API Well Number: 43047523020000

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

FORM 3

AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER
NBU 1022-25E2AS

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

3. FIELD OR WILDCAT
NATURAL BUTTES

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

5. UNIT or COMMUNITIZATION AGREEMENT NAME
NATURAL BUTTES

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

7. OPERATOR PHONE
720 929-6515

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

9. OPERATOR E-MAIL
julie.jacobson@anadarko.com

10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)
ML 22447

11. MINERAL OWNERSHIP
FEDERAL ☐ INDIAN ☐ STATE ■ FEE ☐

12. SURFACE OWNERSHIP
FEDERAL ☐ INDIAN ☐ STATE ■ FEE ☐

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

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

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

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

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

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

19. SLANT
VERTICAL ☐ DIRECTIONAL ■ HORIZONTAL ☐

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	648 FNL 309 FWL	NWNW	25	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	1479 FNL 631 FWL	SWNW	25	10.0 S	22.0 E	S
At Total Depth	1479 FNL 631 FWL	SWNW	25	10.0 S	22.0 E	S

21. COUNTY
UINTAH

22. DISTANCE TO NEAREST LEASE LINE (Feet)
631

23. NUMBER OF ACRES IN DRILLING UNIT
640

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
2188

26. PROPOSED DEPTH
MD: 8326 TVD: 8191

27. ELEVATION - GROUND LEVEL
5481

28. BOND NUMBER
22013542

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

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	12.25	8.625	0 - 2130	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
Prod	7.875	4.5	0 - 8326	11.6	I-80 LT&C	12.5	Premium Lite High Strength	270	3.38	12.0
							50/50 Poz	1160	1.31	14.3

ATTACHMENTS

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

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

NAME Danielle Piernot | **TITLE** Regulatory Analyst | **PHONE** 720 929-6156

SIGNATURE | **DATE** 01/27/2012 | **EMAIL** danielle.piernot@anadarko.com

API NUMBER ASSIGNED
43047523020000

APPROVAL

Permit Manager

RECEIVED: April 04, 2012

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

NBU 1022-25E2AS

Surface:	648 FNL / 309 FWL	NWNW
BHL:	1479 FNL / 631 FWL	SWNW

Section 25 T10S R22E

Uintah County, Utah
Mineral Lease: UT ST ML 22447

ONSHORE ORDER NO. 1

DRILLING PROGRAM

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

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	969'	
Birds Nest	1,253'	Water
Mahogany	1,676'	Water
Wasatch	3,926'	Gas
Mesaverde	6,084'	Gas
TVD	8,191'	
TD	8,326'	

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

Please refer to the attached Drilling Program

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

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

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7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 8191' TVD, approximately equals 5,242 psi 0.64 psi/ft = actual bottomhole gradient

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

Maximum anticipated surface pressure equals approximately 3,429 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

8. Anticipated Starting Dates:

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

9. Variances:

Please refer to the 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.

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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 for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 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 8-5/8 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

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on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

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

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

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

10. Other Information:

Please refer to the attached Drilling Program.

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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	January 20, 2012
WELL NAME	**NBU 1022-25E2AS**	TD	8,191' TVD 8,326' MD
FIELD	Natural Buttes	COUNTY Uintah STATE Utah	FINISHED ELEVATION 5,479'
SURFACE LOCATION	NWNW 648 FNL 309 FWL Sec 25 T 10S R 22E		
	Latitude: 39.925337 Longitude: -109.395926		NAD 27
BTM HOLE LOCATION	SWNW 1479 FNL 631 FWL Sec 25 T 10S R 22E		
	Latitude: 39.923057 Longitude: -109.394776		NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde		
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.		

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
		200'	12-1/4	8-5/8", 28#, IJ-55, LTC	Air mist
		2,130' TVD	11'	8-5/8", 28#, IJ-55, LTC	Air mist
		TD	7-7/8"	4-1/2" 11.6# I-80 Ultra DQX/LTC csg	Water / Fresh Water Mud 8.3-12.5 ppg

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @ 969'

Top of Birds Nest @ 1,253'

Mahogany @ 1,676'

Preset f/ GL @ 2,130' TVD

Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Wasatch @ 3,926'

Mud logging program TBD

Cased hole logging program from TD - surf csg

Mverde @ 6,084' TVD

Max anticipated Mud required 12.5 ppg

TD @ 8,191' TVD 8,326' MD

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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	LTC	DQX TENSION
CONDUCTOR	14"	0-40'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,130	28.00	IJ-55	LTC	2.54	1.89	6.66	N/A
								7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.19		3.42
	4-1/2"	5,000	to	8,326'	11.60	I-80	LTC	1.11	1.19	7.14	

Surface Casing:

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

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

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

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

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

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	1,630'	65/35 Poz + 6% Gel + 10 pps gilsonite	150	35%	11.00		3.82
			+ 0.25 pps Flocele + 3% salt BWOW					
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
			+ 0.25 pps flocele					
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION	LEAD	3,426'	Premium Lite II +0.25 pps	270	35%	12.00		3.38
			celloflake + 5 pps gilsonite + 10% gel					
			+ 0.5% extender					
	TAIL	4,900'	50/50 Poz/G + 10% salt + 2% gel	1,160	35%	14.30		1.31
			+ 0.1% R-3					

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER: _____ **DATE:** _____

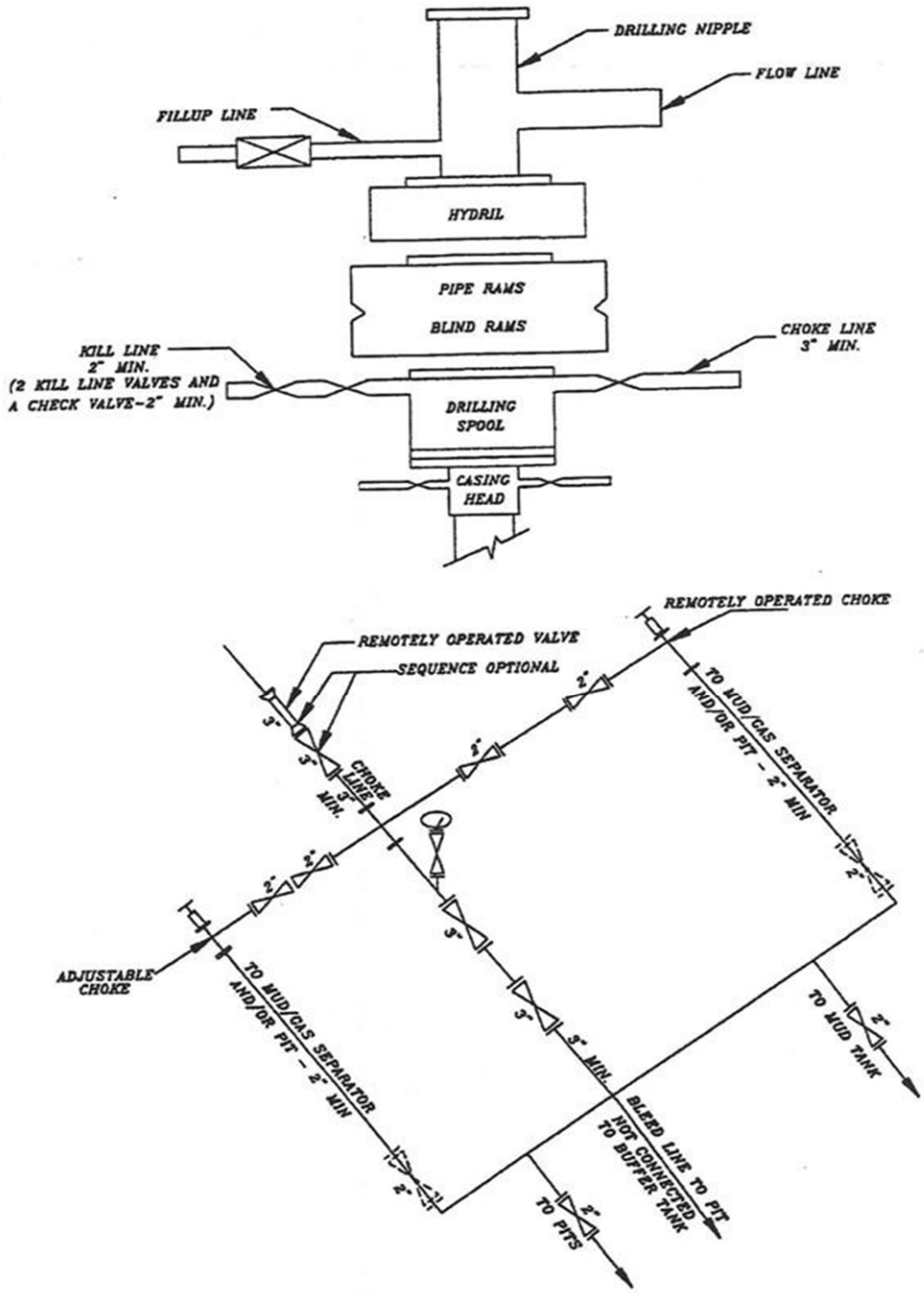
Nick Spence / Danny Showers / Chad Loesel

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

RECEIVED: January 26, 2012

EXHIBIT A
NBU 1022-25E2AS

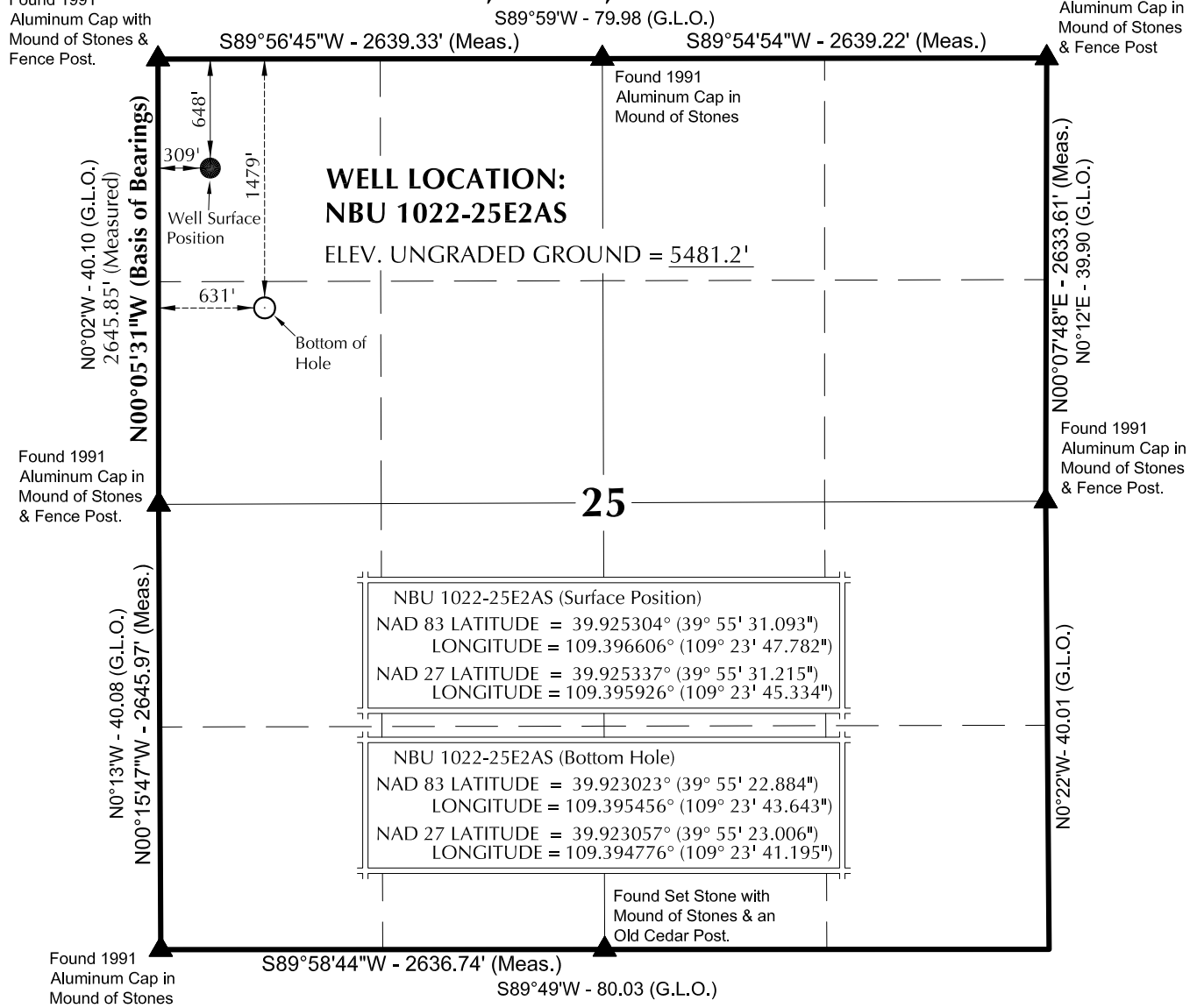


SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

RECEIVED: January 26, 2012

API Well Number: 43047523020000

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



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S21°15'39"E 891.28' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW $\frac{1}{4}$ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

N

1000' 500' 0' 1000'

SCALE

SURVEYOR'S CERTIFICATE

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

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

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH 2-25-11

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

WELL PAD: NBU 1022-25D

NBU 1022-25E2AS
WELL PLAT
1479' FNL, 631' FWL (Bottom Hole)
SW $\frac{1}{4}$ NW $\frac{1}{4}$ OF SECTION 25, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

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

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

DATE SURVEYED: 02-18-11	SURVEYED BY: M.S.B.	SHEET NO:
DATE DRAWN: 02-22-11	DRAWN BY: M.W.W.	1
SCALE: 1" = 1000'	Date Last Revised:	1 OF 20

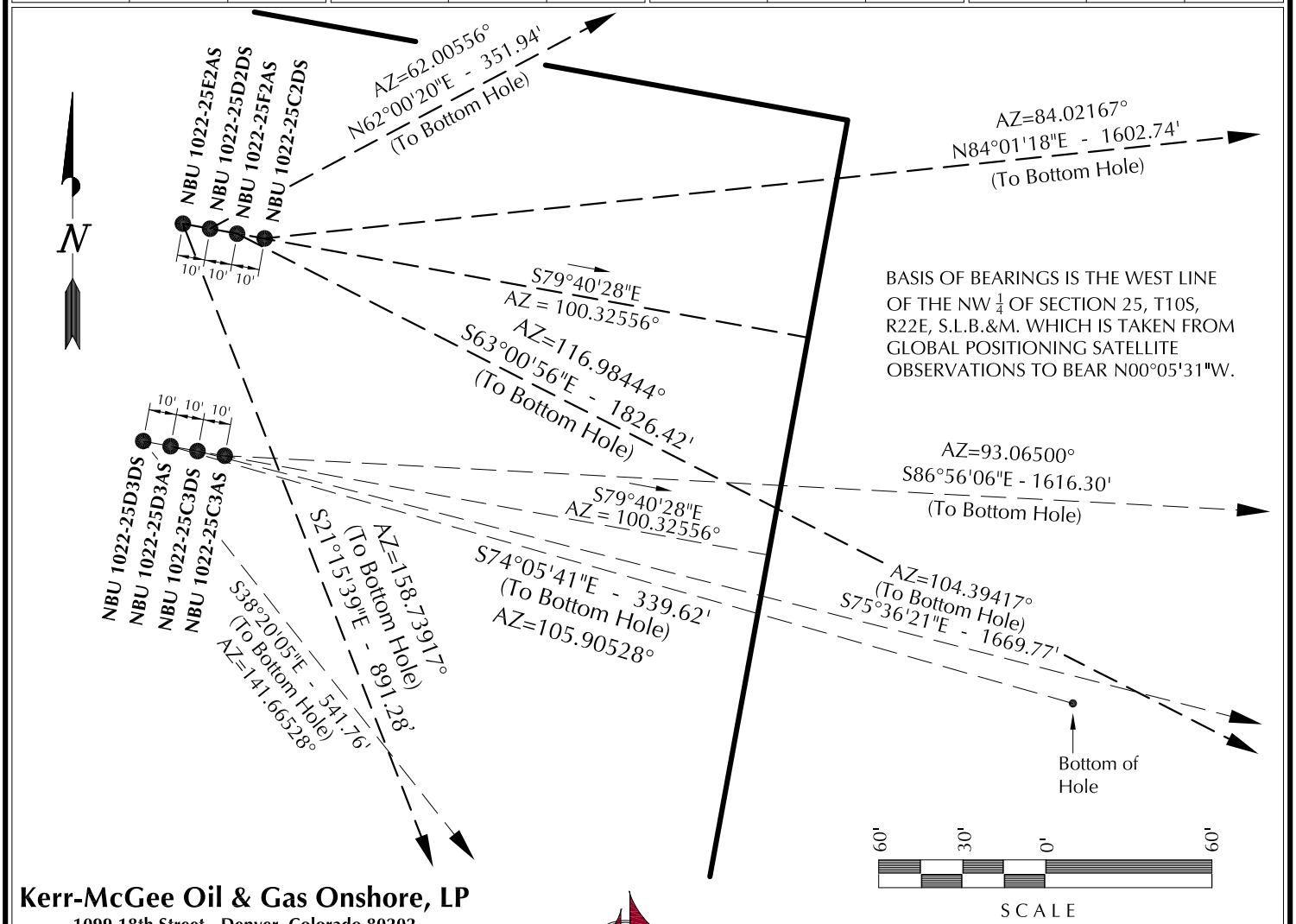
RECEIVED: January 26, 2012

API Well Number: 43047523020000

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 1022-25E2AS	39°55'31.093" 39.925304°	109°23'47.782" 109.396606°	39°55'31.215" 39.925337°	109°23'45.334" 109.395926°	648' FNL 309' FWL	39°55'22.884" 39.923023°	109°23'43.643" 109.395456°	39°55'23.006" 39.923057°	109°23'41.195" 109.394776°	1479' FNL 631' FWL
NBU 1022-25D2DS	39°55'31.075" 39.925299°	109°23'47.656" 109.396571°	39°55'31.197" 39.925332°	109°23'45.208" 109.395891°	650' FNL 319' FWL	39°55'32.705" 39.925751°	109°23'43.667" 109.395463°	39°55'32.827" 39.925785°	109°23'41.219" 109.394783°	485' FNL 630' FWL
NBU 1022-25F2AS	39°55'31.057" 39.925294°	109°23'47.531" 109.396536°	39°55'31.179" 39.925327°	109°23'45.082" 109.395856°	652' FNL 329' FWL	39°55'22.856" 39.923016°	109°23'26.653" 109.390737°	39°55'22.978" 39.923049°	109°23'24.206" 109.390057°	1482' FNL 1955' FWL
NBU 1022-25C2DS	39°55'31.040" 39.925289°	109°23'47.403" 109.396501°	39°55'31.162" 39.925323°	109°23'44.955" 109.395821°	653' FNL 339' FWL	39°55'32.677" 39.925744°	109°23'26.946" 109.390818°	39°55'32.799" 39.925777°	109°23'24.499" 109.390139°	488' FNL 1933' FWL
NBU 1022-25D3DS	39°55'30.316" 39.925088°	109°23'47.967" 109.396658°	39°55'30.438" 39.925122°	109°23'45.519" 109.395978°	727' FNL 295' FWL	39°55'26.115" 39.923921°	109°23'43.659" 109.395461°	39°55'26.237" 39.923955°	109°23'41.212" 109.394781°	1152' FNL 630' FWL
NBU 1022-25D3AS	39°55'30.297" 39.925083°	109°23'47.840" 109.396622°	39°55'30.419" 39.925116°	109°23'45.392" 109.395942°	729' FNL 305' FWL	39°55'29.375" 39.924826°	109°23'43.650" 109.395458°	39°55'29.497" 39.924860°	109°23'41.202" 109.394778°	822' FNL 631' FWL
NBU 1022-25C3DS	39°55'30.280" 39.925078°	109°23'47.715" 109.396587°	39°55'30.402" 39.925112°	109°23'45.267" 109.395907°	730' FNL 314' FWL	39°55'26.166" 39.923935°	109°23'26.965" 109.390824°	39°55'26.288" 39.923969°	109°23'24.518" 109.390144°	1147' FNL 1931' FWL
NBU 1022-25C3AS	39°55'30.263" 39.925073°	109°23'47.589" 109.396552°	39°55'30.385" 39.925107°	109°23'45.141" 109.395872°	732' FNL 324' FWL	39°55'29.397" 39.924832°	109°23'26.878" 109.390800°	39°55'29.519" 39.924866°	109°23'24.431" 109.390120°	820' FNL 1938' FWL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 1022-25E2AS	-830.6'	323.2'	NBU 1022-25D2DS	165.2'	310.8'	NBU 1022-25F2AS	-828.7'	1,627.6'	NBU 1022-25C2DS	166.9'	1,594.0'
WELL NAME	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**
NBU 1022-25D3DS	-425.0'	336.0'	NBU 1022-25D3AS	-93.1'	326.6'	NBU 1022-25C3DS	-415.1'	1,617.4'	NBU 1022-25C3AS	-86.4'	1,614.0'



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

WELL PAD - NBU 1022-25D

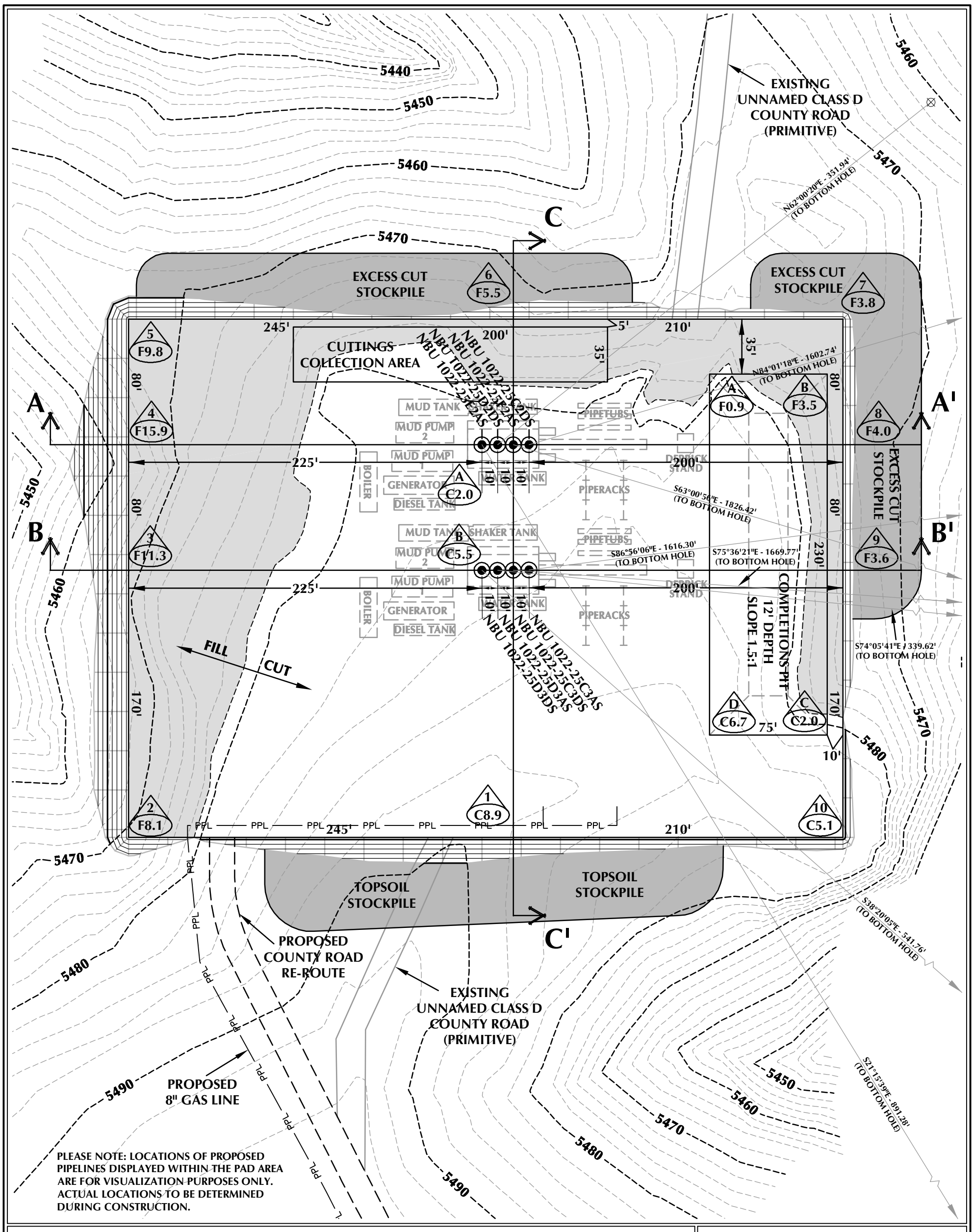
WELL PAD INTERFERENCE PLAT
WELLS - NBU 1022-25E2AS, NBU 1022-25D2DS, NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS, NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

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

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

DATE SURVEYED: 02-18-11	SURVEYED BY: M.S.B.	SHEET NO:
DATE DRAWN: 02-22-11	DRAWN BY: M.W.W.	9
SCALE: 1" = 60'	Date Last Revised:	9 OF 20

RECEIVED: January 26, 2012



WELL PAD - NBU 1022-25D DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5484.5'
FINISHED GRADE ELEVATION = 5479.0'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.87 ACRES
TOTAL DISTURBANCE AREA = 4.67 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

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

WELL PAD QUANTITIES
TOTAL CUT FOR WELL PAD = 14,767 C.Y.
TOTAL FILL FOR WELL PAD = 11,806 C.Y.
TOPSOIL @ 6" DEPTH = 3,123 C.Y.
EXCESS MATERIAL = 2,961 C.Y.

COMPLETIONS PIT QUANTITIES
TOTAL CUT FOR COMPLETIONS PIT
+/- 5,420 C.Y.
COMPLETIONS PIT CAPACITY (2' OF FREEBOARD)
+/- 20,250 BARRELS

CUTTINGS COLLECTION AREA QUANTITIES
TOTAL CUT FOR CUTTINGS COLLECTION AREA
+/- 745 C.Y.

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

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

WELL PAD - NBU 1022-25D

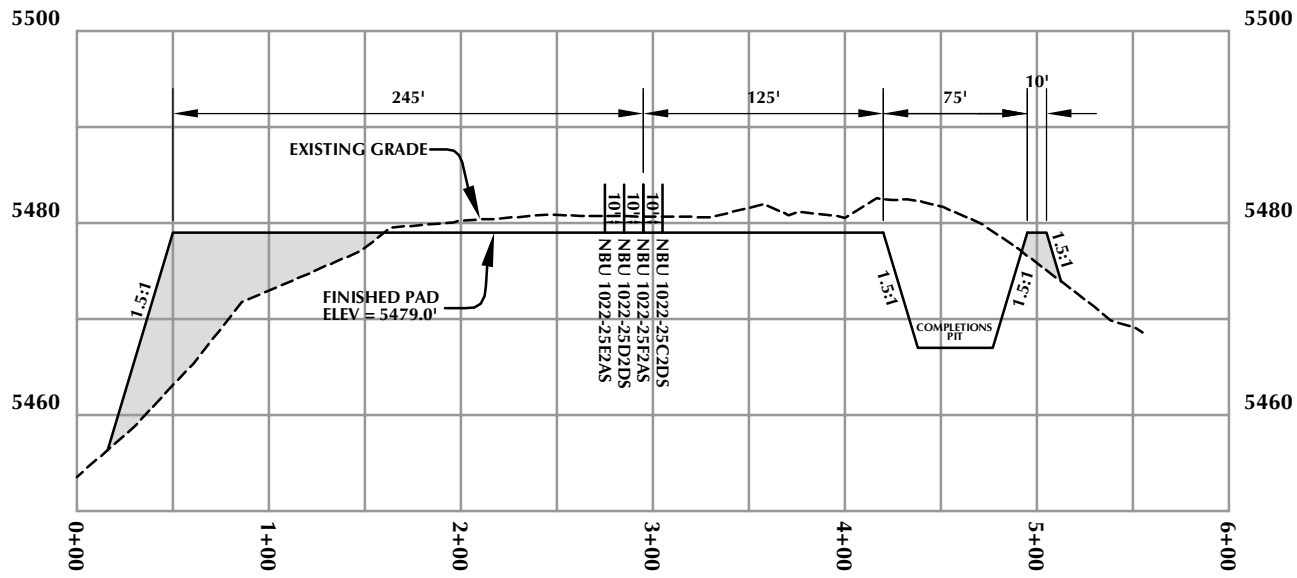
WELL PAD - LOCATION LAYOUT
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS,
NBU 1022-25D3DS, NBU 1022-25D3AS,
NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

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

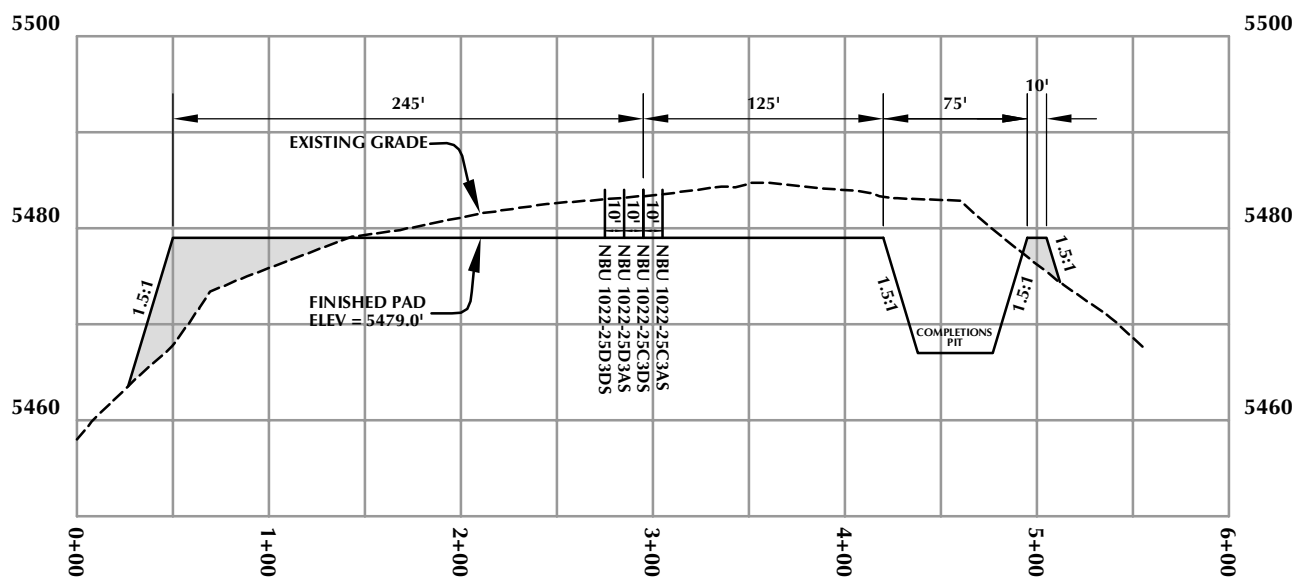
TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60'	DATE: 3/9/11	SHEET NO:
REVISED:	GRB 11/11/11	10 10 OF 20

