

RECEIVED

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APR 23 2009

APPLICATION FOR PERMIT TO DRILL OR REE

Bureau of Land Management
Farmington Field Office

5. Lease Serial No.
NMSF-078765
6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

Rosa Unit NMNM-78407A-MV

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

8. Lease Name and Well No.

180D

2. Name of Operator

Williams Production Company, LLC

9. API Well No.

30-045-34988

3a. Address

P.O. Box 640 Aztec, NM 87410

3b. Phone No. (include area code)

(505) 634-4208

10. Field and Pool, or Exploratory

Basin Mancos/Blanco Mesaverde/Basin Dakota

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface 935' FSL & 1935' FWL

At proposed prod. zone 2300' FSL & 1800' FWL

11. Sec., T., R., M., or Blk. and Survey or Area

Section 9, 31N, 6W

14. Distance in miles and direction from nearest town or post office*

approximately 30 miles northeast of Blanco, New Mexico

12. County or Parish

San Juan

13. State

NM

15. Distance from proposed*

location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)

935'

16. No. of Acres in lease

2,460.23

17. Spacing Unit dedicated to this well

320.0 - (W/2)

RCVD JUN 9 2009
OIL CONS. DIV.

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.

200' Rosa 80

19. Proposed Depth

8,426'

20. BLM/BIA Bond No. on file

UT08499

DIST. 3

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

6,402' GR

22. Approximate date work will start*

April 1, 2009

23. Estimated duration

1 month

24. Attachments

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

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

Larry Higgins

Name (Printed/Typed)

Larry Higgins

Date

4-23-09

Title

Drilling COM

Approved by (Signature)

D. Mancoske
AFM

Name (Printed/Typed)

Office

FFO

Date

6/5/09

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

Conditions of approval, if any, are attached.

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

*(Instructions on reverse)

Williams Production Company, LLC, proposes to develop the Basin Mancos, Blanco Mesaverde, and Basin Dakota formations at the above described location in accordance with the attached drilling and surface use plans.

The well pad surface is under jurisdiction of the Bureau of Land Management, Farmington Field Office (BLM/FFO).

Hold C104
for Directional Survey
and "As Drilled" plat

This location has been archaeologically surveyed by La Plata Archaeological Consultants. Copies of their report have been submitted directly to the BLM.

No new access road will be required for this proposed well

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

NMOCOD

JUN 10 2009

This action is subject to technical and procedural review pursuant to 43 CFR 3165.9 and appeal pursuant to 43 CFR 3165.4

NMOCOD

AV

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

District I
1625 N French Dr., Hobbs, NM 88240

District II
1301 W Grand Avenue, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
1220 S St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

APR 23 2009

Form C-102
Revised October 12, 2005
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

Bureau of Land Management
Farmington Field Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30045-34988	² Pool Code 97232 / 72319 / 71599	³ Pool Name BASIN MANCOS / BLANCO MESAVERDE / BASIN DAKOTA
⁴ Property Code 17033	⁵ Property Name ROSA UNIT	⁶ Well Number 180D
⁷ OGRID No. 120782	⁸ Operator Name WILLIAMS PRODUCTION COMPANY	⁹ Elevation 6402'

¹⁰ Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	9	31N	6W		935	SOUTH	1935	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	9	31N	6W		2300	SOUTH	1800	WEST	SAN JUAN

¹² Dedicated Acres 320.0 Acres - (W/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No R-13123
--	-------------------------------	----------------------------------	-----------------------------------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16 5270.76' LEASE SF-078765 5280.00' 1800' 2300' 1935' 2638.68' 935' 5280.00' 9 BOTTOM-HOLE LAT: 36.91316°N LONG: 107.47105°W DATUM: NAD1983 SURFACE LOCATION LAT: 36.90940°N LONG: 107.47059°W DATUM: NAD1983	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Larry Higgins</i> 4-23-09 Signature Date LARRY HIGGINS Printed Name ¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey: MARCH 16, 2009 Signature and Seal of Professional Surveyor  JASON C. EDWARDS Certificate Number 15269
--	---



WILLIAMS PRODUCTION COMPANY

Operations Plan

(Note: This procedure will be adjusted on site based upon actual conditions)

