Form 3160-3
(September 2001)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

2005 DEC 21 AM 9 59

RECEIVED
070 FARMINGTON NM

5. Lease Serial No. NM03189	
6. If Indian, Allottee or Tribe Name	
1a. Type of Work: ☒ DRILL ☐ REENTER	7. If Unit or CA Agreement, Name and No. Cox Canyon Unit MV-NMNM-078384
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other Single Zone ☐ Multiple Zone	8. Lease Name and Well No. Cox Canyon #5C
2. Name of Operator Williams Production Company, LLC	9. API Well No. 30-045-33193
3a. Address P.O. Box 640, Aztec, NM 87410	3b. Phone No. *(include area code)* (505) 634-4208
4. Location of Well *(Report location clearly and in accordance with any State requirements. *)* At surface 1505 FNL & 2045 FWL At proposed prod. zone same	10. Field and Pool, or Exploratory Blanco MV/Basin DK
	11. Sec., T., R., M., or Blk. and Survey or Area F Sec 21, T32N, R11W
14. Distance in miles and direction from nearest town or post office* Approximately 8 miles northwest of Aztec, NM	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) 1505'	16. No. of Acres in lease 320	17. Spacing Unit dedicated to this well 320 (W/2)
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 100'	19. Proposed Depth 8364' GR	20. BLM/BIA Bond No. on file ~~B001576~~ UTB000178
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6900' GR	22. Approximate date work will start* March 1, 2006	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 12-20-05
Title Drilling COM		
Approved by *(Signature)* Matthew Mancuso	Name *(Printed/Typed)*	Date 8/28/06
Title AFM	Office FFO	

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

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

**(Instructions on reverse)*

Williams Production Company, LLC, proposes to drill a vertical well to develop the Blanco Mesa Verde and Basin Dalota formations at the above described location in accordance with the attached drilling and surface use plans. This LOCATION HAS BEEN BUILT UNDER PREVIOUS APPROVED PERMIT, API #30-045-31176.

The surface is located on Bureau of Land Management lands.

This location has been archaeologically surveyed by ICA. Copies of their report has been sent and reviewed at the FFO. Copies are available.

1049 foot pipeline tie would be required for this location and it is also located on BLM lands.

No new access road will be needed to access this well.

CONDITIONS OF APPROVAL ARE ATTACHED

Pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

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

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

2005 DEC 21 AM 9 59

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070 FARMINGTON NM

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-33493	72319 / 71599	BLANCO MESAVERDE / BASIN DAKOTA

[4] Property Code	[5] Property Name	[6] Well Number
17036	COX CANYON UNIT	5C

[7] OGRID No.	[8] Operator Name	[9] Elevation
120782	WILLIAMS PRODUCTION COMPANY	6900'

