

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK a. TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> WELL WELL WELL		b. TYPE OF WELL SINGLE <input type="checkbox"/> MULTIPLE <input checked="" type="checkbox"/> ZONE ZONE		5. LEASE DESIGNATION AND SERIAL NO. <i>Jicarilla Apache Contract #61</i>
2. NAME OF OPERATOR <i>Williams Production Company LLC</i>		3. ADDRESS OF OPERATOR <i>c/o Walsh Engineering 7415 E. Main St., Farmington, NM 87402 (505) 327-4892</i>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME <i>Jicarilla Apache Nation</i>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At Surface <i>660' FSL & 1035' FEL</i> A proposed Prod. Zone		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <i>Sec. 34, T28N, R3W</i>		7. UNIT AGREEMENT NAME <i>17031</i>
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <i>20 miles NE of Lindrith, NM</i>		15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) <i>660'</i>		8. FARM OR LEASE NAME, WELL NO. <i>Indian I #3A</i>
16. NO. OF ACRES IN LEASE <i>25.00</i>		17. NO. OF ACRES ASSIGNED TO THIS WELL <i>320.00</i>		9. API WELL NO. <i>30-039-26871</i>
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. <i>~8300'</i>		19. PROPOSED DEPTH <i>8307'</i>		10. FIELD AND POOL OR WILDCAT <i>Blanco Mesa Verde/DK</i>
20. ROTARY OR CABLE TOOLS <i>Rotary</i>		21. ELEVATIONS (Show whether DF, RT, GR, etc.) <i>6955'</i>		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <i>Sec. 34, T28N, R3W</i>
22. APPROX. DATE WORK WILL START* <i>December 1, 2001</i>		12. COUNTY OR PARISH <i>Rio Arriba</i>		13. STATE <i>NM</i>
23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
<i>14-3/4"</i>	<i>10-3/4"</i>	<i>32.75#</i>	<i>~250 ft</i>	<i>~313 cu.ft. Type III with 2% CaCl₂</i>
<i>9-7/8"</i>	<i>7-5/8"</i>	<i>26.4#</i>	<i>~4042 ft</i>	<i>~1416 cu.ft. 65/35 poz & ~320 cu.ft. Type III</i>
<i>6-3/4"</i>	<i>5-1/2"</i>	<i>17.0#</i>	<i>~8307 ft</i>	<i>~547 cu.ft. Premium Light HS w/ additives</i>

Williams Production Company proposes to drill a vertical well to develop the Mesa Verde and Dakota formations at the above described location in accordance with the attached drilling and surface use plans.

This location has been archaeologically surveyed by the Velarde Energy Service. 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 be accessed by "J-10" which runs across the south half of section 34, T28N, R3W.

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 10/5/01
(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 *SW Anderson* TITLE Dist. Field Mgr. DATE NOV 27 2001

*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.

Attached

All casing strings will be cemented

K

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994

District II
PO Drawer 00, Artesia, NM 88211-0719

Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-26871	² Pool Code 72319 - 71599	³ Pool Name Blanco Mesaverde - Basin Dakota
⁴ Property Code 17031	⁵ Property Name INDIAN I	⁶ Well Number 3A
⁷ GRID No. 120782	⁸ Operator Name WILLIAMS PRODUCTION COMPANY	⁹ Elevation 6955'


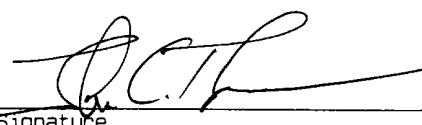
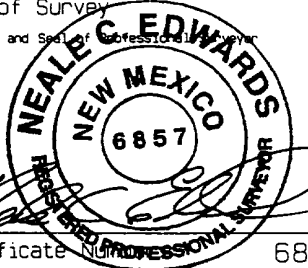
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	34	28N	3W		660	SOUTH	1035	EAST	RIO ARriba