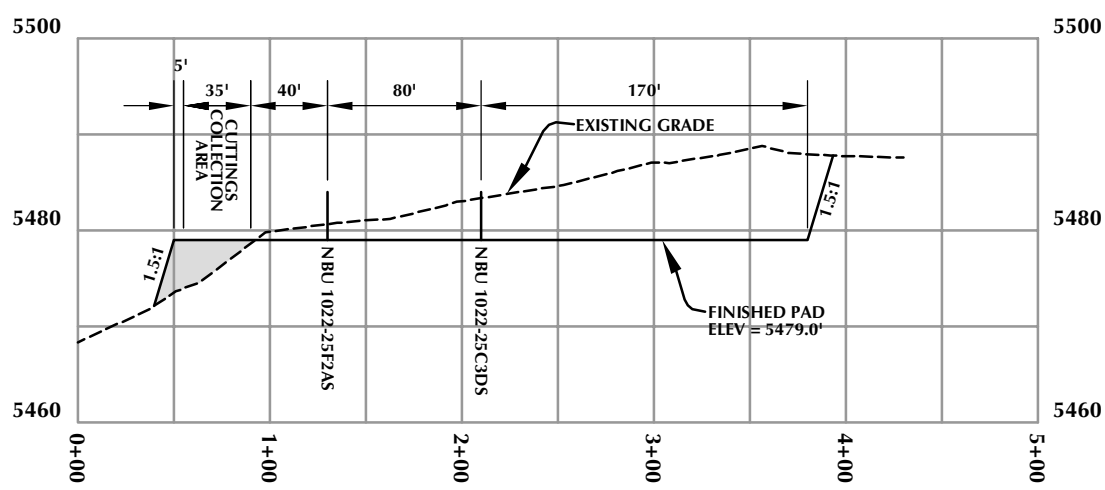
RECEIVED: January 26, 2012



CROSS SECTION A-A'



CROSS SECTION B-B'



CROSS SECTION C-C'

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

WELL PAD - NBU 1022-25D

WELL PAD - CROSS SECTIONS
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS,
NBU 1022-25D3DS, NBU 1022-25D3AS,
NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
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Sheridan, WY 82801
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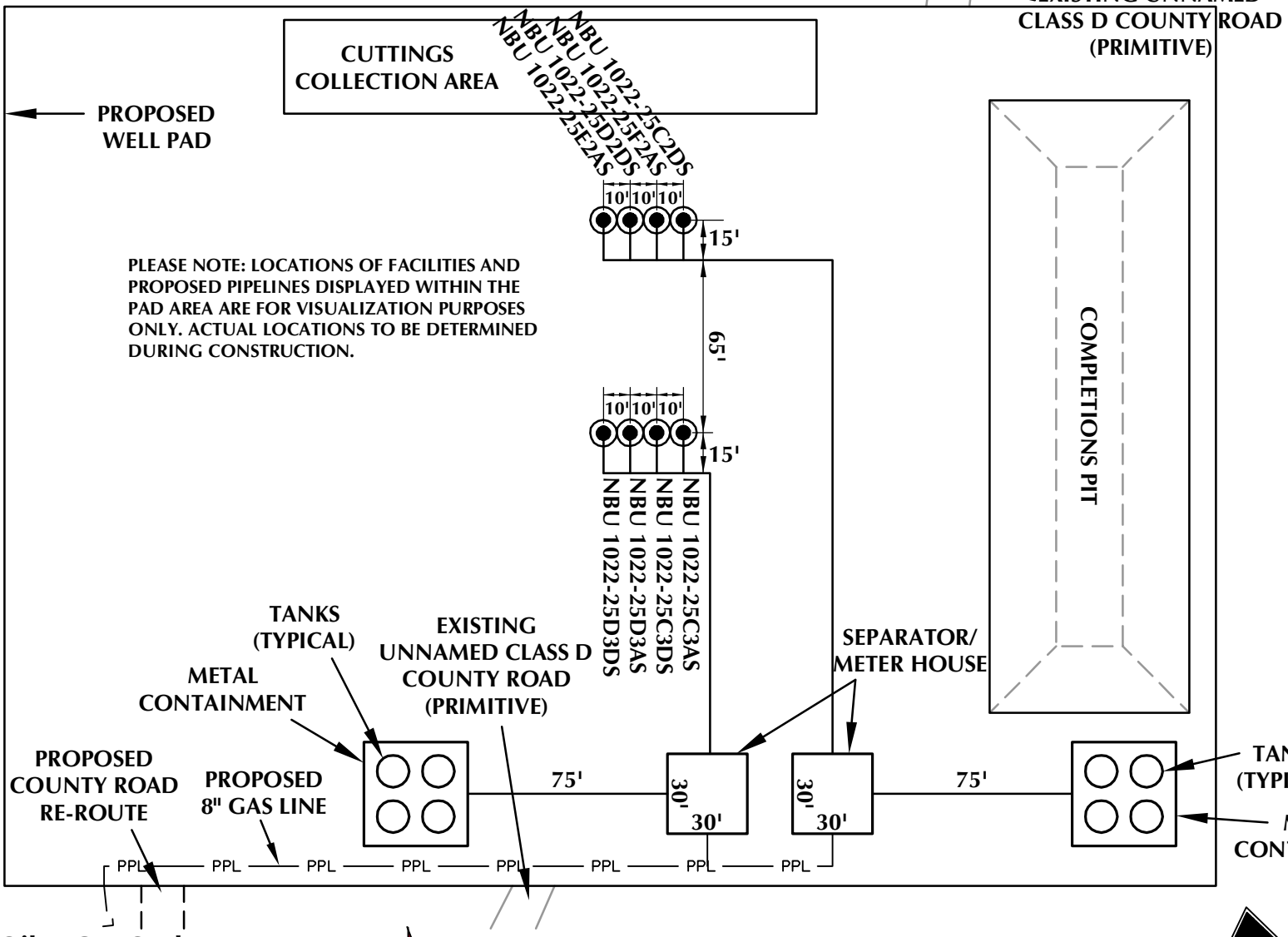
209 NORTH 300 WEST - VERNAL, UTAH 84078

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

Scale: 1"=100' | Date: 3/4/11 | SHEET NO:
REVISED: GRB 11/11/11 | 11 | 11 OF 20

K:\ANADARKO\2010\2010_58_NBU_1022-25D\DWG\NBU 1022-25D PAD\NBU_1022-25D_2-RIG_LAYOUT_20110217.dwg, 11/11/2013 3:24:38 PM, andy



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

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

WELL PAD - NBU 1022-25D

WELL PAD - FACILITIES DIAGRAM
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS,
NBU 1022-25D3DS, NBU 1022-25D3AS,
NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
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WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'

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

Scale: 1"=60'	Date: 3/9/11	SHEET NO:
REVISED:	GRB 11/11/11	12 12 OF 20

K:\ANADARKO\2010\2010_58_NBU_1022-25D\DWG\NBU_1022-25D PAD\NBU_1022-25D_2-RIG_LAYOUT_20110217.dwg, 11/11/2011 3:26:49 PM, andy

RECEIVED: January 26, 2012

API Well Number: 43047523020000

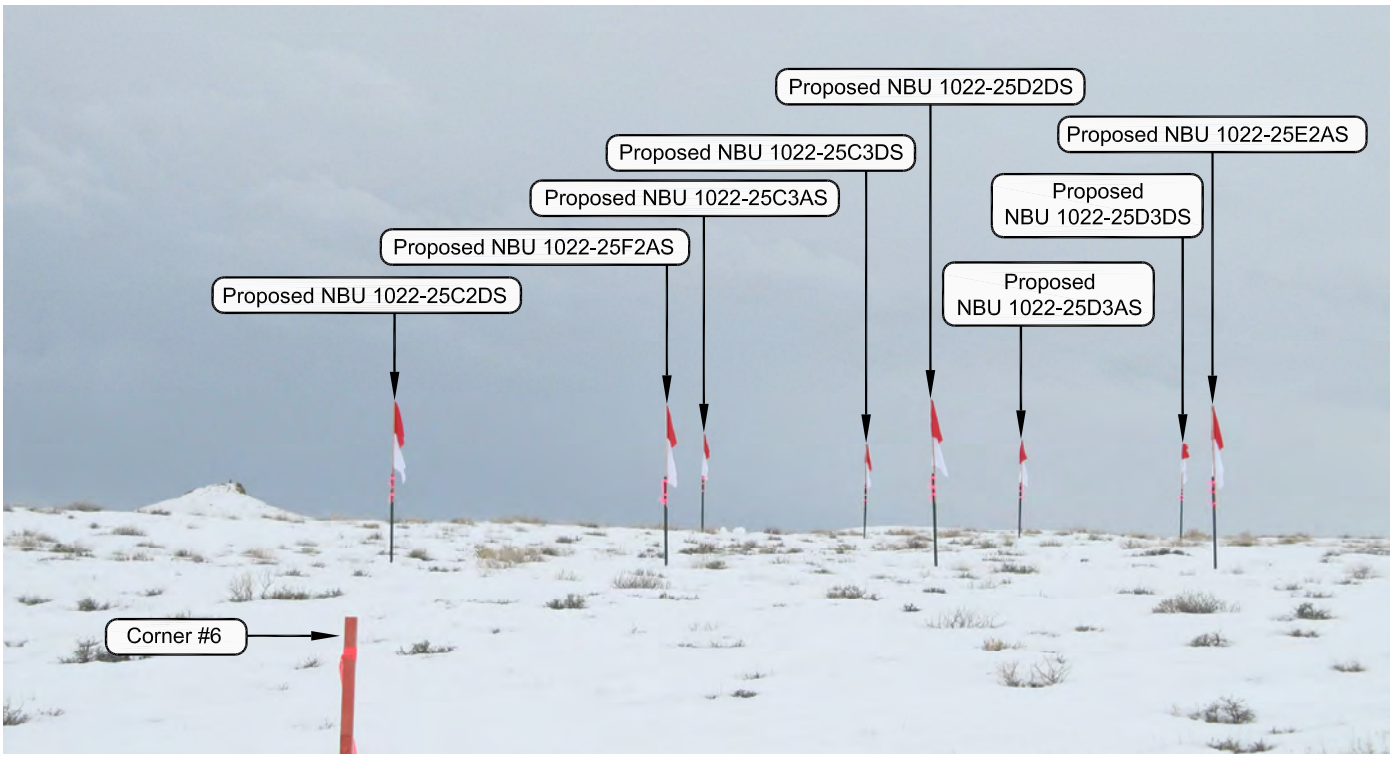

PHOTO VIEW: FROM CORNER #6 TO LOCATION STAKE **CAMERA ANGLE: SOUTHERLY**

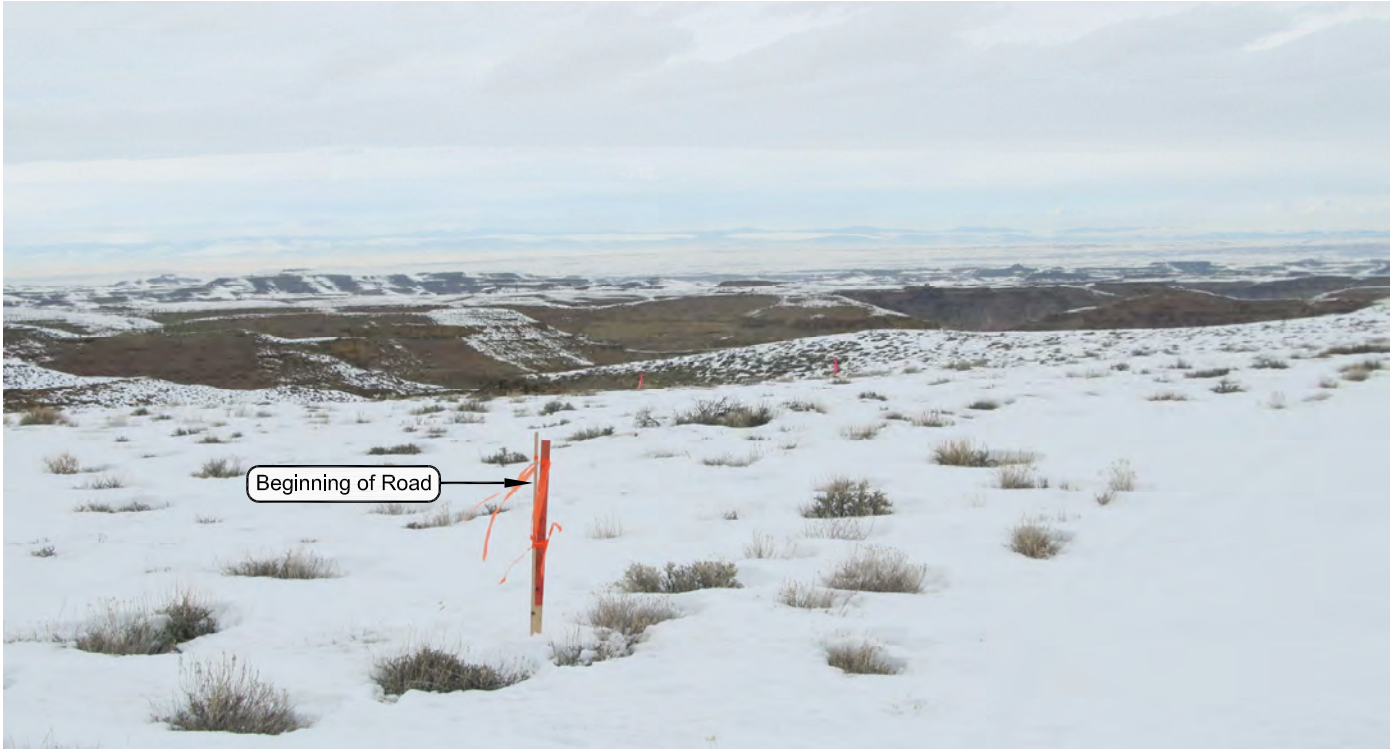

PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD **CAMERA ANGLE: NORTHWESTERLY**

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

WELL PAD - NBU 1022-25D

LOCATION PHOTOS
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS,
NBU 1022-25D3DS, NBU 1022-25D3AS,
NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
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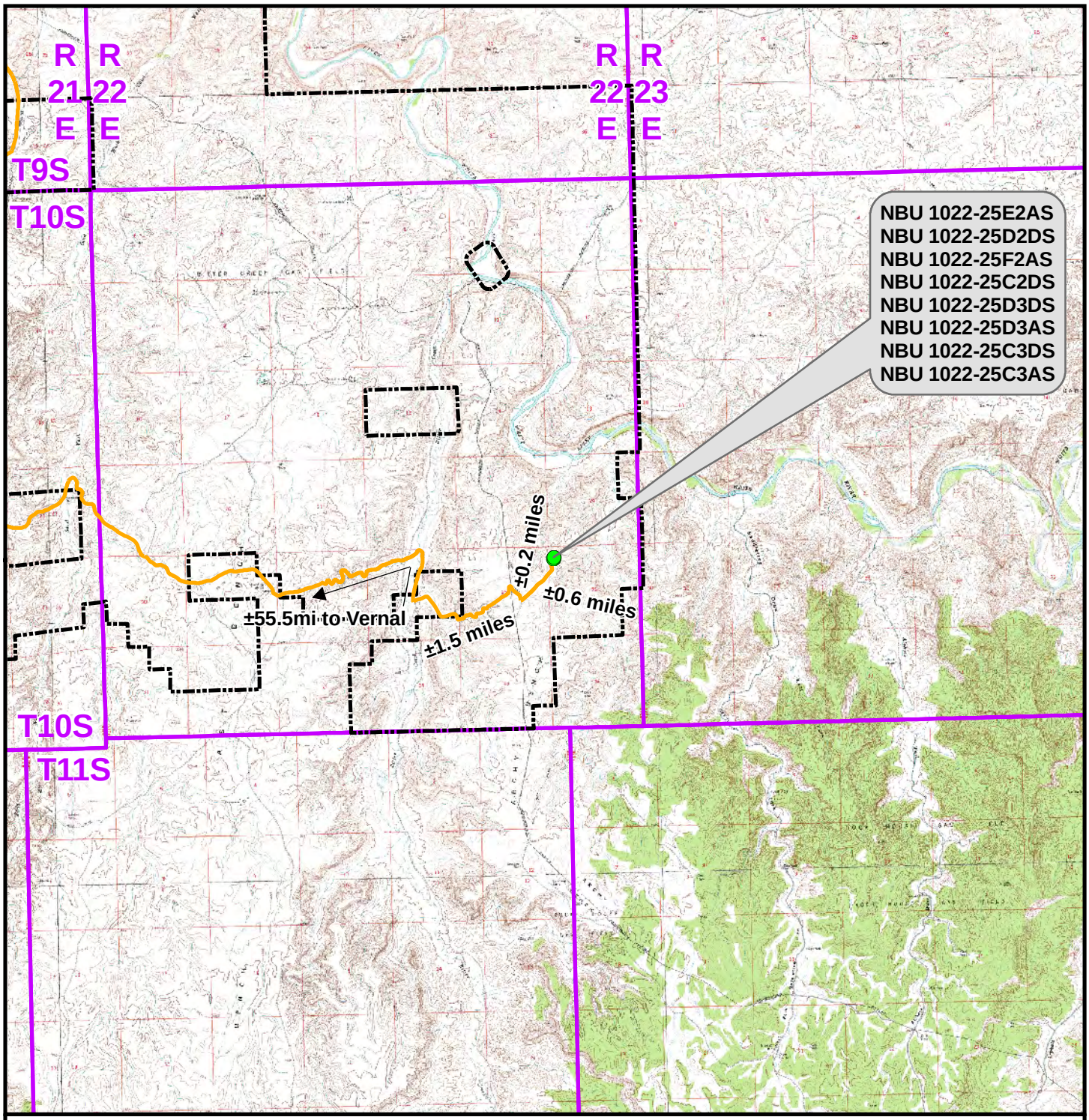
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 02-18-11	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
DATE DRAWN: 02-22-11	DRAWN BY: M.W.W.	13
Date Last Revised:		13 OF 20

RECEIVED: January 26, 2012



Legend

Distance From Well Pad - NBU 1022-25D To Unit Boundary: ±4,101ft

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

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

WELL PAD - NBU 1022-25D

TOPO A
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
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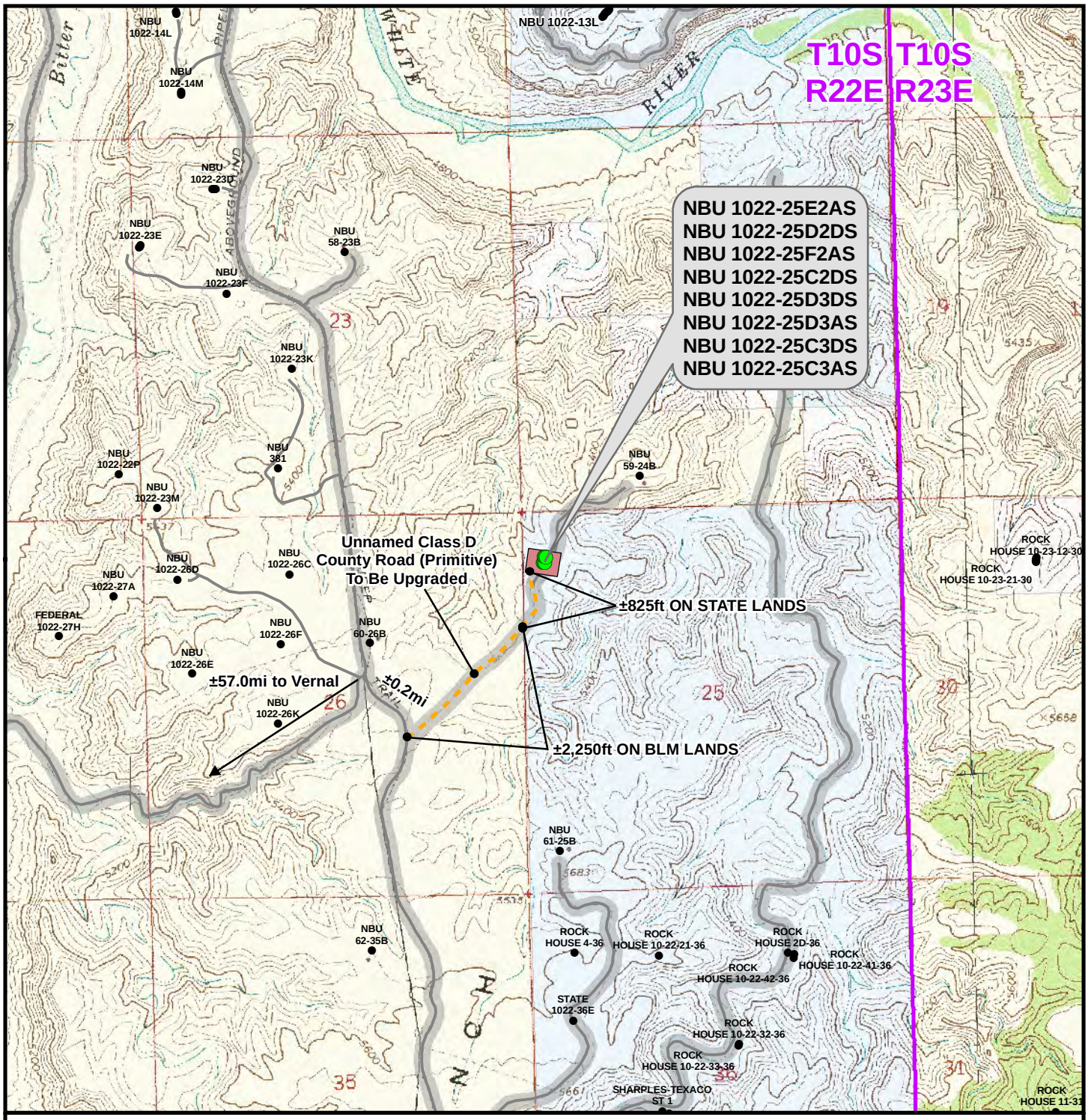
N

Scale: 1:100,000	NAD83 USP Central		Sheet No: 14
Drawn: CPS	Date: 4 Mar 2011		14 of 20
Revised:	Date:		

RECEIVED: January 26, 2012

API Well Number: 43047523020000



Legend

Total Proposed Road Length On State Lands: ±825ft

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

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

WELL PAD - NBU 1022-25D

TOPO B
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

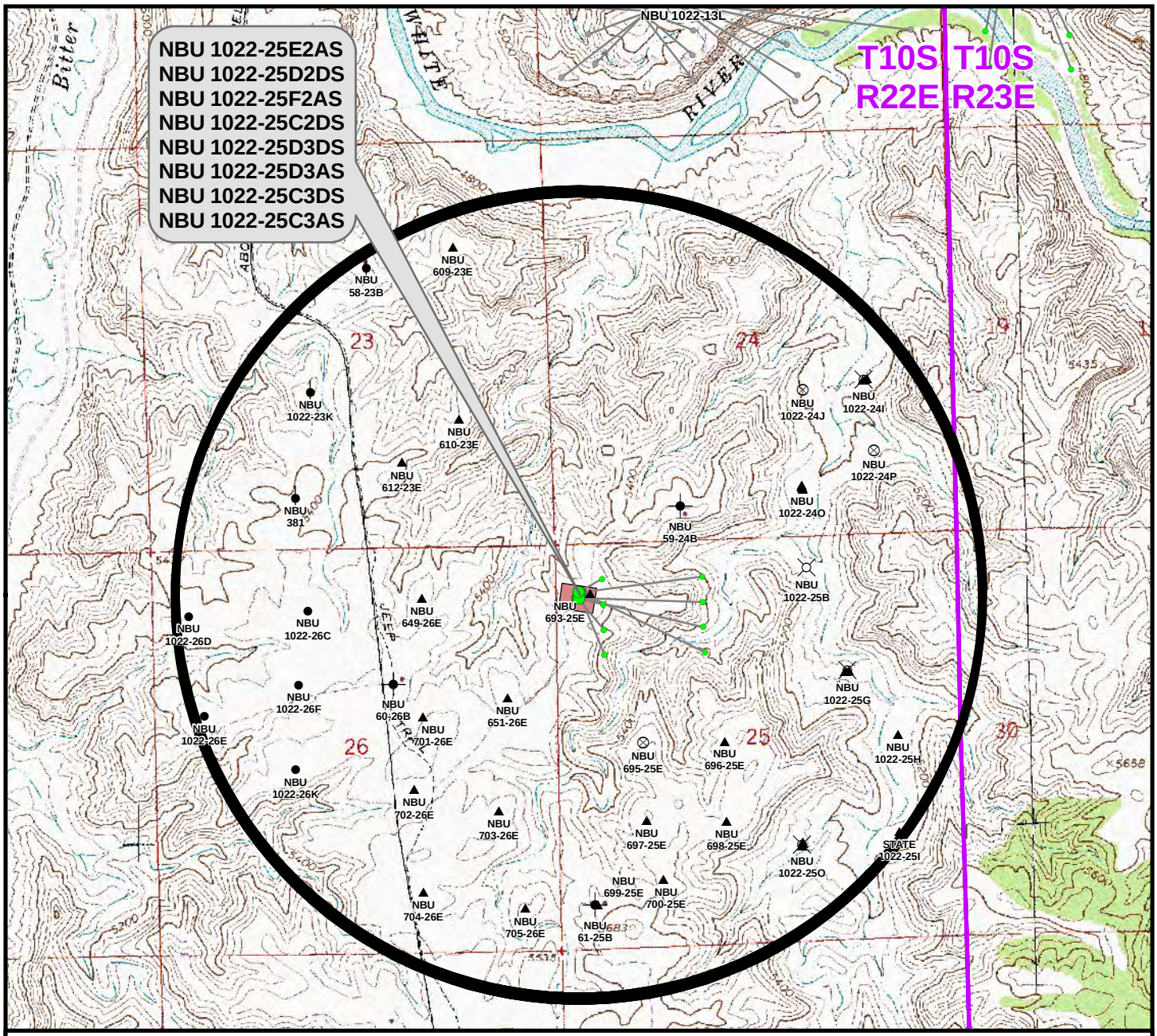
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 15
Drawn: CPS	Date: 9 Mar 2011	15 of 20
Revised:	Date:	

RECEIVED: January 26, 2012

API Well Number: 43047523020000



Proposed Well	Nearest Well Bore	Footage	Proposed Well	Nearest Well Bore	Footage
NBU 1022-25E2AS	NBU 59-24B	2,188ft	NBU 1022-25D3DS	NBU 59-24B	1,907ft
NBU 1022-25D2DS	NBU 59-24B	1,396ft	NBU 1022-25D3AS	NBU 59-24B	1,639ft
NBU 1022-25F2AS	NBU 59-24B	1,951ft	NBU 1022-25C3DS	NBU 59-24B	1,616ft
NBU 1022-25C2DS	NBU 59-24B	973ft	NBU 1022-25C3AS	NBU 59-24B	1,296ft

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

Legend

- Well - Proposed
- Well Path
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Pad
- Well - 1 Mile Radius
- Producing
- Active
- Spudded (Drilling commenced: Not yet completed)
- Approved permit (APD); not yet spudded
- New Permit (Not yet approved or drilled)
- Inactive
- Drilling Operations Suspended
- Temporarily-Abandoned
- Shut-In
- Plugged and Abandoned
- Location Abandoned
- Dry hole marker, buried
- Returned APD (Unapproved)

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

WELL PAD - NBU 1022-25D

TOPO C
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
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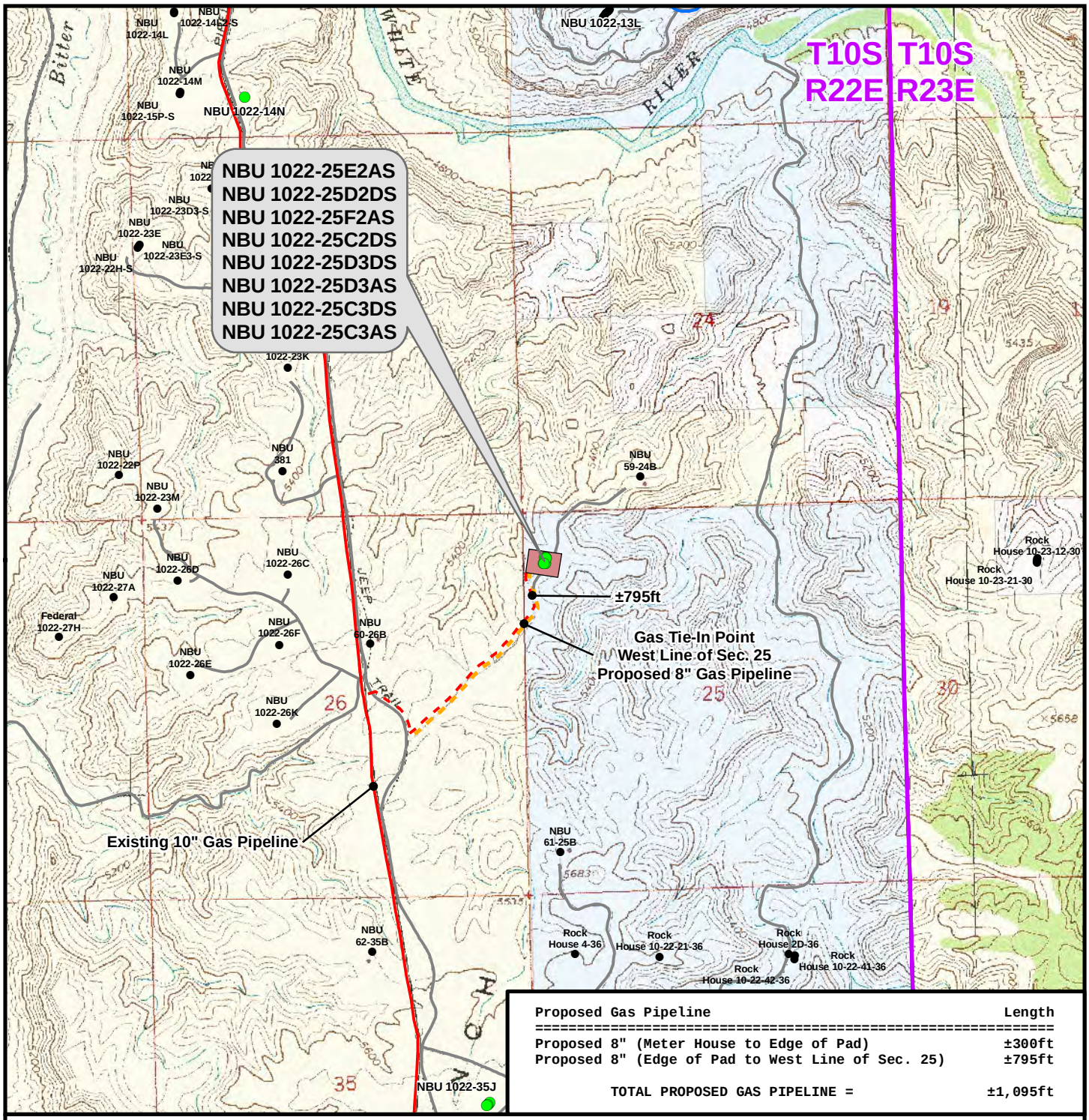
N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 16
Drawn: CPS	Date: 4 Mar 2011	16 of 20
Revised:	Date:	

