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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Farmington Field Office

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

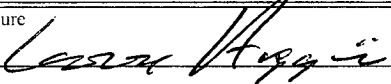
1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. 701-06-0016
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name Jicarilla Apache Nation
2. Name of Operator Williams Production Company, LLC		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. Box 640 Aztec, NM 87410	3b. Phone No. (include area code) (505) 634-4208	8. Lease Name and Well No. JAECO 27-3, #17
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1105' FSL & 1205' FWL, sec 8, T27N, R3W At proposed prod. zone Same		9. API Well No. 30-039-30645
14. Distance in miles and direction from nearest town or post office* 26 miles NW from Lindrith, NM		10. Field and Pool, or Exploratory Blanco MV/Basin Mancos/Basin DK
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1105'	16. No. of Acres in lease 6000 +/-	11. Sec., T., R., M., or Blk. and Survey or Area Section 8, T27N R3W
17. Spacing Unit dedicated to this well 350.44 acres (all)	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1 mile	12. County or Parish Rio Arriba
19. Proposed Depth 8,529'	20. BLM/BIA Bond No. on file B001576	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7,050' GR	22. Approximate date work will start* March 1, 2009	23. Estimated duration 1 month

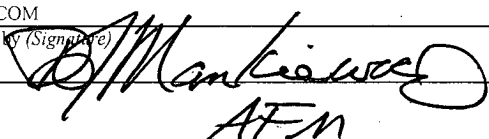
24. Attachments

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 	Name (Printed/Typed) Larry Higgins	Date 1-9-09
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Title Drilling COM	
Approved by (Signature) 	Name (Printed/Typed) AFN
Title AFN	Office FFO
	Date 10/22/2010

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/Basin Dakota formation at the above described location in accordance with the attached drilling and surface use plans.

The surface is located on Jicarilla Apache Nation lands.

This location has been archaeologically surveyed by Velarde Energy.

A 7,736' foot pipeline tie would be required for this location and it is also located on Jicarilla Apache Nation Lands.

Approximately 2000' of new road will be needed to access this well.

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

NOV 18 2010

NMOCD

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

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

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 Brazas 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

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

RCVD NOV 8 10
OIL CONS. DIV.

DIST. 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

*API Number 30-039-30645		*Pool Code 97232/72319/71599	*Pool Name BASIN MANCOS/BLANCO MESAVERDE/BASIN DAKOTA
*Property Code 37574	*Property Name JAECO - WPX 27-3		*Well Number #17
*OGRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 7050

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
M	8	27N	3W		1105	SOUTH	1205	WEST	RIO ARriba

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 Sec. 8 (ALL) 346.1 Ac.			13 Joint or Infill		14 Consolidation Code		15 Order No.		

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.

<div>16</div> <div>177.46'</div> <div>5335.77'</div> <div>187.86'</div> <div>2640.00'</div> <div>1205'</div> <div>1105'</div> <div>2638.59'</div> <div>2711.88'</div> <div>8</div>	<div>17</div> <p>OPERATOR CERTIFICATION</p> <p>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 extended 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.</p> <p><i>Larry Higgins</i> 11-8-10 Signature Date</p> <p><i>LARRY HIGGINS</i> Printed Name</p>
	<div>18</div> <p>SURVEYOR CERTIFICATION</p> <p>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 the same is true and correct to the best of my belief.</p> <p>NOVEMBER 11, 2008 Date of Survey</p> <p><i>Cecil B. Higgins</i> Signature and Seal of Professional Surveyor</p> <p><i>Cecil B. Higgins</i> Professional Surveyor NEW MEXICO 9672 Certificate Number</p>



WILLIAMS PRODUCTION COMPANY

Operations Plan

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

DATE: 12/24/2008 **FIELD:** Basin DK/Basin Mancos/BlancoMV
WELL NAME: JAECO-WPX 27-3 #17 **SURFACE:** Jicarilla Apache
BH LOCATION: SWSW Sec 8-27N-3W **MINERALS:** Jicarilla Apache Nation
Rio Arriba, NM
ELEVATION: 7,050' GR **LEASE #** 701-06-0016
MEASURED DEPTH: 8,529'

I. **GEOLOGY:** Surface formation - San Jose

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

Name	MD	Name	MD
Nacimiento	2,194	Menefee	5,774
Ojo Alamo	3,409	Point Lookout	6,039
Kirtland	3,589	Mancos	6,374
Fruitland	3,649	Gallup	7,029
Pictured Cliffs	3,889	Greenhorn	8,009
Lewis	4,099	Graneros	8,084
Huerfano Bentonite	4,474	Dakota	8,149
Cliff House	5,714	Morrison	8,429
		TD	8,529