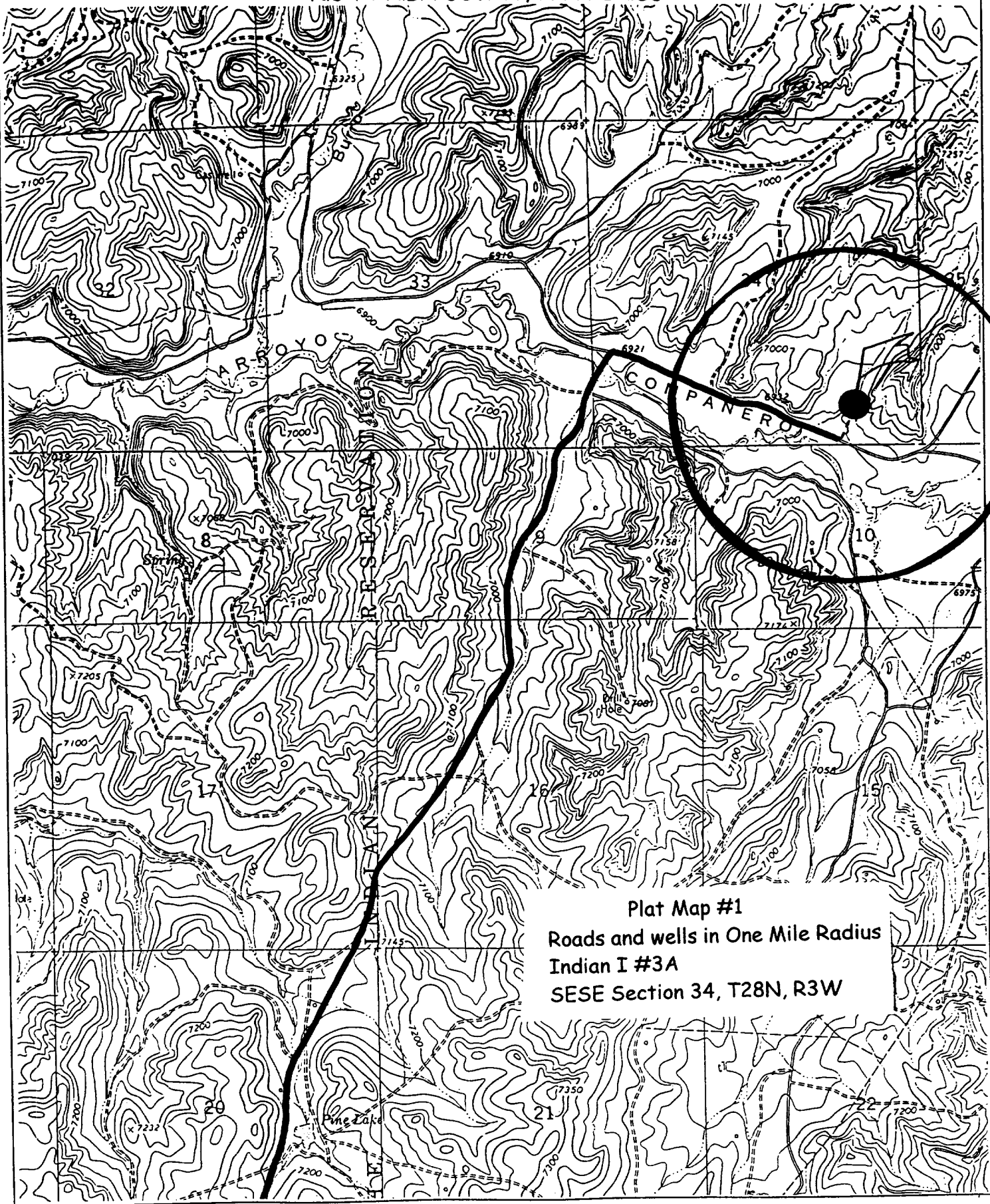
¹¹ Bottom Hole Location If Different From Surface

