

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

FORM 3

AMENDED REPORT 

<b>APPLICATION FOR PERMIT TO DRILL</b>						<b>1. WELL NAME and NUMBER</b> Bonanza 1023-16G1CS				
<b>2. TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						<b>3. FIELD OR WILDCAT</b> NATURAL BUTTES				
<b>4. TYPE OF WELL</b> Gas Well      Coalbed Methane Well: NO						<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b> PONDEROSA				
<b>6. NAME OF OPERATOR</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.						<b>7. OPERATOR PHONE</b> 720 929-6515				
<b>8. ADDRESS OF OPERATOR</b> P.O. Box 173779, Denver, CO, 80217						<b>9. OPERATOR E-MAIL</b> julie.jacobson@anadarko.com				
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> ML 22186 A			<b>11. MINERAL OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			<b>12. SURFACE OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>				
<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b>						<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b>				
<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>						<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>				
<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>			<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>			<b>19. SLANT</b> VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>				
<b>20. LOCATION OF WELL</b>		<b>FOOTAGES</b>		<b>QTR-QTR</b>	<b>SECTION</b>	<b>TOWNSHIP</b>	<b>RANGE</b>	<b>MERIDIAN</b>		
LOCATION AT SURFACE		2069 FSL 2356 FEL		NWSE	16	10.0 S	23.0 E	S		
Top of Uppermost Producing Zone		1818 FNL 1818 FEL		SWNE	16	10.0 S	23.0 E	S		
At Total Depth		1818 FNL 1818 FEL		SWNE	16	10.0 S	23.0 E	S		
<b>21. COUNTY</b> UINTAH			<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 845			<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 320				
			<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 1394			<b>26. PROPOSED DEPTH</b> MD: 8351 TVD: 8067				
<b>27. ELEVATION - GROUND LEVEL</b> 5494			<b>28. BOND NUMBER</b> 22013542			<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> 43-8496				
<b>Hole, Casing, and Cement Information</b>										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	11	8.625	0 - 2270	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 - 8351	11.6	I-80 LT&C	12.5	Premium Lite High Strength	270	3.38	12.0
							50/50 Poz	1140	1.31	14.3
<b>ATTACHMENTS</b>										
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>										
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER					<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
<b>NAME</b> Danielle Piernot				<b>TITLE</b> Regulatory Analyst			<b>PHONE</b> 720 929-6156			
<b>SIGNATURE</b>				<b>DATE</b> 06/01/2012			<b>EMAIL</b> danielle.piernot@anadarko.com			
<b>API NUMBER ASSIGNED</b> 43047527740000				<b>APPROVAL</b>   Permit Manager						

**Kerr-McGee Oil & Gas Onshore. L.P.****BONANZA 1023-16G1CS**

Surface: 2069 FSL / 2356 FEL NWSE  
 BHL: 1818 FNL / 1818 FEL SWNE

Section 16 T10S R23E

Uintah County, Utah  
 Mineral Lease: ML-22186 A

**ONSHORE ORDER NO. 1****DRILLING PROGRAM**

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1085'	
Birds Nest	1,311'	Water
Mahogany	1,820'	Water
Wasatch	4,015'	Gas
Mesaverde	5,941'	Gas
Sego	8,067'	Gas
TVD	8,067'	
TD	8,351'	

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

Please refer to the attached Drilling Program

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

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

**7. Abnormal Conditions:**

Maximum anticipated bottom hole pressure calculated at 8067' TVD, approximately equals  
 5,163 psi 0.64 psi/ft = actual bottomhole gradient

---

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

Maximum anticipated surface pressure equals approximately 3,377 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.

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 11 inch 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

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 not put the booster and standby compressor opposite from the bleed line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the bleed 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.





**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'							
SURFACE	8-5/8"	0 to 2,270	28.00	IJ-55	LTC	3,390	1,880	348,000	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	1.21		3.41
						1.11	1.21	7.09	

**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 Option 1	LEAD 500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
	TOP OUT CMT (6 jobs) 1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>						
SURFACE Option 2	LEAD 1,770'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	160	35%	11.00	3.82
	TAIL 500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD 3,511'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	270	35%	12.00	3.38
	TAIL 4,840'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,140	35%	14.30	1.31

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

**FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 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.

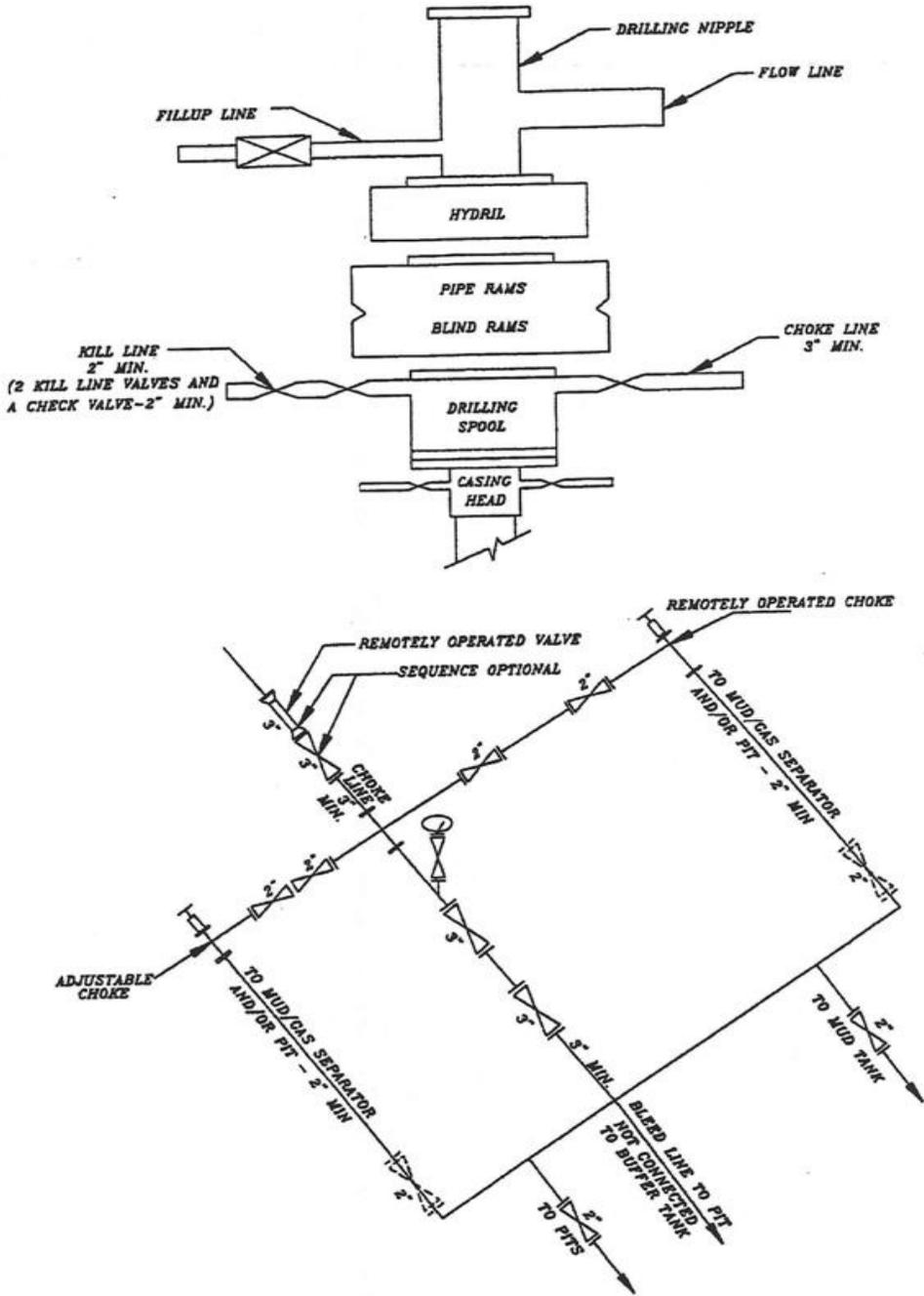
**DRILLING ENGINEER:** \_\_\_\_\_  
 Nick Spence / Danny Showers / Chad Loesel

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

**DRILLING SUPERINTENDENT:** \_\_\_\_\_  
 Kenny Gathings / Lovel Young

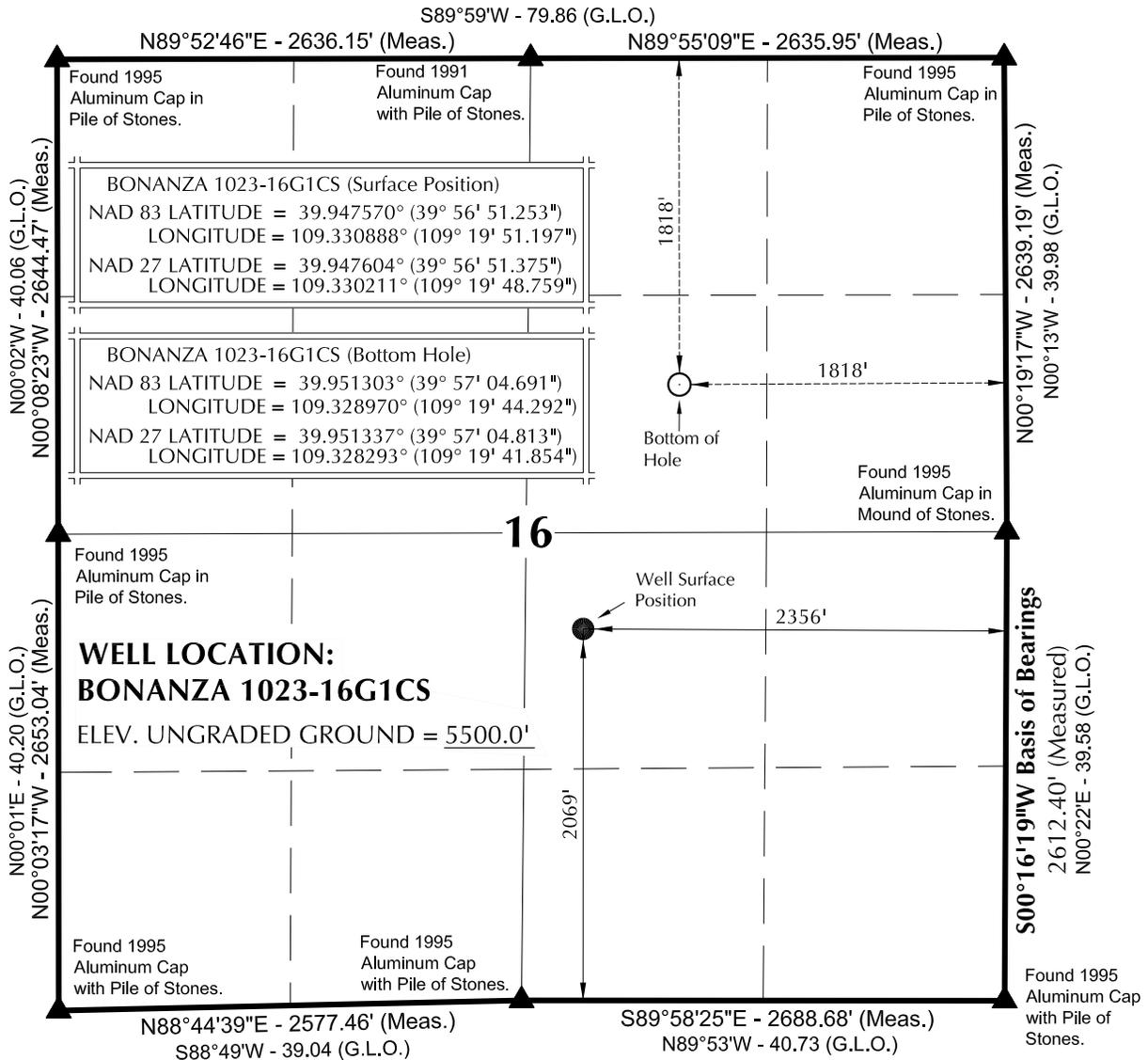
**DATE:** \_\_\_\_\_

### EXHIBIT A BONANZA 1023-16G1CS



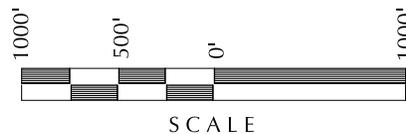
**SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK**

# T10S, R23E, 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 N21°29'30"E 1462.63' 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 ¼ 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'.



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

**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.

No. 6028691-24-12  
**JOHN R. LAUGH**  
 PROFESSIONAL LAND SURVEYOR  
 REGISTRATION No. 6028691  
 STATE OF UTAH

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

**WELL PAD: BONANZA 1023-16J**

**BONANZA 1023-16G1CS**  
**WELL PLAT**  
**1818' FNL, 1818' FEL (Bottom Hole)**  
**SW ¼ NE ¼ OF SECTION 16, T10S, R23E,**  
**S.L.B.&M., UTAH COUNTY, UTAH.**

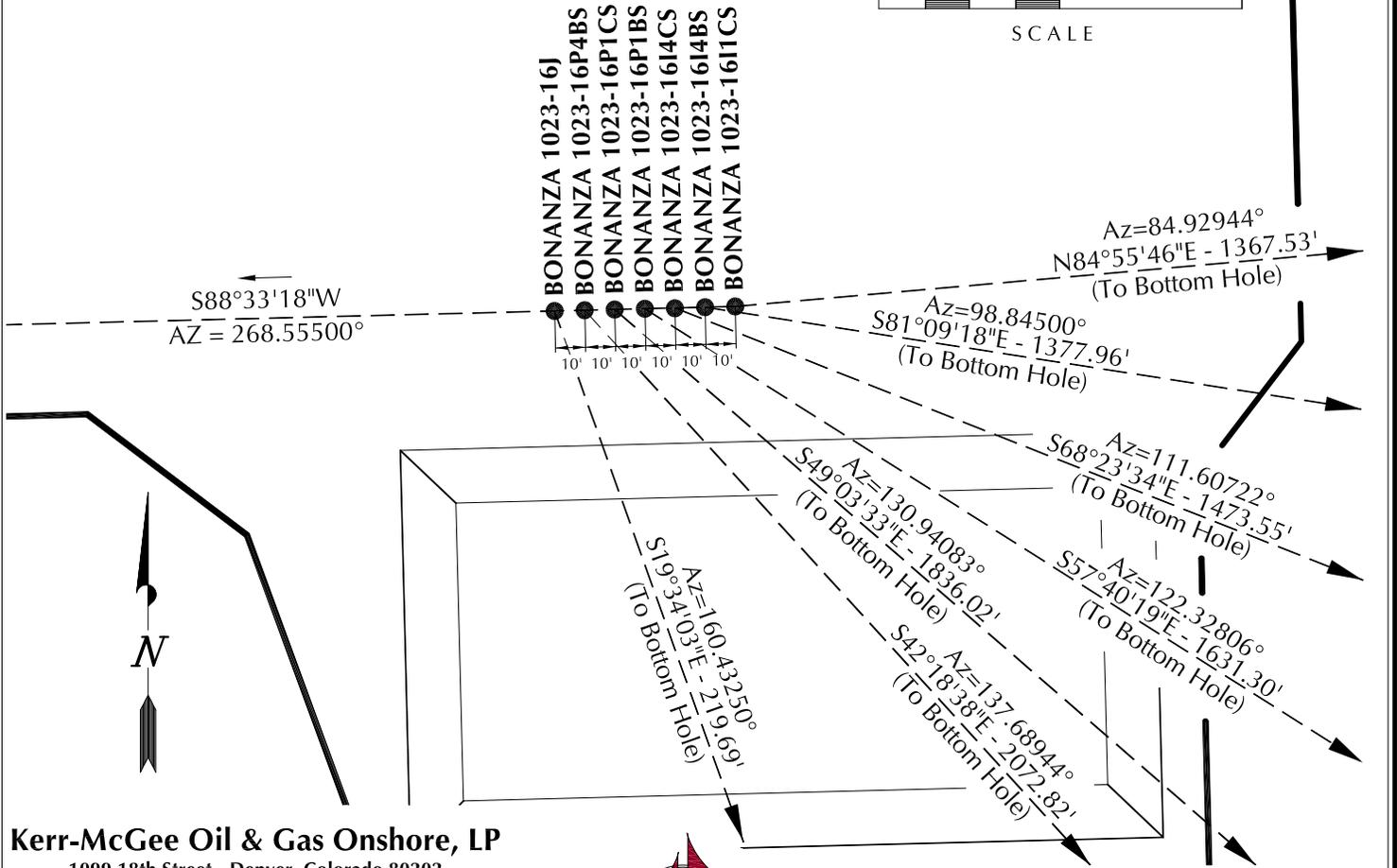
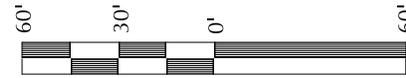
<b>TIMBERLINE</b>		(435) 789-1365
ENGINEERING & LAND SURVEYING, INC.		
209 NORTH 300 WEST - VERNAL, UTAH 84078		
DATE SURVEYED: 1-5-12	SURVEYED BY: W.W.	SHEET NO: <b>15</b>
DATE DRAWN: 1-10-12	DRAWN BY: T.J.R.	
SCALE: 1" = 1000'	Date Last Revised:	15 OF 33

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
BONANZA 1023-1611CS	39°56'50.854"	109°19'44.689"	39°56'50.975"	109°19'42.250"	2030' FSL 1849' FEL	39°56'52.027"	109°19'27.201"	39°56'52.149"	109°19'24.763"	2151' FSL 487' FEL
BONANZA 1023-1614BS	39°56'50.852"	109°19'44.817"	39°56'50.973"	109°19'42.378"	2029' FSL 1859' FEL	39°56'48.738"	109°19'27.343"	39°56'48.859"	109°19'24.906"	1818' FSL 496' FEL
BONANZA 1023-1614CS	39°56'50.849"	109°19'44.945"	39°56'50.971"	109°19'42.507"	2029' FSL 1869' FEL	39°56'45.467"	109°19'27.370"	39°56'45.589"	109°19'24.933"	1487' FSL 496' FEL
BONANZA 1023-16P1BS	39°56'50.847"	109°19'45.074"	39°56'50.968"	109°19'42.635"	2029' FSL 1879' FEL	39°56'42.207"	109°19'27.397"	39°56'42.328"	109°19'24.959"	1157' FSL 496' FEL
BONANZA 1023-16P1CS	39°56'50.844"	109°19'45.202"	39°56'50.966"	109°19'42.764"	2028' FSL 1889' FEL	39°56'38.937"	109°19'27.423"	39°56'39.058"	109°19'24.986"	826' FSL 496' FEL
BONANZA 1023-16P4BS	39°56'50.842"	109°19'45.330"	39°56'50.963"	109°19'42.892"	2028' FSL 1899' FEL	39°56'35.676"	109°19'27.450"	39°56'35.798"	109°19'25.013"	496' FSL 496' FEL
BONANZA 1023-16J	39°56'50.840"	109°19'45.459"	39°56'50.961"	109°19'43.020"	2028' FSL 1909' FEL	39°56'48.794"	109°19'44.518"	39°56'48.915"	109°19'42.080"	1821' FSL 1834' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
BONANZA 1023-1611CS	120.9'	1362.2'	BONANZA 1023-1614BS	-211.9'	1361.6'	BONANZA 1023-1614CS	-542.6'	1370.0'	BONANZA 1023-16P1BS	-872.4'	1378.4'
BONANZA 1023-16P1CS	-1203.1'	1386.9'	BONANZA 1023-16P4BS	-1532.9'	1395.3'	BONANZA 1023-16J	-207.0'	73.6'			

BASIS OF BEARINGS IS THE EAST LINE OF THE SE ¼ OF SECTION 16, T10S, R23E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR S00°16'19"W.



