

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**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.*

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

5. Lease Serial No.

NMNM 04208

6. If Indian, Allottee or tribe Name

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

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well

☐ Oil Well

☒ Gas Well

☐ Other

2. Name of Operator

BP AMERICA PRODUCTION COMPANY

3a. Address

P.O. BOX 3092 HOUSTON, TX 77253-3092

3b. Phone No. (include area code)

281-366-4081

8. Well Name and No.

McCulley LS 4 S

9. API Well No.

30-045-32426

10. Field and Pool, or Exploratory Area

BASIN FRUITLAND COAL

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: SEC 14 T28N & R09W SWNW 1490' FNL 910' FWL

Bottom Hole: Sec. 14 T28N & 09W NENW 816' FNL & 1838' FWL

11. County or Parish, State

SAN JUAN, NM

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

TYPE OF SUBMISSION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☐ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Water Disposal

☐ Water shut-Off

☐ Well Integrity

☒ Other Change to Original Drilling plan

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 recompleat 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 shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.

Original APD submitted on 6/21/04 and approved on 8/19/04. The original plan was to drill the well as a straight hole. It is now our intent to directionally drill the well to a bottom hole location of 816' FNL & 1838' FWL. The surface location remains the same.

Attached in support of our request is amended drilling and completion program, amended cementing report, directional drilling plot and profile & amended Form C-102.

14. I hereby certify that the foregoing is true and correct  
Name (Printed/typed)

Cherry Hlava

Title Regulatory Analyst

Signature

*Cherry Hlava*

Date 10/11/2004

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

*Jim Hobbs*

Title

*Pete. Eas*

Date

*10/18/04*

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

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.

HOLD C104 FOR Directional Survey

NMOCD

**BP AMERICA PRODUCTION COMPANY  
DRILLING AND COMPLETION PROGRAM**

**Prospect Name:** McCulley LS  
**Lease:**

**Well No:** 4S  
**Surface Location:** Section 14E, T28N, R9W;  
1490' FNL, 910' FWL  
**BHL:** 816' FNL; 1838' FWL  
**Field:** Basin Fruitland Coal

**County:** San Juan  
**State:** New Mexico  
**Date:** October 11, 2004

**OBJECTIVE:** Drill to a TD of 2676'; Set 7" casing and perf and frac the Fruitland Coal interval.

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS	DEPTH OF DRILLING	Estimated GL: 5896		Estimated KB: 5909	
Rotary	0 - 2676' KB	MARKER	SUBSEA	TVD	MD
<b>LOG PROGRAM</b>		Ojo Alamo	4746	1163	1273
		Kirtland	1309	4600	1442
		Fruitland	1907	4002	2133
		Fruitland Coal	2014	3895	2256
		Pictured Cliffs	2228	3681	2503
		TOTAL DEPTH		3531	2378
REMARKS:		# Probable completion interval * Possible Pay			
SPECIAL TESTS		DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE		FREQUENCY	DEPTH	FREQUENCY	DEPTH
None		none	none	Geolograph	0-2676
REMARKS:					

**MUD PROGRAM:**

Approx. Interval	Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification
0 - 120	Spud	8.6-9.2			
120 - 2676 (1)	Water/LSND	8.6-9.2		<6	

**REMARKS:**

(1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.

**CASING PROGRAM:** (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)

Casing String	Estimated Depth	Casing Size	Grade	Weight	Hole Size	Landing Pt, Cmt, Etc.
Surface/Conductor	120	8-5/8"	H-40, 8 RND	20.0	12 1/4"	1
Intermediate	2676	5-1/2"	J-55, 8 RND	15.5	8.75"	1

**REMARKS:**

(1) Circulate Cement to Surface

**CORING PROGRAM:**

None

**COMPLETION PROGRAM:**

Rigless, Single Stage Limited Entry Hydraulic Frac

**GENERAL REMARKS:**

Notify BLM/NMOCDD 24 hours prior to Spud, BOP testing, and Casing and Cementing.