[10] Surface Location

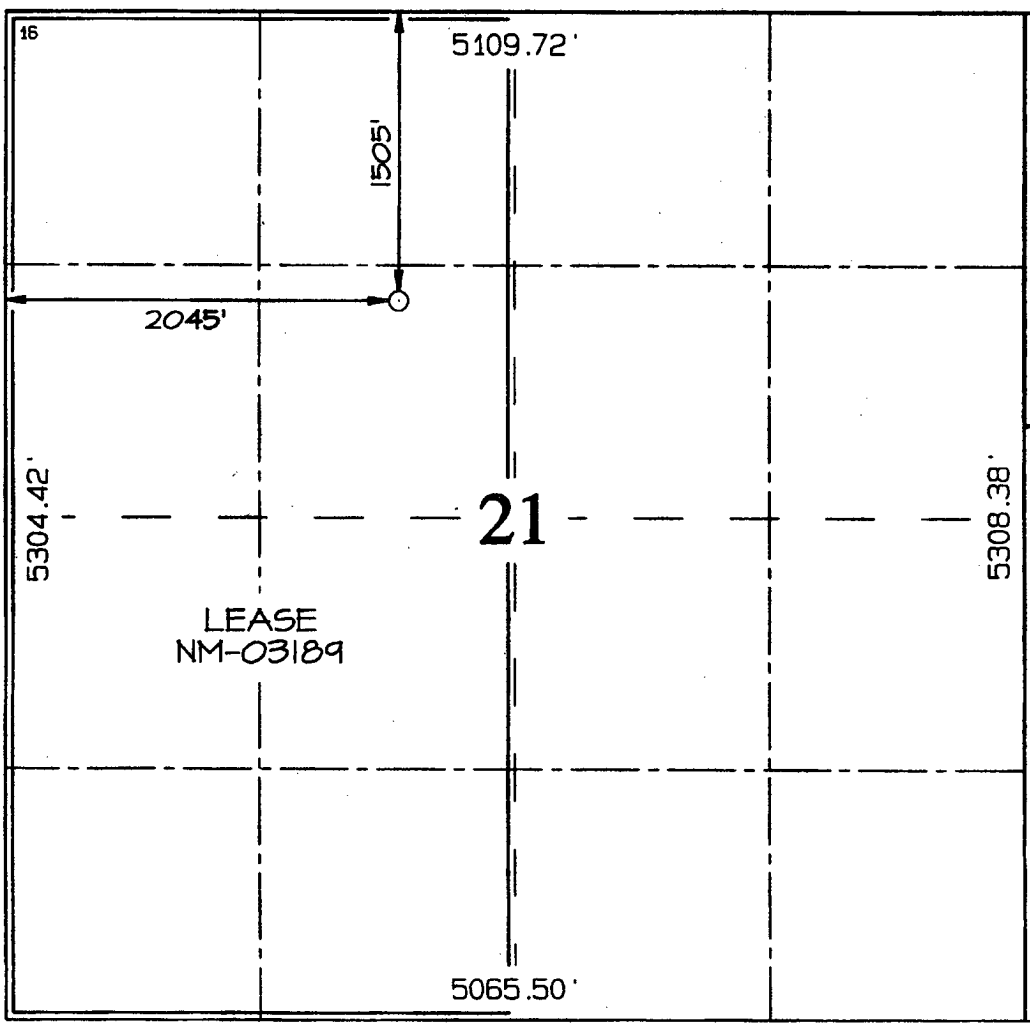
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	21	32N	11W		1505	NORTH	2045	WEST	SAN JUAN

[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

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

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



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature

Larry Higgins

Printed Name

Drilling COM

Title

12-20-05

Date

[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 Revised: DECEMBER 10, 2005
Date of Survey: JULY 10, 2002

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS

Certificate Number 15269

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., 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 and Natural Resources

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

Form C-103
May 27, 2004

WELL API NO. 30-045-33493
5. Indicate Type of Lease Federal
6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Cox Canyon

1. Type of Well: Gas Well X☐
8. Well Number 5C

2. Name of Operator
Williams Production Company
9. OGRID Number 120782

3. Address of Operator
P.O. Box 640, Aztec, NM 87410
10. Pool name or Wildcat
Blanco MV/Basin DK

4. Well Location
Unit Letter F : 1505 feet from the North line and 2045 feet from the West line
Section 21 Township 32N Range 11W NMPM County San Juan

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
6900' GR

Pit or Below-grade Tank Application X☐

Pit type Drilling Depth to Groundwater >100' Distance from nearest fresh water well >1000' Distance from nearest surface water>1000'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume ____ bbls; Construction Material ____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
OTHER:	☐			OTHER:	☐		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Drilling/Completion pit to be located approximately 50-75 feet from well head. Pit multi-use drilling and completion to avoid additional site disturbance and pit will be considered out of service once production tubing set. Reserve pit to be constructed in accordance with NMOCD Interim Pit and Below-Grade Tank Guidelines