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

**WELL PAD - BONANZA 1023-16J**

**WELL PAD INTERFERENCE PLAT**  
WELLS - BONANZA 1023-1611CS,  
BONANZA 1023-1614BS, BONANZA 1023-1614CS,  
BONANZA 1023-16P1BS, BONANZA 1023-16P1CS  
BONANZA 1023-16P4BS & BONANZA 1023-16J  
LOCATED IN SECTION 16, T10S, R23E,  
S.L.B.&M., UTAH COUNTY, UTAH.



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

**TIMBERLINE**

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

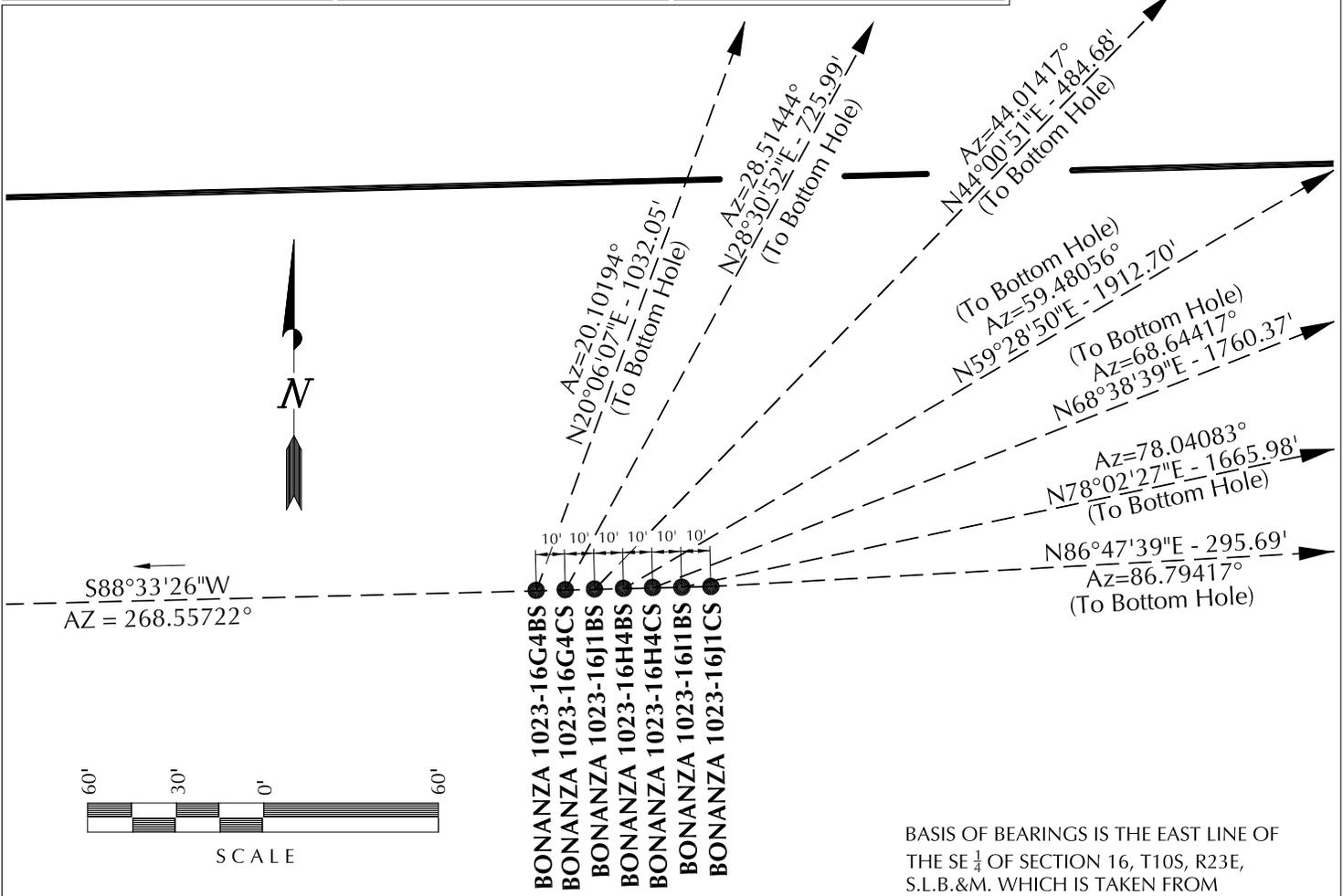
(435) 789-1365

DATE SURVEYED: 1-5-12	SURVEYED BY: W.W.	SHEET NO: <b>22A</b>
DATE DRAWN: 1-9-12	DRAWN BY: T.J.R.	22A OF 33
SCALE: 1" = 60'	Date Last Revised:	

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
BONANZA 1023-16J1CS	39°56'51.875"	109°19'48.089"	39°56'51.996"	109°19'45.651"	2132' FSL 2114' FEL	39°56'52.034"	109°19'44.299"	39°56'52.155"	109°19'41.861"	2149' FSL 1819' FEL
BONANZA 1023-16I1BS	39°56'51.872"	109°19'48.218"	39°56'51.994"	109°19'45.779"	2132' FSL 2124' FEL	39°56'55.258"	109°19'27.290"	39°56'55.379"	109°19'24.852"	2478' FSL 496' FEL
BONANZA 1023-16H4CS	39°56'51.870"	109°19'48.346"	39°56'51.991"	109°19'45.907"	2132' FSL 2134' FEL	39°56'58.179"	109°19'27.287"	39°56'58.300"	109°19'24.850"	2477' FNL 496' FEL
BONANZA 1023-16H4BS	39°56'51.868"	109°19'48.475"	39°56'51.989"	109°19'46.036"	2132' FSL 2144' FEL	39°57'01.439"	109°19'27.304"	39°57'01.561"	109°19'24.867"	2147' FNL 496' FEL
BONANZA 1023-16J1BS	39°56'51.865"	109°19'48.602"	39°56'51.987"	109°19'46.164"	2131' FSL 2154' FEL	39°56'55.304"	109°19'44.273"	39°56'55.425"	109°19'41.834"	2480' FSL 1819' FEL
BONANZA 1023-16G4CS	39°56'51.863"	109°19'48.732"	39°56'51.985"	109°19'46.293"	2131' FSL 2164' FEL	39°56'58.161"	109°19'44.270"	39°56'58.282"	109°19'41.832"	2479' FNL 1819' FEL
BONANZA 1023-16G4BS	39°56'51.861"	109°19'48.860"	39°56'51.982"	109°19'46.422"	2131' FSL 2174' FEL	39°57'01.431"	109°19'44.288"	39°57'01.552"	109°19'41.850"	2148' FNL 1819' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
BONANZA 1023-16J1CS	16.5'	295.2'	BONANZA 1023-16I1BS	345.2'	1629.8'	BONANZA 1023-16H4CS	641.1'	1639.5'	BONANZA 1023-16H4BS	971.3'	1647.7'
BONANZA 1023-16J1BS	348.6'	336.8'	BONANZA 1023-16G4CS	637.9'	346.6'	BONANZA 1023-16G4BS	969.2'	354.7'			



BASIS OF BEARINGS IS THE EAST LINE OF THE SE 1/4 OF SECTION 16, T10S, R23E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR S00°16'19"W.

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

**WELL PAD: BONANZA 1023-16J**

**WELL PAD INTERFERENCE PLAT**  
WELLS - BONANZA 1023-16J1CS,  
BONANZA 1023-16I1BS, BONANZA 1023-16H4CS,  
BONANZA 1023-16H4BS, BONANZA 1023-16J1BS,  
BONANZA 1023-16G4CS & BONANZA 1023-16G4BS  
LOCATED IN SECTION 16, T10S, R23E,  
S.L.B.&M., UTAH COUNTY, UTAH.



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

**TIMBERLINE**

(435) 789-1365

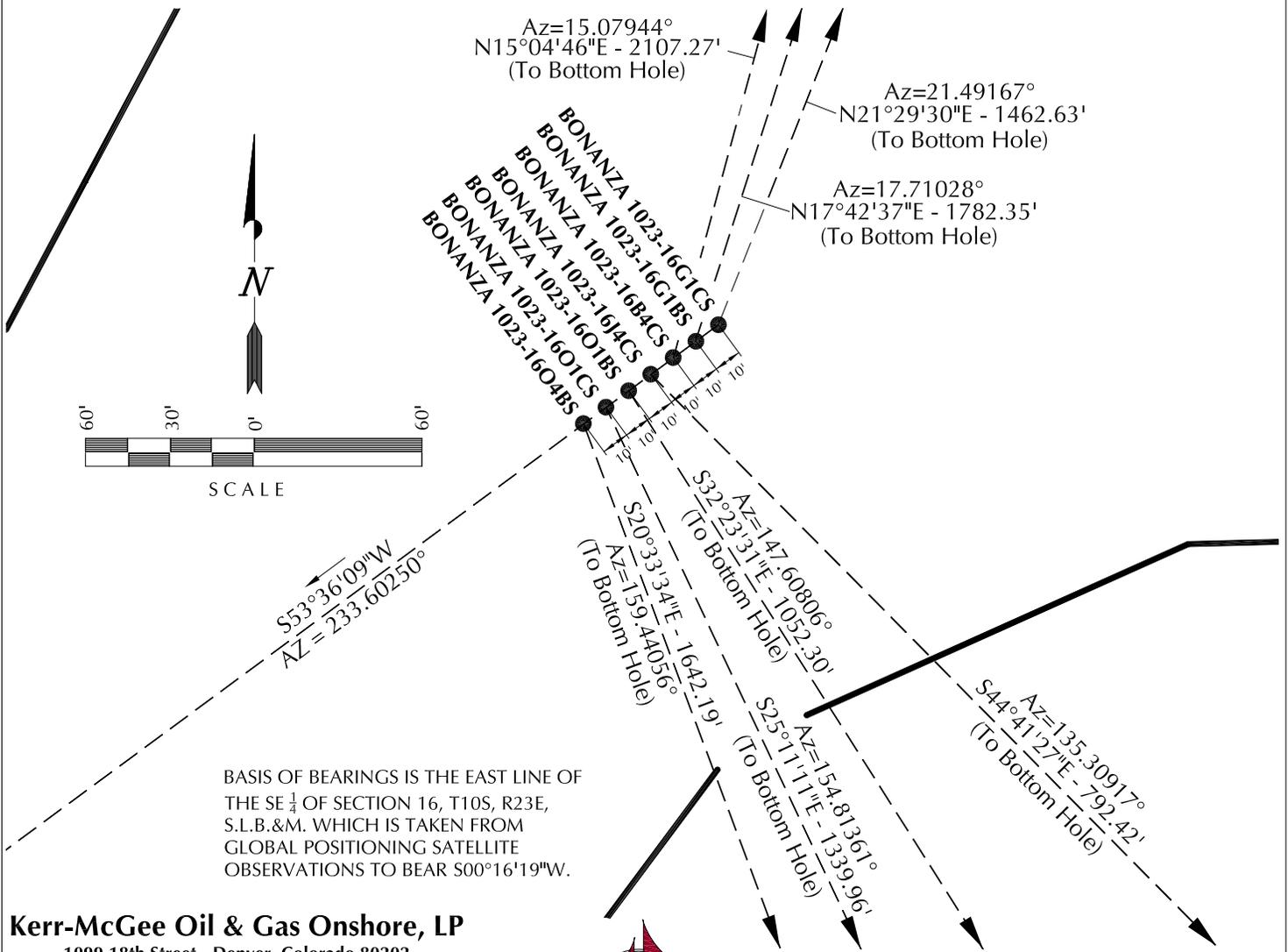
ENGINEERING & LAND SURVEYING, INC.  
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 1-5-12	SURVEYED BY: W.W.	SHEET NO: <b>22B</b> 22B OF 33
DATE DRAWN: 1-10-12	DRAWN BY: T.J.R.	
SCALE: 1" = 60'	Date Last Revised:	

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
BONANZA 1023-16G1CS	39°56'51.253"	109°19'51.197"	39°56'51.375"	109°19'48.759"	2069' FSL	39°57'04.691"	109°19'44.292"	39°57'04.813"	109°19'41.854"	1818' FNL
BONANZA 1023-16G1BS	39°56'51.195"	109°19'51.303"	39°56'51.316"	109°19'48.864"	2063' FSL	39°57'07.962"	109°19'44.310"	39°57'08.083"	109°19'41.871"	1487' FNL
BONANZA 1023-16B4CS	39°56'51.137"	109°19'51.404"	39°56'51.259"	109°19'48.966"	2057' FSL	39°57'11.232"	109°19'44.327"	39°57'11.353"	109°19'41.889"	1156' FNL
BONANZA 1023-16J4CS	39°56'51.077"	109°19'51.508"	39°56'51.199"	109°19'49.069"	2051' FSL	39°56'45.503"	109°19'44.365"	39°56'45.625"	109°19'41.927"	1488' FSL
BONANZA 1023-16O1BS	39°56'51.020"	109°19'51.611"	39°56'51.142"	109°19'49.172"	2045' FSL	39°56'42.233"	109°19'44.392"	39°56'42.354"	109°19'41.954"	1157' FSL
BONANZA 1023-16O1CS	39°56'50.961"	109°19'51.715"	39°56'51.083"	109°19'49.276"	2039' FSL	39°56'38.973"	109°19'44.418"	39°56'39.094"	109°19'41.980"	827' FSL
BONANZA 1023-16O4BS	39°56'50.902"	109°19'51.818"	39°56'51.024"	109°19'49.379"	2033' FSL	39°56'35.703"	109°19'44.445"	39°56'35.824"	109°19'42.007"	496' FSL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
BONANZA 1023-16G1CS	1360.9'	535.9'	BONANZA 1023-16G1BS	1697.9'	542.2'	BONANZA 1023-16B4CS	2034.7'	548.2'	BONANZA 1023-16J4CS	-563.3'	557.3'
BONANZA 1023-16O1BS	-888.6'	563.7'	BONANZA 1023-16O1CS	-1212.6'	570.2'	BONANZA 1023-16O4BS	-1537.6'	576.7'			



BASIS OF BEARINGS IS THE EAST LINE OF THE SE ¼ OF SECTION 16, T10S, R23E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR S00°16'19\"/>

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

**WELL PAD: BONANZA 1023-16J**

**WELL PAD INTERFERENCE PLAT**  
WELLS - BONANZA 1023-16G1CS, BONANZA 1023-16G1BS, BONANZA 1023-16B4CS, BONANZA 1023-16J4CS, BONANZA 1023-16O1BS, BONANZA 1023-16O1CS & BONANZA 1023-16O4BS  
LOCATED IN SECTION 16, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH.



