

UNITED STATES **OCD-HOBBS**
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM27508	
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other SWD <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator ConocoPhillips Company		7. If Unit or CA Agreement, Name and No.	
3a. Address 3300 N "A" St, Bldg 6 Midland, TX 79705		8. Lease Name and Well No. <391337> Wilder Federal 28 SWD #1 SWD	
3b. Phone No. (include area code) (432)688-6913		9. API Well No. 30-025-40500	
4. Location of Well (Report location clearly and in accordance with any State requirements*) At surface UL F, Sec 29, T 26S, R 32E, 2010 FNL 2560 FWL At proposed prod. zone		10. Field and Pool, or Exploratory SWD: Bell Canyon <967697>	
14. Distance in miles and direction from nearest town or post office* 30 miles south west of Jal. NM		12. County or Parish Lea	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 2010 FNL	16. No. of acres in lease 640	17. Spacing Unit dedicated to this well NA	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 600' East of Pre-Ongard Well #1	19. Proposed Depth 6300'	20. BLM/BIA Bond No. on file ES0085	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3130.9' Gr	22. Approximate date work will start* 03/22/2012	23. Estimated duration 50 days	
24. Attachments			

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

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature B. D. Maiorino	Name (Printed/Typed) Brian D Maiorino	Date 12/13/2011
Title Regulatory Specialist		
Approved by (Signature) James A. Ames	Name (Printed/Typed)	Date MAR 21 2012
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

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.

APPROVAL FOR TWO YEARS

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.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Ka 03/23/12

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

MAR 26 2012

OPERATORS NAME:

ConocoPhillips Company

LEASE NAME AND WELL NO.:

Wilder Federal 29 #1SWD

SURFACE LOCATION:

2010 FNL & 2560 FWL

FIELD NAME:

SWD

POOL NAME:

Bell Canyon

COUNTY:

Lea County, New Mexico

The following information is to supplement the Application for Permit to Drill.

DRILLING PLAN

1. Name and estimated tops of all geologic groups, formations, members, or zones.

Formations	Top Depths FT TVD	Contents
Quaternary	Surface	Fresh Water
Rustler	1129 ⁹³⁴⁵ per operator	Anhydrite
Salado (Top of Salt)	1274	Salt
Castile	2451	Anhydrite
Delaware Top	4301	Gas, Oil and Water
Ramsey	4334	Gas, Oil and Water
Ford Sand	4404	Gas, Oil and Water
Olds	4407	Gas, Oil and Water
Bell Canyon SWDZ 1 Top	5715	Gas, Oil and Water
Bell Canyon SWDZ 2 Top	5746	Gas, Oil and Water
Bell Canyon SWDZ 3 Top	5792	Gas, Oil and Water
Bell Canyon SWDZ 4 Top	5877	Gas, Oil and Water
Total Depth (maximum)	6300	

2/6/12

2. Estimated depths and thickness of formations, members or zones potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals that the operator expects to encounter, and the operator's plans for protecting such resources.

Quanternary
Rustler
Salado
Castile

TPS AT
Surface
1129 (water)
1129 1274 (Salt)
1274 2451 (Salt)
2451 4301 (Salt)

*raised perforation
2106/11-
Tann*

All of the water bearing and salt formations identified above will be protected by the intermediate setting of the 9-5/8" casing and circulating of cement to surface

Bell Canyon 5715-6300 (gas & gas/oil) ✓

The geologic tops identified above from the Bell Canyon are part of the target injection formation.

3. The operator's minimum specifications for blowout prevention equipment and diverter systems to be used, including size, pressure rating, configuration, and the testing procedure and frequency.

an 11" 3M system will be installed, used, maintained, and tested accordingly as described in Onshore Oil and Gas Order No. 2.

Our BOP equipment will be:

- Rotating Head
- Annular BOP, 11" 3M
- Blind Ram, 11" 3M
- Pipe Ram, 11" 3M

After nipping up, and every 30 days thereafter, preventors will be pressure tested. BOP will be inspected and operated at least daily to insure good working order. All pressure and operating tests will be recorded on the daily drilling reports. Ram Type preventors will be tested to rated working pressure or 70% of the minimum internal yield of the casing. Annular type preventer(s) shall be tested to 50% of approved BOP stack working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer. BOP will comply with all provisions of Onshore Oil and Gas Order No. 2 as specified. **See Attached BOPE Schematic.**

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition. For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

NEW CASING:

Surface: 12 1/4" hole, 9-5/8" 36# J-55 STC csg, set @ ~~950~~'. Drill out with 12 1/4" bit and perform shoe test to 11.0 ppg MWE.

