

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires December 31, 1991

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

2002 JUL 22 AM 11:22

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
1b. TYPE OF WELL

DRILL ☒ **DEEPEN** ☐

OIL ☐ **GAS** ☐ **OTHER** ☒ **SINGLE** ☒ **MULTIPLE** ☐
WELL ☐ **WELL** ☐ **ZONE** ☒ **ZONE** ☐

2. NAME OF OPERATOR

Williams Production Company

3. ADDRESS OF OPERATOR

c/o Walsh Engineering 7415 E. Main St., Farmington, NM 87402 (505) 327-4892

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At Surface 2420' FSL and 1210' FEL

At proposed Prod. Zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

26 miles NE of Blanco, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)

1210'

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT.

1300'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6243' GR

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"/17-1/2"	20"/13-3/8"	94#/54#	+/- 500' +/- 3540'	~1145 cu.ft.(conductor)/ 1169 cu.ft. & 365 cu.ft.
12-1/4"	9-5/8"	40#	+/- 3440-6025'	~1221 cu.ft. 65/35 poz & ~322 cu.ft. Type
8-3/4"	7"	26#	+/- 9150'	~571 cu.ft. Prem. Lite HS w/ additives

See casing program page

Williams Production Company proposes to drill a vertical well to construct a salt water disposal well in the Entrada formation at the above described location in accordance with the attached drilling and surface use plans.

This location has been archaeologically surveyed by Moore Anthropological Research. Copies of their report have been submitted directly to your office.

This APD also is serving as an application to obtain BLM road and pipeline right-of-ways. This well will not require any new access road. The well pad will be accessed where FS Road 309 intersects the main "Rosa Road" in section 23, T31N, R6W.

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".

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

John C. Thompson

TITLE John C. Thompson, Agent

DATE

7/22/2002

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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:

APPROVED BY

DM

TITLE

DATE

2/14/03

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

HOLD C104 FOR SW Order

NMOCQ

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

District II
PO Drawer 00, 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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 36039-27055		*Pool Code 96162	*Pool Name SWD; Morrison, Bluff, Entrada
*Property Code 33031	*Property Name ROSA UNIT SWD		*Well Number 1
*GRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6243'

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
I	23	31N	6W		2420	SOUTH	1210	EAST	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 NA		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><p>¹⁶</p><p>5280.00'</p><p>5280.00'</p><p>1210'</p><p>2420'</p><p>5278.68'</p><p>23</p><p>RECEIVED JUL 22 AM 11:22</p></div>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p></p> <p>Signature John C. Thompson</p> <p>Printed Name Agent</p> <p>Title 7/17/02</p> <p>Date</p>
	<p>¹⁸ 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 that the same is true and correct to the best of my belief.</p> <p>JUNE 2, 1999</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p></p> <p>Certificate No. 6857</p>

In Lieu of
Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use APPLICATION FOR PERMIT--" for such proposals

RECEIVED

2003 FEB 10 PM 2:15

070 FARMINGTON, NM

SUBMIT IN TRIPLICATE

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. SF - 078771
2. Name of Operator Williams Production Company, LLC	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. C/O Walsh Engineering & Production Corp. 7415 East Main, Farmington, NM 87402 505-327-4892	7. If Unit or CA, Agreement Designation Rosa
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 2420' FSL & 1210' FEL Sec 23, T31N, R6W	8. Well Name and No. Rosa SWD #1
	9. API Well No. 30039 27055
	10. Field and Pool, or Exploratory Area Entrada
	11. County or Parish, State Rio Arriba, NM

CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back
	<input checked="" type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other See Below
	<input checked="" type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water
	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Williams Production Company, LLC has re-designed the casing program for the Rosa SWD #1. Please see attached operations plan and well bore schematic reflecting the changes.

