

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

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL		1. WELL NAME and NUMBER Morgan State 921-3601CS
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>		3. FIELD OR WILDCAT NATURAL BUTTES
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO		5. UNIT or COMMUNITIZATION AGREEMENT NAME
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. OPERATOR PHONE 720 929-6515
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217		9. OPERATOR E-MAIL julie.jacobson@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML 22265	11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	
12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>		12. SURFACE OWNERSHIP
13. NAME OF SURFACE OWNER (if box 12 = 'fee')		14. SURFACE OWNER PHONE (if box 12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')		16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>
		19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	1207 FSL 2160 FEL	SWSE	36	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	898 FSL 1826 FEL	SWSE	36	9.0 S	21.0 E	S
At Total Depth	898 FSL 1826 FEL	SWSE	36	9.0 S	21.0 E	S

21. COUNTY UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet) 898	23. NUMBER OF ACRES IN DRILLING UNIT 639
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 416	26. PROPOSED DEPTH MD: 10490 TVD: 10451
27. ELEVATION - GROUND LEVEL 5011	28. BOND NUMBER 22013542	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-8496

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	12.25	8.625	0 - 2540	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 - 10490	11.6	HCP-110 LT&C	13.0	Premium Lite High Strength	320	3.38	12.0
							50/50 Poz	1530	1.31	14.3

ATTACHMENTS

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

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input 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

NAME Danielle Piernot	TITLE Regulatory Analyst	PHONE 720 929-6156
SIGNATURE	DATE 12/20/2011	EMAIL danielle.piernot@anadarko.com
API NUMBER ASSIGNED 43047522540000	APPROVAL  Permit Manager	

Kerr-McGee Oil & Gas Onshore. L.P.**MORGAN STATE 921-3601CS**

Surface: 1207 FSL / 2160 FEL SWSE
 BHL: 898 FSL / 1826 FEL SWSE

Section 36 T9S R21E

Unitah County, Utah
 Mineral Lease: UT-000005315

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

1. & 2.a **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	1,311'	
Birds Nest	1,596'	Water
Mahogany	2,089'	Water
Wasatch	4,535'	Gas
Mesaverde	7,157'	Gas
Sego	9,362'	Gas
Castlegate	9,425'	Gas
MN5	9,851'	Gas
TVD =	10,451'	
TD =	10,490'	

- 2.C Kerr McGee Oil & Gas Onshore LP (Kerr McGee) will either drill to the the Blackhawk formation, which is part of the Mesaverde formation, or the Wasatch/Mesaverde formation. If Kerr McGee drills to the Blackhawk formation (part of the Mesaverde formation), please refer to MN5 as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr McGee drills to the Wasatch/Mesaverde formation please refer to Segoe as the bottom formation. The attached Wasatch/Mesaverde Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the depths the Wasatch/Mesaverde formations are found.

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

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

4. Proposed Casing & Cementing Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

5. Drilling Fluids Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. Evaluation Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. Abnormal Conditions:**7.a Blackhawk (Part of Mesaverde Formation) Target Formation**

Maximum anticipated bottom hole pressure calculated at 10451' TVD, approximately equals
6,898 psi (0.66 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,646 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))

7.b Wasach/Mesaverde Target Formation

Maximum anticipated bottom hole pressure calculated at 9362' TVD, approximately equals
5,992 psi (0.64 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 3,919 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 Blackhawk Drilling Program and the Wasatch/Mesaverde 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 put the booster and standby compressor opposite from the blooie line.

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

Variance for FIT Requirements

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

Conclusion

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

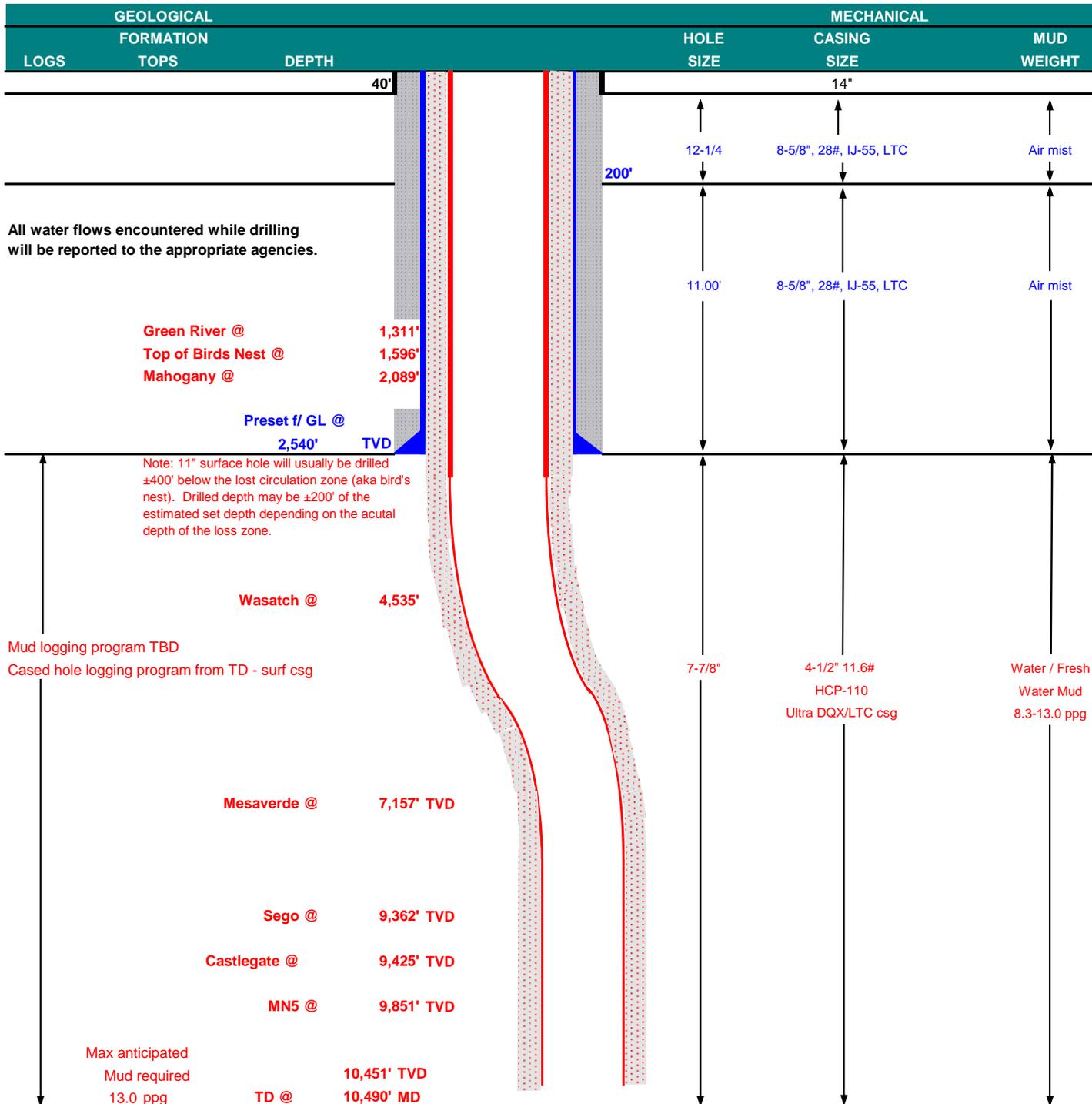
10. **Other Information:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	December 19, 2011		
WELL NAME	MORGAN STATE 921-3601CS			TD	10,451' TVD	10,490' MD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	5,011'
SURFACE LOCATION	SWSE	1207 FSL	2160 FEL	Sec 36	T 9S	R 21E	
	Latitude:	39.988758	Longitude:	-109.497683			NAD 27
BTM HOLE LOCATION	SWSE	898 FSL	1826 FEL	Sec 36	T 9S	R 21E	
	Latitude:	39.987889	Longitude:	-109.496493			NAD 27
OBJECTIVE ZONE(S)	BLACKHAWK						
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.						





KERR-McGEE OIL & GAS ONSHORE LP
BLACKHAWK DRILLING PROGRAM

CASING PROGRAM

							DESIGN FACTORS			
							LTC		DQX	
	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	0-40'					3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to 2,540	28.00	IJ-55	LTC	2.12	1.58	5.59	N/A
PRODUCTION	4-1/2"	0	to 5,000	11.60	HCP-110	DQX	1.19	1.22	279,000	367,174
	4-1/2"	5,000	to 10,490'	11.60	HCP-110	LTC	1.19	1.22	5.47	

Surface casing:

(Burst Assumptions: TD = 13.0 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 @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
Option 1	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
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	2,040'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	190	35%	11.00	3.82
Option 2	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	4,030'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	320	35%	12.00	3.38
	TAIL	6,460'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,530	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.

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:

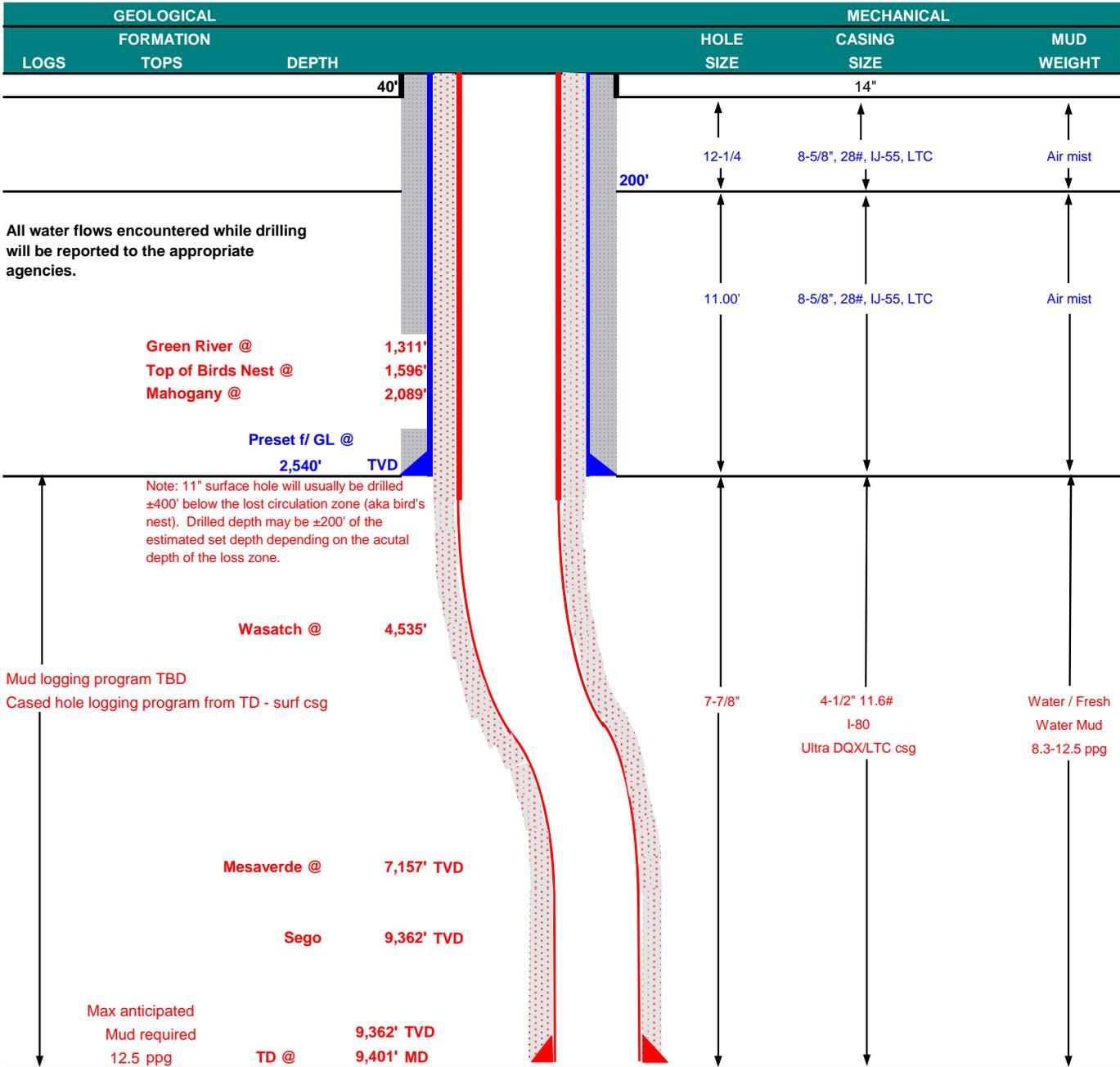
Kenny Gathings / Lovel Young

DATE: _____



KERR-McGEE OIL & GAS ONSHORE LP WASATCH/MESAVERDE DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	December 19, 2011	
WELL NAME	MORGAN STATE 921-3601CS		TD	9,362'	9,401' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
SURFACE LOCATION	SWSE	1207 FSL	2160 FEL	Sec 36 T 9S R 21E	FINISHED ELEVATION 5,011'
	Latitude:	39.988758	Longitude:	-109.497683 NAD 27	
BTM HOLE LOCATION	SWSE	898 FSL	1826 FEL	Sec 36 T 9S R 21E	
	Latitude:	39.987889	Longitude:	-109.496493 NAD 27	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP

WASATCH/MESAVERDE DRILLING PROGRAM

CASING PROGRAM

							DESIGN FACTORS			
							LTC	DQX		
	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	0-40'					3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to 2,540	28.00	IJ-55	LTC	2.12	1.58	5.59	N/A
PRODUCTION	4-1/2"	0	to 5,000	11.60	I-80	DQX	7,780	6,350		267,035
							7,780	6,350	223,000	3.03
	4-1/2"	5,000	to 9,401'	11.60	I-80	LTC	1.11	1.04	5.40	

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

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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
NOTE: If well will circulate water to surface, option 2 will be utilized								
SURFACE Option 2	LEAD	2,040'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	190	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	4,031'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	320	35%	12.00		3.38
	TAIL	5,370'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,270	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

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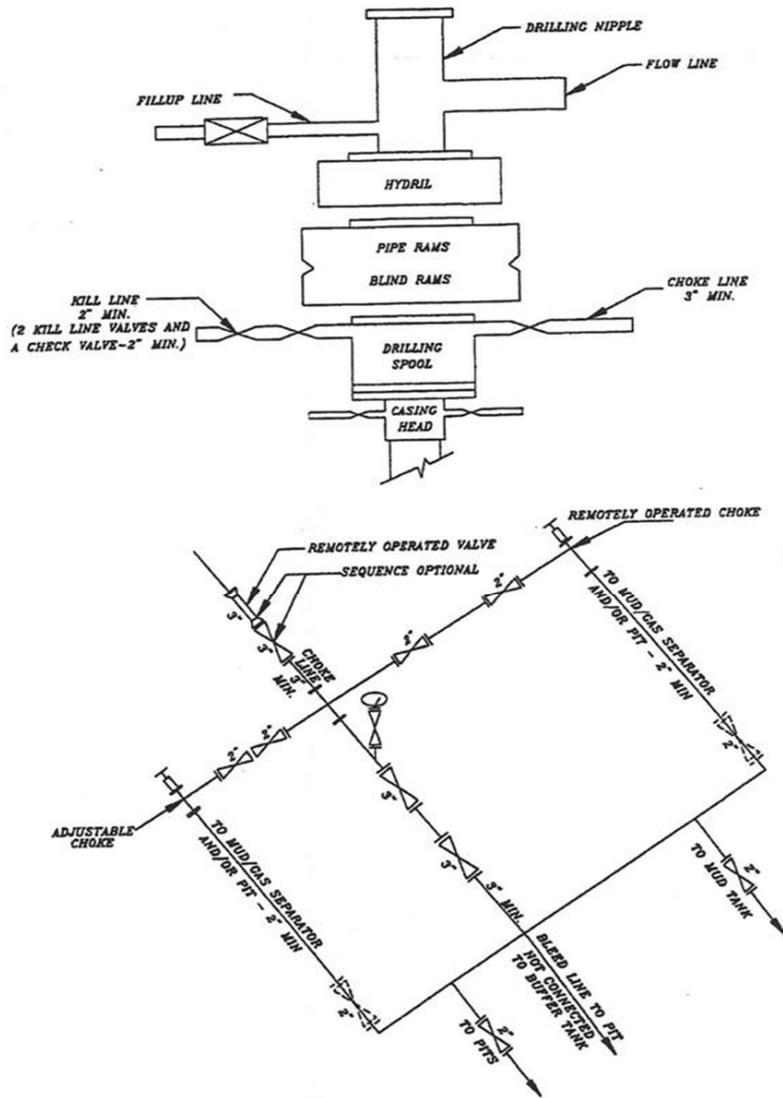
DRILLING ENGINEER: _____
Nick Spence / Danny Showers / Chad Loesel

DATE: _____

DRILLING SUPERINTENDENT: _____
Kenny Gathings / Lovel Young

DATE: _____

EXHIBIT A
MORGAN STATE 921-3601CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

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

WEST - 80.00 (G.L.O.)

N89°55'26"W - 2639.89' (Meas.)

N89°56'39"W - 2639.91' (Meas.)

Found 1" Aluminum Cap on 5/8" Rebar. Pile of Stones.

Found 1" Aluminum Cap on 5/8" Rebar, with a Stone on East side of Cap.

Found 1977 Brass Cap. Pile of Stones.

MORGAN STATE 921-3601CS (Surface Position)
 NAD 83 LATITUDE = 39.988723° (39° 59' 19.401")
 LONGITUDE = 109.498369° (109° 29' 54.128")
 NAD 27 LATITUDE = 39.988758° (39° 59' 19.527")
 LONGITUDE = 109.497683° (109° 29' 51.658")

MORGAN STATE 921-3601CS (Bottom Hole)
 NAD 83 LATITUDE = 39.987854° (39° 59' 16.273")
 LONGITUDE = 109.497179° (109° 29' 49.845")
 NAD 27 LATITUDE = 39.987889° (39° 59' 16.399")
 LONGITUDE = 109.496493° (109° 29' 47.375")

Found 1 1/2" Aluminum Cap on 5/8" Rebar in Pile of Stones.

Found 1977 Brass Cap, Steel Post & Pile of Stones.

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**WELL LOCATION:
 MORGAN STATE 921-3601CS**

ELEV. UNGRADED GROUND = 5011.0'

N00°03'41"W - 2641.51' (Meas.)

N00°03'E - 79.80 (G.L.O.)

N00°00'34"E - 2612.15' (Meas.)

99.10'

NW. Cor. Sec. 1:
 Found 1977 Brass Cap.

LOT 4

LOT 3

LOT 2

LOT 1

SW Cor. Sec. 36
 C.C.: Found 1977 Brass Cap.

1/4 Cor. Sec. 36:
 Found 1977 Brass Cap in Pile of Stones.

1/4 Cor. Sec. 1:
 Found 1977 Brass Cap in Pile of Stones.

S89°06'03"W - 2678.51' (Meas.)
 S89°06'W - 40.59 (G.L.O.)

Well Surface Position

Bottom of Hole

1207'

898'

2160'

1826'

2657.23'

N88°43'26"W - 2691.59' (Meas.)
 N88°46'W - 40.78 (G.L.O.)

N00°05'54"E - 2569.93' (Meas.)
 N0°04'E - 38.96 (G.L.O.)

20.43 (G.L.O.)

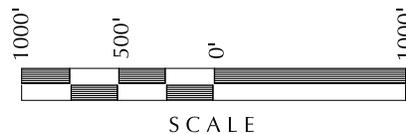
N00°03'48"E (Basis of Bearings)
 2697.12' (Measured)
 N0°02'E - 40.86 (G.L.O.)

Found 1977 Brass Cap, Set Stone, Steel Post & Pile of Stones.

NOTES:

▲ = Section Corners Located

- Well footages are measured at right angles to the Section Lines.
- G.L.O. distances are shown in feet or chains.
1 chain = 66 feet.
- The Bottom of hole bears S46°27'37"E 459.84' from the Surface Position.
- Bearings are based on Global Positioning Satellite observations.
- Basis of elevation is Tri-Sta "Two Water" located in the NW 1/4 of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



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. 6028691-11-11-11
 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: MORGAN STATE 921-360

**MORGAN STATE 921-3601CS
 WELL PLAT**
 898' FSL, 1826' FEL (Bottom Hole)
 LOT 2 OF SECTION 36, T9S, R21E,
 S.L.B.&M., UTAH COUNTY, UTAH.



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

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

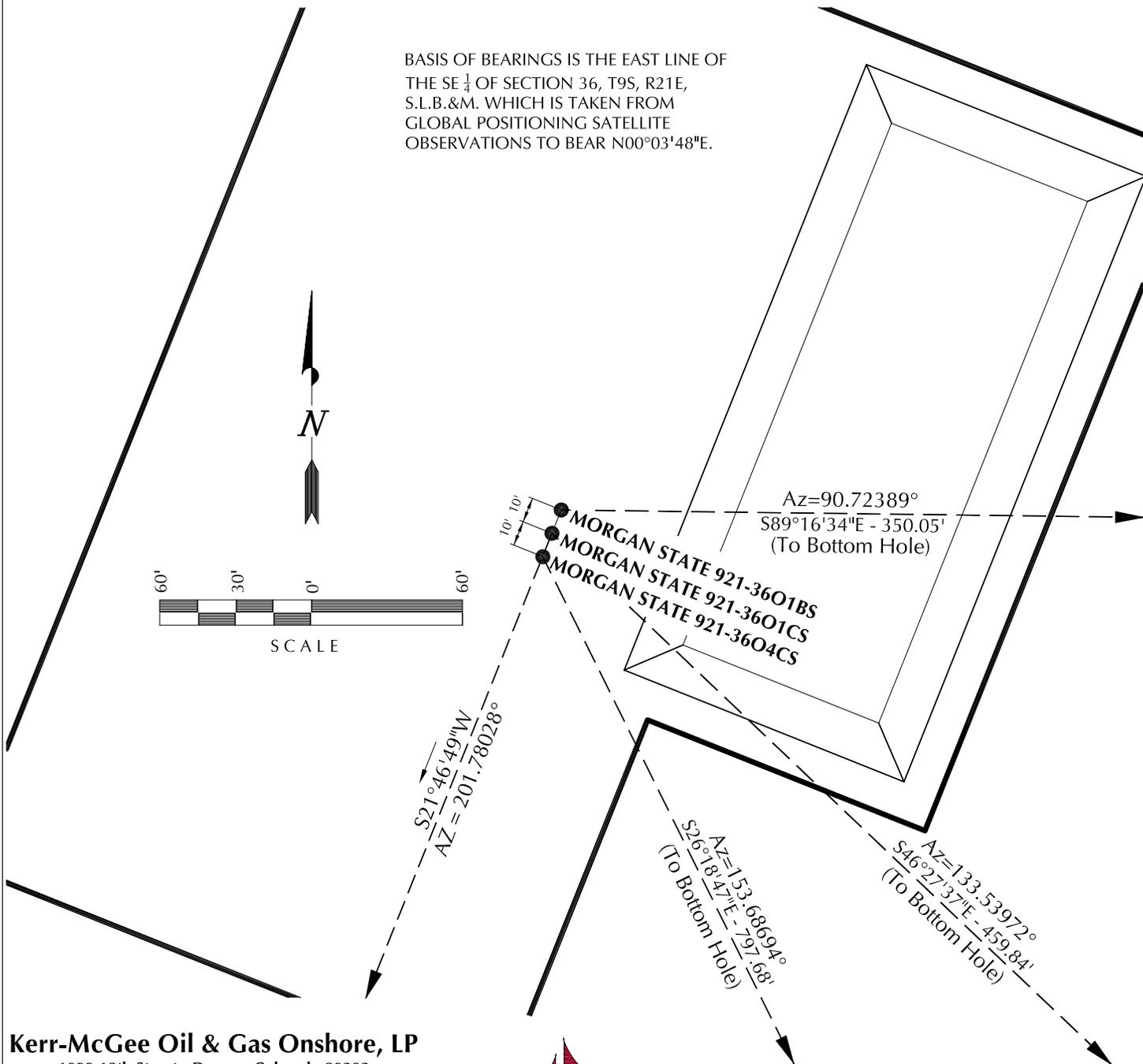
DATE SURVEYED: 10-17-11	SURVEYED BY: J.W.	SHEET NO: 2
DATE DRAWN: 11-02-11	DRAWN BY: T.J.R.	
SCALE: 1" = 1000'		2 OF 15

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
MORGAN STATE 921-36O1BS	39°59'19.493"	109°29'54.081"	39°59'19.619"	109°29'51.611"	1217' FSL	39°59'19.451"	109°29'49.586"	39°59'19.577"	109°29'47.115"	1220' FSL
MORGAN STATE 921-36O1CS	39.988748°	109.498356°	39.988783°	109.497670°	2156' FEL	39.988736°	109.497107°	39.988771°	109.496421°	1806' FEL
MORGAN STATE 921-36O1CS	39°59'19.401"	109°29'54.128"	39°59'19.527"	109°29'51.658"	1207' FSL	39°59'16.273"	109°29'49.845"	39°59'16.399"	109°29'47.375"	898' FSL
MORGAN STATE 921-36O4CS	39.988723°	109.498369°	39.988758°	109.497683°	2160' FEL	39.987854°	109.497179°	39.987889°	109.496493°	1826' FEL
MORGAN STATE 921-36O4CS	39°59'19.310"	109°29'54.176"	39°59'19.436"	109°29'51.706"	1198' FSL	39°59'12.247"	109°29'49.631"	39°59'12.373"	109°29'47.161"	491' FSL
MORGAN STATE 921-36O4CS	39.988697°	109.498382°	39.988732°	109.497696°	2163' FEL	39.986735°	109.497120°	39.986770°	109.496434°	1809' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
MORGAN STATE 921-36O1BS	-4.4'	350.0'	MORGAN STATE 921-36O1CS	-316.8'	333.3'	MORGAN STATE 921-36O4CS	-715.0'	353.6'

BASIS OF BEARINGS IS THE EAST LINE OF THE SE ¼ OF SECTION 36, T9S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°03'48"E.