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

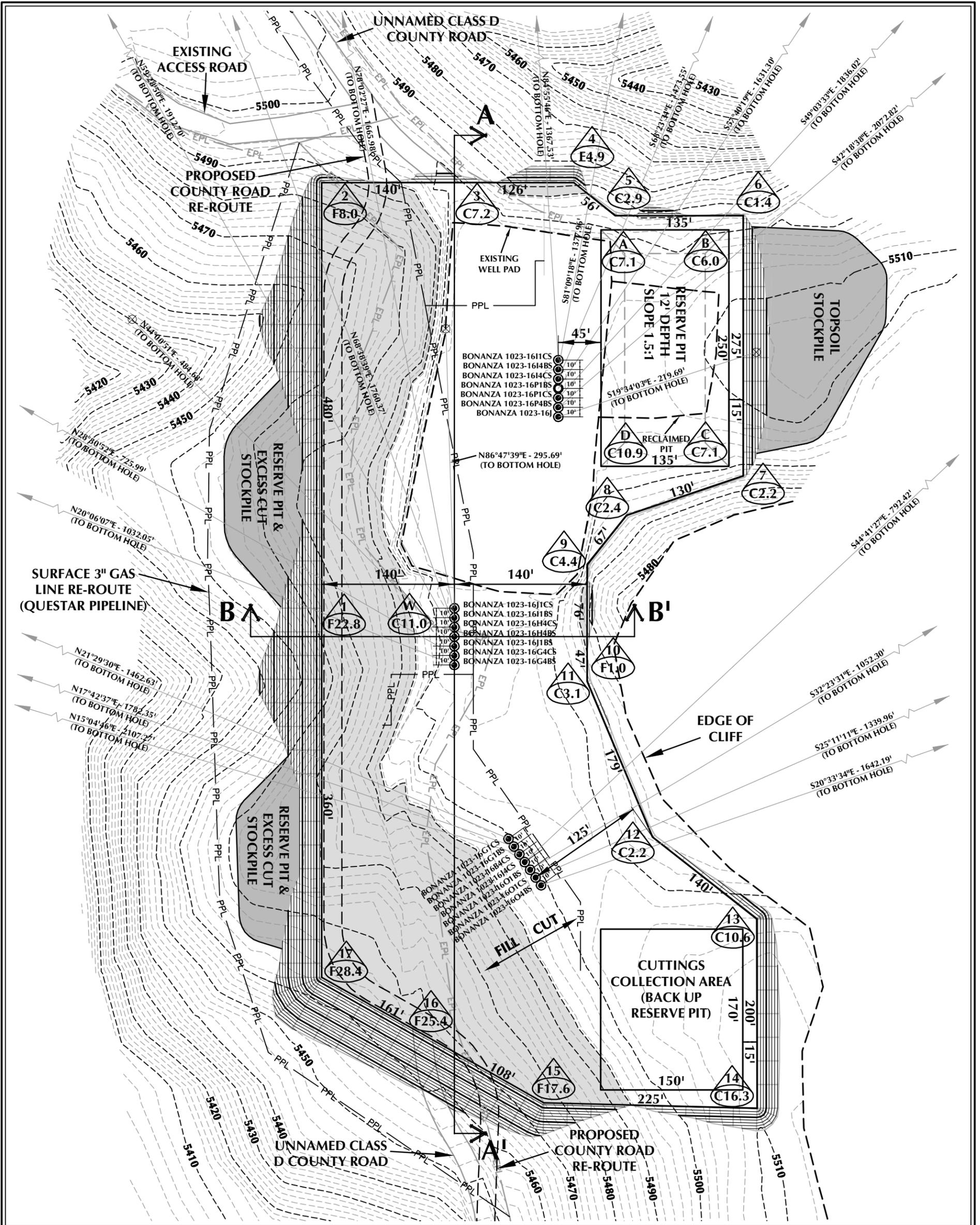
**TIMBERLINE**

ENGINEERING & LAND SURVEYING, INC.

209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

DATE SURVEYED: 1-5-12	SURVEYED BY: W.W.	SHEET NO: <b>22C</b>
DATE DRAWN: 1-10-12	DRAWN BY: T.J.R.	22C OF 33
SCALE: 1" = 60'	Date Last Revised:	



**WELL PAD - BONANZA 1023-16J DESIGN SUMMARY**

EXISTING GRADE @ BONANZA 1023-16H4BS = 5504.5'  
 FINISHED GRADE ELEVATION = 5493.5'  
 CUT SLOPES = 1.5:1  
 FILL SLOPES = 1.5:1  
 TOTAL WELL PAD AREA = 9.81 ACRES  
 TOTAL DISTURBANCE AREA = 10.90 ACRES  
 SHRINKAGE FACTOR = 1.10  
 SWELL FACTOR = 1.00

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

**WELL PAD - BONANZA 1023-16J**

**WELL PAD - LOCATION LAYOUT**  
 21 PROPOSED WELLS  
 LOCATED IN SECTION 16, T10S, R23E,  
 S.L.B.&M., UTAH COUNTY, UTAH

**WELL PAD QUANTITIES**  
 TOTAL CUT FOR WELL PAD = 85,163 C.Y.  
 TOTAL FILL FOR WELL PAD = 84,484 C.Y.  
 TOPSOIL @ 6" DEPTH = 6,671 C.Y.  
 EXCESS MATERIAL = 679 C.Y.

**RESERVE PIT QUANTITIES**  
 TOTAL CUT FOR RESERVE PIT  
 +/- 12,110 C.Y.  
 RESERVE PIT CAPACITY (2' OF FREEBOARD)  
 +/- 46,640 BARRELS



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

**WELL PAD LEGEND**

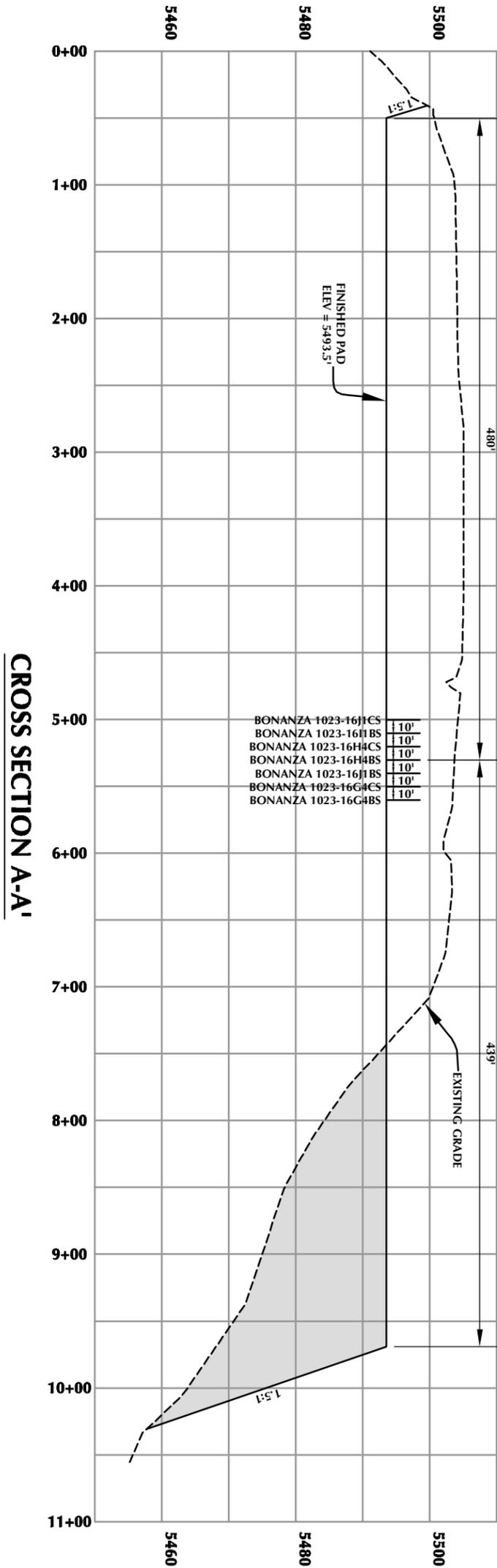
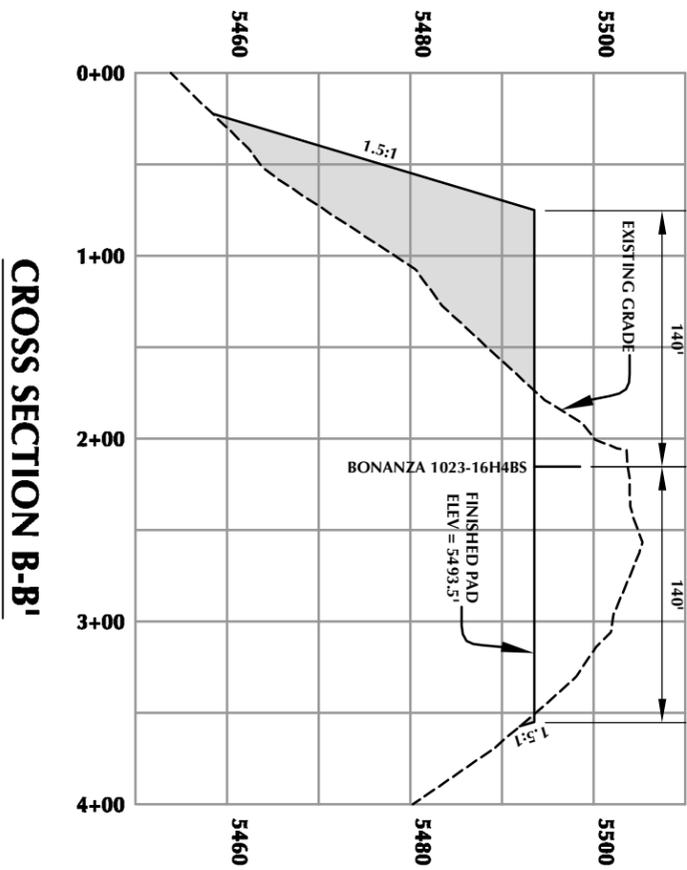
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PROPOSED PIPELINE
- EXISTING PIPELINE

0 50' 100' 1" = 100'

HORIZONTAL 2' CONTOURS

SCALE: 1"=100' DATE: 3/30/12 SHEET NO: 23 OF 33

REVISED:



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

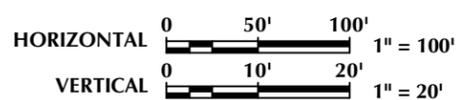
**WELL PAD - BONANZA 1023-16J**

**WELL PAD - CROSS SECTIONS  
21 PROPOSED WELLS  
LOCATED IN SECTION 16, T10S, R23E,  
S.L.B.&M., UINTAH COUNTY, UTAH**

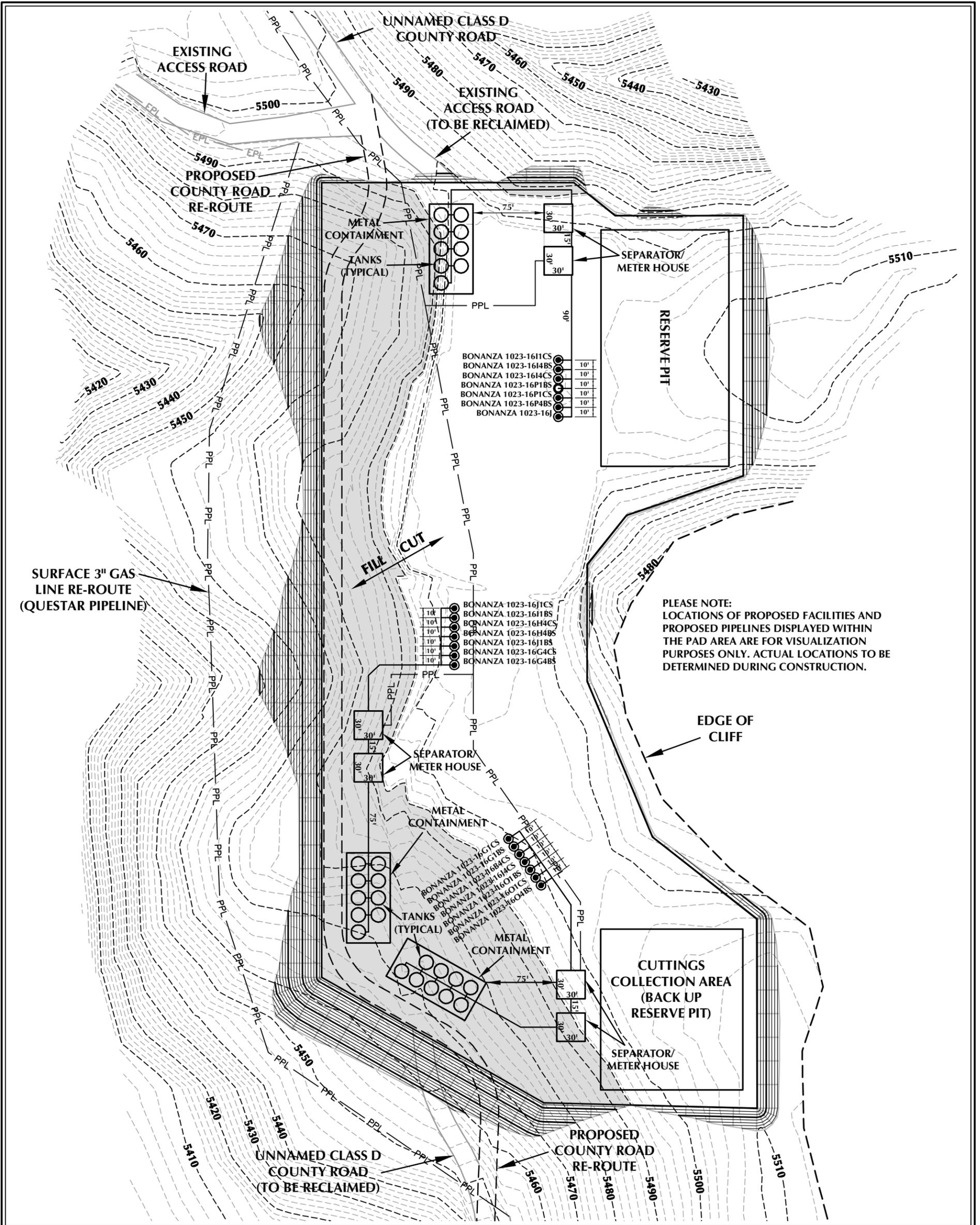


**CONSULTING, LLC**  
2155 North Main Street  
Sheridan, WY 82801  
Phone 307-674-0609  
Fax 307-674-0182

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



Scale: 1"=100'	Date: 3/30/12	SHEET NO:
REVISED:		<b>24</b> 24 OF 33



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

**WELL PAD - BONANZA 1023-16J DESIGN SUMMARY**

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



HORIZONTAL 0 50' 100' 1" = 100'  
2' CONTOURS

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

WELL PAD - BONANZA 1023-16J

WELL PAD - FACILITIES DIAGRAM  
21 PROPOSED WELLS  
LOCATED IN SECTION 16, T10S, R23E,  
S.L.B.&M., UINTAH COUNTY, UTAH



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

**TIMBERLINE**  
ENGINEERING & LAND SURVEYING, INC.  
209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

SCALE: 1"=100' DATE: 3/30/12 SHEET NO:  
REVISED: **25** 25 OF 33

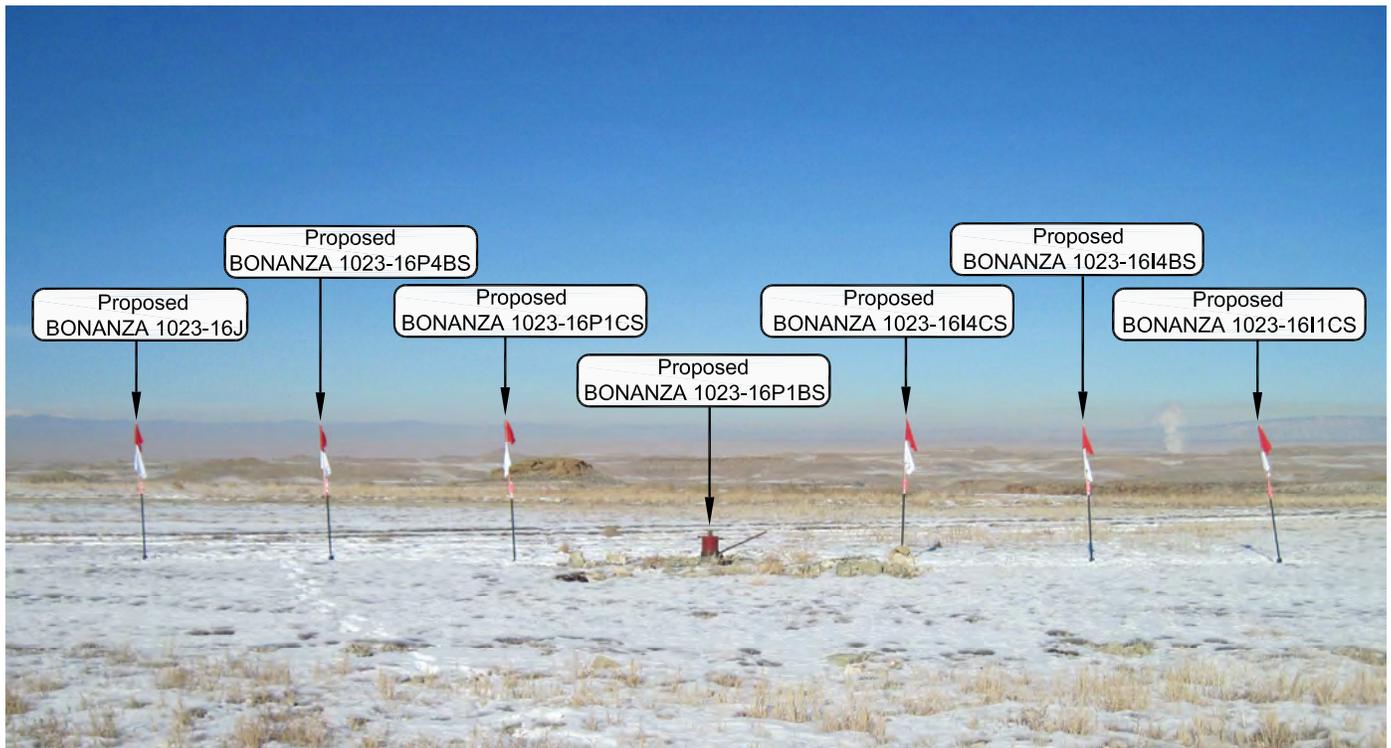


PHOTO VIEW: FROM PIT AREA TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY

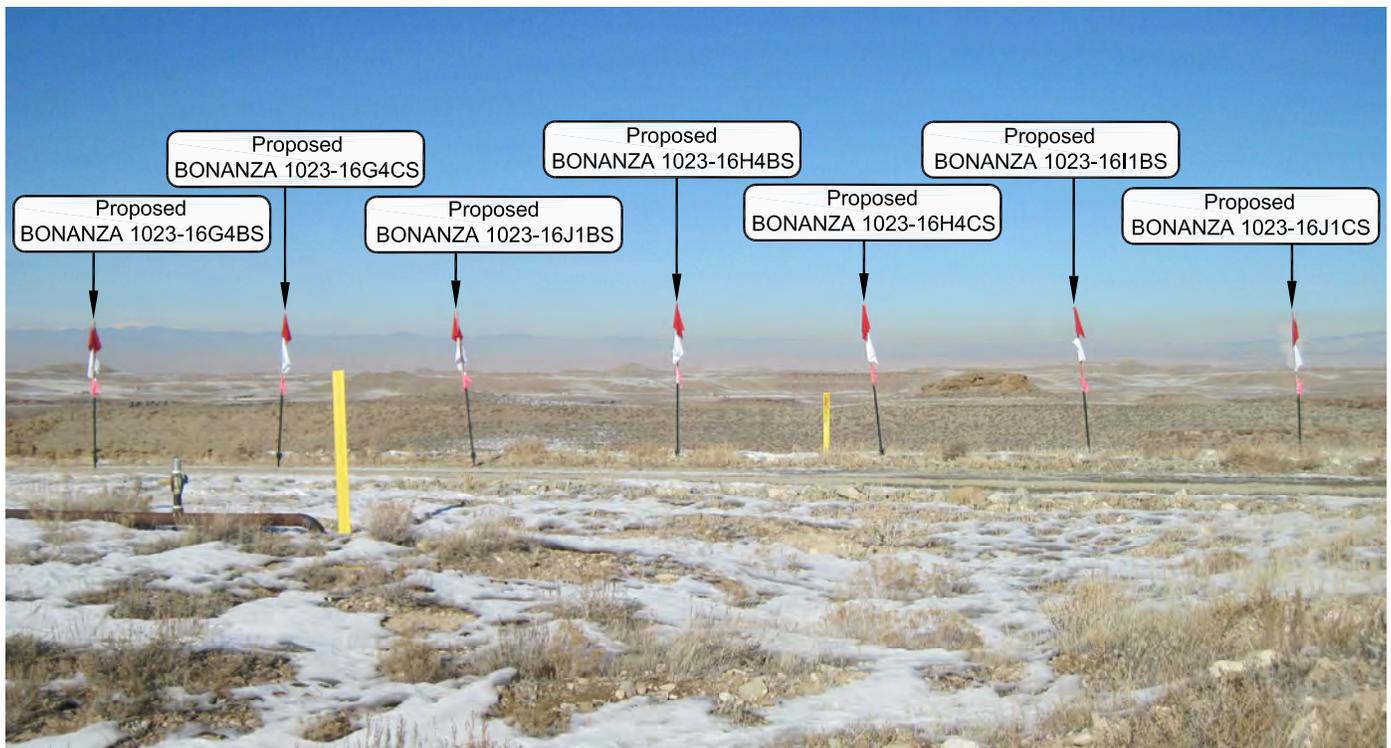


PHOTO VIEW: FROM CORNER 10 TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY

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

**WELL PAD - BONANZA 1023-16J**

**LOCATION PHOTOS**  
**21 PROPOSED WELLS**  
**LOCATED IN SECTION 16, T10S, R23E,**  
**S.L.B.&M., UINTAH COUNTY, UTAH.**



**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: 1-5-12	PHOTOS TAKEN BY: W.W.	SHEET NO: <b>26A</b>
DATE DRAWN: 1-9-12	DRAWN BY: T.J.R.	
Date Last Revised:		26A OF 33

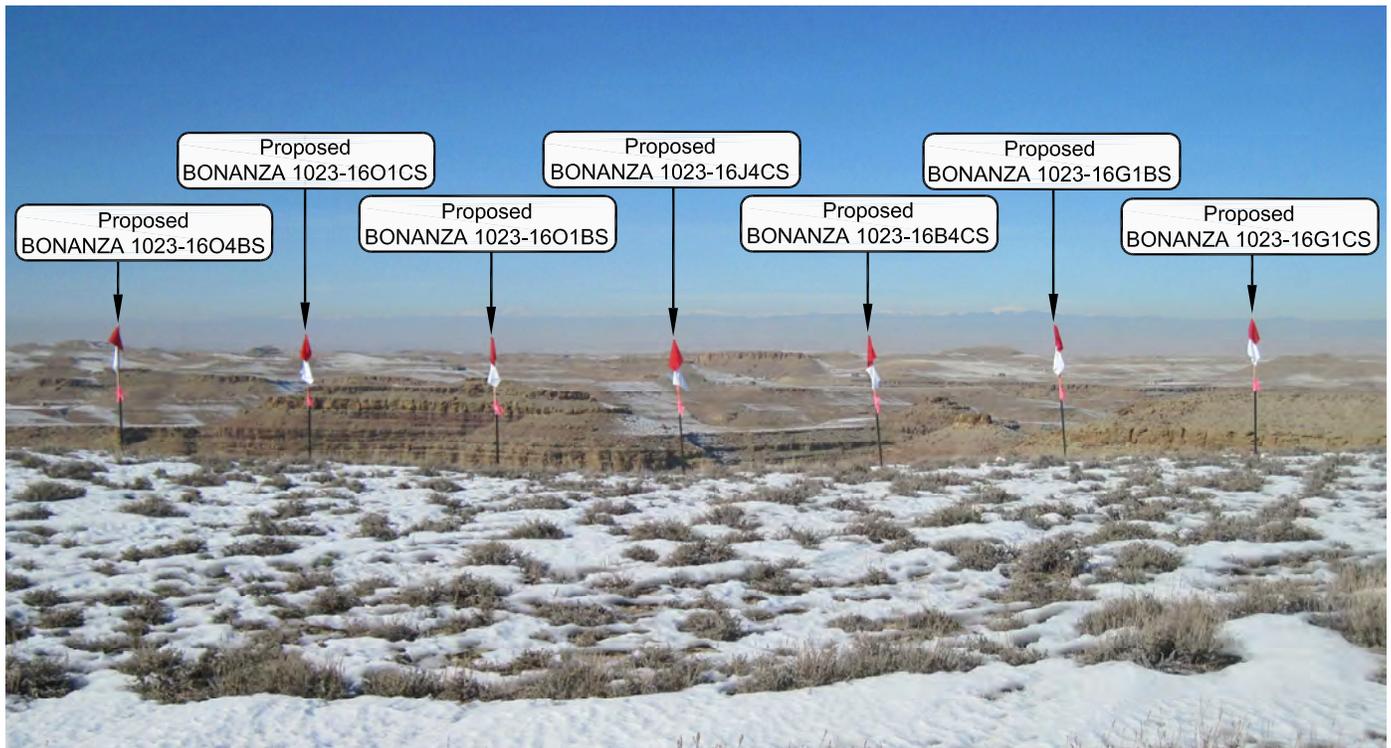


PHOTO VIEW: FROM LOCATION STAKE TO CORNER 12

CAMERA ANGLE: NORTHWESTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: WESTERLY

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

**WELL PAD - BONANZA 1023-16J**

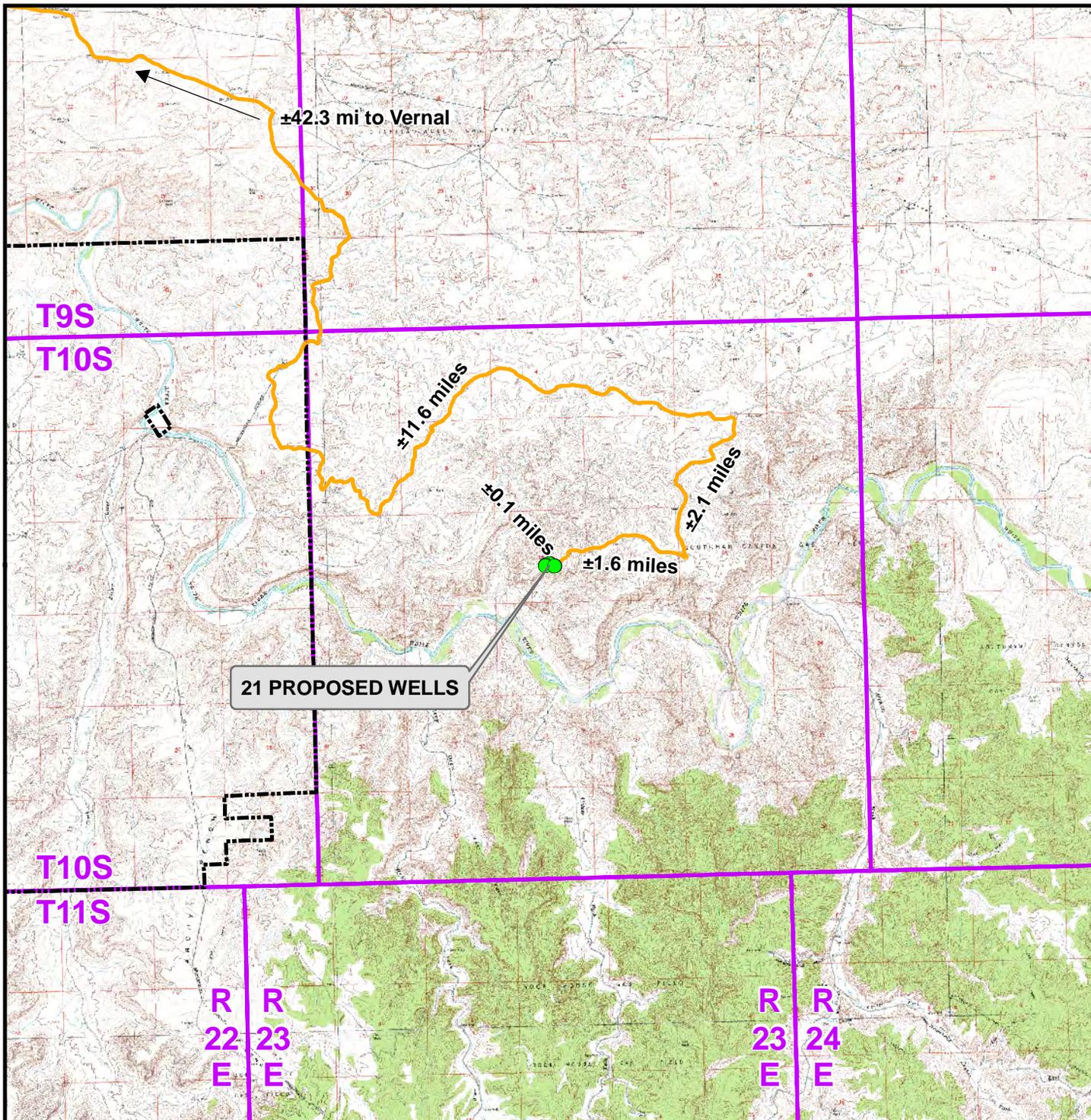
**LOCATION PHOTOS  
 21 PROPOSED WELLS  
 LOCATED IN SECTION 16, T10S, R23E,  
 S.L.B.&M., Uintah County, Utah.**



**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: 1-5-12	PHOTOS TAKEN BY: W.W.	<b>SHEET NO:</b>  <b>26B</b>
DATE DRAWN: 1-10-12	DRAWN BY: T.J.R.	
Date Last Revised:		26B OF 33



**Legend**

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

Distance From Well Pad - BONANZA 1023-16J To Unit Boundary: ±13,411ft

**WELL PAD - BONANZA 1023-16J**

**TOPO A**  
**21 PROPOSED WELLS**  
 LOCATED IN SECTION 16, T10S, R23E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

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

1099 18th Street  
 Denver, Colorado 80202



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



SCALE: 1:100,000

NAD83 USP Central

SHEET NO:

DRAWN: TL

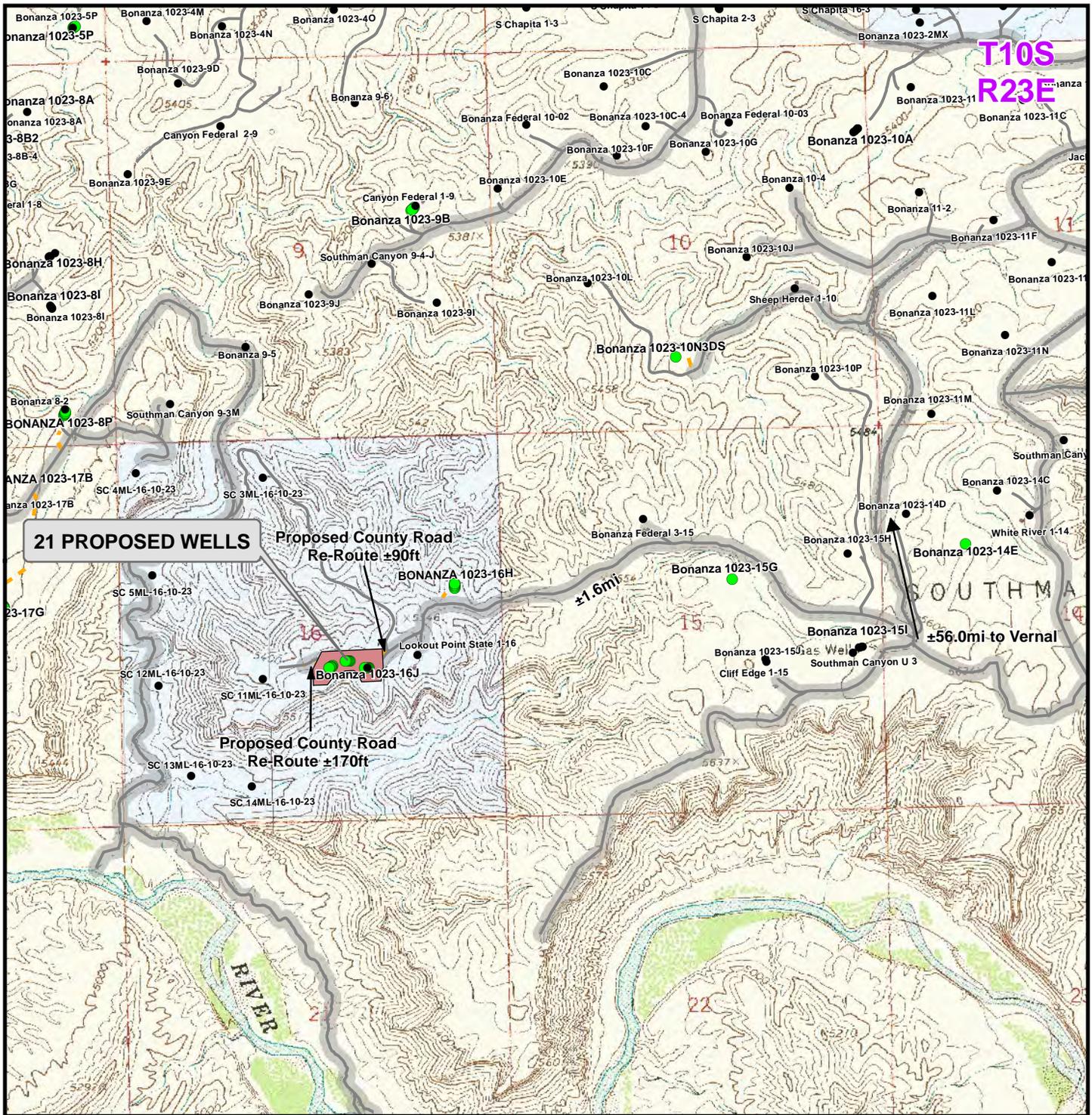
DATE: 23 Feb 2012

**27**

REVISED:

DATE:

27 OF 33



**Legend**

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

Total Proposed County Road Re-Route Length: ±260ft

**WELL PAD - BONANZA 1023-16J**

**TOPO B**  
**21 PROPOSED WELLS**  
 LOCATED IN SECTION 16, T10S, R23E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