RECEIVED: January 26, 2012

API Well Number: 43047523020000



Proposed Gas Pipeline	Length
Proposed 8" (Meter House to Edge of Pad)	±300ft
Proposed 8" (Edge of Pad to West Line of Sec. 25)	±795ft
TOTAL PROPOSED GAS PIPELINE =	±1,095ft

Legend

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

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

WELL PAD - NBU 1022-25D

TOPO D
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 17
Drawn: TL	Date: 9 Mar 2011	17 of 20
Revised: CPS	Date: 11 Nov 2011	

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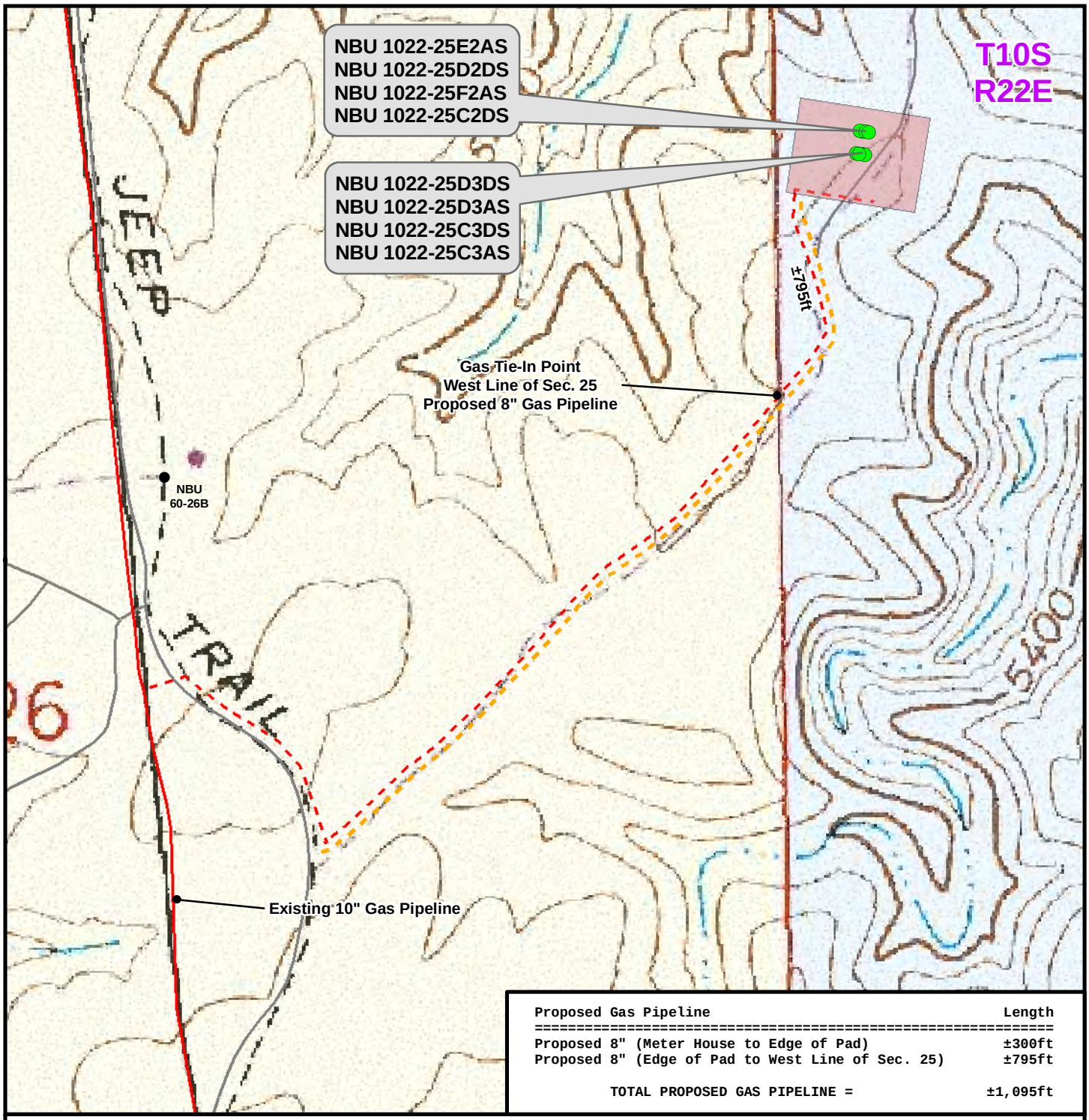
API Well Number: 43047523020000



Proposed Gas Pipeline	Length
Proposed 8" (Meter House to Edge of Pad)	±300ft
Proposed 8" (Edge of Pad to West Line of Sec. 25)	±795ft
TOTAL PROPOSED GAS PIPELINE =	±1,095ft

Legend

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

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

WELL PAD - NBU 1022-25D

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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2155 North Main Street
Sheridan, WY 82801
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Scale: 1" = 500ft	NAD83 USP Central	Sheet No: 18
Drawn: TL	Date: 9 Mar 2011	18 of 20
Revised: CPS	Date: 11 Nov 2011	

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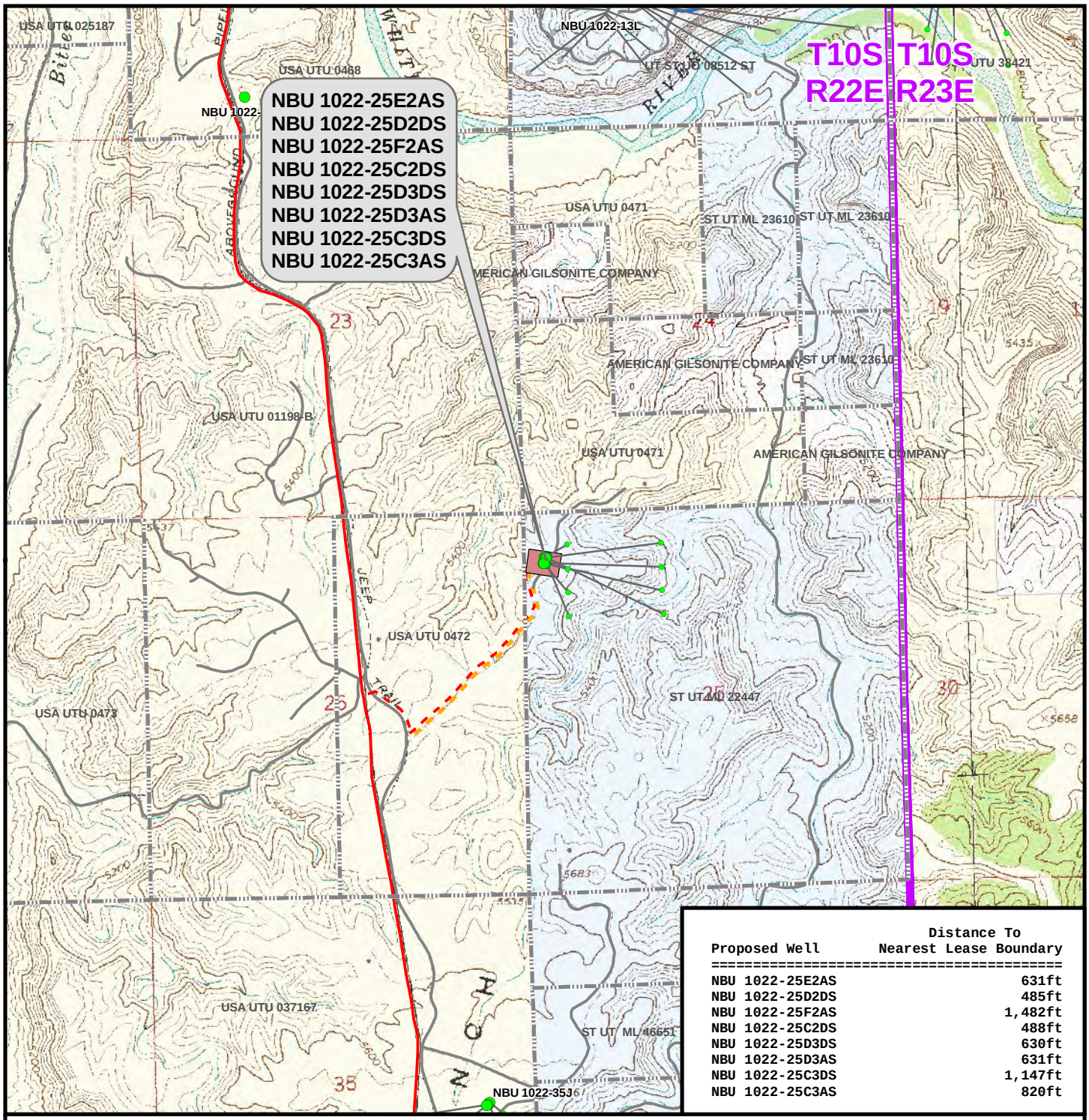
API Well Number: 43047523020000



Proposed Well	Distance To Nearest Lease Boundary
NBU 1022-25E2AS	631ft
NBU 1022-25D2DS	485ft
NBU 1022-25F2AS	1,482ft
NBU 1022-25C2DS	488ft
NBU 1022-25D3DS	630ft
NBU 1022-25D3AS	631ft
NBU 1022-25C3DS	1,147ft
NBU 1022-25C3AS	820ft

Legend

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

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

WELL PAD - NBU 1022-25D

TOPO E
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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Sheridan, WY 82801
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 19
Drawn: CPS	Date: 4 Mar 2011	19 of 20
Revised: CPS	Date: 11 Nov 2011	

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Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 1022-25D
WELLS – NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
Section 25, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 23.8 miles to the intersection of the Bitter Creek Road (County B Road 4120). Exit left and proceed in a southeasterly direction along the Bitter Creek Road approximately 8.2 miles to the junction of the Bitter Creek Cut Off Road (County B Road 4140). Exit left and proceed in an easterly direction along the Bitter Creek Cut Off Road approximately 1.5 miles to the junction of the Archy Bench Road (County B Road 4150). Exit right and proceed in a southeasterly direction along the Archy Bench Road approximately 0.2 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road to be upgraded approximately 3075 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 57.8 miles in a southerly direction.

RECEIVED: January 26, 2012

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
UINTAH_NBU 1022-25D PAD
NBU 1022-25E2AS

NBU 1022-25E2AS

Plan: NBU 1022-25E2AS (wp01)

Standard Planning Report

22 November, 2011

RECEIVED: January 26, 2012

API Well Number: 43047523020000

Project: UINTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 1022-25D PAD
Well: NBU 1022-25E2AS
Wellbore: NBU 1022-25E2AS
Section:
SHL:
Design: NBU 1022-25E2AS (wp01)
Latitude: 39.925337
Longitude: -109.395926
GL: 5481.00
KB: gl + rkb @ 5485.00ft

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1676.00	1721.61	MAHOGANY MARKER / GREEN RIVER
3926.00	4061.05	WASATCH / WASATCH
6084.00	6219.05	MESAVERDE / MESAVERDE

WELL DETAILS: NBU 1022-25E2AS

Ground Level: 5481.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	14502898.15	2090150.27	39.925337	-109.395926	

CASING DETAILS

TVD	MD	Name	Size
2126.00	2200.49	8-5/8"	8-5/8

T M

Azimuths to True North
Magnetic North: 10.96°

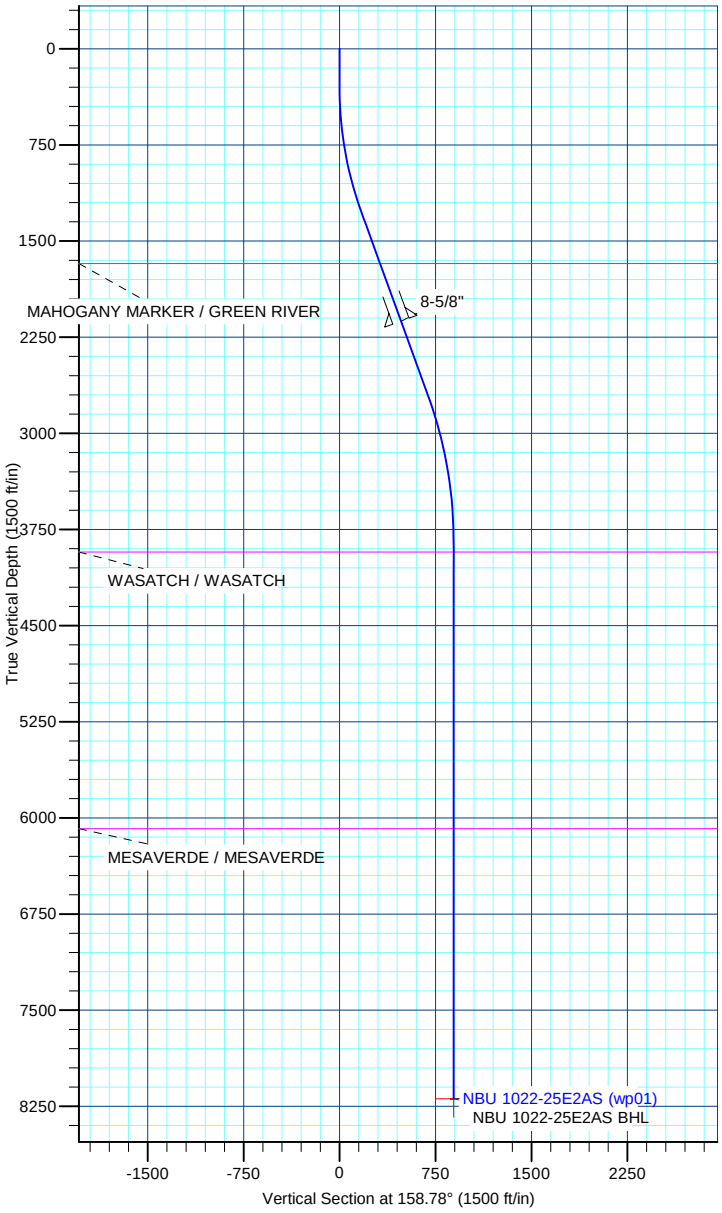
Magnetic Field
Strength: 52255.2snT
Dip Angle: 65.82°
Date: 11/22/2011
Model: IGRF2010

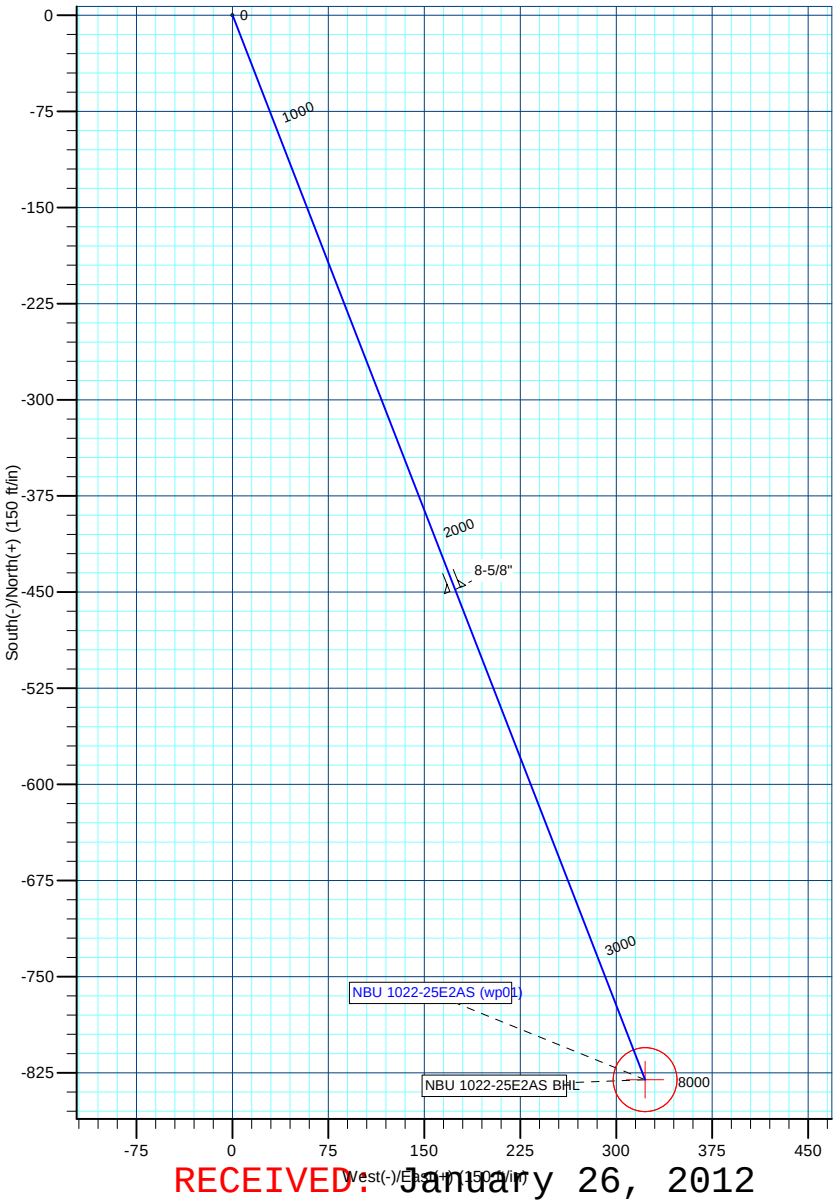
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
NBU 1022-25E2AS BHL	8191.00	-830.41	322.50	14502073.67	2090487.64	39.923057	-109.394776	Circle (Radius: 25.00)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00
1300.00	20.00	158.78	1279.82	-161.05	62.55	2.00	158.78	172.77
2822.18	20.00	158.78	2710.20	-646.35	251.02	0.00	0.00	693.38
3965.04	0.00	0.00	3829.99	-830.41	322.50	1.75	180.00	890.83
8326.05	0.00	0.00	8191.00	-830.41	322.50	0.00	0.00	890.83





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API Well Number: 43047523020000

Anadarko Petroleum Corp

Planning Report

Database:	edmp	**Local Co-ordinate Reference:**	Well NBU 1022-25E2AS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	gl + rkb @ 5485.00ft
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	gl + rkb @ 5485.00ft
Site:	UINTAH_NBU 1022-25D PAD	**North Reference:**	True
Well:	NBU 1022-25E2AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1022-25E2AS		
Design:	NBU 1022-25E2AS (wp01)		

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

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

Site UINTAH_NBU 1022-25D PAD

Site Position:		**Northing:**	14,502,894.87 usft	**Latitude:**	39.925327
From:	Lat/Long	**Easting:**	2,090,169.96 usft	**Longitude:**	-109.395856
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	1.03 °

Well NBU 1022-25E2AS

Well Position	**+N/-S**	3.64 ft	**Northing:**	14,502,898.15 usft	**Latitude:**	39.925337
	+E/-W	-19.63 ft	**Easting:**	2,090,150.26 usft	**Longitude:**	-109.395926
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	5,481.00 ft

Wellbore NBU 1022-25E2AS

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/22/2011	10.96	65.82	52,255

Design NBU 1022-25E2AS (wp01)

Audit Notes:

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

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	158.78

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	158.78	1,279.82	-161.05	62.55	2.00	2.00	0.00	158.78	
2,822.18	20.00	158.78	2,710.20	-646.35	251.02	0.00	0.00	0.00	0.00	
3,965.04	0.00	0.00	3,829.99	-830.41	322.50	1.75	-1.75	0.00	180.00	
8,326.05	0.00	0.00	8,191.00	-830.41	322.50	0.00	0.00	0.00	0.00	NBU 1022-25E2AS B

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Anadarko Petroleum Corp

Planning Report

Database:	edmp	**Local Co-ordinate Reference:**	Well NBU 1022-25E2AS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	gl + rkb @ 5485.00ft
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	gl + rkb @ 5485.00ft
Site:	UINTAH_NBU 1022-25D PAD	**North Reference:**	True
Well:	NBU 1022-25E2AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1022-25E2AS		
Design:	NBU 1022-25E2AS (wp01)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	158.78	399.98	-1.63	0.63	1.75	2.00	2.00	0.00
500.00	4.00	158.78	499.84	-6.51	2.53	6.98	2.00	2.00	0.00
600.00	6.00	158.78	599.45	-14.63	5.68	15.69	2.00	2.00	0.00
700.00	8.00	158.78	698.70	-25.99	10.09	27.88	2.00	2.00	0.00
800.00	10.00	158.78	797.47	-40.57	15.76	43.52	2.00	2.00	0.00
900.00	12.00	158.78	895.62	-58.36	22.66	62.60	2.00	2.00	0.00
1,000.00	14.00	158.78	993.06	-79.32	30.81	85.10	2.00	2.00	0.00
1,100.00	16.00	158.78	1,089.64	-103.45	40.18	110.98	2.00	2.00	0.00
1,200.00	18.00	158.78	1,185.27	-130.70	50.76	140.21	2.00	2.00	0.00
1,300.00	20.00	158.78	1,279.82	-161.05	62.55	172.77	2.00	2.00	0.00
1,400.00	20.00	158.78	1,373.78	-192.93	74.93	206.97	0.00	0.00	0.00
1,500.00	20.00	158.78	1,467.75	-224.81	87.31	241.17	0.00	0.00	0.00
1,600.00	20.00	158.78	1,561.72	-256.69	99.69	275.37	0.00	0.00	0.00
1,700.00	20.00	158.78	1,655.69	-288.58	112.07	309.58	0.00	0.00	0.00
1,721.61	20.00	158.78	1,676.00	-295.47	114.75	316.97	0.00	0.00	0.00
MAHOGANY MARKER / GREEN RIVER									
1,800.00	20.00	158.78	1,749.66	-320.46	124.46	343.78	0.00	0.00	0.00
1,900.00	20.00	158.78	1,843.63	-352.34	136.84	377.98	0.00	0.00	0.00
2,000.00	20.00	158.78	1,937.60	-384.22	149.22	412.18	0.00	0.00	0.00
2,100.00	20.00	158.78	2,031.57	-416.11	161.60	446.38	0.00	0.00	0.00
2,200.00	20.00	158.78	2,125.54	-447.99	173.98	480.59	0.00	0.00	0.00
2,200.49	20.00	158.78	2,126.00	-448.14	174.04	480.75	0.00	0.00	0.00
8-5/8"									
2,300.00	20.00	158.78	2,219.51	-479.87	186.37	514.79	0.00	0.00	0.00
2,400.00	20.00	158.78	2,313.48	-511.75	198.75	548.99	0.00	0.00	0.00
2,500.00	20.00	158.78	2,407.45	-543.63	211.13	583.19	0.00	0.00	0.00
2,600.00	20.00	158.78	2,501.42	-575.52	223.51	617.39	0.00	0.00	0.00
2,700.00	20.00	158.78	2,595.39	-607.40	235.89	651.60	0.00	0.00	0.00
2,800.00	20.00	158.78	2,689.35	-639.28	248.27	685.80	0.00	0.00	0.00
2,822.18	20.00	158.78	2,710.20	-646.35	251.02	693.38	0.00	0.00	0.00
2,900.00	18.64	158.78	2,783.63	-670.35	260.34	719.13	1.75	-1.75	0.00
3,000.00	16.89	158.78	2,878.86	-698.79	271.39	749.64	1.75	-1.75	0.00
3,100.00	15.14	158.78	2,974.98	-724.50	281.37	777.22	1.75	-1.75	0.00
3,200.00	13.39	158.78	3,071.89	-747.47	290.29	801.86	1.75	-1.75	0.00
3,300.00	11.64	158.78	3,169.51	-767.66	298.13	823.52	1.75	-1.75	0.00
3,400.00	9.89	158.78	3,267.75	-785.07	304.89	842.20	1.75	-1.75	0.00
3,500.00	8.14	158.78	3,366.51	-799.67	310.57	857.86	1.75	-1.75	0.00
3,600.00	6.39	158.78	3,465.70	-811.46	315.14	870.50	1.75	-1.75	0.00
3,700.00	4.64	158.78	3,565.24	-820.41	318.62	880.11	1.75	-1.75	0.00
3,800.00	2.89	158.78	3,665.02	-826.53	321.00	886.67	1.75	-1.75	0.00
3,900.00	1.14	158.78	3,764.95	-829.80	322.27	890.19	1.75	-1.75	0.00
3,965.04	0.00	0.00	3,829.99	-830.41	322.50	890.83	1.75	-1.75	0.00
4,000.00	0.00	0.00	3,864.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,061.05	0.00	0.00	3,926.00	-830.41	322.50	890.83	0.00	0.00	0.00
WASATCH / WASATCH									
4,100.00	0.00	0.00	3,964.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,200.00	0.00	0.00	4,064.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,300.00	0.00	0.00	4,164.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,400.00	0.00	0.00	4,264.95	-830.41	322.50	890.83	0.00	0.00	0.00

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Anadarko Petroleum Corp

Planning Report

Database:	edmp	**Local Co-ordinate Reference:**	Well NBU 1022-25E2AS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	gl + rkb @ 5485.00ft
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	gl + rkb @ 5485.00ft
Site:	UINTAH_NBU 1022-25D PAD	**North Reference:**	True
Well:	NBU 1022-25E2AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1022-25E2AS		
Design:	NBU 1022-25E2AS (wp01)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	0.00	0.00	4,364.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,600.00	0.00	0.00	4,464.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,700.00	0.00	0.00	4,564.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,800.00	0.00	0.00	4,664.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,900.00	0.00	0.00	4,764.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,000.00	0.00	0.00	4,864.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,100.00	0.00	0.00	4,964.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,200.00	0.00	0.00	5,064.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,300.00	0.00	0.00	5,164.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,400.00	0.00	0.00	5,264.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,500.00	0.00	0.00	5,364.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,600.00	0.00	0.00	5,464.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,700.00	0.00	0.00	5,564.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,800.00	0.00	0.00	5,664.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,900.00	0.00	0.00	5,764.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,000.00	0.00	0.00	5,864.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,100.00	0.00	0.00	5,964.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,200.00	0.00	0.00	6,064.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,219.05	0.00	0.00	6,084.00	-830.41	322.50	890.83	0.00	0.00	0.00
MESAVERDE / MESAVERDE									
6,300.00	0.00	0.00	6,164.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,400.00	0.00	0.00	6,264.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,500.00	0.00	0.00	6,364.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,600.00	0.00	0.00	6,464.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,700.00	0.00	0.00	6,564.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,800.00	0.00	0.00	6,664.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,900.00	0.00	0.00	6,764.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,000.00	0.00	0.00	6,864.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,100.00	0.00	0.00	6,964.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,200.00	0.00	0.00	7,064.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,300.00	0.00	0.00	7,164.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,400.00	0.00	0.00	7,264.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,500.00	0.00	0.00	7,364.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,600.00	0.00	0.00	7,464.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,700.00	0.00	0.00	7,564.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,800.00	0.00	0.00	7,664.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,900.00	0.00	0.00	7,764.95	-830.41	322.50	890.83	0.00	0.00	0.00
8,000.00	0.00	0.00	7,864.95	-830.41	322.50	890.83	0.00	0.00	0.00
8,100.00	0.00	0.00	7,964.95	-830.41	322.50	890.83	0.00	0.00	0.00
8,200.00	0.00	0.00	8,064.95	-830.41	322.50	890.83	0.00	0.00	0.00
8,300.00	0.00	0.00	8,164.95	-830.41	322.50	890.83	0.00	0.00	0.00
8,326.05	0.00	0.00	8,191.00	-830.41	322.50	890.83	0.00	0.00	0.00
NBU 1022-25E2AS BHL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NBU 1022-25E2AS BHL - plan hits target center - Circle (radius 25.00)	0.00	0.00	8,191.00	-830.41	322.50	14,502,073.68	2,090,487.64	39.923057	-109.394776

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Anadarko Petroleum Corp

Planning Report

Database:	edmp	**Local Co-ordinate Reference:**	Well NBU 1022-25E2AS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	gl + rkb @ 5485.00ft
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	gl + rkb @ 5485.00ft
Site:	UINTAH_NBU 1022-25D PAD	**North Reference:**	True
Well:	NBU 1022-25E2AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1022-25E2AS		
Design:	NBU 1022-25E2AS (wp01)		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,200.49	2,126.00	8-5/8"	8-5/8	11

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,721.61	1,676.00	MAHOGANY MARKER / GREEN RIVEF			
4,061.05	3,926.00	WASATCH / WASATCH			
6,219.05	6,084.00	MESAVERDE / MESAVERDE			

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NBU 1022-25C2DS

Surface:	653 FNL / 339 FWL	NWNW	Lot
BHL:	488 FNL / 1933 FWL	NENW	Lot

NBU 1022-25C3AS

Surface:	732 FNL / 324 FWL	NWNW	Lot
BHL:	820 FNL / 1938 FWL	NENW	Lot

NBU 1022-25C3DS

Surface:	730 FNL / 314 FWL	NWNW	Lot
BHL:	1147 FNL / 1931 FWL	NENW	Lot

NBU 1022-25D2DS

Surface:	650 FNL / 319 FWL	NWNW	Lot
BHL:	485 FNL / 630 FWL	NWNW	Lot

NBU 1022-25D3AS

Surface:	729 FNL / 305 FWL	NWNW	Lot
BHL:	822 FNL / 631 FWL	NWNW	Lot

NBU 1022-25D3DS

Surface:	727 FNL / 295 FWL	NWNW	Lot
BHL:	1152 FNL / 630 FWL	NWNW	Lot

NBU 1022-25E2AS

Surface:	648 FNL / 309 FWL	NWNW	Lot
BHL:	1479 FNL / 631 FWL	SWNW	Lot

NBU 1022-25F2AS

Surface:	652 FNL / 329 FWL	NWNW	Lot
BHL:	1482 FNL / 1955 FWL	SENW	Lot

Pad: NBU 1022-25D PAD

Section 25 T10S R22E

Mineral Lease: UT ST ML 22447

Uintah County, Utah

Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

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See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

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

A. Existing Roads:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

One new access road is proposed (see Topo Map B). The ±825 ft route will be an upgrade to an unnamed Class D County Road. Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

New roads will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

The NBU 1022-25D pad is a newly proposed wellpad with no existing wells.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

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Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is ±1,095' and the individual segments are broken up as follows:

±300' (0.05 miles) –New 8" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
±795' (0.1 miles) –New 8" buried gas pipeline from the edge of pad to the West Line of Section 25 at the Gas Tie-In Point. Please refer to Topo D2 - Pad and Pipeline Detail.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. <u>Location and Type of Water Supply</u>:

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

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

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

No water well is to be drilled on this lease.