DATE: 4/21/2009 **FIELD:** Basin DK/ Basin MN/BlancoMV
WELL NAME: Rosa #180D **SURFACE:** BLM
BH LOCATION: NESW Sec 9-31N-6W **MINERALS:** BLM
San Juan, NM
ELEVATION: 6,402' GR **LEASE #** SF-078765
MEASURED DEPTH: 8,426'

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

Name	TVD	MD	Name	TVD	MD
Ojo Alamo	2,366	2,669	Menefee	5,466	5,821
Kirtland	2,481	2,797	Point Lookout	5,696	6,051
Fruitland	2,931	3,277	Mancos	6,001	6,356
Pictured Cliffs	3,211	3,564	Gallup	7,026	7,381
Lewis	3,506	3,861	Greenhorn	7,746	8,101
Cliff House	5,421	5,776	Graneros	7,806	8,161
			Dakota	7,936	8,291
			TD	8,071	8,426

- B. MUD LOGGING PROGRAM:** Mudlogger on location from intermediate csg to TD. Mud logger to pick TD.
- C. LOGGING PROGRAM:** HRI/Temp from intermediate casing to TD. SDL\DSN over zones of interest.
- D. NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

- A. MUD PROGRAM:** Clear water with benex to 7-5/8" casing point. Convert to a LSND mud to log and run pipe. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Use air w/Air Hammer from 7-5/8in. csg.to TD.
- B. BOP TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

III. MATERIALS**A. CASING PROGRAM:**

CASING TYPE	OH SIZE (IN)	DEPTH (MD) (FT)	CASING SIZE (IN)	WEIGHT(LB)	GRADE
Surface	14 3/4	300	10 3/4	40.5	K-55
Intermediate	9 7/8	4,041	7 5/8	26.4	K-55
Longstring	6 3/4	8,426	5 1/2	17	N-80

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 10 3/4" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. INTERMEDIATE CASING: 7 5/8" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (NTL-FRA 90-1).
3. PRODUCTION LINER / CASING: 5-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place marker joint above 5,400'. Place centralizers as needed across selected production intervals.

C. CEMENTING:

(Note: Volumes may be adjusted onsite due to actual conditions)

1. SURFACE: Slurry: 290sx (521 cu.ft.) of "Type III" + 2% Cal-Seal 60 + 1/4 # of poly-e-flake/sk + 0.3% Versaset + 2% Econolite + 6% Salt (Yield = 1.796 cu.ft./sk, Weight = 13.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.
2. INTERMEDIATE: Lead - 525 sx (1430 cu.ft.) of "EXTENDACEM" + 5 #/sk pheno-seal + 5% Cal-Seal 60 (Yield = 2.723 cu.ft./sk, Weight = 11.5 #/gal.). Tail - 100 sx (117.8cu.ft.) of Premium cement + 0.125 #/sk Poly-E-Flake, (Yield = 1.178 cu.ft./sk, Weight = 15.6#/gal.). **NO EXCESS PUMP AS WRITTEN SHOULD CIRCULATE TO SURFACE** Total volume = 1548 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface. *IF not circulated to surface run CBL TO determine T.O.C.*
3. PRODUCTION CASING: 10 bbl Gelled Water spacer. Cement: 325 sx (454 ft³) of "FRACCEN" + 0.8% Halad-9 + 0.1% CFR-3 + 5 #/sk Gilsonite + 0.125 #/sk Poly-E-Flake + 0.15% HR-800. (Yield = 1.398 ft³/sk, Weight = 13.1 #/gal.). Displace cement at a minimum of 8 BPM. **NO EXCESS SHOULD COVER 150 FEET INTO 7" CASING** Total volume (454) ft³. WOC 12 hours.

IV. IV COMPLETION**A. CBL**

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings if cement not circulated to surface..

B. PRESSURE TEST

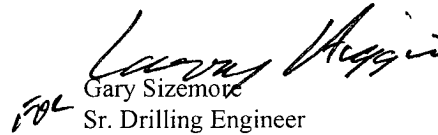
1. Pressure test 5-1/2" casing to 6000 psi max, hold at 1500 psi for 30 minutes.