Kerr-McGee Oil & Gas Onshore, LP
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WELL PAD - MORGAN STATE 921-36O

WELL PAD INTERFERENCE PLAT
WELLS - MORGAN STATE 921-36O1BS,
MORGAN STATE 921-36O1CS &
MORGAN STATE 921-36O4CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.



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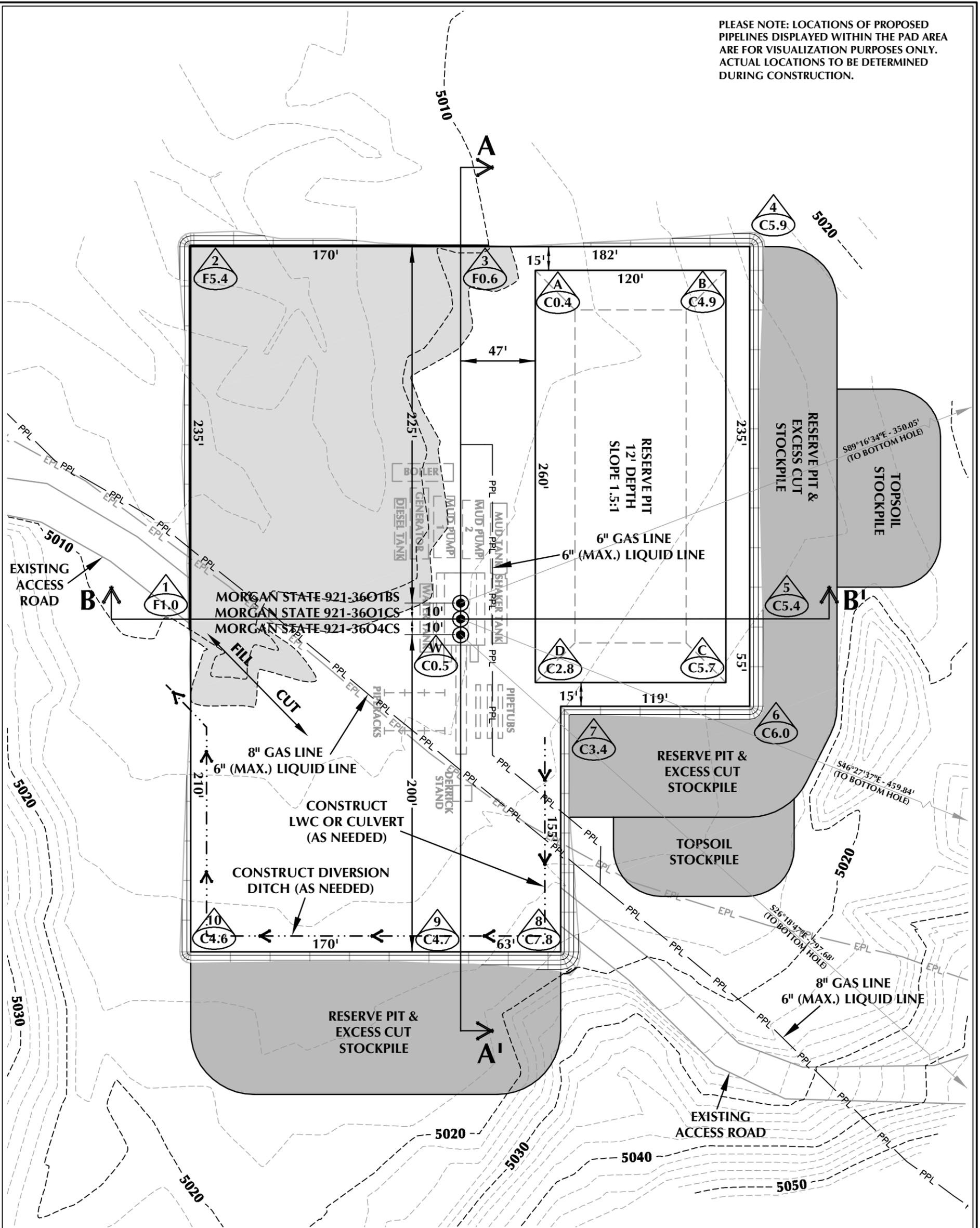
TIMBERLINE

(435) 789-1365

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

DATE SURVEYED: 10-17-11	SURVEYED BY: J.W.	SHEET NO: 4
DATE DRAWN: 11-02-11	DRAWN BY: T.J.R.	
SCALE: 1" = 60'	Date Last Revised:	4 OF 15

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



WELL PAD - MORGAN STATE 921-360 DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5011.0'
 FINISHED GRADE ELEVATION = 5010.5'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.39 ACRES
 TOTAL DISTURBANCE AREA = 4.65 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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WELL PAD - MORGAN STATE 921-360

WELL PAD - LOCATION LAYOUT
 MORGAN STATE 921-3601BS,
 MORGAN STATE 921-3601CS &
 MORGAN STATE 921-3604CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 7,655 C.Y.
 TOTAL FILL FOR WELL PAD = 4,193 C.Y.
 TOPSOIL @ 6" DEPTH = 2,732 C.Y.
 EXCESS MATERIAL = 3,462 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
 +/- 11,020 C.Y.
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 42,290 BARRELS

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

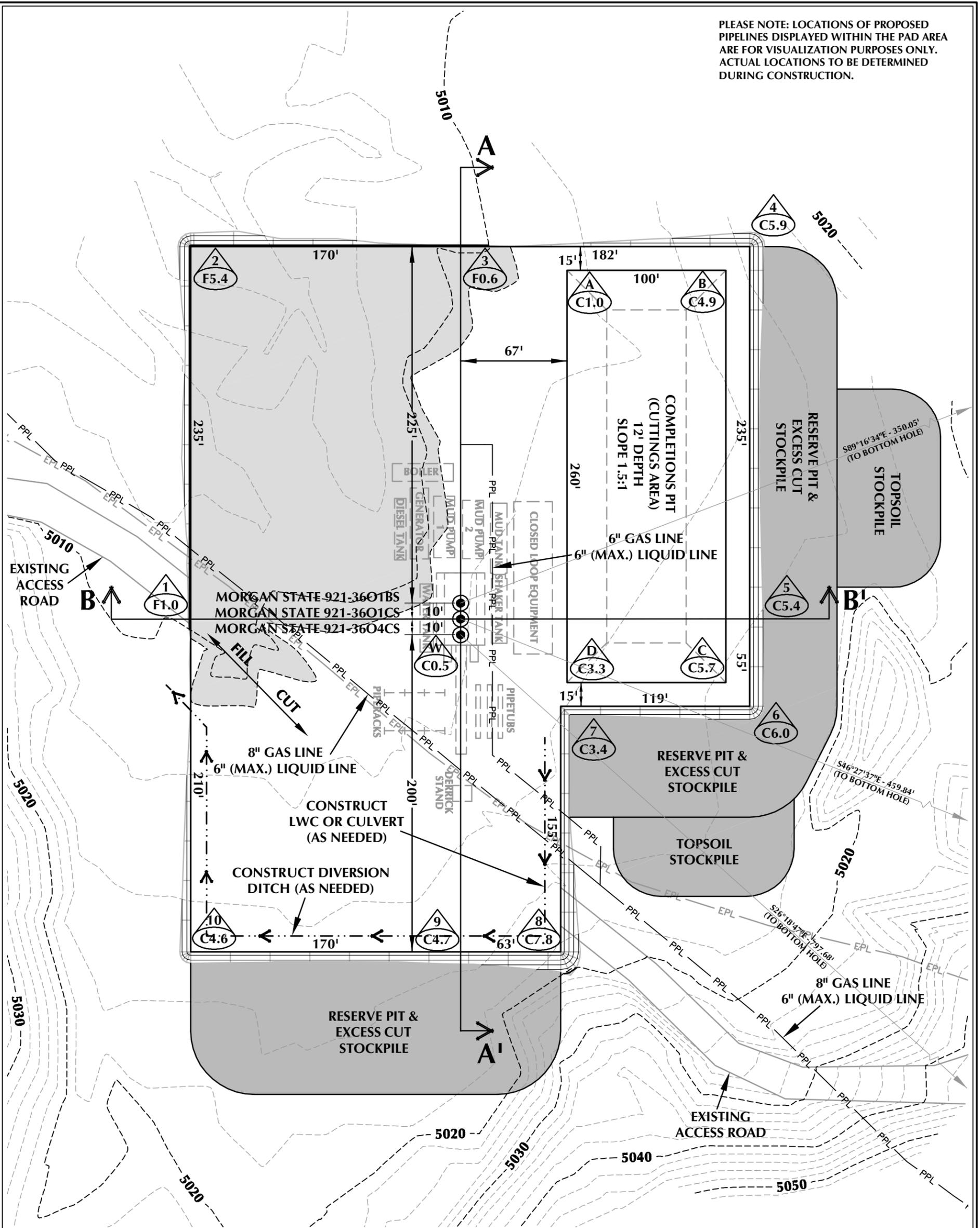


HORIZONTAL 0 30' 60' 1" = 60'
 2' CONTOURS

SCALE: 1"=60' DATE: 11/11/11 SHEET NO:
 REVISED: 5 5 OF 15

TIMBERLINE (435) 789-1365
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 209 NORTH 300 WEST - VERNAL, UTAH 84078

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



WELL PAD - MORGAN STATE 921-360 (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5011.0'
 FINISHED GRADE ELEVATION = 5010.5'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.39 ACRES
 TOTAL DISTURBANCE AREA = 4.65 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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 1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-360

WELL PAD - LOCATION LAYOUT
 MORGAN STATE 921-3601BS,
 MORGAN STATE 921-3601CS &
 MORGAN STATE 921-3604CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 7,655 C.Y.
 TOTAL FILL FOR WELL PAD = 4,193 C.Y.
 TOPSOIL @ 6" DEPTH = 2,732 C.Y.
 EXCESS MATERIAL = 3,462 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT
 +/- 8,870 C.Y.
 COMPLETIONS PIT CAPACITY
 (2' OF FREEBOARD)
 +/- 33,770 BARRELS

WELL PAD LEGEND

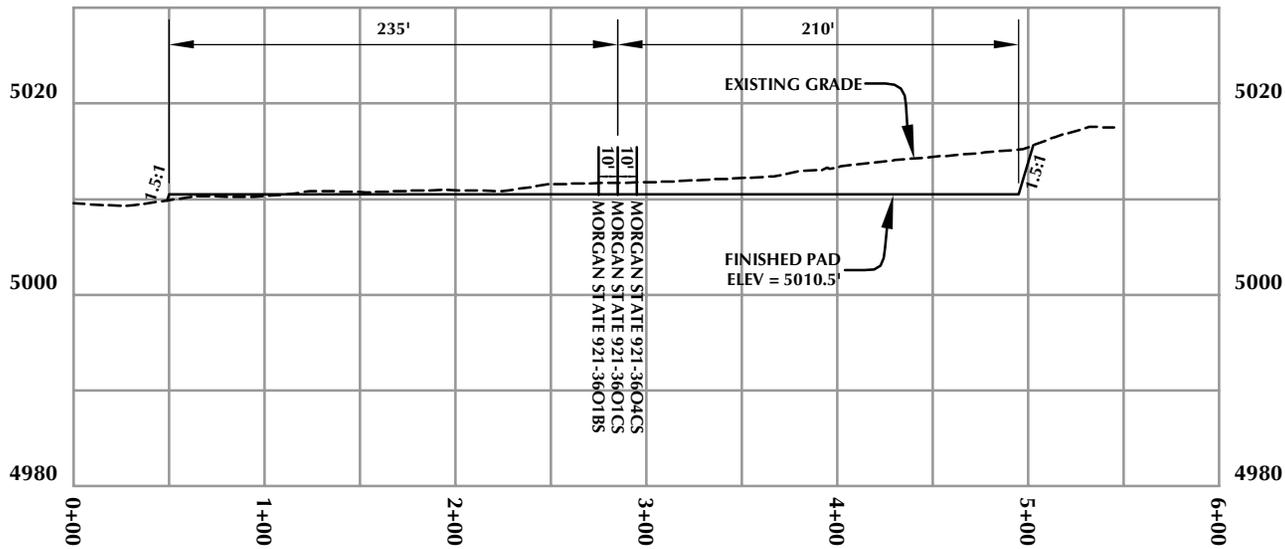
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PROPOSED PIPELINE
- EXISTING PIPELINE



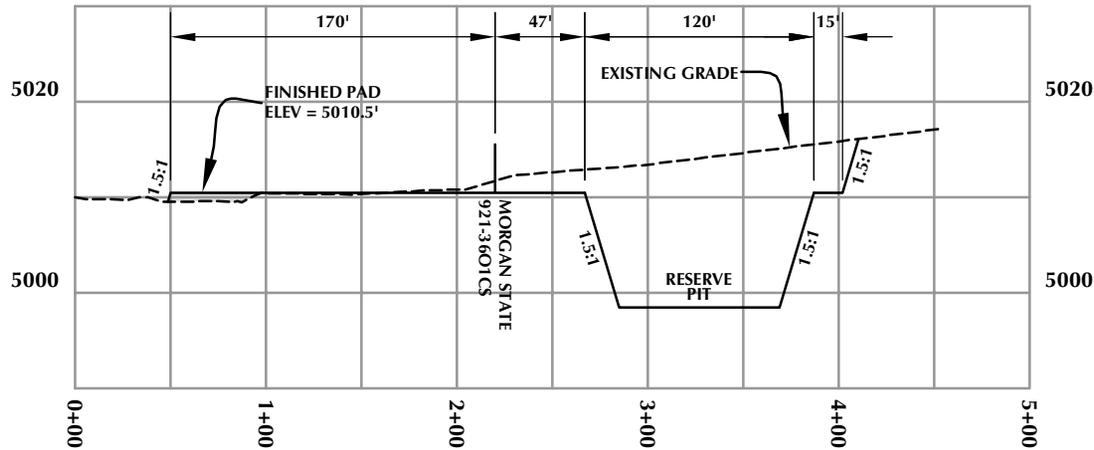
HORIZONTAL 0 30' 60' 1" = 60'
 2' CONTOURS

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SCALE: 1"=60' DATE: 11/15/11 SHEET NO:
 REVISED: **5B** 5B OF 15



CROSS SECTION A-A'



CROSS SECTION B-B'

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WELL PAD - MORGAN STATE 921-360

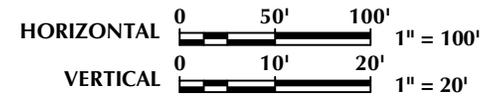
**WELL PAD - CROSS SECTIONS
MORGAN STATE 921-3601BS,
MORGAN STATE 921-3601CS &
MORGAN STATE 921-3604CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UTAH COUNTY, UTAH**



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209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365



Scale: 1"=100'

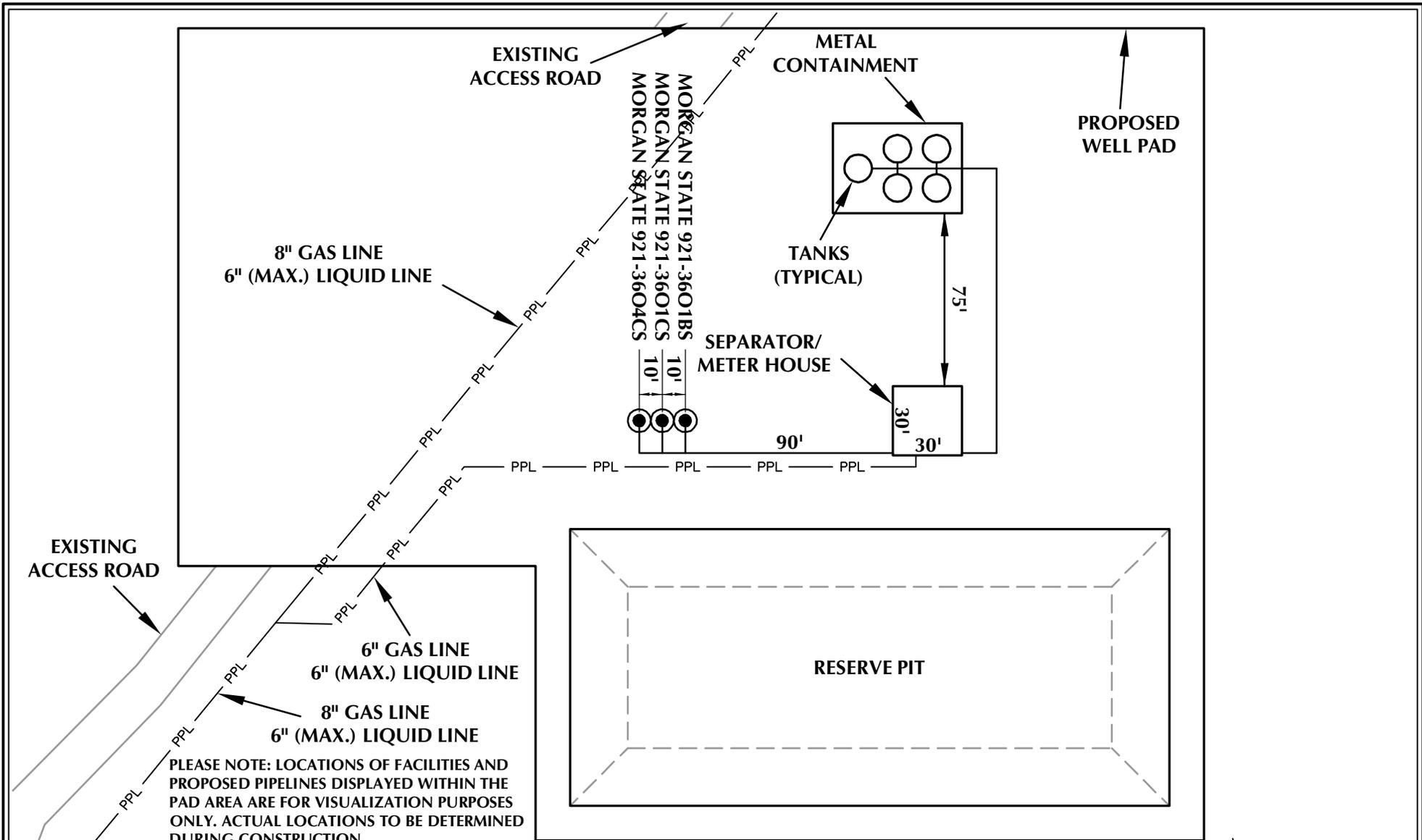
Date: 11/11/11

SHEET NO:

REVISED:

6

6 OF 15



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WELL PAD - MORGAN STATE 921-360

WELL PAD - FACILITIES DIAGRAM
MORGAN STATE 921-3601BS,
MORGAN STATE 921-3601CS &
MORGAN STATE 921-3604CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UTAH COUNTY, UTAH



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Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD LEGEND

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



HORIZONTAL 1" = 60'

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209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=60'	Date: 11/11/11	SHEET NO:
REVISED:		7 7 OF 15

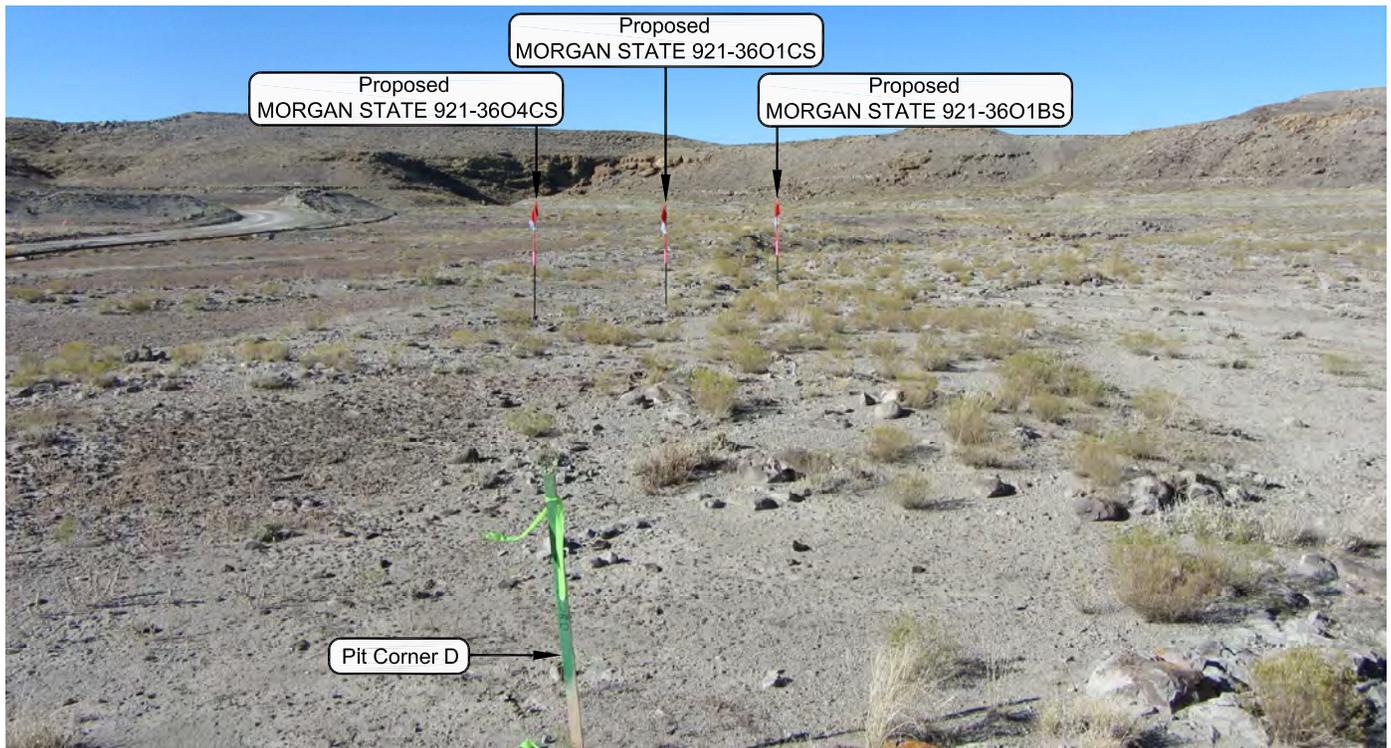


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHWESTERLY

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 1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-360