E. <u>Source of Construction Materials</u>:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

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F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E
Ouray #1 SWD in Sec. 1 T9S R21E
NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 33 T9S R21E
NBU 921-34L SWD in Sec. 34 T9S R21E

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Unless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum

trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

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For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs “Reporting Oil and Gas Undesirable Events” rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term “hazardous materials” as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. <u>Ancillary Facilities</u>:

None are anticipated.

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H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/ egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left “rough” after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/ completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

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After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

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

L. Other Information:

None

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

Jaime Scharnowske
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6304

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

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

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

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

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Jaime Scharnowske

Jaime Scharnowske

January 23, 2012

Date

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

BRETT TORINAI
TELEPHONE: (720) 929-6081
EMAIL: BRETT.TORINA@ANADARKO.COM

January 24, 2012

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

Re: Directional Drilling R649-3-11
NBU 1022-25E2AS
T10S R22E
Section 25: NWNW (Surface) /SWNW (Bottom Hole)
Surface: 648' FNL, 309' FWL
Bottom Hole: 1479' FNL, 631' FWL
Uintah County, Utah

Dear Mrs. 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 Directional Drilling of Wells.

- Kerr-McGee's NBU 1022-25E2AS 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,

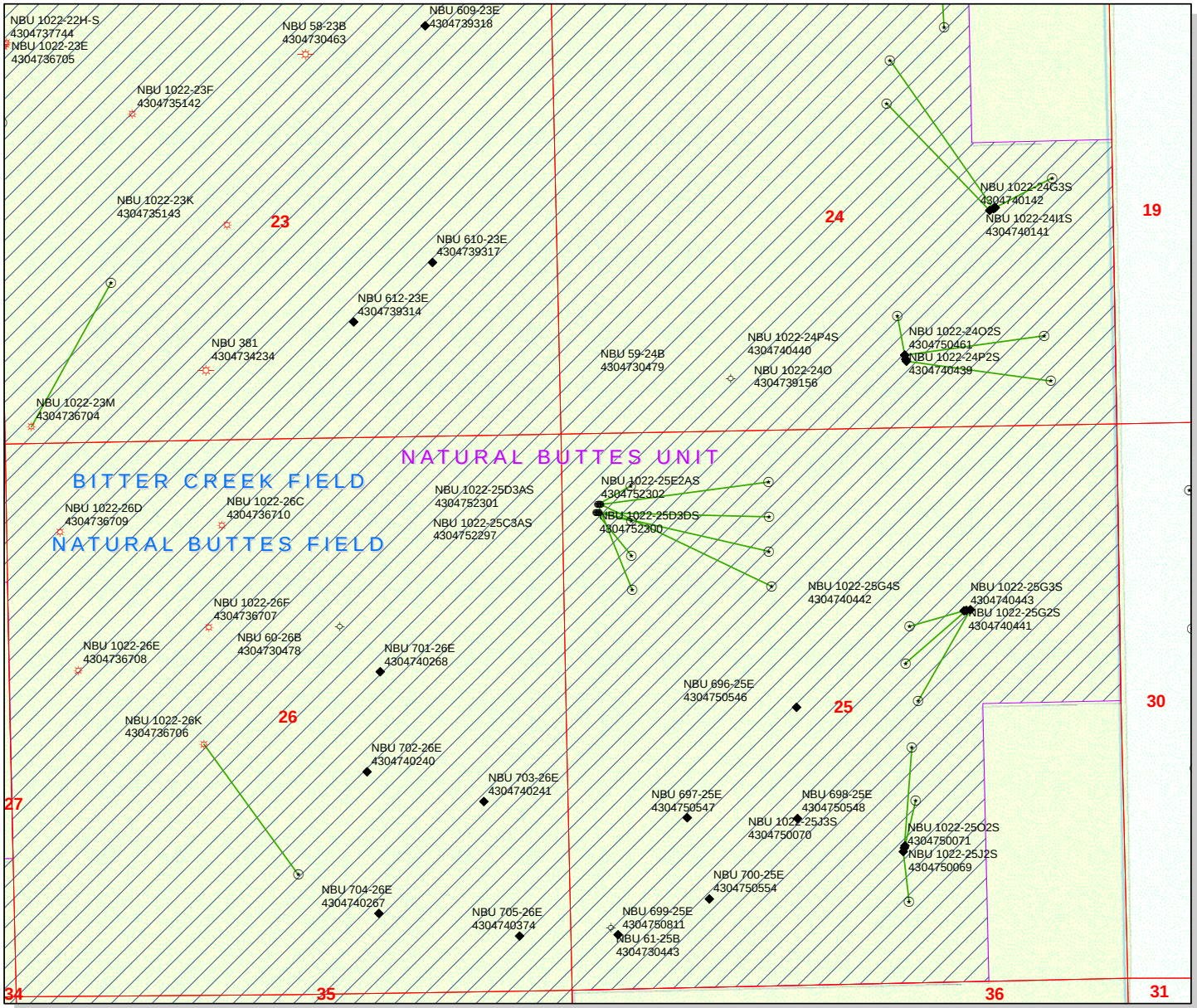
KERR-MCGEE OIL & GAS ONSHORE LP

Brett Torina

Brett Torina
Landman

RECEIVED: January 26, 2012

API Well Number: 43047523020000



API Number: 4304752302

Well Name: NBU 1022-25E2AS

Township T1.0 . Range R2.2 . Section 25

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields
STATUS
- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED

Wells Query
Status
- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LA - Location Abandoned
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- RET - Returned APD
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

1,200 600 0 1,200 Feet

1:11,754

RECEIVED: February 01, 2012

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

February 10, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 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 2011 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
WELL PAD - NBU 1022-25D		
43-047-52295	NBU 1022-25C2DS	Sec 25 T10S R22E 0653 FNL 0339 FWL
		BHL Sec 25 T10S R22E 0488 FNL 1933 FWL
43-047-52296	NBU 1022-25C3DS	Sec 25 T10S R22E 0730 FNL 0314 FWL
		BHL Sec 25 T10S R22E 1147 FNL 1931 FWL
43-047-52297	NBU 1022-25C3AS	Sec 25 T10S R22E 0732 FNL 0324 FWL
		BHL Sec 25 T10S R22E 0820 FNL 1938 FWL
43-047-52298	NBU 1022-25D2DS	Sec 25 T10S R22E 0650 FNL 0319 FWL (BH)
		BHL Sec 25 T10S R22E 0485 FNL 0630 FWL
43-047-52299	NBU 1022-25F2AS	Sec 25 T10S R22E 0652 FNL 0329 FWL
		BHL Sec 25 T10S R22E 1482 FNL 1955 FWL
43-047-52300	NBU 1022-25D3DS	Sec 25 T10S R22E 0727 FNL 0295 FWL
		BHL Sec 25 T10S R22E 1152 FNL 0630 FWL
43-047-52301	NBU 1022-25D3AS	Sec 25 T10S R22E 0729 FNL 0305 FWL
		BHL Sec 25 T10S R22E 0822 FNL 0631 FWL
43-047-52302	NBU 1022-25E2AS	Sec 25 T10S R22E 0648 FNL 0309 FWL
		BHL Sec 25 T10S R22E 1479 FNL 0631 FWL
WELL PAD - NBU 1022-1A		
43-047-52335	NBU 1022-1A1BS	Sec 01 T10S R22E 1030 FNL 0663 FEL
		BHL Sec 01 T10S R22E 0099 FNL 0498 FEL

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API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-52336	NBU 1022-1A1CS	Sec 01 T10S R22E 1040 FNL 0665 FEL
		BHL Sec 01 T10S R22E 0416 FNL 0493 FEL
43-047-52337	NBU 1022-1A4BS	Sec 01 T10S R22E 1050 FNL 0667 FEL
		BHL Sec 01 T10S R22E 0748 FNL 0493 FEL
43-047-52338	NBU 1022-1H1CS	Sec 01 T10S R22E 1069 FNL 0670 FEL
		BHL Sec 01 T10S R22E 1745 FNL 0493 FEL
43-047-52340	NBU 1022-1A4CS	Sec 01 T10S R22E 1059 FNL 0668 FEL
		BHL Sec 01 T10S R22E 1083 FNL 0497 FEL
WELL PAD - NBU 1022-1B		
43-047-52339	NBU 1022-1B1BS	Sec 01 T10S R22E 0976 FNL 1453 FEL
		BHL Sec 01 T10S R22E 0262 FNL 1811 FEL
43-047-52341	NBU 1022-1B4CS	Sec 01 T10S R22E 0984 FNL 1447 FEL
		BHL Sec 01 T10S R22E 1282 FNL 1825 FEL
43-047-52342	NBU 1022-1B1CS	Sec 01 T10S R22E 0968 FNL 1459 FEL
		BHL Sec 01 T10S R22E 0580 FNL 1812 FEL
WELL PAD - NBU 1022-1E1		
43-047-52343	NBU 1022-1D1BS	Sec 01 T10S R22E 1559 FNL 1172 FWL
		BHL Sec 01 T10S R22E 0238 FNL 0820 FWL
43-047-52344	NBU 1022-1D1CS	Sec 01 T10S R22E 1568 FNL 1168 FWL
		BHL Sec 01 T10S R22E 0585 FNL 0820 FWL
43-047-52345	NBU 1022-1D4BS	Sec 01 T10S R22E 1577 FNL 1164 FWL
		BHL Sec 01 T10S R22E 0912 FNL 0822 FWL
43-047-52346	NBU 1022-1D4CS	Sec 01 T10S R22E 1586 FNL 1160 FWL
		BHL Sec 01 T10S R22E 1244 FNL 0822 FWL
43-047-52347	NBU 1022-1E1BS	Sec 01 T10S R22E 1596 FNL 1156 FWL
		BHL Sec 01 T10S R22E 1576 FNL 0821 FWL
43-047-52348	NBU 1022-1E1CS	Sec 01 T10S R22E 1605 FNL 1152 FWL
		BHL Sec 01 T10S R22E 1909 FNL 0821 FWL
WELL PAD - NBU 1022-1E3		
43-047-52349	NBU 1022-1E4BS	Sec 01 T10S R22E 2011 FNL 0086 FWL
		BHL Sec 01 T10S R22E 2241 FNL 0821 FWL
43-047-52350	NBU 1022-1E4CS	Sec 01 T10S R22E 2020 FNL 0088 FWL
		BHL Sec 01 T10S R22E 2573 FNL 0821 FWL
43-047-52351	NBU 1022-1L1BS	Sec 01 T10S R22E 2030 FNL 0091 FWL
		BHL Sec 01 T10S R22E 2409 FSL 0820 FWL
43-047-52356	NBU 1022-1L1CS	Sec 01 T10S R22E 2040 FNL 0094 FWL
		BHL Sec 01 T10S R22E 2077 FSL 0820 FWL
WELL PAD - NBU 1022-1F		
43-047-52352	NBU 1022-1K1BS	Sec 01 T10S R22E 2588 FNL 2468 FWL
		BHL Sec 01 T10S R22E 2574 FSL 2136 FWL

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API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE

43-047-52357 NBU 1022-1F4BS Sec 01 T10S R22E 2573 FNL 2480 FWL
BHL Sec 01 T10S R22E 2076 FNL 2138 FWL

43-047-52358 NBU 1022-1G4BS Sec 01 T10S R22E 2565 FNL 2486 FWL
BHL Sec 01 T10S R22E 2242 FNL 1808 FEL

43-047-52360 NBU 1022-1G4CS Sec 01 T10S R22E 2580 FNL 2474 FWL
BHL Sec 01 T10S R22E 2574 FNL 1808 FEL

WELL PAD - NBU 1022-1G

43-047-52353 NBU 1022-1C4CS Sec 01 T10S R22E 1366 FNL 2354 FEL
BHL Sec 01 T10S R22E 1080 FNL 2140 FWL

43-047-52354 NBU 1022-1F1CS Sec 01 T10S R22E 1395 FNL 2362 FEL
BHL Sec 01 T10S R22E 1744 FNL 2138 FWL

43-047-52355 NBU 1022-1G1CS Sec 01 T10S R22E 1385 FNL 2359 FEL
BHL Sec 01 T10S R22E 1909 FNL 1809 FEL

43-047-52363 NBU 1022-1F1BS Sec 01 T10S R22E 1375 FNL 2357 FEL
BHL Sec 01 T10S R22E 1412 FNL 2139 FWL

43-047-52386 NBU 1022-1C1CS Sec 01 T10S R22E 1356 FNL 2351 FEL
BHL Sec 01 T10S R22E 0415 FNL 2141 FWL

WELL PAD - NBU 1022-1J

43-047-52359 NBU 1022-1J1BS Sec 01 T10S R22E 1887 FSL 2226 FEL
BHL Sec 01 T10S R22E 2410 FSL 1807 FEL

43-047-52362 NBU 1022-1O1BS Sec 01 T10S R22E 1847 FSL 2232 FEL
BHL Sec 01 T10S R22E 1081 FSL 1805 FEL

43-047-52366 NBU 1022-1J4CS Sec 01 T10S R22E 1857 FSL 2231 FEL
BHL Sec 01 T10S R22E 1413 FSL 1805 FEL

43-047-52367 NBU 1022-1O4BS Sec 01 T10S R22E 1838 FSL 2234 FEL
BHL Sec 01 T10S R22E 0417 FSL 1804 FEL

43-047-52384 NBU 1022-1J1CS Sec 01 T10S R22E 1877 FSL 2227 FEL
BHL Sec 01 T10S R22E 2078 FSL 1807 FEL

WELL PAD - NBU 1022-1K

43-047-52361 NBU 1022-1M1BS Sec 01 T10S R22E 1966 FSL 2158 FWL
BHL Sec 01 T10S R22E 1081 FSL 0819 FWL

43-047-52365 NBU 1022-1K1CS Sec 01 T10S R22E 1994 FSL 2146 FWL
BHL Sec 01 T10S R22E 2242 FSL 2136 FWL

43-047-52370 NBU 1022-1K4CS Sec 01 T10S R22E 1948 FSL 2166 FWL
BHL Sec 01 T10S R22E 1578 FSL 2134 FWL

43-047-52371 NBU 1022-1L4BS Sec 01 T10S R22E 1985 FSL 2150 FWL
BHL Sec 01 T10S R22E 1745 FSL 0820 FWL

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API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE

43-047-52373 NBU 1022-1K4BS Sec 01 T10S R22E 1957 FSL 2162 FWL
BHL Sec 01 T10S R22E 1910 FSL 2135 FWL

43-047-52374 NBU 1022-1L4CS Sec 01 T10S R22E 1975 FSL 2154 FWL
BHL Sec 01 T10S R22E 1413 FSL 0819 FWL

WELL PAD - NBU 1022-1I

43-047-52364 NBU 1022-1I4CS Sec 01 T10S R22E 1828 FSL 0928 FEL
BHL Sec 01 T10S R22E 1579 FSL 0492 FEL

43-047-52368 NBU 1022-1I1BS Sec 01 T10S R22E 1826 FSL 0937 FEL
BHL Sec 01 T10S R22E 2576 FSL 0492 FEL

43-047-52369 NBU 1022-1I1CS Sec 01 T10S R22E 1830 FSL 0918 FEL
BHL Sec 01 T10S R22E 2243 FSL 0492 FEL

43-047-52382 NBU 1022-1H4CS Sec 01 T10S R22E 1824 FSL 0947 FEL
BHL Sec 01 T10S R22E 2410 FNL 0492 FEL

WELL PAD - NBU 1022-1N

43-047-52372 NBU 1022-1M4CS Sec 01 T10S R22E 1228 FSL 2092 FWL
BHL Sec 01 T10S R22E 0098 FSL 0810 FWL

43-047-52375 NBU 1022-1M4BS Sec 01 T10S R22E 1238 FSL 2093 FWL
BHL Sec 01 T10S R22E 0416 FSL 0819 FWL

43-047-52376 NBU 1022-1N1CS Sec 01 T10S R22E 1218 FSL 2092 FWL
BHL Sec 01 T10S R22E 0914 FSL 2133 FWL

43-047-52377 NBU 1022-1N4BS Sec 01 T10S R22E 1208 FSL 2091 FWL
BHL Sec 01 T10S R22E 0581 FSL 2132 FWL

43-047-52378 NBU 1022-1N4CS Sec 01 T10S R22E 1198 FSL 2090 FWL
BHL Sec 01 T10S R22E 0262 FSL 2124 FWL

43-047-52381 NBU 1022-1M1CS Sec 01 T10S R22E 1248 FSL 2094 FWL
BHL Sec 01 T10S R22E 0748 FSL 0819 FWL

WELL PAD - NBU 1022-1P

43-047-52379 NBU 1022-1P1BS Sec 01 T10S R22E 1168 FSL 0485 FEL
BHL Sec 01 T10S R22E 1246 FSL 0491 FEL

43-047-52380 NBU 1022-1P4BS Sec 01 T10S R22E 1154 FSL 0500 FEL
BHL Sec 01 T10S R22E 0582 FSL 0491 FEL

43-047-52383 NBU 1022-1O4CS Sec 01 T10S R22E 1141 FSL 0515 FEL
BHL Sec 01 T10S R22E 0106 FSL 1816 FEL

43-047-52385 NBU 1022-1P4CS Sec 01 T10S R22E 1148 FSL 0508 FEL
BHL Sec 01 T10S R22E 0270 FSL 0503 FEL

RECEIVED: February 10, 2012

The NBU 1022-25D2DS, 43-047-52298, is being permitted to target productive horizons below the unitized zone of the Natural Buttes Unit as defined in Section 3 of said agreement. We recommend not approving commingling of production with these zones and the unitized zones of the Natural Buttes Unit until this matter has been resolved by the BLM's Utah State Office.

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

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2012.02.10 08:36:59 -07'00'

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

MCoulthard:mc:2-10-12

RECEIVED: February 10, 2012

API Well Number: 43047523020000

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-25E2AS 43047523020000

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-25E2AS 4304752			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2130	8326		
Previous Shoe Setting Depth (TVD)	0	2130		
Max Mud Weight (ppg)	8.3	12.5		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5242	12.1		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	919	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	663	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	450	YES OK
			***Can Full Expected Pressure Be Held At Previous Shoe?**
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	450	NO Reasonable depth in area
Required Casing/BOPE Test Pressure=		2130	psi
***Max Pressure Allowed @ Previous Casing Shoe=**		0	psi *Assumes 1psi/ft frac gradient

Calculations	Prod String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	5412	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4413	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3580	YES OK
			***Can Full Expected Pressure Be Held At Previous Shoe?**
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4049	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
***Max Pressure Allowed @ Previous Casing Shoe=**		2130	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			***Can Full Expected Pressure Be Held At Previous Shoe?**
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
***Max Pressure Allowed @ Previous Casing Shoe=**			psi *Assumes 1psi/ft frac gradient

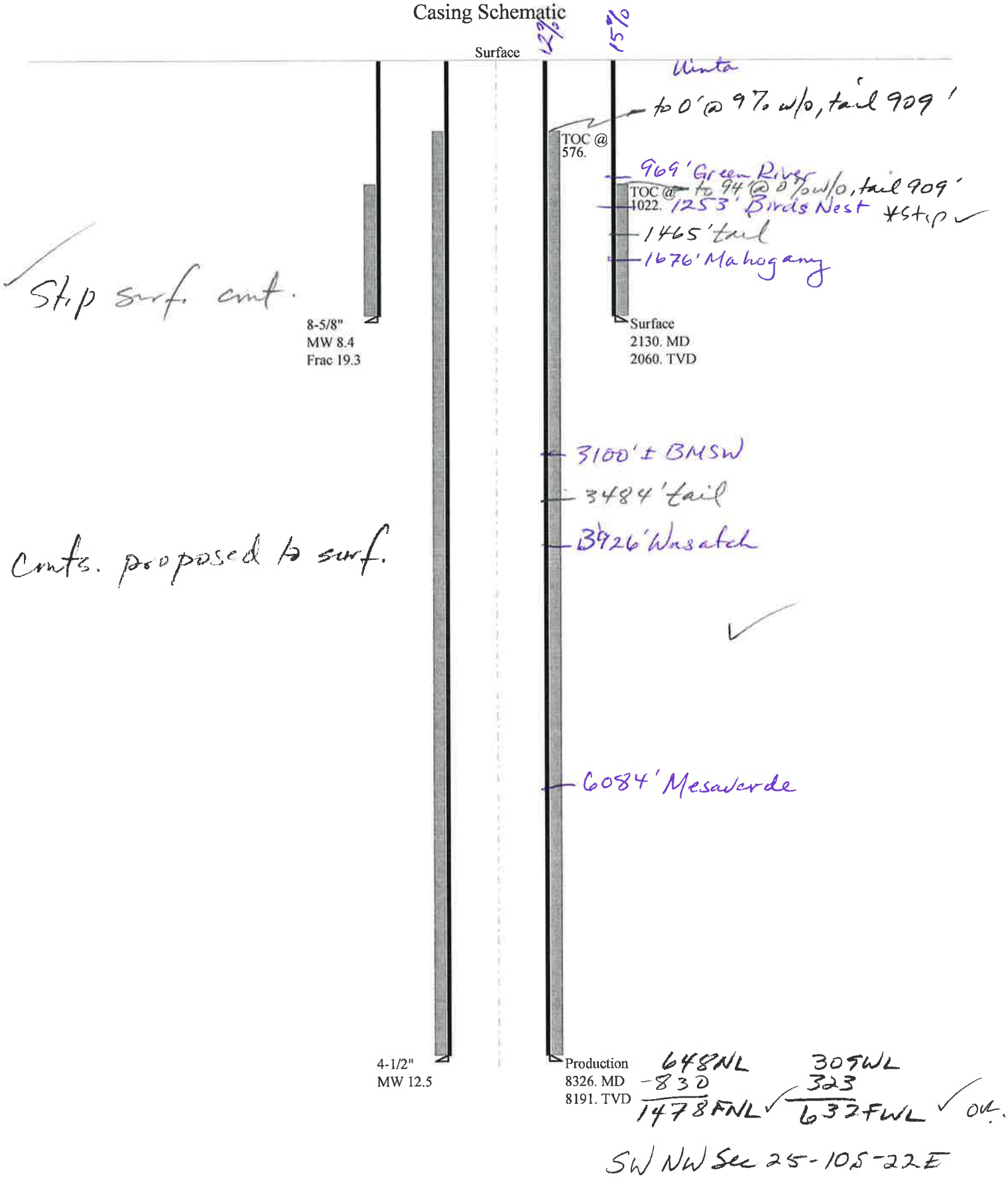
Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			***Can Full Expected Pressure Be Held At Previous Shoe?**
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
***Max Pressure Allowed @ Previous Casing Shoe=**			psi *Assumes 1psi/ft frac gradient

RECEIVED: March 20, 2012

API Well Number: 43047523020000

43047523020000 NBU 1022-25E2AS

Casing Schematic



API Well Number: 43047523020000

Well name:	**43047523020000 NBU 1022-25E2AS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Surface
Project ID:	43-047-52302
Location:	UINTAH COUNTY

Design parameters:

Collapse

Mud weight: 8.400 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 1,813 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 2,060 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.70 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on air weight.

Neutral point: 1,859 ft

Environment:

H2S considered? No

Surface temperature: 74 °F

Bottom hole temperature: 103 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 100 ft

Cement top: 1,022 ft

Directional well information:

Kick-off point 300 ft

Departure at shoe: 457 ft

Maximum dogleg: 2 °/100ft

Inclination at shoe: 20 °

Re subsequent strings:

Next setting depth: 8,191 ft

Next mud weight: 12.500 ppg

Next setting BHP: 5,319 psi

Fracture mud wt: 19.250 ppg

Fracture depth: 2,060 ft

Injection pressure: 2,060 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2130	8.625	28.00	I-55	LT&C	2060	2130	7.892	84348

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	899	1880	2.092	2060	3390	1.65	57.7	348	6.03 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940

Date: March 13,2012
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2060 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

API Well Number: 43047523020000

Well name:	**43047523020000 NBU 1022-25E2AS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Production
Project ID:	43-047-52302
Location:	UINTAH COUNTY

Design parameters:

Collapse

Mud weight: 12.500 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 3,517 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 5,319 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

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

Tension is based on air weight.
Neutral point: 6,795 ft

Estimated cost: 175,903 ($)

Environment:

H2S considered?	No
Surface temperature:	74 °F
Bottom hole temperature:	189 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	100 ft
Cement top:	576 ft

Directional Info - Build & Drop

Kick-off point	300 ft
Departure at shoe:	891 ft
Maximum dogleg:	2 °/100ft
Inclination at shoe:	0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
2	5000	4.5	11.60	I-80	DQX	4865	5000	3.875	132000
1	3326	4.5	11.60	I-80	LT&C	8191	8326	3.875	43903

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	3159	6049	1.915	4587	7780	1.70	95	267	2.81 J
1	5319	6360	1.196	5319	7780	1.46	38.6	212	5.49 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: March 13,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 8191 ft, a mud weight of 12.5 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 1022-25E2AS
API Number 43047523020000 **APD No** 5252 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 NWNW **Sec** 25 **Tw** 10.0S **Rng** 22.0E 648 FNL 309 FWL
GPS Coord (UTM) 637015 4420706 **Surface Owner**

Participants

Sheila Wopsock, Charles Chase, Jaime Scharnowke, Doyle Holmes, (Anadarko). John Slaugh, Mitch Batty, (Timberline). Ben Williams (DWR), David Hackford, (DOGM).

Regional/Local Setting & Topography

The general area is in the southeast end of the Natural Buttes Unit and contains the White River and short rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is 1.1 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 36 air miles and 58 road miles to the northwest. A total of eight gas wells will be drilled on this location.

The location is proposed on Archy Bench on top of a narrow ridge, which extends in a southerly to northerly direction. The ridge breaks off sharply on both the west and east sides into rugged canyons, which run northerly toward the White River. No drainages intersect the site and no diversions are needed. The location should be stable and pose no significant problems for drilling and operating eight wells.

The surface and minerals for this location are owned by SITLA.

Surface Use Plan

Current Surface Use
Grazing
Wildlfe Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
0.6	**Width** 330 **Length** 425	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation includes black sagebrush, bud sage, horsebrush, halogeton, curly mesquite, shadscale, cheatgrass, broom snakeweed, rabbit brush and spring annuals.

Antelope, coyote, small mammals and birds. Endangered fish species exist in the White River. Domestic sheep graze the area in the winter.

Soil Type and Characteristics

Rocky sandy clay loam

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

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

Reserve Pit

Site-Specific Factors		Site Ranking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut except for the northeast corner which will be 3.5 feet of fill.
This corner will be backed up with the excess cut stockpile. The reserve pit will be on the east side of the location. Dimensions are 230’ x 75’ x 12’ deep with two feet of freeboard. Kerr McGee has agreed to line this pit with a 30 mil synthetic liner and a felt sub-liner.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 30 **Pit Underlayment Required?** Y

Other Observations / Comments

David Hackford	2/15/2012
Evaluator	**Date / Time**

Application for Permit to Drill
Statement of Basis

Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
5252	43047523020000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		**Surface Owner-APD**		
Well Name	NBU 1022-25E2AS		**Unit**	NATURAL BUTTES	
Field	NATURAL BUTTES		**Type of Work**	DRILL	
Location	NWNW 25 10S 22E S 648 FNL 309 FWL GPS Coord (UTM) 637025E 4420691N				

Geologic Statement of Basis

Kerr McGee proposes to set 2,130’ of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,100'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 25. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill	2/28/2012
APD Evaluator	**Date / Time**

Surface Statement of Basis

The general area is in the southeast end of the Natural Buttes Unit and contains the White River and short
rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is 1.1 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 58 road miles to the northwest. The access road will be an existing 2-track road upgraded for 3075 feet.

The location will be for eight gas wells. They are the NBU 1022-25E2AS, NBU 1022-25D2DS, NBU 1022-25F2AS, NBU 1022-25C2DS, NBU1022-D3DS, NBU 1022-25D3AS, NBU 1022-25C3DS and the NBU 1022-25C3AS.

The location is proposed on Archy Bench on top of a narrow ridge, which extends in a southerly to northerly
direction. The ridge breaks off sharply on both the west and east sides into rugged canyons, which run northerly toward the White River. No drainages intersect the site and no diversions are needed. The location should be stable and pose no significant problems for drilling and operating eight wells.

The surface and minerals for this location are owned by SITLA. Jim Davis of SITLA was invited to this presite, but did not attended. Ben Williams represented the Utah Division of Wildlife Resources. He had no comments regarding wildlife issues. This site is the best site for a location in the immediate area.

RECEIVED: April 04, 2012

Application for Permit to Drill
Statement of Basis

Utah Division of Oil, Gas and Mining

David Hackford	2/15/2012
Onsite Evaluator	**Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the east side of the location.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.

RECEIVED: April 04, 2012

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 1/27/2012 **API NO. ASSIGNED:** 43047523020000

WELL NAME: NBU 1022-25E2AS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NWNW 25 100S 220E **Permit Tech Review:** ✔

SURFACE: 0648 FNL 0309 FWL **Engineering Review:** ✔

BOTTOM: 1479 FNL 0631 FWL **Geology Review:** ✔

COUNTY: UINTAH

LATITUDE: 39.92525 **LONGITUDE:** -109.39652

UTM SURF EASTINGS: 637025.00 **NORTHINGS:** 4420691.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22447 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 3 - State **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ✔ **PLAT**
- ✔ **Bond:** STATE/FEE - 22013542
- ☐ **Potash**
- ✔ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ✔ **Water Permit:** 43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ✔ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

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

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: Suspends General Siting

- ✔ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
5 - Statement of Basis - bhill
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmacdonald

RECEIVED: April 04, 2012

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 1022-25E2AS
API Well Number: 43047523020000
Lease Number: ML 22447
Surface Owner: STATE
Approval Date: 4/4/2012

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

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

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

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

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

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

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

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

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

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

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

- Within 24 hours following the spudding of the well - contact Carol Daniels OR submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

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

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

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

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

plugging

Approved By:

For John Rogers
Associate Director, Oil & Gas

API Well Number: 43047523020000

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

FORM 3

AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER
NBU 1022-25E2AS

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

3. FIELD OR WILDCAT
NATURAL BUTTES

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

5. UNIT or COMMUNITIZATION AGREEMENT NAME
NATURAL BUTTES

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

7. OPERATOR PHONE
720 929-6515

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

9. OPERATOR E-MAIL
julie.jacobson@anadarko.com

10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)
ML 22447

11. MINERAL OWNERSHIP
FEDERAL ☐ INDIAN ☐ STATE ■ FEE ☐

12. SURFACE OWNERSHIP
FEDERAL ☐ INDIAN ☐ STATE ■ FEE ☐

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

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

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

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

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

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

19. SLANT
VERTICAL ☐ DIRECTIONAL ■ HORIZONTAL ☐

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	648 FNL 309 FWL	NWNW	25	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	1479 FNL 631 FWL	SWNW	25	10.0 S	22.0 E	S
At Total Depth	1479 FNL 631 FWL	SWNW	25	10.0 S	22.0 E	S

21. COUNTY
UINTAH

22. DISTANCE TO NEAREST LEASE LINE (Feet)
631

23. NUMBER OF ACRES IN DRILLING UNIT
640

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
2188

26. PROPOSED DEPTH
MD: 8326 TVD: 8191

27. ELEVATION - GROUND LEVEL
5481

28. BOND NUMBER
22013542

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

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	12.25	8.625	0 - 2130	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
Prod	7.875	4.5	0 - 8326	11.6	I-80 LT&C	12.5	Premium Lite High Strength	270	3.38	12.0
							50/50 Poz	1160	1.31	14.3

ATTACHMENTS

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

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

NAME Danielle Piernot | **TITLE** Regulatory Analyst | **PHONE** 720 929-6156

SIGNATURE | **DATE** 01/27/2012 | **EMAIL** danielle.piernot@anadarko.com

API NUMBER ASSIGNED
43047523020000

APPROVAL

Permit Manager

RECEIVED: April 04, 2012

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

NBU 1022-25E2AS

Surface:	648 FNL / 309 FWL	NWNW
BHL:	1479 FNL / 631 FWL	SWNW

Section 25 T10S R22E

Uintah County, Utah
Mineral Lease: UT ST ML 22447

ONSHORE ORDER NO. 1

DRILLING PROGRAM

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

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	969'	
Birds Nest	1,253'	Water
Mahogany	1,676'	Water
Wasatch	3,926'	Gas
Mesaverde	6,084'	Gas
TVD	8,191'	
TD	8,326'	

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

Please refer to the attached Drilling Program

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

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

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7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 8191' TVD, approximately equals 5,242 psi 0.64 psi/ft = actual bottomhole gradient

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

Maximum anticipated surface pressure equals approximately 3,429 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

8. Anticipated Starting Dates:

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

9. Variances:

Please refer to the 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.