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

1099 18th Street  
 Denver, Colorado 80202



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

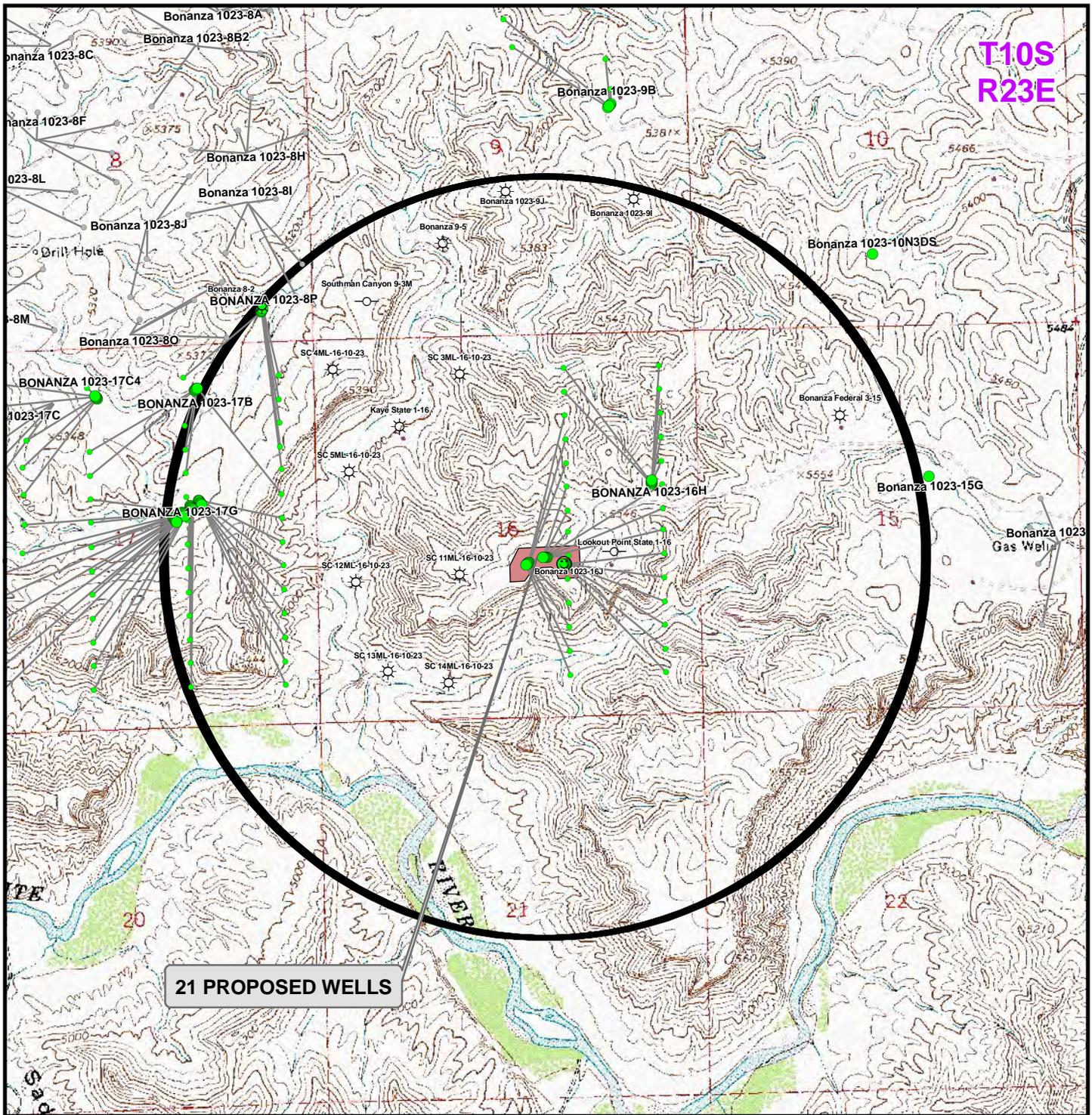


SCALE: 1" = 2,000ft	NAD83 USP Central	<b>28</b>
DRAWN: TL	DATE: 23 Feb 2012	
REVISED:	DATE:	

SHEET NO:

**28**

28 OF 33



**21 PROPOSED WELLS**

**Legend**

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- ☀ Producing
- ☺ Spudded
- APD Approved
- ⊙ Preliminary Location
- ⊕ Deferred
- ✕ Cancelled
- ⊖ Temporarily Abandoned
- ⚡ Active Injector
- ⊗ Location Abandoned
- ⊘ Plugged & Abandoned
- ⊙ Shut-In

**WELL PAD - BONANZA 1023-16J**

**TOPO C  
21 PROPOSED WELLS  
LOCATED IN SECTION 16, T10S, R23E,  
S.L.B.&M., UINTAH COUNTY, UTAH**

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

**1099 18th Street  
Denver, Colorado 80202**



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

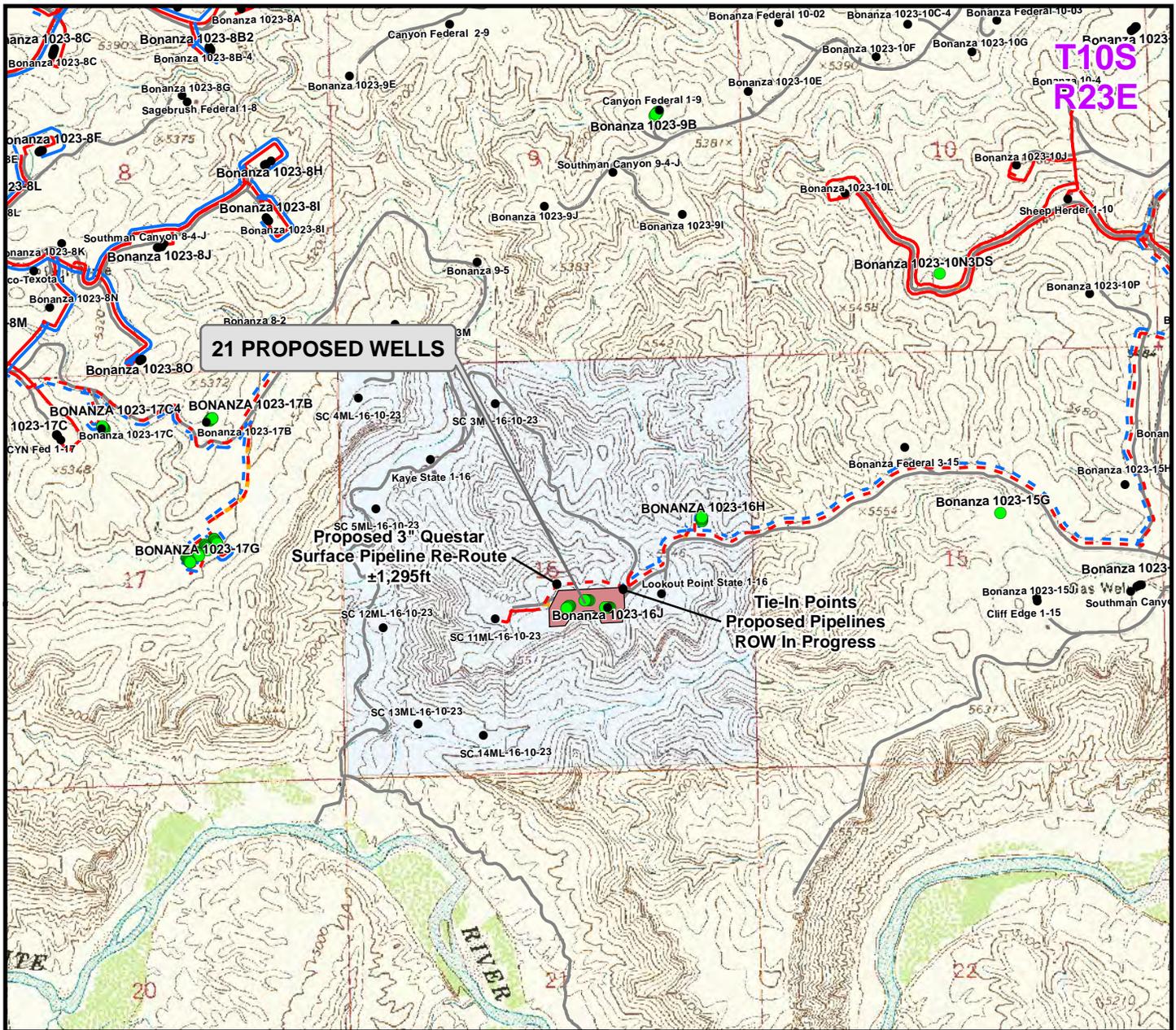


SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO:
DRAWN: TL	DATE: 23 Feb 2012	<b>29A</b>
REVISED:	DATE:	

Proposed Well	Nearest Well Bore	Footage
BONANZA 1023-16I1CS	Lookout Point State 1-16	695ft
BONANZA 1023-16I4BS	Lookout Point State 1-16	779ft
BONANZA 1023-16I4CS	Lookout Point State 1-16	980ft
BONANZA 1023-16P1BS	Lookout Point State 1-16	1,238ft
BONANZA 1023-16P1CS	Lookout Point State 1-16	1,525ft
BONANZA 1023-16P4BS	Lookout Point State 1-16	1,825ft
BONANZA 1023-16J	Bonanza 1023-16J	213ft
BONANZA 1023-16J1CS	Bonanza 1023-16J	134ft
BONANZA 1023-16I1BS	Lookout Point State 1-16	744ft
BONANZA 1023-16H4CS	Lookout Point State 1-16	900ft
BONANZA 1023-16H4BS	Lookout Point State 1-16	1,140ft
BONANZA 1023-16J1BS	Bonanza 1023-16J	456ft
BONANZA 1023-16G4CS	Bonanza 1023-16J	743ft
BONANZA 1023-16G4BS	Bonanza 1023-16J	1,073ft
BONANZA 1023-16G1CS	Lookout Point State 1-16	1,394ft
BONANZA 1023-16G1BS	Lookout Point State 1-16	1,695ft
BONANZA 1023-16B4CS	SC 3ML-16-10-23	1,565ft
BONANZA 1023-16J4CS	Bonanza 1023-16J	543ft
BONANZA 1023-16O1BS	Bonanza 1023-16J	873ft
BONANZA 1023-16O1CS	Bonanza 1023-16J	1,202ft
BONANZA 1023-16O4BS	Bonanza 1023-16J	1,533ft

Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov).  
 The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

<b>WELL PAD - BONANZA 1023-16J</b>  TOPO C 21 PROPOSED WELLS LOCATED IN SECTION 16, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH	<b>Kerr-McGee Oil &amp; Gas Onshore L.P.</b>  1099 18th Street Denver, Colorado 80202	 <b>CONSULTING, LLC</b> 2155 North Main Street Sheridan, Wyoming 82801 Phone 307-674-0609 Fax 307-674-0182	SCALE: N/A	NAD83 USP Central	SHEET NO:
			DRAWN: TL	DATE: 23 Feb 2012	<b>29B</b>
			REVISED:	DATE:	29B OF 33



<p><b>Proposed Liquid Pipeline</b></p> <p>=====</p> <p>Buried 6" (Max.) (Meter House to Edge of Pad and Liquid ROW In Progress)</p> <p>TOTAL PROPOSED BURIED LIQUID PIPELINE =</p>	<p><b>Length</b></p> <p>±1,200ft</p> <p>±1,200ft</p>	<p><b>Proposed Gas Pipeline</b></p> <p>=====</p> <p>Buried 16" (Meter House to Edge of Pad and Gas ROW In Progress)</p> <p>Surface 3" (Questar Pipeline Re-Route)</p> <p>TOTAL PROPOSED BURIED GAS PIPELINE =</p> <p>TOTAL PROPOSED SURFACE GAS PIPELINE =</p>	<p><b>Length</b></p> <p>±1,200ft</p> <p>±1,295ft</p> <p>±1,200ft</p> <p>±1,295ft</p>
--	--	--	--

**Legend**

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

**WELL PAD - BONANZA 1023-16J**

**TOPO D**

**21 PROPOSED WELLS**

**LOCATED IN SECTION 16, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH**

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

**1099 18th Street**

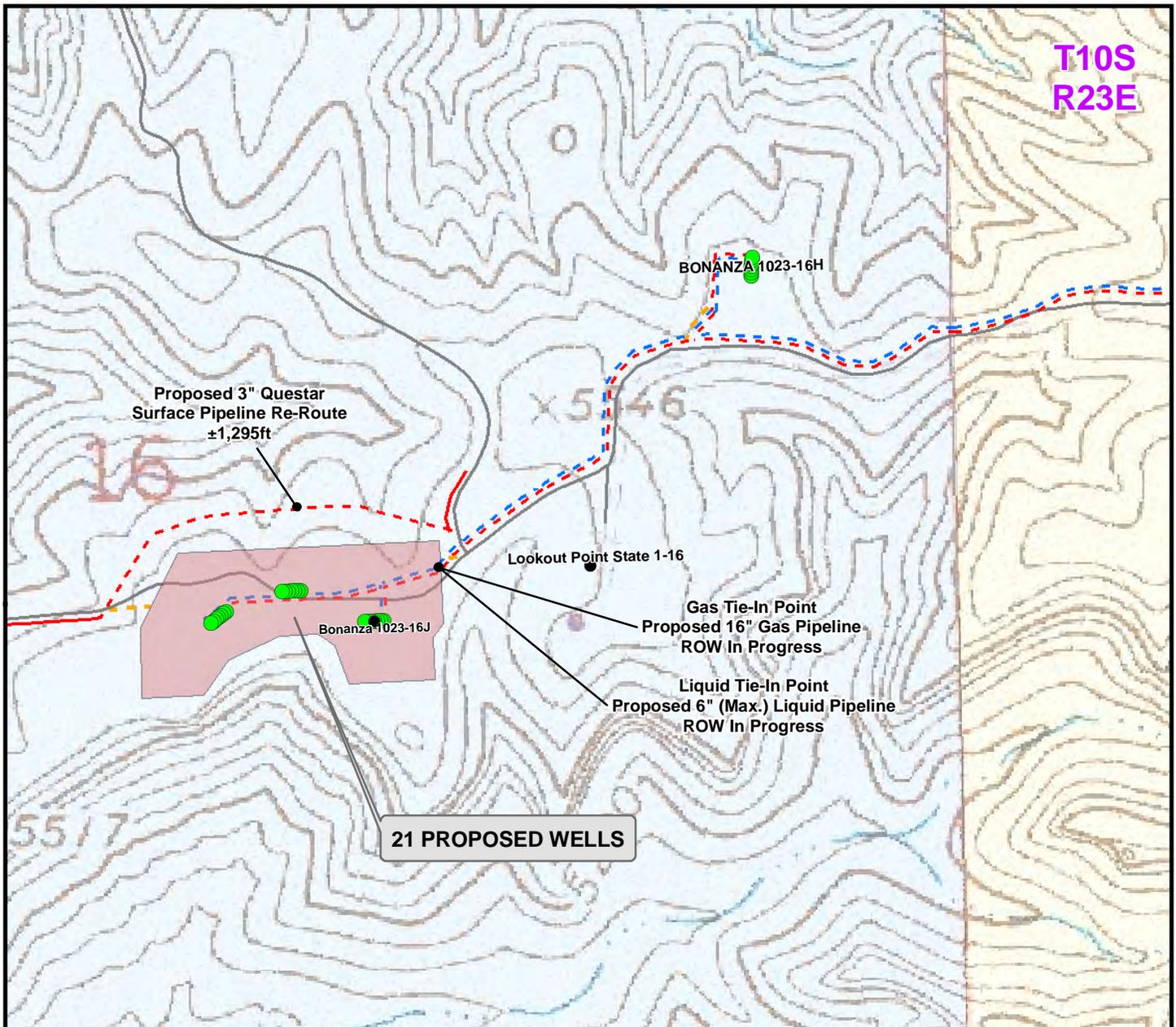
**Denver, Colorado 80202**

**CONSULTING, LLC**

2155 North Main Street  
Sheridan, Wyoming 82801  
Phone 307-674-0609  
Fax 307-674-0182

SCALE: 1" = 2,000ft	NAD83 USP Central	<b>30</b>
DRAWN: TL	DATE: 23 Feb 2012	
REVISED:	DATE:	

SHEET NO:  
30 OF 33



Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
Buried 6" (Max.) (Meter House to Edge of Pad and Liquid ROW In Progress)	±1,200ft	Buried 16" (Meter House to Edge of Pad and Gas ROW In Progress)	±1,200ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±1,200ft	Surface 3" (Questar Pipeline Re-Route)	±1,295ft
		TOTAL PROPOSED BURIED GAS PIPELINE =	±1,200ft
		TOTAL PROPOSED SURFACE GAS PIPELINE =	±1,295ft

**Legend**

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

**WELL PAD - BONANZA 1023-16J**

**TOPO D2 (PAD & PIPELINE DETAIL)**  
**21 PROPOSED WELLS**  
 LOCATED IN SECTION 16, T10S, R23E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

