

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 12-11-14

Well information:

API WELL #	Well Name	Well #	Operator Name	Type	Stat	County	Surf_Owner	UL	Sec	Twp	N/S	Rng	W/E
30-045-25255-00-00	GREEK'S FETE	002	DUGAN PRODUCTION CORP	G	A	San Juan	F	B	24	30	N	15	W

Application Type:

- ☒ **P&A** ☐ Drilling/Casing Change ☐ Location Change
☐ Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84)
☐ Other:

Conditions of Approval:

Notify NMOCD 24hrs prior to beginning operations, casing & cement

Perform and submit a current C-102 plat using a current survey for the below grade marker.

NMOCD Approved by Signature

12/31/14 verbal given
Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

DEC 15 2014

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

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 reverse side.

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NM 10875
2. Name of Operator Dugan Production, c/o BHP Billiton San Juan Coal		6. If Indian, Allottee or Tribe Name
3a. Address PO Box 561, Water Flow, NM 87421	3b. Phone No. (include area code) 505-598-2000	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 790' FNL and 1650' FEL, Sec. 24, T-30-N, R-15-W		8. Well Name and No. Greek's Fete 2
		9. API Well No. 30-045-25255
		10. Field and Pool, or Exploratory Area Basin Dakota
		11. County or Parish, State San Juan, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 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.)

Dugan as the operator, desires BHP Billiton San Juan Coal to plug and abandon this well per the attached procedure.

Also request approval to set an underground plate instead of a 4" above ground marker to prevent stray electrical currents from entering the underground coal mine, as per MSHA requirements.

A closed loop system will be utilized for waste fluid.

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**



H₂S POTENTIAL EXIST

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Eric Herth		Title Mine Geologist
Signature 		Date 12/11/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Troy Salvors	Title PE	Date 12/19/2014
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 FFO	

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)

NMOCDA

PLUG AND ABANDONMENT PROCEDURE

December 11, 2014

Greek's Fete #2

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Basin Dakota
790' FNL and 1650' FEL, Section 24, T30N, R15W
San Juan County, New Mexico / API 30-045-25255

Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be water or drilling mud with sufficient weight to balance all exposed formation pressures. Cement is Class B mixed at 15.6 ppg with 1.18 cf/sxs yield or Class B with 18% salt by weight of water (for expansion, MSHA requirement through the Fruitland Coal zone).

MILLING OUT CASING AND PLUGGING PROCEDURE:

A closed loop system will be utilized.

1. Comply with all applicable MSHA, NMOCDC, BLM and BHP Billiton safety regulations. Conduct safety meeting for all personnel on location. MOL and RU daylight pulling unit. Lay relief line to the waste pit and blow well down, kill well with water as necessary. ND wellhead and NU BOP. Test BOP. Pull rod and tubing from well if present.
2. Rods: Yes ☐ , No ☐ , Unknown ☐ .
Tubing: Yes ☒ , No ☐ , Unknown ☐ , Size 2-3/8" , Length 5432' RKB .
Packer: Yes ☐ , No ☒ , Unknown ☐ , Type .
If this well has rods, a packer or tubing anchor, then modify the work sequence in step #2 appropriate. Pump twice the tubing capacity down the tubing before ND wellhead.
3. Round trip 4.5" string mill to 5410'. TIH and set a 4.5" cement retainer at 5407'. Pressure test the tubing to 1500 PSI. Load the well and circulate the casing clean. If paraffin is present, then circulate the well with hot water from a hot oil truck until clean. *Pressure test the casing to 1000 PSI. If the casing does not test, then tag or WOC plugs as appropriate.* TOH with setting tool. Run a CBL to determine the annulus top of cement.
4. **Plug #1 (Dakota perforations and top, 5472' – 5357')**: TIH with open ended tubing. Mix 20 sxs Class B cement and spot a balanced plug inside the casing to isolate the Dakota perforations and top. PUH to 4560'.

See COA
5. **Plug #2 (Gallup top, 4560' – 4460')**: Mix 20 Class B sxs cement and spot a balance plug to cover the Gallup top. PUH or TOH.

See COA
6. **Plug #3 (Mancos, 3780' – 3680')**: If the annulus top of cement (TOC) is below 3800', then perforate 3 HSC squeeze holes at 3780'. Attempt to establish rate into the squeeze holes. TIH and set CR at 3730'. Mix and pump 60 sxs Class B cement, squeeze 40 sxs outside 4.5" casing and leave 20 sxs inside casing to cover the Mancos top. If TOC is above 3700', then set an inside plug. PUH to 2378'.