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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 for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 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 8-5/8 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

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on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

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

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

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

10. Other Information:

Please refer to the attached Drilling Program.

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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	January 20, 2012
WELL NAME	**NBU 1022-25E2AS**	TD	8,191' TVD 8,326' MD
FIELD	Natural Buttes	COUNTY Uintah STATE Utah	FINISHED ELEVATION 5,479'
SURFACE LOCATION	NWNW 648 FNL 309 FWL Sec 25 T 10S R 22E		
	Latitude: 39.925337 Longitude: -109.395926		NAD 27
BTM HOLE LOCATION	SWNW 1479 FNL 631 FWL Sec 25 T 10S R 22E		
	Latitude: 39.923057 Longitude: -109.394776		NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde		
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.		

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
		200'	12-1/4	8-5/8", 28#, IJ-55, LTC	Air mist
		2,130' TVD	11'	8-5/8", 28#, IJ-55, LTC	Air mist
		TD	7-7/8"	4-1/2" 11.6# I-80 Ultra DQX/LTC csg	Water / Fresh Water Mud 8.3-12.5 ppg

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @ 969'

Top of Birds Nest @ 1,253'

Mahogany @ 1,676'

Preset f/ GL @ 2,130' TVD

Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Wasatch @ 3,926'

Mud logging program TBD

Cased hole logging program from TD - surf csg

Mverde @ 6,084' TVD

Max anticipated Mud required 12.5 ppg

TD @ 8,191' TVD 8,326' MD

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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	LTC	DQX TENSION
CONDUCTOR	14"	0-40'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,130	28.00	IJ-55	LTC	2.54	1.89	6.66	N/A
								7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.19		3.42
	4-1/2"	5,000	to	8,326'	11.60	I-80	LTC	1.11	1.19	7.14	

Surface Casing:

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

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

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

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

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

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	1,630'	65/35 Poz + 6% Gel + 10 pps gilsonite	150	35%	11.00		3.82
			+ 0.25 pps Flocele + 3% salt BWOW					
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
			+ 0.25 pps flocele					
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION	LEAD	3,426'	Premium Lite II +0.25 pps	270	35%	12.00		3.38
			celloflake + 5 pps gilsonite + 10% gel					
			+ 0.5% extender					
	TAIL	4,900'	50/50 Poz/G + 10% salt + 2% gel	1,160	35%	14.30		1.31
			+ 0.1% R-3					

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER: _____ **DATE:** _____

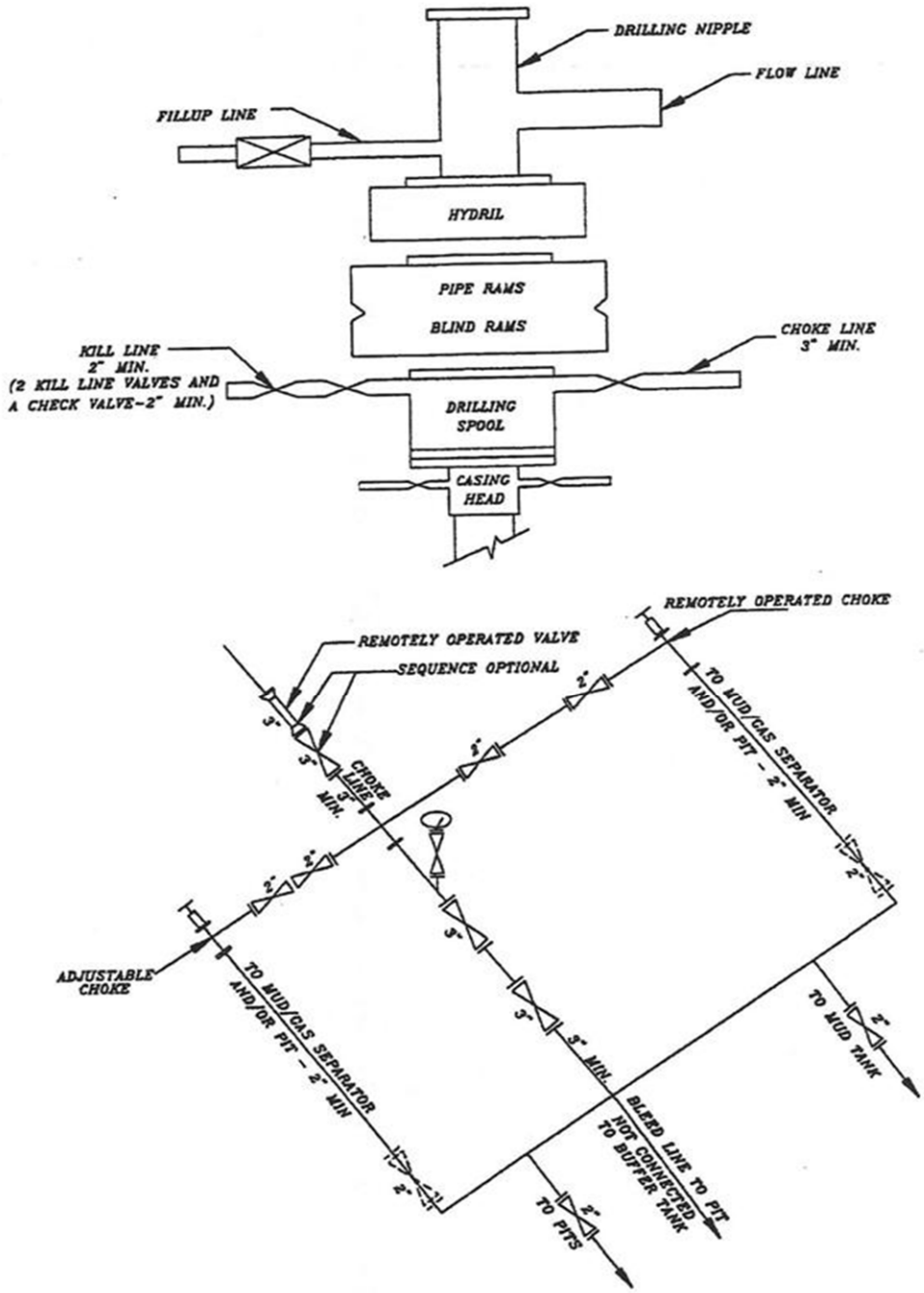
Nick Spence / Danny Showers / Chad Loesel

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

RECEIVED: January 26, 2012

EXHIBIT A
NBU 1022-25E2AS

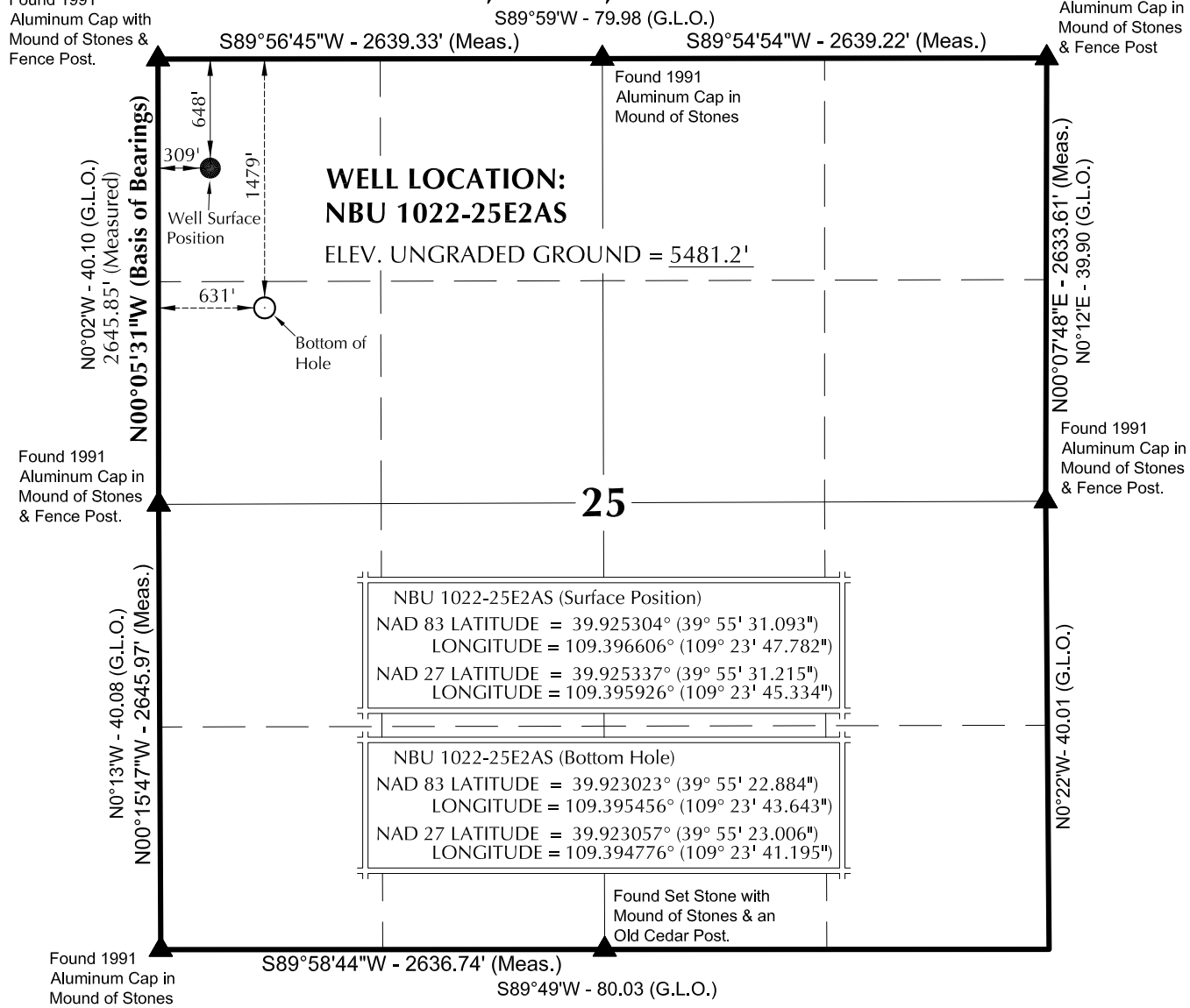


SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

RECEIVED: January 26, 2012

API Well Number: 43047523020000

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



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S21°15'39"E 891.28' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW $\frac{1}{4}$ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

N

1000' 500' 0' 1000'

SCALE

SURVEYOR'S CERTIFICATE

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

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

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH 2-25-11

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

WELL PAD: NBU 1022-25D

NBU 1022-25E2AS
WELL PLAT
1479' FNL, 631' FWL (Bottom Hole)
SW $\frac{1}{4}$ NW $\frac{1}{4}$ OF SECTION 25, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

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

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

DATE SURVEYED: 02-18-11	SURVEYED BY: M.S.B.	SHEET NO:
DATE DRAWN: 02-22-11	DRAWN BY: M.W.W.	1
SCALE: 1" = 1000'	Date Last Revised:	1 OF 20

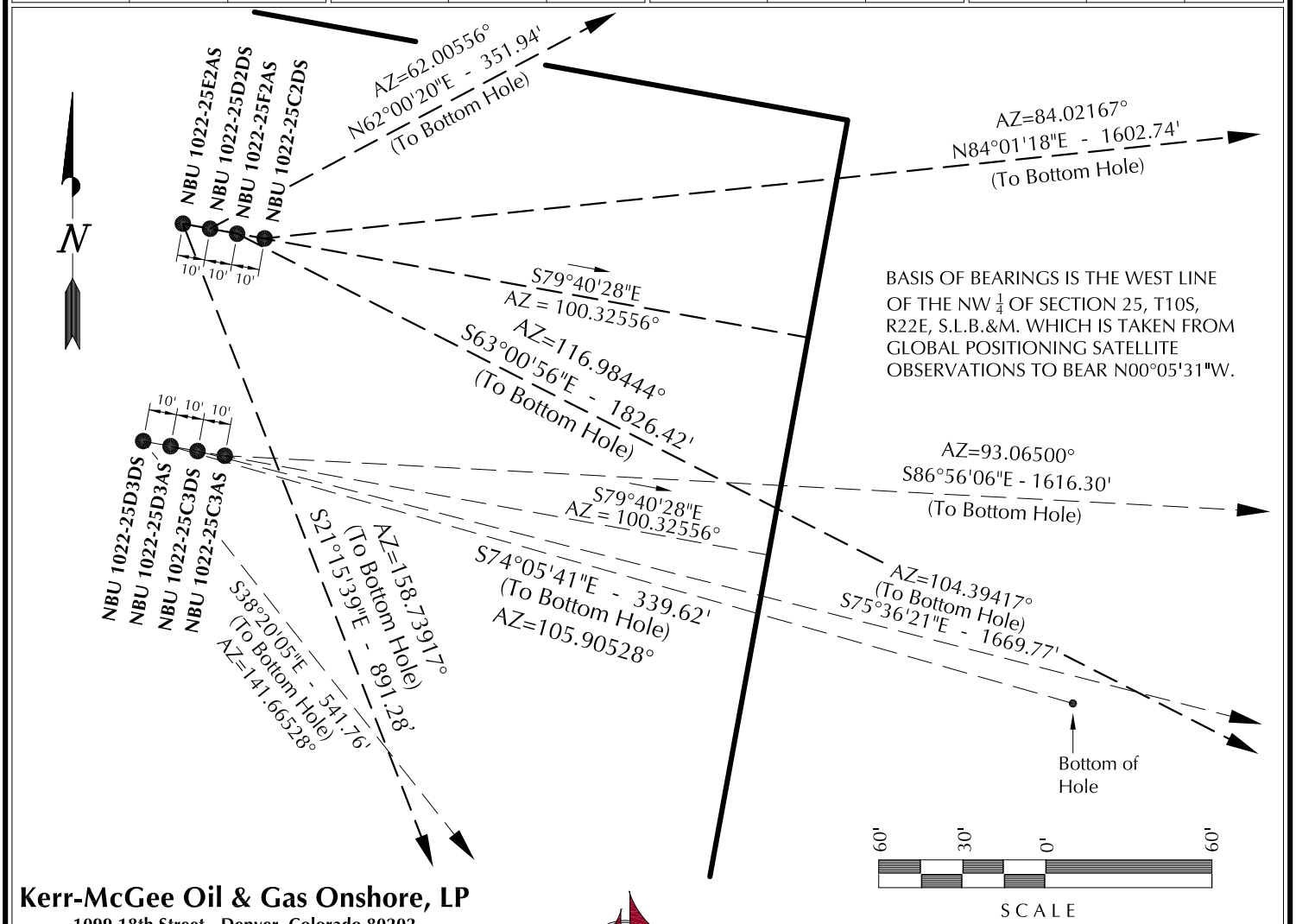
RECEIVED: January 26, 2012

API Well Number: 43047523020000

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 1022-25E2AS	39°55'31.093" 39.925304°	109°23'47.782" 109.396606°	39°55'31.215" 39.925337°	109°23'45.334" 109.395926°	648' FNL 309' FWL	39°55'22.884" 39.923023°	109°23'43.643" 109.395456°	39°55'23.006" 39.923057°	109°23'41.195" 109.394776°	1479' FNL 631' FWL
NBU 1022-25D2DS	39°55'31.075" 39.925299°	109°23'47.656" 109.396571°	39°55'31.197" 39.925332°	109°23'45.208" 109.395891°	650' FNL 319' FWL	39°55'32.705" 39.925751°	109°23'43.667" 109.395463°	39°55'32.827" 39.925785°	109°23'41.219" 109.394783°	485' FNL 630' FWL
NBU 1022-25F2AS	39°55'31.057" 39.925294°	109°23'47.531" 109.396536°	39°55'31.179" 39.925327°	109°23'45.082" 109.395856°	652' FNL 329' FWL	39°55'22.856" 39.923016°	109°23'26.653" 109.390737°	39°55'22.978" 39.923049°	109°23'24.206" 109.390057°	1482' FNL 1955' FWL
NBU 1022-25C2DS	39°55'31.040" 39.925289°	109°23'47.403" 109.396501°	39°55'31.162" 39.925323°	109°23'44.955" 109.395821°	653' FNL 339' FWL	39°55'32.677" 39.925744°	109°23'26.946" 109.390818°	39°55'32.799" 39.925777°	109°23'24.499" 109.390139°	488' FNL 1933' FWL
NBU 1022-25D3DS	39°55'30.316" 39.925088°	109°23'47.967" 109.396658°	39°55'30.438" 39.925122°	109°23'45.519" 109.395978°	727' FNL 295' FWL	39°55'26.115" 39.923921°	109°23'43.659" 109.395461°	39°55'26.237" 39.923955°	109°23'41.212" 109.394781°	1152' FNL 630' FWL
NBU 1022-25D3AS	39°55'30.297" 39.925083°	109°23'47.840" 109.396622°	39°55'30.419" 39.925116°	109°23'45.392" 109.395942°	729' FNL 305' FWL	39°55'29.375" 39.924826°	109°23'43.650" 109.395458°	39°55'29.497" 39.924860°	109°23'41.202" 109.394778°	822' FNL 631' FWL
NBU 1022-25C3DS	39°55'30.280" 39.925078°	109°23'47.715" 109.396587°	39°55'30.402" 39.925112°	109°23'45.267" 109.395907°	730' FNL 314' FWL	39°55'26.166" 39.923935°	109°23'26.965" 109.390824°	39°55'26.288" 39.923969°	109°23'24.518" 109.390144°	1147' FNL 1931' FWL
NBU 1022-25C3AS	39°55'30.263" 39.925073°	109°23'47.589" 109.396552°	39°55'30.385" 39.925107°	109°23'45.141" 109.395872°	732' FNL 324' FWL	39°55'29.397" 39.924832°	109°23'26.878" 109.390800°	39°55'29.519" 39.924866°	109°23'24.431" 109.390120°	820' FNL 1938' FWL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 1022-25E2AS	-830.6'	323.2'	NBU 1022-25D2DS	165.2'	310.8'	NBU 1022-25F2AS	-828.7'	1,627.6'	NBU 1022-25C2DS	166.9'	1,594.0'
WELL NAME	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**
NBU 1022-25D3DS	-425.0'	336.0'	NBU 1022-25D3AS	-93.1'	326.6'	NBU 1022-25C3DS	-415.1'	1,617.4'	NBU 1022-25C3AS	-86.4'	1,614.0'



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

WELL PAD - NBU 1022-25D

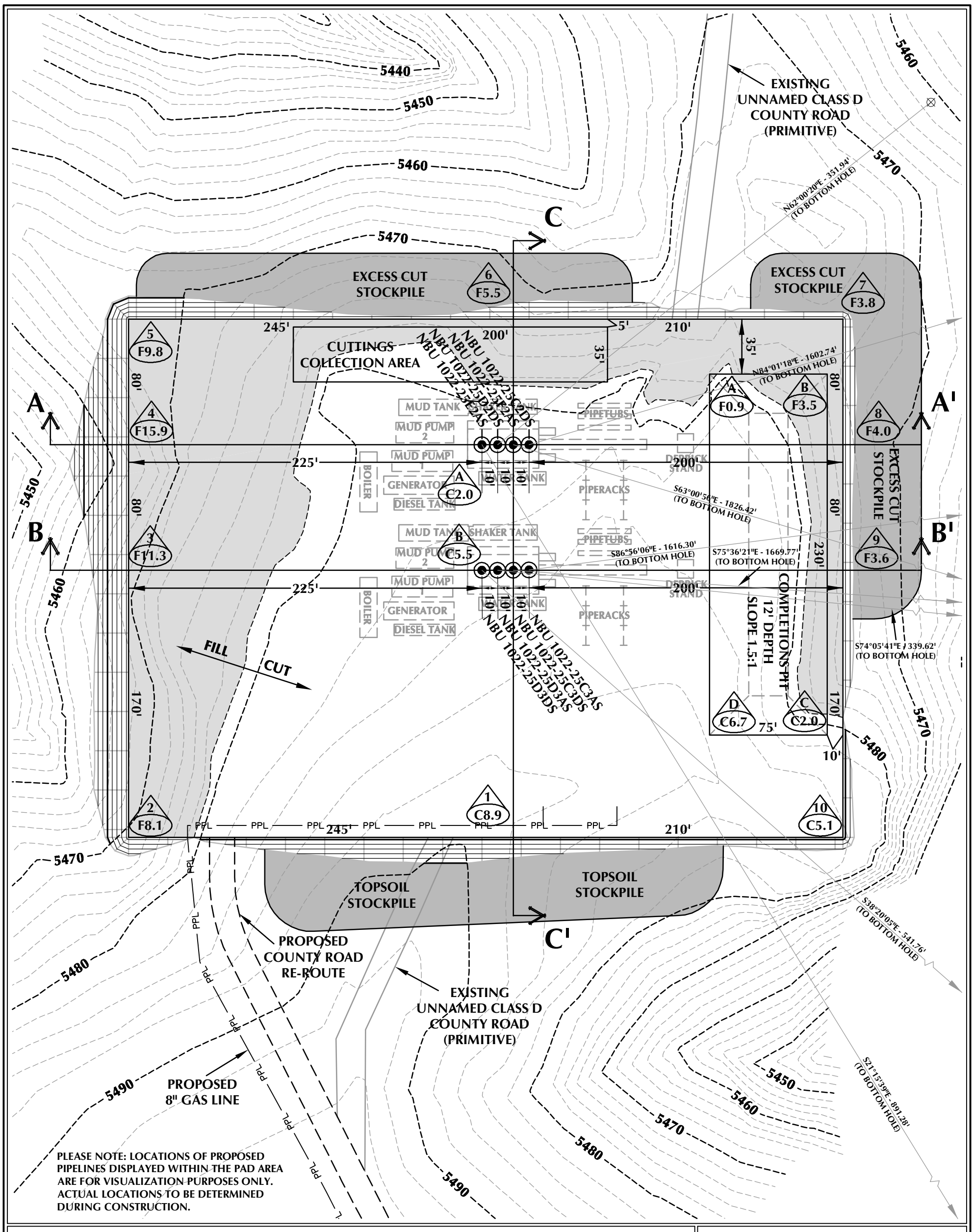
WELL PAD INTERFERENCE PLAT
WELLS - NBU 1022-25E2AS, NBU 1022-25D2DS, NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS, NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

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

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

DATE SURVEYED: 02-18-11	SURVEYED BY: M.S.B.	SHEET NO:
DATE DRAWN: 02-22-11	DRAWN BY: M.W.W.	9
SCALE: 1" = 60'	Date Last Revised:	9 OF 20

RECEIVED: January 26, 2012



WELL PAD - NBU 1022-25D DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5484.5'
FINISHED GRADE ELEVATION = 5479.0'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.87 ACRES
TOTAL DISTURBANCE AREA = 4.67 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

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

WELL PAD QUANTITIES
TOTAL CUT FOR WELL PAD = 14,767 C.Y.
TOTAL FILL FOR WELL PAD = 11,806 C.Y.
TOPSOIL @ 6" DEPTH = 3,123 C.Y.
EXCESS MATERIAL = 2,961 C.Y.

COMPLETIONS PIT QUANTITIES
TOTAL CUT FOR COMPLETIONS PIT
+/- 5,420 C.Y.
COMPLETIONS PIT CAPACITY (2' OF FREEBOARD)
+/- 20,250 BARRELS

CUTTINGS COLLECTION AREA QUANTITIES
TOTAL CUT FOR CUTTINGS COLLECTION AREA
+/- 745 C.Y.

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

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

WELL PAD - NBU 1022-25D

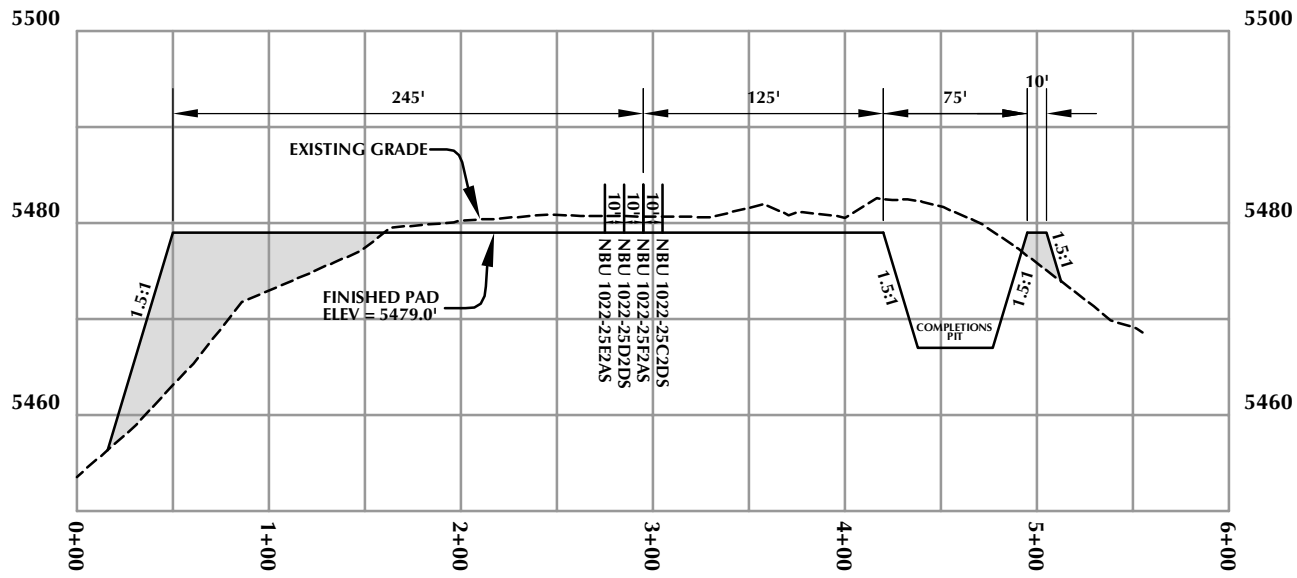
WELL PAD - LOCATION LAYOUT
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS,
NBU 1022-25D3DS, NBU 1022-25D3AS,
NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

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

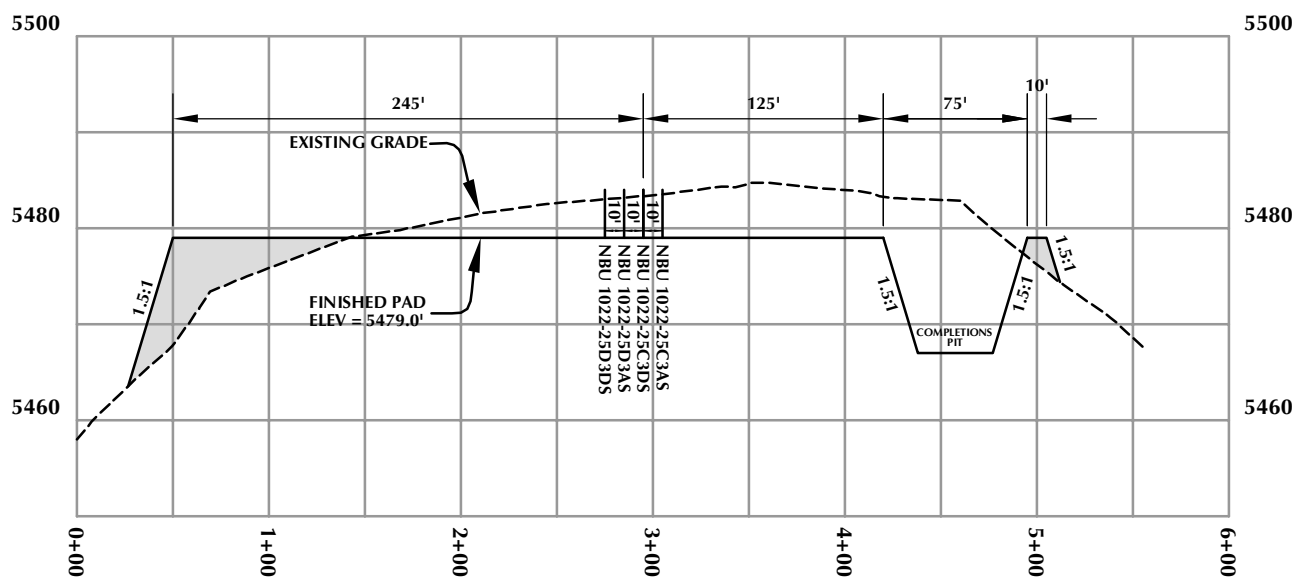
TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60'	DATE: 3/9/11	SHEET NO:
REVISED:	GRB 11/11/11	10 10 OF 20