C. STIMULATION

1. Stimulate Dakota with approximately 10,000# of LiteProp 108™ sand in slick water.
2. Isolate Dakota with a RBP.
3. Perforate Mancos as determined from the open hole logs
4. Stimulate Mancos with 3 stages of approximates 117,000# 40/70 white sand and 7500# 100 mesh white sand
5. Stimulate Point Lookout with approximately 9300# of 14/30 LiteProp™ in slick water.
6. Isolate Point Lookout with a RBP.
7. Perforate the Menefee/Cliff House as determined from the open hole logs.
8. Stimulate with approximately 9300# of 14/30 LiteProp™ in slick water.
9. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. Production Tubing: Run 2-3/8", 4.7#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforation


Gary Sizemore
Sr. Drilling Engineer



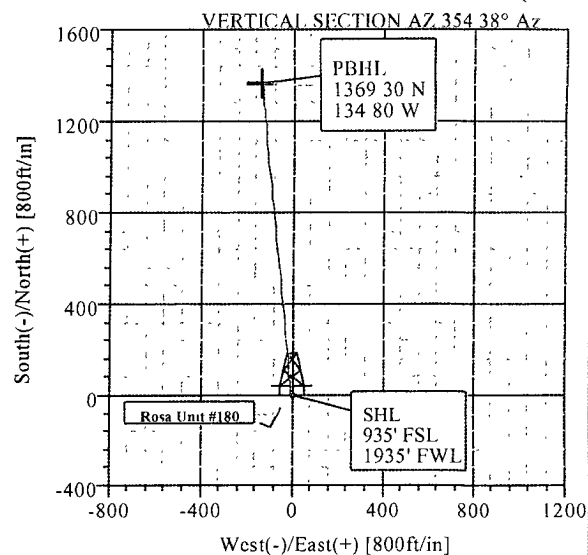
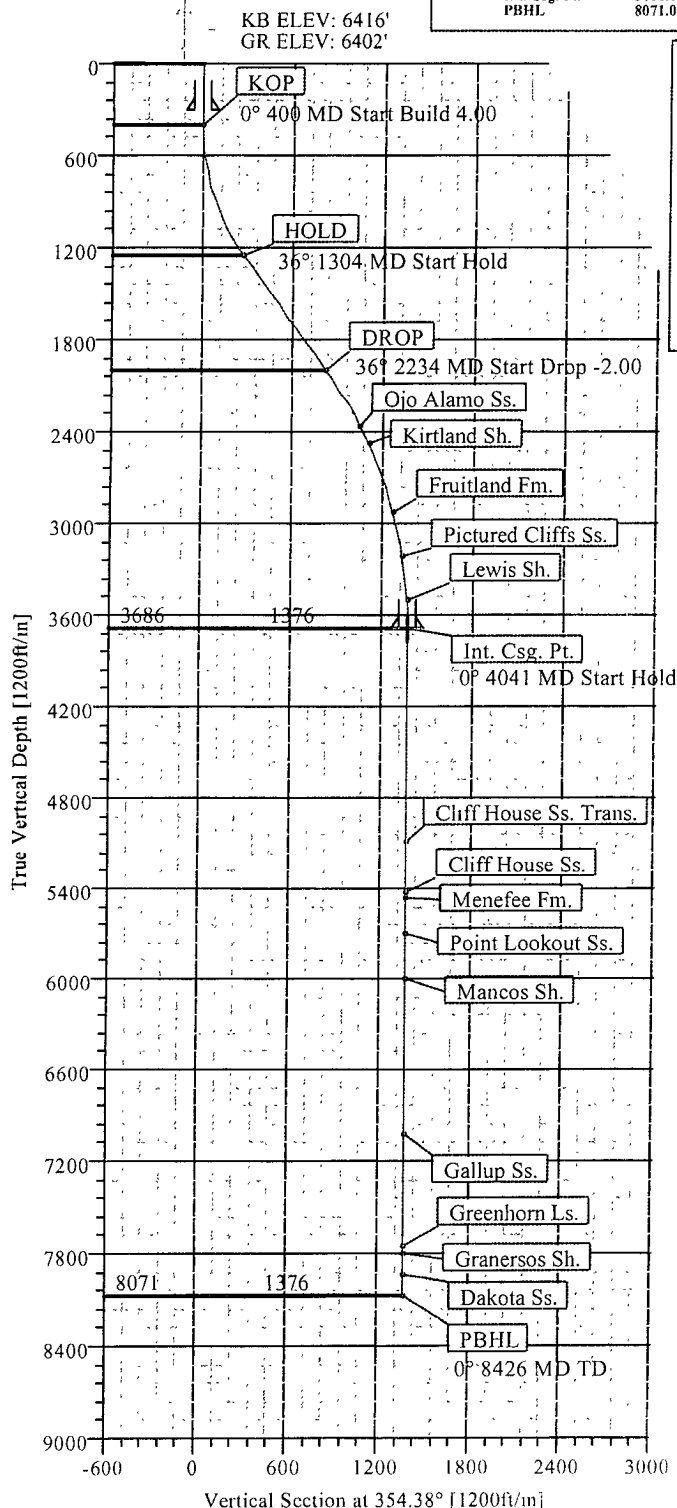
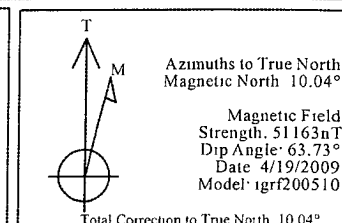
ROSA UNIT #180D
SAN JUAN CO., NEW MEXICO