PLUG AND ABANDONMENT PROCURE

December 11, 2014

Greek's Fete #2

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Plugging Procedure Continued:

See COA

7. **Plug #4 (Mesaverde top, 2378' – 2278')**: Mix 20 Class B sxs cement and spot a balanced plug to cover the Mesaverde top. PUH to 1565'.

See COA

8. **Plug #5 (Chacra top, 1565' - 1465')**: Mix 20 Class B sxs cement and spot a balanced plug to cover the Chacra top. TOH with tubing.

9. **Rig up Jet West wireline and run a Gamma - Neutron log and a directional survey log. Adjust the milling intervals as appropriate from these logs.**

All reported depths should be from ground level.

10. **Perforate the 4.5" casing below the Basel Fruitland Coal Seam (#8):** [after making the correcting depth adjustments]:
- a) Perforate 6 squeeze holes in a 2 foot interval from 1000' to 998'
 - b) Perforate 6 squeeze holes in a 2 foot interval from 950' to 948';
 - c) Perforate 6 squeeze holes in a 2 foot interval from 900' to 898';
 - d) Perforate 6 squeeze holes in a 2 foot interval from 850' to 848';
 - e) Perforate 6 squeeze holes in a 2 foot interval from 800' to 798';
 - f) Attempt to establish a rate into these squeeze holes, up to 1500 PSI
 - g) If the CBL log shows poor bond in the interval from 1000' to 800', then adjust the above perforations as appropriate to enhance the cement quality in the annulus below the coal
 - h) **Plug #6 (Pictured Cliffs interval, 1022' to 775')**: Squeeze the above holes with Class B neat cement; volume depending on the injection rate and pressure; between 25 to 100 sxs cement. Hesitation pressure squeeze up to 2000 PSI.
11. Pick up a 3.875" bit and 6 - 3.125" drill collars and TIH to tag cement. Drill out cement from plug #6 down to 780'. Pressure test the casing to 1000 PSI. TOH and LD bit.
12. PU a flat bottom mill, the 3.875" section milling tool and the 6 - 3.125" drill collars; this is the milling bottom hole assembly(BHA). TIH with BHA and work string to 737'. Rig up drilling equipment and establish circulation with a high viscosity low solids fresh water mud.
13. **Note: The intervals to be milled out below are from ground level - not KB.**
14. **Mill out the 4.5" casing from 737' to 763'.** Start milling out the 4.5" casing from 737' down to 763'. Mill per the tool hands instructions for weight on mill, circulation rate and power swivel's RPM. Circulate well clean with mud. TOH with section will and workstring; stand back the drill collars. TIH with bit and clean out to 780'. Circulate the well clean. TOH with the bit.

PLUG AND ABANDONMENT PROCEDURE

December 11, 2014

Greek's Fete #2

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Plugging Procedure Continued:

15. Rig up a wireline truck and run a caliper log through the milled interval to insure all the 4.5" casing from the planned milling depths (763' to 740') has been removed. Re-mill as appropriate. Re-log as necessary.
16. **Perforate the 4.5" casing with 6 SPF at 621' and 615'.** This is the top and bottom of Coal Seam #9 and the depths should be modified as appropriate from the logs run in step #8.
17. **Plug #7 (Fruitland Coal interval, 775' to 310'):** TIH open ended workstring and. Circulate out the mud with water in the well. Mix 50 sxs Class B cement with 18% salt (by weight of water) and spot a balanced plug from 775' to 310' to fill the milled interval and cover the Fruitland top. Displace cement with water. TOH with workstring and shut the casing valve. Then hesitation squeeze the cement down to approximately to 310' inside the 4.5" casing up to 1500 PSI.
18. **Plug #8 (8.625" Surface casing shoe, 310' to Surface):** Connect the pump line to the bradenhead valve. Pressure test the BH annulus to 300#; note the fluid volume to load. If the BH annulus tests, then mix approximately 25 sxs cement with or without 18% salt cement and spot a balanced plug inside the 4.5" casing from 310' (or TOC) to surface to cover the 8.625" surface casing shoe. TOH and LD the tubing. If the BH annulus does not test, then perforate at the appropriate depth and fill the bradenhead annulus and 4.5" casing with cement to surface. TOH and LD tubing. Shut in well and WOC.
19. ND BOP and cut off wellhead below surface. Install P&A marker with cement to comply with regulations. RD, MOL. Cut off anchors and clean up location.

