Form 3160-3
(August 2007)

OCD-HOBBS

HOBBS OCD

MAR 1 2 2012

RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC068281B

6. If Indian, Allotee or Tribe Name

1a. Type of work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other SWD [ ] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.
Buck Federal 17 SWD #1 <39115>

2. Name of Operator
ConocoPhillips Company <217817>

9. API Well No.
30-025-40482

3a. Address 3300 N "A" St, Bldg 6 Midland, TX 79705

3b. Phone No. *(include area code)*
(432)688-6913

10. Field and Pool, or Exploratory
SWD; Bell Canyon <96769>

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface UL F, Sec 17, T 26S, R 32E, 2284 FNL 1950 FWL
At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area
Sec 17, T 26S, R 32E

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)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
964' FNL	640	NA

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
1080' north of Russell Fed #11	6300'	ES0085

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3176.4' Gr	02/01/2012	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.
2. A Drilling Plan.
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).
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 BLM.

25. Signature	Name *(Printed/Typed)*	Date
	Brian D Maiorino	12/13/2011

Title
Regulatory Specialist

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Don Peterson	/s/ Don Peterson	3/8/12

Title	Office
FIELD MANAGER	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)

SWD-1316

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

KA 03/14/12

SEE ATTACHED FOR CONDITIONS OF APPROVAL

MAR 19 2012

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-HOBBS
HOBBS OCD
MAR 1 2 2012
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FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

***SUBMIT IN TRIPLICATE** – Other instructions on page 2.*

5. Lease Serial No.
NMLC068281B

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other

8. Well Name and No.
Buck Federal 17 #1SWD

2. Name of Operator
ConocoPhillips Company

9. API Well No.

3a. Address
3300 N "A" St, Bldg 6 Midland TX 79705

3b. Phone No. *(include area code)*
(432)688-6913

10. Field and Pool or Exploratory Area
SWD; Bell Canyon

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
UL F, Sec 17, T 26S, R 32E, 2284 FNL 1950 FWL

11. Country or Parish, State
Lea NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☒ ~~Water Disposal~~	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

ConocoPhillips Company respectfully request to inject salt water into the Buck Federal 17 #1SWD

1. Perf Bell Canyon 5745'-5905' TVD
2. Run 3.5" tbg
3. Set pkr @ 5700'
4. Average 4,000 bbls/day 10,000 bbls/day max
5. Maximum injection pressure 1149 psi.

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Brian D Maiorino

Title Regulatory Specialist

Signature

Date 12/19/2011

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
/s/ Don Peterson

Title FIELD MANAGER

Date 3/8/12

Conditions of approval, if any, are attached. Approval of this notice 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.

Office CARLSBAD FIELD OFFICE

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 page 2)

OPERATORS NAME:	**ConocoPhillips Company**
LEASE NAME AND WELL NO.:	**Buck Federal 17 #1SWD**
SURFACE LOCATION:	**2284 FNL & 1950 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	1226	Anhydrite
Salado (Top of Salt)	1274	Salt
Castile	2491	Anhydrite
Delaware Top	4347	Gas, Oil and Water
Ramsey	4381	Gas, Oil and Water
Ford Sand	4451	Gas, Oil and Water
Olds	4454	Gas, Oil and Water
Bell Canyon SWDZ 1 Top	5764	Gas, Oil and Water
Bell Canyon SWDZ 2 Top	5792	Gas, Oil and Water
Bell Canyon SWDZ 3 Top	5839	Gas, Oil and Water
Bell Canyon SWDZ 4 Top	5924	Gas, Oil and Water
Total Depth (maximum)	6300	

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	1226 (water)
Rustler	1274 (Salt)
Salado	2491 (Salt)
Castile	4301 (Salt)

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 5764-6300 (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 nippling 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~~ 980'. Drill out with 12 ¼" 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 Sring	Settig Depth TVD	OD"	Wt lb/ft	Grade	Conn	MIY (psi)	Collapse (psi)	Jt Str (Klbs)	MASP	Burst DF	Collapse DF	Axial DF
Surface	~~950~~ 980	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

See COA

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.

a. 9.625" Csg: lead w/80 sx Class C cement + HalCem-C (Yeild: 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

b. 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~~ 980	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. See COA