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	354.38	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	354.38	400.00	0.00	0.00	0.00	0.00	0.00	
3	1303.63	36.15	354.38	1244.87	274.37	-27.01	4.00	354.38	275.70	
4	2234.10	36.15	354.38	1996.25	820.56	-80.78	0.00	0.00	824.52	
5	4041.36	0.00	354.38	3686.00	1369.30	-134.80	0.00	180.00	1375.92	Int. Csg. Pt.
6	8426.36	0.00	354.38	8071.00	1369.30	-134.80	0.00	354.38	1375.92	PBHL

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#180D	0.00	0.00	2150554.40	2829147.39	36°54'33.840N	107°28'14.120W	N/A

TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Int. Csg. Pt.	3686.00	1369.30	-134.80	2151923.18	2829007.38	36°54'47.380N	107°28'15.780W	Point
PBHL	8071.00	-2675.90	-134.82	2147878.00	2829022.74	36°54'07.380N	107°28'15.780W	Point

FORMATION TOP DETAILS			
No.	TVDPath	MDPath	Formation
1	2366.00	2669.53	Ojo Alamo Ss.
2	2481.00	2797.66	Kirtland Sh.
3	2931.00	3277.33	Fruitland Fm.
4	3211.00	3564.16	Pictured Cliffs Ss.
5	3506.00	3861.24	Lewis Sh.
6	5091.00	5446.36	Cliff House Ss. Trans.
7	5421.00	5776.36	Cliff House Ss.
8	5466.00	5821.36	Menefee Fm.
9	5696.00	6051.36	Point Lookout Ss.
10	6001.00	6356.36	Mancos Sh.
11	7026.00	7381.36	Gallup Ss.
12	7746.00	8101.36	Greenhorn Ls.
13	7806.00	8161.36	Graneros Sh.
14	7936.00	8291.36	Dakota Ss.



Weatherford

CASING DETAILS				
No.	TVD	MD	Name	Size
1	300.00	300.00	10 3/4"	10.750
2	3686.00	4041.36	7 5/8" Int. Csg.	0.000

Plan: Plan #1 (#180D/1)

Created By: Lindsey Maddux

Date: 4/20/2009



Weatherford International, Inc.