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.**

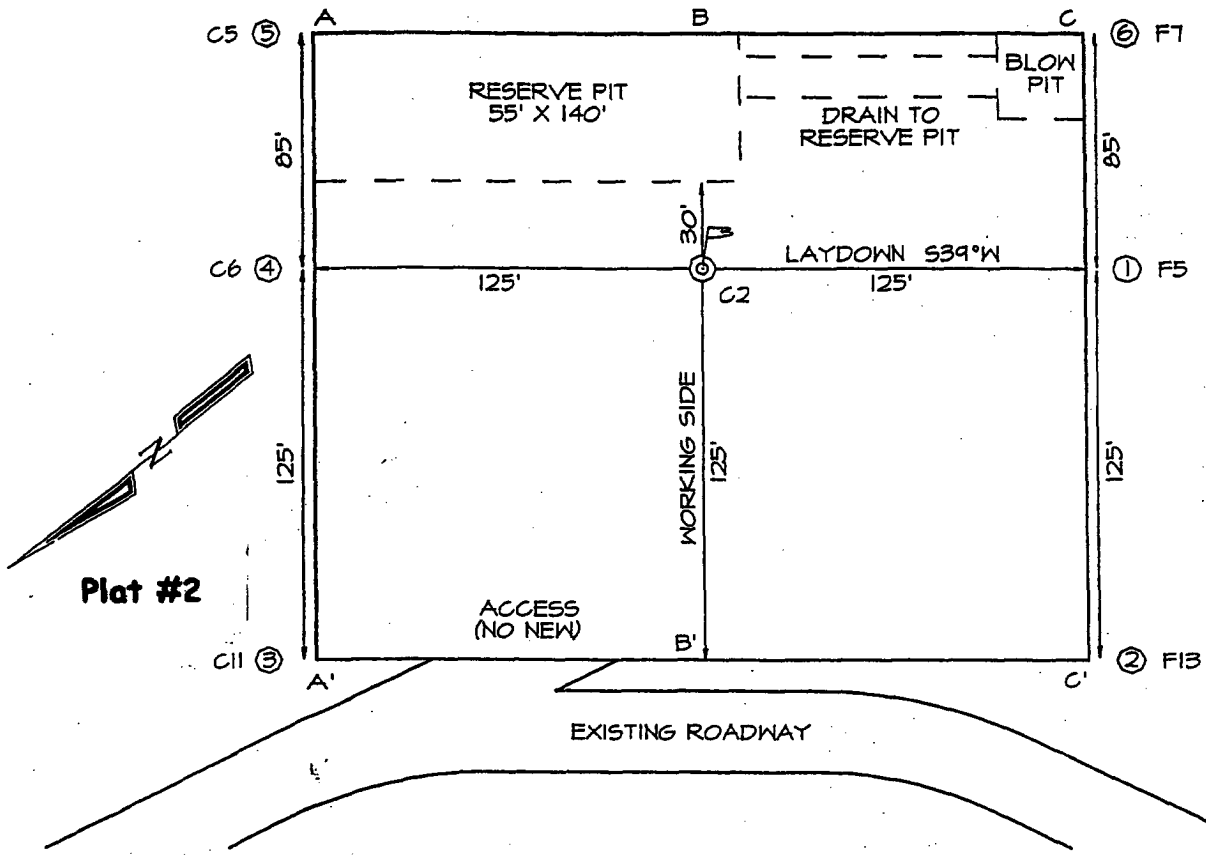
SIGNATURE Larry Higgins TITLE Drilling COM DATE 12-20-05

Type or print name Larry Higgins E-mail address: larry.higgins@williams.com Telephone No. (970) 563-3308