Attachments: 1) Well bore Schematic
2) Operations Plan

14. I hereby certify that the foregoing is true and correct

Signed John C. Thompson Title Agent/Engineer Date 02/05/03

(This space for Federal or State office use)

Approved by David J. Mankiewicz Title AFM Date 2/14/03

Conditions of approval, if any:

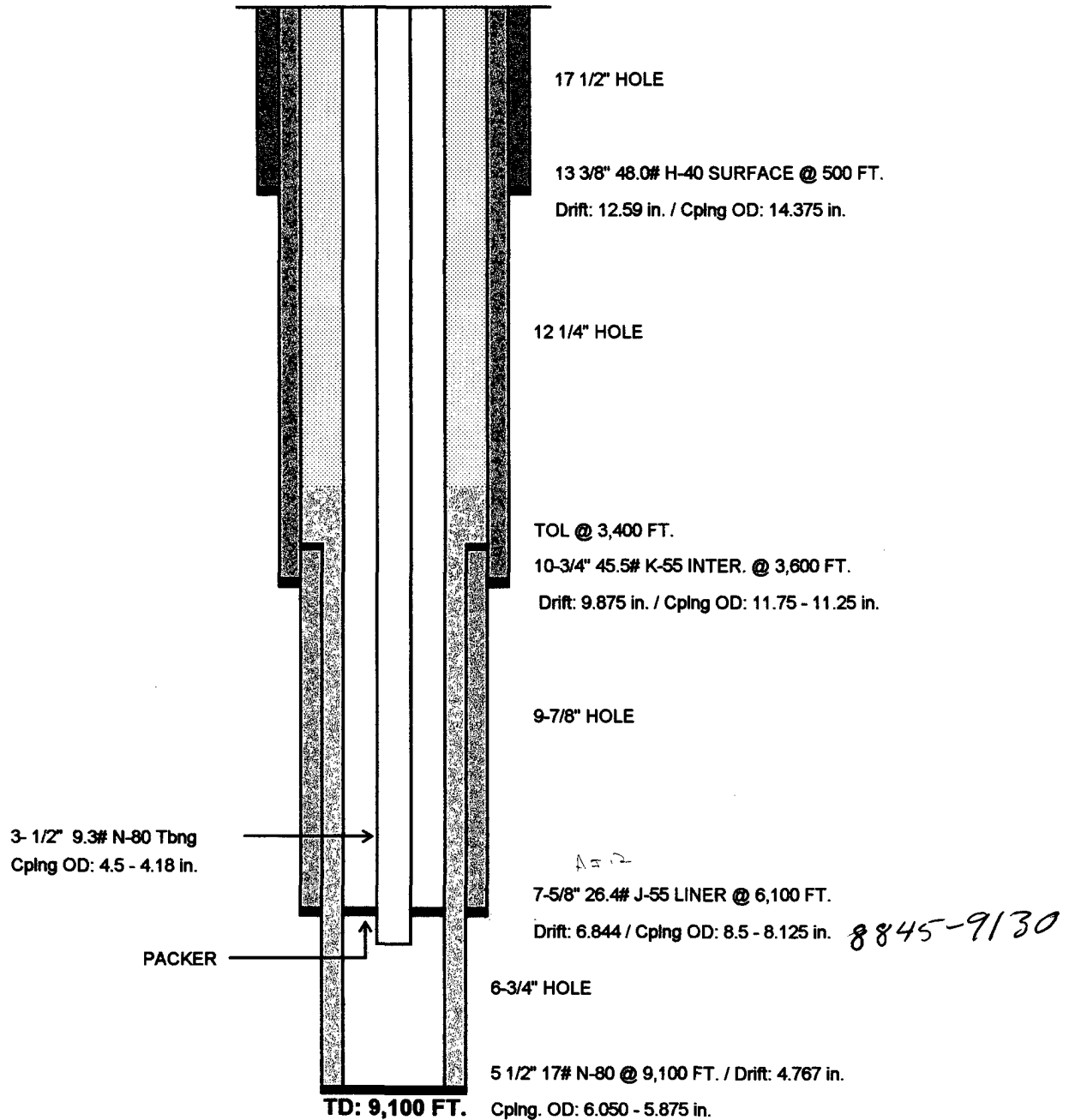
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

WILLIAMS SWD # 1



WELLBORE SCHEMATIC



A. MUD PROGRAM: 17 1/2" Hole: Spud mud Gel Lime Slurry, 12-1/4" Hole: Low solids non dispersed with Quick Gell to add viscosity, 9-7/8" Hole: Will be air drilled through the Mesaverde into the Mancos shale. 6-3/4" Hole: Will be air drilled until water is encountered. At that point the hole will be "mudded up" with a Low solids non dispersed system with Quick Gel to add viscosity and barite to weight up as needed. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

- 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 rams will be tested to 1500 psi. The surface and intermediate casing strings will be pressure tested to 1500 psi in conjunction with the BOP test before drilling out cement. The drum brakes will be inspected and tested each tour. All tests, inspections and SPR's will be recorded in the tour book as to time and results.

