

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

**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

☐ Oil Well ☐ Gas Well ☒ Other Inj

2. Name of Operator *Vulcan Minerals & Energy*  
*% NMOC*

3a. Address *1000 Rio Brazos Rd.*  
*Aztec, NM 87410*

3b. Phone No. (include area code)  
*334-6178*

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
*Sec. 24 - T. 31 N., R. 17 W.*

*1998/Na 702/E*

5. Lease Serial No.

*14-20-603-2022*

6. If Indian, Allottee or Tribe Name

*Navajo*

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

*Horseshoe Gallup*

8. Well Name and No.

*93 HGU*

9. API Well No.

*3004510627*

10. Field and Pool, or Exploratory Area

*Horseshoe Gallup*

11. County or Parish, State

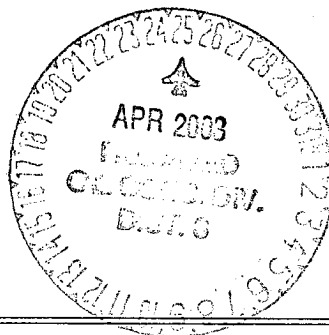
*San Juan, NM*

**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.)

*See attached plugging procedure:*



14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

*NMOC CONTRACT Plugging*

Title

Signature

*NMOC*

Date

*4/24/03*

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

**Original Signed: Stephen Mason**

Title

Date

*4/24/03*

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.

**NMOC**

API WELL # Well Name Well # Operator Name Type Stat County UL Sec Twp N/S Rng W/E Feet NS Ft EW Order\_No  
30-045-10627 HORSESHOE GALLUP UNIT 093 PLAYA MINERALS & ENERGY INC I A San Juan H 24 31 N 17 W 1998 N 702 E  
R-2210

api\_number status csg\_1 csg\_1q csg\_1d csg\_2 csg\_2q csg\_2d csg\_3 csg\_3q csg\_3d  
liner\_size liner\_quan tubing t\_set\_dept csg\_perf 30-045-10627 WI 8 5/8 115 50 5 1/2  
1565 100 1397-1515

Procedure

MIRU, NUBOPE,

POOH Lay Down Rods & Tubing if present,

RIH with Gauge ring,

Pick up work string, Run Scraper if required,

RIH Set CIBP 1300 ', cap with 218 'cement .

Test casing.

POOH lay down tubing.

RU wire line RIH, perforate @ 165 ' + - 50' under surface casing shoe or Mesa Verde base whichever is lower..

Establish Circulation; circulate cement to surface inside and outside casing

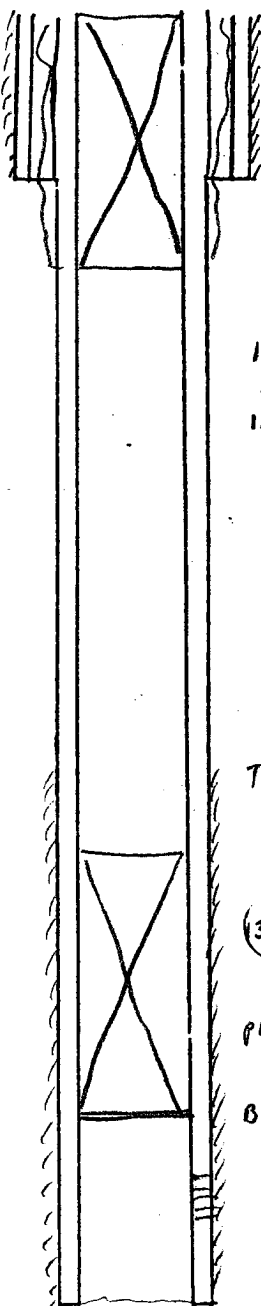
Cut off well head and install P&A marker

Cut off anchors 2' below ground

Clean and level location

WELL NAME 93 HCU  
 SEC, TWN, RNG. 24-31N-17W

Mesa Verde  
 Point Lookout  
 Mancos 84'



8 5/8" 29 #  
 115'

plug 165 - surface

$$\begin{aligned} 165 / 7.299 (1.18) &= 19 \text{ SKS} \\ 50 / 5.7719 (1.18) &= 7 \text{ SKS} \\ 115 / 5.389 (1.18) &= 18 \text{ SKS} \\ &44 \text{ SKS} \end{aligned}$$

TOC  $\approx$  1017' 75% eff.

Gallup 1132'

$$(300 - 1082) + 50 / 7.299 (1.18) = 31 \text{ SKS}$$

plug 1300 - 1082

BP @ 1300'

perf 1397 - 1515'

5 1/2" 14 #  
 1565'

### SURFACE CASING

SIZE HOLE \_\_\_\_\_"  
 SIZE CASING \_\_\_\_\_"  
 Annular Volume \_\_\_\_\_ ft<sup>3</sup>/ft.  
 Cement \_\_\_\_\_ SK  
 Volume \_\_\_\_\_ ft<sup>3</sup>

### INTERMEDIATE CASING

SIZE HOLE \_\_\_\_\_"  
 SIZE CASING \_\_\_\_\_"  
 Annular Volume \_\_\_\_\_ f  
 Cement \_\_\_\_\_ S  
 Volume \_\_\_\_\_ f