/-S	+E/-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	4.00	335.00	499.84	6.32	-2.95	2.00	2.00	0.00	335.00	
580.00	4.00	335.00	559.69	10.12	-4.72	0.00	0.00	0.00	0.00	
960.00	0.00	286.54	959.37	22.77	-10.62	1.00	-1.00	0.00	180.00	
2560.63	0.00	286.54	2560.00	22.77	-10.62	0.00	0.00	0.00	335.00	
2810.63	5.00	286.54	2809.68	25.87	-21.07	2.00	2.00	0.00	0.00	
2904.03	5.00	286.54	2902.72	28.19	-28.87	0.00	0.00	0.00	0.00	
3404.03	0.00	286.54	3402.09	34.40	-49.77	1.00	-1.00	0.00	180.00	
10101.94	0.00	286.54	10100.00	34.40	-49.77	0.00	0.00	0.00	0.00	PBHL 15C4T

Survey										
MD	Incl	Azim	TVD	N/S	E/W	VS	DLS	Build	Turn	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	NUDGE
400.00	2.00	335.00	399.98	1.58	-0.74	1.51	2.00	2.00	0.00	
500.00	4.00	335.00	499.84	6.32	-2.95	6.02	2.00	2.00	0.00	HOLD
580.00	4.00	335.00	559.69	10.12	-4.72	9.63	0.00	0.00	0.00	DROP
600.00	3.60	335.00	599.60	12.52	-5.84	11.92	1.00	-1.00	0.00	
700.00	2.60	335.00	699.46	17.42	-8.12	16.59	1.00	-1.00	0.00	
800.00	1.60	335.00	799.39	20.74	-9.67	19.75	1.00	-1.00	0.00	
900.00	0.60	335.00	899.37	22.48	-10.48	21.41	1.00	-1.00	0.00	
960.00	0.00	286.54	959.37	22.77	-10.62	21.68	1.00	-1.00	-80.77	HOLD
1000.00	0.00	286.54	999.37	22.77	-10.62	21.68	0.00	0.00	0.00	
1100.00	0.00	286.54	1099.37	22.77	-10.62	21.68	0.00	0.00	0.00	
1200.00	0.00	286.54	1199.37	22.77	-10.62	21.68	0.00	0.00	0.00	

Weatherford WELL PLAN REPORT

Company: Anadarko-Kerr-McGee Field: UINTAH COUNTY, UTAH (NAD 27) Site: NBU 921-15F PAD Well: NBU 921 15C4T Wellpath: 1	Date: 6/30/2008 Time: 14:33:42 Page: 2 Co-ordinate(NE) Reference: Well: NBU 921 15C4T, True North Vertical (TVD) Reference: SITE 4810.0 Section (VS) Reference: Well (0.00N,0.00E,304.65Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
---	--

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
1300.00	0.00	286.54	1299.37	22.77	-10.62	21.68	0.00	0.00	0.00	
1400.00	0.00	286.54	1399.37	22.77	-10.62	21.68	0.00	0.00	0.00	
1500.00	0.00	286.54	1499.37	22.77	-10.62	21.68	0.00	0.00	0.00	
1600.00	0.00	286.54	1599.37	22.77	-10.62	21.68	0.00	0.00	0.00	
1700.00	0.00	286.54	1699.37	22.77	-10.62	21.68	0.00	0.00	0.00	
1724.63	0.00	286.54	1724.00	22.77	-10.62	21.68	0.00	0.00	0.00	Green River
1800.00	0.00	286.54	1799.37	22.77	-10.62	21.68	0.00	0.00	0.00	
1900.00	0.00	286.54	1899.37	22.77	-10.62	21.68	0.00	0.00	0.00	
2000.00	0.00	286.54	1999.37	22.77	-10.62	21.68	0.00	0.00	0.00	
2100.00	0.00	286.54	2099.37	22.77	-10.62	21.68	0.00	0.00	0.00	
2200.00	0.00	286.54	2199.37	22.77	-10.62	21.68	0.00	0.00	0.00	
2300.00	0.00	286.54	2299.37	22.77	-10.62	21.68	0.00	0.00	0.00	
2400.00	0.00	286.54	2399.37	22.77	-10.62	21.68	0.00	0.00	0.00	
2500.00	0.00	286.54	2499.37	22.77	-10.62	21.68	0.00	0.00	0.00	
2500.63	0.00	286.54	2500.00	22.77	-10.62	21.68	0.00	0.00	0.00	CSG
2560.63	0.00	286.54	2560.00	22.77	-10.62	21.68	0.00	0.00	0.00	KOP
2600.00	0.79	286.54	2599.37	22.84	-10.88	21.93	2.00	2.00	0.00	
2700.00	2.79	286.54	2699.31	23.73	-13.87	24.90	2.00	2.00	0.00	
2800.00	4.79	286.54	2799.09	25.61	-20.20	31.18	2.00	2.00	0.00	
2810.63	5.00	286.54	2809.68	25.87	-21.07	32.04	2.00	2.00	0.00	HOLD
2900.00	5.00	286.54	2898.71	28.09	-28.53	39.44	0.00	0.00	0.00	
2904.03	5.00	286.54	2902.72	28.19	-28.87	39.78	0.00	0.00	0.00	DROP
3000.00	4.04	286.54	2998.39	30.34	-36.12	46.96	1.00	-1.00	0.00	
3100.00	3.04	286.54	3098.20	32.10	-42.04	52.83	1.00	-1.00	0.00	
3200.00	2.04	286.54	3198.10	33.36	-46.29	57.05	1.00	-1.00	0.00	
3300.00	1.04	286.54	3298.07	34.13	-48.86	59.60	1.00	-1.00	0.00	
3400.00	0.04	286.54	3398.06	34.39	-49.77	60.50	1.00	-1.00	0.00	
3404.03	0.00	286.54	3402.09	34.40	-49.77	60.50	1.00	-1.00	0.00	HOLD
3500.00	0.00	286.54	3498.06	34.40	-49.77	60.50	0.00	0.00	0.00	
3600.00	0.00	286.54	3598.06	34.40	-49.77	60.50	0.00	0.00	0.00	
3700.00	0.00	286.54	3698.06	34.40	-49.77	60.50	0.00	0.00	0.00	
3800.00	0.00	286.54	3798.06	34.40	-49.77	60.50	0.00	0.00	0.00	
3900.00	0.00	286.54	3898.06	34.40	-49.77	60.50	0.00	0.00	0.00	
4000.00	0.00	286.54	3998.06	34.40	-49.77	60.50	0.00	0.00	0.00	
4100.00	0.00	286.54	4098.06	34.40	-49.77	60.50	0.00	0.00	0.00	
4200.00	0.00	286.54	4198.06	34.40	-49.77	60.50	0.00	0.00	0.00	
4300.00	0.00	286.54	4298.06	34.40	-49.77	60.50	0.00	0.00	0.00	
4400.00	0.00	286.54	4398.06	34.40	-49.77	60.50	0.00	0.00	0.00	
4500.00	0.00	286.54	4498.06	34.40	-49.77	60.50	0.00	0.00	0.00	
4600.00	0.00	286.54	4598.06	34.40	-49.77	60.50	0.00	0.00	0.00	
4700.00	0.00	286.54	4698.06	34.40	-49.77	60.50	0.00	0.00	0.00	
4800.00	0.00	286.54	4798.06	34.40	-49.77	60.50	0.00	0.00	0.00	
4900.00	0.00	286.54	4898.06	34.40	-49.77	60.50	0.00	0.00	0.00	
5000.00	0.00	286.54	4998.06	34.40	-49.77	60.50	0.00	0.00	0.00	
5100.00	0.00	286.54	5098.06	34.40	-49.77	60.50	0.00	0.00	0.00	
5145.94	0.00	286.54	5144.00	34.40	-49.77	60.50	0.00	0.00	0.00	Wasatch
5200.00	0.00	286.54	5198.06	34.40	-49.77	60.50	0.00	0.00	0.00	
5300.00	0.00	286.54	5298.06	34.40	-49.77	60.50	0.00	0.00	0.00	
5400.00	0.00	286.54	5398.06	34.40	-49.77	60.50	0.00	0.00	0.00	
5500.00	0.00	286.54	5498.06	34.40	-49.77	60.50	0.00	0.00	0.00	
5600.00	0.00	286.54	5598.06	34.40	-49.77	60.50	0.00	0.00	0.00	
5700.00	0.00	286.54	5698.06	34.40	-49.77	60.50	0.00	0.00	0.00	
5800.00	0.00	286.54	5798.06	34.40	-49.77	60.50	0.00	0.00	0.00	



Weatherford WELL PLAN REPORT



Company: Anadarko-Kerr-McGee	Date: 6/30/2008	Time: 14:33:42	Page: 3
Field: UINTAH COUNTY, UTAH (NAD 27)	Co-ordinate(NE) Reference: Well: NBU 921 15C4T, True North		
Site: NBU 921-15F PAD	Vertical (TVD) Reference: SITE 4810.0		
Well: NBU 921 15C4T	Section (VS) Reference: Well (0.00N,0.00E,304.65Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
5900.00	0.00	286.54	5898.06	34.40	-49.77	60.50	0.00	0.00	0.00	
6000.00	0.00	286.54	5998.06	34.40	-49.77	60.50	0.00	0.00	0.00	
6100.00	0.00	286.54	6098.06	34.40	-49.77	60.50	0.00	0.00	0.00	
6200.00	0.00	286.54	6198.06	34.40	-49.77	60.50	0.00	0.00	0.00	
6300.00	0.00	286.54	6298.06	34.40	-49.77	60.50	0.00	0.00	0.00	
6400.00	0.00	286.54	6398.06	34.40	-49.77	60.50	0.00	0.00	0.00	
6500.00	0.00	286.54	6498.06	34.40	-49.77	60.50	0.00	0.00	0.00	
6600.00	0.00	286.54	6598.06	34.40	-49.77	60.50	0.00	0.00	0.00	
6700.00	0.00	286.54	6698.06	34.40	-49.77	60.50	0.00	0.00	0.00	
6800.00	0.00	286.54	6798.06	34.40	-49.77	60.50	0.00	0.00	0.00	
6900.00	0.00	286.54	6898.06	34.40	-49.77	60.50	0.00	0.00	0.00	
7000.00	0.00	286.54	6998.06	34.40	-49.77	60.50	0.00	0.00	0.00	
7100.00	0.00	286.54	7098.06	34.40	-49.77	60.50	0.00	0.00	0.00	
7200.00	0.00	286.54	7198.06	34.40	-49.77	60.50	0.00	0.00	0.00	
7300.00	0.00	286.54	7298.06	34.40	-49.77	60.50	0.00	0.00	0.00	
7400.00	0.00	286.54	7398.06	34.40	-49.77	60.50	0.00	0.00	0.00	
7500.00	0.00	286.54	7498.06	34.40	-49.77	60.50	0.00	0.00	0.00	
7600.00	0.00	286.54	7598.06	34.40	-49.77	60.50	0.00	0.00	0.00	
7700.00	0.00	286.54	7698.06	34.40	-49.77	60.50	0.00	0.00	0.00	
7800.00	0.00	286.54	7798.06	34.40	-49.77	60.50	0.00	0.00	0.00	
7900.00	0.00	286.54	7898.06	34.40	-49.77	60.50	0.00	0.00	0.00	
8000.00	0.00	286.54	7998.06	34.40	-49.77	60.50	0.00	0.00	0.00	
8030.94	0.00	286.54	8029.00	34.40	-49.77	60.50	0.00	0.00	0.00	Mesaverde
8100.00	0.00	286.54	8098.06	34.40	-49.77	60.50	0.00	0.00	0.00	
8200.00	0.00	286.54	8198.06	34.40	-49.77	60.50	0.00	0.00	0.00	
8300.00	0.00	286.54	8298.06	34.40	-49.77	60.50	0.00	0.00	0.00	
8400.00	0.00	286.54	8398.06	34.40	-49.77	60.50	0.00	0.00	0.00	
8500.00	0.00	286.54	8498.06	34.40	-49.77	60.50	0.00	0.00	0.00	
8600.00	0.00	286.54	8598.06	34.40	-49.77	60.50	0.00	0.00	0.00	
8700.00	0.00	286.54	8698.06	34.40	-49.77	60.50	0.00	0.00	0.00	
8800.00	0.00	286.54	8798.06	34.40	-49.77	60.50	0.00	0.00	0.00	
8900.00	0.00	286.54	8898.06	34.40	-49.77	60.50	0.00	0.00	0.00	
9000.00	0.00	286.54	8998.06	34.40	-49.77	60.50	0.00	0.00	0.00	
9100.00	0.00	286.54	9098.06	34.40	-49.77	60.50	0.00	0.00	0.00	
9200.00	0.00	286.54	9198.06	34.40	-49.77	60.50	0.00	0.00	0.00	
9300.00	0.00	286.54	9298.06	34.40	-49.77	60.50	0.00	0.00	0.00	
9400.00	0.00	286.54	9398.06	34.40	-49.77	60.50	0.00	0.00	0.00	
9500.00	0.00	286.54	9498.06	34.40	-49.77	60.50	0.00	0.00	0.00	
9600.00	0.00	286.54	9598.06	34.40	-49.77	60.50	0.00	0.00	0.00	
9700.00	0.00	286.54	9698.06	34.40	-49.77	60.50	0.00	0.00	0.00	
9800.00	0.00	286.54	9798.06	34.40	-49.77	60.50	0.00	0.00	0.00	
9900.00	0.00	286.54	9898.06	34.40	-49.77	60.50	0.00	0.00	0.00	
10000.00	0.00	286.54	9998.06	34.40	-49.77	60.50	0.00	0.00	0.00	
10100.00	0.00	286.54	10098.06	34.40	-49.77	60.50	0.00	0.00	0.00	
10101.94	0.00	286.54	10100.00	34.40	-49.77	60.50	0.00	0.00	0.00	PBHL 15C4T

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->				
								Deg	Min	Sec	Deg	Min	Sec		
PBHL 15C4T -Circle (Radius: 25)			10100.00	34.40	-49.77	828086.402549433.95		40	2	28.380	N	109	32	14.660	W

Weatherford WELL PLAN REPORT



Company: Anadarko-Kerr-McGee Field: UINTAH COUNTY, UTAH (NAD 27) Site: NBU 921-15F PAD Well: NBU 921 15C4T Wellpath: 1	Date: 6/30/2008 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Survey Calculation Method:	Time: 14:33:42 Well: NBU 921 15C4T, True North SITE: 4810.0 Well (0.00N,0.00E,304.65Azi) Minimum Curvature	Page: 4 Db: Sybase
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Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->		
								Deg	Min	Sec	Deg	Min	Sec
-Plan hit target													

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
2500.63	2500.00	0.00	0.00	CSG

Annotation

MD ft	TVD ft	
300.00	300.00	NUDGE
500.00	499.84	HOLD
560.00	559.69	DROP
960.00	959.37	HOLD
2560.63	2560.00	KOP
2810.63	2809.68	HOLD
2904.03	2902.72	DROP
3404.03	3402.09	HOLD
10101.94	10100.00	PBHL

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
1724.63	1724.00	Green River		0.00	0.00
5145.94	5144.00	Wasatch		0.00	0.00
8030.94	8029.00	Mesaverde		0.00	0.00



Weatherford

Weatherford Drilling Services

GeoDec v4.3.065

Report Date: June 30, 2008
 Job Number: _____
 Customer: ANADARKO
 Well Name: NBU 921-15C4T
 API Number: _____
 Rig Name: _____
 Location: UINTA COUNTY, UTAH
 Block: _____
 Engineer: R JOYNER

Geodetic Latitude / Longitude	Geodetic Latitude / Longitude
System: Latitude / Longitude	System: Latitude / Longitude
Projection: Geodetic Latitude and Longitude	Projection: Geodetic Latitude and Longitude
Datum: NAD 1927 (NADCON CONUS)	Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866	Ellipsoid: Clarke 1866
Latitude 40.0411220 DEG	Latitude 40 2 28.0392000 DMS
Longitude -109.5372280 DEG	Longitude -109 32 14.0208000 DMS

Geodetic Location WGS84 Elevation = 0.0 Meters
 Latitude = 40.04112° N 40° 2 min 28.039 sec
 Longitude = 109.53723° W 109° 32 min 14.021 sec

Magnetic Declination =	11.5030°	[True North Offset]	
Local Gravity =	.9995 g		
Local Field Strength =	52672 nT	Magnetic Vector X =	21019 nT
Magnetic Dip =	65.9690°	Magnetic Vector Y =	4278 nT
Magnetic Model =	bggm2007	Magnetic Vector Z =	48107 nT
Spud Date =	Jun 30, 2008	Magnetic Vector H =	21450 nT

Signed: _____

Date: _____



Weatherford Anticollision Report



Company: Anadarko-Kerr-McGee	Date: 6/30/2008	Time: 14:30:16	Page: 2
Field: UINTAH COUNTY, UTAH (NAD 27)			
Reference Site: NBU 921-15F PAD	Co-ordinate(NE) Reference:	Well: NBU 921 15C4T, True North	
Reference Well: NBU 921 15C4T	Vertical (TVD) Reference:	SITE 4810.0	
Reference Wellpath: 1	Db: Sybase		

Site: NBU 921-15F PAD
 Well: EXISTING WELL 298
 Wellpath: 1 VO

Inter-Site Error: 0.00 ft

Reference MD	Reference TVD	Offset MD	Offset TVD	Semi-Major Axis Ref	Semi-Major Axis Offset	TFO-HS deg	Offset Location North	Offset Location East	Ctr-Ctr Distance	Edge Distance	Separation Factor	Warning
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
3100.00	3098.20	3099.20	3097.09	3.88	1.79	208.46	-27.78	17.96	84.77	79.35	15.65	
3200.00	3198.10	3198.90	3196.77	3.70	1.84	208.32	-30.13	17.58	90.07	84.80	17.10	
3300.00	3298.07	3298.54	3296.37	3.51	1.89	208.75	-32.70	17.32	94.07	88.95	18.38	
3400.00	3398.06	3398.20	3396.00	3.32	1.95	209.47	-35.28	17.49	96.86	91.89	19.50	
3404.03	3402.09	3402.22	3400.01	3.31	1.95	136.05	-35.38	17.50	96.95	91.88	19.14	
3500.00	3498.06	3498.13	3495.89	3.31	2.00	136.87	-37.86	17.91	99.03	93.91	19.37	
3600.00	3598.08	3598.08	3595.78	3.51	2.06	137.66	-40.43	18.40	101.25	95.88	18.87	
3700.00	3698.06	3698.15	3695.84	3.71	2.11	138.61	-43.19	18.60	103.44	97.83	18.42	
3800.00	3798.06	3798.23	3795.87	3.91	2.17	139.94	-46.38	18.14	105.55	99.68	17.98	
3900.00	3898.06	3897.60	3895.17	4.11	2.23	141.45	-49.98	17.46	107.92	101.80	17.63	
4000.00	3998.06	3996.92	3994.40	4.31	2.28	142.93	-54.05	17.05	110.91	104.53	17.40	
4100.00	4098.06	4097.23	4094.62	4.51	2.34	144.38	-58.29	16.64	114.08	107.45	17.20	
4200.00	4198.06	4197.59	4194.90	4.72	2.40	145.80	-62.28	15.94	116.93	110.05	16.98	
4300.00	4298.06	4297.11	4294.35	4.92	2.46	147.14	-66.21	15.21	119.82	112.68	16.76	
4400.00	4398.06	4396.60	4393.74	5.13	2.52	148.39	-70.40	14.73	123.13	115.73	16.64	
4500.00	4498.06	4495.80	4492.84	5.33	2.58	149.62	-75.01	14.37	126.93	119.28	16.58	
4600.00	4598.06	4594.94	4591.83	5.54	2.64	150.91	-80.27	14.02	131.36	123.45	16.60	
4700.00	4698.06	4693.97	4690.70	5.74	2.71	152.00	-85.89	14.18	136.43	128.26	16.89	
4800.00	4798.06	4792.97	4789.53	5.95	2.77	152.60	-91.57	15.51	142.13	133.70	16.85	
4900.00	4898.06	4893.35	4889.74	6.15	2.84	152.95	-97.20	17.41	147.98	139.29	17.02	
5000.00	4998.06	4993.89	4990.12	6.36	2.91	153.31	-102.46	19.04	153.38	144.43	17.13	
5100.00	5098.06	5094.41	5090.51	6.56	2.98	153.62	-107.30	20.51	158.35	149.14	17.19	
5200.00	5198.06	5194.96	5190.96	6.77	3.04	153.84	-111.69	21.99	162.91	153.44	17.20	
5300.00	5298.06	5296.11	5292.02	6.98	3.11	154.06	-115.60	23.19	166.91	157.17	17.15	
5400.00	5398.06	5397.33	5393.19	7.18	3.17	154.38	-118.96	23.76	170.15	160.15	17.03	
5500.00	5498.06	5496.91	5492.72	7.39	3.23	154.75	-122.09	24.04	173.11	162.85	16.88	
5600.00	5598.06	5596.44	5592.19	7.60	3.28	155.09	-125.43	24.45	176.31	165.80	16.77	
5700.00	5698.06	5696.44	5692.13	7.81	3.34	155.44	-128.89	24.86	179.63	168.85	16.67	
5800.00	5798.06	5796.46	5792.09	8.01	3.40	155.81	-132.37	25.13	182.91	171.87	16.58	
5900.00	5898.06	5896.74	5892.31	8.22	3.46	156.25	-135.85	25.14	186.09	174.79	16.47	
6000.00	5998.06	5997.03	5992.54	8.43	3.52	156.78	-139.31	24.73	189.09	177.53	16.36	
6100.00	6098.06	6050.00	6045.48	8.64	3.55	157.05	-141.03	24.51	197.63	185.84	16.76	
6200.00	6198.06	6050.00	6045.48	8.84	3.55	157.05	-141.03	24.51	244.07	232.08	20.34	
6300.00	6298.06	6050.00	6045.48	9.05	3.55	157.05	-141.03	24.51	316.37	304.16	25.92	
6400.00	6398.06	6050.00	6045.48	9.26	3.55	157.05	-141.03	24.51	400.75	388.34	32.29	
6500.00	6498.06	6050.00	6045.48	9.47	3.55	157.05	-141.03	24.51	491.04	478.42	38.91	
6600.00	6598.06	6050.00	6045.48	9.68	3.55	157.05	-141.03	24.51	584.50	571.67	45.56	
6700.00	6698.06	6050.00	6045.48	9.88	3.55	157.05	-141.03	24.51	679.82	666.78	52.15	
6800.00	6798.06	6050.00	6045.48	10.09	3.55	157.05	-141.03	24.51	776.32	763.07	58.61	
6900.00	6898.06	6050.00	6045.48	10.30	3.55	157.05	-141.03	24.51	873.60	860.15	64.93	
7000.00	6998.06	6050.00	6045.48	10.51	3.55	157.05	-141.03	24.51	971.44	957.78	71.10	
7100.00	7098.06	6050.00	6045.48	10.72	3.55	157.05	-141.03	24.51	1069.68	1055.81	77.11	
7200.00	7198.06	6050.00	6045.48	10.93	3.55	157.05	-141.03	24.51	1168.22	1154.14	82.96	
7300.00	7298.06	6050.00	6045.48	11.13	3.55	157.05	-141.03	24.51	1266.98	1252.69	88.66	
7400.00	7398.06	6050.00	6045.48	11.34	3.55	157.05	-141.03	24.51	1365.93	1351.43	94.21	
7500.00	7498.06	6050.00	6045.48	11.55	3.55	157.05	-141.03	24.51	1465.02	1450.31	99.61	
7600.00	7598.06	6050.00	6045.48	11.76	3.55	157.05	-141.03	24.51	1564.22	1549.30	104.86	
7700.00	7698.06	6050.00	6045.48	11.97	3.55	157.05	-141.03	24.51	1663.52	1648.40	109.97	
7800.00	7798.06	6050.00	6045.48	12.18	3.55	157.05	-141.03	24.51	1762.90	1747.57	114.95	
7900.00	7898.06	6050.00	6045.48	12.39	3.55	157.05	-141.03	24.51	1862.35	1846.80	119.80	
8000.00	7998.06	6050.00	6045.48	12.59	3.55	157.05	-141.03	24.51	1961.85	1946.10	124.53	