Greek's Fete #2

Current

Basin Dakota

Today's Date: 12/11/14

Spud: 12/7/81

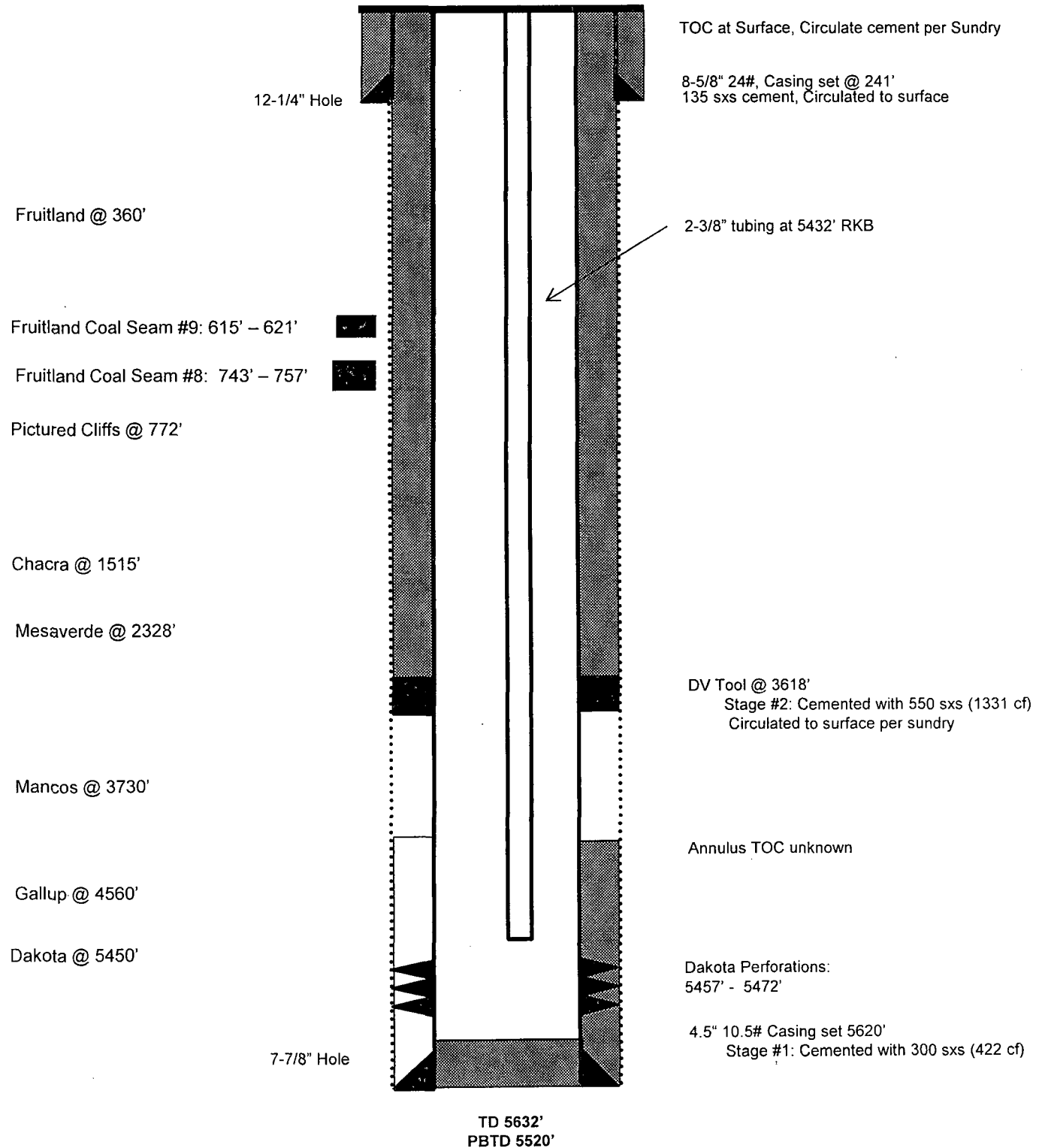
Completed: 12/19/81

Elevation: 5355' GL

790' FNL & 1650' FEL, Section 24, T-30-N, R-15-W

San Juan County, NM / API #30-045-25255

Lat: N _____ / Long: W _____



Greek's Fete #2

Proposed P&A

Basin Dakota

Today's Date: 12/11/14

Spud: 12/7/81

Completed: 12/19/81

Elevation: 5355' GL

790' FNL & 1650' FEL, Section 24, T-30-N, R-15-W

San Juan County, NM / API #30-045-25255

Lat: N _____ / Long: W _____

TOC at Surface, Circulate cement per Sundry

8-5/8" 24#, Casing set @ 241'
135 sxs cement, Circulated to surface

Plug #8: 310' - 0'
Class B cement, 25 sxs

Perforate @ 615'
Perforate @ 621'