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

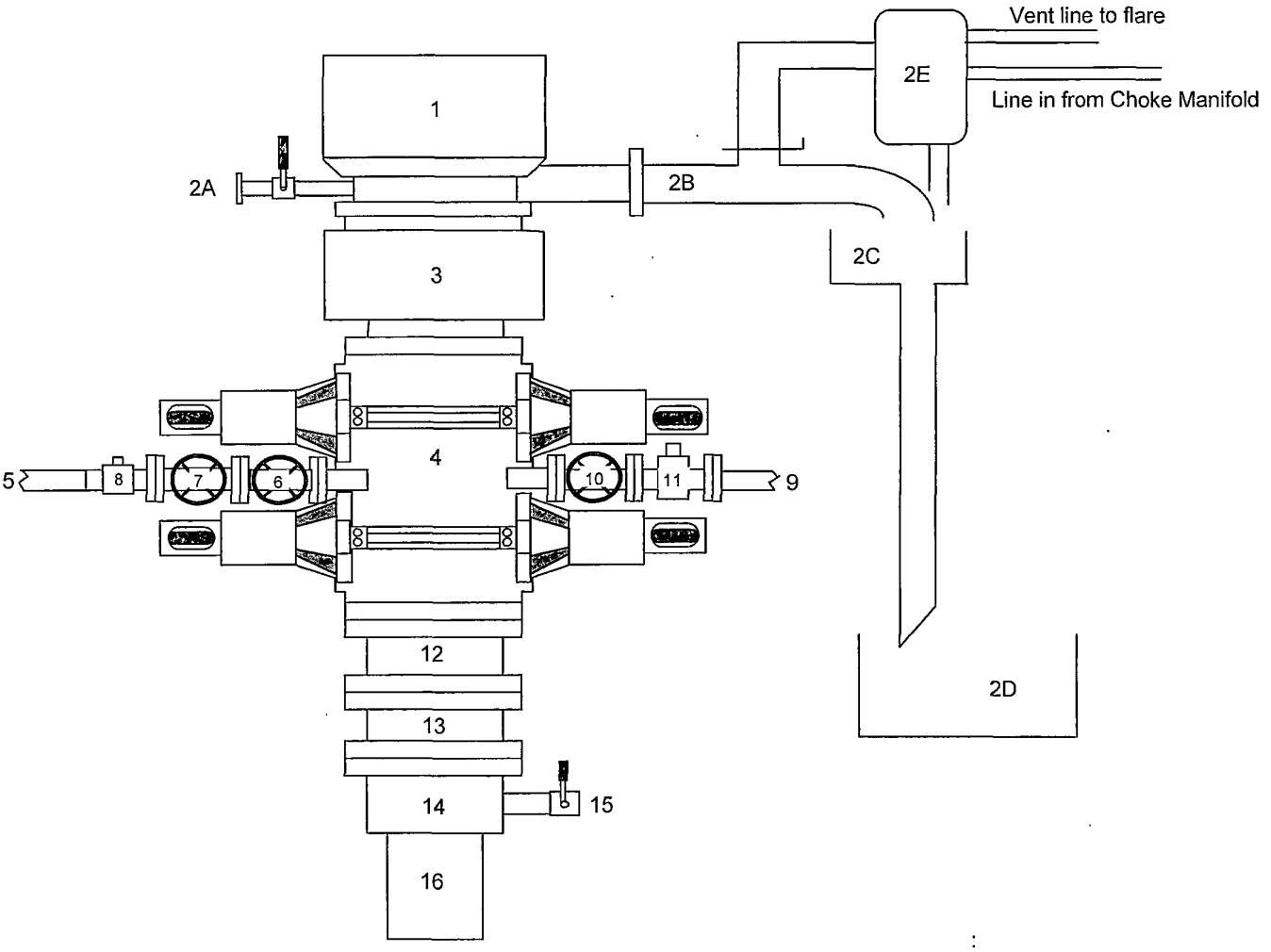
Any other facets of the proposed operation which the operator wishes to be considered in reviewing the application.

Anticipated Spud date of February 2, 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.