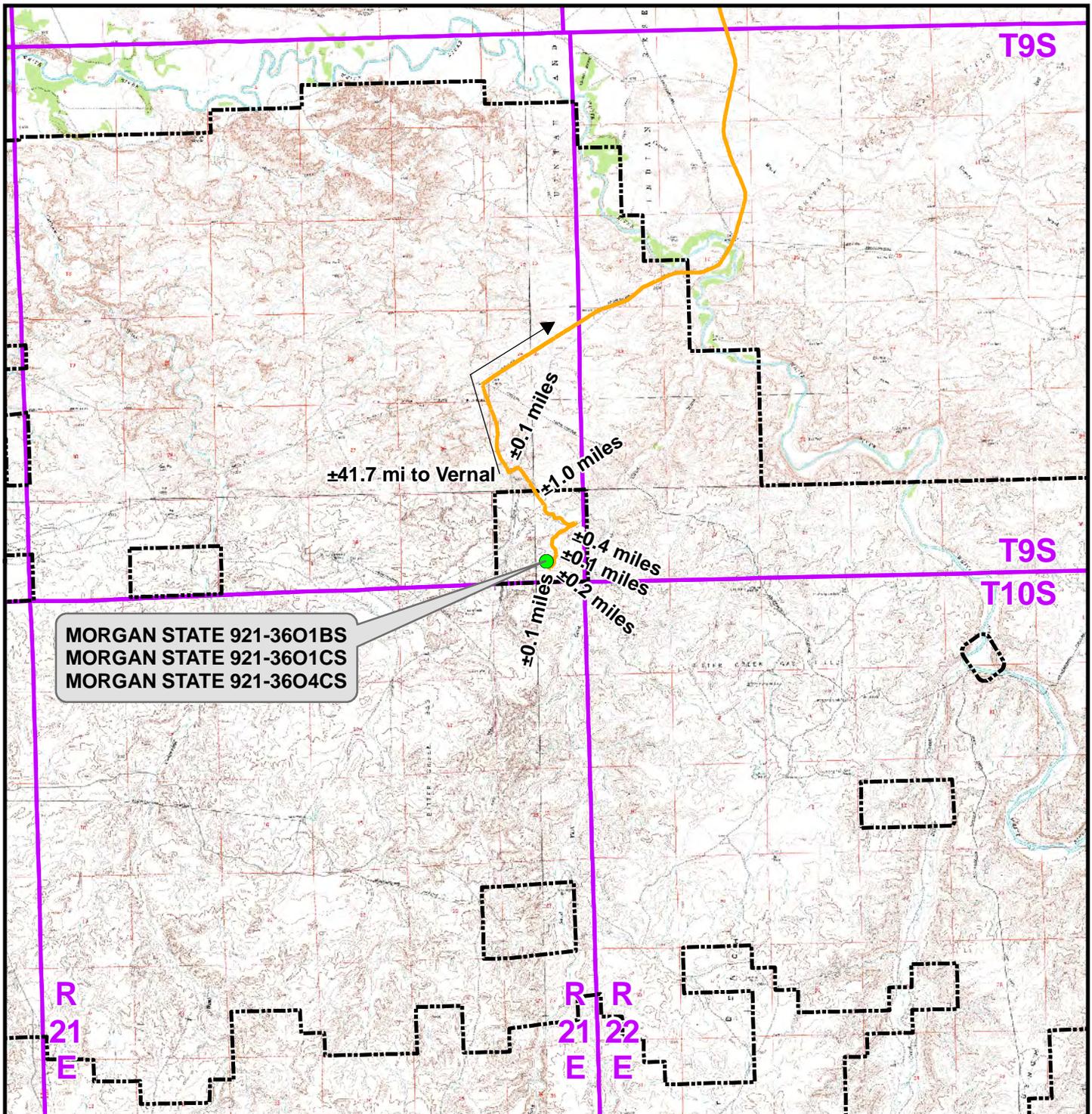
LOCATION PHOTOS
MORGAN STATE 921-3601BS,
MORGAN STATE 921-3601CS &
MORGAN STATE 921-3604CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.



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 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 10-17-11	PHOTOS TAKEN BY: J.W.	SHEET NO: 8
DATE DRAWN: 11-02-11	DRAWN BY: T.J.R.	
Date Last Revised:		8 OF 15



Legend

Distance From Well Pad - MORGAN STATE 921-360 To Unit Boundary: ±1,198ft

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

WELL PAD - MORGAN STATE 921-360

TOPO A
MORGAN STATE 921-3601BS,
MORGAN STATE 921-3601CS &
MORGAN STATE 921-3604CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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SCALE: 1:100,000

NAD83 USP Central

SHEET NO:

DRAWN: TL

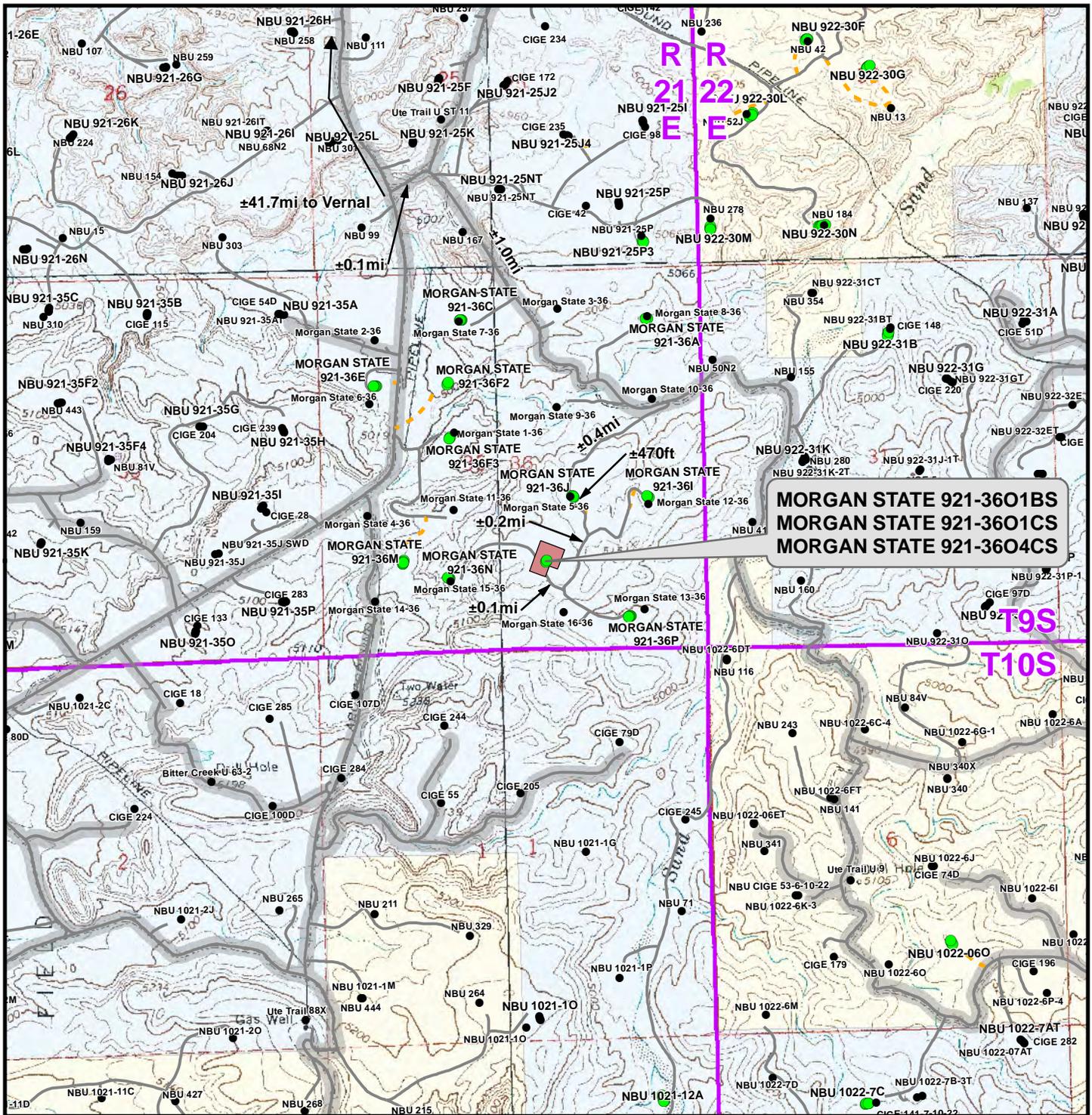
DATE: 11 Nov 2011

9

REVISED:

DATE:

9 OF 15



**MORGAN STATE 921-3601BS
MORGAN STATE 921-3601CS
MORGAN STATE 921-3604CS**

Legend

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

Total Proposed Road Length: ±0ft

WELL PAD - MORGAN STATE 921-360

**TOPO B
MORGAN STATE 921-3601BS,
MORGAN STATE 921-3601CS &
MORGAN STATE 921-3604CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH**

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

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



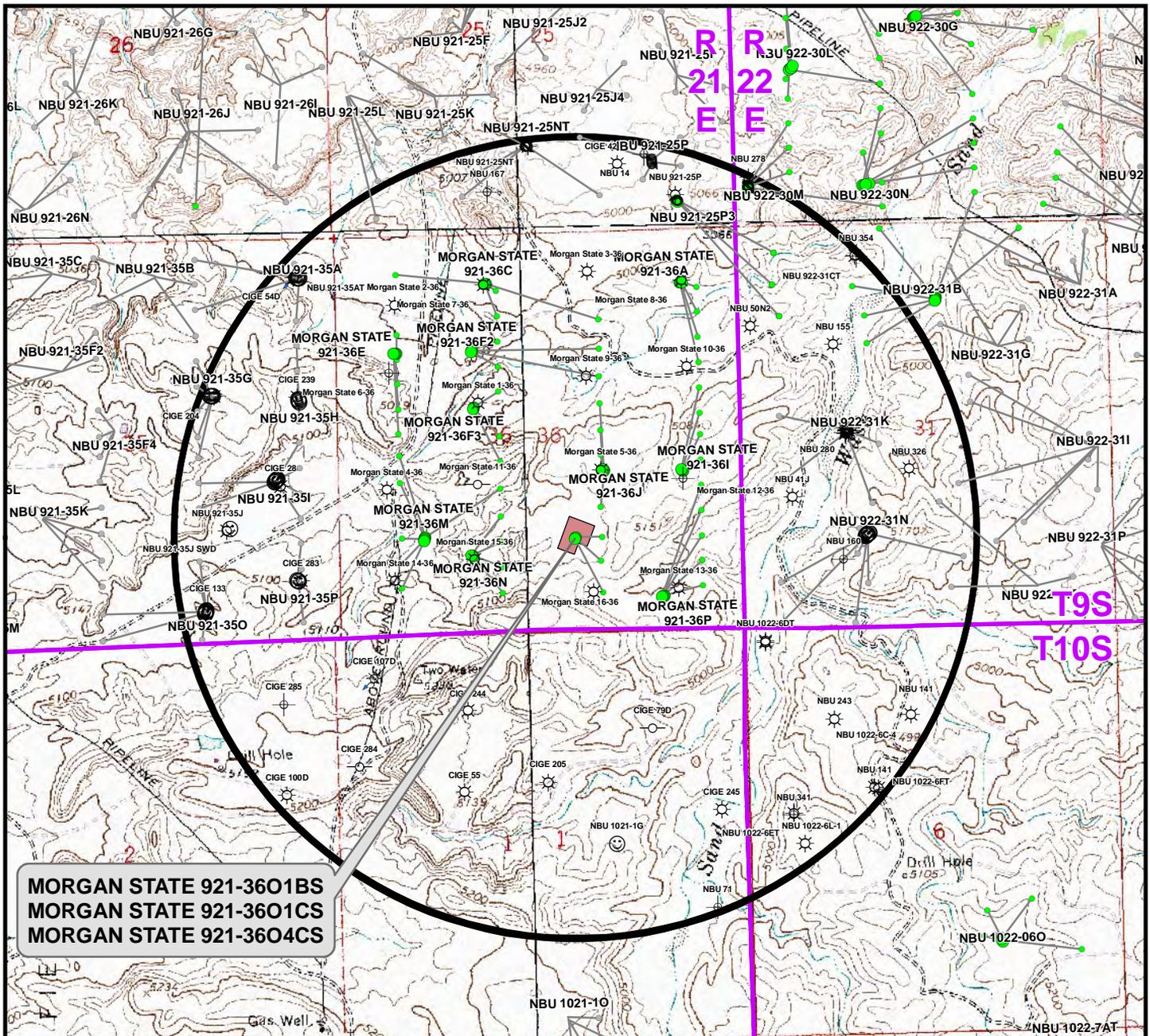
CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N



SCALE: 1" = 2,000ft	NAD83 USP Central	10
DRAWN: TL	DATE: 11 Nov 2011	
REVISED:	DATE:	

SHEET NO:
10 OF 15



MORGAN STATE 921-3601BS
MORGAN STATE 921-3601CS
MORGAN STATE 921-3604CS

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.

Proposed Well	Nearest Well Bore	Footage
MORGAN STATE 921-3601BS	Morgan State 16-36	735ft
MORGAN STATE 921-3601CS	Morgan State 16-36	416ft
MORGAN STATE 921-3604CS	Morgan State 16-36	120ft

Legend

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

WELL PAD - MORGAN STATE 921-360

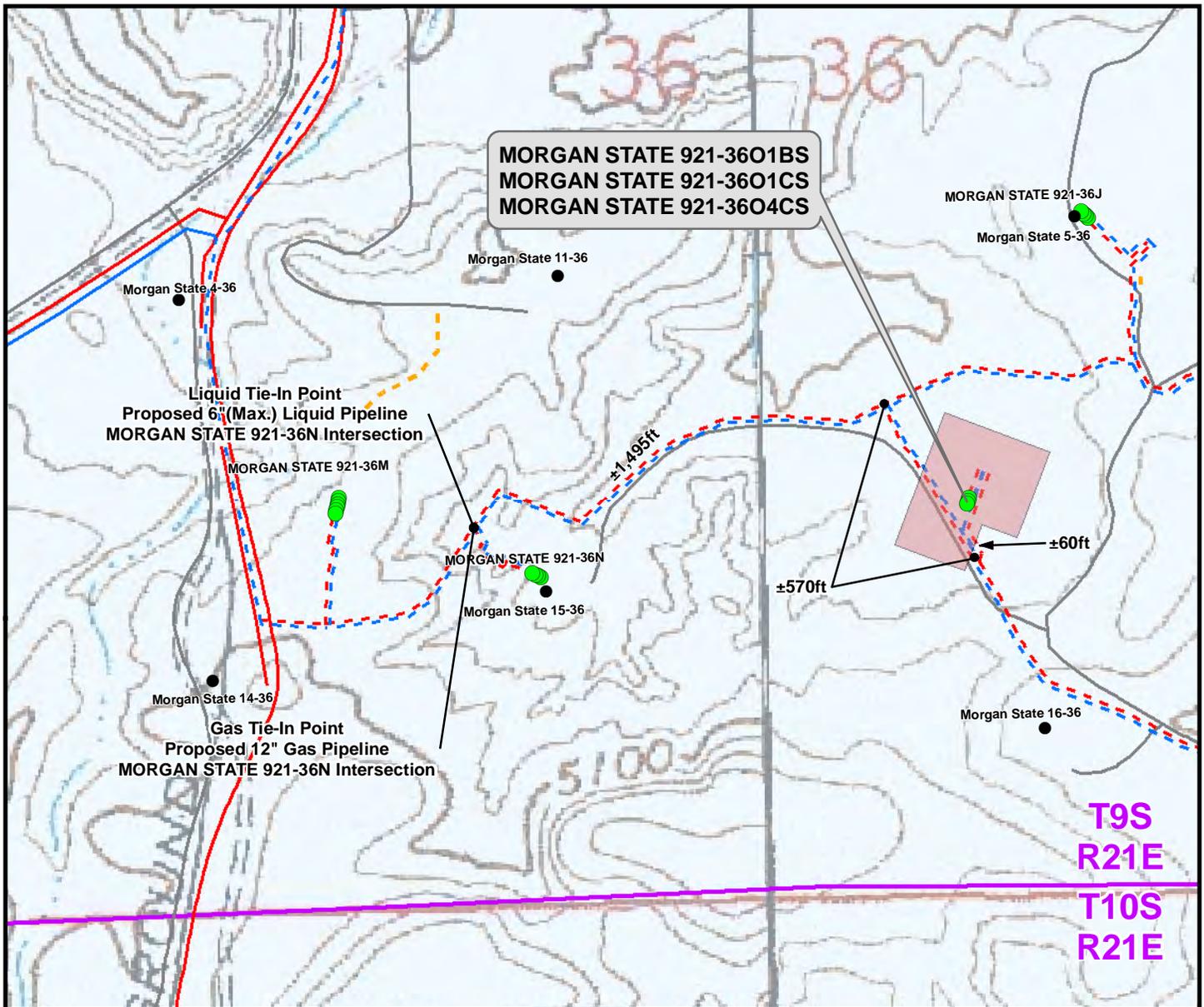
TOPO C
MORGAN STATE 921-3601BS,
MORGAN STATE 921-3601CS &
MORGAN STATE 921-3604CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., Uintah County, Utah

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SCALE: 1" = 2,000ft	NAD83 USP Central	11 11 OF 15
DRAWN: TL	DATE: 11 Nov 2011	
REVISED:	DATE:	



**MORGAN STATE 921-36O1BS
MORGAN STATE 921-36O1CS
MORGAN STATE 921-36O4CS**

**Liquid Tie-In Point
Proposed 6" (Max.) Liquid Pipeline
MORGAN STATE 921-36N Intersection**

**Gas Tie-In Point
Proposed 12" Gas Pipeline
MORGAN STATE 921-36N Intersection**

**T9S
R21E
T10S
R21E**

Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
Buried 6" (Max.) (Meter House to Edge of Pad)	±270ft	Buried 6" (Meter House to Edge of Pad)	±270ft
Buried 6" (Max.) (Edge of Pad to 36P Intersection)	±60ft	Buried 6" (Edge of Pad to 36P Intersection)	±60ft
Buried 6" (Max.) (36P Intersection to 36J Intersection)	±570ft	Buried 8" (36P Intersection to 36J Intersection)	±570ft
Buried 6" (Max.) (36J Intersection to 36N Intersection)	±1,495ft	Buried 12" (36J Intersection to 36N Intersection)	±1,495ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±2,395ft	TOTAL PROPOSED BURIED GAS PIPELINE =	±2,395ft

Legend

- Well - Proposed (Green dot)
- Well - Existing (Black dot)
- Well Pad - Proposed (Red shaded area)
- Well Pad - Existing (Grey shaded area)
- 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 (Pink shaded area)
- State (Light blue shaded area)
- Private (White shaded area)

WELL PAD - MORGAN STATE 921-36O

**TOPO D2 (PAD & PIPELINE DETAIL)
MORGAN STATE 921-36O1BS,
MORGAN STATE 921-36O1CS &
MORGAN STATE 921-36O4CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH**

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

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

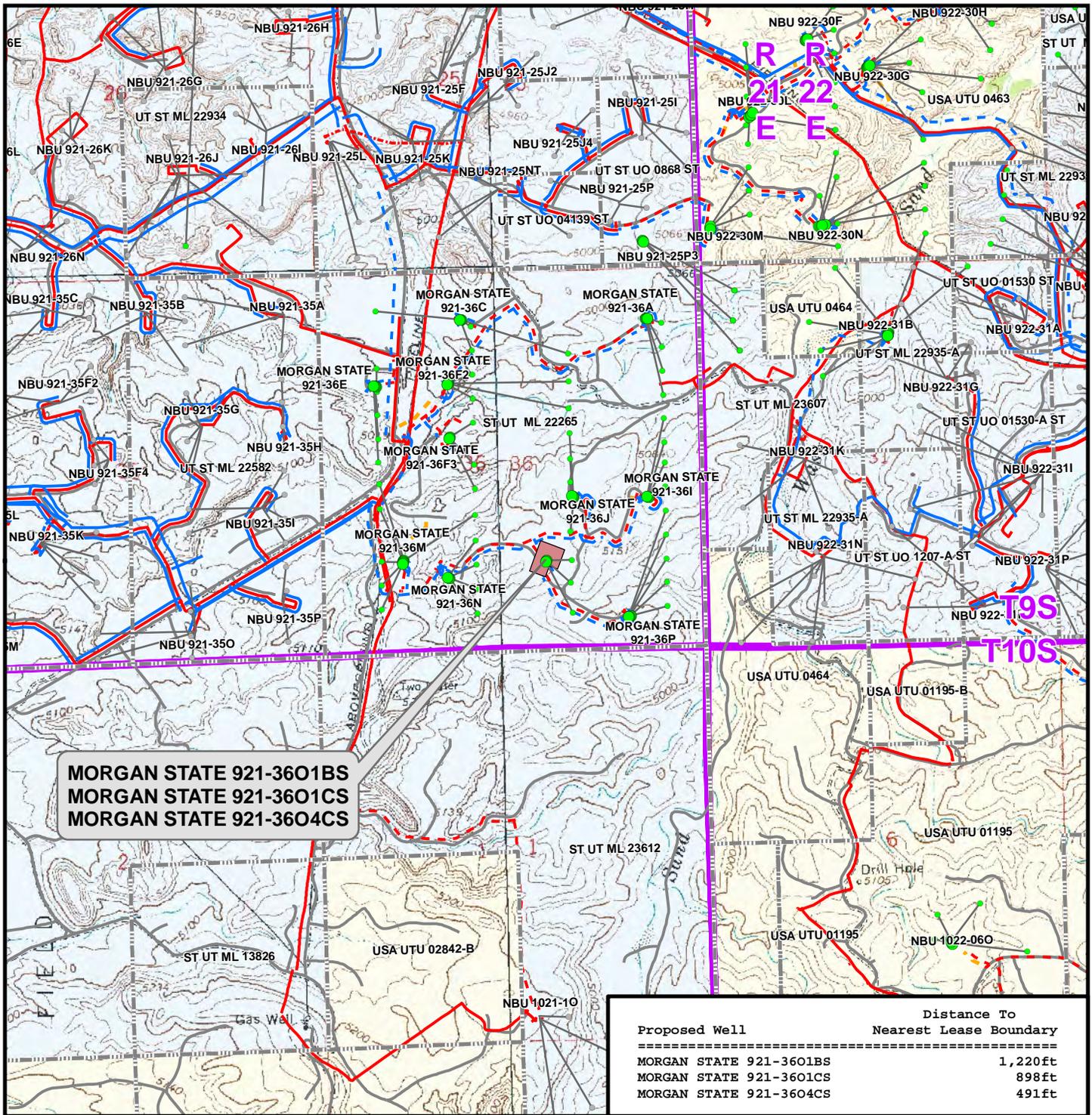


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SCALE: 1" = 500ft	NAD83 USP Central	13
DRAWN: TL	DATE: 11 Nov 2011	
REVISED:	DATE:	

SHEET NO:
13 OF 15



Legend

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

WELL PAD - MORGAN STATE 921-360

TOPO E
 MORGAN STATE 921-3601BS,
 MORGAN STATE 921-3601CS &
 MORGAN STATE 921-3604CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH

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SCALE: 1" = 2,000ft	NAD83 USP Central	14
DRAWN: TL	DATE: 11 Nov 2011	
REVISED:	DATE:	

SHEET NO:
14 OF 15

**Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – MORGAN STATE 921-360
WELLS – MORGAN STATE 921-3601BS,
MORGAN STATE 921-3601CS & MORGAN STATE 921-3604CS
Section 36, T9S, R21E, S.L.B.&M.**