III. MATERIALS

A. CASING PROGRAM:

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CASING SIZE</u>	<u>WT. & GRADE</u>
Surface	17-1/2"	+/- 500'	13-3/8"	48#/ft H-40
Intermediate	12-1/4"	+/- 3600'	10-3/4"	45.5 #/ft K-55
Drilling Liner	9-7/8"	+/-3400 -6900'	7-5/8"	26.4#/ft J-55
Longstring	6-3/4"	+/- 9100'	5-1/2"	17#/ft N-80

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 13-3/8" notched regular pattern guide shoe.
2. INTERMEDIATE CASING: 10-3/4" cement nose guide shoe with a self – fill insert float. Place float one (1) joint above the shoe and five (5) centralizers, spaced every other joint, starting with the float collar. Place turbulent centralizers at 120' intervals, starting at 2550' to the surface. Total centralizers = 5 regular and 22 turbulent.
3. DRILLING LINER: 7-5/8" Whirler type cement nose guide shoe with a latch collar on top o 20' bottom joint. Place 20' marker joint at 5300'.
4. LONGSTRING CASING: 5-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place 20' marker joint on top of 10 th joint and one above 7800'.

C. CEMENTING:

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

1. SURFACE: Lead: 290sx (605cu.ft.) of class "Premium Lite" 65/35, Type III/Poz with 6% gel and 1/4# cello-flake/sk (Yield = 1.72 cu.ft./sk, Weight = 12.7 #/gal.). Tail: 150sx (212cu.ft.) of class "Type III" with 1/4# cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5#/gal.). 125% excess in lead and tail to circulate to surface. Total volume = 817 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated.
2. INTERMEDIATE: Lead: 465sx (965cu.ft.) of class "Premium Lite" 65/35, Type III/Poz with 8% gel and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail: 250sx (350cu.ft.) of class "Type III" with 1/4# cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5#/gal.). 100% excess in lead and tail to circulate to surface. Total volume = 1314 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated.

3. DRILLING LINER: Scavenger: 50sx (159 ft³) of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl + .2% R3 (Weight = 11 #/gal). Lead: 275sx (ft³) of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl + .2% R3. (Yield = 2.00 cu.ft./sk, Weight = 12.5 #/gal.). Tail: 310 sx (623 ft³) of Premium Light HS + 1% FL-52 + .3% CD-32 + .25 #/sk Celloflake + 2% KCl + .2% R3 + 4% Phenoseal. (Yield = 2.03 ft³/sk, Weight = 12.5 #/gal.). Displace cement at a minimum of 8 BPM. The 50% excess in lead and tail should cover liner top. Total volume 1173 ft³. WOC 12 hours.
4. LONGSTRING: Scavenger: 50sx (159 ft³) of Premium Light HS + 1% FL-52 + .3% CD-32 + .3% R3 (Weight = 11 #/gal). Tail: 355 sx (705 ft³) of Premium Light HS + 1% FL-52 + .3% CD-32 + .25 #/sk Celloflake + 2% KCl + .2% R3 + 4% Phenoseal. (Yield = 2.03 ft³/sk, Weight = 12.5 #/gal.). Displace cement at a minimum of 8 BPM. The 50% excess in lead and tail should cover liner top. Total volume 705 ft³. WOC 12 hours.
- 5.

IV COMPLETION

A. CBL

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings.

B. PRESSURE TEST

1. MOL & RU. NU BOP.
2. PU 6-1/4" bit on 2-7/8" workstring. TIH and CO to PBTD.
3. Pressure test 7" casing to 4500# for 15 minutes.

C. STIMULATION

1. Stimulate Entrada formation interval with approximately 300,000 lbs 20/40 proppant in 30# Borate fluid system.

D. INJECTION TEST

1. Submit a written procedure and rig-up diagram to the OCD 24 hrs before starting test.
2. Perform injection step-rate test as per OCD requirements.