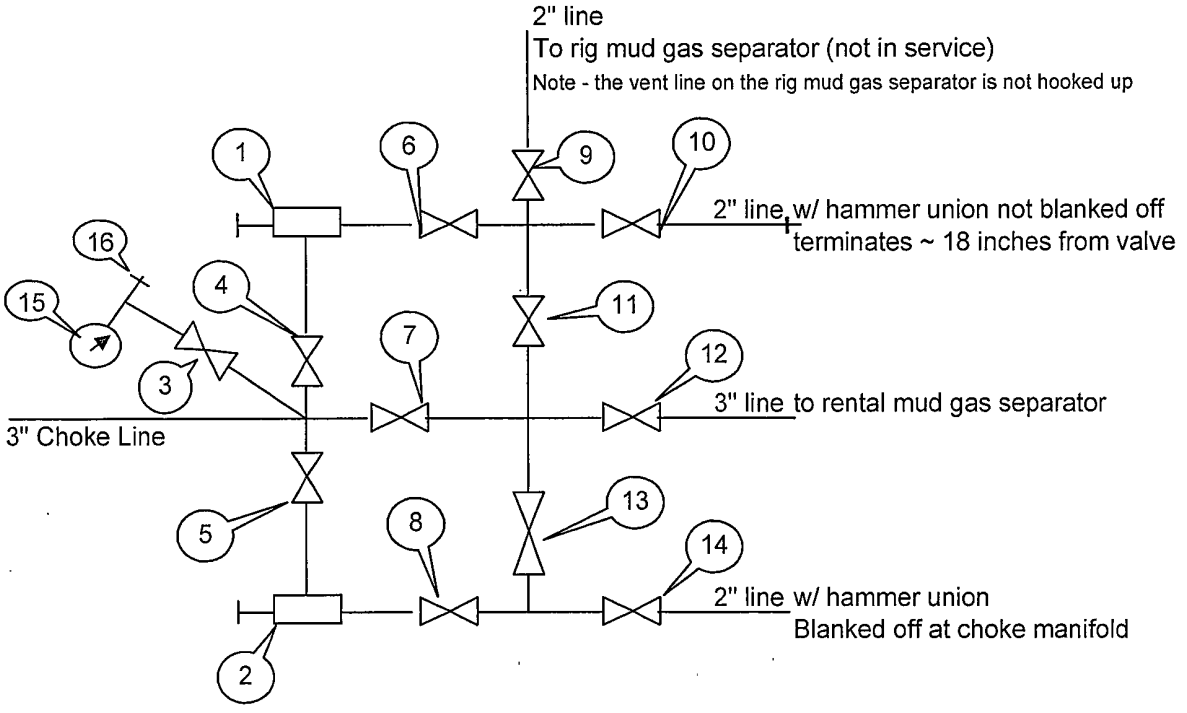
BLOWOUT PREVENTER ARRANGEMENT



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

Drawn by: Steven O. Moore, Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company, 03-Nov-2011

CHOKE MANIFOLD ARRANGEMENT



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

Drawn by:
Steven O. Moore
Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company
Date: 03-Nov-2011

DRILLING PLAN

PROSPECT/FIELD	Bonespring/Red Hills			**COUNTY/STATE**		Lea County, NM
OWNERS	ConocoPhillips Company		**LEASE**			
WELL NO.	Buck Federal 17 #1 SWD		**FNL**	**FSL**	**FEL**	**FWL**
LOCATION		Surface Location	2284			1950
		Bottom Hole Location	2284			1950
EST. T.D.	6,300' TVD			**GROUND ELEV.**		3,176' (est)

PROGNOSIS: Based on 3,198' KB(est)

MARKER		TVD
Quaternary		Surface
Rustler		1226
Castile		2491
Delaware Top		4347
Ramsey		4381
Ford Sand		4451
Olds		4454
Bell Canyon SWDZ 1 Top		5764
Bell Canyon SWDZ 2 Top		5792
Bell Canyon SWDZ 3 Top		5839
Bell Canyon SWDZ 4 Top		5924
TD		**6300**

LOGS:

Type	Interval
Open Hole	Triple Combo 95i

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 (Hydril 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	Vis	WL	Remarks
Surface:	0'-950'	Aquagel - Spud Mud	8.9	32-36	NC	
Production	950'-6300'	Brine	10.1	28-30	5-8	

CASING:	Size	Wt ppf	Hole	Depth	Cement	WOC	Remarks
Surface	9-5/8"	36# J-55	12-1/4"	950'	To Surface	12 hrs	
Intermediate 1	7"	26# P-110	8-3/4"	6,300'	To Surface	24 hrs	

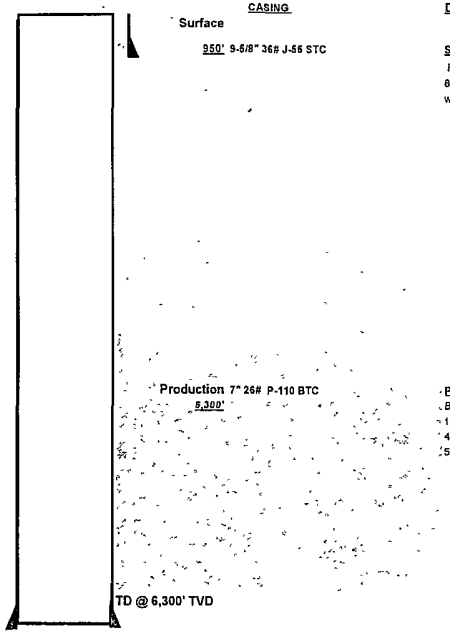
DIRECTIONAL PLAN

	MD	TVD	AZ
VERTICAL HOLE			

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

Buck Federal 17 #1 SWD		
Surface Location:	2,284' FNL	1,950' FWL
Bottom Hole Location:	2,284' FNL	1,950' FWL

Formation	TVD
Quaternary	Surface
Rustler	1226
Castile	2491
Delaware Top	4347
Ramsey	4361
Ford Sand	4451
Olds	4454
Bell Canyon SWDZ 1 Top	5764
Bell Canyon SWDZ 2 Top	5792
Bell Canyon SWDZ 3 Top	5839
Bell Canyon SWDZ 4 Top	5924
TD	6300



CASING

Drill Fluids

Surf Hole
FW gel mud
8 9#
w/ high vis sweeps

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

Cement

Data, These numbers are only estimates,

Surface:
200 Sx Lead
80 Sx Tail

Based on 12 25" OH,

with 150% excess

Production	Slurry Top
390 Sx Lead	Surface
150 Sx Tail	600' from Bottom

Based on 8 75 In Hole
with 120% excess

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
#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!

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) ND BOPE Install tubing head Test connection.
9) Release drilling rig

Vick Harvey
Geologist
Date

Luis Serrano
Drilling Engineer
Date

Bonespring/Red Hills
ConocoPhillips Company
Buck Federal 17 #1 SWD

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