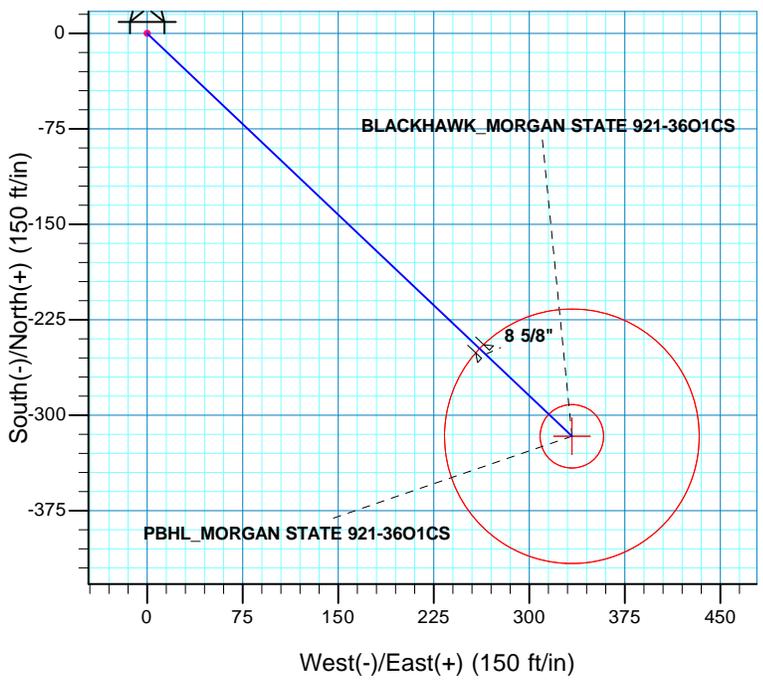
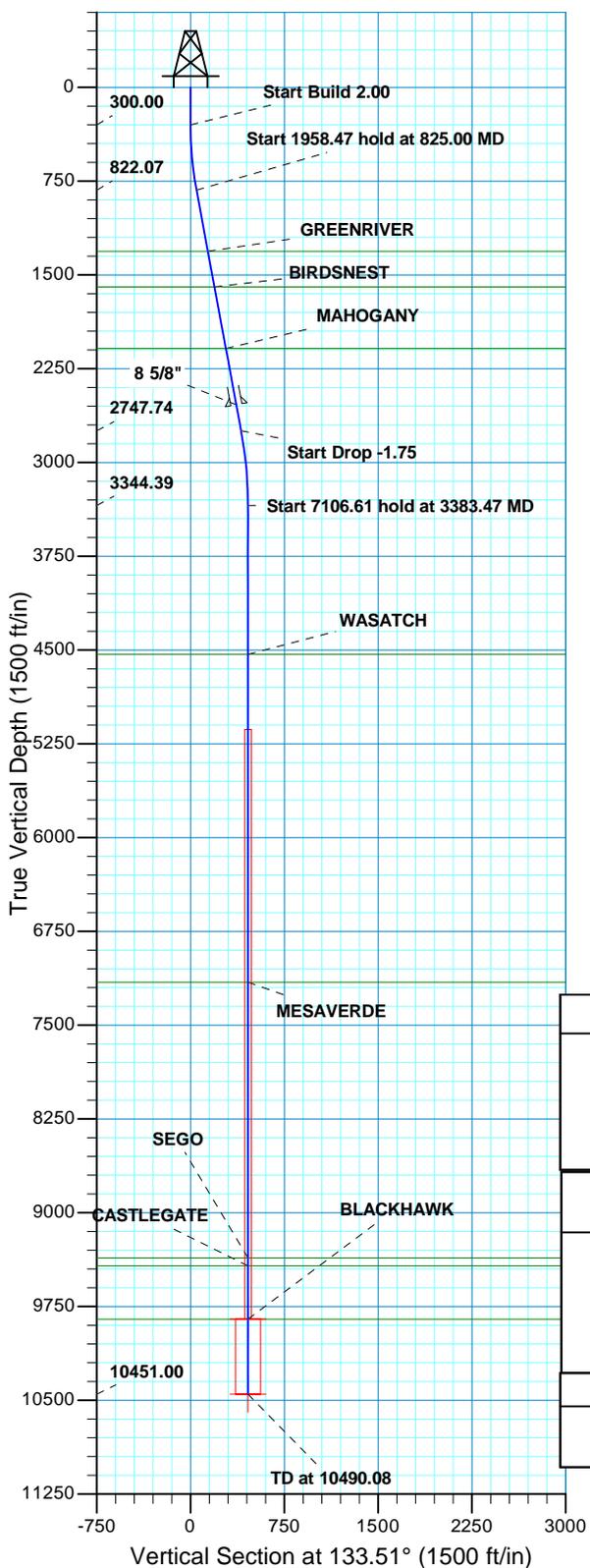
From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles 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 18.2 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 1.0 miles to a service road to the southwest. Exit right and proceed in a southwesterly direction approximately 0.4 miles to the proposed MORGAN STATE 921-36J well pad. Proceed in a southeasterly direction approximately 470 feet through the proposed MORGAN STATE 921-36J well pad to a second service road to the south. Proceed in a southerly direction along the second service road approximately 0.2 miles to a third service road to the northwest. Exit right and proceed in a northwesterly direction approximately 0.1 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 43.6 miles in a southerly direction.

Azimuths to True North
Magnetic North: 11.01°

Magnetic Field
Strength: 52276.9snT
Dip Angle: 65.85°
Date: 2011/12/01
Model: IGRF2010

WELL DETAILS: MORGAN STATE 921-3601CS						
GL 5011 & KB 4 @ 5015.00ft (ASSUMED)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	14525496.63	2061230.50	39° 59' 19.529 N	109° 29' 51.659 W	
DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
BLACKHAWK	9851.00	-316.49	333.40	14525185.80	2061569.19	39° 59' 16.400 N
- plan hits target center						
PBHL	10451.00	-316.49	333.40	14525185.80	2061569.19	39° 59' 16.400 N
- plan hits target center						
						109° 29' 47.375 W
						Circle (Radius: 25.00)
						Circle (Radius: 100.00)



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
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	
825.00	10.50	133.51	822.07	-33.03	34.79	2.00	133.51	47.97	
2783.47	10.50	133.51	2747.74	-278.75	293.63	0.00	0.00	404.87	
3383.47	0.00	0.00	3344.39	-316.49	333.40	1.75	180.00	459.70	
10490.08	0.00	0.00	10451.00	-316.49	333.40	0.00	0.00	459.70	PBHL_MORGAN STATE 921-3601CS
PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N					FORMATION TOP DETAILS				
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 T9S R21E System Datum: Mean Sea Level					TVDPath	MDPath	Formation		
					1311.00	1322.26	GREENRIVER		
					1596.00	1612.11	BIRDSNEST		
					2089.00	2113.51	MAHOGANY		
					4535.00	4574.08	WASATCH		
					7157.00	7196.08	MESAVERDE		
9362.00	9401.08	SEGO							
9425.00	9464.08	CASTLEGATE							
9851.00	9890.08	BLACKHAWK							
CASING DETAILS									
	TVD	MD	Name	Size					
	2539.00	2571.17	8 5/8"	8.625					

RECEIVED :



US ROCKIES REGION PLANNING

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

MORGAN STATE 921-360 PAD

MORGAN STATE 921-3601CS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

01 December, 2011





SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-3601CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5011 & KB 4 @ 5015.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5011 & KB 4 @ 5015.00ft (ASSUMED)
Site:	MORGAN STATE 921-360 PAD	North Reference:	True
Well:	MORGAN STATE 921-3601CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

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

Site	MORGAN STATE 921-360 PAD, SECTION T9S R21E				
Site Position:	Northing:	14,525,505.80 usft	Latitude:	39° 59' 19.619 N	
From: Lat/Long	Easting:	2,061,233.99 usft	Longitude:	109° 29' 51.612 W	
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.97 °

Well	MORGAN STATE 921-3601CS, 1207 FSL 2160 FEL					
Well Position	+N/-S	-9.11 ft	Northing:	14,525,496.63 usft	Latitude:	39° 59' 19.529 N
	+E/-W	-3.64 ft	Easting:	2,061,230.50 usft	Longitude:	109° 29' 51.659 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,011.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/12/01	11.01	65.85	52,277

Design	PLAN #1 PRELIMINARY			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	133.51

Plan Sections										
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	
825.00	10.50	133.51	822.07	-33.03	34.79	2.00	2.00	0.00	133.51	
2,783.47	10.50	133.51	2,747.74	-278.75	293.63	0.00	0.00	0.00	0.00	
3,383.47	0.00	0.00	3,344.39	-316.49	333.40	1.75	-1.75	0.00	180.00	
10,490.08	0.00	0.00	10,451.00	-316.49	333.40	0.00	0.00	0.00	0.00	PBHL_MORGAN ST/



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-3601CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5011 & KB 4 @ 5015.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5011 & KB 4 @ 5015.00ft (ASSUMED)
Site:	MORGAN STATE 921-360 PAD	North Reference:	True
Well:	MORGAN STATE 921-3601CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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
Start Build 2.00										
400.00	2.00	133.51	399.98	-1.20	1.27	1.75	2.00	2.00	2.00	0.00
500.00	4.00	133.51	499.84	-4.80	5.06	6.98	2.00	2.00	2.00	0.00
600.00	6.00	133.51	599.45	-10.80	11.38	15.69	2.00	2.00	2.00	0.00
700.00	8.00	133.51	698.70	-19.19	20.22	27.88	2.00	2.00	2.00	0.00
800.00	10.00	133.51	797.47	-29.96	31.56	43.52	2.00	2.00	2.00	0.00
825.00	10.50	133.51	822.07	-33.03	34.79	47.97	2.00	2.00	2.00	0.00
Start 1958.47 hold at 825.00 MD										
900.00	10.50	133.51	895.81	-42.44	44.70	61.64	0.00	0.00	0.00	0.00
1,000.00	10.50	133.51	994.14	-54.98	57.92	79.86	0.00	0.00	0.00	0.00
1,100.00	10.50	133.51	1,092.46	-67.53	71.14	98.09	0.00	0.00	0.00	0.00
1,200.00	10.50	133.51	1,190.79	-80.08	84.35	116.31	0.00	0.00	0.00	0.00
1,300.00	10.50	133.51	1,289.11	-92.62	97.57	134.53	0.00	0.00	0.00	0.00
1,322.26	10.50	133.51	1,311.00	-95.42	100.51	138.59	0.00	0.00	0.00	0.00
GREENRIVER										
1,400.00	10.50	133.51	1,387.44	-105.17	110.79	152.76	0.00	0.00	0.00	0.00
1,500.00	10.50	133.51	1,485.76	-117.72	124.00	170.98	0.00	0.00	0.00	0.00
1,600.00	10.50	133.51	1,584.09	-130.26	137.22	189.20	0.00	0.00	0.00	0.00
1,612.11	10.50	133.51	1,596.00	-131.78	138.82	191.41	0.00	0.00	0.00	0.00
BIRDSNEST										
1,700.00	10.50	133.51	1,682.41	-142.81	150.44	207.43	0.00	0.00	0.00	0.00
1,800.00	10.50	133.51	1,780.74	-155.36	163.65	225.65	0.00	0.00	0.00	0.00
1,900.00	10.50	133.51	1,879.07	-167.90	176.87	243.87	0.00	0.00	0.00	0.00
2,000.00	10.50	133.51	1,977.39	-180.45	190.09	262.10	0.00	0.00	0.00	0.00
2,100.00	10.50	133.51	2,075.72	-193.00	203.30	280.32	0.00	0.00	0.00	0.00
2,113.51	10.50	133.51	2,089.00	-194.69	205.09	282.78	0.00	0.00	0.00	0.00
MAHOGANY										
2,200.00	10.50	133.51	2,174.04	-205.54	216.52	298.55	0.00	0.00	0.00	0.00
2,300.00	10.50	133.51	2,272.37	-218.09	229.74	316.77	0.00	0.00	0.00	0.00
2,400.00	10.50	133.51	2,370.69	-230.64	242.95	334.99	0.00	0.00	0.00	0.00
2,500.00	10.50	133.51	2,469.02	-243.18	256.17	353.22	0.00	0.00	0.00	0.00
2,571.17	10.50	133.51	2,539.00	-252.11	265.58	366.19	0.00	0.00	0.00	0.00
8 5/8"										
2,600.00	10.50	133.51	2,567.34	-255.73	269.39	371.44	0.00	0.00	0.00	0.00
2,700.00	10.50	133.51	2,665.67	-268.28	282.60	389.66	0.00	0.00	0.00	0.00
2,783.47	10.50	133.51	2,747.74	-278.75	293.63	404.87	0.00	0.00	0.00	0.00
Start Drop -1.75										
2,800.00	10.21	133.51	2,764.00	-280.80	295.79	407.85	1.75	-1.75	0.00	0.00
2,900.00	8.46	133.51	2,862.67	-291.96	307.55	424.07	1.75	-1.75	0.00	0.00
3,000.00	6.71	133.51	2,961.80	-301.05	317.13	437.27	1.75	-1.75	0.00	0.00
3,100.00	4.96	133.51	3,061.27	-308.05	324.50	447.43	1.75	-1.75	0.00	0.00
3,200.00	3.21	133.51	3,161.01	-312.96	329.67	454.56	1.75	-1.75	0.00	0.00
3,300.00	1.46	133.51	3,260.93	-315.76	332.62	458.63	1.75	-1.75	0.00	0.00
3,383.47	0.00	0.00	3,344.39	-316.49	333.40	459.70	1.75	-1.75	0.00	0.00
Start 7106.61 hold at 3383.47 MD										
3,400.00	0.00	0.00	3,360.92	-316.49	333.40	459.70	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,460.92	-316.49	333.40	459.70	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,560.92	-316.49	333.40	459.70	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,660.92	-316.49	333.40	459.70	0.00	0.00	0.00	0.00



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-3601CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5011 & KB 4 @ 5015.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5011 & KB 4 @ 5015.00ft (ASSUMED)
Site:	MORGAN STATE 921-360 PAD	North Reference:	True
Well:	MORGAN STATE 921-3601CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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)
3,800.00	0.00	0.00	3,760.92	-316.49	333.40	459.70	0.00	0.00	0.00
3,900.00	0.00	0.00	3,860.92	-316.49	333.40	459.70	0.00	0.00	0.00
4,000.00	0.00	0.00	3,960.92	-316.49	333.40	459.70	0.00	0.00	0.00
4,100.00	0.00	0.00	4,060.92	-316.49	333.40	459.70	0.00	0.00	0.00
4,200.00	0.00	0.00	4,160.92	-316.49	333.40	459.70	0.00	0.00	0.00
4,300.00	0.00	0.00	4,260.92	-316.49	333.40	459.70	0.00	0.00	0.00
4,400.00	0.00	0.00	4,360.92	-316.49	333.40	459.70	0.00	0.00	0.00
4,500.00	0.00	0.00	4,460.92	-316.49	333.40	459.70	0.00	0.00	0.00
4,574.08	0.00	0.00	4,535.00	-316.49	333.40	459.70	0.00	0.00	0.00
WASATCH									
4,600.00	0.00	0.00	4,560.92	-316.49	333.40	459.70	0.00	0.00	0.00
4,700.00	0.00	0.00	4,660.92	-316.49	333.40	459.70	0.00	0.00	0.00
4,800.00	0.00	0.00	4,760.92	-316.49	333.40	459.70	0.00	0.00	0.00
4,900.00	0.00	0.00	4,860.92	-316.49	333.40	459.70	0.00	0.00	0.00
5,000.00	0.00	0.00	4,960.92	-316.49	333.40	459.70	0.00	0.00	0.00
5,100.00	0.00	0.00	5,060.92	-316.49	333.40	459.70	0.00	0.00	0.00
5,200.00	0.00	0.00	5,160.92	-316.49	333.40	459.70	0.00	0.00	0.00
5,300.00	0.00	0.00	5,260.92	-316.49	333.40	459.70	0.00	0.00	0.00
5,400.00	0.00	0.00	5,360.92	-316.49	333.40	459.70	0.00	0.00	0.00
5,500.00	0.00	0.00	5,460.92	-316.49	333.40	459.70	0.00	0.00	0.00
5,600.00	0.00	0.00	5,560.92	-316.49	333.40	459.70	0.00	0.00	0.00
5,700.00	0.00	0.00	5,660.92	-316.49	333.40	459.70	0.00	0.00	0.00
5,800.00	0.00	0.00	5,760.92	-316.49	333.40	459.70	0.00	0.00	0.00
5,900.00	0.00	0.00	5,860.92	-316.49	333.40	459.70	0.00	0.00	0.00
6,000.00	0.00	0.00	5,960.92	-316.49	333.40	459.70	0.00	0.00	0.00
6,100.00	0.00	0.00	6,060.92	-316.49	333.40	459.70	0.00	0.00	0.00
6,200.00	0.00	0.00	6,160.92	-316.49	333.40	459.70	0.00	0.00	0.00
6,300.00	0.00	0.00	6,260.92	-316.49	333.40	459.70	0.00	0.00	0.00
6,400.00	0.00	0.00	6,360.92	-316.49	333.40	459.70	0.00	0.00	0.00
6,500.00	0.00	0.00	6,460.92	-316.49	333.40	459.70	0.00	0.00	0.00
6,600.00	0.00	0.00	6,560.92	-316.49	333.40	459.70	0.00	0.00	0.00
6,700.00	0.00	0.00	6,660.92	-316.49	333.40	459.70	0.00	0.00	0.00
6,800.00	0.00	0.00	6,760.92	-316.49	333.40	459.70	0.00	0.00	0.00
6,900.00	0.00	0.00	6,860.92	-316.49	333.40	459.70	0.00	0.00	0.00
7,000.00	0.00	0.00	6,960.92	-316.49	333.40	459.70	0.00	0.00	0.00
7,100.00	0.00	0.00	7,060.92	-316.49	333.40	459.70	0.00	0.00	0.00
7,196.08	0.00	0.00	7,157.00	-316.49	333.40	459.70	0.00	0.00	0.00
MESAVERDE									
7,200.00	0.00	0.00	7,160.92	-316.49	333.40	459.70	0.00	0.00	0.00
7,300.00	0.00	0.00	7,260.92	-316.49	333.40	459.70	0.00	0.00	0.00
7,400.00	0.00	0.00	7,360.92	-316.49	333.40	459.70	0.00	0.00	0.00
7,500.00	0.00	0.00	7,460.92	-316.49	333.40	459.70	0.00	0.00	0.00
7,600.00	0.00	0.00	7,560.92	-316.49	333.40	459.70	0.00	0.00	0.00
7,700.00	0.00	0.00	7,660.92	-316.49	333.40	459.70	0.00	0.00	0.00
7,800.00	0.00	0.00	7,760.92	-316.49	333.40	459.70	0.00	0.00	0.00
7,900.00	0.00	0.00	7,860.92	-316.49	333.40	459.70	0.00	0.00	0.00
8,000.00	0.00	0.00	7,960.92	-316.49	333.40	459.70	0.00	0.00	0.00
8,100.00	0.00	0.00	8,060.92	-316.49	333.40	459.70	0.00	0.00	0.00
8,200.00	0.00	0.00	8,160.92	-316.49	333.40	459.70	0.00	0.00	0.00
8,300.00	0.00	0.00	8,260.92	-316.49	333.40	459.70	0.00	0.00	0.00
8,400.00	0.00	0.00	8,360.92	-316.49	333.40	459.70	0.00	0.00	0.00
8,500.00	0.00	0.00	8,460.92	-316.49	333.40	459.70	0.00	0.00	0.00
8,600.00	0.00	0.00	8,560.92	-316.49	333.40	459.70	0.00	0.00	0.00
8,700.00	0.00	0.00	8,660.92	-316.49	333.40	459.70	0.00	0.00	0.00



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-3601CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5011 & KB 4 @ 5015.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5011 & KB 4 @ 5015.00ft (ASSUMED)
Site:	MORGAN STATE 921-360 PAD	North Reference:	True
Well:	MORGAN STATE 921-3601CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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)
8,800.00	0.00	0.00	8,760.92	-316.49	333.40	459.70	0.00	0.00	0.00
8,900.00	0.00	0.00	8,860.92	-316.49	333.40	459.70	0.00	0.00	0.00
9,000.00	0.00	0.00	8,960.92	-316.49	333.40	459.70	0.00	0.00	0.00
9,100.00	0.00	0.00	9,060.92	-316.49	333.40	459.70	0.00	0.00	0.00
9,200.00	0.00	0.00	9,160.92	-316.49	333.40	459.70	0.00	0.00	0.00
9,300.00	0.00	0.00	9,260.92	-316.49	333.40	459.70	0.00	0.00	0.00
9,400.00	0.00	0.00	9,360.92	-316.49	333.40	459.70	0.00	0.00	0.00
9,401.08	0.00	0.00	9,362.00	-316.49	333.40	459.70	0.00	0.00	0.00
SEGO									
9,464.08	0.00	0.00	9,425.00	-316.49	333.40	459.70	0.00	0.00	0.00
CASTLEGATE									
9,500.00	0.00	0.00	9,460.92	-316.49	333.40	459.70	0.00	0.00	0.00
9,600.00	0.00	0.00	9,560.92	-316.49	333.40	459.70	0.00	0.00	0.00
9,700.00	0.00	0.00	9,660.92	-316.49	333.40	459.70	0.00	0.00	0.00
9,800.00	0.00	0.00	9,760.92	-316.49	333.40	459.70	0.00	0.00	0.00
9,890.08	0.00	0.00	9,851.00	-316.49	333.40	459.70	0.00	0.00	0.00
BLACKHAWK - BLACKHAWK_MORGAN STATE 921-3601CS									
9,900.00	0.00	0.00	9,860.92	-316.49	333.40	459.70	0.00	0.00	0.00
10,000.00	0.00	0.00	9,960.92	-316.49	333.40	459.70	0.00	0.00	0.00
10,100.00	0.00	0.00	10,060.92	-316.49	333.40	459.70	0.00	0.00	0.00
10,200.00	0.00	0.00	10,160.92	-316.49	333.40	459.70	0.00	0.00	0.00
10,300.00	0.00	0.00	10,260.92	-316.49	333.40	459.70	0.00	0.00	0.00
10,400.00	0.00	0.00	10,360.92	-316.49	333.40	459.70	0.00	0.00	0.00
10,490.08	0.00	0.00	10,451.00	-316.49	333.40	459.70	0.00	0.00	0.00
PBHL_MORGAN STATE 921-3601CS									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BLACKHAWK_MORGAI - hit/miss target - Shape	0.00	0.00	9,851.00	-316.49	333.40	14,525,185.80	2,061,569.18	39° 59' 16.400 N	109° 29' 47.375 W
PBHL_MORGAN STATI - plan hits target center - Circle (radius 100.00)	0.00	0.00	10,451.00	-316.49	333.40	14,525,185.80	2,061,569.18	39° 59' 16.400 N	109° 29' 47.375 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,571.17	2,539.00	8 5/8"	8.625	11.000	



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-3601CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5011 & KB 4 @ 5015.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5011 & KB 4 @ 5015.00ft (ASSUMED)
Site:	MORGAN STATE 921-360 PAD	North Reference:	True
Well:	MORGAN STATE 921-3601CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,322.26	1,311.00	GREENRIVER			
1,612.11	1,596.00	BIRDSNEST			
2,113.51	2,089.00	MAHOGANY			
4,574.08	4,535.00	WASATCH			
7,196.08	7,157.00	MESAVERDE			
9,401.08	9,362.00	SEGO			
9,464.08	9,425.00	CASTLEGATE			
9,890.08	9,851.00	BLACKHAWK			

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	
825.00	822.07	-33.03	34.79	Start 1958.47 hold at 825.00 MD	
2,783.47	2,747.74	-278.75	293.63	Start Drop -1.75	
3,383.47	3,344.39	-316.49	333.40	Start 7106.61 hold at 3383.47 MD	
10,490.08	10,451.00	-316.49	333.40	TD at 10490.08	

MORGAN STATE 921-3601BS

Surface:	1217 FSL / 2156 FEL	SWSE	Lot 2
BHL:	1220 FSL / 1806 FEL	SWSE	Lot 2

MORGAN STATE 921-3601CS

Surface:	1207 FSL / 2160 FEL	SWSE	Lot 2
BHL:	898 FSL / 1826 FEL	SWSE	Lot 2

MORGAN STATE 921-3604CS

Surface:	1198 FSL / 2163 FEL	SWSE	Lot 2
BHL:	491 FSL / 1809 FEL	SWSE	Lot 2

Pad: MORGAN STATE 921-360 PAD

Section 36 T9S R21E

Mineral Lease: ML-22265

Uintah County, Utah

Operator: Kerr-McGee Oil & Gas Onshore LP

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

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:

No new access road 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 $\pm 2,395'$ and the individual segments are broken up as follows:

- $\pm 270'$ (0.05 miles) –New 6" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 60'$ (0.01 miles) –New 6" buried gas pipeline from the edge of the pad to the 921-36P intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 570'$ (0.1 miles) –New 8" buried gas pipeline from the 921-36P intersection to the 921-36J intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 1,495'$ (0.3 miles) –New 12" buried gas pipeline from the 921-36J intersection to the 921-36N intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 2,395'$ and the individual segments are broken up as follows:

- $\pm 270'$ (0.05 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 60'$ (0.01 miles) –New 6" buried liquid pipeline from the edge of the pad to the 921-36P intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 980'$ (0.2 miles) –New 6" buried liquid pipeline from the 921-36A intersection to the 921-36F2 intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 570'$ (0.1 miles) –New 6" buried liquid pipeline from the 921-36P intersection to the 921-36J intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 1,495'$ (0.3 miles) –New 6" buried liquid pipeline from the 921-36J intersection to the 921-36N intersection. 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 released 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 be 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 completion fluids will be allowed to dry. Any free fluids remaining 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 Piernot
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 Piernot

December 19, 2011

Date



Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
DENVER, CO 80217-3779

December 14, 2011

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

Re: Directional Drilling R649-3-11
Morgan State 921-3601CS
T9S-R21E
Section 36: SWSE (Surface), SWSE (Bottom Hole)
Surface: 1207' FSL, 2160' FEL
Bottom Hole: 898' FSL, 1826' FEL
Uintah County, Utah

Dear Ms. Mason:

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

- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

A handwritten signature in blue ink that reads 'Joe Matney'.