E. RUNNING PACKER and TUBING

1. Isolation Packer: Arrow Set 1x, 5-1/2" X 3-1/2" (nickel coated) set at +/- 8650'
2. Entrada: Run 3-1/2", 9.3#, N-80, plastic line tubing. Land tubing approximately 50' below top Entrada perf.

John C. Thompson
Engineer

Williams Production Company, LLC

Well Control Equipment Schematic for 2M Service

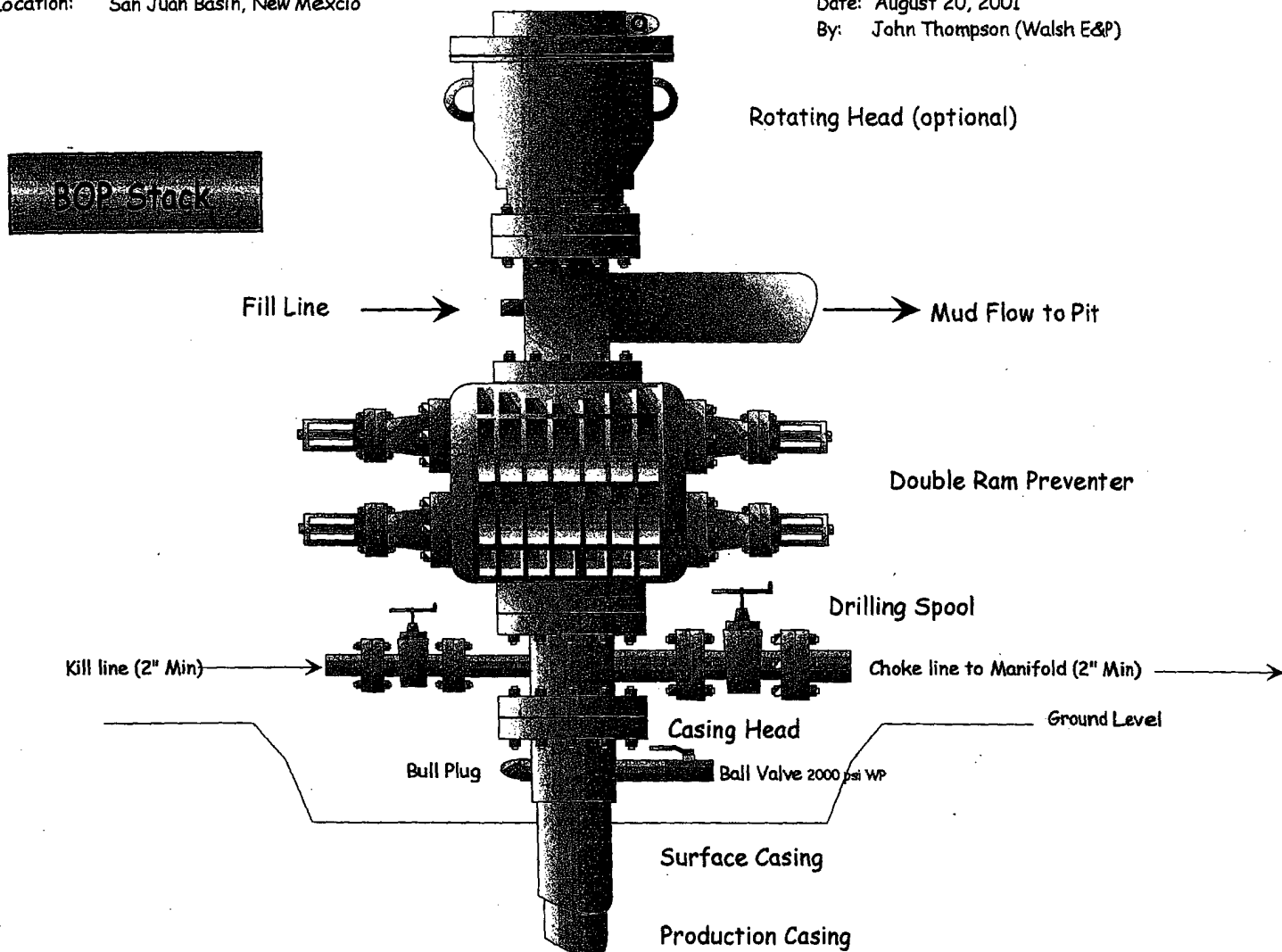
Attachment to Drilling Technical Program

Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)



Choke & Kill Manifold