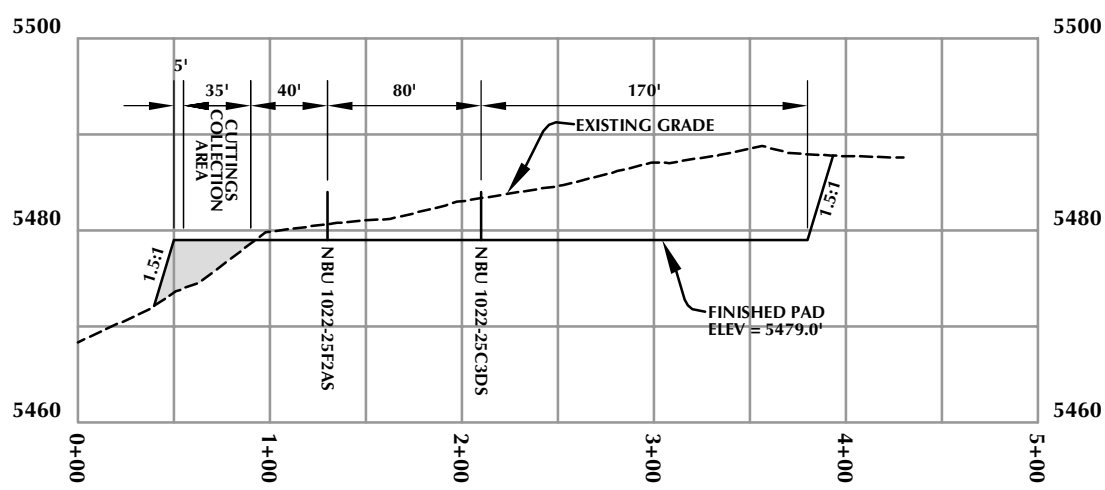
RECEIVED: January 26, 2012



CROSS SECTION A-A'



CROSS SECTION B-B'



CROSS SECTION C-C'

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

WELL PAD - NBU 1022-25D

WELL PAD - CROSS SECTIONS
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS,
NBU 1022-25D3DS, NBU 1022-25D3AS,
NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

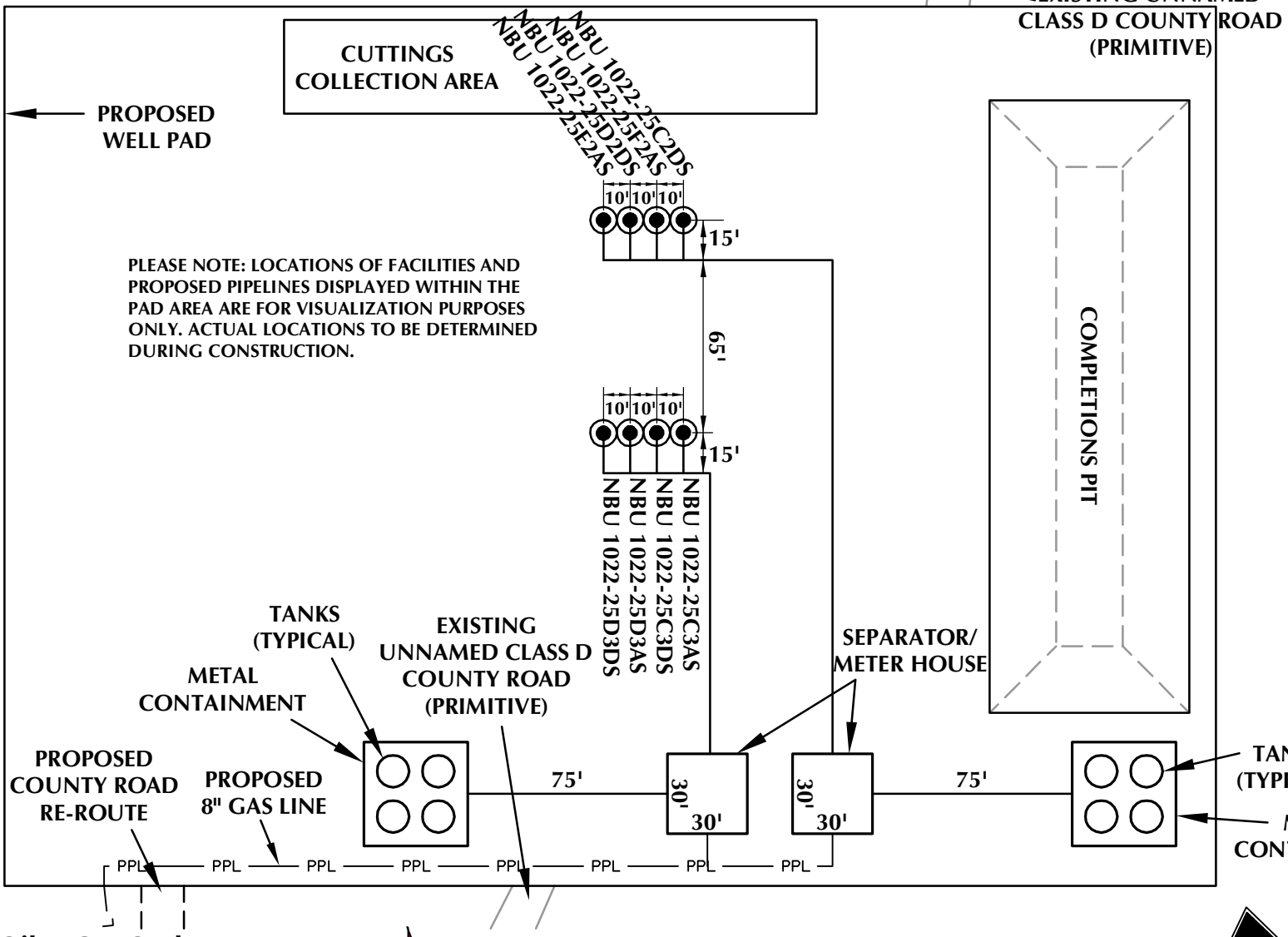
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

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

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

Scale: 1"=100' | Date: 3/4/11 | SHEET NO:
REVISED: GRB 11/11/11 | 11 | 11 OF 20

K:\ANADARKO\2010\2010_58_NBU_1022-25D\DWG\NBU 1022-25D PAD\NBU_1022-25D_2-RIG_LAYOUT_20110217.dwg, 11/11/2013 3:24:38 PM, andy



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

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

WELL PAD - NBU 1022-25D

WELL PAD - FACILITIES DIAGRAM
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS,
NBU 1022-25D3DS, NBU 1022-25D3AS,
NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

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

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'

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

Scale: 1"=60'	Date: 3/9/11	SHEET NO:
REVISED:	GRB 11/11/11	12 12 OF 20

K:\ANADARKO\2010\2010_58_NBU_1022-25D\DWG\NBU_1022-25D PAD\NBU_1022-25D_2-RIG_LAYOUT_20110217.dwg, 11/11/2011 3:26:49 PM, andy

RECEIVED: January 26, 2012

API Well Number: 43047523020000

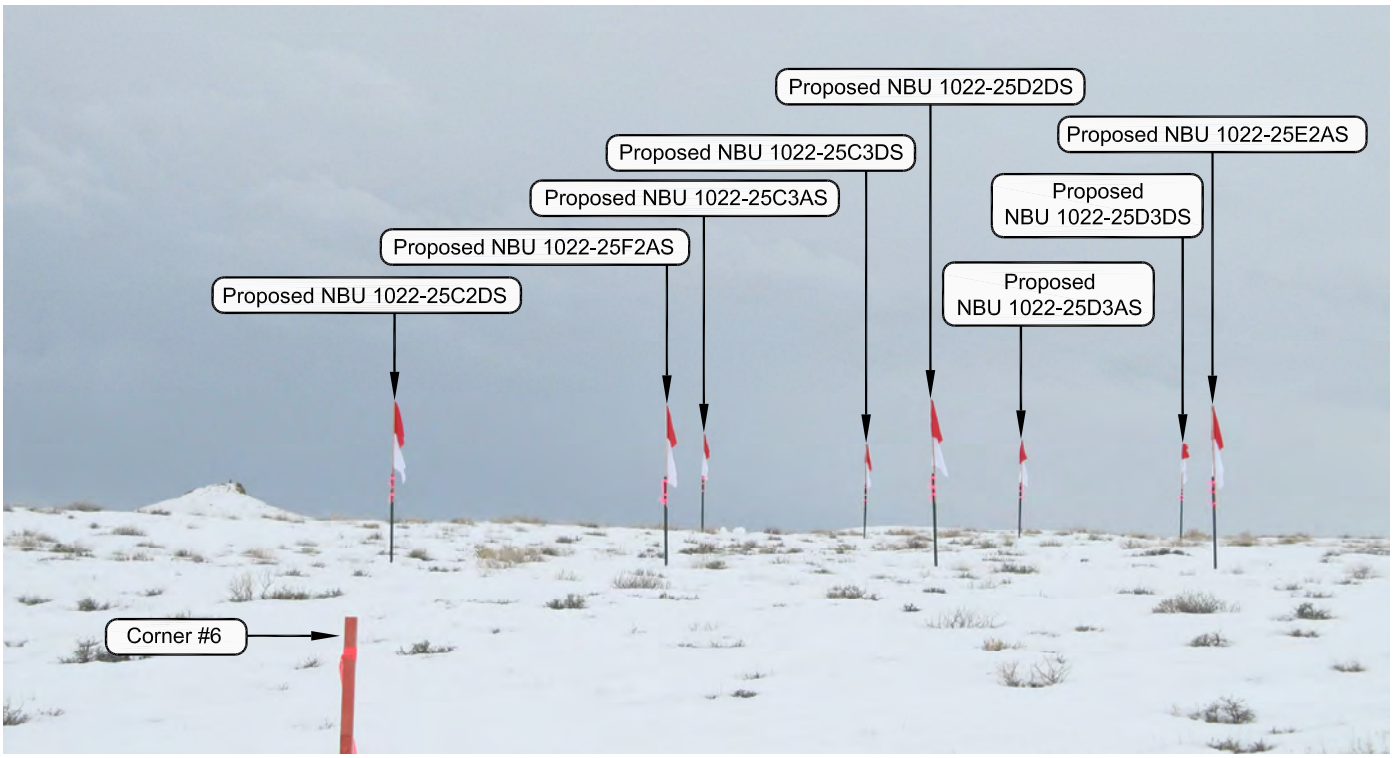


PHOTO VIEW: FROM CORNER #6 TO LOCATION STAKE **CAMERA ANGLE: SOUTHERLY**

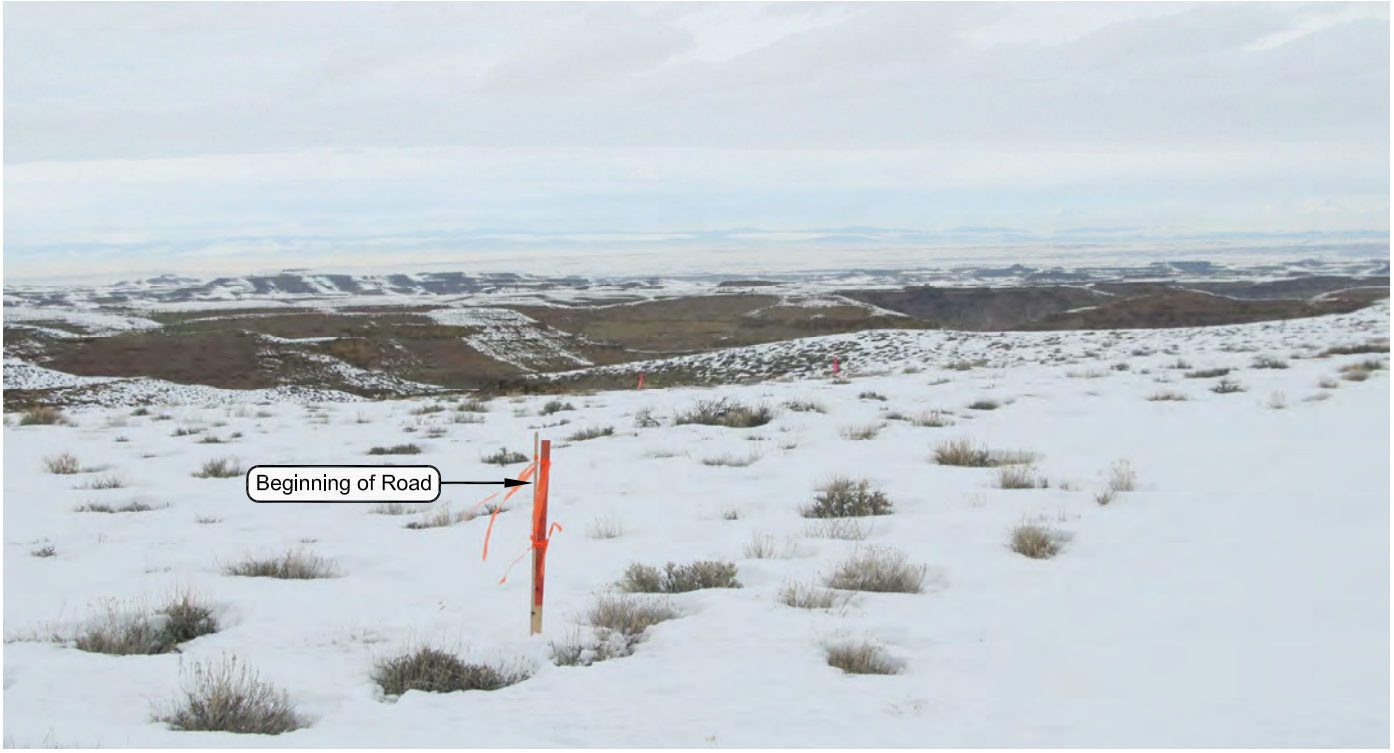


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD **CAMERA ANGLE: NORTHWESTERLY**

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

WELL PAD - NBU 1022-25D

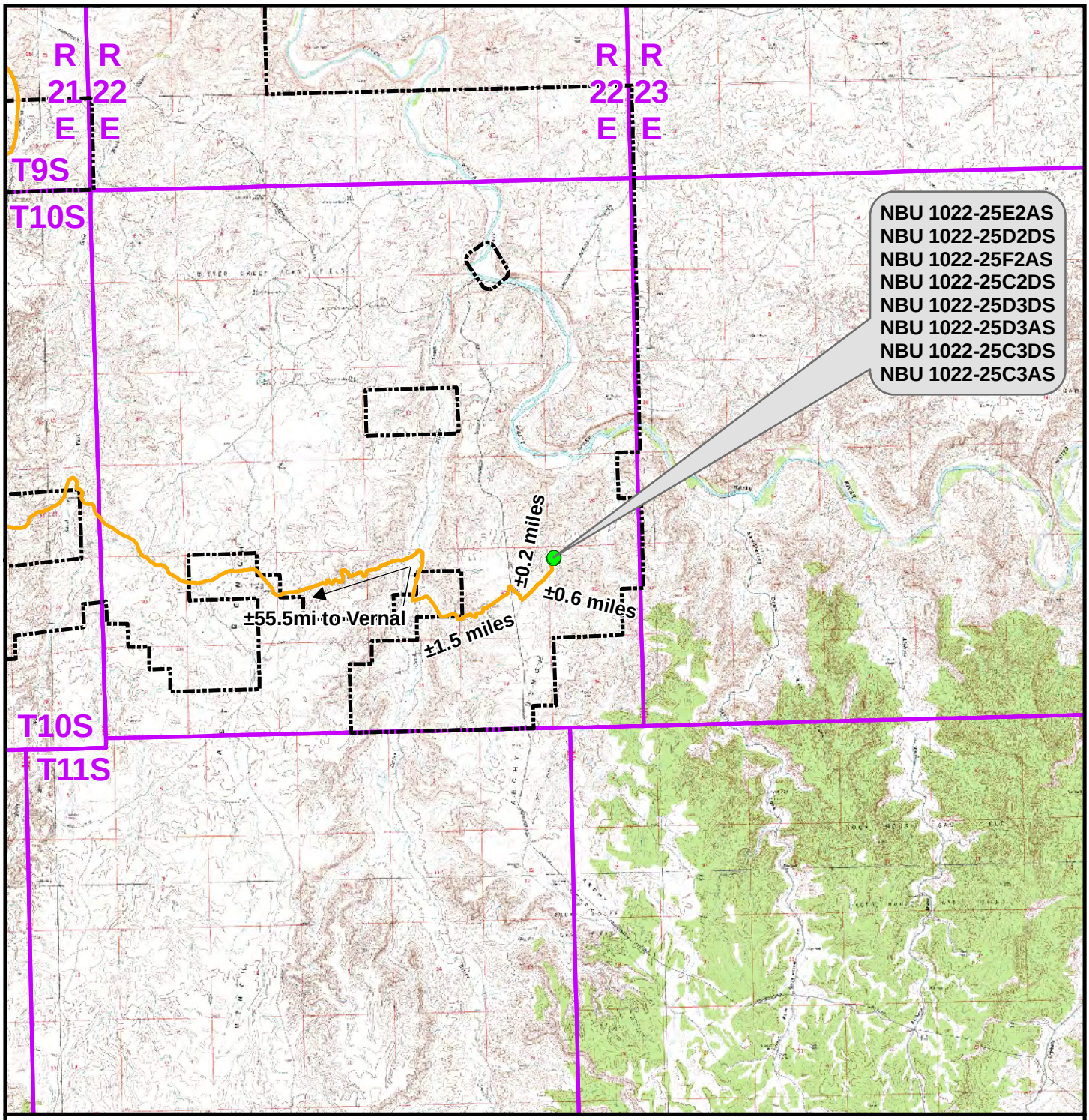
LOCATION PHOTOS
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS,
NBU 1022-25D3DS, NBU 1022-25D3AS,
NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.

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

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

DATE PHOTOS TAKEN: 02-18-11	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
DATE DRAWN: 02-22-11	DRAWN BY: M.W.W.	13
Date Last Revised:		13 OF 20

RECEIVED: January 26, 2012



Legend

Distance From Well Pad - NBU 1022-25D To Unit Boundary: ±4,101ft

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

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

WELL PAD - NBU 1022-25D

TOPO A
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

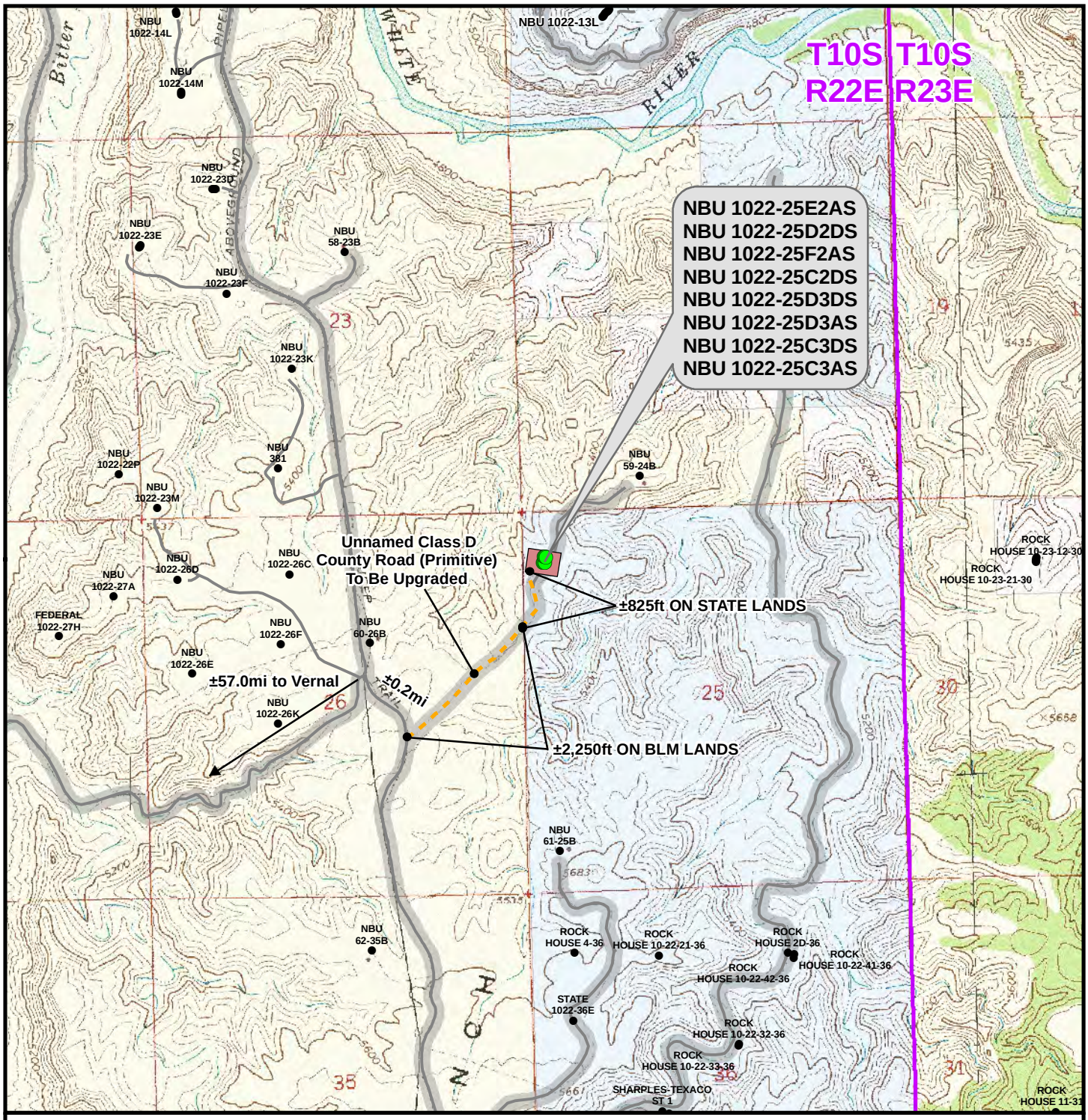
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1:100,000	NAD83 USP Central		Sheet No: 14
Drawn: CPS	Date: 4 Mar 2011		14 of 20
Revised:	Date:		

RECEIVED: January 26, 2012

API Well Number: 43047523020000



Legend

Total Proposed Road Length On State Lands: ±825ft

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

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

WELL PAD - NBU 1022-25D

TOPO B
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

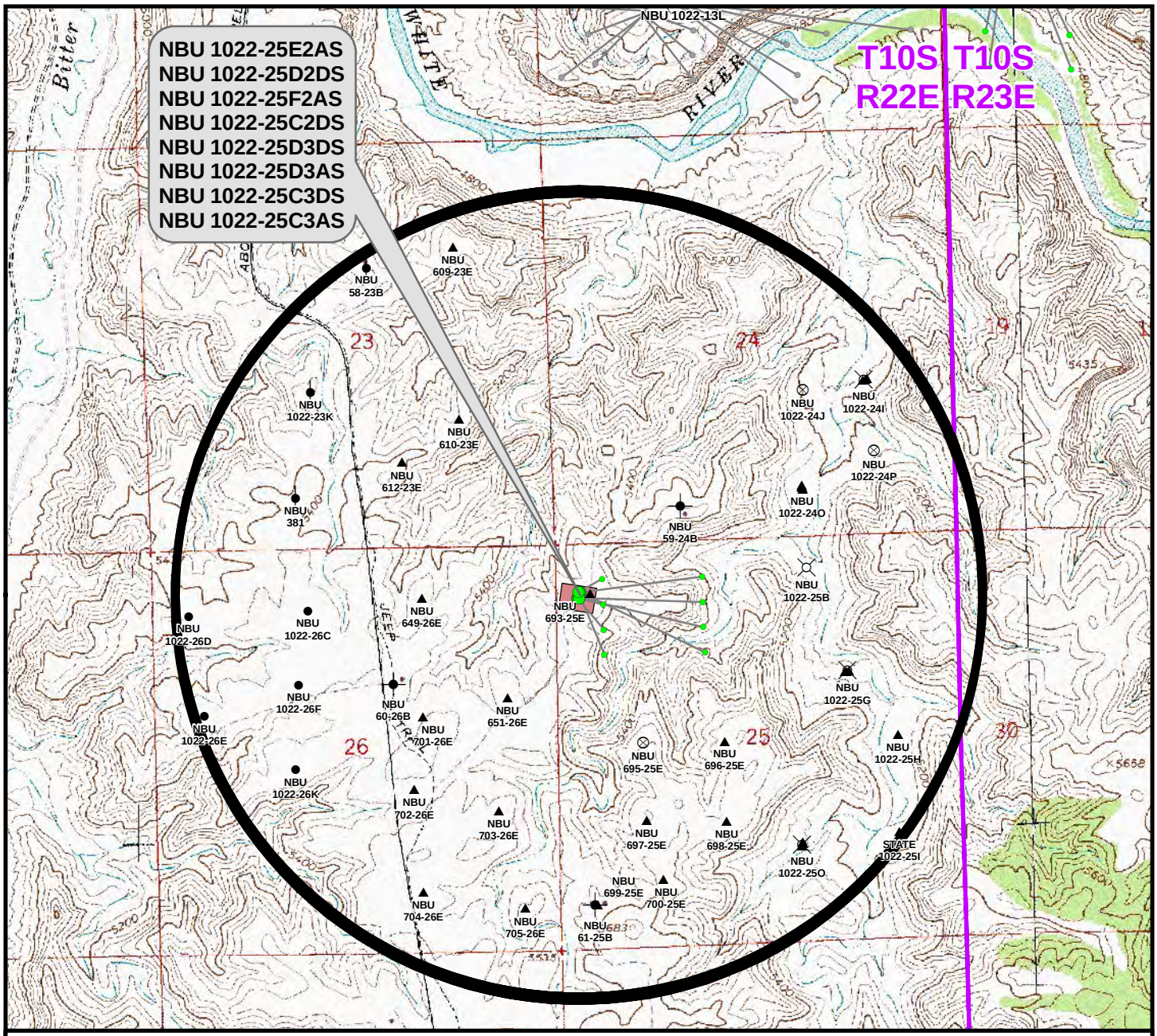
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 15
Drawn: CPS	Date: 9 Mar 2011	15 of 20
Revised:	Date:	

RECEIVED: January 26, 2012

API Well Number: 43047523020000



Proposed Well	Nearest Well Bore	Footage	Proposed Well	Nearest Well Bore	Footage
NBU 1022-25E2AS	NBU 59-24B	2,188ft	NBU 1022-25D3DS	NBU 59-24B	1,907ft
NBU 1022-25D2DS	NBU 59-24B	1,396ft	NBU 1022-25D3AS	NBU 59-24B	1,639ft
NBU 1022-25F2AS	NBU 59-24B	1,951ft	NBU 1022-25C3DS	NBU 59-24B	1,616ft
NBU 1022-25C2DS	NBU 59-24B	973ft	NBU 1022-25C3AS	NBU 59-24B	1,296ft

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

Legend

- Well - Proposed
- Well Path
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Pad
- Well - 1 Mile Radius
- Producing
- Active
- Spudded (Drilling commenced: Not yet completed)
- Approved permit (APD); not yet spudded
- New Permit (Not yet approved or drilled)
- Inactive
- Drilling Operations Suspended
- Temporarily-Abandoned
- Shut-In
- Plugged and Abandoned
- Location Abandoned
- Dry hole marker, buried
- Returned APD (Unapproved)

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

WELL PAD - NBU 1022-25D

TOPO C
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

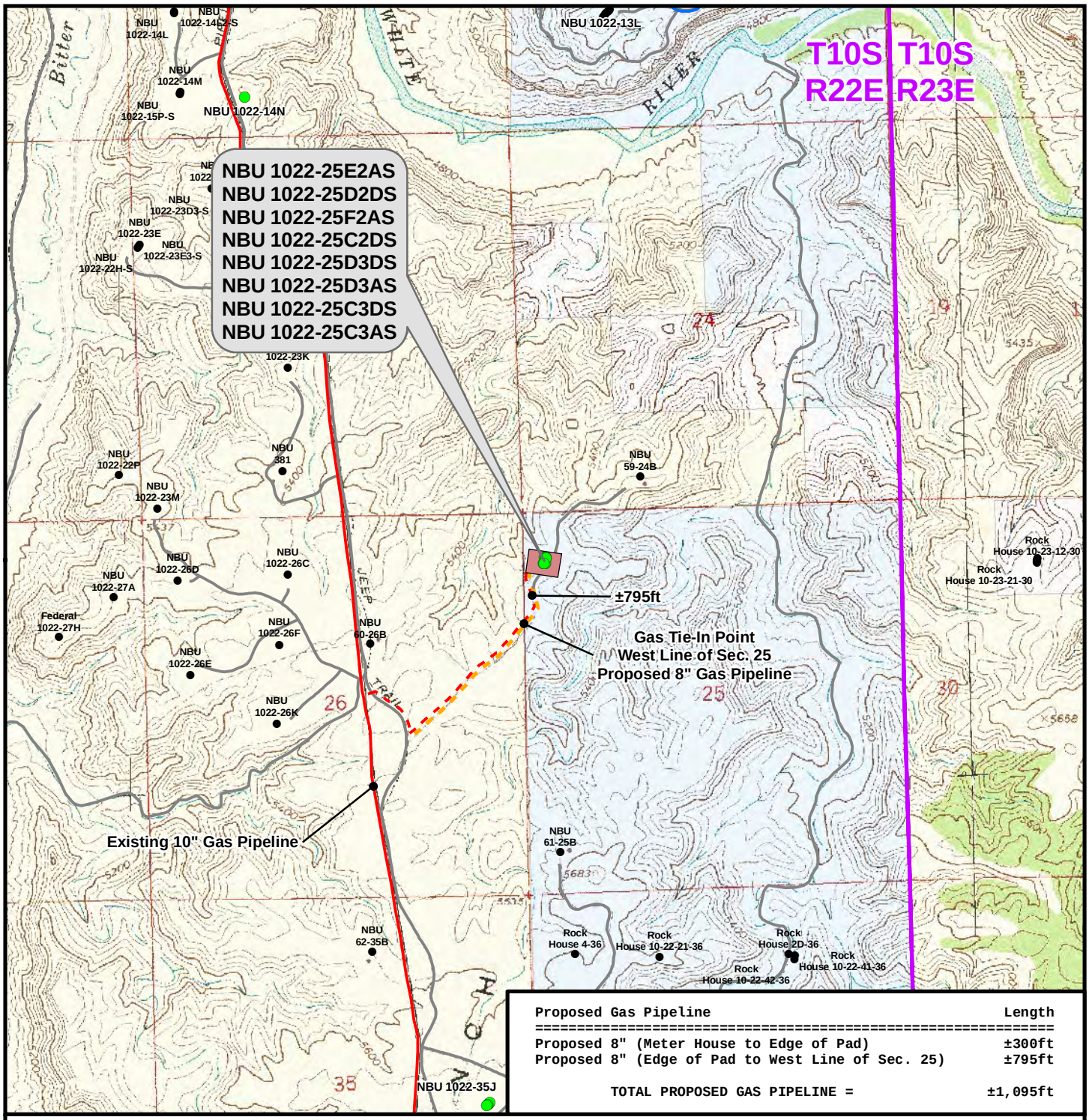
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 16
Drawn: CPS	Date: 4 Mar 2011	16 of 20
Revised:	Date:	

RECEIVED: January 26, 2012

API Well Number: 43047523020000



Proposed Gas Pipeline	Length
Proposed 8" (Meter House to Edge of Pad)	±300ft
Proposed 8" (Edge of Pad to West Line of Sec. 25)	±795ft
TOTAL PROPOSED GAS PIPELINE =	±1,095ft

Legend

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

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

WELL PAD - NBU 1022-25D

TOPO D
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 17
Drawn: TL	Date: 9 Mar 2011	17 of 20
Revised: CPS	Date: 11 Nov 2011	