For State Use Only

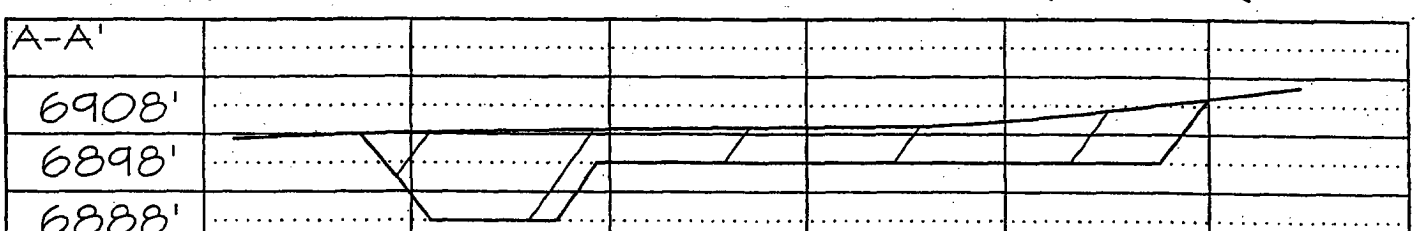
APPROVED BY: TITLE DEPUTY OIL & GAS INSPECTOR, DIST. ☆ DATE AUG 30 2006

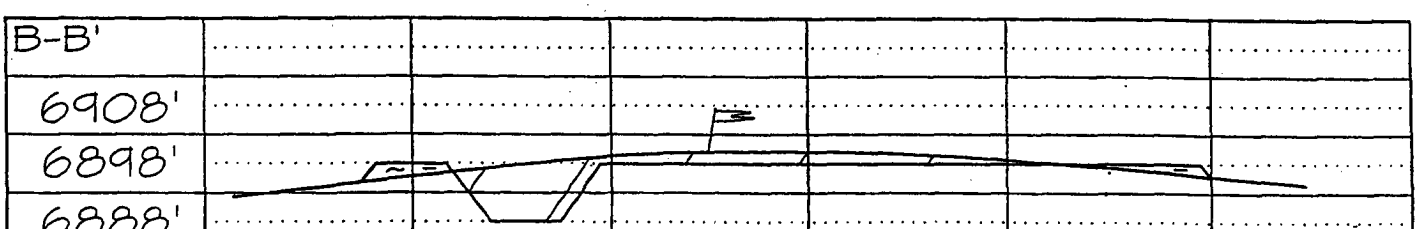
WILLIAM PRODUCTION COMPANY COX CANYON #5C
1505' FNL & 2045' FWL, SECTION 21, T32N, R11W, NMPM
SAN JUAN COUNTY, NEW MEXICO GROUND ELEVATION: 6900'