Burst: 2.58/Collapse: 2.52/Tension: 2.62

Production ~~Lateral~~ 8-3/4" hole, 7" 26# P-110 BTC csg set @ 6300' TVD.

Burst 2.56/Collapse 2.29/Tension 2.84

Casing String	Setting Depth TVD	OD"	Wt lb/ft	Grade	Conn	MIY (psi)	Collapse (psi)	Jt Str (Klbs)	MASP	Burst DF	Collapse DF	Axial DF
Surface	950 1025'	9-5/8	36	J-55	STC	3520	2020	394	1535	2.58	2.52	2.62
Production	6300	7.0"	26	P-110	BTC	9950	6230	693	-	2.56	2.29	2.84

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

- Sep CoA*
- 9.625" Csg: lead w/80 sx Class C cement + HalCem-C (Yield: 1.33 cft)
Tail w/200 sx Class C cement + 1 lbm/sk EconoChem-HRLTRRC (Yield 1.85 cft/sk)
Circulate to surface. Based on 12.25" OH, with 150% excess
 - 7.0" Csg: lead w/390 sx 50/50 Class C Poz + 2.5 gal/bbl WG-19 +
1 lbm/sk EconoCem-C (Yield: 2.48 cft/sk) Tail w/150 sx 'H' + HalCem C
(Yield 1.33 cft/sk) Circulate to surface. Based on 8.75" hole with 120% excess

6. The anticipated type and characteristics of the proposed circulating medium or mediums proposed for the drilling of each wellbore section, the quantities and types of mud and weighting material to be maintained, and the monitoring equipment to be used on the circulating system.

Mud Program:

0-950' ¹⁰²⁵ Aquagel/Spudmud 8.9# Vis 32-36 WL: NC
950-6300' Brine 10.1# Vis 28-30 WL: 5-8

Gas detection equipment and pit level flow monitoring equipment will be on location. ConocoPhillips Company will maintain sufficient mud and weighted material on location at all times.

7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.

a. DST Program: None

8. List the expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of the BLM.

The expected pressure gradient is 0.433 psi/ft or 8.3 ppg equivalent

The average anticipated bottom hole pressure ranges on average 2700 psi.

See COA (H₂S) No hydrogen sulfide is expected as to data gathered from the drilling of the Wilder Federal 28 #1H and Buck Federal 17 #1H.

Any other facets of the proposed operation which the operator wishes to be considered in reviewing the application.