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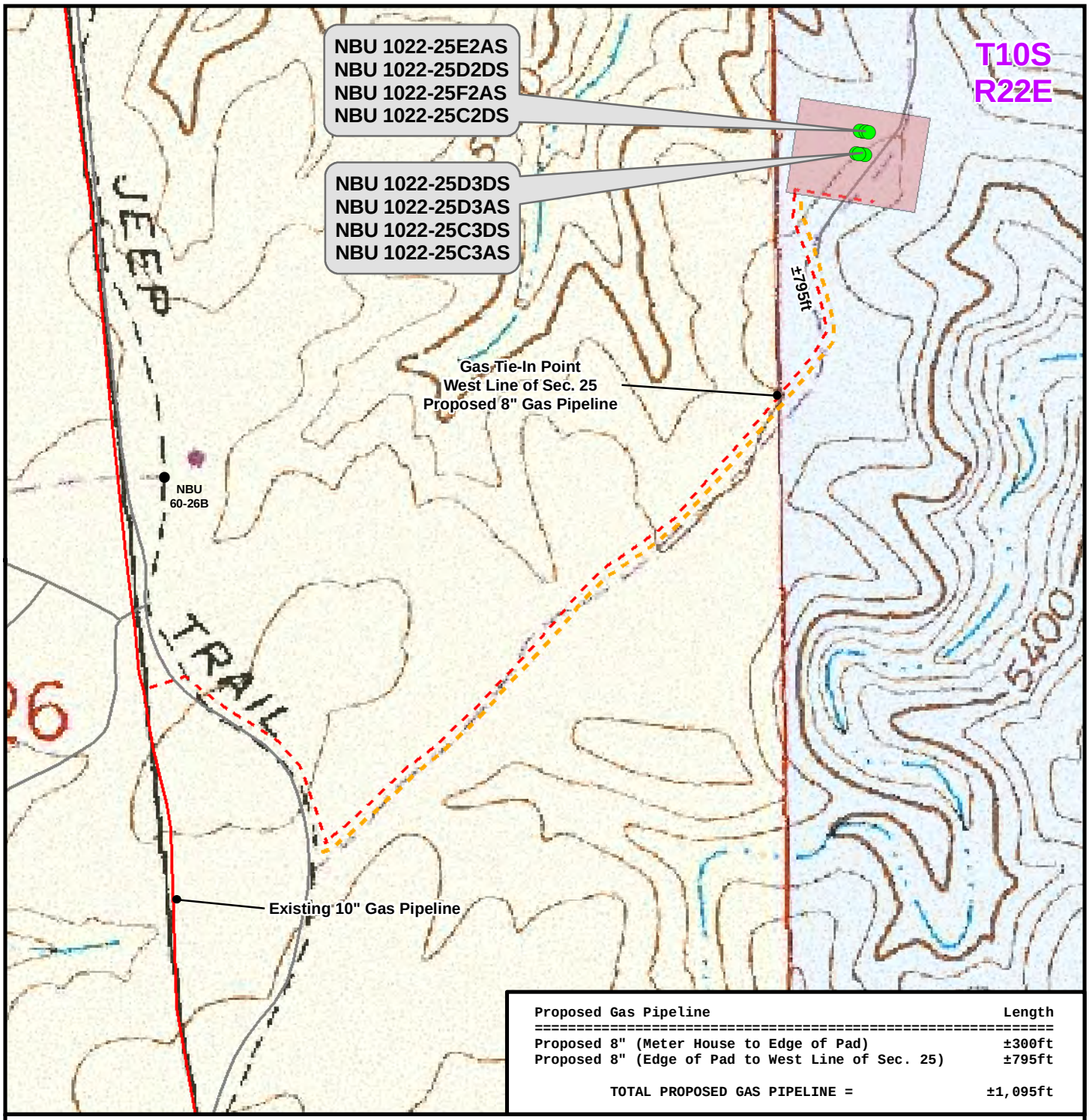
API Well Number: 43047523020000



Proposed Gas Pipeline	Length
Proposed 8" (Meter House to Edge of Pad)	±300ft
Proposed 8" (Edge of Pad to West Line of Sec. 25)	±795ft
TOTAL PROPOSED GAS PIPELINE =	±1,095ft

Legend

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

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

WELL PAD - NBU 1022-25D

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

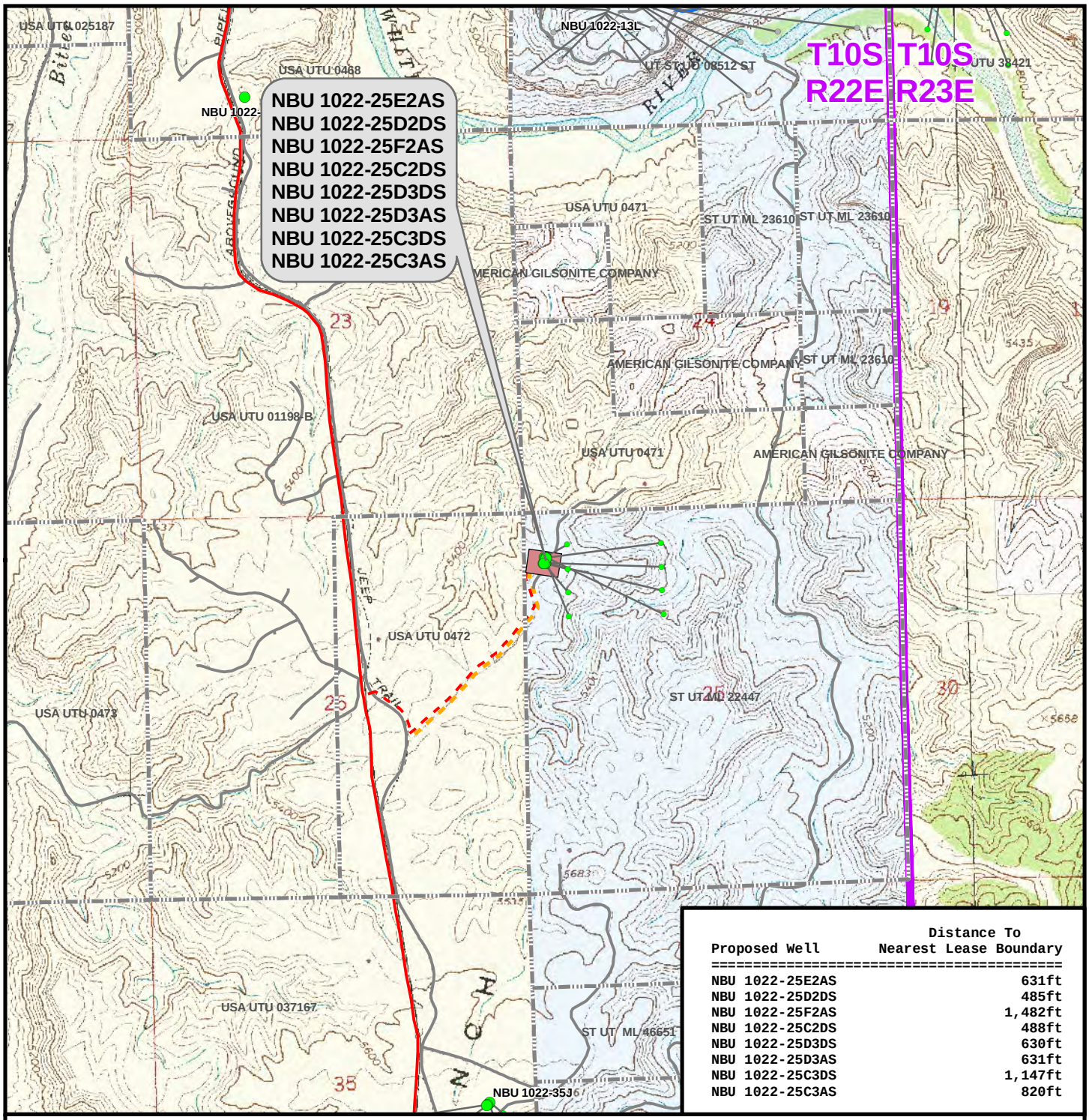
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 500ft	NAD83 USP Central	Sheet No: 18
Drawn: TL	Date: 9 Mar 2011	18 of 20
Revised: CPS	Date: 11 Nov 2011	

RECEIVED: January 26, 2012

API Well Number: 43047523020000



Proposed Well	Distance To Nearest Lease Boundary
NBU 1022-25E2AS	631ft
NBU 1022-25D2DS	485ft
NBU 1022-25F2AS	1,482ft
NBU 1022-25C2DS	488ft
NBU 1022-25D3DS	630ft
NBU 1022-25D3AS	631ft
NBU 1022-25C3DS	1,147ft
NBU 1022-25C3AS	820ft

Legend

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

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

WELL PAD - NBU 1022-25D

TOPO E
NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
LOCATED IN SECTION 25, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 19
Drawn: CPS	Date: 4 Mar 2011	19 of 20
Revised: CPS	Date: 11 Nov 2011	

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Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 1022-25D
WELLS – NBU 1022-25E2AS, NBU 1022-25D2DS,
NBU 1022-25F2AS, NBU 1022-25C2DS, NBU 1022-25D3DS,
NBU 1022-25D3AS, NBU 1022-25C3DS & NBU 1022-25C3AS
Section 25, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 23.8 miles to the intersection of the Bitter Creek Road (County B Road 4120). Exit left and proceed in a southeasterly direction along the Bitter Creek Road approximately 8.2 miles to the junction of the Bitter Creek Cut Off Road (County B Road 4140). Exit left and proceed in an easterly direction along the Bitter Creek Cut Off Road approximately 1.5 miles to the junction of the Archy Bench Road (County B Road 4150). Exit right and proceed in a southeasterly direction along the Archy Bench Road approximately 0.2 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road to be upgraded approximately 3075 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 57.8 miles in a southerly direction.

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US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
UINTAH_NBU 1022-25D PAD
NBU 1022-25E2AS

NBU 1022-25E2AS

Plan: NBU 1022-25E2AS (wp01)

Standard Planning Report

22 November, 2011

RECEIVED: January 26, 2012

API Well Number: 43047523020000

Project: UINTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 1022-25D PAD
Well: NBU 1022-25E2AS
Wellbore: NBU 1022-25E2AS
Section:
SHL:
Design: NBU 1022-25E2AS (wp01)
Latitude: 39.925337
Longitude: -109.395926
GL: 5481.00
KB: gl + rkb @ 5485.00ft

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1676.00	1721.61	MAHOGANY MARKER / GREEN RIVER
3926.00	4061.05	WASATCH / WASATCH
6084.00	6219.05	MESAVERDE / MESAVERDE

WELL DETAILS: NBU 1022-25E2AS

Ground Level: 5481.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	14502898.15	2090150.27	39.925337	-109.395926	

CASING DETAILS

TVD	MD	Name	Size
2126.00	2200.49	8-5/8"	8-5/8

T M

Azimuths to True North
Magnetic North: 10.96°

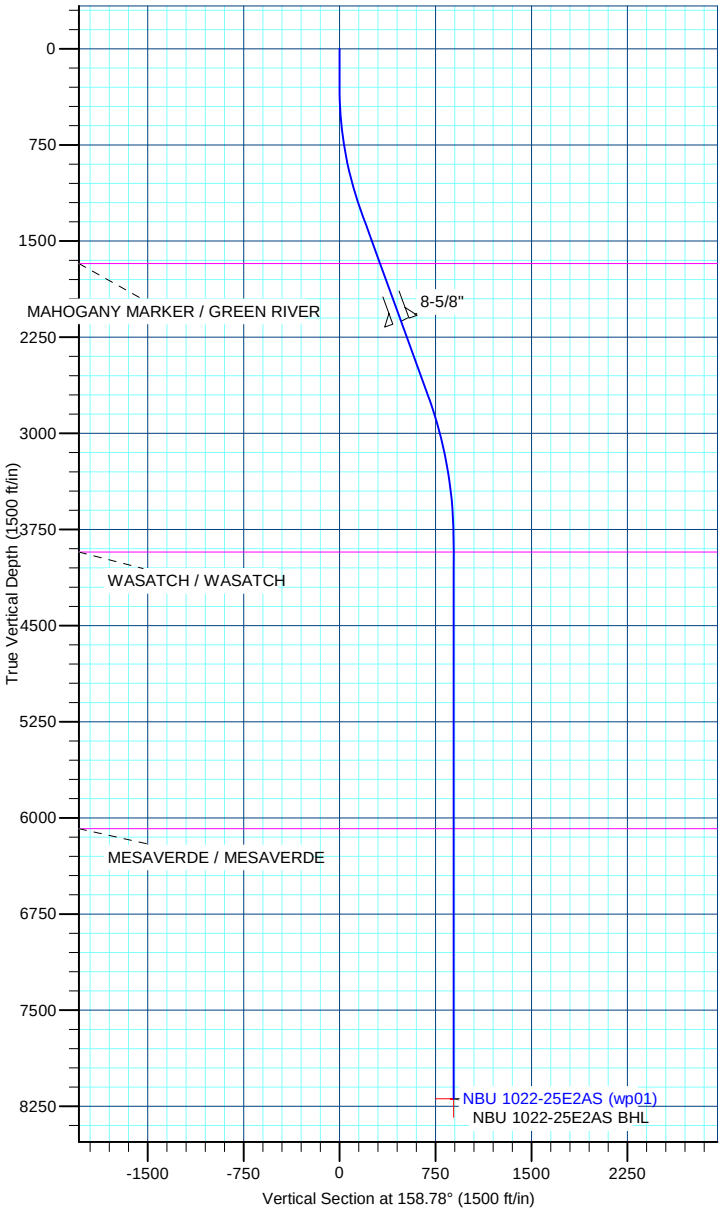
Magnetic Field
Strength: 52255.2snT
Dip Angle: 65.82°
Date: 11/22/2011
Model: IGRF2010

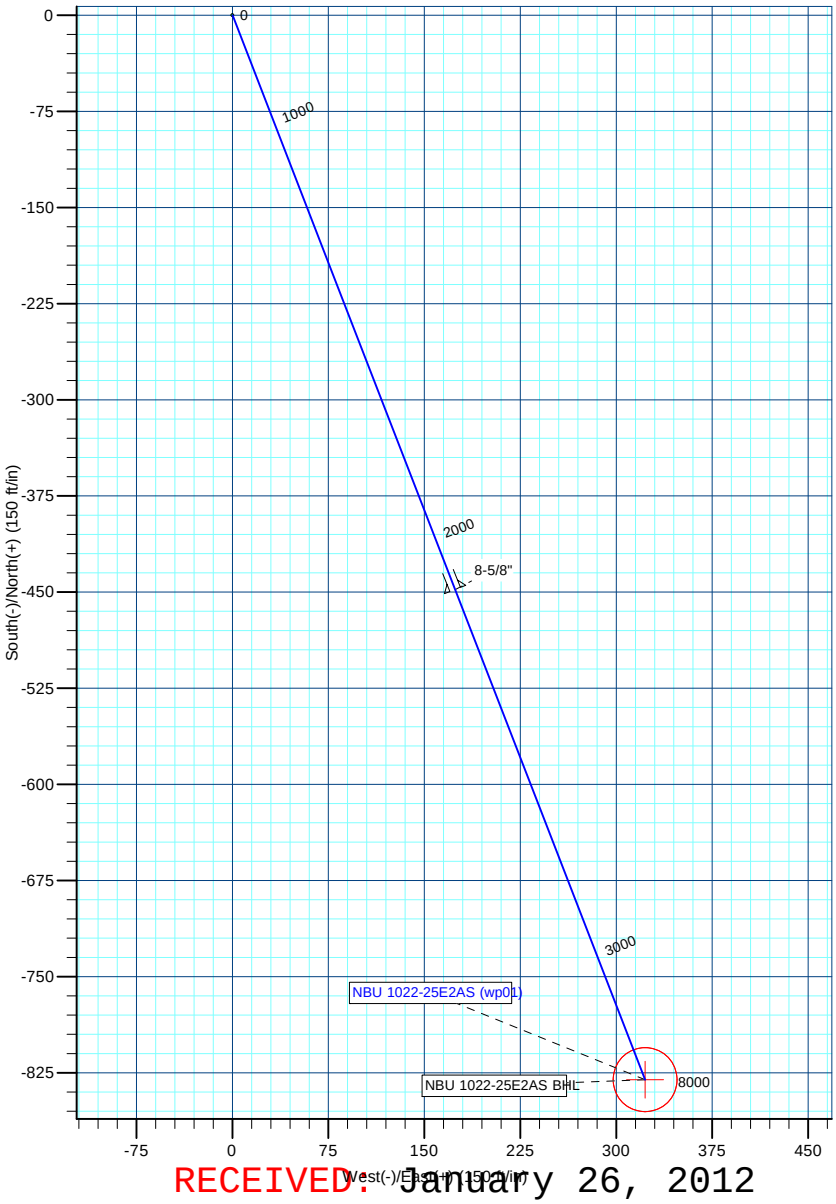
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
NBU 1022-25E2AS BHL	8191.00	-830.41	322.50	14502073.67	2090487.64	39.923057	-109.394776	Circle (Radius: 25.00)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00
1300.00	20.00	158.78	1279.82	-161.05	62.55	2.00	158.78	172.77
2822.18	20.00	158.78	2710.20	-646.35	251.02	0.00	0.00	693.38
3965.04	0.00	0.00	3829.99	-830.41	322.50	1.75	180.00	890.83
8326.05	0.00	0.00	8191.00	-830.41	322.50	0.00	0.00	890.83





RECEIVED: January 26, 2012

API Well Number: 43047523020000

Anadarko Petroleum Corp

Planning Report

Database:	edmp	**Local Co-ordinate Reference:**	Well NBU 1022-25E2AS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	gl + rkb @ 5485.00ft
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	gl + rkb @ 5485.00ft
Site:	UINTAH_NBU 1022-25D PAD	**North Reference:**	True
Well:	NBU 1022-25E2AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1022-25E2AS		
Design:	NBU 1022-25E2AS (wp01)		

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

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

Site UINTAH_NBU 1022-25D PAD

Site Position:		**Northing:**	14,502,894.87 usft	**Latitude:**	39.925327
From:	Lat/Long	**Easting:**	2,090,169.96 usft	**Longitude:**	-109.395856
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	1.03 °

Well NBU 1022-25E2AS

Well Position	**+N/-S**	3.64 ft	**Northing:**	14,502,898.15 usft	**Latitude:**	39.925337
	+E/-W	-19.63 ft	**Easting:**	2,090,150.26 usft	**Longitude:**	-109.395926
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	5,481.00 ft

Wellbore NBU 1022-25E2AS

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/22/2011	10.96	65.82	52,255

Design NBU 1022-25E2AS (wp01)

Audit Notes:

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

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	158.78

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	158.78	1,279.82	-161.05	62.55	2.00	2.00	0.00	158.78	
2,822.18	20.00	158.78	2,710.20	-646.35	251.02	0.00	0.00	0.00	0.00	
3,965.04	0.00	0.00	3,829.99	-830.41	322.50	1.75	-1.75	0.00	180.00	
8,326.05	0.00	0.00	8,191.00	-830.41	322.50	0.00	0.00	0.00	0.00	NBU 1022-25E2AS B

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Planning Report

Database:	edmp	**Local Co-ordinate Reference:**	Well NBU 1022-25E2AS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	gl + rkb @ 5485.00ft
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	gl + rkb @ 5485.00ft
Site:	UINTAH_NBU 1022-25D PAD	**North Reference:**	True
Well:	NBU 1022-25E2AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1022-25E2AS		
Design:	NBU 1022-25E2AS (wp01)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	158.78	399.98	-1.63	0.63	1.75	2.00	2.00	0.00
500.00	4.00	158.78	499.84	-6.51	2.53	6.98	2.00	2.00	0.00
600.00	6.00	158.78	599.45	-14.63	5.68	15.69	2.00	2.00	0.00
700.00	8.00	158.78	698.70	-25.99	10.09	27.88	2.00	2.00	0.00
800.00	10.00	158.78	797.47	-40.57	15.76	43.52	2.00	2.00	0.00
900.00	12.00	158.78	895.62	-58.36	22.66	62.60	2.00	2.00	0.00
1,000.00	14.00	158.78	993.06	-79.32	30.81	85.10	2.00	2.00	0.00
1,100.00	16.00	158.78	1,089.64	-103.45	40.18	110.98	2.00	2.00	0.00
1,200.00	18.00	158.78	1,185.27	-130.70	50.76	140.21	2.00	2.00	0.00
1,300.00	20.00	158.78	1,279.82	-161.05	62.55	172.77	2.00	2.00	0.00
1,400.00	20.00	158.78	1,373.78	-192.93	74.93	206.97	0.00	0.00	0.00
1,500.00	20.00	158.78	1,467.75	-224.81	87.31	241.17	0.00	0.00	0.00
1,600.00	20.00	158.78	1,561.72	-256.69	99.69	275.37	0.00	0.00	0.00
1,700.00	20.00	158.78	1,655.69	-288.58	112.07	309.58	0.00	0.00	0.00
1,721.61	20.00	158.78	1,676.00	-295.47	114.75	316.97	0.00	0.00	0.00
MAHOGANY MARKER / GREEN RIVER									
1,800.00	20.00	158.78	1,749.66	-320.46	124.46	343.78	0.00	0.00	0.00
1,900.00	20.00	158.78	1,843.63	-352.34	136.84	377.98	0.00	0.00	0.00
2,000.00	20.00	158.78	1,937.60	-384.22	149.22	412.18	0.00	0.00	0.00
2,100.00	20.00	158.78	2,031.57	-416.11	161.60	446.38	0.00	0.00	0.00
2,200.00	20.00	158.78	2,125.54	-447.99	173.98	480.59	0.00	0.00	0.00
2,200.49	20.00	158.78	2,126.00	-448.14	174.04	480.75	0.00	0.00	0.00
8-5/8"									
2,300.00	20.00	158.78	2,219.51	-479.87	186.37	514.79	0.00	0.00	0.00
2,400.00	20.00	158.78	2,313.48	-511.75	198.75	548.99	0.00	0.00	0.00
2,500.00	20.00	158.78	2,407.45	-543.63	211.13	583.19	0.00	0.00	0.00
2,600.00	20.00	158.78	2,501.42	-575.52	223.51	617.39	0.00	0.00	0.00
2,700.00	20.00	158.78	2,595.39	-607.40	235.89	651.60	0.00	0.00	0.00
2,800.00	20.00	158.78	2,689.35	-639.28	248.27	685.80	0.00	0.00	0.00
2,822.18	20.00	158.78	2,710.20	-646.35	251.02	693.38	0.00	0.00	0.00
2,900.00	18.64	158.78	2,783.63	-670.35	260.34	719.13	1.75	-1.75	0.00
3,000.00	16.89	158.78	2,878.86	-698.79	271.39	749.64	1.75	-1.75	0.00
3,100.00	15.14	158.78	2,974.98	-724.50	281.37	777.22	1.75	-1.75	0.00
3,200.00	13.39	158.78	3,071.89	-747.47	290.29	801.86	1.75	-1.75	0.00
3,300.00	11.64	158.78	3,169.51	-767.66	298.13	823.52	1.75	-1.75	0.00
3,400.00	9.89	158.78	3,267.75	-785.07	304.89	842.20	1.75	-1.75	0.00
3,500.00	8.14	158.78	3,366.51	-799.67	310.57	857.86	1.75	-1.75	0.00
3,600.00	6.39	158.78	3,465.70	-811.46	315.14	870.50	1.75	-1.75	0.00
3,700.00	4.64	158.78	3,565.24	-820.41	318.62	880.11	1.75	-1.75	0.00
3,800.00	2.89	158.78	3,665.02	-826.53	321.00	886.67	1.75	-1.75	0.00
3,900.00	1.14	158.78	3,764.95	-829.80	322.27	890.19	1.75	-1.75	0.00
3,965.04	0.00	0.00	3,829.99	-830.41	322.50	890.83	1.75	-1.75	0.00
4,000.00	0.00	0.00	3,864.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,061.05	0.00	0.00	3,926.00	-830.41	322.50	890.83	0.00	0.00	0.00
WASATCH / WASATCH									
4,100.00	0.00	0.00	3,964.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,200.00	0.00	0.00	4,064.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,300.00	0.00	0.00	4,164.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,400.00	0.00	0.00	4,264.95	-830.41	322.50	890.83	0.00	0.00	0.00

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Planning Report

Database:	edmp	**Local Co-ordinate Reference:**	Well NBU 1022-25E2AS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	gl + rkb @ 5485.00ft
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	gl + rkb @ 5485.00ft
Site:	UINTAH_NBU 1022-25D PAD	**North Reference:**	True
Well:	NBU 1022-25E2AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1022-25E2AS		
Design:	NBU 1022-25E2AS (wp01)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	0.00	0.00	4,364.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,600.00	0.00	0.00	4,464.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,700.00	0.00	0.00	4,564.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,800.00	0.00	0.00	4,664.95	-830.41	322.50	890.83	0.00	0.00	0.00
4,900.00	0.00	0.00	4,764.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,000.00	0.00	0.00	4,864.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,100.00	0.00	0.00	4,964.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,200.00	0.00	0.00	5,064.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,300.00	0.00	0.00	5,164.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,400.00	0.00	0.00	5,264.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,500.00	0.00	0.00	5,364.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,600.00	0.00	0.00	5,464.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,700.00	0.00	0.00	5,564.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,800.00	0.00	0.00	5,664.95	-830.41	322.50	890.83	0.00	0.00	0.00
5,900.00	0.00	0.00	5,764.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,000.00	0.00	0.00	5,864.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,100.00	0.00	0.00	5,964.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,200.00	0.00	0.00	6,064.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,219.05	0.00	0.00	6,084.00	-830.41	322.50	890.83	0.00	0.00	0.00
MESAVERDE / MESAVERDE									
6,300.00	0.00	0.00	6,164.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,400.00	0.00	0.00	6,264.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,500.00	0.00	0.00	6,364.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,600.00	0.00	0.00	6,464.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,700.00	0.00	0.00	6,564.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,800.00	0.00	0.00	6,664.95	-830.41	322.50	890.83	0.00	0.00	0.00
6,900.00	0.00	0.00	6,764.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,000.00	0.00	0.00	6,864.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,100.00	0.00	0.00	6,964.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,200.00	0.00	0.00	7,064.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,300.00	0.00	0.00	7,164.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,400.00	0.00	0.00	7,264.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,500.00	0.00	0.00	7,364.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,600.00	0.00	0.00	7,464.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,700.00	0.00	0.00	7,564.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,800.00	0.00	0.00	7,664.95	-830.41	322.50	890.83	0.00	0.00	0.00
7,900.00	0.00	0.00	7,764.95	-830.41	322.50	890.83	0.00	0.00	0.00
8,000.00	0.00	0.00	7,864.95	-830.41	322.50	890.83	0.00	0.00	0.00
8,100.00	0.00	0.00	7,964.95	-830.41	322.50	890.83	0.00	0.00	0.00
8,200.00	0.00	0.00	8,064.95	-830.41	322.50	890.83	0.00	0.00	0.00
8,300.00	0.00	0.00	8,164.95	-830.41	322.50	890.83	0.00	0.00	0.00
8,326.05	0.00	0.00	8,191.00	-830.41	322.50	890.83	0.00	0.00	0.00
NBU 1022-25E2AS BHL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NBU 1022-25E2AS BHL - plan hits target center - Circle (radius 25.00)	0.00	0.00	8,191.00	-830.41	322.50	14,502,073.68	2,090,487.64	39.923057	-109.394776

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Anadarko Petroleum Corp

Planning Report

Database:	edmp	**Local Co-ordinate Reference:**	Well NBU 1022-25E2AS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	gl + rkb @ 5485.00ft
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	gl + rkb @ 5485.00ft
Site:	UINTAH_NBU 1022-25D PAD	**North Reference:**	True
Well:	NBU 1022-25E2AS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	NBU 1022-25E2AS		
Design:	NBU 1022-25E2AS (wp01)		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,200.49	2,126.00	8-5/8"	8-5/8	11

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,721.61	1,676.00	MAHOGANY MARKER / GREEN RIVEF			
4,061.05	3,926.00	WASATCH / WASATCH			
6,219.05	6,084.00	MESAVERDE / MESAVERDE			

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NBU 1022-25C2DS

Surface:	653 FNL / 339 FWL	NWNW	Lot
BHL:	488 FNL / 1933 FWL	NENW	Lot

NBU 1022-25C3AS

Surface:	732 FNL / 324 FWL	NWNW	Lot
BHL:	820 FNL / 1938 FWL	NENW	Lot

NBU 1022-25C3DS

Surface:	730 FNL / 314 FWL	NWNW	Lot
BHL:	1147 FNL / 1931 FWL	NENW	Lot

NBU 1022-25D2DS

Surface:	650 FNL / 319 FWL	NWNW	Lot
BHL:	485 FNL / 630 FWL	NWNW	Lot

NBU 1022-25D3AS

Surface:	729 FNL / 305 FWL	NWNW	Lot
BHL:	822 FNL / 631 FWL	NWNW	Lot

NBU 1022-25D3DS

Surface:	727 FNL / 295 FWL	NWNW	Lot
BHL:	1152 FNL / 630 FWL	NWNW	Lot

NBU 1022-25E2AS

Surface:	648 FNL / 309 FWL	NWNW	Lot
BHL:	1479 FNL / 631 FWL	SWNW	Lot

NBU 1022-25F2AS

Surface:	652 FNL / 329 FWL	NWNW	Lot
BHL:	1482 FNL / 1955 FWL	SENW	Lot

Pad: NBU 1022-25D PAD

Section 25 T10S R22E

Mineral Lease: UT ST ML 22447

Uintah County, Utah

Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

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See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

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

A. Existing Roads:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

One new access road is proposed (see Topo Map B). The ±825 ft route will be an upgrade to an unnamed Class D County Road. Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

New roads will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

The NBU 1022-25D pad is a newly proposed wellpad with no existing wells.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

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Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is ±1,095' and the individual segments are broken up as follows:

±300' (0.05 miles) –New 8" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
±795' (0.1 miles) –New 8" buried gas pipeline from the edge of pad to the West Line of Section 25 at the Gas Tie-In Point. Please refer to Topo D2 - Pad and Pipeline Detail.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. <u>Location and Type of Water Supply</u>:

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

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

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

No water well is to be drilled on this lease.

E. <u>Source of Construction Materials</u>:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

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F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E
Ouray #1 SWD in Sec. 1 T9S R21E
NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 33 T9S R21E
NBU 921-34L SWD in Sec. 34 T9S R21E

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Unless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum

trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

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For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs “Reporting Oil and Gas Undesirable Events” rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term “hazardous materials” as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. <u>Ancillary Facilities</u>:

None are anticipated.

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H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/ egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left “rough” after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/ completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

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After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

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

L. Other Information:

None

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

Jaime Scharnowske
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6304

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

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

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

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

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Jaime Scharnowske

Jaime Scharnowske

January 23, 2012

Date

RECEIVED: January 26, 2012

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

BRETT TORINAI
TELEPHONE: (720) 929-6081
EMAIL: BRETT.TORINA@ANADARKO.COM

January 24, 2012

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

Re: Directional Drilling R649-3-11
NBU 1022-25E2AS
T10S R22E
Section 25: NWNW (Surface) /SWNW (Bottom Hole)
Surface: 648' FNL, 309' FWL
Bottom Hole: 1479' FNL, 631' FWL
Uintah County, Utah

Dear Mrs. 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 Directional Drilling of Wells.