Weatherford Anticollision Report



Company: Anadarko-Kerr-McGee	Date: 6/30/2008	Time: 14:30:15	Page: 1
Field: UINTAH COUNTY, UTAH (NAD 27)			
Reference Site: NBU 921-15F PAD	Co-ordinate(NE) Reference:	Well: NBU 921 15C4T, True North	
Reference Well: NBU 921 15C4T	Vertical (TVD) Reference:	SITE 4810.0	
Reference Wellpath: 1	Db: Sybase		

NO GLOBAL SCAN: Using user defined selection & scan criteria Interpolation Method: MD + Stations Interval: 100.00 ft Depth Range: 0.00 to 10101.94 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: 6/26/2008	
Principal: Yes	Version: 1	
	Tied-to: From Surface	

Summary

<----- Offset Wellpath ----->	Reference	Offset	Ctr-Ctr	Edge	Separation	Warning
Site Well Wellpath	MD ft	MD ft	Distance ft	Distance ft	Factor	
NBU 921-15F PAD EXISTING WELL 2981 V0	1800.00	1799.90	19.68	16.97	7.25	

Site: NBU 921-15F PAD
Well: EXISTING WELL 298
Wellpath: 1 V0

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				
0.00	0.00	0.00	0.00	0.00	0.00	298.64	27.22	-49.85	56.80			No Data
100.00	100.00	100.27	100.27	0.09	0.04	299.01	27.43	-49.46	56.56	56.43	438.44	
200.00	200.00	200.15	200.15	0.30	0.10	299.56	27.73	-48.88	56.20	55.81	143.76	
300.00	300.00	300.16	300.16	0.50	0.15	299.91	27.89	-48.48	55.93	55.27	85.67	
400.00	399.98	400.21	400.21	0.71	0.20	323.94	27.81	-48.12	54.15	53.25	59.67	
500.00	499.84	500.27	500.27	0.91	0.25	320.33	27.52	-47.55	49.38	48.21	42.41	
560.00	559.69	560.21	560.20	1.05	0.28	316.98	27.27	-47.00	45.64	44.31	34.47	
600.00	599.60	600.16	600.15	1.06	0.31	314.48	27.01	-46.59	43.26	41.91	32.00	
700.00	699.46	699.96	699.93	0.89	0.36	307.29	25.63	-46.65	38.41	37.18	31.17	
800.00	799.39	799.73	799.68	0.74	0.41	299.59	23.59	-44.90	35.35	34.21	31.08	
900.00	899.37	899.81	899.73	0.62	0.47	293.51	21.61	-44.01	33.54	32.47	31.35	
960.00	959.37	959.84	959.75	0.56	0.50	339.37	20.44	-43.27	32.74	31.70	31.35	
1000.00	999.37	999.86	999.75	0.54	0.52	337.80	19.58	-42.73	32.27	31.22	30.78	
1100.00	1099.37	1100.04	1099.90	0.57	0.58	333.41	17.39	-40.94	30.80	29.66	26.96	
1200.00	1199.37	1200.08	1199.89	0.67	0.63	329.20	15.61	-38.76	29.04	27.74	22.30	
1300.00	1299.37	1300.13	1299.90	0.81	0.69	324.90	14.13	-36.34	27.14	25.63	18.05	
1400.00	1399.37	1400.21	1399.93	0.98	0.75	319.43	12.58	-33.46	25.01	23.28	14.47	
1500.00	1499.37	1500.10	1499.76	1.16	0.81	312.00	10.76	-30.24	23.01	21.04	11.69	
1600.00	1599.37	1600.17	1599.74	1.35	0.87	302.25	8.75	-26.62	21.28	19.06	9.60	
1700.00	1699.37	1700.17	1699.60	1.54	0.93	288.24	6.58	-21.86	19.71	17.24	7.99	
1800.00	1799.37	1799.90	1799.07	1.74	1.00	267.25	3.65	-15.31	19.68	16.97	7.25	
1900.00	1899.37	1899.44	1898.29	1.94	1.08	247.38	-0.03	-8.19	22.95	20.00	7.77	
2000.00	1999.37	1999.30	1997.87	2.14	1.15	235.24	-3.86	-1.85	28.08	24.88	8.78	
2100.00	2099.37	2099.71	2098.07	2.35	1.23	226.70	-6.44	4.11	32.73	29.29	9.50	
2200.00	2199.37	2199.82	2198.04	2.55	1.29	220.87	-8.04	9.08	36.59	32.89	9.89	
2300.00	2299.37	2299.87	2298.02	2.76	1.36	218.38	-10.04	12.42	40.11	36.15	10.13	
2400.00	2399.37	2399.96	2398.05	2.96	1.42	217.60	-12.32	14.75	43.32	39.10	10.27	
2500.00	2499.37	2500.11	2498.16	3.17	1.47	217.42	-14.53	16.53	46.15	41.67	10.31	
2560.63	2560.00	2560.89	2558.93	3.29	1.51	217.57	-15.81	17.29	47.63	42.99	10.27	
2600.00	2599.37	2600.36	2598.38	3.37	1.53	217.69	-16.64	17.58	48.68	43.95	10.28	
2700.00	2699.31	2700.11	2698.10	3.58	1.58	216.80	-18.99	18.01	53.32	48.33	10.69	
2800.00	2799.09	2799.71	2797.67	3.80	1.64	214.30	-21.56	18.44	60.99	55.75	11.64	
2810.63	2809.68	2810.35	2808.31	3.83	1.64	213.95	-21.83	18.49	61.99	56.72	11.77	
2900.00	2898.71	2899.90	2897.83	4.03	1.69	211.48	-23.91	18.47	70.10	64.60	12.74	
2904.03	2902.72	2903.92	2901.84	4.04	1.69	211.39	-23.99	18.45	70.45	64.94	12.78	
3000.00	2998.39	2999.57	2997.48	4.06	1.74	209.53	-25.84	18.16	78.13	72.56	14.03	



Weatherford Anticollision Report



Company: Anadarko-Kerr-McGee	Date: 6/30/2008	Time: 14:30:15	Page: 3
Field: UINTAH COUNTY, UTAH (NAD 27)			
Reference Site: NBU 921-15F PAD	Co-ordinate(NE) Reference:	Well: NBU 921 15C4T, True North	
Reference Well: NBU 921 15C4T	Vertical (TVD) Reference:	SITE 4810.0	
Reference Wellpath: 1			Db: Sybase

Site: NBU 921-15F PAD
Well: EXISTING WELL 298
Wellpath: 1 VO

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance	Edge Distance	Separation Factor	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East				
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
8100.00	8098.06	6050.00	6045.48	12.80	3.55	157.05	-141.03	24.51	2061.40	2045.44	129.13	
8200.00	8198.06	6050.00	6045.48	13.01	3.55	157.05	-141.03	24.51	2160.99	2144.82	133.62	
8300.00	8298.06	6050.00	6045.48	13.22	3.55	157.05	-141.03	24.51	2260.62	2244.24	137.99	
8400.00	8398.06	6050.00	6045.48	13.43	3.55	157.05	-141.03	24.51	2360.28	2343.69	142.25	
8500.00	8498.06	6050.00	6045.48	13.64	3.55	157.05	-141.03	24.51	2459.97	2443.16	146.41	
8600.00	8598.06	6050.00	6045.48	13.85	3.55	157.05	-141.03	24.51	2559.68	2542.67	150.47	
8700.00	8698.06	6050.00	6045.48	14.05	3.55	157.05	-141.03	24.51	2659.41	2642.19	154.43	
8800.00	8798.06	6050.00	6045.48	14.26	3.55	157.05	-141.03	24.51	2759.16	2741.73	158.30	
8900.00	8898.06	6050.00	6045.48	14.47	3.55	157.05	-141.03	24.51	2858.93	2841.29	162.08	
9000.00	8998.06	6050.00	6045.48	14.68	3.55	157.05	-141.03	24.51	2958.72	2940.87	165.76	
9100.00	9098.06	6050.00	6045.48	14.89	3.55	157.05	-141.03	24.51	3058.52	3040.46	169.37	
9200.00	9198.06	6050.00	6045.48	15.10	3.55	157.05	-141.03	24.51	3158.33	3140.06	172.89	
9300.00	9298.06	6050.00	6045.48	15.31	3.55	157.05	-141.03	24.51	3258.15	3239.67	176.33	
9400.00	9398.06	6050.00	6045.48	15.52	3.55	157.05	-141.03	24.51	3357.99	3339.30	179.70	
9500.00	9498.06	6050.00	6045.48	15.73	3.55	157.05	-141.03	24.51	3457.83	3438.93	182.99	
9600.00	9598.06	6050.00	6045.48	15.93	3.55	157.05	-141.03	24.51	3557.68	3538.58	186.21	
9700.00	9698.06	6050.00	6045.48	16.14	3.55	157.05	-141.03	24.51	3657.54	3638.23	189.35	
9800.00	9798.06	6050.00	6045.48	16.35	3.55	157.05	-141.03	24.51	3757.41	3737.89	192.44	
9900.00	9898.06	6050.00	6045.48	16.56	3.55	157.05	-141.03	24.51	3857.29	3837.55	195.45	
10000.00	9998.06	6050.00	6045.48	16.77	3.55	157.05	-141.03	24.51	3957.17	3937.22	198.41	
10100.00	10098.06	6050.00	6045.48	16.98	3.55	157.05	-141.03	24.51	4057.05	4036.90	201.30	
10101.94	10100.00	6050.00	6045.48	16.98	3.55	157.05	-141.03	24.51	4058.99	4038.83	201.36	

Kerr-McGee Oil & Gas Onshore LP

NBU #921-15D1S, #921-15C2S,
#921-15C4S & #921-15G2S
SECTION 15, T9S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; TURN LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 3.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 3.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE EXISTING NBU #298 AND THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 43.9 MILES.

Kerr-McGee Oil & Gas Onshore LP

NBU #921-15D1S, #921-15C2S, #921-15C4S & #921-15G2S

LOCATED IN UINTAH COUNTY, UTAH
SECTION 15, T9S, R21E, S.L.B.&M.



PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: SOUTHEASTERLY



PHOTO: VIEW OF EXISTING ACCESS

CAMERA ANGLE: NORTHWESTERLY



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

- Since 1964 -

LOCATION PHOTOS

05 21 08
MONTH DAY YEAR

PHOTO

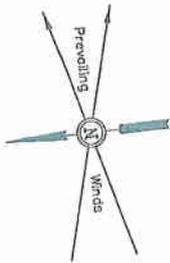
TAKEN BY: L.K.

DRAWN BY: C.C.

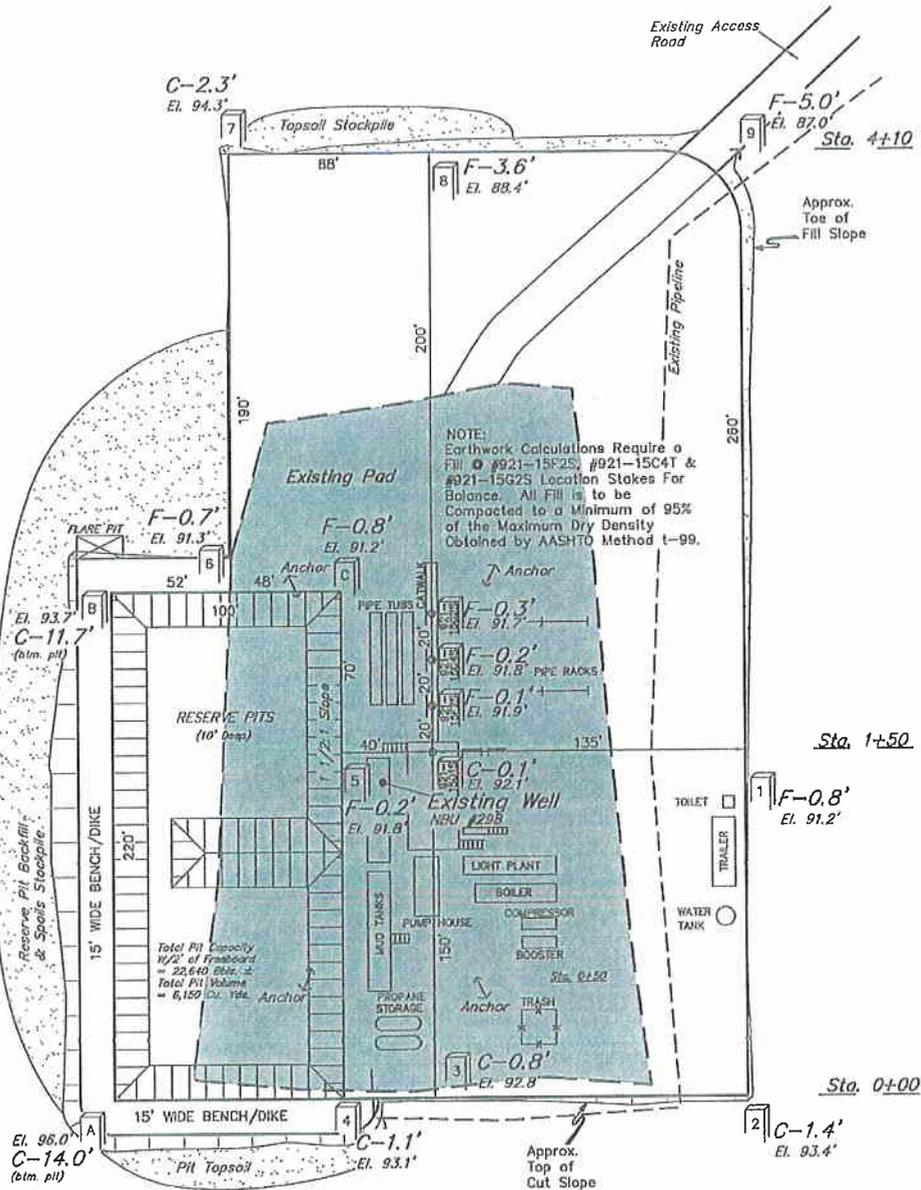
REV: 07-29-08 C.C.

Kerr-McGee Oil & Gas Onshore LP
 SITE PLAN LAYOUT FOR
 NBU #921-15D1S, #921-15C2S, #921-15C4S & #921-15G2S
 SECTION 15, T9S, R21E, S.L.B.&M.
 N 1/2

FIGURE #1



SCALE: 1" = 50'
 DATE: 05-21-08
 Drawn By: C.C.
 Revised: 07-29-08



NOTES:

Elev. Ungraded Ground At #921-15D1S Loc. Stake = 4792.1'
 FINISHED GRADE ELEV. AT #921-15D1S LOC. STAKE = 4792.0'

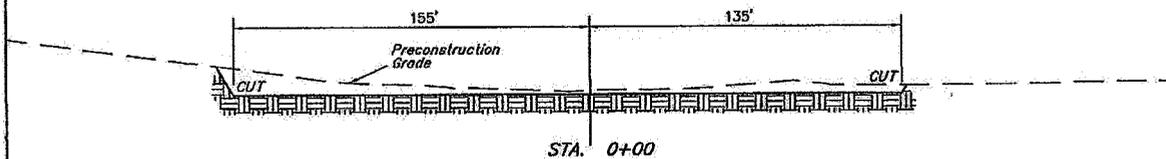
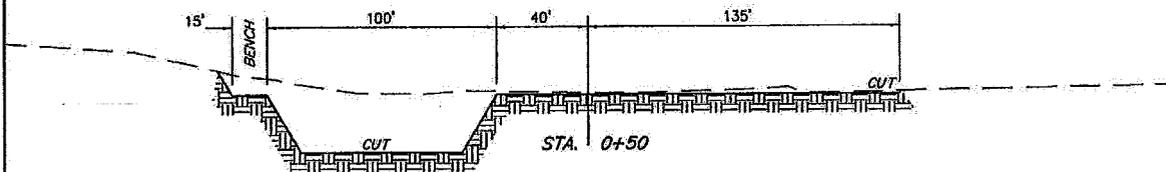
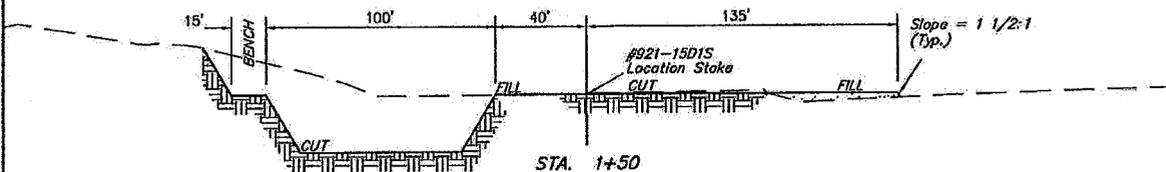
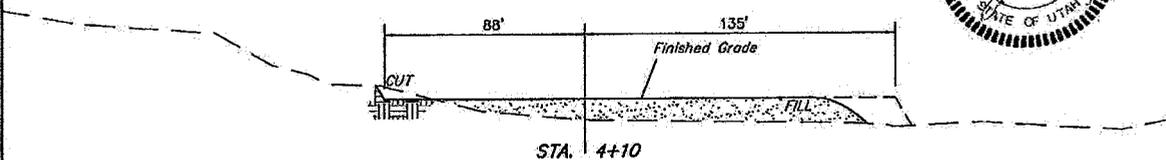
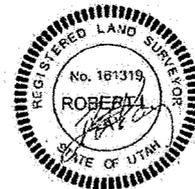
Kerr-McGee Oil & Gas Onshore LP

TYPICAL CROSS SECTIONS FOR

NBU #921-15D1S, #921-15C2S, #921-15C4S & #921-15G2S
SECTION 15, T9S, R21E, S.L.B.&M.
N 1/2

FIGURE #2

X-Section
Scale
1" = 50'
DATE: 05-21-08
Drawn By: C.C.
Revised: 07-29-08



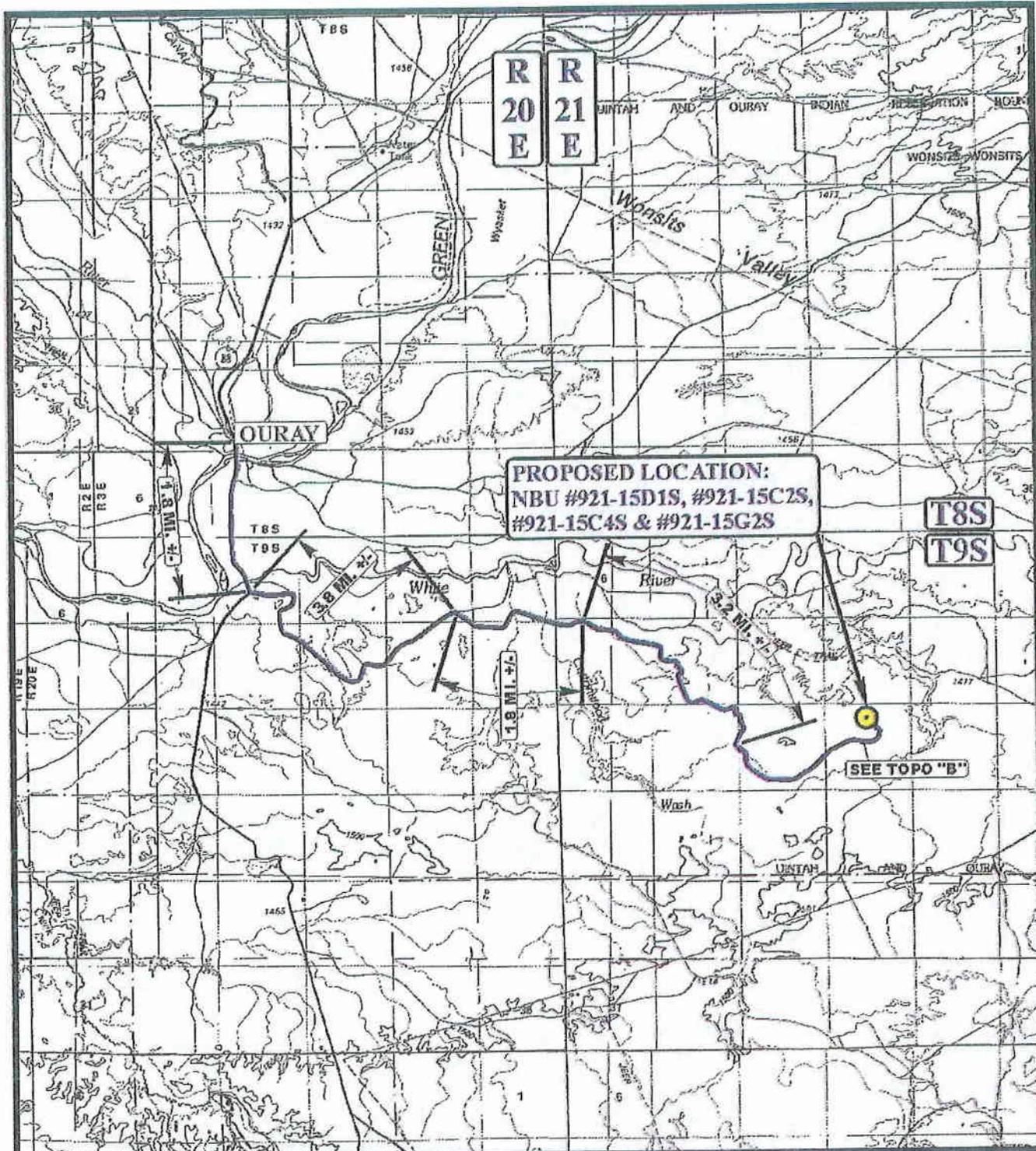
NOTE:
Topsoil should not be
Stripped Below Finished
Grade on Substructure Area.