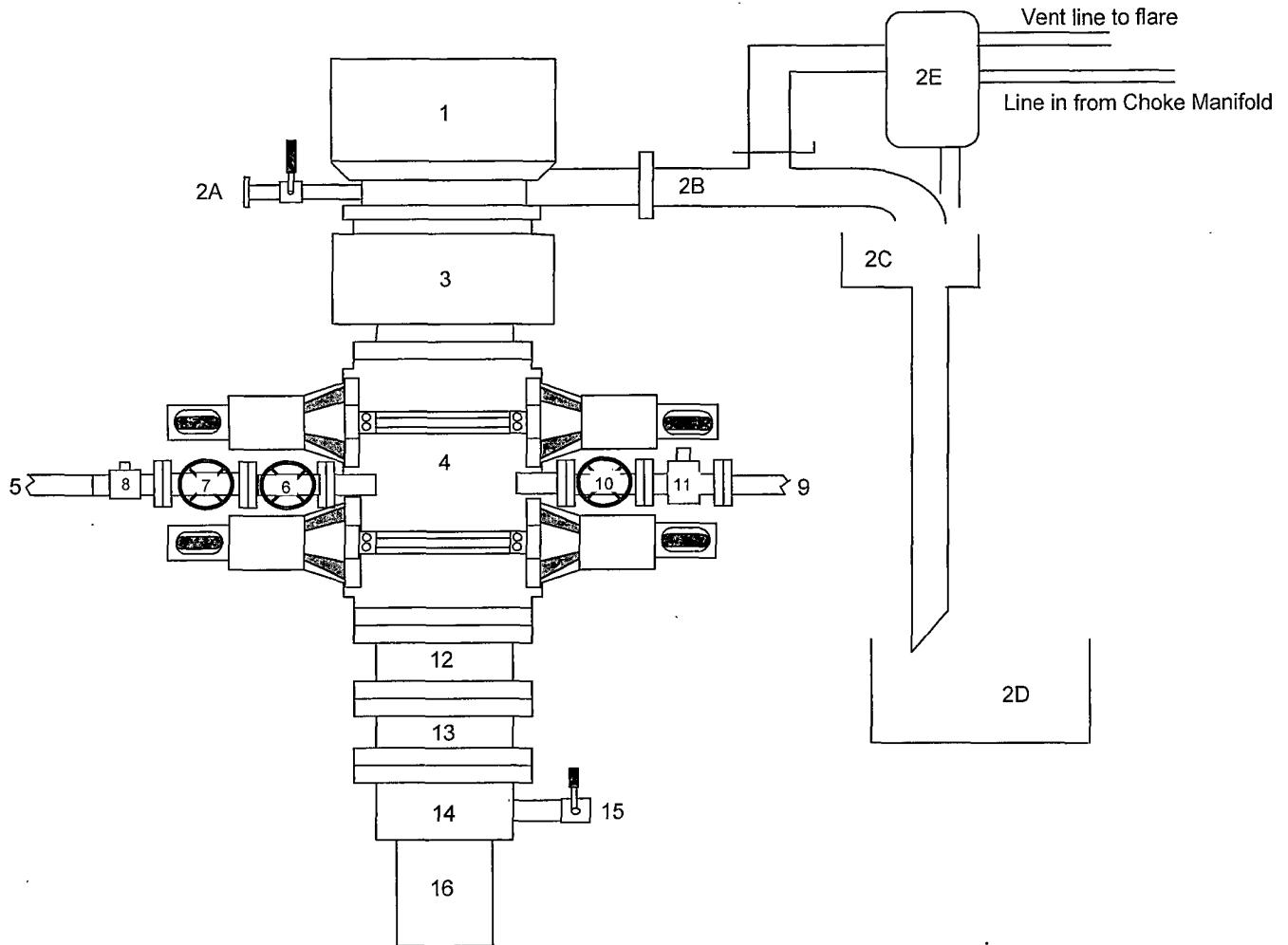
Anticipated Spud date of March 22, 2012. Construction of well pad and road will begin as soon as all agency approvals are obtained.

9. Address the proposed directional design, plan view, and vertical section in true vertical and measured depth for directional, horizontal, or coil tubing operations.

The proposed ~~directional/horizontal~~ documents are attached.

