

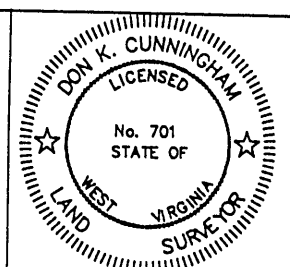
NOTES:  
All known oil & gas wells within 2,400' of the proposed well location are shown hereon.  
The bearings and distances shown hereon are based on the West Virginia State Plane Coordinate System, South Zone, NAD '27.

WEST VIRGINIA STATE PLANE COORDINATES  
South Zone NAD 27  
N 285,164.15; E 1,897,176.57

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 1340-02-002  
DRAWING NO. PLAT MM-5.dwg  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY 1 : 16,532  
PROVEN SOURCE OF ELEVATION GPS - Global Positioning System

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY THE LAW AND THE REGULATIONS AND ISSUED PRESCRIBED BY THE DEPARTMENT OF ENERGY.  
(SIGNED) Don K Cunningham  
R.P.E. \_\_\_\_\_ L.L.S. 701



STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

DATE December 12 2002  
OPERATOR'S WELL NO. MM-5  
API WELL NO. 47-081-01299C  
STATE . COUNTY PERMIT



WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
LOCATION: ELEVATION 2,070.68' WATER SHED Marsh Fork  
DISTRICT Trap Hill COUNTY Raleigh  
QUADRANGLE Eccles

SURFACE OWNER Kenneth P. Hatcher ACREAGE 4.06  
OIL & GAS ROYALTY OWNER RAG American Coal LEASE ACREAGE 1045.7

PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
TARGET FORMATION Pocahontas - 2 ESTIMATED DEPTH 1500'  
WELL OPERATOR Amvest Oil & Gas, Inc. DESIGNATED AGENT Anthony A. Wilhoit  
ADDRESS One Boar's Head Pointe, P.O. Box 5347 Charlottesville, VA 22905 ADDRESS 230 Capitol Street, Charleston, WV 25325

JAN 31 2003

COUNTY NAME RAL  
PERMIT 1299C

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Kenneth P. Hatcher Operator Well No.: MM-5

LOCATION: Elevation: 2070.68 Quadrangle: Eccles

District: Trap Hill County: Raleigh  
Latitude: 0 Feet South of 37 Deg. 46 Min. 57.01 Sec.  
Longitude 0 Feet West of 81 Deg. 21 Min. 25.68 Sec.

Company: AMVEST Oil and Gas, Inc.

|   | Casing & Tubing | Used in drilling | Left in well | Cement fill up Cu. Ft. |
|---|-----------------|------------------|--------------|------------------------|
| Address: <u>One Boar's Head Pointe</u>  | <u>13 3/8"</u>  | <u>20'</u>       | <u>20'</u>   | <u>N/A</u>             |
| <u>Charlottesville, Virginia 22905</u>  | <u>9 5/8"</u>   | <u>490'</u>      | <u>490'</u>  | <u>212.4</u>           |
| Agent: <u>Anthony A. Wilhoit</u>  | <u>4 1/2"</u>   | <u>1460'</u>     | <u>1460'</u> | <u>364</u>             |
| Inspector: <u>Richard Campbell</u>  |                 |                  |              |                        |
| Date Permit Issued: <u>January 29, 2003</u>   |                 |                  |              |                        |
| Date Well Work Commenced: <u>3/25/2003</u>  |                 |                  |              |                        |
| Date Well Work Completed: <u>4/19/2003</u>  |                 |                  |              |                        |
| Verbal Plugging:  |                 |                  |              |                        |
| Date Permission granted on:   |                 |                  |              |                        |
| Rotary x Cable Rig Horn # <u>609</u>  |                 |                  |              |                        |
| Total Depth (feet): <u>1500</u>   |                 |                  |              |                        |
| Fresh Water Depth (ft.): <u>100'</u>  |                 |                  |              |                        |
| Salt Water Depth (ft.): <u>N/A</u>  |                 |                  |              |                        |
| Is coal being mined in area (N/Y)? <u>N</u>   |                 |                  |              |                        |
| Coal Depths (ft.): <u>608-610, 861-866, 1039-1041</u><br><u>1088-1090, 1157-1159, 1185-1187</u> |                 |                  |              |                        |

OPEN FLOW DATA

**Producing formation** Pocahontas #2 Seam Pay zone depth (ft) 998-1006  
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d  
Final open flow N/A MCF/d Final open flow N/A Bbl/d  
Time of open flow between initial and final tests N/A Hours  
Static rock Pressure 280 psig (surface pressure) after 24 Hours

**Second producing formation** Pocahontas #3 Seam Pay zone depth (ft) 971-972  
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d  
Final open flow N/A MCF/d Final open flow N/A Bbl/d  
Time of open flow between initial and final tests N/A Hours  
Static rock Pressure 280 psig (surface pressure) after 24 Hours