Form 46 Reviewed by: \_\_\_\_\_ Logging program reviewed by: N/A

<b>PREPARED BY:</b>	<b>APPROVED:</b>	<b>DATE:</b>
HGJ		10/11/2004
Form 46 12-00 MNP		

**BP America Production Company  
BOP Pressure Testing Requirements**

Well Name: McCulley LS 4S

County: San Juan

State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1163		
Kirtland	1309		
Fruitland Coal	2014	400	0
PC	2228		
Lewis Shale			
Cliff House			
Menefee Shale			
Point Lookout			
Mancos			
Dakota			

\*\* Note: Determined using the following formula:  $ABHP - (.22 * TVD) = ASP$

Requested BOP Pressure Test Exception: 850 psi

District I  
PO Box 1980, Hobbs NM 88241-1980  
District II  
PO Drawer KK, Artesia, NM 87211-0719  
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

<sup>1</sup> API Number <b>30-045-32426</b>	<sup>2</sup> Pool Code <b>71629</b>	<sup>3</sup> Pool Name <b>Basin Fruitland Coal</b>
<sup>4</sup> Property Code <b>000 854</b>	<sup>5</sup> Property Name <b>McCulley LS</b>	<sup>6</sup> Well Number <b># 4S</b>
<sup>7</sup> OGRID No. <b>000 778</b>	<sup>8</sup> Operator Name <b>BP AMERICA PRODUCTION COMPANY</b>	<sup>9</sup> Elevation <b>5896</b>

<sup>10</sup> Surface Location

UL or Lot No. <b>E</b>	Section <b>14</b>	Township <b>28 N</b>	Range <b>9 W</b>	Lot Idn	Feet from the <b>1490</b>	North/South line <b>NORTH</b>	Feet from the <b>910</b>	East/West line <b>WEST</b>	County <b>SAN JUAN</b>
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<sup>11</sup> Bottom Hole Location If Different From Surface

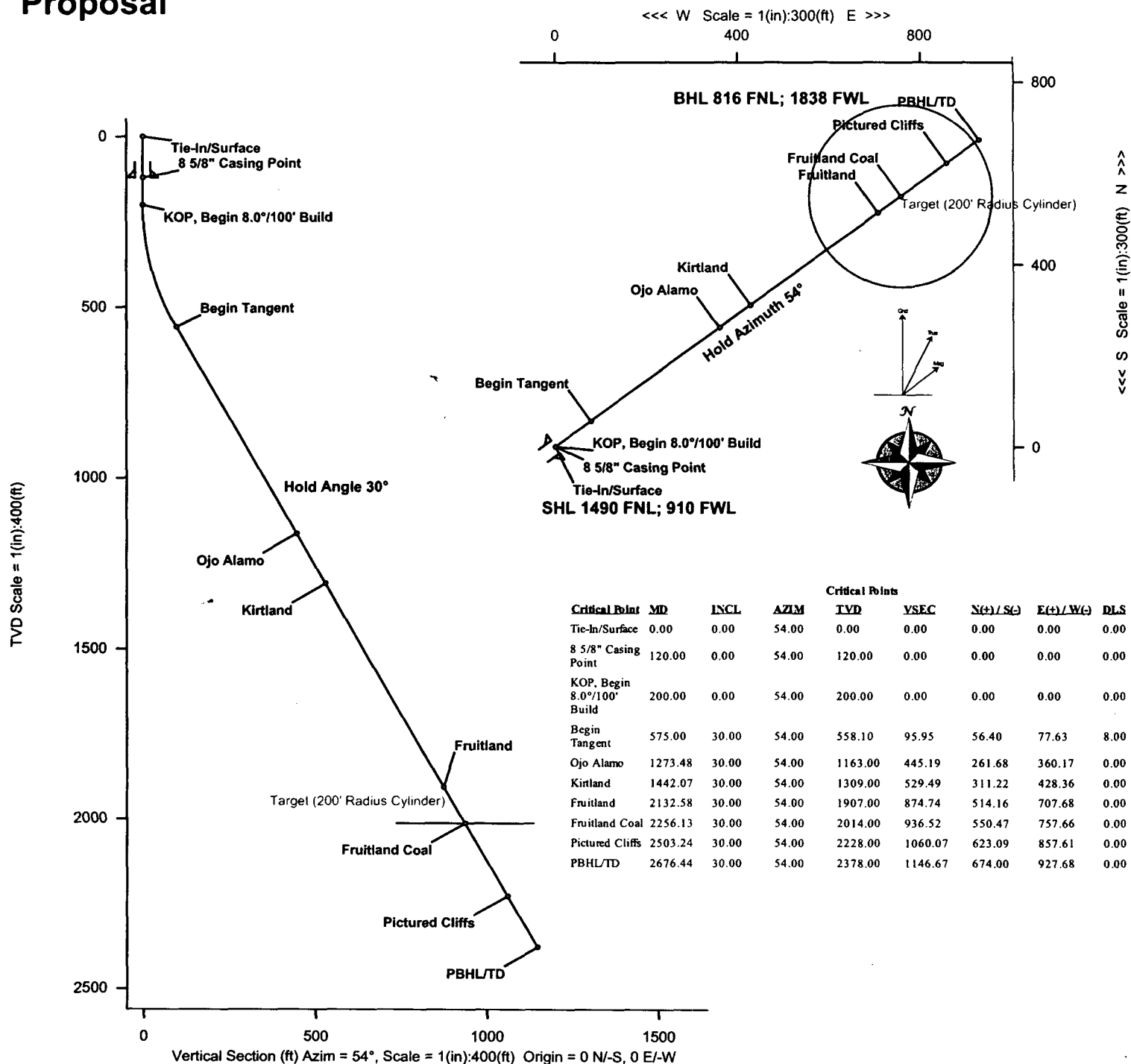
<sup>7</sup> UL or lot no. <b>C</b>	Section <b>14</b>	Township <b>28N</b>	Range <b>9W</b>	Lot Idn	Feet from the <b>816'</b>	North/South line <b>North</b>	Feet from the <b>1838'</b>	East/West line <b>West</b>	County <b>San Juan</b>
<sup>12</sup> Dedicated Acres <b>320</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<p>16</p> <p>1490'</p> <p>910'</p> <p>Δ BH 816' FNL, 1838' FWL Azimuth 54°</p> <p>14</p> <p>5290(R)</p> <p>5270(R)</p>	<p><sup>17</sup> 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><i>Cherry Hlava</i> Signature <b>Cherry Hlava</b> Printed Name <b>Regulatory Analyst</b> Title <b>6-16-04</b> Date</p>
	<p><sup>18</sup> 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><b>April 21, 2004</b> Date of Survey Signature and Seal of Professional Surveyor  <b>7016</b> Certificate Number</p>