- B. **MUD LOGGING PROGRAM:** Mud logger from surface csg to TD (5" = 100'). Mud logger will pick TD
- C. **LOGGING PROGRAM:** HRI from surface casing to TD. SDL\DSN\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:** Use a LSND mud (+/-40 Vis.) to drill 9-7/8 in. Intermediate Hole. Increase vis to +/-60 to run Casing. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Use air w/Air Hammer w/ 6-3/4 in. bit to drill-out 7-5/8 in. csg. to TD +/- ~~8,636~~ **8,529** ft.
- 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	4,319	7 5/8	26.4	K-55
Longstring	6 3/4	8,529	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: 255sx (356 cu.ft.) of "Type III" + 2% CaCl₂ + 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 - 710 sx (1,484 cu.ft.) of "Premium Light with 8% gel 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, (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). **70% EXCESS IN LEAD PUMP AS WRITTEN No excess in Tail Slurry.** Total volume = 1,623 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. Cement: 210 sx (442 ft³) 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 ft³/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess in slurry should cover 100 ft into intermediate casing. Total volume 442ft³. 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

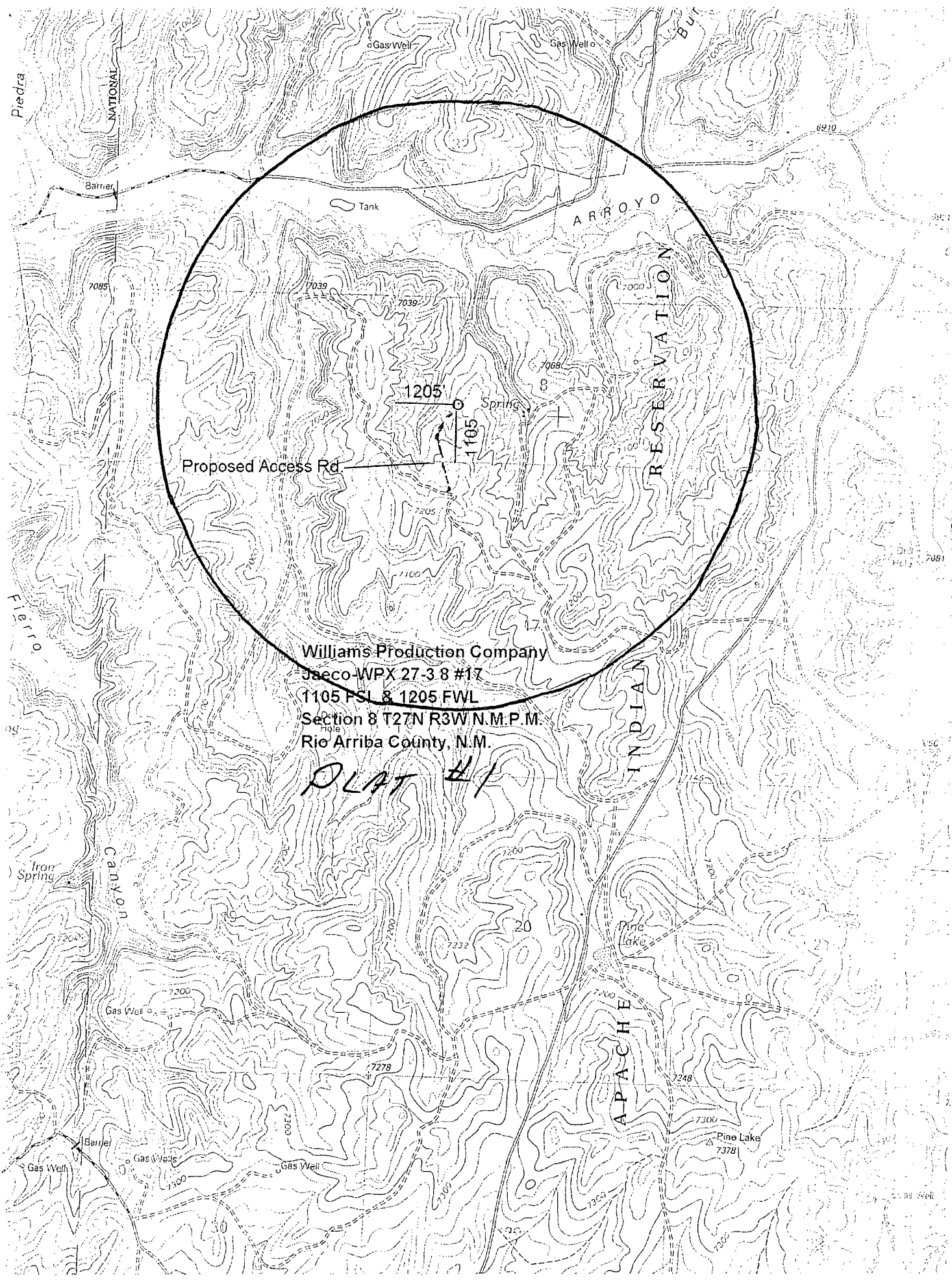
1. Stimulate Dakota with approximately 10,000# of LiteProp 108™ sand in slick water.
2. Isolate Dakota with a RBP.
3. Perforate Mancos as determined from the open hole logs
4. Stimulate Mancos with 3 stages of approximately 117,000# 40/70 white sand and 7500# 100 mesh white sand
5. Stimulate Point Lookout 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. 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.