NA

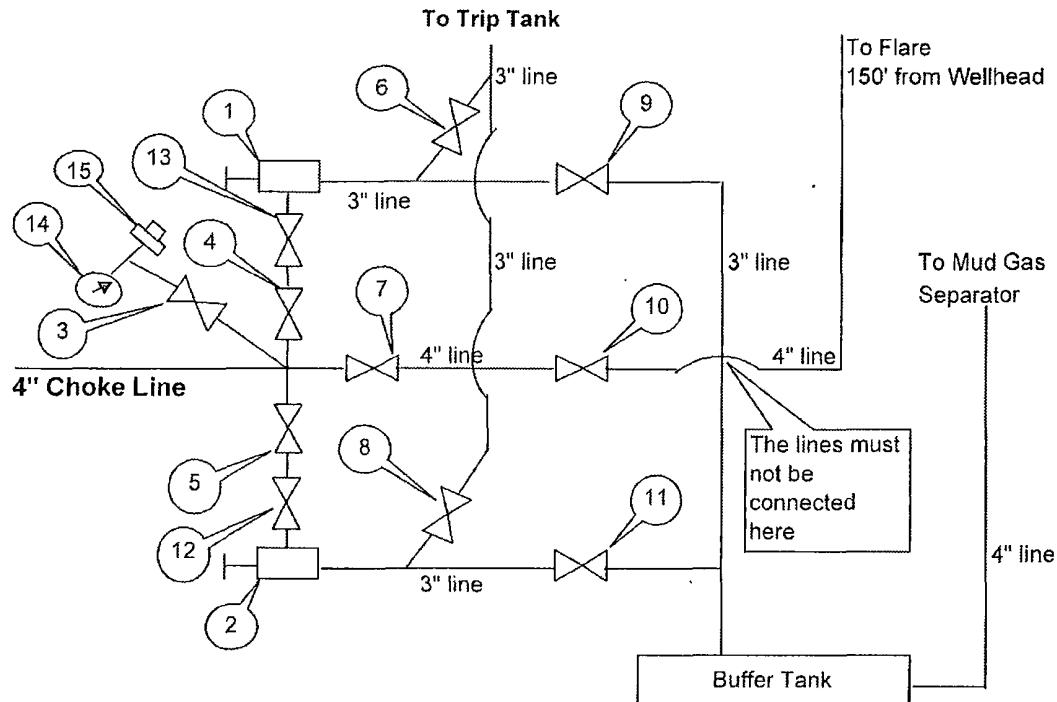
BLOWOUT PREVENTER ARRANGEMENT



Item	Description
1	Rotating Head (11")
2A	Fill up Line and Valve
2B	Flow Line (8")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (11", 3000 psi)
4	Double Ram BOP (11", 3000 psi, with Blind Rams in Upper Set and Pipe Rams in Lower Set)
5	Kill Line (2" Flexible Hose, 3000 psi WP)
6	Kill Line Valve, Inner (2-1/6" 3000 / 5000 psi WP)
7	Kill Line Valve, Outer (2-1/16", 3000 / 5000 psi WP)
8	Kill Line Check Valve (2-1/16", 3000 / 5000 psi WP)
9	Choke Line (3" Steel Line, 3000 psi WP)
10	Choke Line Valve, Inner (3-1/8", 3000 psi WP)
11	Choke Line Valve, Outer, (Hydraulically operated, 3-1/8", 3000 psi WP)
12	Spacer Spool (11" 3M x 3M)
13	Spacer Spool (11 3M x 5M)
14	Casing Head (11" 5M)
15	Ball Valve and Threaded Nipple on Casing Head Outlet, 2" 5M
16	Surface Casing

CHOKE MANIFOLD ARRANGEMENT

3M System per Onshore Oil and Gas Order No. 2 utilizing 10M rated equipment



Item	Description
1	Manual Adjustable Choke, 3-1/16, 10M
2	Manual Adjustable Choke, 3-1/16, 10M
3	Gate Valve, 2-1/16 10M
4	Gate Valve, 3-1/16 10M
5	Gate Valve, 3-1/16 10M
6	Gate Valve, 3-1/16 10M
7	Gate Valve, 4-1/16" 10M
8	Gate Valve, 3-1/16 10M
9	Gate Valve, 3-1/16 10M
10	Gate Valve, 4-1/16" 10M
11	Gate Valve, 3-1/16 5M
12	Gate Valve, 3-1/16 10M
13	Gate Valve, 3-1/16 10M
14	Pressure Gauge
15	2" hammer union tie-in point for BOP Tester

Drawn by.

Steven O. Moore

Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company

01-Feb-2012

DRILLING PLAN

PROSPECT/FIELD	Bonespring/Red Hills	COUNTY/STATE	Lea County, NM
OWNERS	ConocoPhillips Company	LEASE	
WELL NO.	Wilder Federal 29 #1SWD	FSL	FEL
LOCATION	Surface Location	2010	FWL
EST. T.D.	Bottom Hole Location	2010	2560
	6,300' TVD	GROUND ELEV.	3,131' (est)

PROGNOSIS: Based on 3,153' KB(est)

MARKER		TVD
Quaternary		Surface
Rustler		1129
Castile		2451
Delaware Top		4301
Ramsey		4334
Ford Sand		4404
Olds		4407
Bell Canyon SWDZ 1 Top		5715
Bell Canyon SWDZ 2 Top		5746
Bell Canyon SWDZ 3 Top		5792
Bell Canyon SWDZ 4 Top		5877
TD		6300

LOGS: Type Interval
Open Hole Triple Combo 950' - 6300'

DEVIATION:
Surf 3" max, svy every 500'
Prod 3" max, svy every 90'

DST'S:

CORES:
No core

SAMPLES:

BOP:
PD-194
11"- 3Mpsi Annular (Hydnl GK)
Double RAM BOP, 11" x 3M
11 X 5M Spacer Spool
11" x 5M Casing Head

Max. Anticipated BHP:	0 49 psi/ft	Surface Formation:	
MUD:	Interval	Type	Max. MW
Surface	0'-950'	Aquagel - Spud Mud	8 9
Production	950'-6300'	Brine	10 1
CASING:	Size	Wt ppf	Hole
Surface:	9-5/8"	36# J-55	12-1/4"
Intermediate 1'	7"	26# P-110	8-3/4"
			Depth
			950'
			6,300'
			Cement
			To Surface
			To Surface
			WOC
			12 hrs
			24 hrs
			Remarks

