## State of New Mexico

Form C-103

Revised 1-1-89 to Appropriate Energy, Minerals and Natural Resources Department District Office OIL CONSERVATION DIVISION DISTRICT I WELL API NO. P.O. Box 1980, Hobbs, NM 88240 2040 Pacheco St. 30-025-26105 Santa Fe. NM 87505 **DISTRICT II** sIndicate Type of Lease P.O. Drawer DD, Artesia, NM 88210 STATE X FEE **DISTRICT III** «State Oil & Gas Lease No. 1000 Rio Brazos Rd., Aztec, NM 87410 B-229 SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A 7Lease Name or Unit Agreement Name DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" Arnott Ramsay (NCT-B) (FORM C-101) FOR SUCH PROPOSALS.) Type of Well: WELL WELL «Well No. 2Name of Operator Doyle Hartman -5 Pool name or Wildcat 3Address of Operator P.O. Box 10426, Midland, Tx 79702 Langlie Mattix; 7R-Queen Grayburg 4Well Location South 1650 330 East Feet From The Line and Feet From The Line Unit Letter **25S** 37E Lea Section Range (aElevation (Show whether DF, RKB, RT, GR, etc.) 2995' RKB (2984' GL) Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF: PLUG AND ABANDON ALTERING CASING REMEDIAL WORK PERFORM REMEDIAL WORK PLUG AND ANBANDONMENT **TEMPORARILY ABANDON CHANGE PLANS** COMMENCE DRILLING OPNS. CASING TEST AND CEMENT JOB **PULL OR ALTER CASING** OTHER: 12Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103. For Details of Completed Operations and Proposed Plugging Procedure, see page 2 of 4, 3 of 4 and 4 of 4 attached hereto, and made a part hereof. THE COMMISSION MUST BE NOTIFIED 24 HOURS PRIOR TO THE BEGINNING OF PLUGGING OPERATIONS FOR THE C-103 TO BE APPROVED. true and mplete to the best of my knowledge and belief. I hereby certify that the information above TITLE Engineer \_ DATE <u>11-02</u>-01 SIGNATURE TYPE OR PRINT NAME Steve Hartman TELEPHONE NO. 915-684-4011

(This space for State Use)

APPROVED BY

ORIGINAL SIGNED BY

NOV 0 6 200

GARY W. WINK NATURAL SCIENCE MANAGER & CONDITIONS OF APPROVAL, IF ANY:



Page 2 of 4 NMOCD Form C-103 dated 11-02-01 Doyle Hartman Arnott Ramsay "NCT-B" No. 5 O-32-25S-37E API No. 30-025-26105

## **Details of Completed Operations and Proposed Plugging Procedure**

On 8-30-01, moved in and rigged up well service unit. Pulled and laid down old 2 3/8" O.D. tubing and old 3/4" rod string.

Ran new 2 3/8" O.D., 4.7 lb/ft, J-55, EUE tubing, 4 ½" Model "C" packer, and 4 1/2" Model "C" RBP. Set 4 1/2" Model "C" RBP, at 3220'. Tested 4 1/2" Model "C" RBP, to 1000 psi. Loaded wellbore with water. Pulled 4 1/2" Model "C" packer.

Rigged up Schlumberger. Logged well, with DS-CNL-GR-CCL log (dated 8/31/01) and VDCBL-GR-CCL log (dated 8/31/01). Rigged down Schlumberger. Pulled 4 1/2" Model "C" RBP. Shut down for weekend.

Rigged up wireline truck. Set Halliburton 4 1/2" EZ-Drill retainer, at 3228'. Ran 2 3/8" O.D. tubing and stinger tool. Squeeze cemented perfs, from 3278' to 3420', with 500 sx of API Class "C" Neat cement, followed by 200 sx of API Class "C" cement, containing 2% CaCl<sub>2</sub>, 3 lbs/sx Gilsonite, and 0.25 lb/sx Flocele. Final displacement rate was 1.0 BPM, at 2760 psi. ISIP = 2070 psi.

Ran 4 1/2" Model "C" packer and 4 1/2" Model "C" RBP. Set 4 1/2" Model "C" RBP, at 1258'. Located hole, in 4 1/2" O.D. casing, at 980'. Pulled 4 1/2" Model "C" packer.

Dumped 4 sx (41') of frac sand down 4 1/2" O.D. casing, to cover 4 1/2" Model "C" RBP, at 1258'. Ran and set 4 1/2" Model "C" packer, at 771'. Squeeze cemented casing hole, at 980', with 500 sx of API Class "C" Neat cement, followed by 200 sx of API Class "C" cement, containing 2% CaCl<sub>2</sub>, 3 lb/sx Gilsonite, and 0.25 lb/sx Flocele. Final displacement rate was 1.0 BPM, at 720 psi. ISIP = 720 psi.