* NOTE:
FILL QUANTITY INCLUDES
5% FOR COMPACTION

APPROXIMATE YARDAGES

CUT
(12" Topsoil Stripping
(New Construction Only)
Remaining Location = 7,310 Cu. Yds.
TOTAL CUT = 9,500 CU.YDS.
FILL = 5,120 CU.YDS.

EXCESS MATERIAL = 4,380 Cu. Yds.
Topsoil & Pit Backfill
(1/2 Pit Vol.) = 5,270 Cu. Yds.
DEFICIT UNBALANCE = <890> Cu. Yds.
(After Interim Rehabilitation)



LEGEND:

 PROPOSED LOCATION

Kerr-McGee Oil & Gas Onshore LP

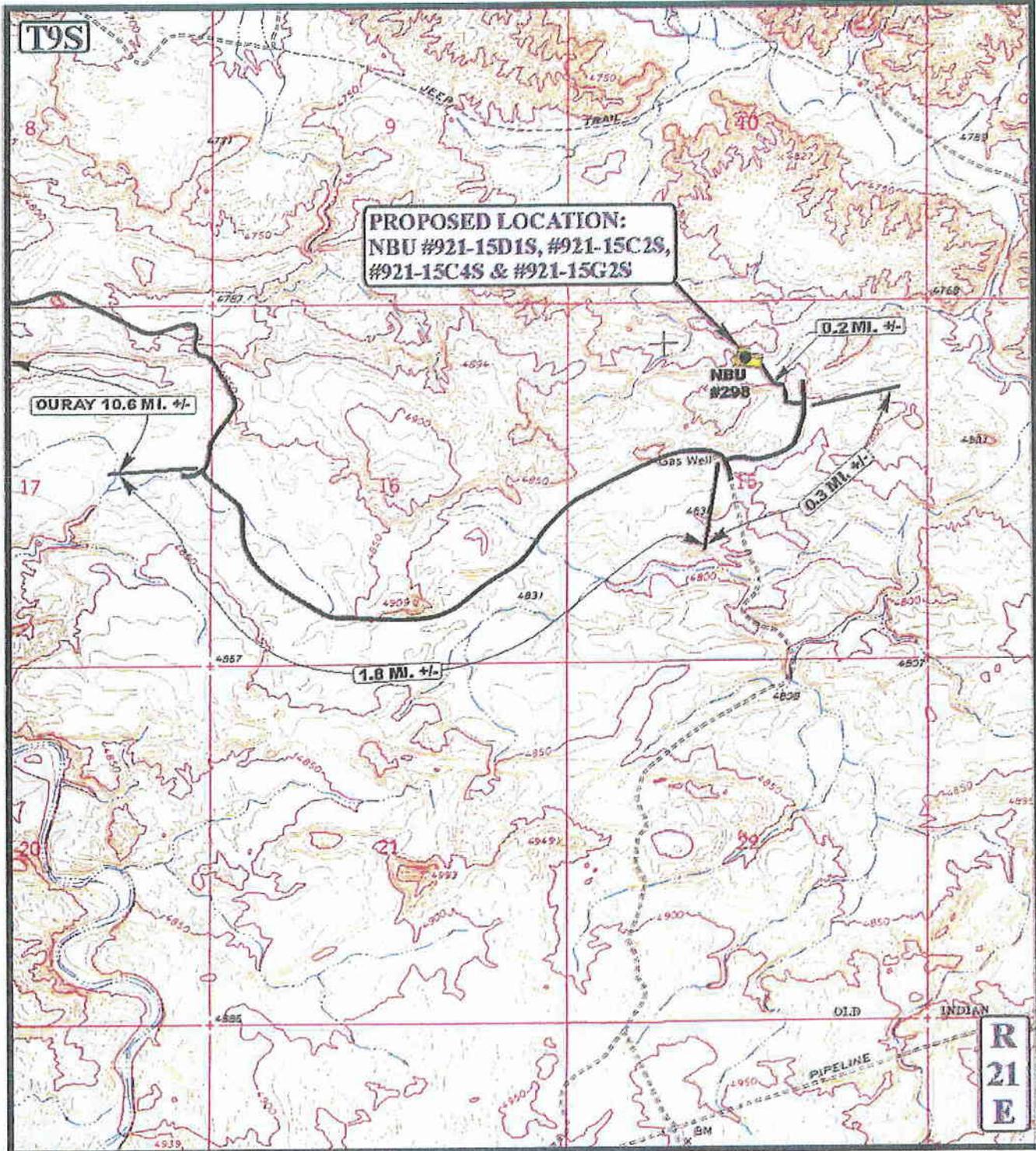
NBU #921-15D1S, #921-15C2S,
 #921-15C4S & #921-15G2S
 SECTION 15, T9S, R21E, S.L.B.&M.
 N 12

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



TOPOGRAPHIC 05 20 08
MAP MONTH DAY YEAR
 SCALE: 1:100,000 DRAWN BY: C.C. REV: 07-29-08 C.C.

A
TOPO



**PROPOSED LOCATION:
NBU #921-15D1S, #921-15C2S,
#921-15C4S & #921-15G2S**

OURAY 10.6 MI. +/-

1.8 MI. +/-

0.2 MI. +/-

0.3 MI. +/-

NBU #298

Gas Well

**R
21
E**

LEGEND:
 ——— EXISTING ROAD
 - - - - - PROPOSED ACCESS ROAD

Kerr-McGee Oil & Gas Onshore LP

NBU #921-15D1S, #921-15C2S,
 #921-15C4S & #921-15G2S
 SECTION 15, T9S, R21E, S.L.B.&M.
 N 1/2

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



TOPOGRAPHIC MAP 05 20 08
 MONTH DAY YEAR
 SCALE: 1" = 2000' DRAWN BY: C.C. REV: 07-29-08 C.C. **B**
 TOPO

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 08/18/2008

API NO. ASSIGNED: 43-047-40337

WELL NAME: NBU 921-15C4S
 OPERATOR: KERR-MCGEE OIL & GAS (N2995)
 CONTACT: KEVIN MCINTYRE

PHONE NUMBER: 720-929-6226

PROPOSED LOCATION:

NENW 15 090S 210E
 SURFACE: 0836 FNL 2640 FWL
 BOTTOM: 0801 FNL 2590 FWL
 COUNTY: UINTAH
 LATITUDE: 40.04107 LONGITUDE: -109.5372
 UTM SURF EASTINGS: 624796 NORTHINGS: 4433130
 FIELD NAME: NATURAL BUTTES (630)

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

LEASE TYPE: 1 - Federal
 LEASE NUMBER: UTU-01188
 SURFACE OWNER: 2 - Indian

PROPOSED FORMATION: WSMVD
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]
(No. WYB000291)
- N Potash (Y/N)
- Y Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit
(No. 43-8496)
- N RDCC Review (Y/N)
(Date: _____)
- N/A Fee Surf Agreement (Y/N)
- N/A 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: 12-21-99
Siting: 460' from ubar & uncomm. tract
- R649-3-11. Directional Drill

COMMENTS: _____

STIPULATIONS: 1. Federal Approval

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)

December 19, 2008

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2008 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, Kerr McGee has asked the NBU 921-15C4S (43-047-40237) to be rescinded and the 921-15C4T (43-047-40337) to be renamed the 921-15C4S with a new bottom hole as follows. The well is planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Wasatch/MesaVerde)		
43-047-40337	NBU 921-15C4S Sec 15 T09S R21E 0836 FNL 2640 FWL	BHL Sec 15 T09S R21E 0801 FNL 2590 FWL

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

/s/ Michael L. Coulthard

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

MCoulthard:mc:12-19-08

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-01188
---	--

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
--	---

1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-15C4S
------------------------------------	--

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047403370000
---	---

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

4. LOCATION OF WELL FOOTAGES AT SURFACE: 0836 FNL 2640 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 15 Township: 09.0S Range: 21.0E Meridian: S	COUNTY: UINTAH STATE: UTAH
---	---

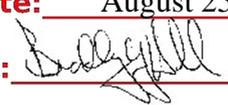
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 8/21/2009 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION OTHER:

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

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

Approved by the
 Utah Division of
 Oil, Gas and Mining

Date: August 25, 2009
 By: 

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 8/18/2009	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047403370000

API: 43047403370000

Well Name: NBU 921-15C4S

Location: 0836 FNL 2640 FWL QTR NENW SEC 15 TWP 090S RNG 210E MER S

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

Date Original Permit Issued: 9/3/2008

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

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

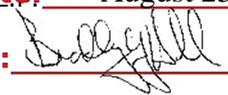
**Approved by the
Utah Division of
Oil, Gas and Mining**

Signature: Danielle Piernot

Date: 8/18/2009

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

Date: August 25, 2009

By: 

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-01188
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SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
1. TYPE OF WELL Gas Well	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	8. WELL NAME and NUMBER: NBU 921-15C4S	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext	9. API NUMBER: 43047403370000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0836 FNL 2640 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 15 Township: 09.0S Range: 21.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
		COUNTY: UINTAH
		STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 8/31/2010	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> 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 type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <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, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: August 31, 2010

By:

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 8/31/2010	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047403370000

API: 43047403370000

Well Name: NBU 921-15C4S

Location: 0836 FNL 2640 FWL QTR NENW SEC 15 TWP 090S RNG 210E MER S

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

Date Original Permit Issued: 9/3/2008

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

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

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

Signature: Danielle Piernot

Date: 8/31/2010

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

Date: August 31, 2010

By: 

RECEIVED

RECEIVED

Form 3160-3
(August 2007)

NOV 23 2010

JUL 16 2008

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

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

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU 01188
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name Ute Tibe
2. Name of Operator Kerr-McGee Oil & Gas Onshore, LP		7. If Unit or CA Agreement, Name and No. 891008900A
3a. Address PO Box 173779 Denver, CO 80217-3779		8. Lease Name and Well No. NBU 921-15C4S
3b. Phone No. (include area code) Danielle Piernot 720-929-6156		9. API Well No. 43-047-40337
4. Location of well (Report location clearly and in accordance with any State requirements. *) At surface 836' FNL 2,640' FWL NE/4 NW/4 Lat. 40.041086 Long. -109.537917 At proposed prod. zone 801' FNL 2,590' FWL NE/4 NW/4 Sec. 15 T9S R21E		10. Field and Pool, or Exploratory Natural Buttes Field
14. Distance in miles and direction from the nearest town or post office* Approximately 13 miles southeast of Ouray, Utah		11. Sec., T., R., M., or Blk. and Survey or Acreage 15 T 9S R 21E S.L.B. & M.
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any) 801'	16. No. of acres in lease 880.00	12. County or Parish Uintah
17. Spacing Unit dedicated to this well Unit Well	13. State Utah	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. ±60'	19. Proposed Depth 10,102' MD	20. BLM/ BIA Bond No. on file WYB000291
21. Elevations (Show whether DF, RT, GR, etc.) 4,792' Ungraded Ground Level KB	22. Approximate date work will start* Upon Approval	23. Estimated duration 60-90 days

24. Attachments

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

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

25. Signature 	Name (Printed/ Typed) Danielle Piernot	Date November 22, 2010
Title Regulatory Analyst I	E-mail: Danielle.Piernot@anadarko.com	Phone: 720-929-6156
Approved By (Signature) 	Name (Printed/ Typed) James H. Sparger	Date DEC 01 2010
Title Acting Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

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

CONDITIONS OF APPROVAL ATTACHED

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

*(Instructions on page 2)



NOTICE OF APPROVAL

RECEIVED

DEC 09 2010

DIV. OF OIL, GAS & MINING



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Kerr McGee Oil & Gas Onshore, LP **Location:** NENW, Sec. 15, T9S, R21E (S)
NENW, Sec. 15, T9S, R21E (B)
Well No: NBU 921-15C4S **Lease No:** UTU-01188
API No: 43-047-40337 **Agreement:** Natural Buttes Unit

OFFICE NUMBER: (435) 781-4400
OFFICE FAX NUMBER: (435) 781-3420

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

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

NOTIFICATION REQUIREMENTS

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

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

Site-Specific Conditions of Approval:

1. Paint old and new facilities "Shadow Gray."
2. Move the existing pipeline off the damage area of the well pad.
3. Monitor constructions operations by a permitted paleontologist.
4. Monitor constructions operations by a permitted archaeologist.
5. In accordance with the guidelines specified in the Utah BLM Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002, a raptor survey shall be conducted prior to expansion of the well pad or pipeline upgrade if construction will take place during raptor nesting season (January 01 through September 30). If active raptor nests are identified during a new survey, KMG shall conduct its operations according to the seasonal restrictions detailed in the Uintah Basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Guidelines (see Appendix D).
6. If project construction operations are not initiated before November 3, 2010, KMG shall conduct additional biological surveys in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus (See Appendix D) and conduct its operation according to its specifications.

BIA Standard Conditions of Approval:

1. Soil erosion will be mitigated by reseeding all disturbed areas.
2. The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
3. An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations of this document and in the Application for Permit to Drill. A closed drilling system shall be used in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.
4. The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.
5. A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.
6. Major low water crossings will be armored with pit run material to protect them from erosion.
7. All personnel shall refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.

8. If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.
9. Before the site is abandoned the company will be required to restore the right-of-way to near its original state. The disturbed area will be reseeded with desirable perennial vegetation. If necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable seed mixture.
10. Noxious weeds will be controlled on all surface disturbances within the project area. If noxious weeds spread from the project area onto adjoining land, the company will also be responsible for their control.
11. If project construction operations are scheduled to occur after December 31, 2009, KMG shall conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix E) and conduct its operations according to applicable seasonal restrictions and spatial offsets.
12. USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix E).
13. All personnel shall refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
14. If artifacts or any culturally sensitive materials are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

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

SITE SPECIFIC DOWNHOLE COAs:

1. A copy of Kerr McGee's Standard Operating Practices (dated 7/17/08 and approved 7/28/08) shall be on location.
2. Kerr McGee and their contractors shall strictly adhere to all operating practices in the SOP along with all Oil and Gas rules and requirements listed in the Code of Federal Regulations and all Federal Onshore Oil and Gas Orders except where variances have been granted.

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

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Wellogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location (1/4, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.
- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-01188
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-15C4S	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047403370000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0836 FNL 2640 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 15 Township: 09.0S Range: 21.0E Meridian: S	COUNTY: UINTAH	
		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 6/8/2011 <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 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. 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 ON 06/08/2011 AT 1030 HRS.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 6/9/2011	

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
 Submitted By ANDY LYTLE Phone Number 720.929.6100
 Well Name/Number NBU 921-15C4S
 Qtr/Qtr NENW Section 15 Township 9S Range 21E
 Lease Serial Number UO-01188
 API Number 4304740337

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 06/08/2011 12:00 HRS AM PM

Casing – Please report time casing run starts, not cementing times.

- Surface Casing
 Intermediate Casing
 Production Casing
 Liner
 Other

RECEIVED
 JUN 08 2011
 DIV. OF OIL, GAS & MINING

Date/Time 06/27/2011 00:00 HRS AM PM

BOPE

- Initial BOPE test at surface casing point
 BOPE test at intermediate casing point
 30 day BOPE test
 Other

Date/Time _____ AM PM

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT

435.828.0986 OR LOVEL YOUNG AT 435.781.7051

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-01188
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-15C4S	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047403370000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0836 FNL 2640 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 15 Township: 09.0S Range: 21.0E Meridian: S	COUNTY: UINTAH	
		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/21/2011	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input 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.		
<p>MIRU AIR RIG ON JUNE 19, 2011. DRILLED SURFACE HOLE TO 2940'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.</p> <p style="text-align: right;">Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY</p>		
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 6/22/2011	

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

FORM 6

ENTITY ACTION FORM

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

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740236	NBU 921-15G2S		NENW	15	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	6/8/2011		6/22/11		
Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL ON 06/08/2011 AT 0830 HRS. <i>BHL = SWNE</i>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740337	NBU 921-15C4S		NENW	15	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	6/8/2011		6/22/11		
Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL ON 06/08/2011 AT 1030 HRS. <i>BHL = NENW</i>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740252	NBU 921-15C2S		NENW	15	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	6/8/2011		6/22/11		
Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL ON 06/08/2011 AT 1300 HRS. <i>BHL = NENW</i>							

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 WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST

Title

6/9/2011

Date

RECEIVED

JUN 09 2011

DIV. OF OIL, GAS & MINING

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-01188
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		STATE: UTAH
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TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/1/2011	<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	
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>MIRU ROTARY RIG. FINISHED DRILLING FROM 2940' TO 10,331' ON AUGUST 30, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING TO 9729'. RAN 4 1/2" 11.6# P110 CSG FROM 9729' TO 10,315'. CEMENTED PRODUCTION CASING @ 23:00 HRS. DETAILS OF RELEASED ENSIGN RIG 145 ON SEPT. 1, 2011 @ 23:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.</p>		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 9/2/2011	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
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		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 11/9/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Cement Squeeze Remd"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>The Operator is requesting approval for the attached cement squeeze remediation procedure for the subject well. The well has been fracture stimulated and has an isolation plug in the wellbore. A cement squeeze is being proposed to adequately isolate potential productive zones near the bottom of the surface casing shoe. This well has been identified as requiring remediation and is currently being monitored and handled by our bradenhead best management practices. Thank you.</p>		
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 11/9/2011	

Greater Natural Buttes Unit



NBU 921-15C4S
CEMENT SQUEEZE REMEDIATION PROCEDURE

DATE:10/12/2011
AFE#:2024998
API#:4304740337
USER ID:OOT937 (Frac Invoices Only)

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

SIGNATURE:

ENGINEERING MANAGER: JEFF DUFRESNE

SIGNATURE:

REMEMBER SAFETY FIRST!

Name: NBU 921-15C4S
Location: SE NE NW Sec 15 T9S R21E
LAT: 40.041086 **LONG:** -109.537917 **COORDINATE:** NAD83 (*Surface Location*)
Uintah County, UT
Date: 10/12/2011

ELEVATIONS: 4792' GL 4805' KB *Frac Registry TVD: 10326'*

TOTAL DEPTH: 10331' **PBTD:** 10270'
SURFACE CASING: 9 5/8", 40# J-55 LT&C @ 2916'
PRODUCTION CASING: 4 1/2", 11.6#, I-80 BT&C @ 9729'
 4 1/2", 11.6#, P-110 BT&C @ 9729 - 10315'
 Marker Joint **5086-5105' and 8016-8030'**

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
4 1/2" 11.6# P-110	10691	7580	3.875"	0.0155	0.6528
2 3/8" by 4 1/2" Annulus				0.0101	0.4227

TOPS:

1428' Green River Top
 1913' Bird's Nest Top
 2588' Mahogany Top
 5144' Wasatch Top
 8050' Mesaverde Top

BOTTOMS:

8050' Wasatch Bottom
 10331' Mesaverde Bottom (TD)

T.O.C. @ 6,160' Schlumberger CBL – 10/5/2011

PERFORATIONS:

See Attached

GYRO:

See Attached

GENERAL NOTES:

- **Well has a kill plug set a 6799' isolating all open perforations**
- **Verify that the Braden head valve is locked OPEN.**

PROCEDURE:

1. Monitor current gas flow and/or pressure building up on the surface casing to establish a buildup rate.
2. Call for tubing. NU and Test BOPs. Pressure test casing to 1000 and 3500 psi for 15 minutes each and to 6200 psi for 30 minutes.
3. R/U and POOH 213 joints of 2-3/8" 4.7# L-80 tubing currently landed at 6752'.
4. RIH and perf the following 3-3/8" gun, 23 gm, 0.36" hole:

From	To	spf	# of shots
2936	2937	6	6
5. Establish injection rate into perforations
6. Monitor annulus between surface casing and 4-1/2" casing for communication. Based on communication results; perform desired cement squeeze.
7. RIH set CICR at **2913'**.
8. R/U cement company and pump recommended cement job into perforations from **2936 - 2937'**, based off injection rate and pressure. PUH w/stinger and cap with CICR with cement. Reverse circulate clean. WOC for a minimum 12 hours prior to drill out.
9. POOH. TIH with 3 7/8" bit, pump off sub, SN and tubing. D-O CICR and cement to ~ **2950'**. Pressure test casing and perforations to 1000 psi for 10 minutes. Also verify that there is no gas flow or pressure building up on the surface casing. Contact engineer if there is a test failure.
10. Drill and clean out to PBTD. Shear off bit and land tubing at **±9399'** unless indicated otherwise by the well's behavior.
11. Clean out well with foam and/or swabbing unit until steady flow has been established from completion.
12. **Leave surface casing valve open.** Monitor and report any flow from surface casing. RDMO

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

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

NOTES:

**Well has a kill plug set a 6799' isolating all open perforations
Verify that the Braden head valve is locked OPEN.**

Acid Pickling and H2S Procedures (If Required)