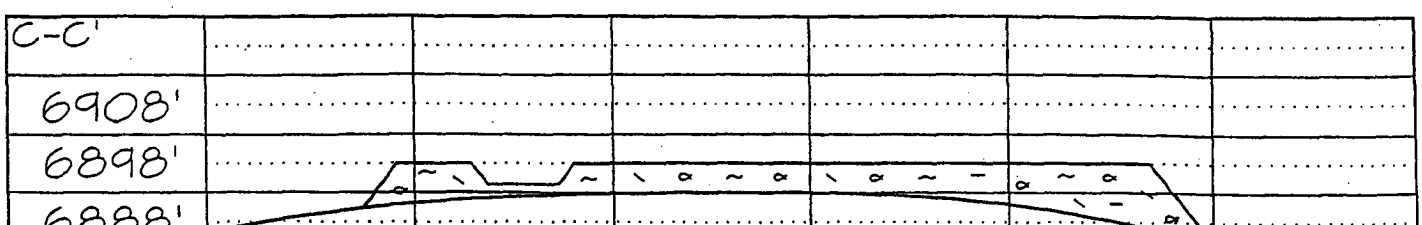


LATITUDE: 36°58'25"
LONGITUDE: 107°59'42"
DATUM: NAD1927

Plat #2





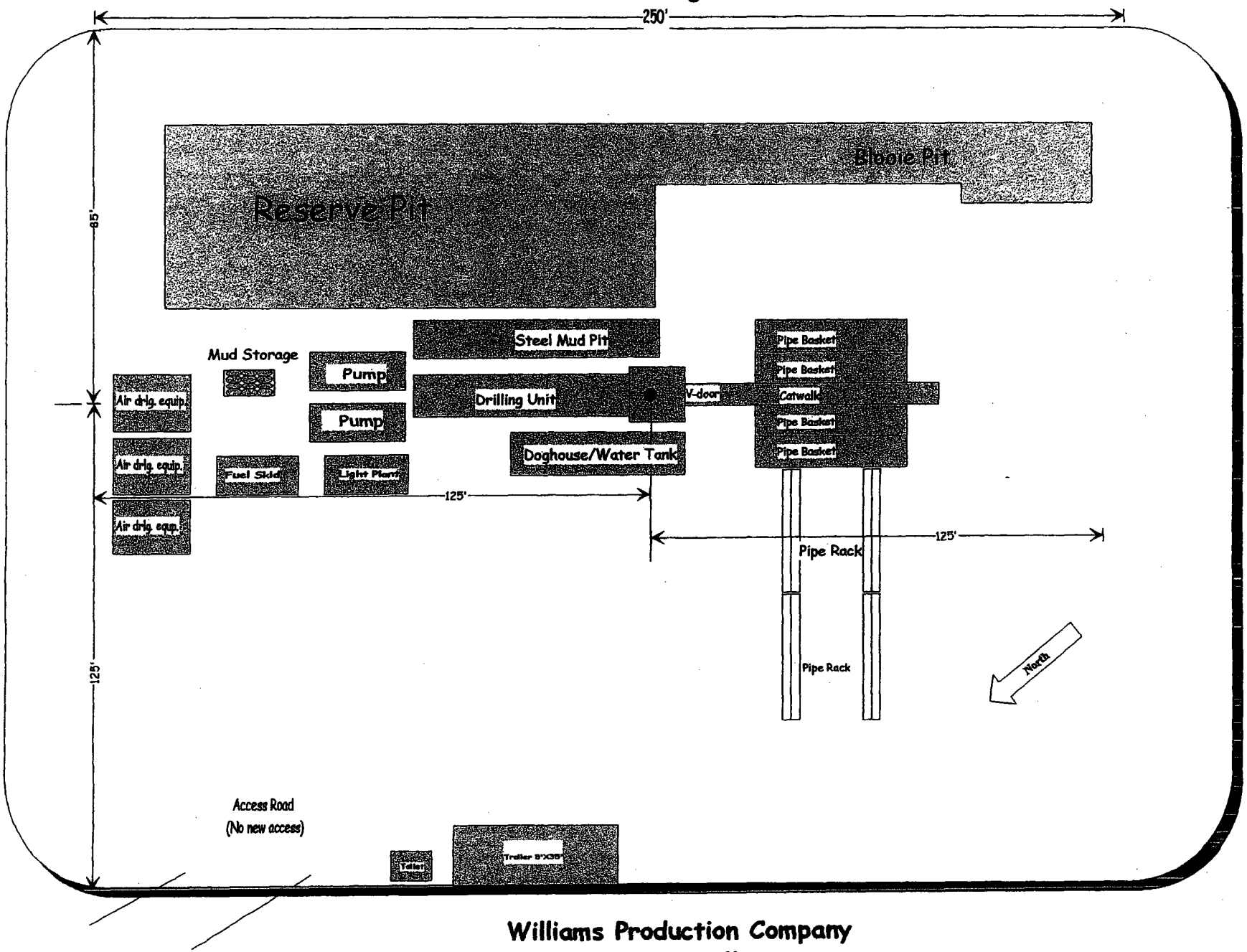


Plat #3

Location Diagram

August, 2002
John Thompson

Location Dimensions 210' X 250'



Williams Production Company
Cox Canyon #5C
1505' fnl & 2045' fwl, Sec 21, T32N, R11W
San Juan, New Mexico