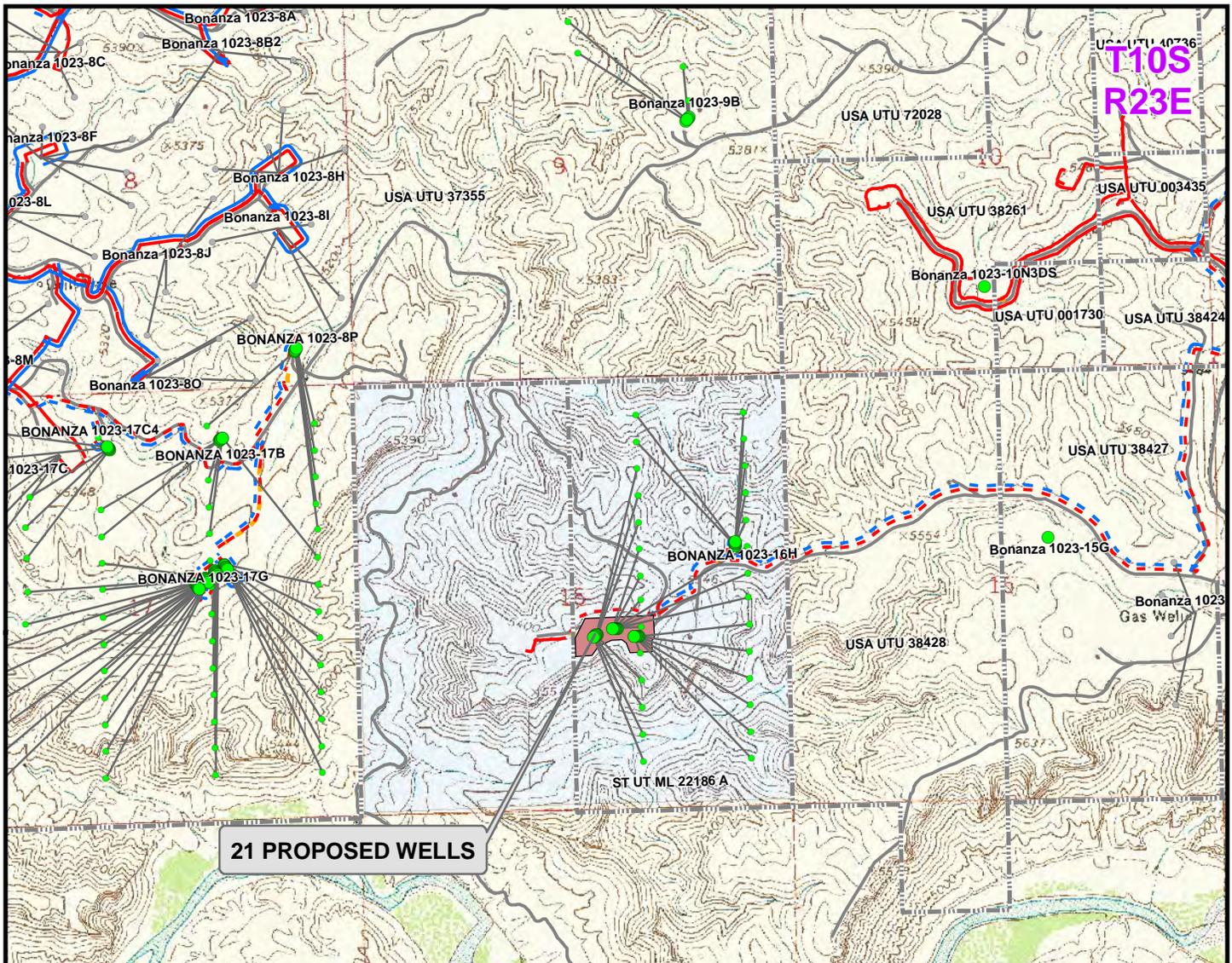
**Kerr-McGee Oil & Gas Onshore L.P.**

1099 18th Street  
 Denver, Colorado 80202

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

SCALE: 1" = 750ft	NAD83 USP Central	<b>31</b>
DRAWN: TL	DATE: 23 Feb 2012	
REVISED:	DATE:	

SHEET NO:  
31 OF 33



**21 PROPOSED WELLS**

Proposed Well	Distance To Nearest Lease Boundary	Proposed Well	Distance To Nearest Lease Boundary
BONANZA 1023-16I1CS	487ft	BONANZA 1023-16J1BS	857ft
BONANZA 1023-16I4BS	496ft	BONANZA 1023-16G4CS	854ft
BONANZA 1023-16I4CS	496ft	BONANZA 1023-16G4BS	849ft
BONANZA 1023-16P1BS	496ft	BONANZA 1023-16G1CS	845ft
BONANZA 1023-16P1CS	496ft	BONANZA 1023-16G1BS	840ft
BONANZA 1023-16P4BS	496ft	BONANZA 1023-16B4CS	835ft
BONANZA 1023-16J	846ft	BONANZA 1023-16J4CS	862ft
BONANZA 1023-16J1CS	859ft	BONANZA 1023-16O1BS	863ft
BONANZA 1023-16I1BS	496ft	BONANZA 1023-16O1CS	827ft
BONANZA 1023-16H4CS	496ft	BONANZA 1023-16O4BS	496ft
BONANZA 1023-16H4BS	496ft		

**Legend**

- Well - Proposed (Green dot)
- Bottom Hole - Proposed (Green dot)
- Well - Existing (Grey dot)
- Bottom Hole - Existing (Grey dot)
- Well Path (Black line)
- Well Pad (Red shaded area)
- Lease Boundary (Dashed line)
- Gas Pipeline - Proposed (Red dashed line)
- Gas Pipeline - To Be Upgraded (Red dotted line)
- Gas Pipeline - Existing (Red solid line)
- Liquid Pipeline - Proposed (Blue dashed line)
- Liquid Pipeline - Existing (Blue solid line)
- Road - Proposed (Yellow dashed line)
- Road - Existing (Grey solid line)
- Bureau of Land Management (Yellow shaded area)
- Indian Reservation (Red shaded area)
- State (Blue shaded area)
- Private (White shaded area)

**WELL PAD - BONANZA 1023-16J**

**TOPO E**  
**21 PROPOSED WELLS**  
 LOCATED IN SECTION 16, T10S, R23E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

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

1099 18th Street  
 Denver, Colorado 80202

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

SCALE: 1" = 2,000ft	NAD83 USP Central	<b>32</b>
DRAWN: TL	DATE: 23 Feb 2012	
REVISED:	DATE:	

SHEET NO:  
32 OF 33

**Kerr-McGee Oil & Gas Onshore, LP  
WELL PAD – BONANZA 1023-16J  
WELLS – 21 PROPOSED WELLS  
Section 16, T10S, R23E, 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 14.4 miles to the intersection of the Fidlar Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge at the White River. Exit left and proceed in a southeasterly direction along the Fidlar Road approximately 4.4 miles to the intersection of the Seven Sisters Road (County B Road 3420). Exit right and proceed in a southeasterly, then southerly, then southeasterly, then northeasterly, then southeasterly direction along the Seven Sisters Road approximately 11.6 miles to a Class D County Road to the southwest. Exit right and proceed in a southwesterly, then southerly direction along the Class D County Road approximately 2.1 miles to a second Class D County Road to the northwest. Exit right and proceed in a northwesterly, then southwesterly direction along the second Class D County Road approximately 1.6 miles to the proposed County Road re-route to the west. Follow road flags in a westerly direction approximately 90 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 57.6 miles in a southerly direction.

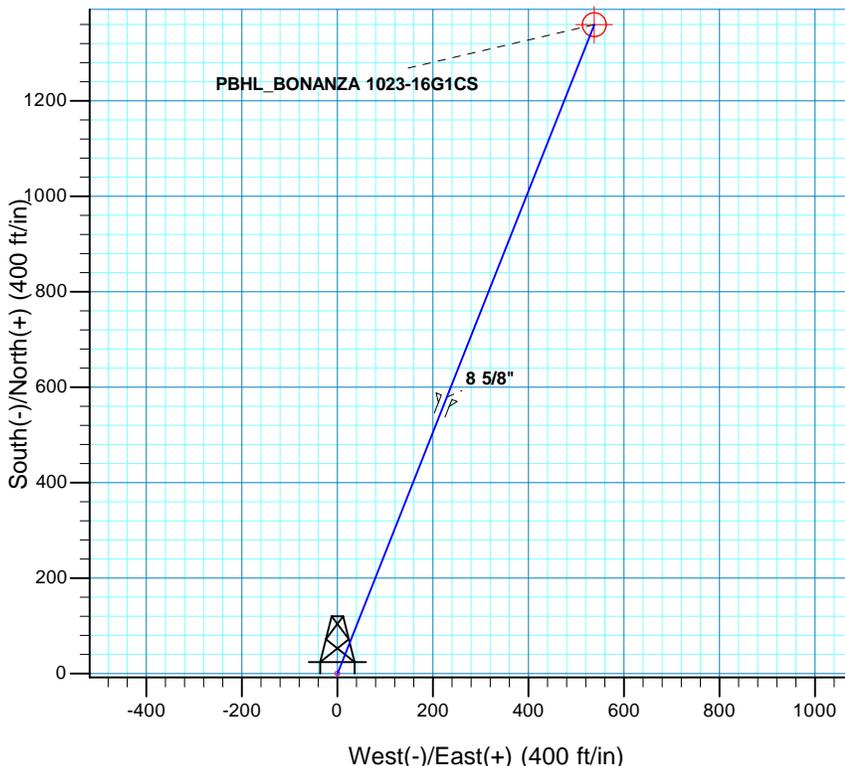
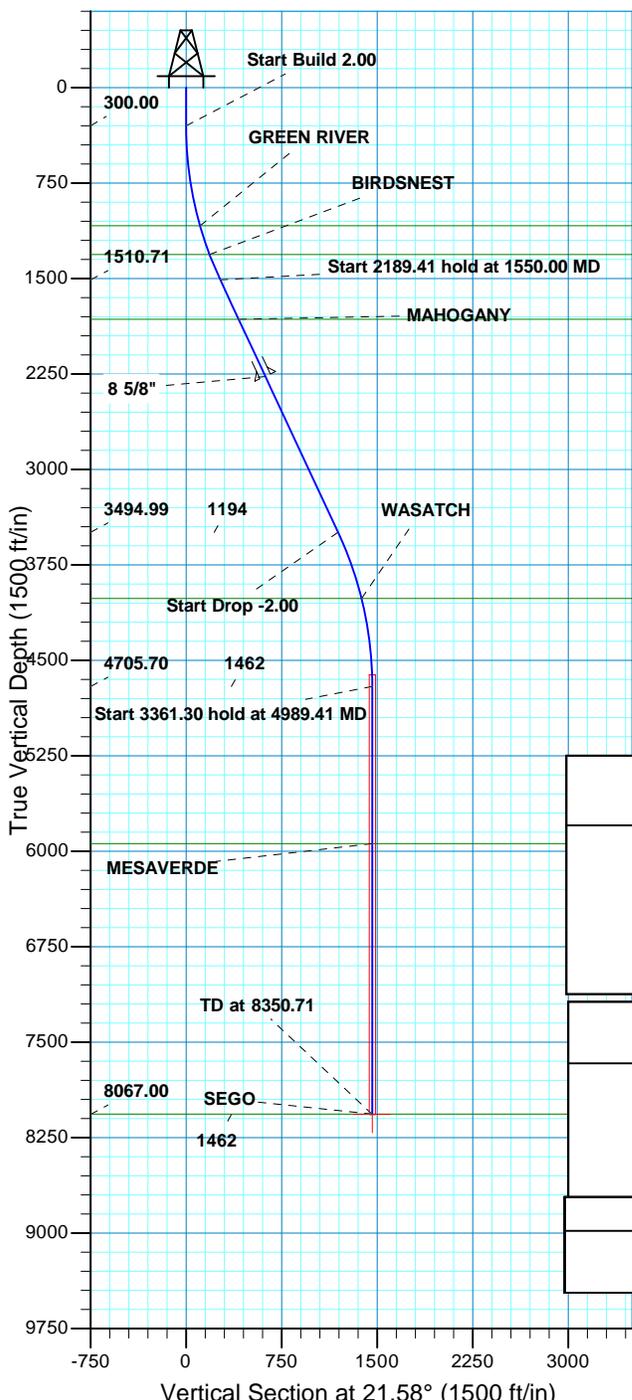
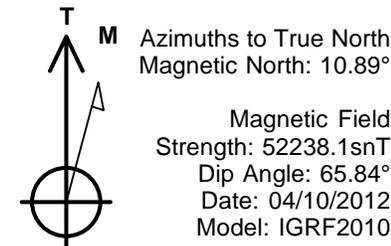
WELL DETAILS: BONANZA 1023-16G1CS

GL 5494 & KB 4 @ 5498.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14511344.78	2108423.93	39.947604	-109.330211

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8067.00	1359.65	537.67	14512714.25	2108936.05	39.951337	-109.328293	Circle (Radius: 25.00)
- plan hits target center								



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
1550.00	25.00	21.58	1510.71	249.60	98.70	2.00	21.58	268.41
3739.41	25.00	21.58	3494.99	1110.05	438.97	0.00	0.00	1193.69
4989.41	0.00	0.00	4705.70	1359.65	537.67	2.00	180.00	1462.10
8350.71	0.00	0.00	8067.00	1359.65	537.67	0.00	0.00	1462.10

PBHL\_BONANZA 1023-16G1CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone: Zone 12N (114 W to 108 W)  
Location: SECTION 16 T10S R23E  
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1085.00	1095.17	GREEN RIVER
1311.00	1333.26	BIRDSNEST
1820.00	1891.26	MAHOGANY
4015.00	4291.83	WASATCH
5941.00	6224.71	MESAVERDE
8066.99	8350.70	SEGO

CASING DETAILS

TVD	MD	Name	Size
2270.00	2387.78	8 5/8"	8.625



# **US ROCKIES REGION PLANNING**

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

**BONANZA 1023-16**

**BONANZA 1023-16G1CS**

**OH**

**Plan: PLAN #1 PRELIMINARY**

## **Standard Planning Report**

**11 April, 2012**





**SDI**  
Planning Report



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well BONANZA 1023-16G1CS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5494 & KB 4 @ 5498.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 5494 & KB 4 @ 5498.00ft (ASSUMED)
<b>Site:</b>	BONANZA 1023-16	<b>North Reference:</b>	True
<b>Well:</b>	BONANZA 1023-16G1CS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

<b>Project</b>	UTAH - UTM (feet), NAD27, Zone 12N		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

<b>Site</b>	BONANZA 1023-16, SECTION 16 T10S R23E				
<b>Site Position:</b>		<b>Northing:</b>	14,511,313.85 usft	<b>Latitude:</b>	39.947493
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,108,931.45 usft	<b>Longitude:</b>	-109.328403
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	1.07 °

<b>Well</b>	BONANZA 1023-16G1CS, 1818 FNL 1818 FEL					
<b>Well Position</b>	<b>+N/-S</b>	40.43 ft	<b>Northing:</b>	14,511,344.79 usft	<b>Latitude:</b>	39.947604
	<b>+E/-W</b>	-506.86 ft	<b>Easting:</b>	2,108,423.92 usft	<b>Longitude:</b>	-109.330211
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	5,494.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	04/10/12	10.89	65.84	52,238

<b>Design</b>	PLAN #1 PRELIMINARY			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	21.58

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	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	
1,550.00	25.00	21.58	1,510.71	249.60	98.70	2.00	2.00	0.00	21.58	
3,739.41	25.00	21.58	3,494.99	1,110.05	438.97	0.00	0.00	0.00	0.00	
4,989.41	0.00	0.00	4,705.70	1,359.65	537.67	2.00	-2.00	0.00	180.00	
8,350.71	0.00	0.00	8,067.00	1,359.65	537.67	0.00	0.00	0.00	0.00	PBHL_BONANZA 10;



SDI  
Planning Report



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well BONANZA 1023-16G1CS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5494 & KB 4 @ 5498.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 5494 & KB 4 @ 5498.00ft (ASSUMED)
<b>Site:</b>	BONANZA 1023-16	<b>North Reference:</b>	True
<b>Well:</b>	BONANZA 1023-16G1CS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	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	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>										
400.00	2.00	21.58	399.98	1.62	0.64	1.75	2.00	2.00	2.00	0.00
500.00	4.00	21.58	499.84	6.49	2.57	6.98	2.00	2.00	2.00	0.00
600.00	6.00	21.58	599.45	14.59	5.77	15.69	2.00	2.00	2.00	0.00
700.00	8.00	21.58	698.70	25.93	10.25	27.88	2.00	2.00	2.00	0.00
800.00	10.00	21.58	797.47	40.47	16.00	43.52	2.00	2.00	2.00	0.00
900.00	12.00	21.58	895.62	58.22	23.02	62.60	2.00	2.00	2.00	0.00
1,000.00	14.00	21.58	993.06	79.13	31.29	85.10	2.00	2.00	2.00	0.00
1,095.17	15.90	21.58	1,085.00	101.97	40.32	109.65	2.00	2.00	2.00	0.00
<b>GREEN RIVER</b>										
1,100.00	16.00	21.58	1,089.64	103.20	40.81	110.98	2.00	2.00	2.00	0.00
1,200.00	18.00	21.58	1,185.27	130.39	51.56	140.21	2.00	2.00	2.00	0.00
1,300.00	20.00	21.58	1,279.82	160.66	63.53	172.77	2.00	2.00	2.00	0.00
1,333.26	20.67	21.58	1,311.00	171.41	67.78	184.32	2.00	2.00	2.00	0.00
<b>BIRDSNEST</b>										
1,400.00	22.00	21.58	1,373.17	193.99	76.71	208.60	2.00	2.00	2.00	0.00
1,500.00	24.00	21.58	1,465.21	230.32	91.08	247.67	2.00	2.00	2.00	0.00
1,550.00	25.00	21.58	1,510.71	249.60	98.70	268.41	2.00	2.00	2.00	0.00
<b>Start 2189.41 hold at 1550.00 MD</b>										
1,600.00	25.00	21.58	1,556.03	269.25	106.47	289.54	0.00	0.00	0.00	0.00
1,700.00	25.00	21.58	1,646.66	308.55	122.02	331.80	0.00	0.00	0.00	0.00
1,800.00	25.00	21.58	1,737.29	347.85	137.56	374.06	0.00	0.00	0.00	0.00
1,891.26	25.00	21.58	1,820.00	383.72	151.74	412.63	0.00	0.00	0.00	0.00
<b>MAHOGANY</b>										
1,900.00	25.00	21.58	1,827.92	387.15	153.10	416.32	0.00	0.00	0.00	0.00
2,000.00	25.00	21.58	1,918.55	426.45	168.64	458.59	0.00	0.00	0.00	0.00
2,100.00	25.00	21.58	2,009.18	465.75	184.18	500.85	0.00	0.00	0.00	0.00
2,200.00	25.00	21.58	2,099.81	505.05	199.72	543.11	0.00	0.00	0.00	0.00
2,300.00	25.00	21.58	2,190.44	544.35	215.26	585.37	0.00	0.00	0.00	0.00
2,387.78	25.00	21.58	2,270.00	578.85	228.91	622.47	0.00	0.00	0.00	0.00
<b>8 5/8"</b>										
2,400.00	25.00	21.58	2,281.07	583.66	230.80	627.63	0.00	0.00	0.00	0.00
2,500.00	25.00	21.58	2,371.70	622.96	246.35	669.90	0.00	0.00	0.00	0.00
2,600.00	25.00	21.58	2,462.34	662.26	261.89	712.16	0.00	0.00	0.00	0.00
2,700.00	25.00	21.58	2,552.97	701.56	277.43	754.42	0.00	0.00	0.00	0.00
2,800.00	25.00	21.58	2,643.60	740.86	292.97	796.68	0.00	0.00	0.00	0.00
2,900.00	25.00	21.58	2,734.23	780.16	308.51	838.94	0.00	0.00	0.00	0.00
3,000.00	25.00	21.58	2,824.86	819.46	324.05	881.20	0.00	0.00	0.00	0.00
3,100.00	25.00	21.58	2,915.49	858.76	339.59	923.47	0.00	0.00	0.00	0.00
3,200.00	25.00	21.58	3,006.12	898.06	355.14	965.73	0.00	0.00	0.00	0.00
3,300.00	25.00	21.58	3,096.75	937.36	370.68	1,007.99	0.00	0.00	0.00	0.00
3,400.00	25.00	21.58	3,187.38	976.66	386.22	1,050.25	0.00	0.00	0.00	0.00
3,500.00	25.00	21.58	3,278.01	1,015.96	401.76	1,092.51	0.00	0.00	0.00	0.00
3,600.00	25.00	21.58	3,368.64	1,055.26	417.30	1,134.78	0.00	0.00	0.00	0.00
3,700.00	25.00	21.58	3,459.27	1,094.56	432.84	1,177.04	0.00	0.00	0.00	0.00
3,739.41	25.00	21.58	3,494.99	1,110.05	438.97	1,193.69	0.00	0.00	0.00	0.00
<b>Start Drop -2.00</b>										
3,800.00	23.79	21.58	3,550.17	1,133.32	448.17	1,218.72	2.00	-2.00	0.00	0.00
3,900.00	21.79	21.58	3,642.36	1,169.34	462.41	1,257.45	2.00	-2.00	0.00	0.00