Cleared casing hole, by over displacing, with an additional 35 bbls of water. Ordered more cement.

Squeeze cemented casing hole, at 980', with an additional 800 sx of API Class "C" cement, containing 2% CaCl<sub>2</sub>, 3 lb/sx Gilsonite, and 0.25 lb/sx Flocele. Stage squeezed, to a transpressure of 1440 psi. Pressure held okay.

Tied pump truck to 8 5/8" O.D. casing. Cemented down 8 5/8" O.D. casing, with 800 st of API Class "C" cement, containing 3% CaCl<sub>2</sub>, 3 lb/sx Gilsonite, 0.25 lbs/sx Flocele. Final pump rate was 1.0 BPM, at 1780 psi. ISIP = 1565 psi. 5-min SIP = 1510 psi. Shut in 8 5/8" O.D. casing.

Pulled 2 3/8" O.D. tubing and 4 1/2" Model "C" packer.

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Ran bottom-hole drilling assembly. Drilled cement, from 776' to 989'. Circulated hole clean. Pressure tested 4 1/2" O.D. casing, from 0' to 1217', to 2500 psi. Pressure held okay. Pulled bottom-hole drilling assembly.

Ran 2 3/8" O.D. tubing and retrieving head. Circulated remaining sand off of 4 1/2" Model "C" RBP. Pulled and laid down 4 1/2" Model "C" RBP.

Ran bottom-hole drilling assembly. Tagged retainer at 3229'. Drilled retainer, and 44' of cement, to 3275'.

Perforated 4 1/2" O.D. casing, from 2687' to 3205', with (33) 0.38" x 19" holes.

2687	2713	2744	2779	2908	3103	3182
2690	2719	2752	2782	2926	3137	3201
2698	2729	2755	2785	2929	3149	3205
2705	2734	2768	2898	2939	3176	
2709	2737	2773	2902	2945	3179	

Acidized perfs, from 2687' to 3205', in two stages, with a total of 6300 gal of 15% MCA acid. Balled out, on both stages.

Ran 2 3/8" O.D. tubing and new 3/4" Axelson S-87 API Class "KD" rod string. Commenced pumping and cleaning up well, at 11:30 a.m., CDT, 9-12-01, at 8.6 spm x 64" x 1 1/4".

Performed well test, as follows:

 Date:
 10-3-01

 Gas Rate:
 TSTM

 Water Rate:
 27.2 BPD

 Orifice Plate Size:
 0.125"

 CP
 =

 OP
 =

 0.1 psi

 0 psi

Pulled rods and tubing. Set Halliburton 4 1/2" EZ-Drill retainer, at 3090'.

Ran 2 3/8" O.D. tubing and cementing stinger. Stung into retainer. Squeeze cemented perfs, from 3103' to 3205' (8 holes), with 500 sx of API Class "C" Neat cement, followed by 200 sx of API Class "C" cement, containing 2% CaCl<sub>2</sub>, 3 lb/sx Gilsonite, and 0.25 lb/sx Flocele. Final displacement rate was 1.0 BPM, at 1295 psi. Pulled out of retainer. Pulled 2 3/8" O.D. tubing.

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Ran  $4\frac{1}{2}$ " Model "C" packer. Performed second acid ballout job, of remaining perfs, from 2687' to 2945' (25 holes), utilizing 5000 gal of 15% MCA acid. Ran 2 3/8" O.D. tubing and 3/4" rod string. Resumed testing and cleaning up perfs, from 2687' to 2945', at 5:30 p.m., CDT, 10-8-01, at 8.6 spm x 64" x  $1 \frac{1}{4}$ ".

## Performed well test, as follows:

Date:	10-28-01
Gas Rate:	<b>TSTM</b>
Water Rate:	0
Orifice Plate Size:	0.125"
CP =	0.1 psi
OP =	0.1 psi

We now propose to plug and abandon well, as follows:

- 1. Pull and lay down rods and tubing.
- 2. Install cementing head.
- 3. Perform low-rate low-wellhead-pressure squeeze job, down 4 ½" O.D. casing, with 250 sx of API Class "C" cement, containing 3% CaCl<sub>2</sub>, 3 lbs/sx Gilsonite, 0.25 lbs/sx Flocele, followed by 250 sx of API Class "C" cement, containing 2% CaCl<sub>2</sub>, 3lb/sx Gilsonite, 0.25 lb/sx Flocele (casing capacity = 203 sx).
- 4. Leave 4 ½" casing <u>full of cement</u>, from 0' to 2945'; i.e., will <u>not</u> displace with water.
- 5. Install dry-hole marker.
- 6. Clean location.