Joe Matney
Sr. Staff Landman

From: Jim Davis
To: APD APPROVAL
CC: Danielle Piernot; Julie Jacobson
Date: 2/23/2012 3:22 PM
Subject: APD Approval: the Kerr McGee Morgan State wells

The following wells have been approved by SITLA including arch and paleo clearance.

4304752246 Morgan State 921-36G4BS
4304752253 Morgan State 921-36G4CS
4304752255 Morgan State 921-36J1CS
4304752256 Morgan State 921-36J4BS
4304752281 Morgan State 921-36F1BS
4304752282 Morgan State 921-36F1CS
4304752283 Morgan State 921-36G1BS
4304752284 Morgan State 921-36G1CS
4304752285 Morgan State 921-36F4BS
4304752286 Morgan State 921-36K1BS
4304752287 Morgan State 921-36K1CS
4304752247 Morgan State 921-36P1BS
4304752248 Morgan State 921-36P1CS
4304752249 Morgan State 921-36I4BS
4304752250 Morgan State 921-36I4CS
4304752252 Morgan State 921-36P4BS
4304752263 Morgan State 921-36K4CS
4304752264 Morgan State 921-36N1BS
4304752265 Morgan State 921-36N1CS
4304752266 Morgan State 921-36N4BS
4304752276 Morgan State 921-36D4CS
4304752277 Morgan State 921-36E1BS
4304752278 Morgan State 921-36E1CS
4304752279 Morgan State 921-36E4BS
4304752280 Morgan State 921-36E4CS
4304752245 Morgan State 921-36O4CS
4304752254 Morgan State 921-36O1CS
4304752267 Morgan State 921-36O1BS
4304752257 Morgan State 921-36K4BS
4304752258 Morgan State 921-36L1BS
4304752259 Morgan State 921-36L1CS
4304752260 Morgan State 921-36M1BS
4304752261 Morgan State 921-36M1CS
4304752262 Morgan State 921-36M4BS
4304752272 Morgan State 921-36B4CS
4304752273 Morgan State 921-36C4BS
4304752274 Morgan State 921-36C4CS
4304752275 Morgan State 921-36D1CS

There are eight more wells on two pads in this section, the 36A pad and the 36I pad, that have not yet been approved. Anadarko is gathering reclamation cost figures on pads similar to those as part of the process of acquiring adequate SITLA bonds.

-Jim

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov

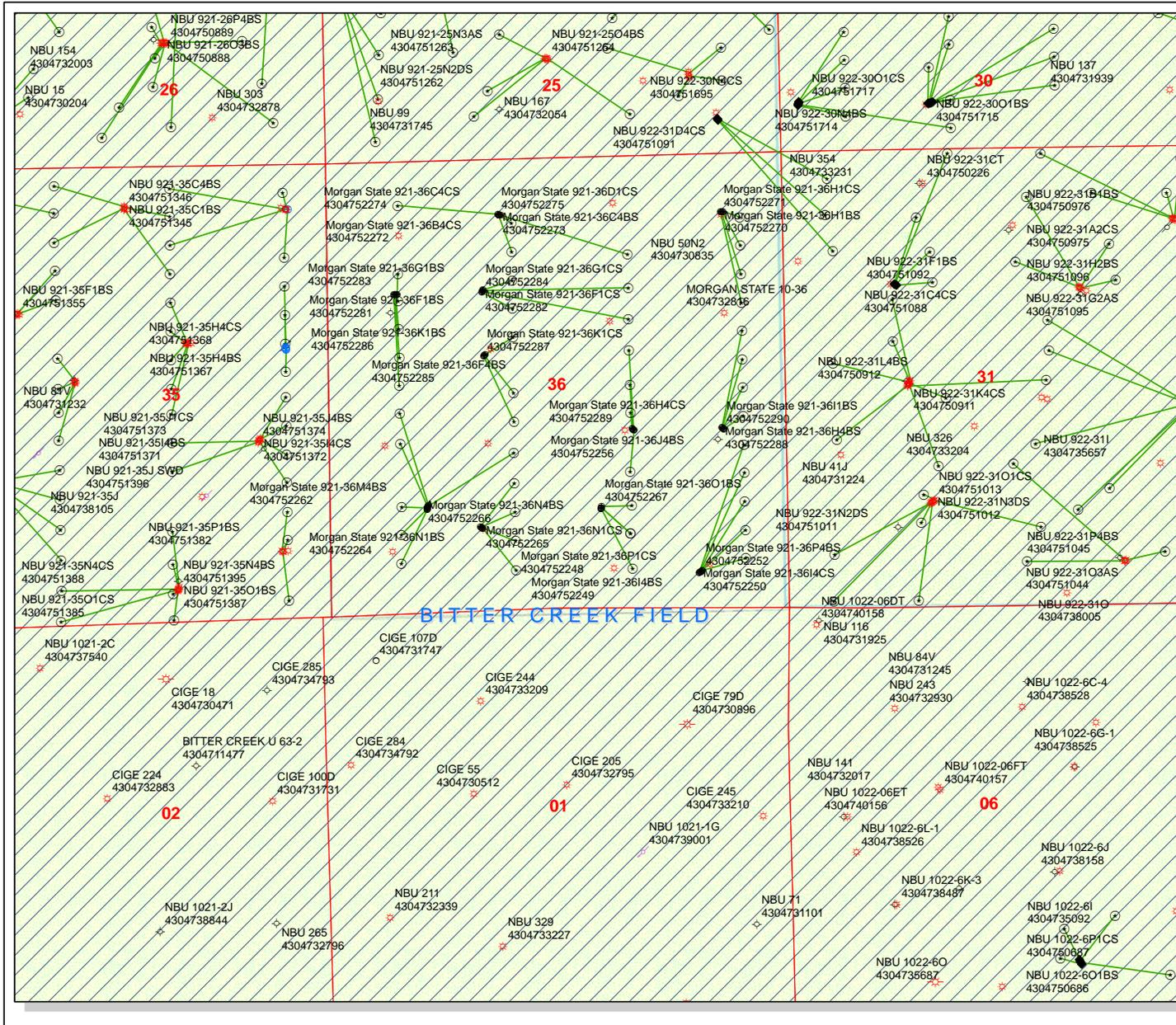
API Well Number: 43047522540000

Phone: (801) 538-5156

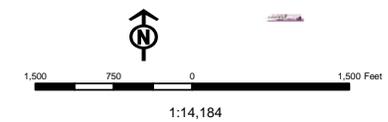
RECEIVED: February 23, 2012

API Number: 4304752254
Well Name: Morgan State 921-3601CS
Township T0.9 Range R2.1 Section 36
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	DRIL - Spudded (Drilling Commenced)
GAS STORAGE	GIW - Gas Injection
NF PP OIL	GS - Gas Storage
NF SECONDARY	LA - Location Abandoned
PI OIL	LOC - New Location
PP GAS	OPS - Operation Suspended
PP GEOTHERM.	PA - Plugged Abandoned
PP OIL	PGW - Producing Gas Well
SECONDARY	POW - Producing Oil Well
TERMINATED	RET - Returned APD
Unknown	SGW - Shut-in Gas Well
ABANDONED	SOW - Shut-in Oil Well
ACTIVE	TA - Temp. Abandoned
COMBINED	TW - Test Well
INACTIVE	WDW - Water Disposal
STORAGE	WWI - Water Injection Well
TERMINATED	WSW - Water Supply Well



Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. Morgan State 921-3601CS			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2508	10451		
Previous Shoe Setting Depth (TVD)	0	2508		
Max Mud Weight (ppg)	8.4	13.0		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	10690		
Operators Max Anticipated Pressure (psi)	6898	12.7		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	1095	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	794	NO air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	543	NO Reasonable depth in area
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	543	NO
Required Casing/BOPE Test Pressure=		2373	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

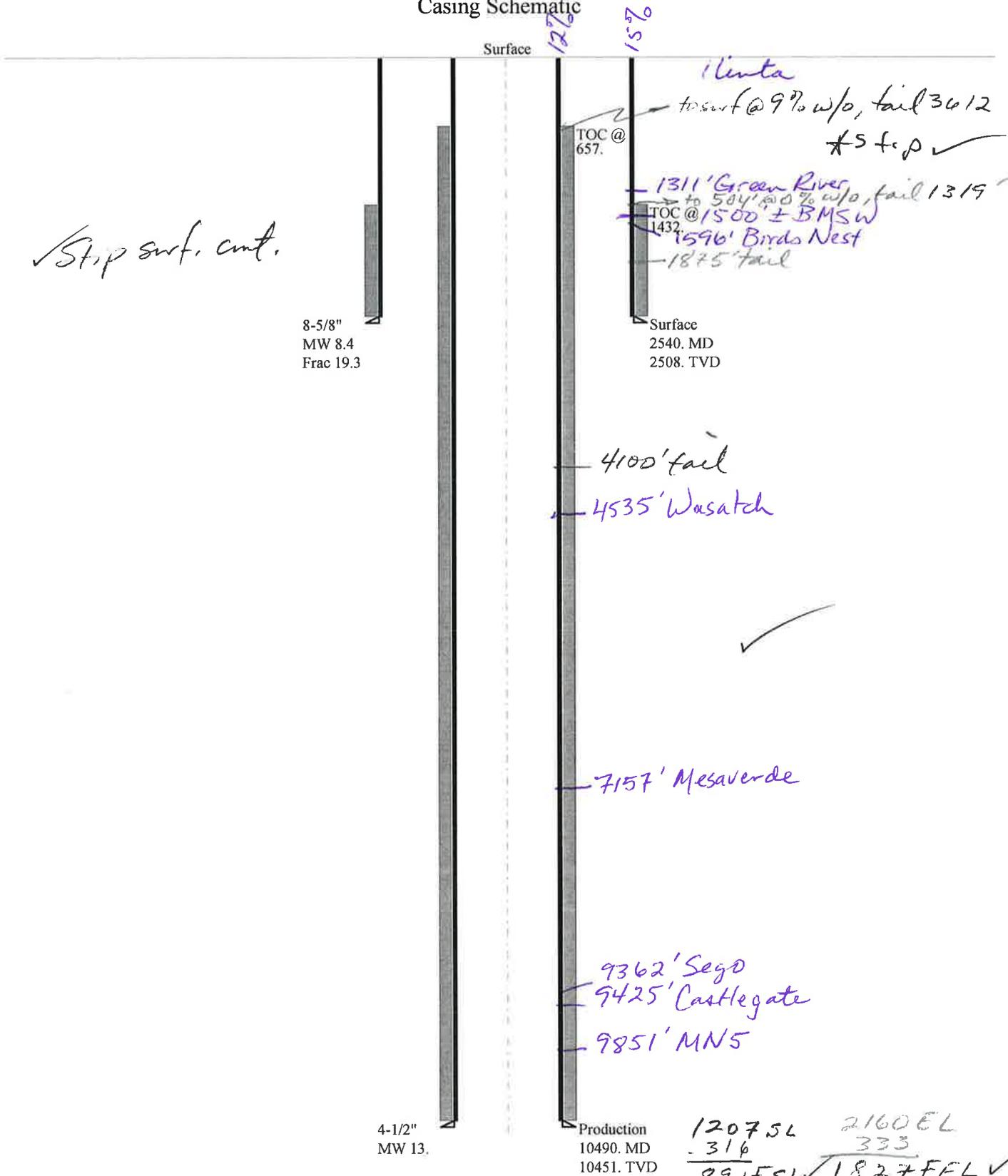
Calculations	Prod String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	7065	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	5811	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	4766	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	5318	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2508	psi *Assumes 1psi/ft frac gradient

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

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

43047522540000 Morgan State 921-3601CS

Casing Schematic



✓ Strip surf. cont.

8-5/8"
MW 8.4
Frac 19.3

4-1/2"
MW 13.

Production
10490. MD
10451. TVD

12075L 2160EL
 - 316 333
 891FSL ✓ 1827FEL ✓ OK.
 NWSE Sec 36-95-21E

Well name:	43047522540000 Morgan State 921-3601CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-52254
Location:	UINTAH COUNTY		

Design parameters:**Collapse**

Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 109 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Burst:

Design factor 1.00

Cement top: 1,432 ft

Burst

Max anticipated surface pressure: 2,152 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,453 psi

No backup mud specified.

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: 2,224 ft

Directional Info - Build & Drop

Kick-off point 300 ft
Departure at shoe: 361 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 10.5 °

Re subsequent strings:

Next setting depth: 10,451 ft
Next mud weight: 13.000 ppg
Next setting BHP: 7,058 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,445 ft
Injection pressure: 2,445 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	2540	8.625	28.00	I-55	LT&C	2508	2540	7.892	100584
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	1095	1880	1.718	2453	3390	1.38	70.2	348	4.95 J

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

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

Date: February 23, 2012
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2508 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

Well name:	43047522540000 Morgan State 921-3601CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-52254
Location:	UINTAH COUNTY		

Design parameters:**Collapse**

Mud weight: 13.000 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: 220 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft
Cement top: 657 ft

Burst

Max anticipated surface pressure: 4,759 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 7,058 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)

Tension is based on air weight.
Neutral point: 8,459 ft

Directional Info - Build & Drop

Kick-off point 300 ft
Departure at shoe: 460 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 0 °

Estimated cost: 61,332 (\$)

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	500	4.5	11.60	HCP-110	DQX	500	500	3.875	13200
1	9990	4.5	11.60	HCP-110	LT&C	10451	10490	3.875	48132

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	338	7446	22.058	4869	10690	2.20	121.2	367.2	3.03 B
1	7058	8650	1.226	7058	10690	1.51	115.4	279	2.42 J

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

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

Date: February 23, 2012
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 10451 ft, a mud weight of 13 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.

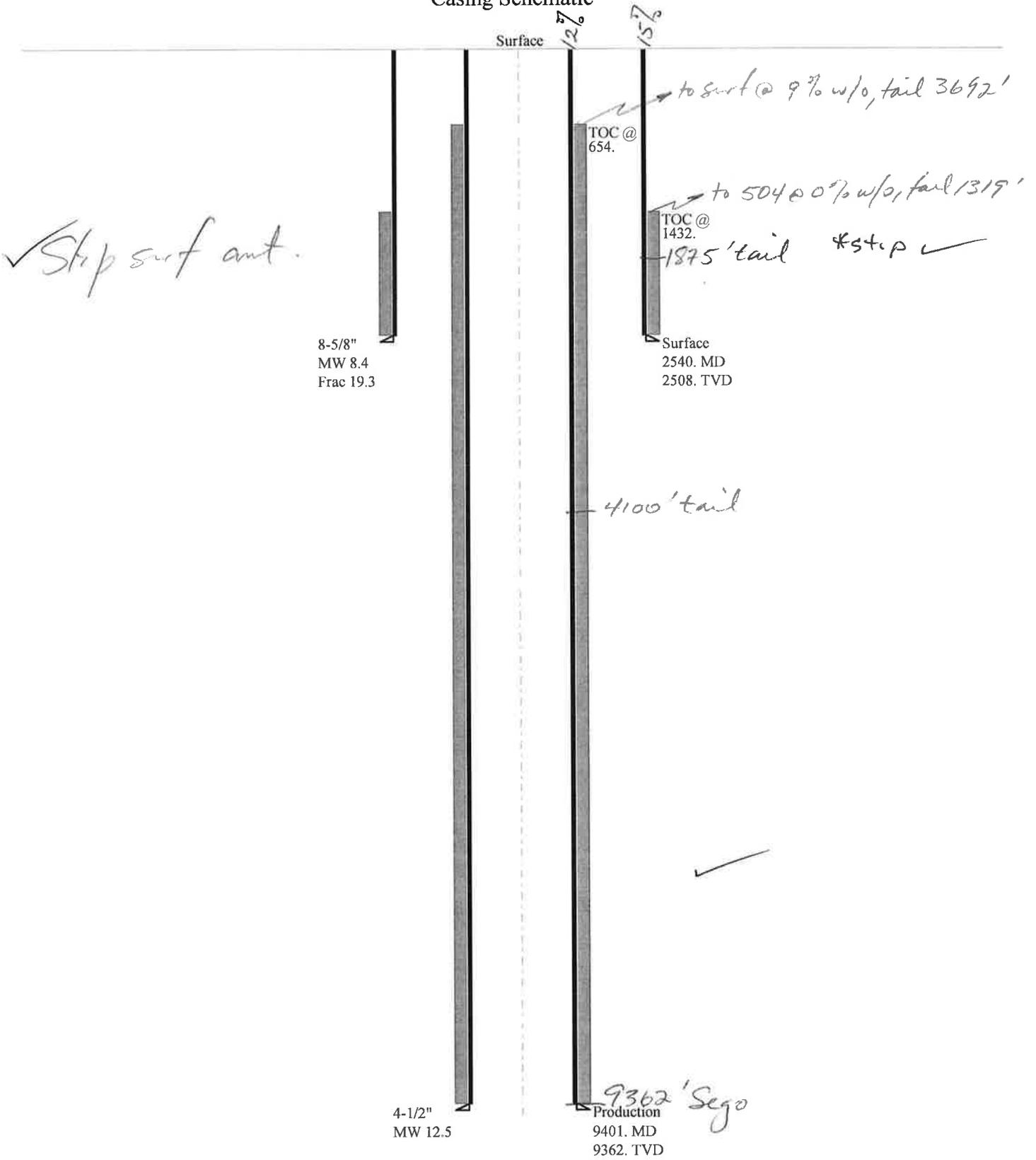
Burst strength is not adjusted for tension.

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.

43047522540000 Morgan State 921-3601CS

Casing Schematic



Well name:	43047522540000 Morgan State 921-36O1CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-52254
Location:	UINTAH	COUNTY	

Design parameters:**Collapse**

Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 2,152 psi
Internal gradient: 0.120 psi/ft
Calculated BHP: 2,453 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: 2,224 ft

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 109 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft
Cement top: 1,432 ft

Directional Info - Build & Drop

Kick-off point: 300 ft
Departure at shoe: 361 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 10.5 °

Re subsequent strings:

Next setting depth: 9,362 ft
Next mud weight: 12.500 ppg
Next setting BHP: 6,079 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,445 ft
Injection pressure: 2,445 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	2540	8.625	28.00	I-55	LT&C	2508	2540	7.892	100584
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	1095	1880	1.718	2453	3390	1.38	70.2	348	4.95 J

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

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

Date: February 23, 2012
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2508 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

Well name:	43047522540000 Morgan State 921-36O1CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-52254
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 12.500 ppg
 Internal fluid density: 1.000 ppg

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 205 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft
 Cement top: 654 ft

Burst

Max anticipated surface pressure: 4,020 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP 6,079 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: 460 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 0 °

Tension is based on air weight.
 Neutral point: 7,652 ft

Estimated cost: 130,693 (\$)

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	500	4.5	11.60	I-80	DQX	500	500	3.875	13200
1	8901	4.5	11.60	I-80	LT&C	9362	9401	3.875	117493

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	299	5156	17.268	4130	7780	1.88	108.6	267	2.46 J
1	5593	6360	1.137	6079	7780	1.28	102.8	212	2.06 J

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

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

Date: February 23, 2012
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9362 ft, a mud weight of 12.5 ppg. An internal gradient of .052 psi/ft was used for collapse from TD. 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

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name Morgan State 921-36O1CS
API Number 43047522540000 **APD No** 5097 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 SWSE **Sec** 36 **Tw** 9.0S **Rng** 21.0E 1207 FSL 2160 FEL
GPS Coord (UTM) 628201 4427586 **Surface Owner**

Participants

Sheila Wopsock, Charles Chase, Danielle Piernot, Doyle Holmes, (Anadarko). John Slaugh, Mitch Batty, (Timberline). Jim Davis (SITLA). Alex Hansen (DWR). Chris Jensen and David Hackford, (DOGGM).

Regional/Local Setting & Topography

This site is a proposed location which will require pad and reserve pit construction.

The general area is in the central portion of the Natural Buttes Unit, but this section is not part of the unit. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is approximately six miles. The side drainages are dry except for ephemeral flows. The washes are sometimes rimmed with steep side hills which have exposed sandstone bedrock cliffs along the rims. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Ouray, Utah is approximately 14 road miles to the northwest. Three directional wells will be drilled from this proposed pad. The location will run in a north-south direction in a very shallow bowl with low but steep ridges to the east, south, and west. Drainage is to the north. No drainage concerns exist, and no diversions will be needed. The pad should be stable and should be a suitable location for three wells, and is the best site available in the immediate area.

Surface Use Plan

Current Surface Use

Grazing
Wildlfe Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	Width 352 Length 445	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Prickly pear, wild onion, shadscale, mat saltbrush, Indian ricegrass, halogeton, pepper grass. Principal species present are cheatgrass, black sagebrush, stipa, mesquite grass.

Sheep, antelope, coyote, raptors, small mammals and birds.

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

Characteristics / Requirements

The reserve pit is planned in an area of cut on the east side of the location. Dimensions are 260' x 100' x 12' deep with two feet of freeboard. Kerr McGee has agreed to line this pit with a 30 mil synthetic liner and a layer of felt sub-liner.

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

Other Observations / Comments

David Hackford
Evaluator

1/11/2012
Date / Time

Application for Permit to Drill Statement of Basis

3/21/2012

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
5097	43047522540000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	Morgan State 921-36O1CS		Unit		
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	SWSE 36 9S 21E S 1207 FSL 2160 FEL GPS Coord (UTM) 628215E 4427573N				

Geologic Statement of Basis

Kerr McGee proposes to set 2,540' 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 1,500'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 36. The well is listed as 2,640 feet deep and used for drilling water. 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 proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill
APD Evaluator

2/1/2012
Date / Time

Surface Statement of Basis

The general area is in the central portion of the Natural Buttes Unit, but this section is not part of that unit. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is six miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43.6 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads.