DIRECTIONAL PLAN
VERTICAL HOLE. MD TVD AZ

Prep By: Luis Serrano Date: 12/7/11 Doc: REV 0

Wilder Federal 29 #1SWD		
Surface Location:	2,010' FNL	2,560' FWL
Bottom Hole Location:	2,010' FNL	2,560' FWL

Formation	TVD
Quaternary	Surface
Rustler	1129
Castile	2451
Delaware Top	4301
Ramsey	4334
Ford Sand	4404
Olds	4407
Bell Canyon SWDZ 1 Top	5715
Bell Canyon SWDZ 2 Top	5746
Bell Canyon SWDZ 3 Top	5792
Bell Canyon SWDZ 4 Top	5877
TD	6300

Casing
Surface
950' 9-5/8" 36# J-55 STC

Drill Fluids
Surf. Hole:
FW gel mud
8 9#
w/ high vis sweeps

Cement

Data_These numbers are only estimates.

Surface
200 Sx Lead
80 Sx Tail
Based on 12 25" OH,
with 150% excess

Production
390 Sx Lead
150 Sx Tail
Based on 8 75" in Hole,
with 120% excess

Slurry Top
Surface
600' from Bottom

Production 7" 26# P-110 BTC

Production
Brne
10 1#
40-50 Vis
5-8 WL

Open Hole:

Triple Combo
From 6300'
to 950'

Max Anticipated BHP 0 494 psi/ft

Directional:	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI
0	0	0	0	0	0	0
#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
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Notes for Well:

- 1) Refer to the drilling program for detailed casing, drilling fluids, bit etc.
- 2) Drill surface 12-1/4" hole to the depth in the drilling permit (or drilling procedure) POOH
- 3) Run Surface 9-5/8" 36# J-55 STC Casing to 930' and cement same based on the cement proposal attached to the drilling procedure
- 4) WOC 18 hrs before attempting to get back in the hole with any tool
- 5) After 18hrs waiting on cement, test casing with 1,000 psi and then RIH with a 8-3/4" bit and drill production hole to 6300' TVD
- 6) Circulate until clean returns and trip out of the hole
- 7) Run 7" 26 # P-110 BTC Casing string to bottom and cement to surface, as per the proposal attached to the drilling procedure
- 8) NO BOPE. Install tubing head Test connection
- 9) Release drilling rig

Vick Harvey
Geologist

Date

Luis Serrano
Drilling Engineer

Date

Bonespring/Red Hills
ConocoPhillips Company
Wilder Federal 29 #1SWD

0

Surface Casing:

Surface Casing Depth (Ft)	950
Surface Casing O.D. (In.)	9.625
Surface Casing ID (In)	8.921
Hole O.D. (In)	12.25
Excess (%)	150%
Volume Tail (Sx)	200
Yield Tail (Cu. Ft./Sx)	1.85
Yield Lead (Cu. Ft./Sx)	1.33
Shoe Joint (Ft)	40
Shoe Volume (Cu. Ft)	17.4
Tail feet of cement	750
Calculated Total Volume (Cu. Ft.)	464
Cap 12.25"-9-5/8"	0.05578
Calc. Tail Volume (Cu. Ft.)	352
Calc. Lead Volume (Cu. Ft.)	94
Calc. Lead Volume (Sx)	80

Production 7" Casing (Lead):

Surface Casing O.D. (In.)	7"
Surface Casing ID (In)	6.276
Hole O.D. (In)	8.75
Excess (%)	120%
cap 8.75" - 7"	0.0268
Calculated fill:	5,300'
Yield Lead (Cu. Ft./Sx)	2.48
Calculated Total Lead (Cu. Ft.)	956
Calc. Lead Volume (Sx)	390

Production 7" Casing (Tail):

Intermediate Casing O.D. (In.)	7"
Production Casing ID (In)	6.276
Hole O.D. (In)	8.75
Excess (%)	120%
cap 8.75" - 7"	0.0268
Calculated fill:	1,000'
Yield Tail (Cu. Ft./Sx)	1.33
Shoe Joint (Ft)	40
Shoe Volume (Cu. Ft)	8.6
Calc. Tail Volume (Cu. Ft.)	189
Required Tail Volume (Sx)	150