SDI  
Planning Report



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well BONANZA 1023-16G1CS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5494 & KB 4 @ 5498.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 5494 & KB 4 @ 5498.00ft (ASSUMED)
<b>Site:</b>	BONANZA 1023-16	<b>North Reference:</b>	True
<b>Well:</b>	BONANZA 1023-16G1CS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,000.00	19.79	21.58	3,735.85	1,202.34	475.46	1,292.94	2.00	-2.00	0.00	
4,100.00	17.79	21.58	3,830.51	1,232.29	487.30	1,325.14	2.00	-2.00	0.00	
4,200.00	15.79	21.58	3,926.25	1,259.15	497.93	1,354.02	2.00	-2.00	0.00	
4,291.83	13.95	21.58	4,015.00	1,281.06	506.59	1,377.59	2.00	-2.00	0.00	
<b>WASATCH</b>										
4,300.00	13.79	21.58	4,022.93	1,282.88	507.31	1,379.55	2.00	-2.00	0.00	
4,400.00	11.79	21.58	4,120.44	1,303.46	515.45	1,401.68	2.00	-2.00	0.00	
4,500.00	9.79	21.58	4,218.67	1,320.87	522.33	1,420.40	2.00	-2.00	0.00	
4,600.00	7.79	21.58	4,317.49	1,335.08	527.95	1,435.67	2.00	-2.00	0.00	
4,700.00	5.79	21.58	4,416.79	1,346.07	532.30	1,447.49	2.00	-2.00	0.00	
4,800.00	3.79	21.58	4,516.43	1,353.83	535.37	1,455.84	2.00	-2.00	0.00	
4,900.00	1.79	21.58	4,616.31	1,358.35	537.16	1,460.70	2.00	-2.00	0.00	
4,989.41	0.00	0.00	4,705.70	1,359.65	537.67	1,462.10	2.00	-2.00	0.00	
<b>Start 3361.30 hold at 4989.41 MD</b>										
5,000.00	0.00	0.00	4,716.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
5,100.00	0.00	0.00	4,816.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
5,200.00	0.00	0.00	4,916.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,016.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,116.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,216.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,316.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,416.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,516.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,616.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,716.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
6,100.00	0.00	0.00	5,816.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
6,200.00	0.00	0.00	5,916.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
6,224.71	0.00	0.00	5,941.00	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
<b>MESAVERDE</b>										
6,300.00	0.00	0.00	6,016.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,116.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,216.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,316.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,416.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,516.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,616.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,716.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
7,100.00	0.00	0.00	6,816.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
7,200.00	0.00	0.00	6,916.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,016.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,116.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,216.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,316.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,416.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,516.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,616.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,716.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
8,100.00	0.00	0.00	7,816.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
8,200.00	0.00	0.00	7,916.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,016.29	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
8,350.70	0.00	0.00	8,066.99	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
<b>SEGO</b>										
8,350.71	0.00	0.00	8,067.00	1,359.65	537.67	1,462.10	0.00	0.00	0.00	
<b>PBHL_BONANZA 1023-16G1CS</b>										



SDI  
Planning Report



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well BONANZA 1023-16G1CS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5494 & KB 4 @ 5498.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 5494 & KB 4 @ 5498.00ft (ASSUMED)
<b>Site:</b>	BONANZA 1023-16	<b>North Reference:</b>	True
<b>Well:</b>	BONANZA 1023-16G1CS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_BONANZA 1023- - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	8,067.00	1,359.65	537.67	14,512,714.26	2,108,936.05	39.951337	-109.328293

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,387.78	2,270.00	8 5/8"	8.625	11.000	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,095.17	1,085.00	GREEN RIVER				
1,333.26	1,311.00	BIRDSNEST				
1,891.26	1,820.00	MAHOGANY				
4,291.83	4,015.00	WASATCH				
6,224.71	5,941.00	MESAVERDE				
8,350.70	8,066.99	SEGO		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.00	300.00	0.00	0.00	Start Build 2.00	
1,550.00	1,510.71	249.60	98.70	Start 2189.41 hold at 1550.00 MD	
3,739.41	3,494.99	1,110.05	438.97	Start Drop -2.00	
4,989.41	4,705.70	1,359.65	537.67	Start 3361.30 hold at 4989.41 MD	
8,350.71	8,067.00	1,359.65	537.67	TD at 8350.71	

**Pad: BONANZA 1023-16J PAD**Section 16 T10S R23E  
Mineral Lease: ML-22186A

Uintah County, Utah

Operator: Kerr-McGee Oil &amp; 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.)

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:**

Approximately ±260' (0.05 miles) of county road re-route is proposed (see Topo Map B). 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.

If there are roads that are new or to be reconstructed, they 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:**

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.

**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  $\pm 1,200'$  and the individual segments are broken up as follows:

- $\pm 1,200'$  (0.2 miles) – New 16" buried gas pipeline from the meter to the edge of the pad. The proposed pipeline will then tie into a previously proposed 16" buried gas pipeline submitted under separate cover. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 1,295'$  (0.02 miles) – Re-Route 3" surface gas pipeline. This portion of pipeline is owned and operated by Questar. Please refer to Topo D2 - Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is  $\pm 1,200'$  and the individual segments are broken up as follows:

- $\pm 1,200'$  (0.2 miles) – New 6" buried liquid pipeline from the separator to the edge of the pad. The proposed pipeline will then tie into a previously proposed 6" buried liquid pipeline submitted under separate cover. Please refer to Topo D2 - Pad and Pipeline Detail.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

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. Location and Type of Water Supply:**

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. Source of Construction Materials:**

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.

**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.

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. Ancillary Facilities:**

None are anticipated.

#### **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.

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

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

Danielle Piemot  
Regulatory Analyst II  
Kerr-McGee Oil & Gas Onshore LP  
PO Box 173779  
Denver, CO 80217-3779  
(720) 929-6156

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

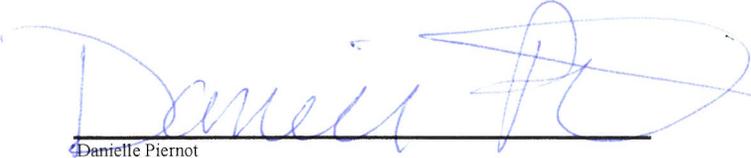
Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

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.

  
Danielle Piemot

May 30, 2012  
Date



Kerr-McGee Oil & Gas Onshore LP  
1059 18<sup>th</sup> Street, Suite 1800  
Denver, CO 80202-1918

April 9, 2012

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

Re: Exception Location R649-3-3 and Directional Drilling R649-3-11  
Bonanza 1023-16G1CS  
T10S-R23E  
Section 16: NWSE/SWNE  
2069' FSL, 2356' FEL (surface)  
1818' FNL, 1818' FEL (bottom hole)  
Uintah County, Utah

Dear Ms. Mason:

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

- Kerr-McGee's Bonanza 1023-16G1CS is located within the area covered by Docket No. 2008-011 authorizing the equivalent of an approximate 10-acre well density pattern, and requiring approval for wells drilled at an exception location and wells drilled directionally in accordance with the referenced rules.
- Kerr-McGee is permitting this well at this location for geological reasons. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to minimize surface disturbance.
- 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 Rule R649-3-3 and Rule R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

A handwritten signature in blue ink, appearing to read 'Joe D. Johnson', with a horizontal line underneath.

Joseph D. Johnson  
Landman II

# 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)

June 11, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Ponderosa 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 2012 within the Ponderosa Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
<b>WELL PAD - 1023-16J</b>		
43-047-52774	Bonanza 1023-16G1CS	Sec 16 T10S R23E 2069 FSL 2356 FEL BHL Sec 16 T10S R23E 1818 FNL 1818 FEL
43-047-52777	Bonanza 1023-16G1BS	Sec 16 T10S R23E 2063 FSL 2364 FEL BHL Sec 16 T10S R23E 1487 FNL 1818 FEL
43-047-52782	Bonanza 1023-16H4CS	Sec 16 T10S R23E 2132 FSL 2134 FEL BHL Sec 16 T10S R23E 2477 FNL 0496 FEL
43-047-52783	Bonanza 1023-16O1BS	Sec 16 T10S R23E 2045 FSL 2388 FEL BHL Sec 16 T10S R23E 1157 FSL 1820 FEL
43-047-52784	Bonanza 1023-16G4BS	Sec 16 T10S R23E 2131 FSL 2174 FEL BHL Sec 16 T10S R23E 2148 FNL 1819 FEL
43-047-52845	Bonanza 1023-16G4CS	Sec 16 T10S R23E 2131 FSL 2164 FEL BHL Sec 16 T10S R23E 2479 FNL 1819 FEL
43-047-52846	Bonanza 1023-16I4CS	Sec 16 T10S R23E 2029 FSL 1869 FEL BHL Sec 16 T10S R23E 1487 FSL 0496 FEL
43-047-52847	Bonanza 1023-16P1BS	Sec 16 T10S R23E 2029 FSL 1879 FEL BHL Sec 16 T10S R23E 1157 FSL 0496 FEL
43-047-52848	Bonanza 1023-16O4BS	Sec 16 T10S R23E 2033 FSL 2404 FEL BHL Sec 16 T10S R23E 0496 FSL 1820 FEL

RECEIVED: June 12, 2012

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-52849	Bonanza 1023-16P4BS	Sec 16 T10S R23E 2028 FSL 1899 FEL BHL Sec 16 T10S R23E 0496 FSL 0496 FEL
43-047-52850	Bonanza 1023-16P1CS	Sec 16 T10S R23E 2028 FSL 1889 FEL BHL Sec 16 T10S R23E 0826 FSL 0496 FEL
43-047-52851	Bonanza 1023-16J1BS	Sec 16 T10S R23E 2131 FSL 2154 FEL BHL Sec 16 T10S R23E 2480 FSL 1819 FEL
43-047-52852	Bonanza 1023-16J4CS	Sec 16 T10S R23E 2051 FSL 2380 FEL BHL Sec 16 T10S R23E 1488 FSL 1820 FEL
43-047-52853	Bonanza 1023-16I1BS	Sec 16 T10S R23E 2132 FSL 2124 FEL BHL Sec 16 T10S R23E 2478 FSL 0496 FEL
43-047-52854	Bonanza 1023-16H4BS	Sec 16 T10S R23E 2132 FSL 2144 FEL BHL Sec 16 T10S R23E 2147 FNL 0496 FEL
43-047-52855	Bonanza 1023-16I4BS	Sec 16 T10S R23E 2029 FSL 1859 FEL BHL Sec 16 T10S R23E 1818 FSL 0496 FEL
43-047-52856	Bonanza 1023-16J1CS	Sec 16 T10S R23E 2132 FSL 2114 FEL BHL Sec 16 T10S R23E 2149 FSL 1819 FEL
43-047-52857	Bonanza 1023-16O1CS	Sec 16 T10S R23E 2039 FSL 2396 FEL BHL Sec 16 T10S R23E 0827 FSL 1820 FEL
43-047-52858	Bonanza 1023-16I1CS	Sec 16 T10S R23E 2030 FSL 1849 FEL BHL Sec 16 T10S R23E 2151 FSL 0487 FEL
<b>WELL PAD - 1023-16H</b>		
43-047-52776	Bonanza 1023-16A4BS	Sec 16 T10S R23E 2088 FNL 0638 FEL BHL Sec 16 T10S R23E 0826 FNL 0496 FEL
43-047-52778	Bonanza 1023-16A4CS	Sec 16 T10S R23E 2098 FNL 0639 FEL BHL Sec 16 T10S R23E 1156 FNL 0496 FEL
43-047-52779	Bonanza 1023-16B1CS	Sec 16 T10S R23E 2127 FNL 0642 FEL BHL Sec 16 T10S R23E 0495 FNL 1818 FEL
43-047-52780	Bonanza 1023-16H1BS	Sec 16 T10S R23E 2108 FNL 0640 FEL BHL Sec 16 T10S R23E 1486 FNL 0496 FEL
43-047-52781	Bonanza 1023-16B4BS	Sec 16 T10S R23E 2137 FNL 0643 FEL BHL Sec 16 T10S R23E 0826 FNL 1818 FEL
43-047-52859	Bonanza 1023-16H1CS	Sec 16 T10S R23E 2117 FNL 0641 FEL BHL Sec 16 T10S R23E 1817 FNL 0496 FEL

This office has no 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: 2012.06.11 14:01:31 -0600

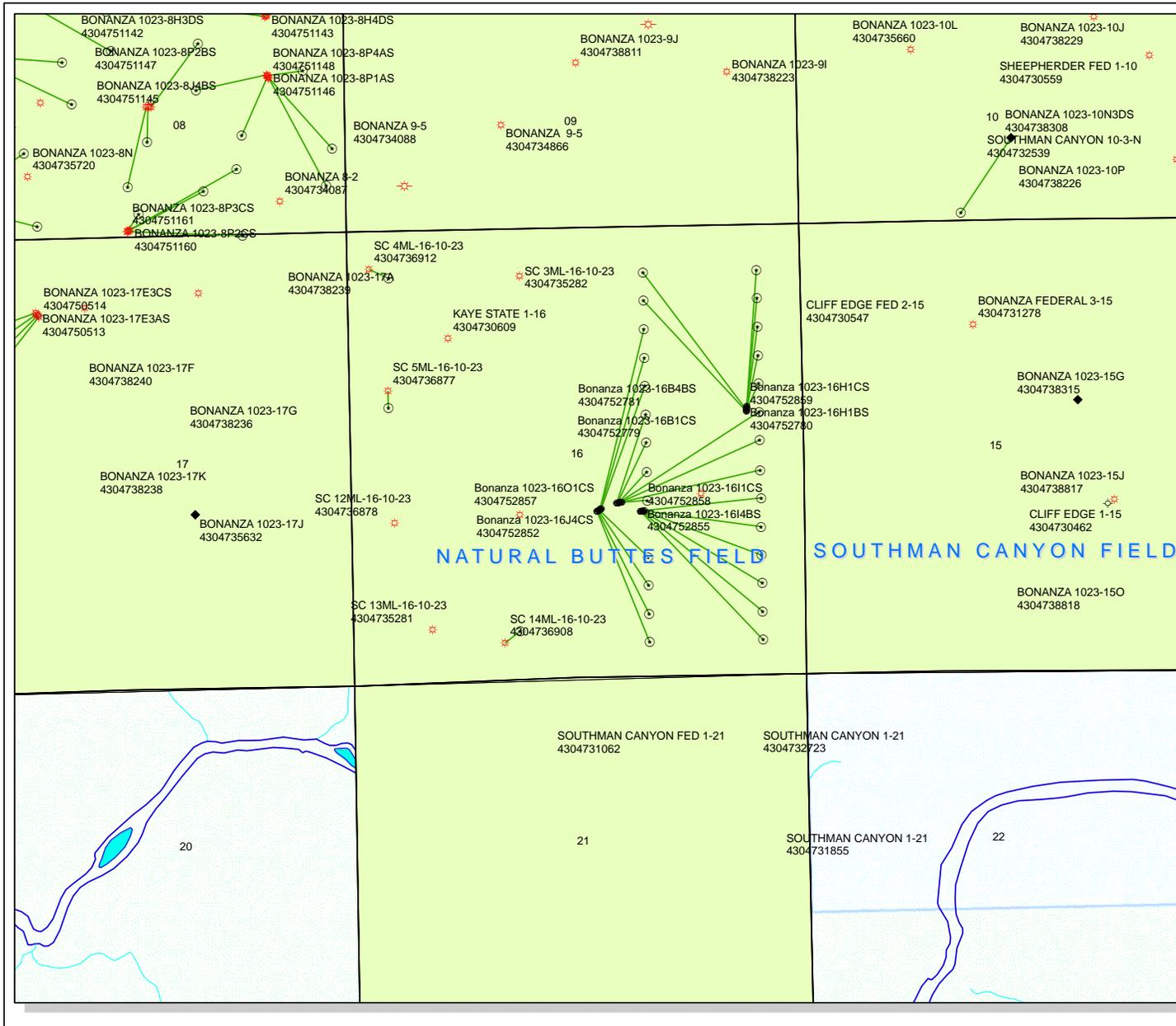
**RECEIVED: June 12, 2012**

API Well Number: 43047527740000

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

MCoulthard:mc:6-11-12

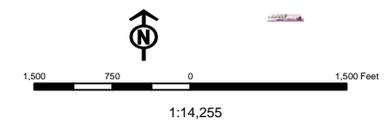
RECEIVED: June 12, 2012



**API Number: 4304752774**  
**Well Name: Bonanza 1023-16G1CS**  
**Township T10. Range R2.3. Section 16**  
**Meridian: SLBM**  
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:  
 Map Produced by Diana Mason