WILLIAMS PRODUCTION COMPANY

Operations Plan

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

DATE:	12/20/2005	**FIELD:**	BasinDK/BlancoMV
WELL NAME:	Cox Canyon #5C	**SURFACE:**	BLM
BH LOCATION:	SENW Sec 21-32N-11W San Juan, NM	**MINERALS:**	FED
ELEVATION:	6,900' GR	**LEASE #**	NM-03189

MEASURED DEPTH: **8,364'**

I. GEOLOGY: Surface formation - San Jose

A. **FORMATION TOPS:** (KB)

Name	MD	Name	MD
Ojo Alamo	1,719	Cliff House	5,414
Kirtland	1,774	Menefee	5,509
Fruitland	3,114	Point Lookout	5,859
Pictured Cliffs	3,584	Mancos	6,184
Lewis	3,739	Gallup	7,229
Huerfanito Bentonite	4,259	Greenhorn	7,934
		Graneros	7,999
		Dakota	8,069
		Morrison	8,334
		TD	**9,364**

B. **MUD LOGGING PROGRAM:** Mud logger on location from approximately 8,019' to TD.

C. **LOGGING PROGRAM:** High Resolution Induction/ GR and Density/ Neutron log over zones of interest from surface casing to intermediate casing then to protection casing TD. Cased hole logs over Dakota/ Morrison Onsite geologist will pick Density/ Neutron log intervals logging runs.

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" 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 in. 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	HOLE SIZE	DEPTH (MD)	CASING SIZE	WT. & GRADE
Surface	14-3/4"	+/- 300'	10-3/4"	32.75# H-40
Intermediate	9-7/8"	+/-3,039'	7-5/8"	26.4# K-55
Prod. Casing	6-3/4"	+/- 8,019'	5-1/2"	17.0# N-80
Production Liner	4-3/4"	+/-7,919' - 8,364'	3-1/2"	9.3#

B. FLOAT EQUIPMENT:

1. SURFACE CASING: ~~9-5/8"~~ 10¾" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.

2. INTERMEDIATE CASING: ~~7"~~ 7⅝" 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: 3-1/2" & 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: 255sx (356 cu.ft.) of "Type III" + 2% $CaCl_2$ + ¼ # of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.

2. INTERMEDIATE: Lead - 490 sx (1,027) cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% $CaCl_2$ and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 100 sx (139cu.ft.) of "Type III" with 1/4# cello-flake/sk, and 1% $CaCl_2$ (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). Use **100% excess in Lead Slurry** to circulate to surface. **No excess in Tail Slurry.** Total volume = 1166 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.

3. PRODUCTION CASING: 10 bbl Gelled Water space. Lead: 100sx (259ft^3) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake and 4% Phenoseal. (Yield = 2.59 cu.ft./sk, Weight = 11.6 #/gal.). Cement: 120 sx (251 ft^3) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake and 4% Phenoseal. (Yield = 2.15 ft^3/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess in lead and tail should cover 100 ft into intermediate casing. Total volume 510ft^3. WOC 12 hours

4. PRODUCTION LINER: 10 bbl Gelled Water space. Cement: 50 sx (100 ft^3) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake. (Yield = 2.15 ft^3/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess should cover 100 ft above liner top. Total volume 100ft^3. WOC 12 hours

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 7 5/8" & 5-1/2" casing to 3300# for 15 minutes.

C. STIMULATION

1. Stimulate Dakota with approximately 70,000# of 20/40 sand in x-link foam.
2. Isolate Dakota with a RBP.
3. Stimulate Point Lookout with approximately 80,000# of 20/40 sand in slick water.
4. Isolate Point Lookout with a RBP.
5. Perforate the Menefee/Cliff House as determined from the open hole logs.
6. Stimulate with approximately 80,000# of 20/40 sand in slick water.
7. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. *Dakota*: Run 2-1/16", 3.25#, J-55, IJ tubing with 1/2 mule shoe on bottom, SN with pump-out plug on top of adeem joint and 5 Seal Units. Land tubing approximately 100' below top Dakota perf.