**Third producing formation** Pocahontas #6 Seam Pay zone depth (ft) 843-845  
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d  
Final open flow N/A MCF/d Final open flow N/A Bbl/d  
Time of open flow between initial and final tests N/A Hours  
Static rock Pressure 280 psig (surface pressure) after 24 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: [Signature]  
By: John F. Sinclair VP Exploration  
Date: 3/11/05

SEP 3 0 2005

RAL 1299 C

Well: MM-5  
 Permit Number: 47-081-01299C  
 District: Trap Hill  
 County: Raleigh

**DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.**

Date: 5/19/2003

MIRU Key Energy Services and HES to conduct 4-stage CBM completion. PU and RIH with 3 1/8" HSC and perforate Poca 2A and Poca 2B 1189' – 1191' (5 holes) and 1184.5' – 1187.5' (13 holes), respectively.

**1st Stage - Poca 2A & 2B (1184.5' – 1191')**

RU HES and pressure test lines to 4341 psi. Open frac valve and begin pumping treated water for breakdown. Formation broke 3018 psi. Pump 6 bbl 15% Hfe acid in pad. Foam frac interval with 70Q foam ramping sand from 1 ppg to 10 ppg at surface. ISIP 1659 psi. 2 min SIP 1374 psi. 5 min SIP 1309 psi. 10 min SIP 1264 psi. Shut well in. RD HES.

Materials used: 15600 LB sand, 184000 scf N2, 109 bbl water

**2nd Stage - Poca 3 (1157' – 1159')**

RU Key and RIH perforate Poca 3 interval under pressure with 3 1/8" HSC 1157' – 1159' with 9 holes. POOH with perforating gun. All shots fired. PU and RIH with HES frac plug.

RU HES and pressure test lines to 4240 psi. Open frac begin pumping HCl and treated water for breakdown. Formation broke 2828 psi. Foam frac interval with 70Q foam and sand at 1 ppg at surface. Treating pressures increasing continuously. Start 70Q flush after 1000 LB sand pumped. ATR 12 bpm. ATP 3790 psi. ISIP 3460 psi. 2 min SIP 2658 psi. 5 min SIP 2289 psi. Shut well in. RD HES.

Materials used: 1000 LB sand, 105000 scf N2, 51 bbl water

**3rd Stage - Poca #4 (1088-1090)**

RU Key and RIH perforate Poca 4 interval under pressure with 3 1/8" HSC 1088' – 1090' with 11 holes. POOH with perforating gun. All shots fired. PU and RIH with HES frac plug. Plug set @ 1125'. POOH with setting tool. RU HES. Open frac begin pumping HCl and treated water for breakdown. Formation broke 2347 psi. Foam frac interval with 70Q foam ramping sand from 1 ppg to 6.7 ppg at surface. Able to pump 5600 LB sand before pressure increased too high. Flush with 70Q foam. ATR 16 bpm. ATP 2900 psi. ISIP 2660 psi. 2 min SIP 1645 psi. 5 min SIP 1432 psi. Shut well in. RD HES.

Materials used: 5600 LB sand, 140000 scf N2, 92 bbl water

**4th Stage - Poca 6 (1038.8' – 1051.5')**

RU Key and RIH perforate Poca 6A and 6B intervals under pressure with 3 1/8" HSC 1050.5' – 1051.5' (4 holes), and 1038.8' – 1040.8' (11 holes), respectively. POOH with perforating gun. All shots fired. PU and RIH with HES frac plug. Plug set @ 1075'. POOH with setting tool. RU HES. Open frac begin pumping HCl and treated water for breakdown. Formation broke 3992 psi. Foam frac interval with 70Q foam ramping sand from 1 ppg to 10 ppg at surface. Flush with 70Q foam. ATR 16 bpm. ATP 3100 psi. ISIP 2934 psi. 2 min SIP 2069 psi. 5 min SIP 1806 psi. Shut well in. RD HES.

Materials used: 14000 LB sand, 228000 scf N2, 110 bbl water

| Formation      | Top  | Bottom  |
|----------------|------|---------|
| Clay           | 0    | 31      |
| Sand and Shale | 31   | 200     |
| Sand           | 200  | 340     |
| Shale          | 340  | 408     |
| Coal           | 408  | 410     |
| Sand           | 410  | 664     |
| Coal           | 664  | 670     |
| Shale          | 670  | 760     |
| Sand           | 760  | 843     |
| Coal           | 843  | 845     |
| Sand and Shale | 845  | 971     |
| Coal           | 971  | 972     |
| Shale          | 972  | 998     |
| Coal           | 998  | 1006    |
| Sand and Shale | 1006 | 1063    |
| Red Rock       | 1063 | TD 1500 |