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

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

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

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

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

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

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

Key Contact information

Completion Engineer

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

Production Engineer

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

Brad Laney: 435-781-7031, 435-828-5469

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

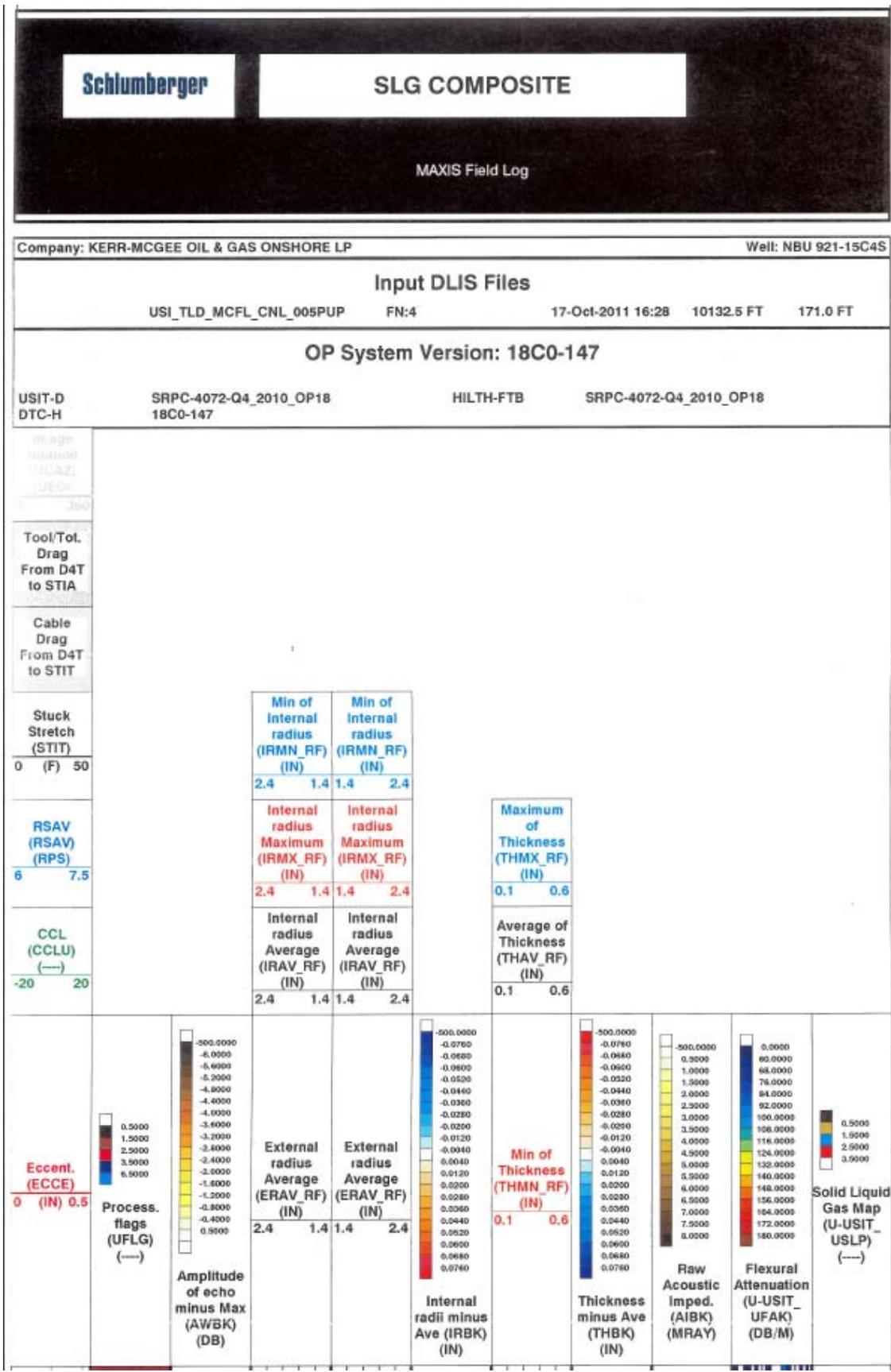
Emergency Contact Information—Call 911

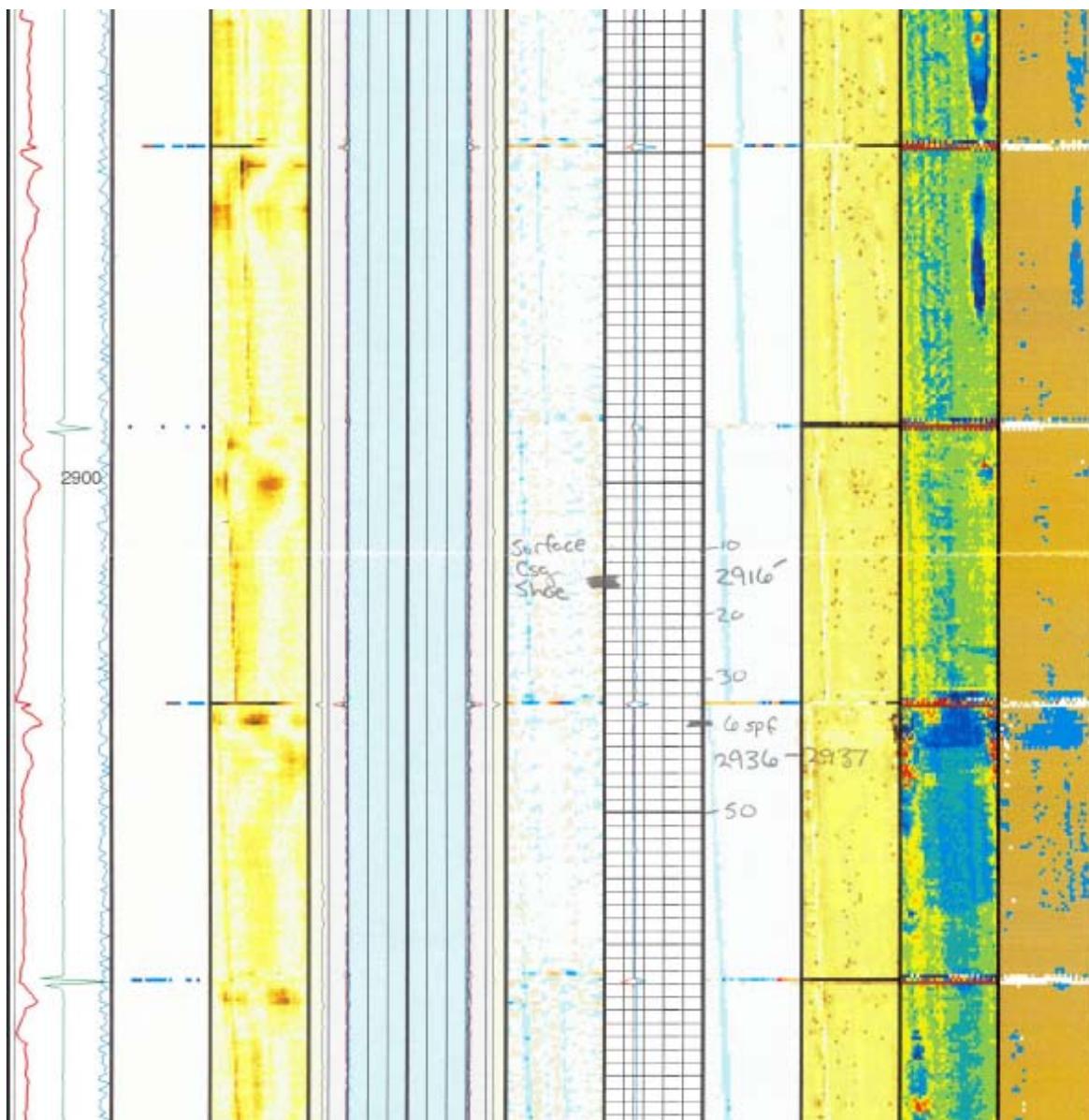
Vernal Regional Hospital Emergency: 435-789-3342

Police: (435) 789-5835

Fire: 435-789-4222

Schlumberger	
Company: KERR-MCGEE OIL & GAS ONSHORE LP	
Well: NBU 921-15C4S	
Field: GREATER NATURAL BUTTES	
County: UINTAH State: UTAH	
IMAGING BEHIND CASING	
ULTRASONIC LOG	
GAMMA RAY -CCL	
SHL: 836' FNL & 2640' FWL	Elev.: K.B. 4805.00 ft
BHL: 836' FNL & 2590' FWL	G.L. 4792.00 ft
	D.F. 4806.00 ft
Permanent Datum: GROUND LEVEL	Elev.: 4792.00 ft
Log Measured From: KEL_Y BUSHING	13.00 ft above Perm. Datum
Drilling Measured From: KEL_Y BUSHING	
API Serial No. 43047503370000	Section: 15
API Serial No. 43047503370000	Township: 9S
	Range: 21E
Logging Date	14-Oct-2011
Run Number	2
Depth Driller	10326 ft
Schlumberger Depth	10130 ft
Bottom Log Interval	10100 ft
Top Log Interval	100 ft
Casing Fluid Type	FRESH WATER
Salinity	
Density	8.4 lbm/gal
Fluid Level	13 ft
BIT/CASING/TUBING STRING	
Bit Size	7.875 in
From	13 ft
To	10326 ft
Casing/Tubing Size	4.500 in
Weight	11.6 lbm/ft
Grade	
From	13 ft
To	10326 ft
Maximum Recorded Temperatures	216 degF
Logger On Bottom	Time 14-Oct-2011 16:53
Unit Number	Location 9102 VERNAL
Recorded By	JOHN GILLILAND
Witnessed By	UNATTENDED





Name NBU 921-15C4S
Perforation and CBP Summary

Stage	Zones	Perforations		SPF	Holes	Fracture Coverage		
		Top, ft	Bottom, ft					
1	MESAVERDE	9679	9680	3	3	9672	to	9683.5
	MESAVERDE	9702	9703	3	3	9698.5	to	9706
	MESAVERDE	9710	9711	3	3	9707.5	to	9714.5
	MESAVERDE	9725	9726	3	3	9721	to	9729.5
	MESAVERDE	9919	9920	3	3	9917	to	9924
	MESAVERDE	9939	9942	3	9	9929	to	9948.5
	# of Perfs/stage				24	CBP DEPTH	9,636	
2	MESAVERDE	9429	9430	4	4	9403.5	to	9439.5
	MESAVERDE	9509	9510	4	4	9495.5	to	9512
	MESAVERDE	9559	9560	4	4	9549.5	to	9569
	MESAVERDE	9585	9587	3	6	9574	to	9593.5
	MESAVERDE	9604	9606	3	6	9595.5	to	9609.5
		# of Perfs/stage				24	CBP DEPTH	8,852
3	MESAVERDE	8604	8606	4	8	8593.5	to	8618.5
	MESAVERDE	8698	8700	4	8	8685	to	8711
	MESAVERDE	8800	8802	4	8	8793.5	to	8805
		# of Perfs/stage				24	CBP DEPTH	8,553
4	MESAVERDE	8296	8297	3	3	8289.5	to	8301.5
	MESAVERDE	8310	8312	3	6	8303	to	8325.5
	MESAVERDE	8360	8361	3	3	8352.5	to	8367.5
	MESAVERDE	8406	8407	3	3	8402	to	8412
	MESAVERDE	8465	8466	3	3	8453.5	to	8472.5
	MESAVERDE	8501	8503	3	6	8491	to	8515.5
		# of Perfs/stage				24	CBP DEPTH	8,268
5	MESAVERDE	8064	8065	4	4	8053	to	8063
	MESAVERDE	8083	8084	4	4	8063	to	8074.5
	MESAVERDE	8102	8104	3	6	8078.5	to	8114.5
	MESAVERDE	8134	8135	4	4	8128	to	8139
	MESAVERDE	8236	8238	3	6	8141.5	to	8146.5
		# of Perfs/stage				24	CBP DEPTH	7,085
6	WASATCH	6849	6852	4	12	6846.5	to	6855.5
	WASATCH	7032	7035	4	12	7031	to	7037.5
		# of Perfs/stage				24	CBP DEPTH	6,799
	Totals				144			

NBU 921-15C4S DIRECTIONAL SURVEY												
MD	TVD	EW	NS	INC	AZI		MD	TVD	EW	NS	INC	AZI
0	0	0.0	0.0	0.0	0.0		5332	5328	-61.5	71.4	0.7	122.0
5	5	0.0	0.0	0.0	0.0		5422	5418	-60.7	70.6	0.9	148.0
182	182	1.0	0.8	0.8	50.3		5513	5509	-60.1	69.1	1.1	166.8
273	273	1.8	2.0	1.0	18.8		5603	5599	-59.8	67.4	1.2	170.3
366	366	2.0	4.3	1.9	0.8		5694	5690	-59.3	65.2	1.6	167.5
461	461	1.1	8.6	3.5	340.8		5784	5780	-58.7	62.6	1.9	164.5
556	556	-0.5	14.4	3.7	347.9		5875	5871	-57.8	59.5	2.1	163.0
652	652	-1.4	19.2	2.1	352.8		5966	5962	-56.9	58.0	0.5	77.4
747	746	-2.9	23.4	3.3	332.4		6056	6052	-56.3	60.1	2.5	4.2
842	841	-6.1	28.0	3.6	318.6		6147	6143	-56.3	64.5	3.2	358.4
937	936	-10.5	31.6	3.5	299.3		6238	6234	-56.7	69.2	2.7	348.9
1031	1030	-14.8	33.8	2.4	293.1		6328	6324	-57.4	73.1	2.3	352.7
1127	1126	-18.3	36.5	3.1	320.5		6419	6415	-57.8	76.5	1.9	354.7
1222	1221	-21.3	40.0	2.5	316.6		6509	6505	-58.0	79.1	1.4	357.8
1317	1316	-24.5	42.8	2.6	306.9		6600	6596	-58.0	81.0	1.0	356.3
1413	1412	-27.4	45.6	2.3	320.0		6691	6687	-58.2	82.1	0.4	346.3
1508	1506	-30.6	48.3	2.8	302.6		6781	6777	-58.2	82.2	0.2	168.1
1604	1602	-33.8	51.0	2.2	318.4		6872	6868	-58.1	81.6	0.6	166.3
1698	1696	-36.3	53.5	2.1	313.1		6963	6959	-57.4	80.0	1.5	152.1
1793	1791	-38.9	56.1	2.4	317.0		7053	7049	-56.1	77.6	2.0	152.1
1887	1885	-41.1	58.9	1.9	327.2		7144	7139	-54.6	74.7	2.1	153.5
1982	1980	-43.7	61.7	2.7	309.8		7234	7229	-53.2	71.5	2.4	159.8
2077	2075	-47.1	64.2	2.4	305.1		7325	7320	-52.2	67.7	2.6	167.6
2173	2171	-50.8	66.6	2.8	299.0		7416	7411	-51.2	63.7	2.6	165.7
2268	2266	-55.1	69.3	3.4	306.2		7507	7502	-50.9	60.1	2.0	188.0
2363	2361	-60.1	72.2	3.7	293.5		7597	7592	-51.6	58.0	1.0	221.8
2456	2453	-65.2	74.8	3.3	300.8		7687	7682	-52.6	56.7	1.1	210.8
2551	2548	-70.4	77.4	3.6	292.6		7778	7773	-53.5	55.1	1.2	212.0
2647	2644	-75.7	79.8	3.5	297.0		7868	7863	-54.2	53.3	1.3	191.6
2742	2739	-80.5	83.0	3.5	310.4		7959	7954	-54.5	50.9	1.8	183.4
2835	2832	-84.1	86.0	2.2	308.5		8050	8045	-54.6	48.1	1.8	181.0
2899	2896	-86.0	87.5	2.2	306.5		8140	8135	-54.7	46.3	0.5	187.1
2976	2973	-88.1	88.4	1.3	273.6		8231	8226	-54.8	45.9	0.1	199.2
3067	3064	-89.3	87.9	0.8	197.7		8321	8316	-54.8	46.0	0.2	11.0
3157	3154	-89.0	86.5	1.2	151.3		8412	8407	-54.7	46.2	0.1	1.2
3248	3245	-88.2	84.6	1.4	158.5		8503	8498	-54.7	46.2	0.1	137.5
3339	3336	-87.1	82.9	1.3	135.2		8593	8588	-54.4	46.1	0.3	87.5
3429	3426	-85.8	81.2	1.4	149.3		8684	8679	-53.9	46.2	0.4	74.7
3520	3517	-84.7	79.6	1.1	140.5		8774	8769	-53.4	46.2	0.3	118.0
3610	3607	-83.6	78.9	0.7	94.6		8865	8860	-53.0	46.1	0.2	87.3
3701	3698	-82.8	78.4	0.7	146.5		8956	8951	-52.5	46.2	0.5	81.0
3791	3788	-82.3	77.1	1.0	165.2		9046	9041	-51.6	46.2	0.6	100.4
3882	3879	-81.8	75.8	0.8	155.9		9137	9132	-50.6	45.7	0.8	121.5
3973	3970	-80.6	75.2	1.2	96.4		9227	9222	-49.6	45.3	0.5	102.3
4063	4059	-78.9	74.6	1.1	121.1		9318	9313	-49.2	45.1	0.2	188.0
4154	4150	-77.5	73.4	1.2	138.8		9408	9403	-49.3	44.5	0.5	186.3
4244	4240	-76.4	72.4	0.7	118.8		9499	9494	-49.3	43.5	0.8	177.8
4335	4331	-75.8	71.3	1.1	173.7		9590	9585	-49.4	42.0	1.1	185.0
4426	4422	-75.1	69.8	1.1	140.5		9680	9675	-49.3	40.5	0.9	166.4
4516	4512	-74.0	68.5	1.0	134.4		9771	9766	-48.7	39.1	1.1	153.6
4607	4603	-73.0	67.1	1.1	155.1		9861	9856	-47.9	37.4	1.3	155.2
4697	4693	-72.1	65.8	1.0	136.8		9952	9947	-47.1	35.4	1.4	157.4
4788	4784	-70.9	65.4	1.0	75.6		10043	10038	-46.2	33.3	1.4	158.1
4878	4874	-69.1	66.3	1.6	55.1		10133	10128	-45.3	31.2	1.5	155.8
4969	4965	-67.0	68.6	2.3	34.7		10224	10219	-44.3	28.6	2.0	160.6
5060	5056	-65.2	70.8	1.3	45.2		10273	10268	-43.6	27.0	2.2	154.4
5150	5146	-63.8	71.8	0.9	71.0		10332	10327	-42.6	25.0	2.2	154.4
5241	5237	-62.5	71.8	0.8	104.3							

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-01188
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-15C4S
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047403370000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6514 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0836 FNL 2640 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 15 Township: 09.0S Range: 21.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<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 type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 11/29/2011	<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 checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
 THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 11/29/2011 AT 1330 HRS. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 11/30/2011	

Sundry Number: 20747 API Well Number: 43047403370000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
UTU01188

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

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.
UTU63047A

2. Name of Operator **KERR MCGEE OIL & GAS ONSHORE** Contact: JAIME L. SCHARNOWSKE
 Email: JAIME.SCHARNOWSKE@ANADARKO.COM

8. Lease Name and Well No.
NBU 921-15C4S

3. Address **PO BOX 173779 DENVER, CO 80217** 3a. Phone No. (include area code)
 Ph: 720-929-6304

9. API Well No.
43-047-40337

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
 At surface **NENW 836FNL 2640FWL 40.041087 N Lat, 109.537917 W Lon**
 At top prod interval reported below **NENW 754FNL 2582FWL**
 At total depth **NENW 811FNL 2597FWL**

10. Field and Pool, or Exploratory
NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey
or Area **Sec 15 T9S R21E Mer SLB**

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

14. Date Spudded **06/08/2011** 15. Date T.D. Reached **08/30/2011** 16. Date Completed **11/29/2011**
 D & A Ready to Prod.

17. Elevations (DF, KB, RT, GL)*
4792 GL

18. Total Depth: MD **10332** TVD **10327** 19. Plug Back T.D.: MD **10272** TVD **10267** 20. Depth Bridge Plug Set: MD **MD** TVD **TVD**

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
IBC/UL/GR/CCL-CBL/VDL/GR/CCL-BHV-SD/DSN/ACTR-CBL/C 22. Was well cored? No Yes (Submit analysis)
 Was DST run? No Yes (Submit analysis)
 Directional Survey? No Yes (Submit analysis)

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

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
12.250	9.625 J-55	40.0	0	2916		575		0	
7.875	4.500 I-80	11.6	0	9729		1695		6160	
7.875	4.500 P-110	11.6	9729	10315					

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	9397							

25. Producing Intervals 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WASATCH	6849	7035	6849 TO 7035	0.360	24	OPEN
B) MESAVERDE	8064	9942	8064 TO 9942	0.360	120	OPEN
C)						
D)						

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

Depth Interval	Amount and Type of Material
6849 TO 9942	PUMP 7,723 BBLs SLICK H2O & 159,935 LBS 30/50 OTTAWA SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
11/29/2011	12/01/2011	24	→	0.0	1667.0	800.0			FLows FROM WELL
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
20/64	1500	2200.0	→	0	1667	800		PGW	

28a. Production - Interval B

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

(See Instructions and spaces for additional data on reverse side)
 ELECTRONIC SUBMISSION #127929 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED**

RECEIVED

JAN 17 2012

28b. Production - Interval C

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

28c. Production - Interval D

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

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

30. Summary of Porous Zones (Include Aquifers):

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

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				GREEN RIVER	1428
				BIRD'S NEST	1913
				MAHOGANY	2588
				WASATCH	5144
				MESAVERDE	8050

32. Additional remarks (include plugging procedure):

Attached is the chronological well history, perforation report & final survey.

Cement Squeeze procedure was performed as per Sundry approved by BLM 11/16/2011.