Plug #7: 775' - 310'
Class B cement, 50 sxs
with 18% salt by weight
of water

Mill out casing
from 737' to 763'

Perforate @ 800'
Perforate @ 850'
Perforate @ 900'
Perforate @ 950'
Perforate @ 1000'

Plug #6: 1025' - 775'
Class B cement, 40 sxs

Plug #5: 1565' - 1465'
Class B cement, 20 sxs

Plug #4: 2378' - 2278'
Class B cement, 20 sxs

DV Tool @ 3618'
Stage #2: Cmt with 1331 cf
Circulated to surface

Set CR @ 3730'

Plug #3: 3780' - 3680'
Class B cement, 60 sxs:
20 inside and 40 outside

Perforate @ 3780'

Annulus TOC unknown

Plug #2: 4600' - 4500'
Class B cement, 20 sxs

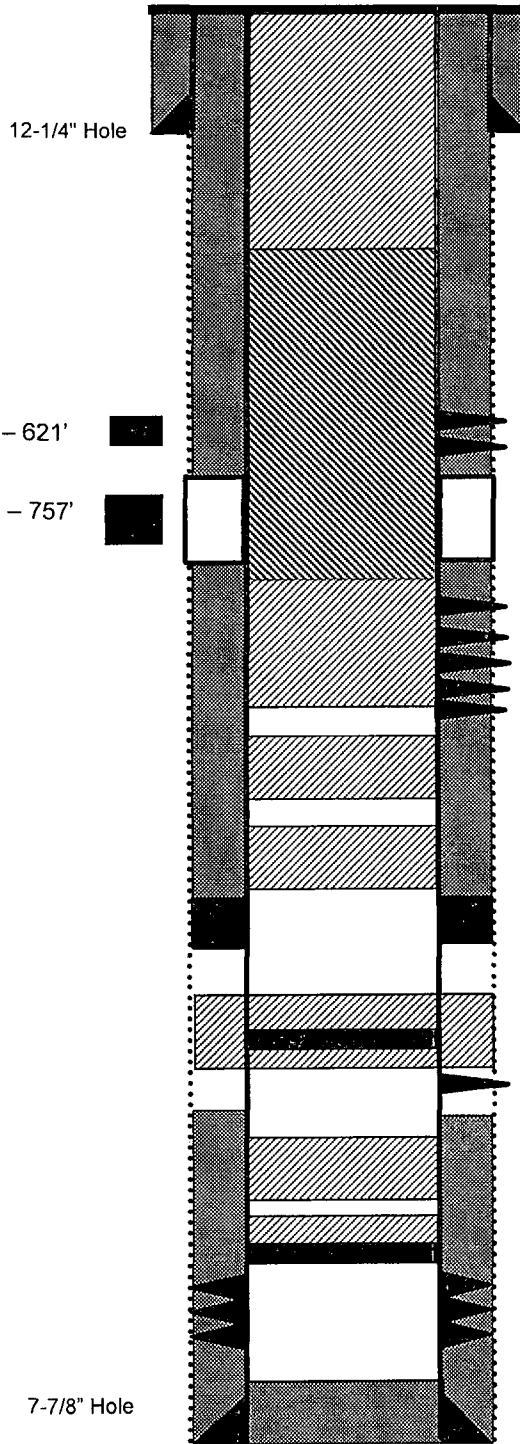
TOC unknown

Set CR @ 5407'

Plug #1: 5472' - 5357'
Class B cement, 20 sxs

Dakota Perforations:
5457' - 5472'

4.5" 10.5# Casing set 5620'
Stage #1: Cemented with 300 sxs (422 cf)



TD 5632'
PBSD 5520'

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402

Attachment to notice of
Intention to Abandon:

Re: Permanent Abandonment
Well: Greek's Fete #2

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Leases."
2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
3. The following modifications to your plugging program are to be made:
 - a) Set plug #2 from (4609-4509) ft. to cover the Gallup top.
 - b) Set plug #3 from (3643-3543) ft. inside/outside to cover the Mancos top.
 - c) Set plug #4 from (2400-2300) ft. to cover the Mesaverde top.
 - d) Set plug #5 from (1832-1732) ft. to cover the Chacra top.

Operator will run a CBL to verify cement top. Outside plugs will be modified per CBL result. Submit electronic copy of the log for verification to the following addresses: tsalyers@blm.gov
Brandon.Powell@state.nm.us

Note: H₂S have been reported in this location; however, high to very high concentrations of H₂S (100ppm-47,600ppm GSV) have been reported in several wells within a 1 mile radius of this location. It is imperative that H₂S monitoring and safety equipment be on location during the plugging operations at this wellsite.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.