Three wells will be directionally drilled from this location. They are the Morgan State 921-36O1BS, Morgan State 921-36O1CS, and the Morgan State 921-36O4CS. The pad should be stable and sufficient for three wells, and is the best site for a location in the immediate area.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA and Alex Hansen with DWR were invited by email to the pre-site evaluation. Both were present. Kerr McGee personnel were told to consult with SITLA for reclamation standards including seeding mixes to be used.

David Hackford
Onsite Evaluator

1/11/2012
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the east side of the location.

RECEIVED: March 21, 2012

**Application for Permit to Drill
Statement of Basis**

3/21/2012

Utah Division of Oil, Gas and Mining

Page 1

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/20/2011

API NO. ASSIGNED: 43047522540000

WELL NAME: Morgan State 921-3601CS

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

PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SWSE 36 090S 210E

Permit Tech Review:

SURFACE: 1207 FSL 2160 FEL

Engineering Review:

BOTTOM: 0898 FSL 1826 FEL

Geology Review:

COUNTY: UINTAH

LATITUDE: 39.98861

LONGITUDE: -109.49823

UTM SURF EASTINGS: 628215.00

NORTHINGS: 4427573.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22265

PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 3 - State

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

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

Commingling Approved

LOCATION AND SITING:

- R649-2-3.
- Unit:
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 173-24
- Effective Date: 10/5/2009
- Siting: 460' Fr Exterior Lease Boundary
- R649-3-11. Directional Drill

Comments: Presite Completed

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



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: Morgan State 921-3601CS
API Well Number: 43047522540000
Lease Number: ML 22265
Surface Owner: STATE
Approval Date: 3/21/2012

Issued to:

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

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-24. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

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

Commingle:

In accordance with Board Cause No. 173-24, 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:

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.

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

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27

pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9	
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265	
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
1. TYPE OF WELL Gas Well		7. UNIT or CA AGREEMENT NAME:	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		8. WELL NAME and NUMBER: Morgan State 921-3601CS	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		9. API NUMBER: 43047522540000	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1207 FSL 2160 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 36 Township: 09.0S Range: 21.0E Meridian: S		9. FIELD and POOL or WILDCAT: MATERIAL BUTTES	
		COUNTY: UINTAH	
		STATE: UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 5/29/2012 <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.			
MIRU TRIPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON DATE 5/29/2012 AT 14:00 HRS.			
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 01, 2012			
NAME (PLEASE PRINT) Cara Mahler		PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A		DATE 6/1/2012	

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
 Submitted By J. Scharnowske Phone Number 720.929.6304
 Well Name/Number MORGAN STATE 921-36O1CS
 Qtr/Qtr SWSE Section 36 Township 9S Range 21E
 Lease Serial Number ML 22265
 API Number 4304752254

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

Date/Time 05/29/2012 09:00 HRS AM PM

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

- Surface Casing
 Intermediate Casing
 Production Casing
 Liner
 Other

Date/Time 06/13/2012 08:00 HRS AM PM

BOPE

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

Date/Time _____ AM PM

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT

435.828.0986 OR LEVEL YOUNG AT 435.781.7051

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME:	
1. TYPE OF WELL Gas Well	
8. WELL NAME and NUMBER: Morgan State 921-3601CS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	
9. API NUMBER: 43047522540000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6511	
9. FIELD and POOL or WILDCAT: MORGAN STATE LATERAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1207 FSL 2160 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 36 Township: 09.0S Range: 21.0E Meridian: S	
COUNTY: UINTAH	
STATE: UTAH	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/24/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU AIR RIG ON 6/22/2012. DRILLED SURFACE HOLE TO 2295'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 June 26, 2012

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 6/25/2012	

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

FORM 6

ENTITY ACTION FORM

Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
 Address: P.O. Box 173779
city DENVER
state CO zip 80217 Phone Number: (720) 929-6029

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752267	MORGAN STATE 921-3601BS		SWSE	36	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	18564	5/29/2012		6/14/2012		
Comments: MIRU BUCKET RIG. <i>MVRD</i> SPUD WELL LOCATION ON 5/29/2012 AT 9:30 HRS. <i>BHL: SWSE</i>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752254	MORGAN STATE 921-3601CS		SWSE	36	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	18565	5/29/2012		6/14/2012		
Comments: MIRU BUCKET RIG. <i>MVRD</i> SPUD WELL LOCATION ON 5/29/2012 AT 14:00 HRS. <i>BHL: SWSE</i>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752245	MORGAN STATE 921-3604CS		SWSE	36	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	18566	5/31/2012		6/14/2012		
Comments: MIRU BUCKET RIG. <i>MVRD</i> SPUD WELL LOCATION ON 5/31/2012 AT 7:00 HRS. <i>BHL: SWSE</i>							

ACTION CODES:

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

RECEIVED

JUN 06 2012

CARA MAHLER

Name (Please Print)

Signature

REGULATORY ANALYST

Title

6/1/2012

Date

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: Morgan State 921-3601CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047522540000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: MORGAN STATE LATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1207 FSL 2160 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 36 Township: 09.0S Range: 21.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/2/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

No activity for the month of July 2012. Surface casing set at 2,617'.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 August 06, 2012

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 8/2/2012	

<p>STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING</p>	<p>FORM 9</p>
<p>SUNDRY NOTICES AND REPORTS ON WELLS</p> <p>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.</p>	<p>5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265</p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</p> <p>7. UNIT or CA AGREEMENT NAME:</p>
<p>1. TYPE OF WELL Gas Well</p>	<p>8. WELL NAME and NUMBER: Morgan State 921-3601CS</p>
<p>2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.</p>	<p>9. API NUMBER: 43047522540000</p>
<p>3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779</p>	<p>PHONE NUMBER: 720 929-6511</p> <p>9. FIELD and POOL or WILDCAT: MATERIAL BUTTES</p>
<p>4. LOCATION OF WELL FOOTAGES AT SURFACE: 1207 FSL 2160 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 36 Township: 09.0S Range: 21.0E Meridian: S</p>	<p>COUNTY: UINTAH</p> <p>STATE: UTAH</p>

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/4/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU ROTARY RIG. FINISHED DRILLING FROM 2295' TO 9415' ON 8/3/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED H&P 298 RIG ON 8/4/2012. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

**Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
August 06, 2012**

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 8/6/2012	

Carol Daniels - PRODUCTION CASING ON MORGAN STATE 921-3601CS

S-36 TOYS RATE 430M52254

From: "Anadarko - H&P 298" <hp298@gesmail.net>
To: <caroldaniels@utah.gov>
Date: 8/3/2012 6:10 AM
Subject: PRODUCTION CASING ON MORGAN STATE 921-3601CS

CAROL,
WILL TD TODAY FRIDAY 8/3/2012 @ 9,415 , ON MORGAN STATE 921-3601CS, H&P 298, WE WILL BE RUNNING
41/2 PROD CSG & CEMENTING, SATURDAY 8-4-12 & THEN SKID OVER TO MORGAN STATE 921-3604CS ON
SUNDAY 8/5/2012, MORNING & DO INITIAL PRESSURE TEST ON BOP,S FOR MORGAN STATE 921-3604CS

Have a nice day

JIM MURRAY
H&P 298
OFFICE 435 828-0957
CELL 425 828-0956
Hp298@gesmail.net

RECEIVED

AUG 03 2012

DIV. OF ...

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	8. WELL NAME and NUMBER: MORGAN STATE 921-3601CS
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	9. API NUMBER: 43047522540000
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11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 10/2/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
 No Activity for the month of September 2012. Well TD at 9,415.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 October 03, 2012**

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A		DATE 10/2/2012

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7.UNIT or CA AGREEMENT NAME:
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2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047522540000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1207 FSL 2160 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 36 Township: 09.0S Range: 21.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
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<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 11/5/2012	<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
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	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

No Activity for the month of October 2012. Well TD at 9,415.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 November 05, 2012

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 11/5/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265	
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1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MORGAN STATE 921-3601CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047522540000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1207 FSL 2160 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 36 Township: 09.0S Range: 21.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
	COUNTY: UINTAH
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 12/3/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Started completing the well. Well TD at 9,415.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 December 04, 2012**

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 12/3/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265	
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME:	
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MORGAN STATE 921-3601CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047522540000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511
9. FIELD and POOL or WILDCAT: MORGAN STATE LATERAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1207 FSL 2160 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 36 Township: 09.0S Range: 21.0E Meridian: S	COUNTY: UINTAH
STATE: UTAH	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 12/12/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The subject well was placed on production on 12/12/2012. The Chronological Well History will be submitted with the well completion report.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 December 17, 2012

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 12/14/2012	

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

AMENDED REPORT FORM 8
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:
ML 22265

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME

8. WELL NAME and NUMBER:
MORGAN STATE 921-3601CS

9. API NUMBER:
4304752254

10. FIELD AND POOL, OR WILDCAT
NATURAL BUTTES

11. QTR/QTR, SECTION, TOWNSHIP, RANGE,
MERIDIAN:
SWSE 36 9S 21E S

12. COUNTY **UINTAH** 13. STATE **UTAH**

17. ELEVATIONS (DF, RKB, RT, GL):
5037 RKB

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL GAS WELL DRY OTHER _____

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

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

3. ADDRESS OF OPERATOR: P.O. BOX 173779 CITY DENVER STATE CO ZIP 80217 PHONE NUMBER: (720) 929-6000

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: **SWSE 1207 FSL 2160 FEL S36,T9S,R21E**
AT TOP PRODUCING INTERVAL REPORTED BELOW: **SWSE 905 FSL 1834 FEL S36,T9S,R21E**
AT TOTAL DEPTH: **SWSE 889 FSL 1817 FEL S36,T9S,R21E**

14. DATE SPUDDED: **5/29/2012** 15. DATE T.D. REACHED: **8/3/2012** 16. DATE COMPLETED: **12/12/2012** ABANDONED READY TO PRODUCE

18. TOTAL DEPTH: MD **9,415** TVD **9,380** 19. PLUG BACK T.D.: MD **9,359** TVD **9,324** 20. IF MULTIPLE COMPLETIONS, HOW MANY? * 21. DEPTH BRIDGE MD PLUG SET: TVD

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

CBL/GR/CCL/TEMP

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

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#	0	40		28			
11"	8 5/8" IJ-55	28#	0	2,586		825		0	
7 7/8"	4 1/2" I-80	11.6#	0	9,405		1,505		1590	

RECEIVED
JAN 15 2013

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,764							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) WASATCH	5,992	7,079			5,992 7,079	0.36	90	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B) MESAVERDE	7,226	9,203			7,226 9,203	0.36	204	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
5992-9203	PUMP 16,031 BBLs SLICK H2O & 391,356 LBS 30/50 OTTAWA SAND
	13 STAGES

29. ENCLOSED ATTACHMENTS:

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

30. WELL STATUS:

PROD

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 12/12/2012		TEST DATE: 12/13/2012		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 1,636	WATER – BBL: 0	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 1,979	CSG. PRESS. 2,995	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 1,636	WATER – BBL: 0	INTERVAL STATUS: PROD

INTERVAL B (As shown in item #26)

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

INTERVAL C (As shown in item #26)

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

INTERVAL D (As shown in item #26)

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

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

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER	1,400
				BIRD'S NEST	1,717
				MAHOGANY	2,136
				WASATCH	4,592
				MESAVERDE	7,214

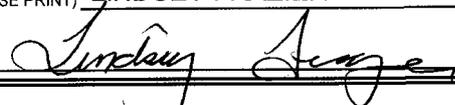
35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210' of the surface hole was drilled with a 12 1/4" bit. The remainder of surface hole was drilled with an 11" bit. DQX csg was run from surface to 5062'; LTC csg was run from 5062' to 9405'. Attached is the chronological well history, perforation report & final survey.

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

NAME (PLEASE PRINT) LINDSEY FRAZIER

TITLE REGULATORY ANALYST

SIGNATURE 

DATE 1/9/2013

This report must be submitted within 30 days of

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

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

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

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

Phone: 801-538-5340

Fax: 801-359-3940

**US ROCKIES REGION
Operation Summary Report**

Well: MORGAN STATE 921-36O1CS BLUE		Spud Date: 6/22/2012
Project: UTAH-UINTAH	Site: MORGAN STATE 921-36O PAD	Rig Name No: H&P 298/298, CAPSTAR 310/310
Event: DRILLING	Start Date: 6/5/2012	End Date: 8/4/2012
Active Datum: RKB @5,037.00usft (above Mean Sea Level)		UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1207/E/0/2160/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/22/2012	3:00 - 8:00	5.00	MIRU	01	A	P		SKID RIG
	8:00 - 10:30	2.50	MIRU	01	B	P		CENTER ROT. HEAD WELD ON RISER
	10:30 - 11:00	0.50	PRPSPD	06	A	P		PICK UP 12 1/4" BIT, & BHA
	11:00 - 12:30	1.50	DRLSUR	02	D	P		SPUD DRILL 12.25" SURFACE HOLE F/ 49'-212' ROP= 161' @ 81 FPH WOB= 14/22K RPM= 55/105 SPP=720/500 GPM= 595 TRQ= 2600/1900 PU/SO/ROT = 32/28/30 NO LOSSES HOLE IN GOOD SHAPE
	12:30 - 13:30	1.00	DRLSUR	06	A	P		PULLOUT OF HOLE
	13:30 - 15:30	2.00	DRLSUR	06	A	P		PICK UP 11.00" BIT & DIR. TOOLS SCRIBE IN TOOLS TRIP IN HOLE
	15:30 - 19:30	4.00	DRLSUR	02	D	P		DRILL 11.00" F/ 212'-719' ROP= 507' @ 126.75 FPH WOB= 22/30K RPM= 55/105 SPP=800/600 GPM= 595 TRQ= 2900/1900 UP/DWN/ROT 65/55/60 NO LOSSES HOLE IN GOOD SHAPE
	19:30 - 20:30	1.00	DRLSUR	08	A	Z		*** WORK ON DEPTH GAUGE ON PAYSON
	20:30 - 0:00	3.50	DRLSUR	02	D	P		DRILL 11.00" F/ 719'-1095' ROP= 376' @ 126.75 FPH WOB= 22/30K RPM= 55/105 SPP=929/783 GPM= 595 TRQ= 2900/1900 UP/DWN/ROT 69/52/56 NO LOSSES HOLE IN GOOD SHAPE 5' HIGH AND ON THE LINE

**US ROCKIES REGION
Operation Summary Report**

Well: MORGAN STATE 921-36O1CS BLUE

Spud Date: 6/22/2012

Project: UTAH-UINTAH

Site: MORGAN STATE 921-36O PAD

Rig Name No: H&P 298/298, CAPSTAR 310/310

Event: DRILLING

Start Date: 6/5/2012

End Date: 8/4/2012

Active Datum: RKB @5,037.00usft (above Mean Sea Level)

UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1207/E/0/2160/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/23/2012	0:00 - 0:30	0.50	DRLSUR	02	D	P		DRILL 11.00" F/ 1095'-1191' ROP= 96' @ 192 FPH WOB= 22/30K RPM= 55/105 SPP=929/783 GPM= 595 TRQ= 2900/1900 UP/DWN/ROT 69/52/56 NO LOSSES HOLE IN GOOD SHAPE 5' HIGH AND ON THE LINE
	0:30 - 3:00	2.50	DRLSUR	08	A	Z		*** FAILURE: GASKET ON DRAWWORKS AIR COMPRESSOR
	3:00 - 9:00	6.00	DRLSUR	02	D	P		DRILL 11.00" F/ 1191'-1720' ROP= 529' @ 81.38 FPH WOB= 22/30K RPM= 55/105 SPP=1060/810 GPM= 595 TRQ= 2900/1900 UP/DWN/ROT 100/80/92 LOST CIRCULATION @ 1720' APPLIED AIR 450 CFM AIR
	9:00 - 9:30	0.50	DRLSUR	05	A	X		*** BUILD VOLUME
	9:30 - 13:00	3.50	DRLSUR	02	D	P		DRILL 11.00" F/ 1720'-2198' ROP= 478' @ 136 FPH WOB= 22/30K RPM= 55/105 SPP=1190/950 GPM= 550 TRQ= 2900/1900 UP/DWN/ROT 105/88/97 LOST CIRCULATION @ 1720' APPLIED AIR 450 CFM AIR
	13:00 - 13:30	0.50	DRLSUR	07	A	P		SERVICE RIG
	13:30 - 18:00	4.50	DRLSUR	02	D	P		DRILL 11.00" F/ 2198'-2600' ROP= 402' @ 89 FPH WOB= 22/30K RPM= 55/105 SPP=1192/950 GPM= 550 TRQ= 2900/1900 UP/DWN/ROT 105/88/97 LOST CIRCULATION @ 1720' APPLIED AIR 450 CFM 4' LEFT & 1' HIGH OF LINE
	18:00 - 19:00	1.00	DRLSUR	05	C	P		CIRC. FOR CASING
	19:00 - 22:30	3.50	DRLSUR	06	D	P		LDDS, BHA & DIRECTIONAL TOOLS
	22:30 - 23:00	0.50	DRLSUR	12	A	P		RIG UP TO RUN CASING
	23:00 - 0:00	1.00	DRLSUR	12	C	P		RUN 58 JTS 8 5/8, 28# J55 CASING
6/24/2012	0:00 - 0:30	0.50	CSGSUR	12	C	P		FINISH RUNNING 58 JTS 8 5/8" CSNG SHOE @ 2560' BAFFLE @ 2521'
	0:30 - 1:00	0.50	CSGSUR	05	D	P		PUMP ON CSNG

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36O1CS BLUE

Spud Date: 6/22/2012

Project: UTAH-UINTAH

Site: MORGAN STATE 921-36O PAD

Rig Name No: H&P 298/298, CAPSTAR 310/310

Event: DRILLING

Start Date: 6/5/2012

End Date: 8/4/2012

Active Datum: RKB @5,037.00usft (above Mean Sea Level)

UWI: SW/SE/0/9/S/21/E/38/0/0/26/PM/S/1207/E/0/2160/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	1:00 - 3:00	2.00	CSGSUR	12	E	P		HELD SAFETY MEETING WITH PRO PETRO CMT CREW MAKE UP CMT HEAD PRESSURE TEST LINES TO 2000 PSI. PUMP 150 BBL'S WATER AHEAD FOLLOWED BY 20 BBL GEL WATER FLUSH PUMP 250 SX (170 BBL'S) LEAD CLASS G CMT @ 11.0 WT & 3.82 YIELD PUMP 200 SX (41BBL'S) TAIL CLASS G CMT @ 15.8 WT & 1.15 YIELD DROP PLUG & DISPLACE W/ 157 BBL'S WATER BUMP PLUG W/ 600 PSI FINAL LIFT =280 PSI CHECK FLOATS FLOAT HELD NO CEMENT TO SURFACE
	3:00 - 5:00	2.00	CSGSUR	12	E	P		HANG DIVERTER BOWL PUMP 125 SX (25.6 BBL'S) DOWN BACKSIDE NO CEMENT TO SURFACE
	5:00 - 7:00	2.00	CSGSUR	13	A	P		WAIT ON CEMENT PUMP 125 SX (25.6 BBL'S) DOWN BACKSIDE NO CEMENT TO SURFACE RELEASE RIG @ 07:00 WILL TOP OUT CEMENT ON NEXT WELL CEMENT TO SURFACE 6/26/2012
7/31/2012	18:00 - 19:30	1.50	MIRU	01	C	P		PREPARE & SKID RIG
	19:30 - 21:30	2.00	PRPSPD	14	B	P		NU BOP'S & EQUIPMENT
	21:30 - 22:30	1.00	PRPSPD	07	C	P		CHANGE OUT SAVER SUB
	22:30 - 0:00	1.50	PRPSPD	15	A	P		TEST CSG TO 1500 PSI / TEST BOP'S & EQUIPMENT AS PER PROGRAM 250/5000 PSI
8/1/2012	0:00 - 2:30	2.50	PRPSPD	15	A	P		CONTINUE TO TEST BOP'S & EQUIPMENT AS PER PROGRAM 250/5000 PSI / ANNULAR 250/2500
	2:30 - 3:00	0.50	PRPSPD	14	B	P		INSTALL WEAR BUSHING & SMITH BEARING ASSY
	3:00 - 4:00	1.00	PRPSPD	15	A	P		TEST MI SWACO PRESSURE CONTROL EQUIPMENT
	4:00 - 7:30	3.50	PRPSPD	06	A	P		PU & MU DIRECTIONAL BHA WITH WEATHERFORD SCRIBE ,ORIENTATE, TEST SAME TIH TO 2,480'
	7:30 - 8:00	0.50	PRPSPD	07	B	P		PRE SPUD INSPECTION/ LEVEL DERRICK & INSTALL ROTATING HEAD
	8:00 - 9:00	1.00	DRLPRO	02	D	P		DRILL CEMENT & SHOE TRACK FROM 2,480' TO 2,577' CLEAN OUT RAT HOLE TO 2,617'

US ROCKIES REGION

Operation Summary Report

Well: MORGAN STATE 921-3601CS BLUE		Spud Date: 6/22/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-360 PAD	Rig Name No: H&P 298/298, CAPSTAR 310/310
Event: DRILLING		Start Date: 6/5/2012	End Date: 8/4/2012
Active Datum: RKB @5,037.00usft (above Mean Sea Level)		UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1207/E/0/2160/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:00 - 15:00	6.00	DRLPRO	02	D	P		DRILL /SLIDE / SURVEY/ F/ 2,617-3,562 = 945' @157.5 FPH WOB 18,000-24,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 115 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 1,990/1,615 TORQUE ON/OFF BTM 7,000/ 4,000 PICK UP WT 114,000 SLACK OFF WT 101,000 ROT WT 105,000 SLIDE 103' IN 75 MIN 10.8 % OF FOOTAGE DRILLED, 20.8 %OF HRS DRILLED 75 BBLs MAKE UP WATER MUD WT 8.4 VIS 26, PUMPING 5 BBL SWEEPS EVERY STAND NOV-D WATER SWACO OFF LINE
	15:00 - 15:30	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE
	15:30 - 0:00	8.50	DRLPRO	02	D	P		DRILL/ SLIDE /SURVEY/ F/ 3,562-5,275= 1,713@ 201.5 FPH WOB 18,000-24,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 115 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,325/ 1,935 TORQUE ON/OFF BTM 9,000/ 6,000 PICK UP WT 150,000 SLACK OFF WT 112,000 ROT WT 130,000 SLIDE 55' IN 40 MIN 3.20 % OF FOOTAGE DRILLED, 7.84 %OF HRS DRILLED 135 BBLs MAKE UP WATER MUD WT 8.5 VIS 26, PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' NOV-D WATER SWACO OFF LINE

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36O1CS BLUE

Spud Date: 6/22/2012

Project: UTAH-UINTAH

Site: MORGAN STATE 921-36O PAD

Rig Name No: H&P 298/298, CAPSTAR 310/310

Event: DRILLING

Start Date: 6/5/2012

End Date: 8/4/2012

Active Datum: RKB @5,037.00usft (above Mean Sea Level)

UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1207/E/0/2160/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/2/2012	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL/ SLIDE /SURVEY/ F/5,275 TO 6,150= 875'=145.8 FPH WOB 18,000-24,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 115 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,325/ 2,000 TORQUE ON/OFF BTM 10,000/ 6,000 PICK UP WT 162,000 SLACK OFF WT 124,000 ROT WT 144,000 SLIDE 51' IN 40 MIN 6.8 % OF FOOTAGE DRILLED, 13.3 %OF HRS DRILLED 125 BBLs MAKE UP WATER MUD WT 8.5 VIS 26, PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' NOV-D WATER SWACO OFF LINE
	6:00 - 14:30	8.50	DRLPRO	02	D	P		DRILL/ SLIDE /SURVEY/ F/6,150 TO 7,244= 1,094'=128.7 FPH WOB 20,000-28,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 115 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,400/ 2,100 TORQUE ON/OFF BTM 9,000/ 8,000 PICK UP WT 198,000 SLACK OFF WT 138,000 ROT WT 159,000 SLIDE 51' IN 40 MIN 6.8 % OF FOOTAGE DRILLED, 13.3 %OF HRS DRILLED 125 BBLs MAKE UP WATER MUD WT 8.5 VIS 26, PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' NOV-D WATER SWACO OFF LINE
	14:30 - 15:00	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE

**US ROCKIES REGION
Operation Summary Report**

Well: MORGAN STATE 921-36O1CS BLUE Spud Date: 6/22/2012
 Project: UTAH-UINTAH Site: MORGAN STATE 921-36O PAD Rig Name No: H&P 298/298, CAPSTAR 310/310
 Event: DRILLING Start Date: 6/5/2012 End Date: 8/4/2012
 Active Datum: RKB @5,037.00usft (above Mean Sea Level) UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1207/E/0/2160/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	15:00 - 0:00	9.00	DRLPRO	02	D	P		DRILL /SLIDE /SURVEY/ F/ 7,244 TO 8,155= 911'=101.2 FPH WOB 20,000-28,000 TOP DRIVE RPM 40-75 MUD MOTOR RPM 104 PUMPS 110 SPM= 495 GPM PUMP PRESSURE ON/OFF BTM 2,000/ 1,770 TORQUE ON/OFF BTM 11,000/ 9,000 PICK UP WT 210,000 SLACK OFF WT 150,000 ROT WT 175,000 SLIDE 38' IN 75 MIN 4.19 % OF FOOTAGE DRILLED, 15.6 %OF HRS DRILLED 90 BBLS MAKE UP WATER MUD WT 8.5 VIS 26, PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' NOV-D WATER
8/3/2012	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL /SURVEY/ F/8,155 TO 8,800= 645'=107.5 FPH WOB 20,000-26,000 TOP DRIVE RPM 50-75 MUD MOTOR RPM 104 PUMPS 110 SPM= 495 GPM PUMP PRESSURE ON/OFF BTM 2,150/ 1,830 TORQUE ON/OFF BTM 12,000/ 10,000 PICK UP WT 220,000 SLACK OFF WT 165,000 ROT WT 186,000 NO SLIDES 80 BBLS MAKE UP WATER MUD WT 8.8 VIS 26, PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' NOV-D WATER SWACO ON LINE 8,659,ANN PRESS 130 10' FLARE
	6:00 - 14:00	8.00	DRLPRO	02	D	P		DRILL /SURVEY/ F/8,800 TO 9,415 TD=615 '=76.8 FPH WOB 20,000-28,000 TOP DRIVE RPM 50-75 MUD MOTOR RPM 104 PUMPS 110 SPM= 495 GPM PUMP PRESSURE ON/OFF BTM 2,650/ 2,450 TORQUE ON/OFF BTM 8,000/ 6,000 PICK UP WT 224,000 SLACK OFF WT 1165,000 ROT WT 196,000 NO SLIDES 80 BBLS MAKE UP WATER MUD WT 8.8 VIS 26, PUMPING 5-10 BBL SWEEPS ,W/ CAL CARBONATE,ANCO FIBER,MAXI SEAL EVERY 100' NOV-OFF LINE @ 9,270 SWACO OFF LINE @9,350 10' FLARE @9,270 DISPLACE HOLE W/ 10.4 PPG MUD / 10 BBL MUD LOSS

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36O1CS BLUE

Spud Date: 6/22/2012

Project: UTAH-UINTAH

Site: MORGAN STATE 921-36O PAD

Rig Name No: H&P 298/298, CAPSTAR 310/310

Event: DRILLING

Start Date: 6/5/2012

End Date: 8/4/2012

Active Datum: RKB @5,037.00usft (above Mean Sea Level)

UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1207/E/0/2160/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	14:00 - 15:30	1.50	DRLPRO	05	B	P		CCH F/ WPER TRIP / MUD WT TO 11.0 PPG 25 BBL MUD LOSS
	15:30 - 17:30	2.00	DRLPRO	06	E	P		13 STAND WPER TRIP, TO 8,230 TIGHT @ 9,215, WASH 300' TO BTM 3' FILL/LOST 10 BBLS MUD
	17:30 - 19:30	2.00	DRLPRO	05	D	P		CCH FOR CASING / 5' FLARE ON BTMS UP/ NO MUD LOSS
	19:30 - 0:00	4.50	DRLPRO	06	D	P		SPOT 90 BBLS 12.0# MUD ON BTM / BACK REAM OUT 4 STANDS /TOH 10 STDS PUMP SLUG / TOH / TIGHT SPOTS @4,540,4,510, 4,228, / FLOW CHECK @ CSG SHOE / PULL TO BHA./PULL ROTATING RUBBER
8/4/2012	0:00 - 1:30	1.50	DRLPRO	06	D	P		PULL BHA LD MWD, STAND BACK DIR TOOLS, BREAK BIT LD MUD MOTOR
	1:30 - 2:30	1.00	DRLPRO	14	B	P		PULL ROT HEAD BEARING ASSEMBLY / PULL WEAR BUSHING /, INSTALL CASING TRIP NIPPLE X/O DRILLING BAILS, TO CASING BAILS
	2:30 - 3:00	0.50	CSGPRO	12	A	P		CTJSA RIG UP FRANKS CASING EQUIP
	3:00 - 4:30	1.50	CSGPRO	12	A	P		MAKE UP FLOAT EQUIP, RIH TEST SAME, RUN 99 JTS I-80 11.6# LTC 4.5 CASING +1 CROSSOVER LTC/ DQX 114 JTS I-80 11.6# DQX 4.5 CASING+ RELATED TOOLS / BREAKING CIRCULATION @ SELECTED INTERVALS / LANDING CASING MANDREL IN BOWL W/98,000, @ 9,404 FOR CIRC & CEMENTING / SHOE @9,404 / FC @ 9,360 / MV MKR @ 7,172 X/O @ 5,036 ,RD SAME
	4:30 - 12:30	8.00	CSGPRO	12	C	P		
	12:30 - 14:00	1.50	CSGPRO	05	D	P		FILL & CIRC CASING BTMS UP 5' FLARE RD FRANKS / CT-JSA WITH BJ
	14:00 - 17:00	3.00	CSGPRO	12	E	P		INSTALL BJ CMT HEAD , TEST PUMP & LINES TO 5,300 PSI , DROP BOTTOM PLUG PUMP 25 BBLS FW PUMP 455 SKS LEAD CEMENT @ 12.0 PPG, (182 BBLS) (PREM LITE II + .0.25 pps CELLO FLAKE + .5 pps KOL SEAL + .05 lb/sx STATIC FREE + 6% bwoc BENTONITE + .2% bwoc SODIUM META SILICATE + 0.2 % R-3 +0.4%bwoc FL-52 .6% FRESH WATER / (12.48 gal/sx, 2.26 yield) + 1,060 SX TAIL @ 14.3 ppg(248 BBLS)+ (CLS G 50/50 POZ + 10% SALT + .005lbs/sx STATIC FREE + .2% R3 + .002 GPS FP-6L + 2% BENTONITE +0.5%EC-1+ 58.9% FW / (5.94 gal/sx, 1.32 yield) WASH PUMP & LINES DROP TOP PLUG & DISPLACE W/ 145.5 BBLS H2O + ADDITIVES / PLUG DOWN @16:11 HOURS / FLOATS HELD W/ 1.5 BBLS H2O RETURNED TO INVENTORY// LIFT PRESSURE @ 2,320 PSI BUMP PRESSURE @2,942 / W/ 5 BBLS WATER SPACER TO SURFACE /TOP OF TAIL CEMENT CALCULATED @ 4,070' / RIG DOWN BJ
	17:00 - 19:00	2.00	CSGPRO	12		P		FLUSH BOP'S / SET PACK OFF / LAY DOWN LANDING JT/ REMOVE CASING TRIP NIPPLE / CHANGE OUT CASING BAILS
	19:00 - 20:00	1.00	RDMO	14	A	P		NIPPLE DOWN BOP, PREP TO SKID, RIG RELEASED @ 20:00 HRS 8/4/2012 TO MORGAN STATE 921-36O4CS

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	MORGAN STATE 921-36O1CS BLUE	Wellbore No.	OH
Well Name	MORGAN STATE 921-36O1CS	Wellbore Name	MORGAN STATE 921-36O1CS
Report No.	1	Report Date	11/20/2012
Project	UTAH-UINTAH	Site	MORGAN STATE 921-36O PAD
Rig Name/No.		Event	COMPLETION
Start Date	11/20/2012	End Date	12/12/2012
Spud Date	6/22/2012	Active Datum	RKB @5,037.00usft (above Mean Sea Level)
UWI	SW/SE/O/9/S/21/E/36/O/0/26/PM/S/1207/E/0/2160/O/O		

1.3 General

Contractor		Job Method		Supervisor	
Perforated Assembly		Conveyed Method			

1.4 Initial Conditions

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

1.5 Summary

Gross Interval	5,992.0 (usft)-9,203.0 (usft)	Start Date/Time	11/20/2012 12:00AM
No. of Intervals	82	End Date/Time	11/20/2012 12:00AM
Total Shots	294	Net Perforation Interval	98.00 (usft)
Avg Shot Density	3.00 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/20/2012 12:00AM	WASATCH/2			5,992.0	5,994.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/20/201 2 12:00AM	WASATCH/			5,998.0	6,000.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,118.0	6,120.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,126.0	6,128.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,272.0	6,274.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,306.0	6,307.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,344.0	6,345.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,377.0	6,378.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,397.0	6,399.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,542.0	6,543.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,556.0	6,557.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,598.0	6,599.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,614.0	6,615.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,643.0	6,644.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,684.0	6,685.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/20/201 2 12:00AM	WASATCH/			6,706.0	6,707.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,854.0	6,855.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,862.0	6,863.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,909.0	6,910.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,933.0	6,934.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,990.0	6,991.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			6,999.0	7,000.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			7,010.0	7,011.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	WASATCH/			7,078.0	7,079.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,226.0	7,227.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,239.0	7,240.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,263.0	7,265.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,289.0	7,290.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,298.0	7,299.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/20/201 2 12:00AM	MESAVERDE/			7,327.0	7,328.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,399.0	7,400.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,420.0	7,421.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,450.0	7,451.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,471.0	7,472.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,490.0	7,491.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,507.0	7,508.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,523.0	7,524.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,550.0	7,551.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,574.0	7,575.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,623.0	7,624.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,668.0	7,669.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,710.0	7,711.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,731.0	7,732.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/20/201 2 12:00AM	MESAVERDE/			7,746.0	7,747.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,774.0	7,775.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,801.0	7,802.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			7,838.0	7,840.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,023.0	8,027.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,250.0	8,252.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,290.0	8,292.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,323.0	8,325.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,350.0	8,352.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,388.0	8,389.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,400.0	8,401.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,423.0	8,424.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,436.0	8,437.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,514.0	8,515.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/20/201 2 12:00AM	MESAVERDE/			8,533.0	8,534.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,591.0	8,592.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,631.0	8,632.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,652.0	8,653.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,666.0	8,667.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,676.0	8,677.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,694.0	8,695.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,719.0	8,720.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,752.0	8,753.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,771.0	8,772.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,807.0	8,808.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,836.0	8,837.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,857.0	8,858.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,883.0	8,884.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/20/201 2 12:00AM	MESAVERDE/			8,911.0	8,912.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,936.0	8,937.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,981.0	8,982.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			8,993.0	8,994.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			9,072.0	9,073.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			9,088.0	9,089.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			9,119.0	9,120.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			9,144.0	9,145.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			9,170.0	9,171.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			9,192.0	9,193.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/20/201 2 12:00AM	MESAVERDE/			9,201.0	9,203.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36O1CS BLUE Spud Date: 6/22/2012

Project: UTAH-UINTAH Site: MORGAN STATE 921-36O PAD Rig Name No: ROCKY MOUNTAIN WELL SERVICE
3/3

Event: COMPLETION Start Date: 11/20/2012 End Date: 12/12/2012

Active Datum: RKB @5,037.00usft (above Mean Sea Level) UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1207/E/0/2160/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/22/2012	-							
6/23/2012	-							
12/3/2012	10:00 - 10:45	0.75	FRAC	33	C	P		FILL SURFACE CSG. MIRU B&C QUICK TEST. 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST 53 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG
12/4/2012	7:00 - 11:00	4.00	FRAC	37		P		BLEED OFF PSI. MOVE T/ NEXT WELL.SWFMN PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWFW
12/6/2012	6:45 - 7:00	0.25	FRAC	48		P		HSM, PRE JOB INSTRUCTIONS

US ROCKIES REGION

Operation Summary Report

Well: MORGAN STATE 921-3601CS BLUE

Spud Date: 6/22/2012

Project: UTAH-UINTAH

Site: MORGAN STATE 921-360 PAD

Rig Name No: ROCKY MOUNTAIN WELL SERVICE
3/3

Event: COMPLETION

Start Date: 11/20/2012

End Date: 12/12/2012

Active Datum: RKB @5,037.00usft (above Mean Sea Level)

UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1207/E/0/2160/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 17:30	10.50	FRAC	36	B	P		<p>PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND & SLK WTR. IN ALL STAGES ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLUID, SAND AND CHEMICAL VOLUME PUMP'D</p> <p>FRAC STG #1] WHP=1,833#, BRK DN PERFS=3,190#, @=6.3 BPM, INJ RT=41.6, INJ PSI=6,321#, INITIAL ISIP=2,537#, INITIAL FG=.72, FINAL ISIP=2,908#, FINAL FG=.76, AVERAGE RATE=45.1, AVERAGE PRESSURE=6,259#, MAX RATE=48.2, MAX PRESSURE=6,750#, NET PRESSURE INCREASE=371#, 15/24 63% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,024', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW, [WIRE LINE STACKED OUT @ 5,100', POOH 2 SLIPS WERE GONE OFF PLUG, REFLUSHED WELL REPLACED PLUG AND RUN BACK IN WELL]</p> <p>FRAC STG #2] WHP=1,904#, BRK DN PERFS=4,062#, @=4.7 BPM, INJ RT=41.3, INJ PSI=6,235#, INITIAL ISIP=2,512#, INITIAL FG=.72, FINAL ISIP=2,926#, FINAL FG=.77, AVERAGE RATE=45.6, AVERAGE PRESSURE=6,302#, MAX RATE=48.2, MAX PRESSURE=6,686#, NET PRESSURE INCREASE=414#, 15/24 63% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,797', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW.</p> <p>FRAC STG #3] WHP=2,480#, BRK DN PERFS=3,173#, @=4.1 BPM, INJ RT=46.2, INJ PSI=5,806#, INITIAL ISIP=2,531#, INITIAL FG=.73, FINAL ISIP=2,820#, FINAL FG=.76, AVERAGE RATE=44.6, AVERAGE PRESSURE=6,048#, MAX RATE=49.2, MAX PRESSURE=6,503#, NET PRESSURE INCREASE=289#, 17/24 71% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,621', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWM FN</p>

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36O1CS BLUE		Spud Date: 6/22/2012
Project: UTAH-UINTAH	Site: MORGAN STATE 921-36O PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION	Start Date: 11/20/2012	End Date: 12/12/2012
Active Datum: RKB @5,037.00usft (above Mean Sea Level)	UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1207/E/0/2160/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/7/2012	7:00 -		FRAC	36	B			<p>[STG#4] PERF AND FRAC PER DESIGN. PILOT TEST W/ NO SURFACTANT.</p> <p>[STG#5] PERF & FRAC AS PER DESIGN. PILOT TEST W/ NO SURFACTANT.</p> <p>[STG#6] PERF & FRAC AS PER DESIGN. AS PER ENGINEERS REQUEST WE DID NOT PUMP ANY SURFACTANT OR CLAY STABILIZER. THIS DID NOT MAKE A DIFFERENCE IN TREATING PRESSURE ON THIS STAGE. STILL 6000# TREATING PSI.</p> <p>[STG#7] PERF AND FRAC AS PER DESIGN. AS PER ENGINEERS REQUEST WE RAN NE SURFACTANT 1/2 WAY IN THE SAND RAMP @ 1GPT@ 51 BPM @ 4000 PSI. WHEN WE SHUT THE SURFACTANT CHEM OFF - - PRESSURE INCREASED.- - 47 BPM @ 5900 PSI.</p> <p>[STG#8] PERF & FRAC BY DESIGN. AS PER ENGINEERS REQUEST: WE PUMPED THE FIST 1/2 OF THE SAND RAMP WITH NO NE SURFACTANT @ 6000# @ 50 BPM. THEN WE PUMED THE LAST 1/2 OF THE SAND RAMP WITH NE SURFACTANT @ 1 GPT @ 3500# @ 51 BPM. BIG LOSS IN PRESSURE WITH NE!</p> <p>[STG#9] PERF & FRAC BY DESIGN. PILOT TEST. NO NE SURFACTANT PUMPED.</p> <p>[STG#10] PERF BY DESIGN. HSM, RIGGING DOWN</p>
12/8/2012	6:45 - 7:00	0.25	FRAC	48		P		

US ROCKIES REGION

Operation Summary Report

Well: MORGAN STATE 921-3601CS BLUE

Spud Date: 6/22/2012

Project: UTAH-UINTAH

Site: MORGAN STATE 921-360 PAD

Rig Name No: ROCKY MOUNTAIN WELL SERVICE
3/3

Event: COMPLETION

Start Date: 11/20/2012

End Date: 12/12/2012

Active Datum: RKB @5,037.00usft (above Mean Sea Level)

UWI: SW/SE/0/9/S/21/E/38/0/0/26/PM/S/1207/E/0/2160/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 13:00	6.00	FRAC	36	B	P		<p>FRAC STG #10] WHP=1,198#, BRK DN PERFS=3,960#, @=4.7 BPM, INJ RT=49.7, INJ PSI=6,114#, INITIAL ISIP=2,059#, INITIAL FG=.73, FINAL ISIP=2,041#, FINAL FG=.73, AVERAGE RATE=47.9, AVERAGE PRESSURE=5,439#, MAX RATE=49.8, MAX PRESSURE=6,523#, NET PRESSURE INCREASE=-18#, 15/24 63% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #11] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,737', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #11] WHP=1,770#, BRK DN PERFS=3,357#, @=3.5 BPM, INJ RT=49.9, INJ PSI=5,649#, INITIAL ISIP=1,701#, INITIAL FG=.70, FINAL ISIP=1,975#, FINAL FG=.74, AVERAGE RATE=49.6, AVERAGE PRESSURE=4,630#, MAX RATE=50.2, MAX PRESSURE=6,068#, NET PRESSURE INCREASE=274#, 15/21 71% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #12] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,429', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW, [SET PLUG BOTTOM 3 GUNS SHOT, TOP TWO DID NOT POOH FIX PROBLEM, SHOOT REMAINING INTERVALS]</p> <p>FRAC STG #12] WHP=640#, BRK DN PERFS=2,025#, @=3.5 BPM, INJ RT=50, INJ PSI=5,415#, INITIAL ISIP=984#, INITIAL FG=.59, FINAL ISIP=1,370#, FINAL FG=.65, AVERAGE RATE=50.2, AVERAGE PRESSURE=5,373#, MAX RATE=52.4, MAX PRESSURE=5,987#, NET PRESSURE INCREASE=386#, 14/21 67% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #13] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,158', WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #13] WHP=1,050#, BRK DN PERFS=1,451#, @=4.5 BPM, INJ RT=52.4, INJ PSI=4,392#, INITIAL ISIP=1,040#, INITIAL FG=.61, FINAL ISIP=1,328#, FINAL FG=.66, AVERAGE RATE=52, AVERAGE PRESSURE=4,522#, MAX RATE=52.4, MAX PRESSURE=4,971#, NET PRESSURE INCREASE=288#, 14/21 75% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>P/U RIH W/HALIBURTON 8K CBP, SET FOR TOP KILL</p>

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-3601CS BLUE

Spud Date: 6/22/2012

Project: UTAH-UINTAH

Site: MORGAN STATE 921-360 PAD

Rig Name No: ROCKY MOUNTAIN WELL SERVICE
3/3

Event: COMPLETION

Start Date: 11/20/2012

End Date: 12/12/2012

Active Datum: RKB @5,037.00usft (above Mean Sea Level)

UWI: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1207/E/0/2160/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								@=5,942'
								TOTAL FLUID PUMP'D=16,031 BBLS TOTAL SAND PUMP'D=391,356#
12/11/2012	13:00 - 17:00	4.00	DRLOUT	31	I	P		MIRU, NDWH, NIBOP, PU 3 7/8" BIT & POBS W/ XN SN, RIH W/ 101 JTS 2 3/8" L-80 TO 3,200', SW, WINTERIZE EQUIP, SDFN
12/12/2012	7:00 - 7:15	0.25	DRLOUT	48		P		HSM-JSA

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36O1CS BLUE

Spud Date: 6/22/2012

Project: UTAH-UINTAH

Site: MORGAN STATE 921-360 PAD

Rig Name No: ROCKY MOUNTAIN WELL SERVICE
3/3

Event: COMPLETION

Start Date: 11/20/2012

End Date: 12/12/2012

Active Datum: RKB @5,037.00usft (above Mean Sea Level)

UWM: SW/SE/0/9/S/21/E/36/0/0/26/PM/S/1207/E/0/2160/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	DRLOUT	44	C	P		<p>CONT TO PU TBG RIH TAG FILL @ 5,917', RU PWR SWWL, BRK CIRC, PRESS TEST BOP TO 3,000 PSI, LOST 0 PSI IN 15 MIN.</p> <p>C/O 25' SAND TAG PLUG #1 @ 5,942', DRL HAL 8K CBP IN 10 MIN, 300 PSI INC, FCP 25 PSI, RIH TAG FILL @ 6,143'.</p> <p>C/O 15' SAND TAG PLUG #2 @ 6,158', DRL HAL 8K CBP IN 12 MIN, 50 PSI INC, FCP 25 PSI, RIH TAG FILL @ 6,399'.</p> <p>C/O 30' SAND TAG PLUG #3 @ 6,429', DRL HAL 8K CBP IN 11 MIN, 400 PSI INC, FCP 50 PSI, RIH TAG FILL @ 6,647'.</p> <p>C/O 90' SAND TAG PLUG #4 @ 6,737', DRL HAL 8K CBP IN 7 MIN, 100 PSI INC, FCP 50 PSI, RIH TAG FILL @ 7,034'.</p> <p>C/O 75' SAND TAG PLUG #5 @ 7,109', DRL HAL 8K CBP IN 15 MIN, 400 PSI INC, FCP 150 PSI, RIH TAG FILL @ 7,343'.</p> <p>C/O 15' SAND TAG PLUG #6 @ 7,358', DRL HAL 8K CBP IN 11 MIN, 700 PSI INC, FCP 200 PSI, RIH TAG FILL @ 7,520'.</p> <p>C/O 20' SAND TAG PLUG #7 @ 7,540', DRL HAL 8K CBP IN 7 MIN, 600 PSI INC, FCP 200 PSI, RIH TAG FILL @ 7,749'.</p> <p>C/O 15' SAND TAG PLUG #8 @ 7,764', DRL HAL 8K CBP IN 6 MIN, 250 PSI INC, FCP 250 PSI, RIH TAG FILL @ 8,047'.</p> <p>C/O 10' SAND TAG PLUG #9 @ 8,057', DRL HAL 8K CBP IN 5 MIN, 450 PSI INC, FCP 300 PSI, RIH TAG FILL @ 8,353'.</p> <p>C/O 25' SAND TAG PLUG #10 @ 8,378', DRL HAL 8K CBP IN 9 MIN, 600 PSI INC, FCP 400 PSI, RIH TAG FILL @ 8,596'.</p> <p>C/O 25' SAND TAG PLUG #11 @ 8,621', DRL HAL 8K CBP IN 10 MIN, 250 PSI INC, FCP 400 PSI, RIH TAG FILL @ 8,777'.</p> <p>C/O 20' SAND TAG PLUG #12 @ 8,797', DRL HAL 8K CBP IN 12 MIN, 300 PSI INC, FCP 500 PSI, RIH TAG FILL @ 8,984'.</p> <p>C/O 40' SAND TAG PLUG #13 @ 9,024', DRL HAL 8K CBP IN 11 MIN, 500 PSI INC, FCP 600 PSI, RIH TAG FILL @ 9,268'.</p>