2. *Mesa Verde:* Run 2-1/16", 2.9#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforations.

Larry Higgins
for Gary Sizemore
Sr. Drilling Engineer

Williams Production Company, LLC

Well Control Equipment Schematic for 2M Service

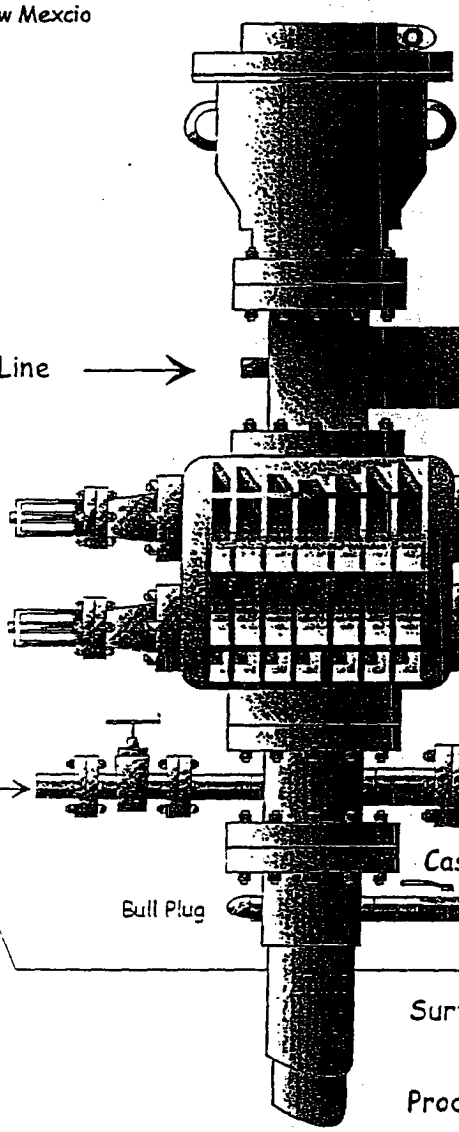
Attachment to Drilling Technical Program

Typical BOP setup

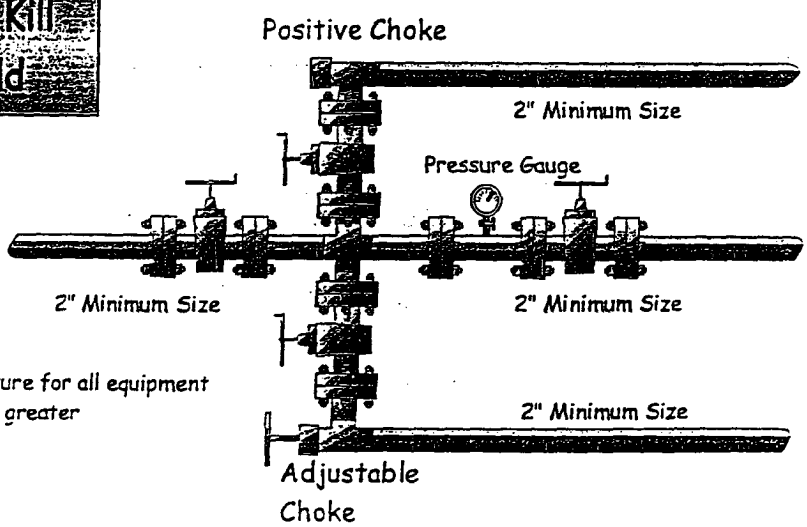
Location: San Juan Basin, New Mexcio

Date: August 20, 2001
By: John Thompson (Walsh E&P)

BOP Stack



Choke & Kill Manifold



Working Pressure for all equipment is 2,000 psi or greater