33. Circle enclosed attachments:

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

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

**Electronic Submission #127929 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE,L, sent to the Vernal**

Name (please print) JAIME L. SCHARNOWSKE Title REGULATORY ANALYST

Signature (Electronic Submission) Date 01/11/2012

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

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

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011		Spud Date: 6/19/2011	
Project: UTAH-UJINTAH		Site: NBU 921-15C PAD		Rig Name No: ENSIGN 145/145, CAPSTAR 310/310	
Event: DRILLING		Start Date: 5/25/2011		End Date: 9/1/2011	
Active Datum: RKB @4,805.00usft (above Mean Sea Level)		UWI: NE/NW/0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/19/2011	0:00 - 6:30	6.50	MIRU	21	C	P		RIG DN & WAIT ON DAYLIGHT TO SKID RIG
	6:30 - 8:00	1.50	DRLSUR	01	C	P		SKID RIG TO 3RD WELL ON PAD
	8:00 - 9:30	1.50	DRLSUR	14	A	P		WELD ON RISER AND RIG UP FLOW LINE
	9:30 - 10:00	0.50	DRLSUR	06	A	P		MAKE UP BHA
	10:00 - 11:30	1.50	DRLSUR	02	C	P		SPUD WELL WITH 12.25" BIT AND DRILL F/ 40' - 228' WOB 8-20 ROT 45-55 DHR 96 GPM 600
	11:30 - 13:00	1.50	DRLSUR	06	A	P		TOOH PICK UP DIRECTIONAL MONELS AND INSTALL MWD TOOL ORIENT TO MUD MOTOR AND TIH
	13:00 - 0:00	11.00	DRLSUR	02	C	P		DRILL 12.25" HOLE F/ 228' - 1402' AVE ROP 106 FT HR WOB 20-22 ROT 45-55 DHR 96 GPM 600 LAST SURVEY 2.31 DEG 319.98 AZI 1 FT RT AND 9 FT HIGH OF LINE
6/20/2011	0:00 - 21:00	21.00	DRLSUR	02	C	P		DRILL 12.25" HOLE F/ 1402' - 2940' T.D. AVE ROP 73 FT HR WOB 18-22 ROT 45-55 DHR 96 GPM 600 NO LOSSES LAST SURVEY 2.23 DEG 306.52 AZI CIRCULATE AND CONDITION MUD PRIOR TO LDDS
	21:00 - 22:00	1.00	DRLSUR	05	C	P		TOOH LAYING DOWN DRILL STRING
	22:00 - 0:00	2.00	DRLSUR	06	A	P		TOOH LAYING DOWN L/D DIRECTIONAL MONELS AND MWD TOOLS BREAK BIT MUD MOTOR AND SHOCK SUB
6/21/2011	0:00 - 2:00	2.00	DRLSUR	06	A	P		RIG UP AND RUN 68 JOINTS OF 9 5/8 40# J55 SURFACE CASING SHOE AT 2902' BAFFLE AT 2860'
	2:00 - 7:30	5.50	DRLSUR	12	C	P		TEST LINES TO 2500 PSI /// PUMP 25 BBL SPACER /// LEAD = 250 SX CLASS G CMT @ 3.82 YIELD & 11.0 WT // TAIL = 225 SX @ 1.15 YIELD & 15.8 WT /// DROP PLUG & DISPLACE W/ 200 BBLs WATER /// PLUG DN @ 09:30 6/21/2011 /// BUMP PLUG W/ 905 PSI /// FINAL LIFT = 640 PSI /// CHECK FLOATS-HELD W/ 1.15 BBL'S BACK /// FULL RETURNS THRU OUT JOB /// 25 BBLs TO SURFACE
	7:30 - 9:30	2.00	DRLSUR	12	E	P		CUT CONDUCTOR AND HANG OFF 9 5/8 CASING RIG DOWN FLOW LINE
	9:30 - 10:00	0.50	DRLSUR	14	A	P		RUN 200' OF 1" PIPE DN BACKSIDE & TOP OUT W/ 100 SX CMT @ 15.8 WT & 1.15 YIELD RELEASE RIG AT 11:00 6-21-2011
	10:00 - 11:00	1.00	DRLSUR	12	D	P		PULL OUT CAT WALK. UNDO FLARE LINES AND FLOWLINES. PLACE MATTING BOARDS TO WALK RIG FOWARD. WALK RIG FORWARD 20' OVER WELL. SET DOWN STACK AND LEVEL AND CENTER RIG. SET IN CAT WALK
8/25/2011	0:00 - 5:00	5.00	MIRU	01	C	P		NIPPLE UP BOP'S. NIPPLE UP FLOWLINES. RIG UP FLARE LINES.
	5:00 - 6:00	1.00	MIRU	14	A	P		

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011		Spud Date: 6/19/2011	
Project: UTAH-UINTAH		Site: NBU 921-15C PAD		Rig Name No: ENSIGN 145/145, CAPSTAR 310/310	
Event: DRILLING		Start Date: 5/25/2011		End Date: 9/1/2011	
Active Datum: RKB @4,805.00usft (above Mean Sea Level)			UWI: NE/NW0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/26/2011	6:00 - 11:00	5.00	MIRU	15	A	P		HELD SAFTEY MEETING, RIG UP SINGLE JACK TESTER, TEST BOP, I-BOP, MANUEL I-BOP, PIPE RAMS, TIW, HCR, 250 LOW 5000 HIGH, TEST HCR, MANUEL HCR, BLIND RAMS, INSIDE/OUTSIDE KILL, CHOKE MANIFOLD TO 250 LOW 5000 HIGH, NO TEST ON ANNULAR HAS A TARE, TEST CASING TO 1500, RIG DOWN TESTER, NEW ANNULAR ON THE WAY @ 09:00
	11:00 - 14:30	3.50	MIRU	14	C	Z		NIPPLE DOWN ROTATING HEAD AND ANNULAR, WAIT ON NEW ANNULAR
	14:30 - 16:30	2.00	MIRU	09	A	P		SLIP CUT 85' OF DRILL LINE
	16:30 - 23:00	6.50	MIRU	08	C	Z		WAIT 1.5 HRS ON NEW ANNULAR, INSTALL NEW ANNULAR AND TEST 250 LOW, 2500 HIGH
	23:00 - 0:00	1.00	MIRU	23	A	P		INSTALL WEAR BUSHING, PRE RIG INSPECTION
	0:00 - 0:30	0.50	MIRU	23		P		RIG INSPECTION
	0:30 - 1:00	0.50	MIRU	08		Z		FIX CAT WALK CABLE
	1:00 - 4:30	3.50	DRLPRO	06	A	P		PICK UP BIT & MOTOR INSTALL MWD AND SCRIBE, TRIP IN HOLE TO 2945'
	4:30 - 6:00	1.50	DRLPRO	02	F	P		SPUD @ 04:30, DRILL CEMENT AND FLOAT EQUI. & CLEAN OUT OPEN HOLE BELOW SURFACE CASING, F/2860 TO 2944
	6:00 - 14:45	8.75	DRLPRO	02	D	P		FLARE 2' TO 10' AT START OF CIRCULATION DRILL F/ 2944' TO 4303' = 1359' 155.3 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1158/11680 MOTOR RPM / 124 TOP DRIVE RPM, 45/50 TQ ON / OFF BOTTOM 8K/4K FT/LBS PU / SO / ROT WT 137 / 115/ 128 WT ON BIT 15K TO 27K NO LOSS, DRILLING WITH WATER FLARE 2' TO 10' OFF & ON
	14:45 - 15:15	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE
	15:15 - 19:45	4.50	DRLPRO	02	D	P		DRILL F/ 4303' TO 4938' = 635' 141 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1170/1753 MOTOR RPM / 124 TOP DRIVE RPM, 45/50 TQ ON / OFF BOTTOM 8K/3K FT/LBS PU / SO / ROT WT 144 / 130/ 140 WT ON BIT 15K TO 27K NO LOSS, DRILLING WITH WATER FLARE 2' TO 10' OFF & ON
	19:45 - 20:45	1.00	DRLPRO	08	A	Z		REPAIR CROWN SAVER
	20:45 - 0:00	3.25	DRLPRO	02	D	P		DRILL F/ 4938' TO 5481' = 543' 167 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1413/1976 MOTOR RPM / 124 TOP DRIVE RPM, 45/60 TQ ON / OFF BOTTOM 8K/4K FT/LBS PU / SO / ROT WT 156 / 137/ 147 WT ON BIT 15K TO 27K NO LOSS, DRILLING WITH WATER FLARE 2' TO 10' CONSTANT

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011	Spud Date: 6/19/2011
Project: UTAH-UINTAH		Site: NBU 921-15C PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING		Start Date: 5/25/2011	End Date: 9/1/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)		UWI: NE/NW09/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/27/2011	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL F/ 5481' TO 6445' = 964' 160.6 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1388/2030 MOTOR RPM / 124 TOP DRIVE RPM, 45/60 TQ ON / OFF BOTTOM 8K/4K FT/LBS PU / SO / ROT WT 183 / 156/ 165 WT ON BIT 15K TO 27K PARTIAL RETURNS, DRILLING ON RESERVE PIT LOST 1' FROM RESERVE PIT FLARE 2' TO 10' OFF & ON
	6:00 - 15:00	9.00	DRLPRO	02	D	P		DRILL F/ 6445' TO 7384' = 939' 104.3 FPH STKS #1 & #2 PUMPS 105/00, 473 GPM PSI OFF / ON BOTTOM 1341/1745 MOTOR RPM / 108 TOP DRIVE RPM, 45/60 TQ ON / OFF BOTTOM 8K/6K FT/LBS PU / SO / ROT WT 207 / 163/ 178 WT ON BIT 15K TO 27K PARTIAL RETURNS, START MUD UP DO TO LOSSES LOST 600 BBL MUD FROM UPRIGHTS MUD WT IN 9.3, VIS 33, LCM 8% NO FLARE
	15:00 - 15:30	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE
	15:30 - 0:00	8.50	DRLPRO					DRILL F/ 7384' TO 8080' = 696' 81.8 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1886/2367 MOTOR RPM / 124 TOP DRIVE RPM, 45/60 TQ ON / OFF BOTTOM 9K/6K FT/LBS PU / SO / ROT WT 207 / 175/ 187 WT ON BIT 15K TO 27K NO LOSS MUD WT IN 9.4, VIS 36, LCM 8% NO FLARE
8/28/2011	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL F/ 8080' TO 8423' = 343' 57.1 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1886/2367 MOTOR RPM / 124 TOP DRIVE RPM, 45/60 TQ ON / OFF BOTTOM 9K/6K FT/LBS PU / SO / ROT WT 207 / 175/ 187 WT ON BIT 15K TO 27K NO LOSS MUD WT IN 9.4, VIS 36, LCM 8% NO FLARE

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-15C4S YELLOW Spud Conductor: 6/8/2011 Spud Date: 6/19/2011
 Project: UTAH-UINTAH Site: NBU 921-15C PAD Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
 Event: DRILLING Start Date: 5/25/2011 End Date: 9/1/2011
 Active Datum: RKB @4,805.00usft (above Mean Sea Level) UWI: NE/NW0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 10:30	4.50	DRLPRO	02	D	P		DRILL F/ 8423' TO 8652' = 229' 50.8 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 2065/2307 MOTOR RPM / 124 TOP DRIVE RPM, 45/60 TQ ON / OFF BOTTOM 9K/6K FT/LBS PU / SO / ROT WT 220 / 187/ 197 WT ON BIT 15K TO 27K NO LOSS MUD WT IN 9.9, VIS 37, LCM 8% NO FLARE
	10:30 - 11:00	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE
	11:00 - 18:00	7.00	DRLPRO	02	D	P		DRILL F/ 8652' TO 8932' = 280' 40 FPH STKS #1 & #2 PUMPS 105/00, 473 GPM PSI OFF / ON BOTTOM 1713/2026 MOTOR RPM / 108 TOP DRIVE RPM, 45/60 TQ ON / OFF BOTTOM 9K/6K FT/LBS PU / SO / ROT WT 220 / 192/ 197 WT ON BIT 10K TO 27K NO LOSS MUD WT IN 10, VIS 38, LCM 10% NO FLARE
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRILL F/ 8932' TO 9200' = 268' 44.6 FPH STKS #1 & #2 PUMPS 105/00, 473 GPM PSI OFF / ON BOTTOM 1713/2026 MOTOR RPM / 108 TOP DRIVE RPM, 45/60 TQ ON / OFF BOTTOM 9K/6K FT/LBS PU / SO / ROT WT 220 / 192/ 197 WT ON BIT 10K TO 27K NO LOSS MUD WT IN 10.2, VIS 43, LCM 8% NO FLARE
8/29/2011	0:00 - 1:00	1.00	DRLPRO	05	C	P		ATTEMPT TO DRILL, MOTOR STALLING IN ROTARY DRILLING WITH 10K ON BIT, READY FLOOR FOR TRIP OUT
	1:00 - 11:00	10.00	DRLPRO	06	A	P		STRAIGHT PULL OFF BOTTOM 50K OVER, PUMP WEIGHTED PILL TRIP OUT TO 5116', TIGHT SPOT, BACK REAM TO 5070', STRAIGHT PULL TO SHOE, NO FLOW, TRIP TO BHA, NO FLOW, PULL ROTATING HEAD, TRIP OUT, PULL MWD TOOL, LAY DOWN BIT & MOTOR, BIT WOULD NOT BREAK PICK UP SCORPION TO BREAK BIT, LAID DOWN BIT AND MOTOR TOGETHER, BAKER WILL REMOVE BIT, HOLE TOOK PROPER FLUID
	11:00 - 14:00	3.00	DRLPRO	06	A	P		PICK UP BAKER 1.5, .16, MOTOR & HUGHES Q506F #2 BIT, INSTALL MWD AND SCRIBE, TRIP IN HOLE TO SHOE
	14:00 - 14:30	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE, CHANGE SAVER SUB
	14:30 - 15:30	1.00	DRLPRO	08	A	Z		PLC RESET, CALIBRATE PECO BLOCK HIEGHT & HOOK LOAD

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011		Spud Date: 6/19/2011	
Project: UTAH-UINTAH			Site: NBU 921-15C PAD		Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING			Start Date: 5/25/2011		End Date: 9/1/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)			UWI: NE/NW09/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	15:30 - 19:30	4.00	DRLPRO	06	A	P		BREAK CIRCULATION AT SHOE, TRIP IN HOLE TO 6503', BREAK CIRCULATION REAM THROUGH BRIDGE, TRIP IN HOLE TO 9196' NO FILL ON BOTTOM, BOTTOMS UP FLARE 10' FOR 10 MIN
	19:30 - 0:00	4.50	DRLPRO	02	D	P		DRILL F/ 9200' TO 9422' = 222' 49 FPH STKS #1 & #2 PUMPS 105/00, 473 GPM PSI OFF / ON BOTTOM 1854/2235 MOTOR RPM / 75 TOP DRIVE RPM, 30/45 TQ ON / OFF BOTTOM 9K/6K FT/LBS PU / SO / ROT WT 220 / 192/ 205 WT ON BIT 10K TO 20K NO LOSS MUD WT IN 10.6, VIS 48, LCM 8% NO FLARE
8/30/2011	0:00 - 18:00	18.00	DRLPRO	02	D	P		DRILL F/ 9422' TO 10,189' = 767' 42 FPH STKS #1 & #2 PUMPS 105/00, 473 GPM PSI OFF / ON BOTTOM 2054/2275 MOTOR RPM / 75 TOP DRIVE RPM, 30/45 TQ ON 9K TO 7K FT/LBS OFF BOTTOM 8K TO 6K FT/LBS PU / SO / ROT WT 252 / 185/ 210 WT ON BIT 10K TO 20K NO LOSS MUD WT IN 11.0, VIS 42, LCM 8% 4' FLARE 8110, 10.8 MUD WT, 10' FLARE 10,071, 10.9 MUD WT
	18:00 - 18:30	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE
	18:30 - 22:00	3.50	DRLPRO	02	D	P		DRILL F/ 10,189' TO 10,331' = 142' 40.5 FPH STKS #1 & #2 PUMPS 105/00, 473 GPM PSI OFF / ON BOTTOM 2054/2275 MOTOR RPM / 75 TOP DRIVE RPM, 30/45 TQ ON 9K TO 7K FT/LBS OFF BOTTOM 8K TO 6K FT/LBS PU / SO / ROT WT 252 / 185/ 210 WT ON BIT 10K TO 20K NO LOSS MUD WT IN 11.5, VIS 42, LCM 8% NO FLARE
	22:00 - 0:00	2.00	DRLPRO	06	E	P		PUMP 2 SWEEPS WHILE DRILLING THE LAST 30' @ 16 TO 20 FPH WIPER TRIP OUT, PUMP & ROTATE 6 STANDS, PUMP PILL STRIAIGHT PULL TO 8731', HOLE TOOK PROPER FLUID
8/31/2011	0:00 - 3:00	3.00	EVALPR	06	E	P		WIPER TRIP OUT STRAIGHT PULL TO SHOE, CIRCULATE WEIGHTED PILL FROM WELL BORE, NO TIGHT SPOTS, HOLE TOOK PROPER FLUID
	3:00 - 8:00	5.00	EVALPR	06	E	P		WIPER TRIP IN HOLE TO 6221' NO TIGHT SPOTS, BREAK CIRCULATION & CIRCULATE 15 MIN, TRIP IN TO 10,196 NO TIGHT SPOTS, BREAK CIRCULATION AND REAM 135' TO BOTTOM, HAD ABOUT 10' FILL.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011	Spud Date: 6/19/2011
Project: UTAH-UINTAH		Site: NBU 921-15C PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING		Start Date: 5/25/2011	End Date: 9/1/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)		UWI: NE/NW0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	8:00 - 11:30	3.50	EVALPR	05	C	P		PUMP 2 SWEEPS, BOTTOMS UP FLARE 15' TO 20'. WT UP FROM 11.5 TO 12.1 FOR LOGS. INCREASE LCM TO 10%. MUD IN 12.1/ 58 10% LCM. MUD OUT 12.0/60 9% LCM. MIX 40 BBLS 13.5# PILL FOR DRY JOB.
	11:30 - 20:30	9.00	EVALPR	06				PUMP AND ROT OUT 5 JTS. PUMP DRY JOB. TRIP OUT OF HOLE. STRAIGHT PULL OF 55K OVER. MIX UP 14# 90 BBLS PILL AND PUMP, DISPLACING DRY JOB OUT AT 6800' TO TRY TO HELP HOLD OPEN FORMATIONS FOR LOGS. 14# PILL DISPERSED INTO HOLE WHILE TRIPPING OUT. NO TIGHT HOLE ON TRIP OUT. HOLE TAKING PROPER FLUID. LAY DOWN 1000' OF DRILL PIPE. PULL ROT HEAD RUBBER @ HWDP. PULL EM TOOL. STAND BACK DIRECTIONAL TOOLS. BREAK BIT AND LD MUD MOTOR (MOTOR DRAINED WELL).
	20:30 - 0:00	3.50	EVALPR	11	D	P		HOLD SAFETY MEETING W/ HALLIBURTON LOGGERS. RIG UP HALLIBURTON. TRIP IN LOGGING TOOLS ON WIRELINE. FIND SURF. CSG DEPTH @ 2913'. RUN IN HOLE WITH TRIPLE COMBO AND LOG FROM DEPTH OF 10326'-2913'. LOGGING UP @ 4500'.
9/1/2011	0:00 - 2:30	2.50	EVALPR	11	D	P		FINISH TRIPLE COMBO LOGS. LOGGERS DEPTH OF 10326'. RIG DOWN HALLIBURTON LOGGERS. AND PULL WEAR BUSHING.
	2:30 - 3:00	0.50	CSG	12	A	P		REMOVE HYDRALIC ELEVATORS. HOLD SAFETY MEETING W/WEATHERFORD TRS CSG. RIG UP CSG ELEVATORS, SLIPS, BACK UP TONGS AND CSG TONGS.

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-15C4S YELLOW	Spud Conductor: 6/8/2011	Spud Date: 6/19/2011
Project: UTAH-UINTAH	Site: NBU 921-15C PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/25/2011	End Date: 9/1/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	3:00 - 13:00	10.00	CSG	12	C	P		PICK UP P-110 SHOE JT, MAKE UP OPEN FLOAT SHOE AND OPEN FLOAT COLLAR WITH THREAD LOCK. RUN IN HOLE W/ 13 JTS OF 4.5", P-110, 11.6# BTC CSG FOR TOTAL OF 572'. RUN 231 JTS OF 4.5" I-80 11.6# BTC CSG. (244 JTS TOTAL). RAN 15 CENTRALIZERS FIRST 3 JTS THEN EVERY THIRD JT TILL GONE. INSTALL ROT HEAD RUBBER AFTER CENTRALIZER WERE INSTALLED. SET BOTTOM FLOAT SHOE 10315'KB. SET TOP OF FLOAT COLLAR 10269' KB. SET TOP OF MESA VERDE MARKER JTS @ 8029' KB. SET TOP OF WASATCH MARKER JT @ 5100' KB. (PIPE STOPPED AUTO FILLING @ 4300') BREAK CIRC. AND CIRC AT 4500' W/ FULL CIRC. WHILE TRIPPING IN HOLE HOLE STOPPED DISPLACING. STOPPED AND ATTEMPT TO CIRC @ 5800'. RAISED LCM TO 12%. PUMPED AWAY 60 BBLs. RAN CSG IN HOLE TO 6800' BUILDING VOLUME. TRANSFERED MUD 120 BBLs MUD AND RAISED LCM TO 20%. STILL UNABLE TO REGAIN CIRC AND LOSS 140 BBLs. RAN IN HOLE WITH CSG TO 8000' WHILE REBUILDING VOLUME. TRANSFERED REST OF 100 BBLs MUD IN STORAGE. PUMPED 10 BBLs OF MUD DOWN BACKSIDE AND WAS UNABLE TO FILL HOLE. PUMPED AWAY 140 BBLs OF MUD WITH 22% LCM 11# MUD WT. CSG FLOAT STARTED TO PLUG OFF. CLEAR CSG FLOAT WITH HIGHER RATE OF PUMP. LOSS ANOTHER 100 BBL MUD. RAN CSG TO BOTTOM. NO TIGHT HOLE. (RECIEVED 390 BBLs OF 10.5# MUD FROM H&P 298.) BUILD VOLUME N PITS WHILE RUNNING CSG.
	13:00 - 15:00	2.00	CSG	05	D	P		ATTEMPT TO CIRC. CSG. PUMP 500 BBLs MUD AWAY WHILE RIGGING DOWN CSG CREW AND AND RIGGING UP CEMENTERS. REGAINED PARTIAL RETURNS TWICE BUT ONLY FOR BRIEF TIME. HOLD SAFETY MEETING W/ BJ CEMENTERS.
	15:00 - 18:30	3.50	CSG	12	E	P		PRESSURE TEST TO 5000 PSI. PUMP 5 BBLs FRESH WATER AHEAD. PUMP 10 BBLs (20 SX) 11.3 PPG 3.16 YD 19.17 GAL/SK SCAVENGER CEMENT. PUMP 243 BBLs (595 SX) OF 12.0 PPG 2.30 YD 12.77 GAL/SK LEAD CEMENT. PUMP 265 BBLs (1100 SX) OF 14.3# 1.31 YD 5.41 GAL/SK. POZ 50/50 TAIL CEMENT. SHUT DOWN FLUSH LINES. DROP TOP PLUG AND DISPLACE W/ 159.6 BBLs OF FRESH WATER TREATED W/ CLAYCARE AND MAGNACIDE. SLOWED PUMP DISPLACEMENT RATE TO 3.5 HALFWAY THROUGH DISPLACEMENT. NO CIRC THROUGH OUT CEMENT JOB. LIFT PSI OF 2716 @ 3 BBLs MIN. BUMP PLUG 3250 PSI. . PRESSURE HELD 5 MINS. FLOAT HELD. FLOW BACK 2 BBLs. EST. TOC FOR LEAD IS IN SURFACE CSG, EST TOC FOR TAIL 4000'. RIG DOWN CEMENTERS.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011		Spud Date: 6/19/2011	
Project: UTAH-UINTAH			Site: NBU 921-15C PAD		Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING			Start Date: 5/25/2011		End Date: 9/1/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)			UWI: NE/NW0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:30 - 23:00	4.50	RDMO	14	A	P		SET C-22 SLIPS THROUGH STACK WITH 100K. NIPPLE DOWN AND PICK UP STACK. CUT CSG AND INSTALL LOCK DOWN FLANGE. CLEAN PITS. NO MUD LEFT TO TRANSFER STORAGE. RELEASE RIG 9/1/2011 23:00.