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-3601CS BLUE		Spud Date: 6/22/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-360 PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION		Start Date: 11/20/2012	End Date: 12/12/2012
Active Datum: RKB @5,037.00usft (above Mean Sea Level)		UWI: SW/SE/0/9/S/21/E/38/0/0/26/PM/S/1207/E/0/2160/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	17:00 - 17:00	0.00	DRLOUT	50				<p>C/O 90' SAND TO PBTD @ 9,358', CIRC CLEAN, RD PWR SWVL, POOH LD 18 JTS TBG, LAND TBG W/ 276 JTS 2 3/8" L-80, EOT @ 8,764.28', RD FLOOR & TBG EQUIP, NDBOP, NUWH, DROP BALL POBS @ 2,300 PSI, PRESS TEST FLOWLINE BETWEEN HAL 9,000 & WELLHEAD TO 3,000 PSI, LET BIT FALL 20 MIN TURN OVER TO FBC, WINTERIZE EQUIP, SDFN</p> <p>KB-26' HANGER-.83' 276 JTS 2 3/8" L-80-8,735.25' POBS W/ XN SN-2.20' EOT @ 8,764.28'</p> <p>TWTR=16,391 BBLS TWR=3,632 BBLS TWLTR=12,759 BBLS WELL TURNED TO SALES @ 1720 HR ON 12/12/2012. 2000 MCFD, 1560 BWPD, FCP 2000#, FTP 2100#, 20/64" CK.</p>

Site: UINTAH MORGAN STATE 921-360 PAD
 Well: MORGAN STATE 921-3601CS
 Wellbore: MORGAN STATE 921-3601CS
 Section:
 SHL:
 Design: MORGAN STATE 921-3601CS (wp01)
 Latitude: 39.988758
 Longitude: -109.497683
 GL: 5011.00
 KB: 26' RKB + 5011' GL @ 5037.00ft (H&P 298)

TVDPATH	MDPath	Formation
4535.00	4570.06	WASATCH
5135.00	5170.07	TOP OF CYLINDER
7157.00	7192.09	MESAVERDE
9362.00	9397.11	SEGO

WELL DETAILS: MORGAN STATE 921-3601CS

+N/-S	+E/-W	Northing	Ground Level: Easting	5011.00 Latitude	Longitude	Slot
0.00	0.00	14525496.63	2061230.50	39.988758	-109.497683	

CASING DETAILS

TVD	MD	Name	Size
2531.57	2560.01	8-5/8	8-5/8

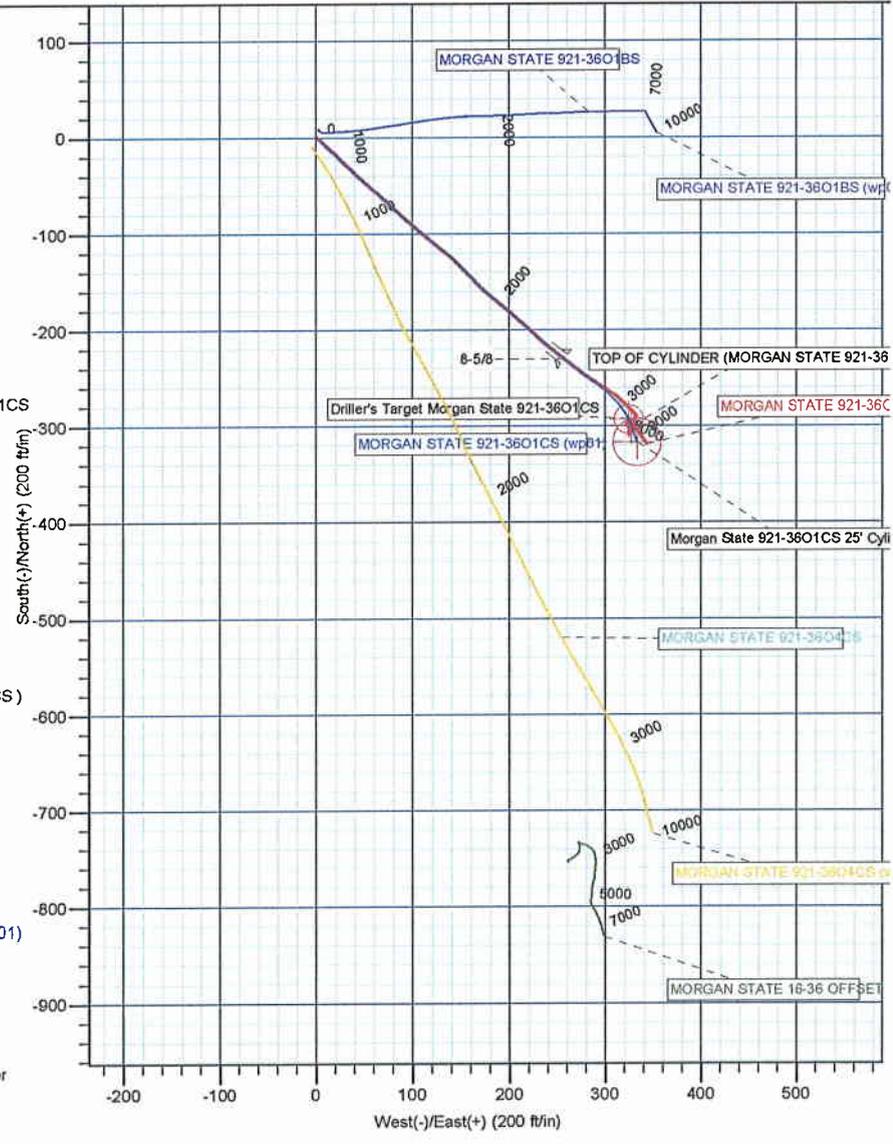
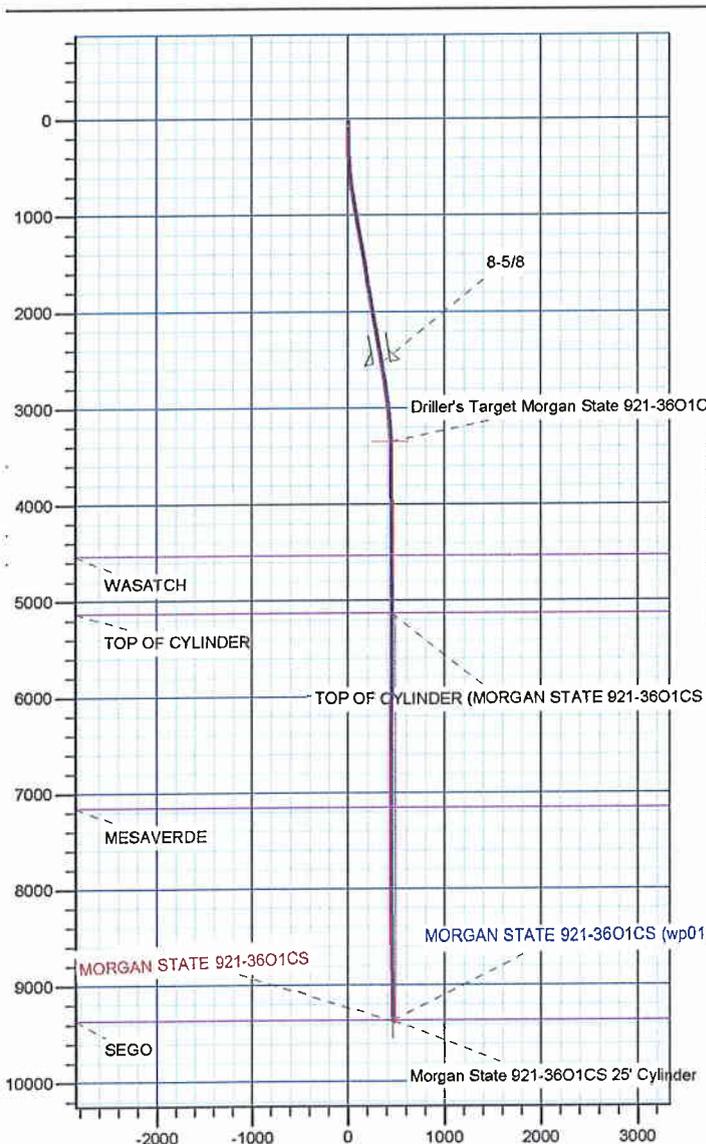
Azimuths to True North
 Magnetic North: 10.9
 Magnetic File
 Strength: 52216.0sr
 Dip Angle: 65.8
 Date: 7/12/201
 Model: IGRF201

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Driller's Target Morgan State 921-3601CS	3348.80	-292.90	324.60	14525209.23	2061560.00	39.987954	-109.496524	Circle (Radius: 15.00)
TOP OF CYLINDER (MORGAN STATE 921-3601CS)	5135.00	-299.80	327.17	14525202.39	2061562.68	39.987935	-109.496515	Point
Morgan State 921-3601CS 25' Cylinder	9362.00	-316.49	333.40	14525185.80	2061569.19	39.987889	-109.496493	Circle (Radius: 25.00)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
2561.00	9.85	127.14	2532.55	-230.31	257.40	0.00	0.00	345.24
2821.00	9.85	127.14	2788.71	-257.16	292.86	0.00	0.00	389.45
3383.86	0.00	160.91	3348.80	-292.90	324.60	1.82	163.60	437.07
3464.37	0.24	159.55	3429.32	-293.06	324.66	0.30	159.55	437.23
9397.11	0.24	159.55	9362.00	-316.49	333.40	0.00	0.00	459.70



US ROCKIES REGION PLANNING

**UTAH - UTM (feet), NAD27, Zone 12N
UINTAH_MORGAN STATE 921-360 PAD
MORGAN STATE 921-3601CS**

MORGAN STATE 921-3601CS

Design: MORGAN STATE 921-3601CS

Standard Survey Report

13 August, 2012

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well MORGAN STATE 921-36O1CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	26' RKB + 5011' GL @ 5037.00ft (H&P 298)
Site:	UINTAH_MORGAN STATE 921-36O PAD	MD Reference:	26' RKB + 5011' GL @ 5037.00ft (H&P 298)
Well:	MORGAN STATE 921-36O1CS	North Reference:	True
Wellbore:	MORGAN STATE 921-36O1CS	Survey Calculation Method:	Minimum Curvature
Design:	MORGAN STATE 921-36O1CS	Database:	edmp

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

Site	UINTAH_MORGAN STATE 921-36O PAD				
Site Position:		Northing:	14,525,505.80 usft	Latitude:	39.988783
From:	Lat/Long	Easting:	2,061,233.99 usft	Longitude:	-109.497670
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.97 °

Well	MORGAN STATE 921-36O1CS					
Well Position	+N/-S	0.00 ft	Northing:	14,525,496.63 usft	Latitude:	39.988758
	+E/-W	0.00 ft	Easting:	2,061,230.50 usft	Longitude:	-109.497683
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,011.00 ft

Wellbore	MORGAN STATE 921-36O1CS				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	7/12/2012	(°)	(°)	(nT)
			10.93	65.83	52,216

Design	MORGAN STATE 921-36O1CS				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	17.00
Vertical Section:		Depth From (TVD)	+N/-S	+E/-W	Direction
		(ft)	(ft)	(ft)	(°)
		0.00	0.00	0.00	132.82

Survey Program	Date 8/13/2012				
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
248.00	2,561.00	Survey #1 (MORGAN STATE 921-36O1CS)	MWD	MWD - STANDARD	
2,654.00	9,415.00	Survey #2 (MORGAN STATE 921-36O1CS)	MWD	MWD - STANDARD	

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(ft)	(ft)	Section	Rate	Rate	Rate	
(ft)			(ft)			(ft)	(°/100usft)	(°/100usft)	(°/100usft)	
17.00	0.00	0.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
248.00	0.26	90.92	248.00	-0.01	0.52	0.39	0.11	0.11	0.00	
339.00	1.06	118.70	338.99	-0.42	1.47	1.36	0.92	0.88	30.53	
429.00	2.39	131.21	428.95	-2.05	3.61	4.04	1.53	1.48	13.90	
522.00	4.57	133.55	521.77	-5.88	7.76	9.69	2.35	2.34	2.52	
617.00	6.60	134.87	616.32	-12.34	14.37	18.93	2.14	2.14	1.39	
711.00	8.44	133.90	709.50	-20.94	23.17	31.23	1.96	1.96	-1.03	
801.00	9.41	132.85	798.41	-30.52	33.32	45.19	1.09	1.08	-1.17	
900.00	10.46	132.23	895.93	-42.07	45.91	62.27	1.07	1.06	-0.63	
995.00	10.46	129.68	989.35	-53.37	58.93	79.50	0.49	0.00	-2.68	

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well MORGAN STATE 921-36O1CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	26' RKB + 5011' GL @ 5037.00ft (H&P 298)
Site:	UINTAH_MORGAN STATE 921-36O PAD	MD Reference:	26' RKB + 5011' GL @ 5037.00ft (H&P 298)
Well:	MORGAN STATE 921-36O1CS	North Reference:	True
Wellbore:	MORGAN STATE 921-36O1CS	Survey Calculation Method:	Minimum Curvature
Design:	MORGAN STATE 921-36O1CS	Database:	edmp

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,087.00	9.67	133.20	1,079.93	-63.99	70.99	95.57	1.09	-0.86	3.83	
1,183.00	9.85	133.64	1,174.54	-75.18	82.81	111.84	0.20	0.19	0.46	
1,279.00	10.55	131.79	1,269.03	-86.70	95.31	128.84	0.80	0.73	-1.93	
1,372.00	9.50	132.32	1,360.61	-97.54	107.33	145.02	1.13	-1.13	0.57	
1,466.00	9.58	129.60	1,453.31	-107.75	119.09	160.59	0.49	0.09	-2.89	
1,558.00	9.76	128.28	1,544.00	-117.46	131.11	176.01	0.31	0.20	-1.43	
1,651.00	8.88	131.88	1,635.77	-127.14	142.65	191.04	1.13	-0.95	3.87	
1,745.00	9.32	137.68	1,728.59	-137.61	153.17	205.88	1.08	0.47	6.17	
1,837.00	9.94	135.49	1,819.29	-148.78	163.75	221.24	0.78	0.67	-2.38	
1,932.00	9.97	132.07	1,912.86	-160.14	175.61	237.65	0.62	0.03	-3.60	
2,027.00	9.50	128.63	2,006.50	-170.54	187.84	253.69	0.79	-0.49	-3.62	
2,121.00	9.67	130.65	2,099.18	-180.53	199.89	269.32	0.40	0.18	2.15	
2,214.00	9.85	132.58	2,190.84	-191.00	211.67	285.08	0.40	0.19	2.08	
2,308.00	10.38	133.64	2,283.38	-202.28	223.72	301.59	0.60	0.56	1.13	
2,403.00	9.94	130.65	2,376.89	-213.53	236.13	318.34	0.72	-0.46	-3.15	
2,496.00	9.85	127.31	2,468.51	-223.58	248.55	334.28	0.62	-0.10	-3.59	
2,561.00	9.85	127.14	2,532.55	-230.31	257.40	345.34	0.04	0.00	-0.26	
LAST SDI SURVEY - TIE ON										
2,654.00	8.81	126.84	2,624.32	-239.38	269.45	360.34	1.12	-1.12	-0.32	
FIRST MWD SURVEY										
2,749.00	8.13	125.71	2,718.28	-247.66	280.72	374.24	0.74	-0.72	-1.19	
2,843.00	7.56	123.71	2,811.40	-254.97	291.26	386.94	0.67	-0.61	-2.13	
2,938.00	7.06	122.46	2,905.63	-261.58	301.39	398.86	0.55	-0.53	-1.32	
3,033.00	6.50	127.09	2,999.96	-267.95	310.60	409.95	0.82	-0.59	4.87	
3,127.00	5.75	133.21	3,093.43	-274.38	318.28	419.95	1.06	-0.80	6.51	
3,222.00	4.50	132.46	3,188.05	-280.16	324.50	428.44	1.32	-1.32	-0.79	
3,316.00	2.94	134.59	3,281.84	-284.34	328.94	434.54	1.67	-1.66	2.27	
3,410.00	1.94	145.21	3,375.76	-287.34	331.56	438.50	1.16	-1.06	11.30	
3,505.00	1.06	197.71	3,470.73	-289.50	332.21	440.44	1.63	-0.93	55.26	
3,599.00	1.31	187.59	3,564.71	-291.39	331.80	441.43	0.35	0.27	-10.77	
3,694.00	0.44	235.09	3,659.70	-292.68	331.36	441.98	1.12	-0.92	50.00	
3,788.00	0.50	226.59	3,753.69	-293.17	330.77	441.88	0.10	0.06	-9.04	
3,883.00	0.75	199.96	3,848.69	-294.03	330.25	442.09	0.40	0.26	-28.03	
3,977.00	0.81	202.21	3,942.68	-295.23	329.79	442.57	0.07	0.06	2.39	
4,071.00	1.06	177.46	4,036.67	-296.71	329.58	443.42	0.50	0.27	-26.33	
4,166.00	0.19	280.58	4,131.66	-297.56	329.46	443.91	1.18	-0.92	108.55	
4,260.00	0.13	191.71	4,225.66	-297.64	329.29	443.83	0.24	-0.06	-94.54	
4,354.00	0.31	185.46	4,319.66	-297.99	329.24	444.04	0.19	0.19	-6.65	
4,449.00	0.69	183.71	4,414.66	-298.82	329.18	444.56	0.40	0.40	-1.84	
4,543.00	1.00	170.84	4,508.65	-300.20	329.28	445.56	0.38	0.33	-13.69	
4,638.00	0.88	168.71	4,603.63	-301.73	329.55	446.81	0.13	-0.13	-2.24	
4,732.00	1.00	179.34	4,697.62	-303.26	329.70	447.96	0.22	0.13	11.31	
4,827.00	0.63	263.71	4,792.61	-304.14	329.19	448.19	1.19	-0.39	88.81	

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well MORGAN STATE 921-3601CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	26' RKB + 5011' GL @ 5037.00ft (H&P 298)
Site:	UINTAH_MORGAN STATE 921-360 PAD	MD Reference:	26' RKB + 5011' GL @ 5037.00ft (H&P 298)
Well:	MORGAN STATE 921-3601CS	North Reference:	True
Wellbore:	MORGAN STATE 921-3601CS	Survey Calculation Method:	Minimum Curvature
Design:	MORGAN STATE 921-3601CS	Database:	edmp

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,921.00	0.63	231.46	4,886.61	-304.52	328.27	447.77	0.37	0.00	-34.31
5,016.00	0.75	211.59	4,981.60	-305.38	327.54	447.81	0.28	0.13	-20.92
5,110.00	0.69	213.96	5,075.60	-306.37	326.90	448.02	0.07	-0.06	2.52
5,205.00	0.69	195.84	5,170.59	-307.40	326.43	448.37	0.23	0.00	-19.07
5,299.00	0.88	182.34	5,264.58	-308.66	326.24	449.09	0.28	0.20	-14.36
5,393.00	0.38	246.59	5,358.57	-309.51	325.93	449.44	0.84	-0.53	68.35
5,488.00	0.69	343.21	5,453.57	-309.08	325.47	448.81	0.87	0.33	101.71
5,582.00	1.25	355.84	5,547.56	-307.52	325.23	447.58	0.63	0.60	13.44
5,677.00	1.13	4.96	5,642.54	-305.55	325.24	446.24	0.24	-0.13	9.60
5,771.00	0.75	14.59	5,736.52	-304.03	325.47	445.38	0.44	-0.40	10.24
5,866.00	0.63	30.46	5,831.52	-302.98	325.90	444.98	0.24	-0.13	16.71
5,960.00	0.50	37.09	5,925.51	-302.21	326.41	444.83	0.15	-0.14	7.05
6,055.00	0.75	353.46	6,020.51	-301.26	326.58	444.31	0.55	0.26	-45.93
6,150.00	0.56	351.71	6,115.50	-300.18	326.45	443.48	0.20	-0.20	-1.84
6,244.00	0.50	353.21	6,209.50	-299.32	326.33	442.81	0.07	-0.06	1.60
6,338.00	0.25	18.09	6,303.50	-298.72	326.35	442.41	0.31	-0.27	26.47
6,433.00	0.25	87.09	6,398.50	-298.51	326.62	442.47	0.30	0.00	72.63
6,528.00	0.31	133.71	6,493.49	-298.68	327.01	442.87	0.24	0.06	49.07
6,622.00	0.69	274.96	6,587.49	-298.81	326.63	442.68	1.01	0.40	150.27
6,717.00	0.50	268.21	6,682.49	-298.77	325.65	441.93	0.21	-0.20	-7.11
6,811.00	0.38	238.59	6,776.48	-298.94	324.97	441.56	0.27	-0.13	-31.51
6,906.00	0.38	184.84	6,871.48	-299.42	324.68	441.66	0.36	0.00	-56.58
7,000.00	0.31	174.59	6,965.48	-299.99	324.67	442.05	0.10	-0.07	-10.90
7,095.00	0.50	169.46	7,060.48	-300.65	324.77	442.57	0.20	0.20	-5.40
7,189.00	0.56	326.46	7,154.48	-300.67	324.59	442.45	1.11	0.06	167.02
7,283.00	0.81	323.33	7,248.47	-299.75	323.94	441.35	0.27	0.27	-3.33
7,378.00	0.50	327.84	7,343.46	-298.86	323.32	440.29	0.33	-0.33	4.75
7,472.00	0.25	357.84	7,437.46	-298.31	323.10	439.75	0.33	-0.27	31.91
7,567.00	0.38	42.59	7,532.46	-297.87	323.30	439.60	0.28	0.14	47.11
7,661.00	0.69	358.09	7,626.46	-297.08	323.49	439.20	0.53	0.33	-47.34
7,756.00	0.75	11.34	7,721.45	-295.90	323.60	438.48	0.19	0.06	13.95
7,850.00	0.75	47.96	7,815.44	-294.88	324.18	438.21	0.50	0.00	38.96
7,944.00	0.94	64.96	7,909.43	-294.14	325.33	438.56	0.33	0.20	18.09
8,039.00	0.06	356.84	8,004.43	-293.76	326.03	438.81	0.97	-0.93	-71.71
8,134.00	0.00	29.21	8,099.43	-293.71	326.03	438.78	0.06	-0.06	0.00
8,323.00	0.63	146.09	8,288.42	-294.58	326.61	439.79	0.33	0.33	0.00
8,606.00	0.94	142.84	8,571.40	-297.72	328.88	443.59	0.11	0.11	-1.15
8,889.00	1.69	145.09	8,854.32	-302.99	332.67	449.95	0.27	0.27	0.80
9,361.00	2.31	144.84	9,326.03	-316.47	342.13	466.06	0.13	0.13	-0.05
LAST MWD SURVEY									
9,415.00	2.31	144.84	9,379.99	-318.25	343.39	468.19	0.00	0.00	0.00
PROJECTION TO TD									

Anadarko Petroleum Corp

Survey Report

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_MORGAN STATE 921-36O PAD
Well: MORGAN STATE 921-36O1CS
Wellbore: MORGAN STATE 921-36O1CS
Design: MORGAN STATE 921-36O1CS

Local Co-ordinate Reference: Well MORGAN STATE 921-36O1CS
TVD Reference: 26' RKB + 5011' GL @ 5037.00ft (H&P 298)
MD Reference: 26' RKB + 5011' GL @ 5037.00ft (H&P 298)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: edmp

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,561.00	2,532.55	-230.31	257.40	LAST SDI SURVEY
2,561.00	2,532.55	-230.31	257.40	TIE ON
2,654.00	2,624.32	-239.38	269.45	FIRST MWD SURVEY
9,361.00	9,326.03	-316.47	342.13	LAST MWD SURVEY
9,415.00	9,379.99	-318.25	343.39	PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____