Proposal Plan Report



Weatherford

Company: WILLIAMS PRODUCTION
Field: San Juan County, NM (NAD 83)
Site: Rosa Unit #180D
Well: #180D
Wellpath: 1

Date: 4/20/2009 Time: 10:19:11 Page: 3
Co-ordinate(NE) Reference: Well: #180D, True North
Vertical (TVD) Reference: SITE 6416.0
Section (VS) Reference: Well (0.00N,0.00E,354.38Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	Build deg/100ft	Turn deg/100ft	DLS deg/100ft	TFO deg	Comment
6100.00	0.00	354.38	5744.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
6200.00	0.00	354.38	5844.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
6300.00	0.00	354.38	5944.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
6356.36	0.00	354.38	6001.00	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	Mancos Sh.
6400.00	0.00	354.38	6044.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
6500.00	0.00	354.38	6144.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
6600.00	0.00	354.38	6244.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
6700.00	0.00	354.38	6344.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
6800.00	0.00	354.38	6444.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
6900.00	0.00	354.38	6544.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
7000.00	0.00	354.38	6644.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
7100.00	0.00	354.38	6744.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
7200.00	0.00	354.38	6844.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
7300.00	0.00	354.38	6944.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
7381.36	0.00	354.38	7026.00	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	Gallup Ss
7400.00	0.00	354.38	7044.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
7500.00	0.00	354.38	7144.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
7600.00	0.00	354.38	7244.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
7700.00	0.00	354.38	7344.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
7800.00	0.00	354.38	7444.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
7900.00	0.00	354.38	7544.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
8000.00	0.00	354.38	7644.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
8100.00	0.00	354.38	7744.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
8101.36	0.00	354.38	7746.00	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	Greenhorn Ls
8161.36	0.00	354.38	7806.00	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	Graneros Sh
8200.00	0.00	354.38	7844.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
8291.36	0.00	354.38	7936.00	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	Dakota Ss.
8300.00	0.00	354.38	7944.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
8400.00	0.00	354.38	8044.64	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	
8426.36	0.00	354.38	8071.00	1369.30	-134.80	1375.92	0.00	0.00	0.00	354.38	PBHL

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
Int Csg Pt		3686.00	1369.30	-134.80	2151923.18	2829007.38	36	54	47.380 N	107	28	15.780 W
-Plan hit target												
PBHL		8071.00	-2675.90	-134.82	2147878.00	2829022.74	36	54	7.380 N	107	28	15.780 W
-Plan out by 4045 21 at		8071.00	1369.30	-134.80	2151923.18	2829007.38	36	54	47.380 N	107	28	15.780 W

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
2669.53	2366.00	Ojo Alamo Ss		0.00	0.00
2797.66	2481.00	Kirtland Sh.		0.00	0.00
3277.33	2931.00	Fruitland Fm		0.00	0.00
3564.16	3211.00	Pictured Cliffs Ss		0.00	0.00
3861.24	3506.00	Lewis Sh.		0.00	0.00
5446.36	5091.00	Cliff House Ss. Trans.		0.00	0.00
5776.36	5421.00	Cliff House Ss.		0.00	0.00
5821.36	5466.00	Menefee Fm.		0.00	0.00
6051.36	5696.00	Point Lookout Ss		0.00	0.00
6356.36	6001.00	Mancos Sh		0.00	0.00
7381.36	7026.00	Gallup Ss		0.00	0.00
8101.36	7746.00	Greenhorn Ls		0.00	0.00



Weatherford International, Inc.

Proposal Plan Report

**Weatherford**

Company: WILLIAMS PRODUCTION
Field: San Juan County, NM (NAD 83)
Site: Rosa Unit #180D
Well: #180D
Wellpath: 1

Date: 4/20/2009 **Time:** 10:19:11 **Page:** 4
Co-ordinate(NE) Reference: Well: #180D, True North
Vertical (TVD) Reference: SITE 6416.0
Section (VS) Reference: Well (0.00N,0.00E,354.38Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
8161.36	7806.00	Graneros Sh.		0.00	0.00
8291.36	7936.00	Dakota Ss.		0.00	0.00

Annotation

MD ft	TVD ft	
400.00	400.00	KOP
1303.63	1244.87	HOLD
2234.10	1996.25	DROP
4041.36	3686.00	Int. Csg. Pt
8426.36	8071.00	PBHL

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
300.00	300.00	10.750	12.250	10 3/4"
4041.36	3686.00	0.000	0.000	7 5/8" Int. Csg.

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Exhibit #1 Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)