Well	Field	Structure
McCulley LS 4S	NM, San Juan County	BP 14E-28N-9W

# Proposal



Quality Control  
Date Drawn: Wed 03:34 PM October 06, 2004  
Drawn by: John O'Keefe  
Checked by: Richard Sanders  
Client OK:

## McCulley LS 4S R0 Proposal

Report Date:	October 6, 2004	Survey / DLS Computation Method:	Minimum Curvature / Lubinski
Client:	BP America Inc.	Vertical Section Azimuth:	54.000°
Field:	NM, San Juan County (NAD 83 WZ) 2004	Vertical Section Origin:	N 0.000 ft, E 0.000 ft
Structure / Slot:	BP 14E-28N-9W (McCulley LS 4S) No Plat / McCulley LS 4S	TVD Reference Datum:	RKB
Well:	McCulley LS 4S	TVD Reference Elevation:	5909.0 ft relative to MSL
Borehole:	Original Hole	Sea Bed / Ground Level Elevation:	5896.000 ft relative to MSL
UWI/API#:		Magnetic Declination:	
Survey Name / Date:	McCulley LS 4S R0 jok 05-Oct-04 / October 6, 2004	Total Field Strength:	
Tort / AHD / DDI / ERD ratio:	30.000° / 1146.67 ft / 4.588 / 0.482	Magnetic Dip:	
Grid Coordinate System:	NAD83 New Mexico State Planes, Western Zone, US Feet	Declination Date:	
Location Lat/Long:		Magnetic Declination Model:	
Location Grid N/E Y/X:		North Reference:	Grid North
Grid Convergence Angle:		Total Corr Mag North -> Grid North:	
Grid Scale Factor:		Local Coordinates Referenced To:	Well Head