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-15C4S YELLOW	Wellbore No.	OH
Well Name	NBU 921-15C4S	Wellbore Name	NBU 921-15C4S
Report No.	2	Report Date	11/21/2011
Project	UTAH-UINTAH	Site	NBU 921-15C PAD
Rig Name/No.	GWS 1/1	Event	COMPLETION
Start Date	10/20/2011	End Date	11/29/2011
Spud Date	6/19/2011	Active Datum	RKB @4,805.00usft (above Mean Sea Level)
UWI	NE/NW/0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0		

1.3 General

Contractor	CASED HOLE SOLUTION	Job Method	PERFORATE	Supervisor	DAVE DANIELS
Perforated Assembly		Conveyed Method	WIRELINE		

1.4 Initial Conditions

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

1.5 Summary

Gross Interval	2,936.0 (usft)-2,937.0 (usft)	Start Date/Time	
No. of Intervals	1	End Date/Time	
Total Shots	6	Net Perforation Interval	1.00 (usft)
Avg Shot Density	6.00 (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
				2,936.0	2,937.0	6.00		0.360	EXP/	3.000	90.00		0.23 CEMENT SQUEEZE		

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-15C4S YELLOW	Wellbore No.	OH
Well Name	NBU 921-15C4S	Wellbore Name	NBU 921-15C4S
Report No.	1	Report Date	10/20/2011
Project	UTAH-UINTAH	Site	NBU 921-15C PAD
Rig Name/No.	GWS 1/1	Event	COMPLETION
Start Date	10/20/2011	End Date	11/29/2011
Spud Date	6/19/2011	Active Datum	RKB @4,805.00usft (above Mean Sea Level)
UWI	NE/NW/0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0		

1.3 General

Contractor	CASED HOLE SOLUTION	Job Method	PERFORATE	Supervisor	ED GUDAC
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

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

1.5 Summary

Gross Interval	6,849.0 (usft)-9,942.0 (usft)	Start Date/Time	10/24/2011 12:00AM
No. of Intervals	27	End Date/Time	10/24/2011 12:00AM
Total Shots	0	Net Perforation Interval	42.00 (usft)
Avg Shot Density	0.00 (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
10/24/2011 12:00AM	WASATCH/1			6,849.0	6,852.0			0.360	EXP/	3.375	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
10/24/2011 12:00AM	WASATCH/ 1			7,032.0	7,035.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,064.0	8,065.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,083.0	8,084.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,102.0	8,104.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,134.0	8,135.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,236.0	8,238.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,296.0	8,297.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,310.0	8,312.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,360.0	8,361.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,406.0	8,407.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,465.0	8,466.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,501.0	8,503.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,604.0	8,606.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/ 1			8,698.0	8,700.0			0.360	EXP/	3.375	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
10/24/2011 12:00AM	MESAVERDE/			8,800.0	8,802.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/			9,429.0	9,430.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/			9,509.0	9,510.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/			9,559.0	9,560.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/			9,585.0	9,587.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/			9,604.0	9,606.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/			9,679.0	9,680.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/			9,702.0	9,703.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/			9,710.0	9,711.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/			9,725.0	9,726.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/			9,919.0	9,920.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/24/2011 12:00AM	MESAVERDE/			9,939.0	9,942.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011	Spud Date: 6/19/2011
Project: UTAH-UINTAH		Site: NBU 921-15C PAD	Rig Name No: GWS 1/1, GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION		Start Date: 10/20/2011	End Date: 11/29/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)		UWI: NE/NW0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
10/20/2011	7:00 - 11:00	4.00	COMP	48		P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 13 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 50 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 56 PSI. NO COMMUNICATION WITH SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL. SWFVN
10/21/2011	7:00 - 11:00	4.00	COMP	37		P		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWFVN

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011	Spud Date: 6/19/2011
Project: UTAH-UINTAH		Site: NBU 921-15C PAD	Rig Name No: GWS 1/1, GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION		Start Date: 10/20/2011	End Date: 11/29/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)		UWI: NE/NW0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
10/24/2011	7:00 - 18:00	11.00	COMP	36	B	P		<p>FRAC STG 1)WHP 1850 PSI, BRK 3924 PSI @ 4.7 BPM. ISIP 2634 PSI, FG .71 CALC HOLES OPEN @ 45.5 BPM @ 6015 PSI = 75% HOLES OPEN. ISIP 3358 PSI, FG .78, NPI 724 PSI. MP 6551 PSI, MR 49.7 BPM, AP 6149 PSI, AR 44.9 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L</p> <p>PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9636' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW</p> <p>FRAC STG 2)WHP 2760 PSI, BRK 3082 PSI @ 4.0 BPM. ISIP 2828 PSI, FG .74 CALC HOLES OPEN @ 38.9 BPM @ 6300 PSI = 61% HOLES OPEN. ISIP 3198 PSI, FG .77, NPI 370 PSI. MP 6494 PSI, MR 51.6 BPM, AP 6254 PSI, AR 46.8 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L</p> <p>PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8832' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW</p> <p>FRAC STG 3)WHP 1150 PSI, BRK 3402 PSI @ 4.5 BPM. ISIP 2107 PSI, FG .68 CALC HOLES OPEN @ 51.5 BPM @ 5750 PSI = 81% HOLES OPEN. ISIP 2784 PSI, FG .76, NPI 677 PSI. MP 5974 PSI, MR 52.4 BPM, AP 5372 PSI, AR 51.6 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L</p> <p>PERF STG4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8533' P/U PERF AS PER PERF DESIGN. POOH. SWIFN</p>

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011	Spud Date: 6/19/2011
Project: UTAH-UINTAH		Site: NBU 921-15C PAD	Rig Name No: GWS 1/1, GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION		Start Date: 10/20/2011	End Date: 11/29/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)		UWI: NE/NW0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
10/25/2011	7:00 - 18:00	11.00	COMP	36	B	P		<p>FRAC STG 4)WHP 2050 PSI, BRK 3034 PSI @ 3.8 BPM. ISIP 2311 PSI, FG .71 CALC HOLES OPEN @ 51.4 BPM @ 5187 PSI = 100% HOLES OPEN. ISIP 2569 PSI, FG .74, NPI 258 PSI. MP 5605 PSI, MR 52.1 BPM, AP 4741 PSI, AR 51.4 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L</p> <p>PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8268' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW</p> <p>FRAC STG 5)WHP 1044 PSI, BRK 2022 PSI @ 4.1 BPM. ISIP 1300 PSI, FG .60. CALC HOLES OPEN @ 52.3 BPM @ 4606 PSI = 88% HOLES OPEN. ISIP 2464 PSI, FG .74 NPI 1164 PSI. MP 5936 PSI, MR 52.6 BPM, AP 4791 PSI, AR 52.3 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L</p> <p>PERF STG 6)PU 4 1/2 8K HALCBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7085' P/U PERF AS PER DESIGN. POOH, X-OVER FOR FRAC CREW.</p> <p>FRAC STG 6)WHP 515 PSI, BRK 1760 PSI @ 4.1 BPM. ISIP 1147 PSI, FG .60. CALC HOLES OPEN @ 50.2 BPM @ 4080 PSI = 87% HOLES OPEN. ISIP 1587 PSI, FG .67, NPI 440 PSI. MP 4579 PSI, MR 50.9 BPM, AP 3879 PSI, AR 50.4 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L</p> <p>PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 6799'. POOH, SWI. DONE FRACING THIS WELL.</p> <p>TOTAL SAND = 159,935 LBS TOTAL CLFL = 7723 BBL HSM</p>
10/28/2011	7:00 - 7:15 7:15 - 15:00	0.25 7.75	COMP COMP	48 44	 C	 P		<p>MIRU, NDWH, NUBOP, PU 3 7/8" BIT, POBS, & XN SN. RIH W/ 213 JTS NEW 2 3/8" 4.7# L-80 TBG OFF TRLR TO 6752', RU PWR SWWL, SWIFWE.</p>
10/31/2011	7:00 - 7:15	0.25	COMP	48		P		<p>HSM, SLIPS, TRIPS & FALLS, LOOSE CLOTHING AROUND ROTARY</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011		Spud Date: 6/19/2011	
Project: UTAH-UINTAH		Site: NBU 921-15C PAD		Rig Name No: GWS 1/1, GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3	
Event: COMPLETION		Start Date: 10/20/2011		End Date: 11/29/2011	
Active Datum: RKB @4,805.00usft (above Mean Sea Level)		UWI: NE/NW/0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 11:00	3.75	COMP	44	C	P		<p>FILL TBG, BREAK CIRC, PRESS TEST BOP TO 3,000 PSI FOR 15 MIN, LOST 0 PSI, SURFACE CSG VALVE OPEN & LOCKED, SURFACE CSG STARTED BURPPING OUT BLACK OIL APPROX 15 GALLON, CALLED JEFF SAMUELS HE CALLED DENVER WLL NEED TO SQUEEZE CMT, L/D 2 JTS TBG, LAND TBG W/ 209 JTS L-80 EOT @ 6,642.03'.</p> <p>RD POWER SWIVEL, FLOOR & TBG EQUIP, ND BOPS, NU WH, RD & MOVE TO NEXT WELL ON PAD, WAIT ON PROCEEDURE FOR SQUEEZING, INSTALLED POP OFF ASSEMBLY IN SURFACE TO MONITOR PRESSURE.</p> <p>KB= 13' 4 1/16" WEATHERFORD HANGER= .83' TBG DELIVERED 329 JTS 209 JTS 2 3/8" L-80 = 6,626.00' TBG USED 209 JTS POBS= 2.20' TBG RETURNED 120 JTS TO NEXT WELL EOT @ 6,642.03'</p>
11/21/2011	6:45 - 7:00	0.25	COMP	48		P		HSM. ROADING RIG.
	7:00 - 8:00	1.00	COMP	30	A	P		ROAD RIG F/ NBU 921-20D PAD. MIRU ON THE NBU 921-15C4S.

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011	Spud Date: 6/19/2011
Project: UTAH-UINTAH		Site: NBU 921-15C PAD	Rig Name No: GWS 1/1, GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION		Start Date: 10/20/2011	End Date: 11/29/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)		UWI: NE/NW/0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	8:00 - 18:00	10.00	COMP	51	A	P		<p>OPEN WELL 0 PSI. ND WH. NU BOP'S. UNLAND 2 3/8 TBG. LD 4 1/16 TBG HNGR. POOH W/ 209 JTS TBG. STD BACK IN DERRIC. MIRU CASEDHOLE SOLUTIONS WL. PU 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. PERF F/ 2936'-37', 6 SPF = 6 HOLES. POOH. PU 4 1/2 COMPOSIT CMT RETAINER. RIH SET CCR @ 2913'. POOH W/ WL. RDMO CASEDHOLE SOLUTIONS. PU CCR STINGER. RIH W/ 91 JTS 2 3/8 TBG. STING INTO RETAINER. MIRU PROPETRO CMT CREW. RU T/ TBG. PSI TEST LINES T/ 2500 PSI. GOOD TEST. BLEED OFF PSI. OPEN WELL, EST INJT RT @ 2.5 BPM @ 500 PSI. PUMPED 10 BBLS FRESH WATER SURFACE CSG STARTED TO CIRC. SD SWTCH T/ T-MAC. CIRC 30 BBLS T-MAC T/ CLEAN UP SURFACE. GOT WATER BACK T/ SURFACE F/ SURFACE CSG. SD SWTCH BACK T/ FRESH WATER. PUMP 10 BBL SPACER START CMT. (15.8 PPG CMT.) PUMP 50 BBLS OF CMT @ 3 BPM @ 540 PSI. SLOW RT. PUMP 10 BBL CMT @ 2 BPM @ 30 PSI. SLOW RT. PUMP 10 BBL CMT @ 1 BPM @ 0 PSI. START FLUSH. PUMP 3 BBLS @ 1 BPM @ 0 PSI. SHUT DOWN PUMPING FOR 5 MIN T/ STG CMT. PUMP 2 BBLS @ 1 BPM @ 10 PSI. SHUT DOWN PUMPING FOR 5 MIN T. STG CMT. PUMP 2 BBLS @ 1 BPM @ 170 PSI. SHUT DOWN FOR 5 MIN T/ STG CMT. PUMP 2 BBLS @ 1/2 BPM @ 330 PSI. STG CMT FOR 5 MIN. PUMP 2 BBLS @ 1/2 BPM @ 500 PSI. SHUT DOWN PUMPING. UNSTING FROM CMT RETAINER. LD 1 JT OF TBG. RIG PUMP T/ CSG. REV CMT OUT W/ RIG PUMP. SHUT DOWN FROM PUMPING. RETAINER STARTED TO LEAK. 4 1/2 CSG WAS FLOWING. POOH W/ 2 3/8 TBG. LD STINGER. RIG PUMP T/ CSG. PSI T/ 500 PSI. SWM FN. HSM. POWER SWIVEL SAFETY</p>
11/22/2011	6:45 - 7:00	0.25	COMP	48		P		

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011	Spud Date: 6/19/2011
Project: UTAH-UINTAH		Site: NBU 921-15C PAD	Rig Name No: GWS 1/1, GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION		Start Date: 10/20/2011	End Date: 11/29/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)		UWI: NE/NW/0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 18:00	11.00	COMP	44	A			<p>OPEN WELL 20 PSI.</p> <p>PU 3 7/8 ROCK BIT & BIT SUB. RIH T/ 1350', TBG STARTED T/ FLOAT. CONT RIH T/ 1920'. RIG PUMP T/ TBG. CIRC GREEN CMT T/ PIT. CONT RIH T/ 2530' TAG HARD CMT = 380' CMT ON TOP OF CICR. RU DRL EQUIP. BRK REV CIRC. BEG DRL OUT 325' CMT PSI TEST CSG ABOVE CICR T/ 1000 PSI. HELD FOR 10 MIN. GOOD TEST.</p> <p>CONT DRL CICR & 23' CMT BELOW RETAINER. FELL OUT OF CMT @ 2938'. CIRC WELL CLEAN. PSI TEST SQWEEZE T/ 1000 PSI. SHUT DOWN PUMPING. PSI DROPPED T/ 750 PSI. ATTM T/ PSI BACK UP T/ 1000 PSI. WOULD NOT GO T/ 1000 PSI. EST INJ RT @ 1 BPM @ 900 PSI. PUMPED 6 BBLS COULD NOT GET CIRC W/ SURFACE CSG. SHUT DOWN PUMPING. BLEED OFF PSI. OPEN RAMS. RD DRL EQUIP. POOH W/ TBG. LD BIT SUB & 3 7/8 BIT.</p> <p>PU 4 1/2 8K HAL COMPOSIT RETAINER & SETTING TOOL. RIH W/ 92 JTS TBG AND SET RETAINER @ 2920'. PSI TBG T/ 500 PSI. GOOD TEST. STING OUT PSI TEST 4 1/2 CSG T/ 1000 PSI. GOOD TEST. STING INTO RETAINER. EST INJT RT @ 900 PSI @ 1 BPM.</p> <p>SD SWFN.</p> <p>HSM. HIGH PSI LINES.</p> <p>OPEN WELL 0 PSI.</p> <p>MIRU PROPETRO CMT CREW.</p> <p>RU RIG PUMP T/ BS VALVE. HOLD 500 PSI WHILE PUMPING CMT.</p> <p>EST INJT RT @ 2.5 BPM @ 1244 PSI.</p> <p>MIX 75 SX CLASS G CMT @ 15.8#.</p> <p>PUMP 75 SX = 15 BBLS CMT.</p> <p>START DISP. PUMP 7 BBLS FRESH @ 1 BPM @ 400 PSI.</p> <p>STG FOR 3 MIN.</p> <p>PUMP 1 BBL FRESH @ .5 BPM @ 350 PSI.</p> <p>STG 3 MIN</p> <p>PUMP 1 BBL FRESH @ .5 BPM @ 400 PSI.</p> <p>STG 3 MIN.</p> <p>PUMP 1.8 BBL FRESH @ .5 BPM @ 660 PSI.</p> <p>SHUT DOWN W/ TOTAL DISP OF 10.8 BBLS. LEAVE .5 BBLS ON TOP OF CICR.</p> <p>UNSTING FROM CICR.</p> <p>W/ RIG PUMP REV CMT OUT W/ 40 BBLS OF T-MAC. RDMO PROPETRO. POOH W/ TBG. LD STINGER. PU 3 7/8 ROCK BIT & BIT SUB. RIH W/ TBG T/ 2870'. SWMFWE.</p>
11/23/2011	6:45 - 7:00	0.25	COMP	48		P		
	7:00 - 15:00	8.00	COMP	51	C	P		

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011	Spud Date: 6/19/2011
Project: UTAH-UINTAH		Site: NBU 921-15C PAD	Rig Name No: GWS 1/1, GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION		Start Date: 10/20/2011	End Date: 11/29/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)		UWI: NE/NW/0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/28/2011	7:00 - 15:00	8.00	COMP	30				<p>7AM [DAY 10] JSA- - PSI, SWVLS, DRLG CMT, POOH & RIH W/ TBG.</p> <p>WE-SICP=0#, SITP=0#, SISCP=10#. SURFACE BLED OFF INSTANT. EOT @ 2900'. R/U SWWL & RIG PUMP. ESTABLISH CIRCULATION. D/O 14' HARD CMT. FELL THROUGH @ 2940'. RIH W/ EOT @ 2970'. P.T. CSG & SQZ HOLES TO 550#. LOST 0# IN 10 MINUTES. POOH STDG BACK TBG. L/D BHA.</p> <p>MIRU CHS. RUN A CBL-CCL-GR LOG OVER SQZ PERFS. RDMO CHS.</p> <p>P/U 3-7/8" SEALED BRG BIT, POBS W/ XN & RIH ON 2-3/8" L-80 TBG. TAG @ 6790'. R/U SWWL & PUMP.</p> <p>DRAIN PUMP & LINES. NO FLOW FROM SURFACE CSG ALL DAY. 0#.</p> <p>3PM SWI-SDFN PREP TO D/O 6 CBP'S & LAND TBG IN AM.</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-15C4S YELLOW		Spud Conductor: 6/8/2011	Spud Date: 6/19/2011
Project: UTAH-UINTAH		Site: NBU 921-15C PAD	Rig Name No: GWS 1/1, GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION		Start Date: 10/20/2011	End Date: 11/29/2011
Active Datum: RKB @4,805.00usft (above Mean Sea Level)		UWI: NE/NW/0/9/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/29/2011	7:00 -		COMP	30		P		<p>7AM [DAY 11] JSA- - DRLG PLUGS, PSI, LANDING TBG.</p> <p>SISCP=0#, SICP=0#, SITP=0#. EOT @ 6784'. ESTABLISH CIRCULATION W/ RIG PUMP. C/O 15' SAND TO CBP#1.</p> <p>[DRLG CBP#1] @ 6799'. D/O HLBRTN 8K CBP IN 3 MIN. 50# INC. RIH & C/O 15' SAND TO CBP#2. FCP=50#.</p> <p>[DRLG CBP#2] @ 7085'. D/O HLBRTN 8K CBP IN 5 MIN. 300# INC. RIH & C/O 30' SAND TO CBP#3. FCP=300#.</p> <p>[DRLG CBP#3] @ 8268'. D/O HLBRTN 8K CBP IN 4 MIN. 100# INC. RIH & C/O 30' SAND TO CBP#4. FCP=400#.</p> <p>[DRLG CBP#4] @ 8553'. D/O HLBRTN 8K CBP IN 5 MIN. 50# INC. RIH & C/O 30' SAND TO CBP#5. FCP=450#.</p> <p>[DRLG CBP#5] @ 8852'. D/O HLBRTN 8K CBP IN 3 MIN. 100# INC. RIH & C/O 30' SAND TO CBP#6. FCP=400#.</p> <p>[DRLG CBP#6] @ 9636'. D/O HLBRTN 8K CBP IN 4 MIN. 50# INC. RIH. TAG SAND @ 10,160'. ORIG PBTD @ 10,270', B.P. @ 9942'. 218' RATHOLE. CIRCULATE WELL CLEAN. R/D SWWL. POOH & L/D 24 JTS ON FLOAT. LAND TBG ON HANGER W/ 296 JTS NEW 2-3/8" L-80 TBG. EOT @ 9397.33', POBS W/ XN @ 9395.13'. R/D FLOOR & TBG EQUIPMENT. NDBOP, NUWH. DROP BALL DOWN TBG & PUMP OFF THE BIT @ 1800#. OPEN WELL TO FBT ON OPEN CHOKE TO UNLOAD TBG VOLUME.</p> <p>1 PM TURN WELL OVER TO APC CREW & DELSCO FBC. FTP=1500#, SICP=1800#, 20/64 CHOKE SELLING GAS @ 875 MCF DAY RATE. LTR=5973 BBLS. RACK EQUIPMENT, DRAIN PUMP & LINES. RD RIG. MOVE OVER AND RIG UP ON NBU 921-15D1S. FTP=100#, FCP=100#. CONTROL WELL W/ 20 BBLS TMAC. NDWH, NUBOP. R/U FLOOR & TBG EQUIPMENT.</p> <p>5 PM SDFN</p> <p>330 deliv 296 landed - - 88 more from previos landed 34 returned to Samuels yard in good pile</p>