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 320.0 Acres - (E/2)					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><div><div><div><div>16</div><div>2640.00'</div><div>2640.00'</div><div>5268.12'</div><div>5265.48'</div><div>34</div><div>660'</div><div>1035'</div><div>5280.00'</div></div></div><div></div></div></div>	<div>¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature John C. Thompson Printed Name Engineer/Agent Title 10/4/01 Date</div> <div>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. JUNE 21, 2001 Date of Survey Signature and Seal of Professional Surveyor  Certificate Number 6857</div>
--	---

WILLIAMS PRODUCTION COMPANY INDIAN I #3A
660' FSL, 1035' FEL, SECTION 34, T28N, R3W, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO



Plat Map #1
Roads and wells in One Mile Radius
Indian I #3A
SESE Section 34, T28N, R3W



WILLIAMS PRODUCTION COMPANY

OPERATIONS PLAN

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

DATE: 10/4/2001

WELL NAME: Indian I #3A **FIELD:** Basin MV/DK

SURFACE LOCATION: SE/4 SE/4 Sec. 34-T28N-R3W
Rio Arriba, NM **SURFACE:** Jicarilla

ELEVATION: 6955' GR **MINERALS:** Jicarilla

LEASE # Jicarrilla Apache
Contract #61

MEASURED DEPTH: 8307'

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

	<u>MD</u>		<u>MD</u>
Moencopse 1350'			
Ojo Alamo	3222'	Mancos sh	6072'
Kirtland sh	3397'	Gallup ss	6917'
Fruitland cl	3397'	Greenhorn ls	7852'
Pictured Cliffs ss	3557'	Graneros sh	7912'
Lewis sh	3827'	Dakota ss	8057'
Cliff House ss	5557'		
Menefee	5637'		
Point Lookout ss	5877'	Total Depth	8307'

B. LOGGING PROGRAM: IND/GR/TEMP from TD to the Intermediate Casing Shoe.
DEN/Neutron/GR (selected intervals by on-site Geologist). *Subject to change as wellbore conditions dictate.*

C. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Gauge well @ 5800' and before TOH for logs @ 7954'. Record all gauges in Tour book and on morning reports.

II. DRILLING

A. MUD PROGRAM: Clear water with benex to 7" casing point. LSND to log and run pipe. 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 will be function tested not less than once each day. 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 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	14-3/4"	+/- 250'	10-3/4"	32.75# H-40
Intermediate	9-7/8"	+/-4042'	7-5/8"	26.4# K-55
Prod. Casing	6-3/4"	+/- 8307'	5-1/2"	17.0# 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 (3) Joints.
2. INTERMEDIATE CASING: 7-5/8" 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 1500' to the surface. Total centralizers (5 regular and 13 turbulent).
3. PRODUCTION 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 5100'.

C. CEMENTING:

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

1. SURFACE: Use 230sx (313cu.ft.) of class "Type III" with 2% CaCl₂ and 1/4# of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). 125% excess to circulate the surface. WOC 12 hours. Test to 1500#.
2. INTERMEDIATE: Lead: 675sx (1416cu.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: 230sx (320cu.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 = 1736 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated.
3. PRODUCTION CASING: 50 sks Scavenger of Premium Light HS + 1% FL-52 + .2% CD-32 + .25 #/sk Celloflake + 4% Phenoseal + .1% R3. (Weight = 11 #/gal.). **Cement Slurry:** 275 sx (547 ft³) of Premium Light HS + 1% FL-52 + .2% CD-32 + .25 #/sk Celloflake + 4% Phenoseal + .1% R3. (Yield = 1.99 ft³/sk, Weight = 12.5 #/gal.). Displace cement at a minimum of 8 BPM. Use 50% excess in calculation to raise cement 100' into intermediate casing. Total volume 547ft³. 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

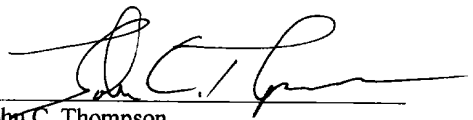
1. Pressure test 7 5/8" & 5-1/2" casing to 3300# for 15 minutes.

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 bottom joint. Isolate Dakota w/ RBP containing 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.