- Kerr-McGee's NBU 1022-25E2AS 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,

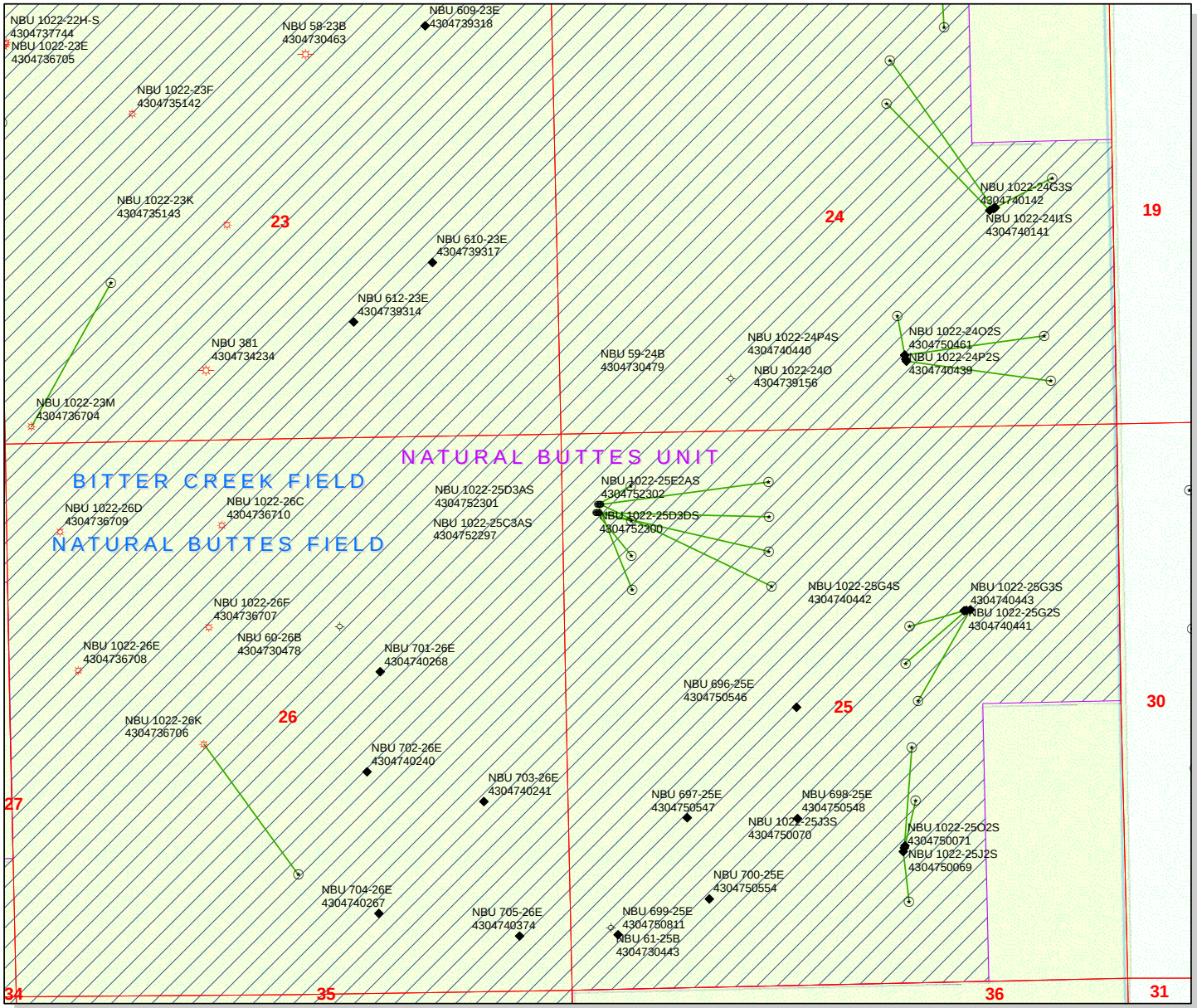
KERR-MCGEE OIL & GAS ONSHORE LP

Brett Torina

Brett Torina
Landman

RECEIVED: January 26, 2012

API Well Number: 43047523020000



API Number: 4304752302

Well Name: NBU 1022-25E2AS

Township T1.0 . Range R2.2 . Section 25

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields
STATUS
- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED

Wells Query
Status
- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LA - Location Abandoned
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- RET - Returned APD
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

1,200 600 0 1,200 Feet

1:11,754

RECEIVED: February 01, 2012

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

February 10, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 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 2011 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
WELL PAD - NBU 1022-25D		
43-047-52295	NBU 1022-25C2DS	Sec 25 T10S R22E 0653 FNL 0339 FWL
		BHL Sec 25 T10S R22E 0488 FNL 1933 FWL
43-047-52296	NBU 1022-25C3DS	Sec 25 T10S R22E 0730 FNL 0314 FWL
		BHL Sec 25 T10S R22E 1147 FNL 1931 FWL
43-047-52297	NBU 1022-25C3AS	Sec 25 T10S R22E 0732 FNL 0324 FWL
		BHL Sec 25 T10S R22E 0820 FNL 1938 FWL
43-047-52298	NBU 1022-25D2DS	Sec 25 T10S R22E 0650 FNL 0319 FWL (BH)
		BHL Sec 25 T10S R22E 0485 FNL 0630 FWL
43-047-52299	NBU 1022-25F2AS	Sec 25 T10S R22E 0652 FNL 0329 FWL
		BHL Sec 25 T10S R22E 1482 FNL 1955 FWL
43-047-52300	NBU 1022-25D3DS	Sec 25 T10S R22E 0727 FNL 0295 FWL
		BHL Sec 25 T10S R22E 1152 FNL 0630 FWL
43-047-52301	NBU 1022-25D3AS	Sec 25 T10S R22E 0729 FNL 0305 FWL
		BHL Sec 25 T10S R22E 0822 FNL 0631 FWL
43-047-52302	NBU 1022-25E2AS	Sec 25 T10S R22E 0648 FNL 0309 FWL
		BHL Sec 25 T10S R22E 1479 FNL 0631 FWL
WELL PAD - NBU 1022-1A		
43-047-52335	NBU 1022-1A1BS	Sec 01 T10S R22E 1030 FNL 0663 FEL
		BHL Sec 01 T10S R22E 0099 FNL 0498 FEL

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API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-52336	NBU 1022-1A1CS	Sec 01 T10S R22E 1040 FNL 0665 FEL
		BHL Sec 01 T10S R22E 0416 FNL 0493 FEL
43-047-52337	NBU 1022-1A4BS	Sec 01 T10S R22E 1050 FNL 0667 FEL
		BHL Sec 01 T10S R22E 0748 FNL 0493 FEL
43-047-52338	NBU 1022-1H1CS	Sec 01 T10S R22E 1069 FNL 0670 FEL
		BHL Sec 01 T10S R22E 1745 FNL 0493 FEL
43-047-52340	NBU 1022-1A4CS	Sec 01 T10S R22E 1059 FNL 0668 FEL
		BHL Sec 01 T10S R22E 1083 FNL 0497 FEL
WELL PAD - NBU 1022-1B		
43-047-52339	NBU 1022-1B1BS	Sec 01 T10S R22E 0976 FNL 1453 FEL
		BHL Sec 01 T10S R22E 0262 FNL 1811 FEL
43-047-52341	NBU 1022-1B4CS	Sec 01 T10S R22E 0984 FNL 1447 FEL
		BHL Sec 01 T10S R22E 1282 FNL 1825 FEL
43-047-52342	NBU 1022-1B1CS	Sec 01 T10S R22E 0968 FNL 1459 FEL
		BHL Sec 01 T10S R22E 0580 FNL 1812 FEL
WELL PAD - NBU 1022-1E1		
43-047-52343	NBU 1022-1D1BS	Sec 01 T10S R22E 1559 FNL 1172 FWL
		BHL Sec 01 T10S R22E 0238 FNL 0820 FWL
43-047-52344	NBU 1022-1D1CS	Sec 01 T10S R22E 1568 FNL 1168 FWL
		BHL Sec 01 T10S R22E 0585 FNL 0820 FWL
43-047-52345	NBU 1022-1D4BS	Sec 01 T10S R22E 1577 FNL 1164 FWL
		BHL Sec 01 T10S R22E 0912 FNL 0822 FWL
43-047-52346	NBU 1022-1D4CS	Sec 01 T10S R22E 1586 FNL 1160 FWL
		BHL Sec 01 T10S R22E 1244 FNL 0822 FWL
43-047-52347	NBU 1022-1E1BS	Sec 01 T10S R22E 1596 FNL 1156 FWL
		BHL Sec 01 T10S R22E 1576 FNL 0821 FWL
43-047-52348	NBU 1022-1E1CS	Sec 01 T10S R22E 1605 FNL 1152 FWL
		BHL Sec 01 T10S R22E 1909 FNL 0821 FWL
WELL PAD - NBU 1022-1E3		
43-047-52349	NBU 1022-1E4BS	Sec 01 T10S R22E 2011 FNL 0086 FWL
		BHL Sec 01 T10S R22E 2241 FNL 0821 FWL
43-047-52350	NBU 1022-1E4CS	Sec 01 T10S R22E 2020 FNL 0088 FWL
		BHL Sec 01 T10S R22E 2573 FNL 0821 FWL
43-047-52351	NBU 1022-1L1BS	Sec 01 T10S R22E 2030 FNL 0091 FWL
		BHL Sec 01 T10S R22E 2409 FSL 0820 FWL
43-047-52356	NBU 1022-1L1CS	Sec 01 T10S R22E 2040 FNL 0094 FWL
		BHL Sec 01 T10S R22E 2077 FSL 0820 FWL
WELL PAD - NBU 1022-1F		
43-047-52352	NBU 1022-1K1BS	Sec 01 T10S R22E 2588 FNL 2468 FWL
		BHL Sec 01 T10S R22E 2574 FSL 2136 FWL

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API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE

43-047-52357 NBU 1022-1F4BS Sec 01 T10S R22E 2573 FNL 2480 FWL
BHL Sec 01 T10S R22E 2076 FNL 2138 FWL

43-047-52358 NBU 1022-1G4BS Sec 01 T10S R22E 2565 FNL 2486 FWL
BHL Sec 01 T10S R22E 2242 FNL 1808 FEL

43-047-52360 NBU 1022-1G4CS Sec 01 T10S R22E 2580 FNL 2474 FWL
BHL Sec 01 T10S R22E 2574 FNL 1808 FEL

WELL PAD - NBU 1022-1G

43-047-52353 NBU 1022-1C4CS Sec 01 T10S R22E 1366 FNL 2354 FEL
BHL Sec 01 T10S R22E 1080 FNL 2140 FWL

43-047-52354 NBU 1022-1F1CS Sec 01 T10S R22E 1395 FNL 2362 FEL
BHL Sec 01 T10S R22E 1744 FNL 2138 FWL

43-047-52355 NBU 1022-1G1CS Sec 01 T10S R22E 1385 FNL 2359 FEL
BHL Sec 01 T10S R22E 1909 FNL 1809 FEL

43-047-52363 NBU 1022-1F1BS Sec 01 T10S R22E 1375 FNL 2357 FEL
BHL Sec 01 T10S R22E 1412 FNL 2139 FWL

43-047-52386 NBU 1022-1C1CS Sec 01 T10S R22E 1356 FNL 2351 FEL
BHL Sec 01 T10S R22E 0415 FNL 2141 FWL

WELL PAD - NBU 1022-1J

43-047-52359 NBU 1022-1J1BS Sec 01 T10S R22E 1887 FSL 2226 FEL
BHL Sec 01 T10S R22E 2410 FSL 1807 FEL

43-047-52362 NBU 1022-1O1BS Sec 01 T10S R22E 1847 FSL 2232 FEL
BHL Sec 01 T10S R22E 1081 FSL 1805 FEL

43-047-52366 NBU 1022-1J4CS Sec 01 T10S R22E 1857 FSL 2231 FEL
BHL Sec 01 T10S R22E 1413 FSL 1805 FEL

43-047-52367 NBU 1022-1O4BS Sec 01 T10S R22E 1838 FSL 2234 FEL
BHL Sec 01 T10S R22E 0417 FSL 1804 FEL

43-047-52384 NBU 1022-1J1CS Sec 01 T10S R22E 1877 FSL 2227 FEL
BHL Sec 01 T10S R22E 2078 FSL 1807 FEL

WELL PAD - NBU 1022-1K

43-047-52361 NBU 1022-1M1BS Sec 01 T10S R22E 1966 FSL 2158 FWL
BHL Sec 01 T10S R22E 1081 FSL 0819 FWL

43-047-52365 NBU 1022-1K1CS Sec 01 T10S R22E 1994 FSL 2146 FWL
BHL Sec 01 T10S R22E 2242 FSL 2136 FWL

43-047-52370 NBU 1022-1K4CS Sec 01 T10S R22E 1948 FSL 2166 FWL
BHL Sec 01 T10S R22E 1578 FSL 2134 FWL

43-047-52371 NBU 1022-1L4BS Sec 01 T10S R22E 1985 FSL 2150 FWL
BHL Sec 01 T10S R22E 1745 FSL 0820 FWL

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API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE

43-047-52373 NBU 1022-1K4BS Sec 01 T10S R22E 1957 FSL 2162 FWL
BHL Sec 01 T10S R22E 1910 FSL 2135 FWL

43-047-52374 NBU 1022-1L4CS Sec 01 T10S R22E 1975 FSL 2154 FWL
BHL Sec 01 T10S R22E 1413 FSL 0819 FWL

WELL PAD - NBU 1022-1I

43-047-52364 NBU 1022-1I4CS Sec 01 T10S R22E 1828 FSL 0928 FEL
BHL Sec 01 T10S R22E 1579 FSL 0492 FEL

43-047-52368 NBU 1022-1I1BS Sec 01 T10S R22E 1826 FSL 0937 FEL
BHL Sec 01 T10S R22E 2576 FSL 0492 FEL

43-047-52369 NBU 1022-1I1CS Sec 01 T10S R22E 1830 FSL 0918 FEL
BHL Sec 01 T10S R22E 2243 FSL 0492 FEL

43-047-52382 NBU 1022-1H4CS Sec 01 T10S R22E 1824 FSL 0947 FEL
BHL Sec 01 T10S R22E 2410 FNL 0492 FEL

WELL PAD - NBU 1022-1N

43-047-52372 NBU 1022-1M4CS Sec 01 T10S R22E 1228 FSL 2092 FWL
BHL Sec 01 T10S R22E 0098 FSL 0810 FWL

43-047-52375 NBU 1022-1M4BS Sec 01 T10S R22E 1238 FSL 2093 FWL
BHL Sec 01 T10S R22E 0416 FSL 0819 FWL

43-047-52376 NBU 1022-1N1CS Sec 01 T10S R22E 1218 FSL 2092 FWL
BHL Sec 01 T10S R22E 0914 FSL 2133 FWL

43-047-52377 NBU 1022-1N4BS Sec 01 T10S R22E 1208 FSL 2091 FWL
BHL Sec 01 T10S R22E 0581 FSL 2132 FWL

43-047-52378 NBU 1022-1N4CS Sec 01 T10S R22E 1198 FSL 2090 FWL
BHL Sec 01 T10S R22E 0262 FSL 2124 FWL

43-047-52381 NBU 1022-1M1CS Sec 01 T10S R22E 1248 FSL 2094 FWL
BHL Sec 01 T10S R22E 0748 FSL 0819 FWL

WELL PAD - NBU 1022-1P

43-047-52379 NBU 1022-1P1BS Sec 01 T10S R22E 1168 FSL 0485 FEL
BHL Sec 01 T10S R22E 1246 FSL 0491 FEL

43-047-52380 NBU 1022-1P4BS Sec 01 T10S R22E 1154 FSL 0500 FEL
BHL Sec 01 T10S R22E 0582 FSL 0491 FEL

43-047-52383 NBU 1022-1O4CS Sec 01 T10S R22E 1141 FSL 0515 FEL
BHL Sec 01 T10S R22E 0106 FSL 1816 FEL

43-047-52385 NBU 1022-1P4CS Sec 01 T10S R22E 1148 FSL 0508 FEL
BHL Sec 01 T10S R22E 0270 FSL 0503 FEL

RECEIVED: February 10, 2012

The NBU 1022-25D2DS, 43-047-52298, is being permitted to target productive horizons below the unitized zone of the Natural Buttes Unit as defined in Section 3 of said agreement. We recommend not approving commingling of production with these zones and the unitized zones of the Natural Buttes Unit until this matter has been resolved by the BLM's Utah State Office.

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

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2012.02.10 08:36:59 -07'00'

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

MCoulthard:mc:2-10-12

RECEIVED: February 10, 2012

API Well Number: 43047523020000

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-25E2AS 43047523020000

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-25E2AS 4304752			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2130	8326		
Previous Shoe Setting Depth (TVD)	0	2130		
Max Mud Weight (ppg)	8.3	12.5		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5242	12.1		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	919	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	663	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	450	YES OK
			***Can Full Expected Pressure Be Held At Previous Shoe?**
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	450	NO Reasonable depth in area
Required Casing/BOPE Test Pressure=		2130	psi
***Max Pressure Allowed @ Previous Casing Shoe=**		0	psi *Assumes 1psi/ft frac gradient

Calculations	Prod String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	5412	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4413	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3580	YES OK
			***Can Full Expected Pressure Be Held At Previous Shoe?**
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4049	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
***Max Pressure Allowed @ Previous Casing Shoe=**		2130	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			***Can Full Expected Pressure Be Held At Previous Shoe?**
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
***Max Pressure Allowed @ Previous Casing Shoe=**			psi *Assumes 1psi/ft frac gradient

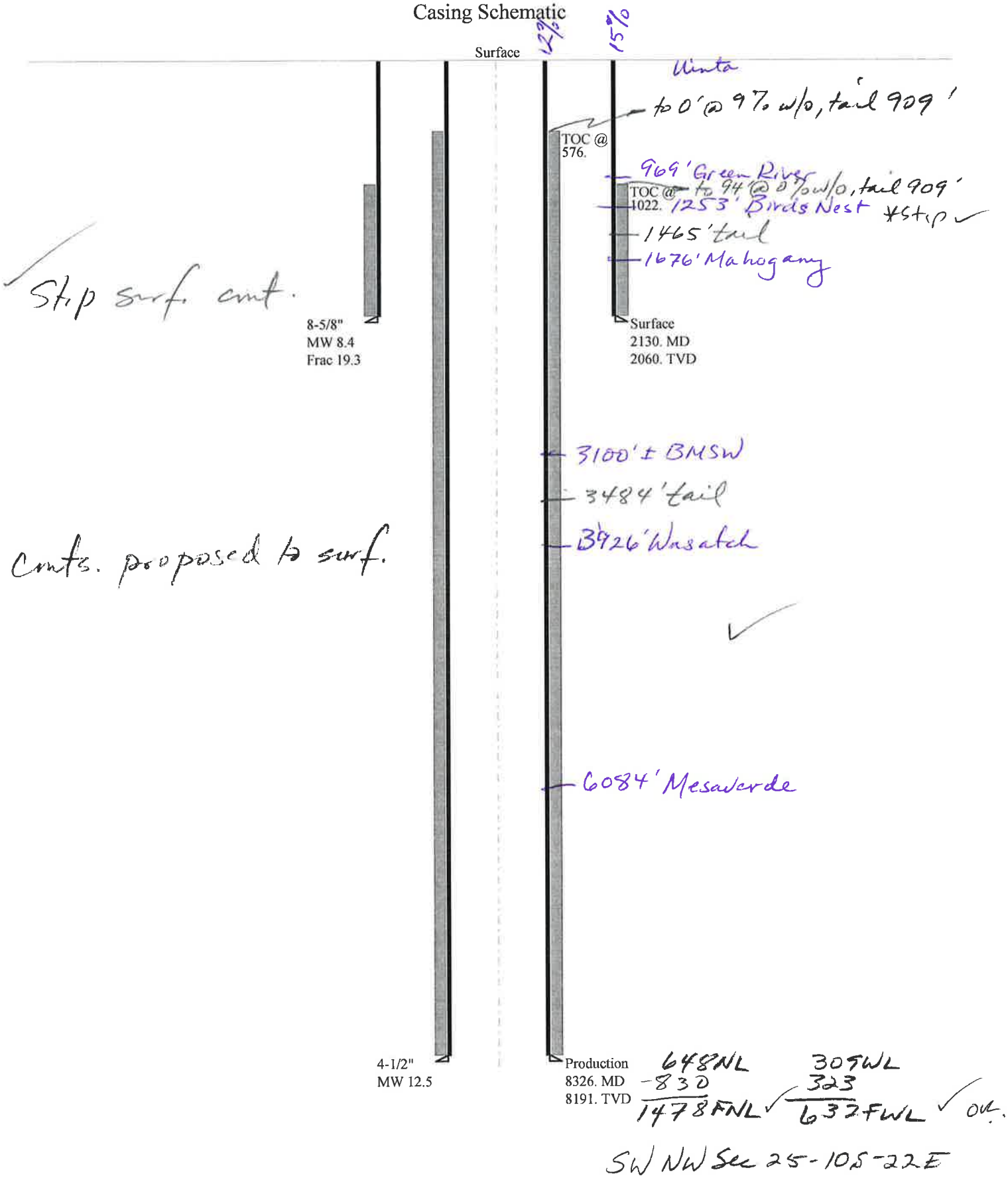
Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			***Can Full Expected Pressure Be Held At Previous Shoe?**
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
***Max Pressure Allowed @ Previous Casing Shoe=**			psi *Assumes 1psi/ft frac gradient

RECEIVED: March 20, 2012

API Well Number: 43047523020000

43047523020000 NBU 1022-25E2AS

Casing Schematic



API Well Number: 43047523020000

Well name:	**43047523020000 NBU 1022-25E2AS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Surface
Project ID:	43-047-52302
Location:	UINTAH COUNTY

Design parameters:

Collapse

Mud weight: 8.400 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 1,813 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 2,060 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.70 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on air weight.

Neutral point: 1,859 ft

Environment:

H2S considered? No

Surface temperature: 74 °F

Bottom hole temperature: 103 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 100 ft

Cement top: 1,022 ft

Directional well information:

Kick-off point 300 ft

Departure at shoe: 457 ft

Maximum dogleg: 2 °/100ft

Inclination at shoe: 20 °

Re subsequent strings:

Next setting depth: 8,191 ft

Next mud weight: 12.500 ppg

Next setting BHP: 5,319 psi

Fracture mud wt: 19.250 ppg

Fracture depth: 2,060 ft

Injection pressure: 2,060 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2130	8.625	28.00	I-55	LT&C	2060	2130	7.892	84348

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	899	1880	2.092	2060	3390	1.65	57.7	348	6.03 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940

Date: March 13,2012
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2060 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

API Well Number: 43047523020000

Well name:	**43047523020000 NBU 1022-25E2AS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Production
Project ID:	43-047-52302
Location:	UINTAH COUNTY

Design parameters:

Collapse

Mud weight: 12.500 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 3,517 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 5,319 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

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

Tension is based on air weight.
Neutral point: 6,795 ft

Estimated cost: 175,903 ($)

Environment:

H2S considered?	No
Surface temperature:	74 °F
Bottom hole temperature:	189 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	100 ft
Cement top:	576 ft

Directional Info - Build & Drop

Kick-off point	300 ft
Departure at shoe:	891 ft
Maximum dogleg:	2 °/100ft
Inclination at shoe:	0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
2	5000	4.5	11.60	I-80	DQX	4865	5000	3.875	132000
1	3326	4.5	11.60	I-80	LT&C	8191	8326	3.875	43903

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	3159	6049	1.915	4587	7780	1.70	95	267	2.81 J
1	5319	6360	1.196	5319	7780	1.46	38.6	212	5.49 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: March 13,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 8191 ft, a mud weight of 12.5 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 1022-25E2AS
API Number 43047523020000 **APD No** 5252 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 NWNW **Sec** 25 **Tw** 10.0S **Rng** 22.0E 648 FNL 309 FWL
GPS Coord (UTM) 637015 4420706 **Surface Owner**

Participants

Sheila Wopsock, Charles Chase, Jaime Scharnowke, Doyle Holmes, (Anadarko). John Slaugh, Mitch Batty, (Timberline). Ben Williams (DWR), David Hackford, (DOGM).

Regional/Local Setting & Topography

The general area is in the southeast end of the Natural Buttes Unit and contains the White River and short rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is 1.1 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 36 air miles and 58 road miles to the northwest. A total of eight gas wells will be drilled on this location.

The location is proposed on Archy Bench on top of a narrow ridge, which extends in a southerly to northerly direction. The ridge breaks off sharply on both the west and east sides into rugged canyons, which run northerly toward the White River. No drainages intersect the site and no diversions are needed. The location should be stable and pose no significant problems for drilling and operating eight wells.

The surface and minerals for this location are owned by SITLA.

Surface Use Plan

Current Surface Use
Grazing
Wildlfe Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
0.6	**Width** 330 **Length** 425	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation includes black sagebrush, bud sage, horsebrush, halogeton, curly mesquite, shadscale, cheatgrass, broom snakeweed, rabbit brush and spring annuals.

Antelope, coyote, small mammals and birds. Endangered fish species exist in the White River. Domestic sheep graze the area in the winter.

Soil Type and Characteristics

Rocky sandy clay loam

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

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

Reserve Pit

Site-Specific Factors		Site Ranking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut except for the northeast corner which will be 3.5 feet of fill.
This corner will be backed up with the excess cut stockpile. The reserve pit will be on the east side of the location. Dimensions are 230’ x 75’ x 12’ deep with two feet of freeboard. Kerr McGee has agreed to line this pit with a 30 mil synthetic liner and a felt sub-liner.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 30 **Pit Underlayment Required?** Y

Other Observations / Comments

David Hackford	2/15/2012
Evaluator	**Date / Time**

Application for Permit to Drill
Statement of Basis

Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
5252	43047523020000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		**Surface Owner-APD**		
Well Name	NBU 1022-25E2AS		**Unit**	NATURAL BUTTES	
Field	NATURAL BUTTES		**Type of Work**	DRILL	
Location	NWNW 25 10S 22E S 648 FNL 309 FWL GPS Coord (UTM) 637025E 4420691N				

Geologic Statement of Basis

Kerr McGee proposes to set 2,130’ of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,100'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 25. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill	2/28/2012
APD Evaluator	**Date / Time**

Surface Statement of Basis

The general area is in the southeast end of the Natural Buttes Unit and contains the White River and short
rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is 1.1 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 58 road miles to the northwest. The access road will be an existing 2-track road upgraded for 3075 feet.

The location will be for eight gas wells. They are the NBU 1022-25E2AS, NBU 1022-25D2DS, NBU 1022-25F2AS, NBU 1022-25C2DS, NBU1022-D3DS, NBU 1022-25D3AS, NBU 1022-25C3DS and the NBU 1022-25C3AS.

The location is proposed on Archy Bench on top of a narrow ridge, which extends in a southerly to northerly
direction. The ridge breaks off sharply on both the west and east sides into rugged canyons, which run northerly toward the White River. No drainages intersect the site and no diversions are needed. The location should be stable and pose no significant problems for drilling and operating eight wells.

The surface and minerals for this location are owned by SITLA. Jim Davis of SITLA was invited to this presite, but did not attended. Ben Williams represented the Utah Division of Wildlife Resources. He had no comments regarding wildlife issues. This site is the best site for a location in the immediate area.

RECEIVED: April 04, 2012

Application for Permit to Drill
Statement of Basis

Utah Division of Oil, Gas and Mining

David Hackford	2/15/2012
Onsite Evaluator	**Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the east side of the location.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.

RECEIVED: April 04, 2012

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 1/27/2012 **API NO. ASSIGNED:** 43047523020000

WELL NAME: NBU 1022-25E2AS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NWNW 25 100S 220E **Permit Tech Review:** ✔

SURFACE: 0648 FNL 0309 FWL **Engineering Review:** ✔

BOTTOM: 1479 FNL 0631 FWL **Geology Review:** ✔

COUNTY: UINTAH

LATITUDE: 39.92525 **LONGITUDE:** -109.39652

UTM SURF EASTINGS: 637025.00 **NORTHINGS:** 4420691.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22447 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 3 - State **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ✔ **PLAT**
- ✔ **Bond:** STATE/FEE - 22013542
- ☐ **Potash**
- ✔ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ✔ **Water Permit:** 43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ✔ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

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

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: Suspends General Siting

- ✔ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
5 - Statement of Basis - bhill
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmacdonald

RECEIVED: April 04, 2012

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 1022-25E2AS
API Well Number: 43047523020000
Lease Number: ML 22447
Surface Owner: STATE
Approval Date: 4/4/2012

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

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

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

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

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

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

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

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

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

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

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

- Within 24 hours following the spudding of the well - contact Carol Daniels OR submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

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

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

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

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

plugging

Approved By:

For John Rogers
Associate Director, Oil & Gas

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22447

SUNDRY NOTICES AND REPORTS ON WELLS

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-25E2AS

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

9. API NUMBER: 43047523020000

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: 0648 FNL 0309 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 25 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 4/4/2013	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

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

Approved by the Utah Division of Oil, Gas and Mining

Date: March 21, 2013

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Luke Urban	720 929-6501	Regulatory Specialist

SIGNATURE	DATE
N/A	3/21/2013

RECEIVED: Mar. 21, 2013

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047523020000

API: 43047523020000
Well Name: NBU 1022-25E2AS
Location: 0648 FNL 0309 FWL QTR NWNW SEC 25 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 4/4/2012

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

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

Signature: Luke Urban **Date:** 3/21/2013
Title: Regulatory Specialist **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Mar. 21, 2013

GARY R. HERBERT
Governor

SPENCER J. COX
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

February 20, 2014

Teena Paulo
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Suite 600
Denver, CO 80202

Re: APDs Rescinded for Kerr-McGee O&G Onshore, L.P., Uintah County

Dear Ms. Paulo:

Enclosed find the list of APDs that you have asked to be rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded, effective February 20, 2014.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason
Environmental Scientist

cc: Well File
Bureau of Land Management, Vernal

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING

43-047-52301	NBU 1022-25D3AS
43-047-52302	NBU 1022-25E2AS
43-047-53531	NBU 1022-5A4BS
43-047-53579	NBU 1022-5F4BS
43-047-50107	NBU 921-8B4S
43-047-50109	NBU 921-8A1S
43-047-52299	NBU 1022-25F2AS
43-047-52296	NBU 1022-25C3DS
43-047-52297	NBU 1022-25C3AS
43-047-52295	NBU 1022-25C2DS
43-047-52300	NBU 1022-25D3DS
43-047-52298	NBU 1022-25D2DS
43-047-51025	NBU 921-11I