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-15C4S YELLOW Spud Conductor: 6/8/2011 Spud Date: 6/19/2011

Project: UTAH-UINTAH Site: NBU 921-15C PAD Rig Name No: GWS 1/1, GWS 1/1, ROCKY MOUNTAIN WELL SERVICE 3/3

Event: COMPLETION Start Date: 10/20/2011 End Date: 11/29/2011

Active Datum: RKB @4,805.00usft (above Mean Sea Level) UWI: NE/NW09/S/21/E/15/0/0/26/PM/N/836.00/W/0/2,640.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	13:30 - 13:30	0.00	PROD	50				WELL TURNED TO SALES @ 13:30 HR ON 11/29/11 - 871 MCFD, 1920 BWPD, CP 1700#, FTP 1800#, CK 20/64"

WELL DETAILS: NBU 921-15C4S

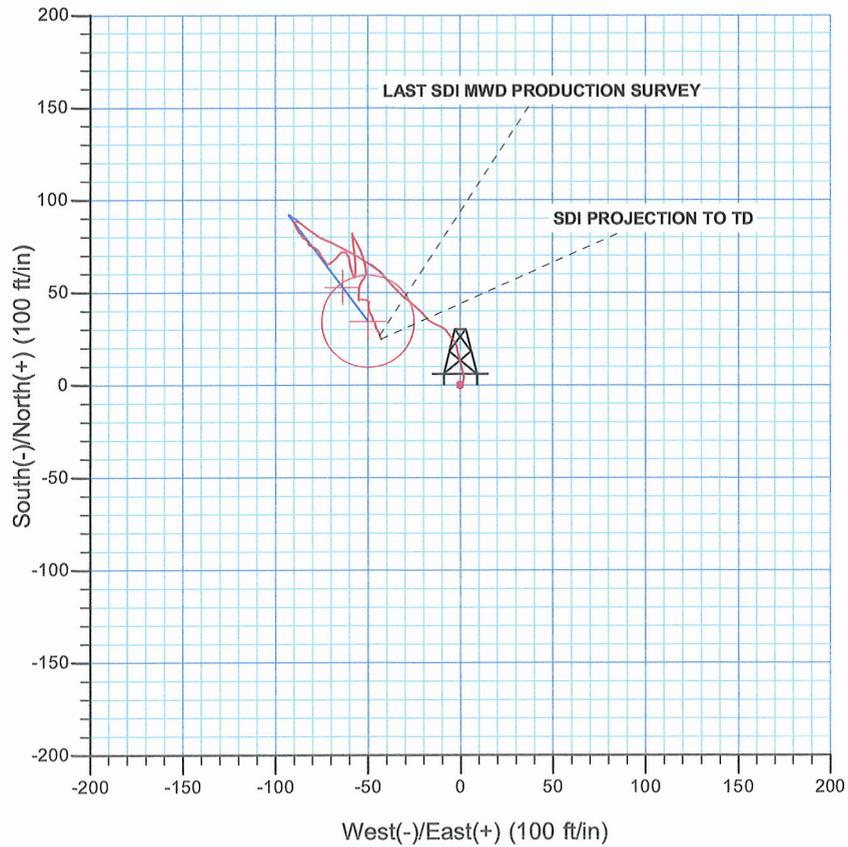
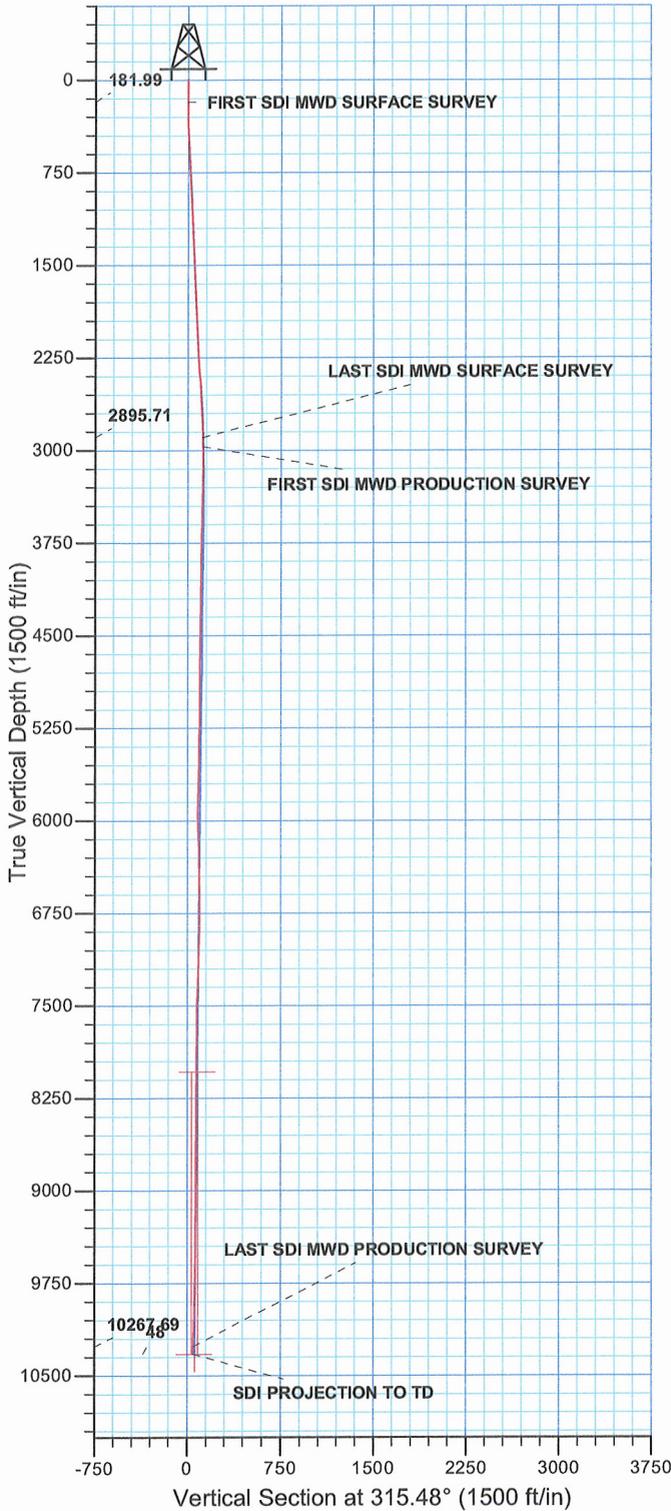
GL 4972' & KB 14' @ 4806.00ft (ENSGN 145)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14544381.04	2049840.04	40° 2' 28.039 N	109° 32' 14.021 W



Azimuths to True North
 Magnetic North: 11.10°

Magnetic Field
 Strength: 52349.2snT
 Dip Angle: 65.89°
 Date: 2011/06/09
 Model: IGRF2010



PROJECT DETAILS: Uintah County, UT UTM12	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 - Western US
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SECTION 15 T9S R21E
System Datum:	Mean Sea Level

Design:	OH (NBU 921-15C4S/OH)
Created By:	RobertScott
Date:	9:43, September 20 2011



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 921-15C PAD
NBU 921-15C4S**

OH

Design: OH

Standard Survey Report

20 September, 2011

Anadarko 
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	Local Co-ordinate Reference:	Well NBU 921-15C4S
Project:	Uintah County, UT UTM12	TVD Reference:	GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
Site:	NBU 921-15C PAD	MD Reference:	GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
Well:	NBU 921-15C4S	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 921-15C PAD, SECTION 15 T9S R21E				
Site Position:		Northing:	14,544,382.90 usft	Latitude:	40° 2' 28.061 N
From:	Lat/Long	Easting:	2,049,820.68 usft	Longitude:	109° 32' 14.269 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.94 °

Well	NBU 921-15C4S, 836 FNL 2640 FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,544,381.03 usft	Latitude:	40° 2' 28.039 N
	+E/-W	0.00 ft	Easting:	2,049,840.03 usft	Longitude:	109° 32' 14.021 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,792.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/06/09	11.10	65.89	52,349

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	315.48	

Survey Program	Date	2011/09/20			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
5.00	2,899.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1	
2,976.00	10,332.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
182.00	0.84	50.27	181.99	0.83	1.00	-0.11	0.47	0.47	0.00	
FIRST SDI MWD SURFACE SURVEY										
273.00	0.98	18.77	272.98	1.99	1.76	0.19	0.56	0.15	-34.62	
366.00	1.91	0.82	365.95	4.30	2.04	1.63	1.10	1.00	-19.30	
461.00	3.49	340.82	460.85	8.61	1.11	5.36	1.91	1.66	-21.05	
556.00	3.73	347.90	555.66	14.36	-0.49	10.58	0.53	0.25	7.45	
652.00	2.14	352.79	651.53	19.19	-1.37	14.64	1.68	-1.66	5.09	
747.00	3.29	332.36	746.42	23.37	-2.85	18.66	1.56	1.21	-21.51	

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-15C PAD
Well: NBU 921-15C4S
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-15C4S
TVD Reference: GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
MD Reference: GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
842.00	3.56	318.58	841.25	28.00	-6.07	24.21	0.91	0.28	-14.51	
937.00	3.46	299.33	936.08	31.61	-10.52	29.91	1.24	-0.11	-20.26	
1,031.00	2.41	293.09	1,029.96	33.78	-14.81	34.47	1.17	-1.12	-6.64	
1,127.00	3.05	320.47	1,125.85	36.54	-18.29	38.88	1.49	0.67	28.52	
1,222.00	2.53	316.64	1,220.74	40.01	-21.34	43.49	0.58	-0.55	-4.03	
1,317.00	2.56	306.86	1,315.64	42.81	-24.48	47.69	0.46	0.03	-10.29	
1,413.00	2.31	319.98	1,411.56	45.58	-27.44	51.73	0.63	-0.26	13.67	
1,508.00	2.81	302.56	1,506.46	48.30	-30.63	55.91	0.97	0.53	-18.34	
1,604.00	2.21	318.36	1,602.37	50.95	-33.84	60.05	0.95	-0.63	16.46	
1,698.00	2.05	313.12	1,696.31	53.45	-36.28	63.54	0.27	-0.17	-5.57	
1,793.00	2.43	316.95	1,791.24	56.08	-38.89	67.26	0.43	0.40	4.03	
1,887.00	1.94	327.15	1,885.17	58.88	-41.11	70.81	0.66	-0.52	10.85	
1,982.00	2.69	309.84	1,980.09	61.65	-43.70	74.60	1.07	0.79	-18.22	
2,077.00	2.43	305.14	2,075.00	64.24	-47.06	78.80	0.35	-0.27	-4.95	
2,173.00	2.83	299.04	2,170.89	66.56	-50.79	83.07	0.51	0.42	-6.35	
2,268.00	3.35	306.19	2,265.76	69.34	-55.08	88.06	0.68	0.55	7.53	
2,363.00	3.70	293.45	2,360.58	72.20	-60.14	93.64	0.90	0.37	-13.41	
2,456.00	3.34	300.77	2,453.40	74.78	-65.22	99.05	0.62	-0.39	7.87	
2,551.00	3.61	292.60	2,548.23	77.35	-70.36	104.48	0.59	0.28	-8.60	
2,647.00	3.47	297.04	2,644.05	79.83	-75.73	110.02	0.32	-0.15	4.63	
2,742.00	3.53	310.36	2,738.87	83.03	-80.52	115.66	0.86	0.06	14.02	
2,835.00	2.16	308.46	2,831.75	85.97	-84.08	120.25	1.48	-1.47	-2.04	
2,899.00	2.23	306.52	2,895.71	87.46	-86.02	122.68	0.16	0.11	-3.03	
LAST SDI MWD SURFACE SURVEY										
2,976.00	1.29	273.62	2,972.67	88.41	-88.09	124.80	1.75	-1.22	-42.73	
FIRST SDI MWD PRODUCTION SURVEY										
3,067.00	0.78	197.69	3,063.66	87.88	-89.30	125.28	1.47	-0.56	-83.44	
3,157.00	1.22	151.31	3,153.65	86.46	-89.03	124.07	0.98	0.49	-51.53	
3,248.00	1.38	158.49	3,244.62	84.59	-88.16	122.13	0.25	0.18	7.89	
3,339.00	1.25	135.21	3,335.60	82.87	-87.06	120.13	0.60	-0.14	-25.58	
3,429.00	1.41	149.33	3,425.58	81.22	-85.80	118.07	0.40	0.18	15.69	
3,520.00	1.12	140.50	3,516.55	79.57	-84.67	116.10	0.38	-0.32	-9.70	
3,610.00	0.67	94.57	3,606.54	78.85	-83.58	114.82	0.90	-0.50	-51.03	
3,701.00	0.69	146.46	3,697.54	78.35	-82.75	113.88	0.65	0.02	57.02	
3,791.00	1.02	165.15	3,787.53	77.12	-82.25	112.66	0.48	0.37	20.77	
3,882.00	0.75	155.90	3,878.52	75.80	-81.79	111.39	0.33	-0.30	-10.16	
3,973.00	1.21	96.37	3,969.51	75.15	-80.60	110.09	1.16	0.51	-65.42	
4,063.00	1.10	121.06	4,059.49	74.60	-78.91	108.52	0.56	-0.12	27.43	
4,154.00	1.22	138.82	4,150.47	73.42	-77.53	106.70	0.41	0.13	19.52	
4,244.00	0.74	118.82	4,240.46	72.41	-76.39	105.19	0.65	-0.53	-22.22	
4,335.00	1.07	173.74	4,331.45	71.29	-75.78	103.96	0.97	0.36	60.35	
4,426.00	1.10	140.49	4,422.43	69.77	-75.13	102.42	0.68	0.03	-36.54	
4,516.00	1.03	134.36	4,512.42	68.54	-74.00	100.75	0.15	-0.08	-6.81	

Company:	Kerr McGee Oil and Gas Onshore LP	Local Co-ordinate Reference:	Well NBU 921-15C4S
Project:	Uintah County, UT UTM12	TVD Reference:	GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
Site:	NBU 921-15C PAD	MD Reference:	GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
Well:	NBU 921-15C4S	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,607.00	1.14	155.13	4,603.40	67.14	-73.04	99.08	0.45	0.12	22.82
4,697.00	0.96	136.79	4,693.38	65.78	-72.14	97.49	0.42	-0.20	-20.38
4,788.00	1.01	75.60	4,784.37	65.42	-70.85	96.32	1.10	0.05	-67.24
4,878.00	1.60	55.06	4,874.35	66.34	-69.05	95.71	0.83	0.66	-22.82
4,969.00	2.29	34.73	4,965.30	68.56	-66.97	95.84	1.06	0.76	-22.34
5,060.00	1.32	45.18	5,056.25	70.80	-65.19	96.19	1.12	-1.07	11.48
5,150.00	0.88	71.02	5,146.24	71.75	-63.80	95.89	0.73	-0.49	28.71
5,241.00	0.80	104.31	5,237.23	71.82	-62.53	95.05	0.54	-0.09	36.58
5,332.00	0.66	122.02	5,328.22	71.39	-61.47	94.00	0.29	-0.15	19.46
5,422.00	0.85	148.04	5,418.21	70.55	-60.67	92.84	0.43	0.21	28.91
5,513.00	1.09	166.76	5,509.20	69.13	-60.12	91.44	0.43	0.26	20.57
5,603.00	1.23	170.34	5,599.18	67.35	-59.76	89.92	0.18	0.16	3.98
5,694.00	1.58	167.53	5,690.15	65.16	-59.32	88.05	0.39	0.38	-3.09
5,784.00	1.85	164.54	5,780.11	62.55	-58.67	85.73	0.32	0.30	-3.32
5,875.00	2.10	163.03	5,871.06	59.54	-57.79	82.97	0.28	0.27	-1.66
5,966.00	0.54	77.43	5,962.04	58.03	-56.89	81.26	2.34	-1.71	-94.07
6,056.00	2.47	4.18	6,052.01	60.06	-56.33	82.32	2.63	2.14	-81.39
6,147.00	3.17	358.42	6,142.89	64.53	-56.26	85.46	0.83	0.77	-6.33
6,238.00	2.72	348.86	6,233.77	69.17	-56.74	89.10	0.73	-0.49	-10.51
6,328.00	2.34	352.65	6,323.69	73.08	-57.39	92.35	0.46	-0.42	4.21
6,419.00	1.93	354.73	6,414.62	76.45	-57.77	95.01	0.46	-0.45	2.29
6,509.00	1.42	357.77	6,504.58	79.07	-57.95	97.01	0.58	-0.57	3.38
6,600.00	0.97	356.31	6,595.56	80.97	-58.04	98.43	0.50	-0.49	-1.60
6,691.00	0.42	346.27	6,686.56	82.06	-58.17	99.30	0.62	-0.60	-11.03
6,781.00	0.22	168.11	6,776.56	82.21	-58.22	99.44	0.71	-0.22	-197.96
6,872.00	0.64	166.26	6,867.55	81.55	-58.06	98.85	0.46	0.46	-2.03
6,963.00	1.45	152.08	6,958.54	80.04	-57.40	97.31	0.93	0.89	-15.58
7,053.00	2.03	152.10	7,048.50	77.62	-56.12	94.69	0.64	0.64	0.02
7,144.00	2.11	153.46	7,139.44	74.70	-54.62	91.56	0.10	0.09	1.49
7,234.00	2.37	159.84	7,229.37	71.47	-53.24	88.29	0.40	0.29	7.09
7,325.00	2.55	167.61	7,320.28	67.73	-52.15	84.86	0.42	0.20	8.54
7,416.00	2.64	165.68	7,411.19	63.72	-51.20	81.33	0.14	0.10	-2.12
7,507.00	2.02	188.00	7,502.12	60.10	-50.91	78.54	1.20	-0.68	24.53
7,597.00	0.97	221.84	7,592.09	57.96	-51.63	77.53	1.48	-1.17	37.60
7,687.00	1.06	210.77	7,682.07	56.68	-52.57	77.27	0.24	0.10	-12.30
7,778.00	1.23	212.00	7,773.06	55.13	-53.52	76.83	0.19	0.19	1.35
7,868.00	1.32	191.62	7,863.03	53.29	-54.24	76.03	0.51	0.10	-22.64
7,959.00	1.75	183.36	7,954.00	50.88	-54.53	74.51	0.53	0.47	-9.08
8,050.00	1.76	180.97	8,044.96	48.10	-54.64	72.60	0.08	0.01	-2.63
8,140.00	0.48	187.09	8,134.94	46.34	-54.71	71.40	1.43	-1.42	6.80
8,231.00	0.09	199.17	8,225.94	45.89	-54.78	71.13	0.43	-0.43	13.27
8,321.00	0.18	11.01	8,315.94	45.97	-54.77	71.18	0.30	0.10	190.93
8,412.00	0.09	1.24	8,406.94	46.18	-54.74	71.31	0.10	-0.10	-10.74
8,503.00	0.12	137.51	8,497.94	46.18	-54.68	71.26	0.21	0.03	149.75

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-15C PAD
Well: NBU 921-15C4S
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-15C4S
TVD Reference: GL 4972' & KB 14' @ 4806.00ft (ENSGN 145)
MD Reference: GL 4972' & KB 14' @ 4806.00ft (ENSGN 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,593.00	0.28	87.48	8,587.94	46.12	-54.39	71.02	0.25	0.18	-55.59	
8,684.00	0.38	74.66	8,678.94	46.21	-53.88	70.73	0.14	0.11	-14.09	
8,774.00	0.26	117.96	8,768.93	46.19	-53.41	70.39	0.29	-0.13	48.11	
8,865.00	0.24	87.30	8,859.93	46.10	-53.04	70.06	0.15	-0.02	-33.69	
8,956.00	0.51	81.00	8,950.93	46.18	-52.45	69.70	0.30	0.30	-6.92	
9,046.00	0.61	100.42	9,040.93	46.15	-51.58	69.07	0.24	0.11	21.58	
9,137.00	0.81	121.54	9,131.92	45.73	-50.56	68.05	0.36	0.22	23.21	
9,227.00	0.53	102.28	9,221.91	45.31	-49.61	67.09	0.40	-0.31	-21.40	
9,318.00	0.17	187.95	9,312.91	45.08	-49.22	66.65	0.60	-0.40	94.14	
9,408.00	0.53	186.25	9,402.91	44.54	-49.28	66.31	0.40	0.40	-1.89	
9,499.00	0.81	177.82	9,493.90	43.48	-49.30	65.57	0.33	0.31	-9.26	
9,590.00	1.06	185.02	9,584.89	41.99	-49.35	64.55	0.30	0.27	7.91	
9,680.00	0.88	166.42	9,674.88	40.49	-49.26	63.41	0.40	-0.20	-20.67	
9,771.00	1.06	153.64	9,765.87	39.06	-48.72	62.01	0.31	0.20	-14.04	
9,861.00	1.31	155.20	9,855.85	37.38	-47.92	60.25	0.28	0.28	1.73	
9,952.00	1.41	157.42	9,946.82	35.40	-47.06	58.24	0.12	0.11	2.44	
10,043.00	1.39	158.07	10,037.79	33.34	-46.21	56.18	0.03	-0.02	0.71	
10,133.00	1.53	155.76	10,127.77	31.24	-45.31	54.04	0.17	0.16	-2.57	
10,224.00	2.02	160.58	10,218.72	28.62	-44.28	51.45	0.56	0.54	5.30	
10,273.00	2.15	154.38	10,267.69	26.97	-43.60	49.80	0.53	0.27	-12.65	
LAST SDI MWD PRODUCTION SURVEY										
10,332.00	2.15	154.38	10,326.65	24.98	-42.64	47.71	0.00	0.00	0.00	
SDI PROJECTION TO TD										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
182.00	181.99	0.83	1.00	FIRST SDI MWD SURFACE SURVEY	
2,899.00	2,895.71	87.46	-86.02	LAST SDI MWD SURFACE SURVEY	
2,976.00	2,972.67	88.41	-88.09	FIRST SDI MWD PRODUCTION SURVEY	
10,273.00	10,267.69	26.97	-43.60	LAST SDI MWD PRODUCTION SURVEY	
10,332.00	10,326.65	24.98	-42.64	SDI PROJECTION TO TD	