John C. Thompson
Engineer

Walsh Engineering & Production

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

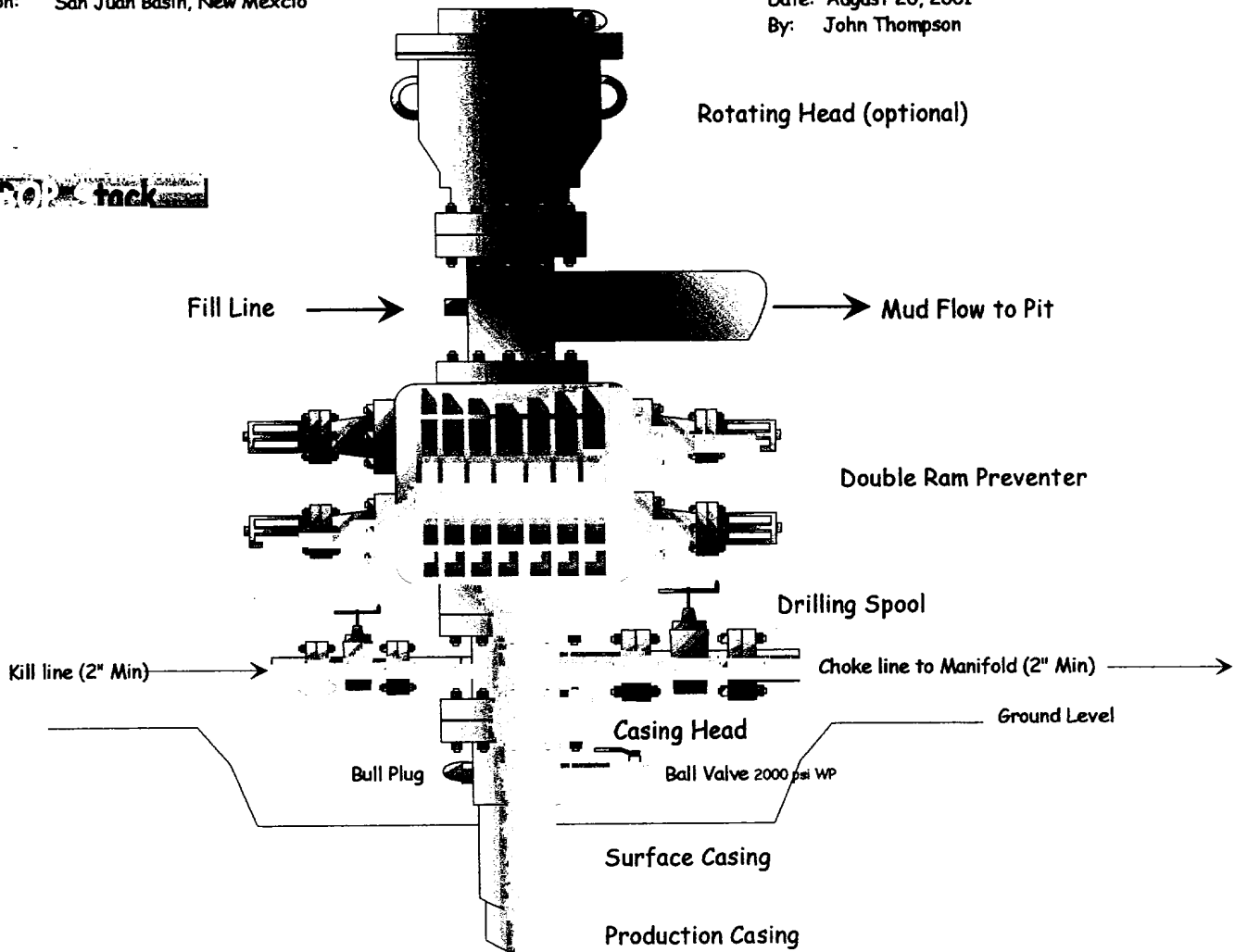
Typical Mesaverde/Dakota BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson

50% tack



Choke & Kill
Manifold