FOR Gary Sizemore
Sr. Drilling Engineer

Larry Higgins



Williams Production Company
Jaeco WPX 27-38 #17
1105 FSL & 1205 FWL
Section 8 T27N R3W N.M.P.M.
Rio Arriba County, N.M.

PLAT #1

JAECO - WPX

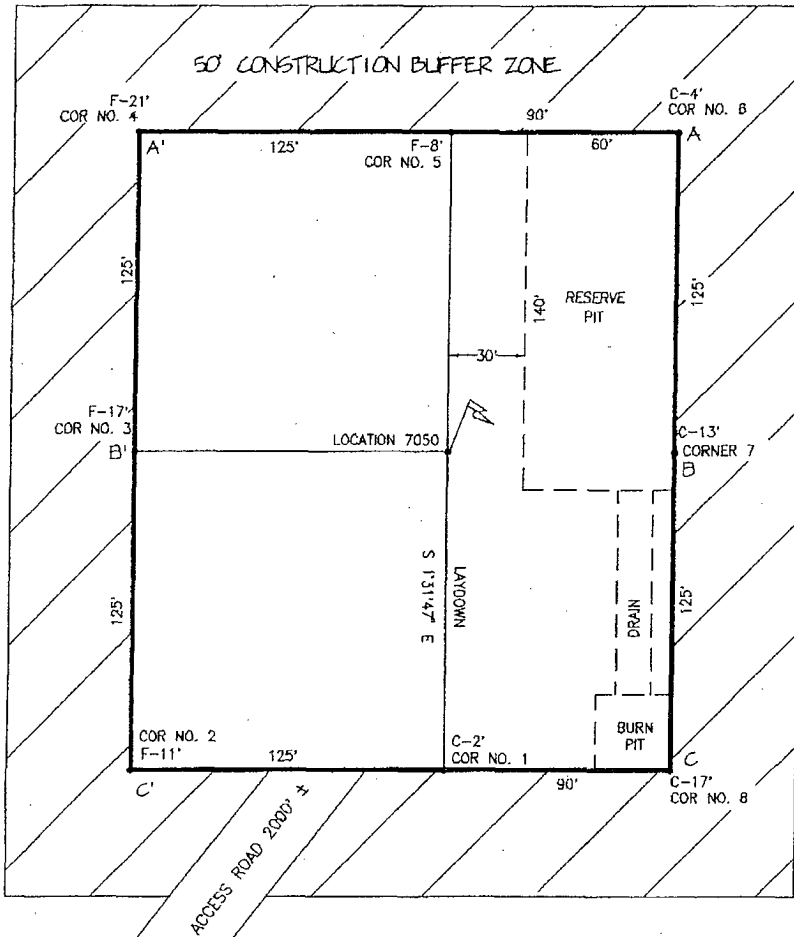
27-3 8 #17

1105 FSL & 1205 FWL

SECTION 8 T27N R3W NMPM

RIO ARriba COUNTY, NEW MEXICO

ELEVATION: 7050



PLAT #2

LATITUDE: 36°35'03" N
LONGITUDE: 107°10'24" W
WGS 84
VERT. DATUM: NAD 1921

A-A'	
1060	
1050	
1040	

B-B'	
1060	
1050	
1040	

C-C'	
1060	
1050	
1040	

FILENAME: PINELAKE

SHEET 2 OF 3

High Country Surveys

DRAWN BY: CRT

CHECKED BY: CBT

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)