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 921-15C PAD
NBU 921-15C4S**

OH

Design: OH

Survey Report - Geographic

20 September, 2011

Anadarko 
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	Local Co-ordinate Reference:	Well NBU 921-15C4S
Project:	Uintah County, UT UTM12	TVD Reference:	GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
Site:	NBU 921-15C PAD	MD Reference:	GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
Well:	NBU 921-15C4S	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 921-15C PAD, SECTION 15 T9S R21E				
Site Position:		Northing:	14,544,382.90 usft	Latitude:	40° 2' 28.061 N
From:	Lat/Long	Easting:	2,049,820.68 usft	Longitude:	109° 32' 14.269 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.94 °

Well	NBU 921-15C4S, 836 FNL 2640 FWL				
Well Position	+N/-S	0.00 ft	Northing:	14,544,381.03 usft	Latitude: 40° 2' 28.039 N
	+E/-W	0.00 ft	Easting:	2,049,840.03 usft	Longitude: 109° 32' 14.021 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level: 4,792.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/06/09	11.10	65.89	52,349

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00		315.48

Survey Program	Date	2011/09/20			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
5.00	2,899.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1	
2,976.00	10,332.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,544,381.03	2,049,840.03	40° 2' 28.039 N	109° 32' 14.021 W
5.00	0.00	0.00	5.00	0.00	0.00	14,544,381.03	2,049,840.03	40° 2' 28.039 N	109° 32' 14.021 W
182.00	0.84	50.27	181.99	0.83	1.00	14,544,381.88	2,049,841.02	40° 2' 28.047 N	109° 32' 14.008 W
FIRST SDI MWD SURFACE SURVEY									
273.00	0.98	18.77	272.98	1.99	1.76	14,544,383.05	2,049,841.76	40° 2' 28.059 N	109° 32' 13.998 W
366.00	1.91	0.82	365.95	4.30	2.04	14,544,385.36	2,049,842.00	40° 2' 28.082 N	109° 32' 13.995 W
461.00	3.49	340.82	460.85	8.61	1.11	14,544,389.66	2,049,841.00	40° 2' 28.124 N	109° 32' 14.007 W
556.00	3.73	347.90	555.66	14.36	-0.49	14,544,395.38	2,049,839.31	40° 2' 28.181 N	109° 32' 14.027 W
652.00	2.14	352.79	651.53	19.19	-1.37	14,544,400.20	2,049,838.35	40° 2' 28.229 N	109° 32' 14.038 W
747.00	3.29	332.36	746.42	23.37	-2.85	14,544,404.35	2,049,836.80	40° 2' 28.270 N	109° 32' 14.057 W
842.00	3.56	318.58	841.25	28.00	-6.07	14,544,408.92	2,049,833.51	40° 2' 28.316 N	109° 32' 14.099 W

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-15C PAD
Well: NBU 921-15C4S
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-15C4S
TVD Reference: GL 4972' & KB 14' @ 4806.00ft (ENSGN 145)
MD Reference: GL 4972' & KB 14' @ 4806.00ft (ENSGN 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
937.00	3.46	299.33	936.08	31.61	-10.52	14,544,412.47	2,049,829.00	40° 2' 28.352 N	109° 32' 14.156 W	
1,031.00	2.41	293.09	1,029.96	33.78	-14.81	14,544,414.56	2,049,824.67	40° 2' 28.373 N	109° 32' 14.211 W	
1,127.00	3.05	320.47	1,125.85	36.54	-18.29	14,544,417.26	2,049,821.14	40° 2' 28.400 N	109° 32' 14.256 W	
1,222.00	2.53	316.64	1,220.74	40.01	-21.34	14,544,420.69	2,049,818.04	40° 2' 28.435 N	109° 32' 14.295 W	
1,317.00	2.56	306.86	1,315.64	42.81	-24.48	14,544,423.43	2,049,814.85	40° 2' 28.462 N	109° 32' 14.336 W	
1,413.00	2.31	319.98	1,411.56	45.58	-27.44	14,544,426.15	2,049,811.85	40° 2' 28.490 N	109° 32' 14.374 W	
1,508.00	2.81	302.56	1,506.46	48.30	-30.63	14,544,428.82	2,049,808.61	40° 2' 28.517 N	109° 32' 14.415 W	
1,604.00	2.21	318.36	1,602.37	50.95	-33.84	14,544,431.41	2,049,805.36	40° 2' 28.543 N	109° 32' 14.456 W	
1,698.00	2.05	313.12	1,696.31	53.45	-36.28	14,544,433.88	2,049,802.88	40° 2' 28.568 N	109° 32' 14.487 W	
1,793.00	2.43	316.95	1,791.24	56.08	-38.89	14,544,436.47	2,049,800.23	40° 2' 28.594 N	109° 32' 14.521 W	
1,887.00	1.94	327.15	1,885.17	58.88	-41.11	14,544,439.22	2,049,797.96	40° 2' 28.621 N	109° 32' 14.550 W	
1,982.00	2.69	309.84	1,980.09	61.65	-43.70	14,544,441.96	2,049,795.33	40° 2' 28.649 N	109° 32' 14.583 W	
2,077.00	2.43	305.14	2,075.00	64.24	-47.06	14,544,444.49	2,049,791.93	40° 2' 28.674 N	109° 32' 14.626 W	
2,173.00	2.83	299.04	2,170.89	66.56	-50.79	14,544,446.75	2,049,788.15	40° 2' 28.697 N	109° 32' 14.674 W	
2,268.00	3.35	306.19	2,265.76	69.34	-55.08	14,544,449.46	2,049,783.82	40° 2' 28.725 N	109° 32' 14.729 W	
2,363.00	3.70	293.45	2,360.58	72.20	-60.14	14,544,452.23	2,049,778.72	40° 2' 28.753 N	109° 32' 14.794 W	
2,456.00	3.34	300.77	2,453.40	74.78	-65.22	14,544,454.73	2,049,773.60	40° 2' 28.778 N	109° 32' 14.859 W	
2,551.00	3.61	292.60	2,548.23	77.35	-70.36	14,544,457.21	2,049,768.42	40° 2' 28.804 N	109° 32' 14.926 W	
2,647.00	3.47	297.04	2,644.05	79.83	-75.73	14,544,459.60	2,049,763.00	40° 2' 28.828 N	109° 32' 14.995 W	
2,742.00	3.53	310.36	2,738.87	83.03	-80.52	14,544,462.72	2,049,758.16	40° 2' 28.860 N	109° 32' 15.056 W	
2,835.00	2.16	308.46	2,831.75	85.97	-84.08	14,544,465.61	2,049,754.55	40° 2' 28.889 N	109° 32' 15.102 W	
2,899.00	2.23	306.52	2,895.71	87.46	-86.02	14,544,467.07	2,049,752.59	40° 2' 28.904 N	109° 32' 15.127 W	
LAST SDI MWD SURFACE SURVEY										
2,976.00	1.29	273.62	2,972.87	88.41	-88.09	14,544,467.98	2,049,750.50	40° 2' 28.913 N	109° 32' 15.154 W	
FIRST SDI MWD PRODUCTION SURVEY										
3,067.00	0.78	197.69	3,063.66	87.88	-89.30	14,544,467.44	2,049,749.30	40° 2' 28.908 N	109° 32' 15.169 W	
3,157.00	1.22	151.31	3,153.65	86.46	-89.03	14,544,466.02	2,049,749.60	40° 2' 28.894 N	109° 32' 15.166 W	
3,248.00	1.38	158.49	3,244.62	84.59	-88.16	14,544,464.16	2,049,750.49	40° 2' 28.875 N	109° 32' 15.155 W	
3,339.00	1.25	135.21	3,335.60	82.87	-87.06	14,544,462.46	2,049,751.62	40° 2' 28.858 N	109° 32' 15.140 W	
3,429.00	1.41	149.33	3,425.58	81.22	-85.80	14,544,460.83	2,049,752.91	40° 2' 28.842 N	109° 32' 15.124 W	
3,520.00	1.12	140.50	3,516.55	79.57	-84.67	14,544,459.20	2,049,754.07	40° 2' 28.826 N	109° 32' 15.110 W	
3,610.00	0.67	94.57	3,606.54	78.85	-83.58	14,544,458.50	2,049,755.17	40° 2' 28.819 N	109° 32' 15.096 W	
3,701.00	0.69	146.46	3,697.54	78.35	-82.75	14,544,458.01	2,049,756.01	40° 2' 28.814 N	109° 32' 15.085 W	
3,791.00	1.02	165.15	3,787.53	77.12	-82.25	14,544,456.79	2,049,756.53	40° 2' 28.802 N	109° 32' 15.078 W	
3,882.00	0.75	155.90	3,878.52	75.80	-81.79	14,544,455.47	2,049,757.00	40° 2' 28.788 N	109° 32' 15.073 W	
3,973.00	1.21	96.37	3,969.51	75.15	-80.60	14,544,454.84	2,049,758.21	40° 2' 28.782 N	109° 32' 15.057 W	
4,063.00	1.10	121.06	4,059.49	74.60	-78.91	14,544,454.32	2,049,759.91	40° 2' 28.777 N	109° 32' 15.036 W	
4,154.00	1.22	138.82	4,150.47	73.42	-77.53	14,544,453.16	2,049,761.31	40° 2' 28.765 N	109° 32' 15.018 W	
4,244.00	0.74	118.82	4,240.46	72.41	-76.39	14,544,452.18	2,049,762.47	40° 2' 28.755 N	109° 32' 15.003 W	
4,335.00	1.07	173.74	4,331.45	71.29	-75.78	14,544,451.06	2,049,763.09	40° 2' 28.744 N	109° 32' 14.995 W	
4,426.00	1.10	140.49	4,422.43	69.77	-75.13	14,544,449.55	2,049,763.77	40° 2' 28.729 N	109° 32' 14.987 W	
4,516.00	1.03	134.36	4,512.42	68.54	-74.00	14,544,448.34	2,049,764.92	40° 2' 28.717 N	109° 32' 14.972 W	
4,607.00	1.14	155.13	4,603.40	67.14	-73.04	14,544,446.96	2,049,765.90	40° 2' 28.703 N	109° 32' 14.960 W	
4,697.00	0.96	136.79	4,693.38	65.78	-72.14	14,544,445.62	2,049,766.82	40° 2' 28.689 N	109° 32' 14.949 W	
4,788.00	1.01	75.60	4,784.37	65.42	-70.85	14,544,445.28	2,049,768.12	40° 2' 28.686 N	109° 32' 14.932 W	
4,878.00	1.60	55.06	4,874.35	66.34	-69.05	14,544,446.23	2,049,769.91	40° 2' 28.695 N	109° 32' 14.909 W	
4,969.00	2.29	34.73	4,965.30	68.56	-66.97	14,544,448.48	2,049,771.95	40° 2' 28.717 N	109° 32' 14.882 W	
5,060.00	1.32	45.18	5,056.25	70.80	-65.19	14,544,450.75	2,049,773.69	40° 2' 28.739 N	109° 32' 14.859 W	
5,150.00	0.88	71.02	5,146.24	71.75	-63.80	14,544,451.72	2,049,775.06	40° 2' 28.748 N	109° 32' 14.841 W	
5,241.00	0.80	104.31	5,237.23	71.82	-62.53	14,544,451.82	2,049,776.34	40° 2' 28.749 N	109° 32' 14.825 W	
5,332.00	0.66	122.02	5,328.22	71.39	-61.47	14,544,451.40	2,049,777.40	40° 2' 28.745 N	109° 32' 14.811 W	
5,422.00	0.85	148.04	5,418.21	70.55	-60.67	14,544,450.57	2,049,778.21	40° 2' 28.737 N	109° 32' 14.801 W	
5,513.00	1.09	166.76	5,509.20	69.13	-60.12	14,544,449.16	2,049,778.79	40° 2' 28.723 N	109° 32' 14.794 W	
5,603.00	1.23	170.34	5,599.18	67.35	-59.76	14,544,447.38	2,049,779.18	40° 2' 28.705 N	109° 32' 14.789 W	
5,694.00	1.58	167.53	5,690.15	65.16	-59.32	14,544,445.20	2,049,779.65	40° 2' 28.683 N	109° 32' 14.784 W	



TABLE OF CONTENTS

- 1. Directional Plot and Surveys**
- 2. Daily Drilling Reports**
- 3. BHA Summary Reports and Slide Sheets**
- 4. Graphical Job History**
- 5. Support Staff**

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-15C PAD
Well: NBU 921-15C4S
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-15C4S
TVD Reference: GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
MD Reference: GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,784.00	1.85	164.54	5,780.11	62.55	-58.67	14,544,442.60	2,049,780.35	40° 2' 28.657 N	109° 32' 14.775 W	
5,875.00	2.10	163.03	5,871.06	59.54	-57.79	14,544,439.61	2,049,781.27	40° 2' 28.628 N	109° 32' 14.764 W	
5,966.00	0.54	77.43	5,962.04	58.03	-56.89	14,544,438.12	2,049,782.20	40° 2' 28.613 N	109° 32' 14.752 W	
6,056.00	2.47	4.18	6,052.01	60.06	-56.33	14,544,440.16	2,049,782.72	40° 2' 28.633 N	109° 32' 14.745 W	
6,147.00	3.17	358.42	6,142.89	64.53	-56.26	14,544,444.63	2,049,782.72	40° 2' 28.677 N	109° 32' 14.744 W	
6,238.00	2.72	348.86	6,233.77	69.17	-56.74	14,544,449.25	2,049,782.16	40° 2' 28.723 N	109° 32' 14.750 W	
6,328.00	2.34	352.65	6,323.69	73.08	-57.39	14,544,453.16	2,049,781.45	40° 2' 28.762 N	109° 32' 14.759 W	
6,419.00	1.93	354.73	6,414.62	76.45	-57.77	14,544,456.52	2,049,781.02	40° 2' 28.795 N	109° 32' 14.764 W	
6,509.00	1.42	357.77	6,504.58	79.07	-57.95	14,544,459.14	2,049,780.79	40° 2' 28.821 N	109° 32' 14.766 W	
6,600.00	0.97	356.31	6,595.56	80.97	-58.04	14,544,461.04	2,049,780.67	40° 2' 28.840 N	109° 32' 14.767 W	
6,691.00	0.42	346.27	6,686.56	82.06	-58.17	14,544,462.13	2,049,780.52	40° 2' 28.850 N	109° 32' 14.769 W	
6,781.00	0.22	168.11	6,776.56	82.21	-58.22	14,544,462.28	2,049,780.47	40° 2' 28.852 N	109° 32' 14.769 W	
6,872.00	0.64	166.26	6,867.55	81.55	-58.06	14,544,461.61	2,049,780.64	40° 2' 28.845 N	109° 32' 14.767 W	
6,963.00	1.45	152.08	6,958.54	80.04	-57.40	14,544,460.11	2,049,781.33	40° 2' 28.830 N	109° 32' 14.759 W	
7,053.00	2.03	152.10	7,048.50	77.62	-56.12	14,544,457.72	2,049,782.64	40° 2' 28.806 N	109° 32' 14.742 W	
7,144.00	2.11	153.46	7,139.44	74.70	-54.62	14,544,454.82	2,049,784.20	40° 2' 28.778 N	109° 32' 14.723 W	
7,234.00	2.37	159.84	7,229.37	71.47	-53.24	14,544,451.62	2,049,785.63	40° 2' 28.746 N	109° 32' 14.705 W	
7,325.00	2.55	167.61	7,320.28	67.73	-52.15	14,544,447.89	2,049,786.77	40° 2' 28.709 N	109° 32' 14.691 W	
7,416.00	2.64	165.68	7,411.19	63.72	-51.20	14,544,443.90	2,049,787.79	40° 2' 28.669 N	109° 32' 14.679 W	
7,507.00	2.02	188.00	7,502.12	60.10	-50.91	14,544,440.29	2,049,788.15	40° 2' 28.633 N	109° 32' 14.675 W	
7,597.00	0.97	221.84	7,592.09	57.96	-51.63	14,544,438.14	2,049,787.45	40° 2' 28.612 N	109° 32' 14.685 W	
7,687.00	1.06	210.77	7,682.07	56.68	-52.57	14,544,436.84	2,049,786.54	40° 2' 28.599 N	109° 32' 14.697 W	
7,778.00	1.23	212.00	7,773.06	55.13	-53.52	14,544,435.27	2,049,785.62	40° 2' 28.584 N	109° 32' 14.709 W	
7,868.00	1.32	191.62	7,863.03	53.29	-54.24	14,544,433.43	2,049,784.93	40° 2' 28.566 N	109° 32' 14.718 W	
7,959.00	1.75	183.36	7,954.00	50.88	-54.53	14,544,431.01	2,049,784.67	40° 2' 28.542 N	109° 32' 14.722 W	
8,050.00	1.76	180.97	8,044.96	48.10	-54.64	14,544,428.22	2,049,784.62	40° 2' 28.515 N	109° 32' 14.723 W	
8,140.00	0.48	187.09	8,134.94	46.34	-54.71	14,544,426.46	2,049,784.57	40° 2' 28.497 N	109° 32' 14.724 W	
8,231.00	0.09	199.17	8,225.94	45.89	-54.78	14,544,426.02	2,049,784.51	40° 2' 28.493 N	109° 32' 14.725 W	
8,321.00	0.18	11.01	8,315.94	45.97	-54.77	14,544,426.09	2,049,784.51	40° 2' 28.494 N	109° 32' 14.725 W	
8,412.00	0.09	1.24	8,406.94	46.18	-54.74	14,544,426.30	2,049,784.54	40° 2' 28.496 N	109° 32' 14.725 W	
8,503.00	0.12	137.51	8,497.94	46.18	-54.68	14,544,426.30	2,049,784.60	40° 2' 28.496 N	109° 32' 14.724 W	
8,593.00	0.28	87.48	8,587.94	46.12	-54.39	14,544,426.25	2,049,784.89	40° 2' 28.495 N	109° 32' 14.720 W	
8,684.00	0.38	74.66	8,678.94	46.21	-53.88	14,544,426.35	2,049,785.40	40° 2' 28.496 N	109° 32' 14.714 W	
8,774.00	0.26	117.96	8,768.93	46.19	-53.41	14,544,426.34	2,049,785.87	40° 2' 28.496 N	109° 32' 14.708 W	
8,865.00	0.24	87.30	8,859.93	46.10	-53.04	14,544,426.26	2,049,786.24	40° 2' 28.495 N	109° 32' 14.703 W	
8,956.00	0.51	81.00	8,950.93	46.18	-52.45	14,544,426.34	2,049,786.83	40° 2' 28.496 N	109° 32' 14.695 W	
9,046.00	0.61	100.42	9,040.93	46.15	-51.58	14,544,426.33	2,049,787.70	40° 2' 28.495 N	109° 32' 14.684 W	
9,137.00	0.81	121.54	9,131.92	45.73	-50.56	14,544,425.92	2,049,788.73	40° 2' 28.491 N	109° 32' 14.671 W	
9,227.00	0.53	102.28	9,221.91	45.31	-49.61	14,544,425.52	2,049,789.69	40° 2' 28.487 N	109° 32' 14.659 W	
9,318.00	0.17	187.95	9,312.91	45.08	-49.22	14,544,425.30	2,049,790.08	40° 2' 28.485 N	109° 32' 14.654 W	
9,408.00	0.53	186.25	9,402.91	44.54	-49.28	14,544,424.75	2,049,790.03	40° 2' 28.479 N	109° 32' 14.655 W	
9,499.00	0.81	177.82	9,493.90	43.48	-49.30	14,544,423.69	2,049,790.02	40° 2' 28.469 N	109° 32' 14.655 W	
9,590.00	1.06	185.02	9,584.89	41.99	-49.35	14,544,422.21	2,049,790.00	40° 2' 28.454 N	109° 32' 14.655 W	
9,680.00	0.88	166.42	9,674.88	40.49	-49.26	14,544,420.71	2,049,790.11	40° 2' 28.439 N	109° 32' 14.654 W	
9,771.00	1.06	153.64	9,765.87	39.06	-48.72	14,544,419.29	2,049,790.67	40° 2' 28.425 N	109° 32' 14.647 W	
9,861.00	1.31	155.20	9,855.85	37.38	-47.92	14,544,417.62	2,049,791.50	40° 2' 28.409 N	109° 32' 14.637 W	
9,952.00	1.41	157.42	9,946.82	35.40	-47.06	14,544,415.66	2,049,792.40	40° 2' 28.389 N	109° 32' 14.626 W	
10,043.00	1.39	158.07	10,037.79	33.34	-46.21	14,544,413.61	2,049,793.28	40° 2' 28.369 N	109° 32' 14.615 W	
10,133.00	1.53	155.76	10,127.77	31.24	-45.31	14,544,411.52	2,049,794.21	40° 2' 28.348 N	109° 32' 14.604 W	
10,224.00	2.02	160.58	10,218.72	28.62	-44.28	14,544,408.92	2,049,795.29	40° 2' 28.322 N	109° 32' 14.590 W	
10,273.00	2.15	154.38	10,267.69	26.97	-43.60	14,544,407.28	2,049,796.00	40° 2' 28.306 N	109° 32' 14.581 W	
LAST SDI MWD PRODUCTION SURVEY										
10,332.00	2.15	154.38	10,326.65	24.98	-42.64	14,544,405.30	2,049,796.99	40° 2' 28.286 N	109° 32' 14.569 W	
SDI PROJECTION TO TD										

Company:	Kerr McGee Oil and Gas Onshore LP	Local Co-ordinate Reference:	Well NBU 921-15C4S
Project:	Uintah County, UT UTM12	TVD Reference:	GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
Site:	NBU 921-15C PAD	MD Reference:	GL 4972' & KB 14' @ 4806.00ft (ENSIGN 145)
Well:	NBU 921-15C4S	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
182.00	181.99	0.83	1.00	FIRST SDI MWD SURFACE SURVEY
2,899.00	2,895.71	87.46	-86.02	LAST SDI MWD SURFACE SURVEY

Checked By: _____ Approved By: _____ Date: _____