Units STATUS	Wells Query Status
ACTIVE	APD - Approved Permit
EXPLORATORY	DRL - Spudded (Drilling Commenced)
GAS STORAGE	GIW - Gas Injection
NF PP OIL	GS - Gas Storage
NF SECONDARY	LOC - New Location
PI OIL	OPS - Operation Suspended
PP GAS	PA - Plugged/Abandoned
PP GEOTHERML	PGW - Producing Gas Well
PP OIL	POW - Producing Oil Well
SECONDARY	SGW - Shut-in Gas Well
TERMINATED	SOW - Shut-in Oil Well
Unknown	TA - Temp. Abandoned
ABANDONED	TW - Test Well
ACTIVE	WDW - Water Disposal
COMBINED	WW - Water Injection Well
INACTIVE	WSW - Water Supply Well
STORAGE	
TERMINATED	



Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. Bonanza 1023-16G1CS 430			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2163	8067		
Previous Shoe Setting Depth (TVD)	0	2163		
Max Mud Weight (ppg)	8.3	12.5		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5163	12.3		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	934	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	674	NO <input type="checkbox"/> air/mist system
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	458	YES <input type="checkbox"/> OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	458	NO <input type="checkbox"/> Reasonable
Required Casing/BOPE Test Pressure=		2163	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

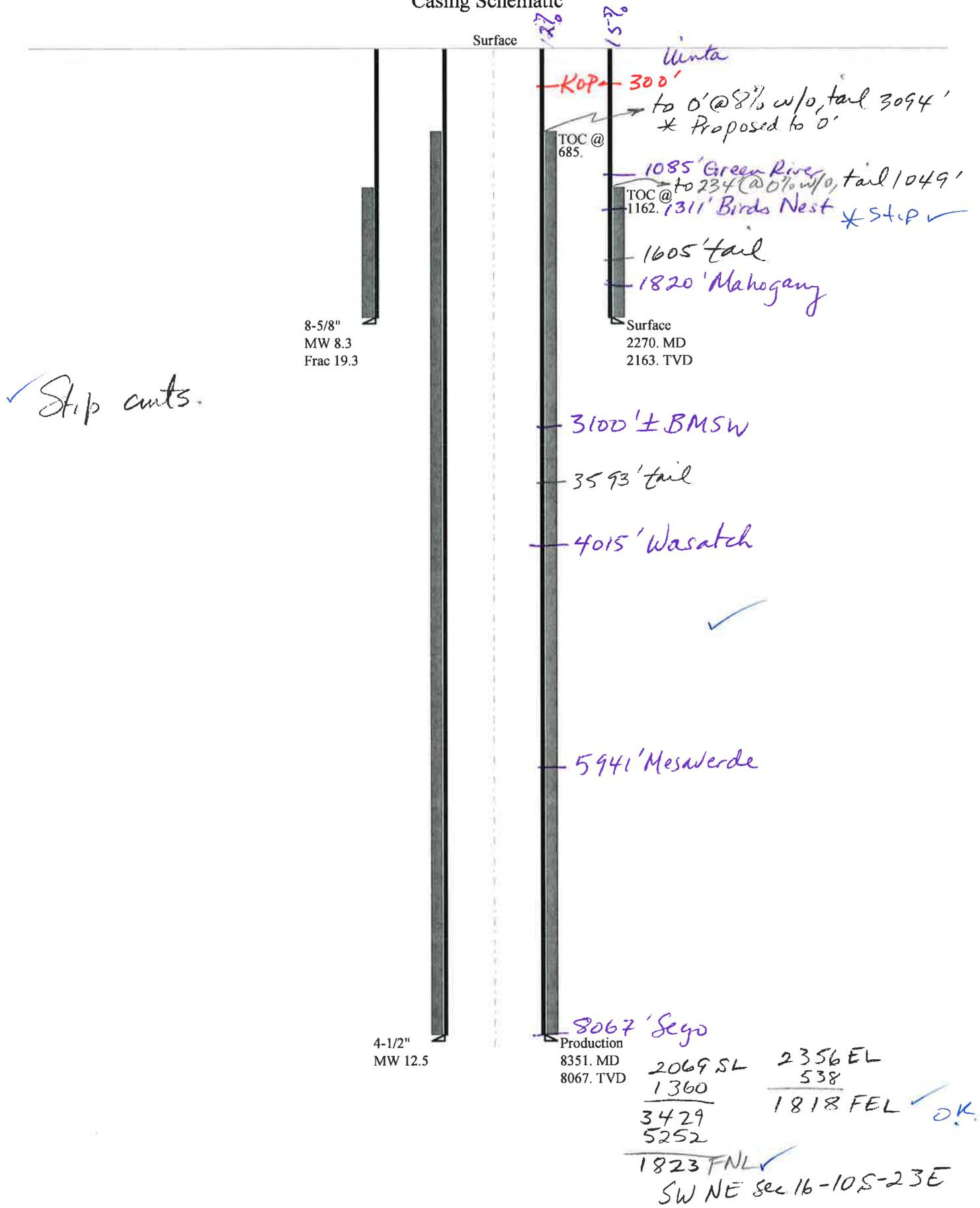
Calculations	Prod String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	5244	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4276	YES <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3469	YES <input type="checkbox"/> OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3945	NO <input type="checkbox"/> Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2163	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 <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO <input type="checkbox"/>
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 <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO <input type="checkbox"/>
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

# 43047527740000 Bonanza 1023-16G1CS

## Casing Schematic



Well name:	<b>43047527740000 Bonanza 1023-16G1CS</b>	
Operator:	<b>KERR-MCGEE OIL &amp; GAS ONSHORE, L.P.</b>	
String type:	Surface	Project ID: 43-047-52774
Location:	UINTAH COUNTY	

**Design parameters:****Collapse**

Mud weight: 8.300 ppg  
Internal fluid density: 1.000 ppg

**Burst**

Max anticipated surface pressure: 1,687 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 2,163 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: 1,978 ft

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 104 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

Cement top: 1,162 ft

**Directional well information:**

Kick-off point 300 ft  
Departure at shoe: 573 ft  
Maximum dogleg: 2 °/100ft  
Inclination at shoe: 25 °

**Re subsequent strings:**

Next setting depth: 8,067 ft  
Next mud weight: 12.500 ppg  
Next setting BHP: 5,239 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,163 ft  
Injection pressure: 2,163 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	2270	8.625	28.00	I-55	LT&C	2163	2270	7.892	89892
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	820	1880	2.292	2163	3390	1.57	60.6	348	5.75 J

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

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

Date: August 20, 2012  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 2163 ft, a mud weight of 8.3 ppg. An internal gradient of .052 psi/ft was used for collapse from TD to 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.*

Well name:	<b>43047527740000 Bonanza 1023-16G1CS</b>	
Operator:	<b>KERR-MCGEE OIL &amp; GAS ONSHORE, L.P.</b>	
String type:	Production	Project ID: 43-047-52774
Location:	UINTAH COUNTY	

**Design parameters:****Collapse**

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

**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 187 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft

Cement top: 685 ft

**Burst**

Max anticipated surface pressure: 3,464 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 5,239 psi

No backup mud specified.

**Tension:**

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

**Directional Info - Build & Drop**

Kick-off point 300 ft  
Departure at shoe: 1462 ft  
Maximum dogleg: 2 °/100ft  
Inclination at shoe: 0 °

Tension is based on air weight.

Neutral point: 6,844 ft

Estimated cost: 176,233 (\$)

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	4716	5000	3.875	132000
1	3351	4.5	11.60	I-80	LT&C	8067	8351	3.875	44233

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	3063	6047	1.974	4501	7780	1.73	93.6	267	2.85 J
1	5239	6360	1.214	5239	7780	1.49	38.9	212	5.45 J

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

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

Date: August 17, 2012  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 8067 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** Bonanza 1023-16G1CS  
**API Number** 43047527740000      **APD No** 6134    **Field/Unit** NATURAL BUTTES  
**Location: 1/4,1/4** NWSE    **Sec** 16    **Tw** 10.0S    **Rng** 23.0E    2069 FSL 2356 FEL  
**GPS Coord (UTM)** 642579 4423267      **Surface Owner**

### Participants

Charles Chase (Kerr McGee), David hackford (DOGM).

### Regional/Local Setting & Topography

The general area is within the north edge of the White River Drainage southwest of Bonanza, Utah. This drainage is a major drainage beginning in Colorado to the east and joining the Green River approximately 18 miles to the northwest. The drainage consists of many significant side drainages. 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. The topography is characterized by rolling hills, frequently divided by gentle to deep draws, which flow into the White River. The draws are often rimmed with steep side hills with exposed sand stone bedrock cliffs. Ouray, Utah is approximately 18 miles to the northwest with Vernal, Utah approximately 57 miles to the north. The White River is 3/4 mile to the southwest. This location will be for this well and twenty others, including the Bonanza 1023-16J which is a OS with surface pipe set.

### Surface Use Plan

#### **Current Surface Use**

Grazing  
Wildlfe Habitat  
Existing Well Pad

#### **New Road Miles**

0

#### **Well Pad**

**Width** 395    **Length** 820

#### **Src Const Material**

Onsite

#### **Surface Formation**

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, juniper 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 Diversion Required?** N**Berm Required?** N**Erosion Sedimentation Control Required?** N**Paleo Survey Run?** Y **Paleo Potential Observed?** N **Cultural Survey Run?** Y **Cultural Resources?** N**Reserve Pit****Site-Specific Factors****Site Ranking**

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

1 Sensitivity Level

**Characteristics / Requirements**

Reserve pit will measure 135' by 250' and 12' deep. It will be constructed on the south side of the location in an area of cut. This pit will be lined with a 30 mil plastic liner and a double felt sub-liner. A cuttings collection area will be located to the west of this pit.

**Closed Loop Mud Required?** N **Liner Required?** Y **Liner Thickness** 30 **Pit Underlayment Required?** Y**Other Observations / Comments**David Hackford  
Evaluator6/21/2012  
Date / Time

---

**Application for Permit to Drill  
Statement of Basis  
Utah Division of Oil, Gas and Mining**

---

<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Owner</b>	<b>CBM</b>
6134	43047527740000	LOCKED	GW	S	No
<b>Operator</b>	KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>Surface Owner-APD</b>		
<b>Well Name</b>	Bonanza 1023-16G1CS		<b>Unit</b>	PONDEROSA	
<b>Field</b>	NATURAL BUTTES		<b>Type of Work</b>	DRILL	
<b>Location</b>	NWSE 16 10S 23E S 2069 FSL (UTM) 642584E 4423241N	2356 FEL GPS Coord			

**Geologic Statement of Basis**

Kerr McGee proposes to set 2,270' 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 16 . 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. The production casing cement should be brought up above the base of the moderately saline ground water in order to isolate it from fresher waters up hole. The proposed casing and cement should adequately protect any usable ground water in the area.

Brad Hill  
**APD Evaluator**

6/28/2012  
**Date / Time**

**Surface Statement of Basis**

This well, along with twenty others will be directionally drilled from the same drilling pad. One of these wells, the Bonanza 1023-16J is an OS with surface pipe set. The existing 16J pad will be part of the proposed 21 well pad. A reserve pit was constructed for the 16J well but it was later reclaimed without being used. The new reserve pit will be constructed in the same place. Because of the steep cliff-like slopes falling off to the north, south and west a double felt liner will be required along with a 30 mil plastic liner in the reserve pit. If a closed loop mud system is used, drilled cuttings will be dried and stored in a cuttings collection area measuring 170 feet by 150 feet located on the southwest corner of the pad. If these cuttings are free of hydrocarbons they will be mixed into the location soil and left in place. If hydrocarbons are present, it will be necessary to dispose of them in an approved disposal facility.

Jim Davis of SITLA and Ben Williams of DWR were invited to this presite investigation, but both had visited this site with Kerr MCGee personell at an earlier date and neither were present.

The White river is approx. 3/4 mile to the southwest. This location appears to be the best site for a drilling pad in the immediate area.

David Hackford  
**Onsite Evaluator**

6/21/2012  
**Date / Time**

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

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

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 6/1/2012

API NO. ASSIGNED: 43047527740000

WELL NAME: Bonanza 1023-16G1CS

OPERATOR: KERR-MCGEE OIL &amp; GAS ONSHORE, L.P. (N2995)

PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NWSE 16 100S 230E

Permit Tech Review: 

SURFACE: 2069 FSL 2356 FEL

Engineering Review: 

BOTTOM: 1818 FNL 1818 FEL

Geology Review: 

COUNTY: UINTAH

LATITUDE: 39.94730

LONGITUDE: -109.33094

UTM SURF EASTINGS: 642584.00

NORTHINGS: 4423241.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22186 A

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

Commingle Approved

## LOCATION AND SITING:

- R649-2-3.
- Unit: PONDEROSA
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 179-17
- Effective Date: 5/9/2012
- Siting: Suspends General Siting
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 3 - Commingle - dducet  
5 - Statement of Basis - bhill  
15 - Directional - dmason  
25 - Surface Casing - hmacdonald



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:** Bonanza 1023-16G1CS  
**API Well Number:** 43047527740000  
**Lease Number:** ML 22186 A  
**Surface Owner:** STATE  
**Approval Date:** 9/12/2012

### 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 179-17. 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. 179-17, 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.

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:**

A handwritten signature in black ink, appearing to read "J. Rogers", written in a cursive style.

For John Rogers  
Associate Director, Oil & Gas

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
<b>1. TYPE OF WELL</b> Gas Well	<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22186 A
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>7. UNIT or CA AGREEMENT NAME:</b> PONDEROSA
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2069 FSL 2356 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWSE Section: 16 Township: 10.0S Range: 23.0E Meridian: S	<b>8. WELL NAME and NUMBER:</b> Bonanza 1023-16G1CS
<b>PHONE NUMBER:</b> 720 929-6511	<b>9. API NUMBER:</b> 43047527740000
<b>9. FIELD and POOL or WILDCAT:</b> SNAKE RIVER BUTTES	<b>COUNTY:</b> Uintah
	<b>STATE:</b> UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 9/12/2013	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

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

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

**Date:** August 15, 2013

**By:**

<b>NAME (PLEASE PRINT)</b> Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	<b>TITLE</b> Staff Regulatory Specialist
<b>SIGNATURE</b> N/A	<b>DATE</b> 8/13/2013	



**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 43047527740000**

API: 43047527740000

Well Name: Bonanza 1023-16G1CS

Location: 2069 FSL 2356 FEL QTR NWSE SEC 16 TWNP 100S RNG 230E MER S

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

Date Original Permit Issued: 9/12/2012

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: Teena Paulo

Date: 8/13/2013

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

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
<b>1. TYPE OF WELL</b> Gas Well	<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22186 A
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>7. UNIT or CA AGREEMENT NAME:</b> PONDEROSA
<b>PHONE NUMBER:</b> 720 929-6100	<b>8. WELL NAME and NUMBER:</b> Bonanza 1023-16G1CS
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2069 FSL 2356 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWSE Section: 16 Township: 10.0S Range: 23.0E Meridian: S	<b>9. API NUMBER:</b> 43047527740000
	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
	<b>COUNTY:</b> UINTAH
	<b>STATE:</b> UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 9/12/2014	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
 Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

**Approved by the**  
**August 11, 2014**  
**Oil, Gas and Mining**

**Date:** \_\_\_\_\_  
**By:**

<b>NAME (PLEASE PRINT)</b> Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	<b>TITLE</b> Staff Regulatory Specialist
<b>SIGNATURE</b> N/A	<b>DATE</b> 8/7/2014	



**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 43047527740000**

API: 43047527740000

Well Name: Bonanza 1023-16G1CS

Location: 2069 FSL 2356 FEL QTR NWSE SEC 16 TWNP 100S RNG 230E MER S

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

Date Original Permit Issued: 9/12/2012

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: Teena Paulo

Date: 8/7/2014

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



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

September 17, 2015

Kerr-McGee Oil & Gas Onshore, LP.  
1099 18th Street, Suite 600  
Denver, CO 80217

Re: APD Rescinded – Bonanza 1023-16G1CS, Sec. 16 T.10S, R.23E,  
Uintah County, Utah API No. 43-047-52774

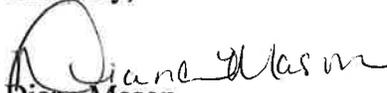
Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on September 12, 2012. On August 15, 2013 and August 11, 2014, the Division granted a one-year APD extension. No drilling activity at this location has been reported to the Division. Therefore, approval to drill the well is hereby rescinded, effective September 17, 2015.

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  
SITLA, Ed Bonner