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Tool Face (deg)
Tie-In/Surface	0.00	0.00	54.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.00M
8 5/8" Casing Point	120.00	0.00	54.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	54.00M
KOP, Begin 8.0"/100' Build	200.00	0.00	54.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	54.00M
	300.00	8.00	54.00	299.68	6.97	4.10	5.64	6.97	54.00	8.00	0.00G
	400.00	16.00	54.00	397.41	27.74	16.31	22.45	27.74	54.00	8.00	0.00G
	500.00	24.00	54.00	491.30	61.92	36.39	50.09	61.92	54.00	8.00	0.00G
Begin Tangent	575.00	30.00	54.00	558.10	95.95	56.40	77.63	95.95	54.00	8.00	0.00G
Ojo Alamo	1273.48	30.00	54.00	1163.00	445.19	261.68	360.17	445.19	54.00	0.00	0.00G
Kirtland	1442.07	30.00	54.00	1309.00	529.49	311.22	428.36	529.49	54.00	0.00	0.00G
Fruitland	2132.58	30.00	54.00	1907.00	874.74	514.16	707.68	874.74	54.00	0.00	0.00G
Fruitland Coal	2256.13	30.00	54.00	2014.00	936.52	550.47	757.66	936.52	54.00	0.00	0.00G
Pictured Cliffs	2503.24	30.00	54.00	2228.00	1060.07	623.09	857.61	1060.07	54.00	0.00	0.00G
PBHL/TD	2676.44	30.00	54.00	2378.00	1146.67	674.00	927.68	1146.67	54.00	0.00	0.00G

Survey Type: Raw Proposal

Survey Error Model: SLB ISCWSA version 21 \*\*\* 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog:

MD From (ft)

0.00

MD To (ft) EOU Freq Survey Tool Type

2676.44 1/100.00 ft SLB\_MWD-STD

# Cementing Program

## FINAL CORRECTION 10/18/04

Well Name:	McCulley LS 4S	Field:	Basin Fruitland Coal
Location:	Sec 14 - 28N - 09W, 1490' FNL, 910' FWL	API No.	
County:	San Juan	Well Flac	
State:	New Mexico	Formation:	Fruitland Coal
		KB Elev (est)	5909
		GL Elev. (est)	5896

### Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)
Surface	120	12.25	8 5/8	8rd	Surface
Production -	2676	7 7/8	5 1/2	8rd	Surface

### Casing Properties:

(No Safety Factor Included)

Casing String	Size (in.)	Weight (lb/ft)	Grade
Surface	8 5/8	20	<del>H-40</del> X-42
Production -	5 1/2	15.5	J-55

### Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	Recommended Mud Properties Prio Cementing:
			PV <20
			YP <10
			Fluid Loss <6
0 - SCP	Water/Spud	8.6-9.2	
SCP - TD	Water/LSND	8.6-9.2	

### Cementing Program:

	Surface	Production
Excess %, Lead	100	40
Excess %, Tail	NA	40
BHST (est deg. F)	75	120
Special Instructions	1,6	2,4,6

1. Do not wash pumps and lines.
2. Wash pumps and lines.
3. Reverse out
4. Run Blend Test on Cement
5. Record Rate, Pressure, and Density on 3.5" disk
6. Confirm densitometer with pressurized mud scales

### Surface:

Preflush	20 bbl.	FreshWater	
Slurry 1	80 sx Class C Cement		99 cuft
TOC@Surface	+ 2% CaCl2 (accelerator)		
			0.4127 cuft/ft OH

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	15.2	1.27	5.8

### Casing Equipment:

- 8-5/8", 8R, ST&C
- 1 Guide Shoe
- 1 Top Wooden Plug
- 1 Autofill insert float valve
- Centralizers, 1 per joint except top joint
- 1 Stop Ring
- 1 Thread Lock Compound

**Production:**

Fresh Water	10 bbl	CW100
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Lead	240	sx Class "G" Cement	605	cuft
Slurry 1		+ 3% D79 extender		
TOC@Surface		+ 2% S1 Calcium Chloride		

Tail Slurry 2	120	50/50 Class "G"/Poz	141	cuft
		+ 2% gel (extender)		
500 ft fill		0.1% D46 antifoam		0.2019 cuft/ft OH
		+1/4 #/sk. Cellophane Flake		0.2009 cuft/ft csg ann
		+ 2% CaCl2 (accelerator)		

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	11.4	2.61	17.77
Slurry 2	13.5	1.27	5.72

**Casing Equipment:** 5 1/2", 8R, ST&C  
1 Float Shoe (autofill with minimal LCM in mud)  
1 Float Collar (autofill with minimal LCM in mud)  
Centralizers as needed  
1 Top Rubber Plug  
1 Thread Lock Compound