

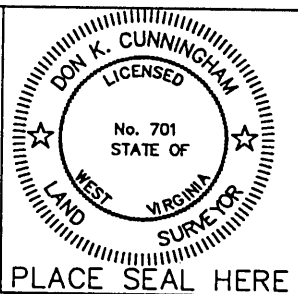
WEST VIRGINIA STATE PLANE COORDINATES
 South Zone, NAD 27
 N 283,458.63; E 1,895,274.34

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.

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

FILE NO. 1340-02-001
 DRAWING NO. Well MM-4.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-4
 API WELL NO. 47-081-01298C

WELL TYPE: OIL _____ GAS X LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW X
 LOCATION: ELEVATION 1870.59 WATER SHED Marsh Fork
 DISTRICT Trap Hill COUNTY Raleigh
 QUADRANGLE Eccles
 SURFACE OWNER William & Alma Calloway ACREAGE 40.05
 OIL & GAS ROYALTY OWNER Robert C. Crouch et al LEASE ACREAGE 280.483

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 1250'
 WELL OPERATOR Amvest Oil & Gas, Inc. DESIGNATED AGENT Anthony A. Wilholt
 ADDRESS One Boar's Head Pointe ADDRESS 230 Capitol Street, Charleston, WV 25325
P.O. Box 5347, Charlottesville, VA 22905

COUNTY NAME RALEIGH
 PERMIT 1298C

JAN 5 2003

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

GO
Office of Oil & Gas
MAR 18 2005
WV Department of
Environmental Protection

Well Operator's Report of Well Work

Farm name: William and Alma Calloway Operator Well No.: MM-4

LOCATION: Elevation: 1870.59' Quadrangle: Eccles

District: Trap Hill County: Raleigh
Latitude: 0 Feet South of 37 Deg. 46 Min. 40.29 Sec.
Longitude 0 Feet West of 81 Deg. 21 Min. 41.99 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>	16"	21'	21'	N/A
<u>Charlottesville, Virginia 22905</u>	13 3/8"	35'	35'	N/A
Agent: <u>Anthony A. Wilhoit</u>	9 5/8"	356'	356'	183
Inspector: <u>Richard Campbell</u>	4 1/2"	1207'	1207'	346
Date Permit Issued: <u>January 30, 2003</u>				
Date Well Work Commenced: <u>2/14/2003</u>				
Date Well Work Completed: <u>4/19/2003</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary x Cable <u>Rig Horn #76</u>				
Total Depth (feet): <u>1280</u>				
Fresh Water Depth (ft.): <u>60' and 118'</u>				
Salt Water Depth (ft.): <u>N/A</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>408-410, 664-670, 843-845</u> <u>971-972, 998-1006</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 30 2005

RAE 1298 C

Well: MM-4
 Permit Number: 47-081-01298C
 District: Trap Hill
 County: Raleigh

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

Date: 4/9/2003

MIRU HES and Key Energy Services to conduct 3-stage completion. GR/CCL/CBL ran 02/21/03.

56 1st Stage – Poca#2A, 2B(1004.3-1005.5, 997.8-999.6')

MIRU HES to stimulate Poca #2A, 2B intervals (1004.5-1006(7 shots) and 998-1000(13 shots). Tested lines to 4000 psi. Open frac valve and begin pumping 250 gal FE Acid and TW for breakdown. Formation broke 2301 psi. ISIP 1323 psi. BHTP 2323 psi. FG 2.33 psi/ft. N₂ volume factor 678+/- scf/bbl. Treated intervals with 70Q foam frac per pump schedule. Flush with 100Q N₂. ISIP 1323 psi, 5 min SIP 1111 psi. ATP2400 psi. ATR 20 bpm down hole. Proppant concentrations 0.25 to 2.5 ppg down hole. RD HES.

Materials used: 149 sks 16/30 sand; 170,000 scf N₂;

MIRU HES and Key Energy Services to conduct 3-stage completion. GR/CCL/CBL ran 02/21/03.

990 2nd Stage – Poca #3 (970.7-972.1)

RU Key Energy and perforate Poca #3 interval under pressure using 3 1/8" HSC 970.7' – 972.1' (12 holes). All shots fired. RIH and set "Alpha" plug at 985.0'. RD Key. RU HES. Pump 50 gal FE acid ahead of frac ball. Drop ball and pump 200 additional gal acid for break down. Break formation down with 10 bbls TW at 2450 psi. ISIP 1234 psi. BHTP 1500 psi. N₂ VF 641 scf/bbl. Treated with energized water frac per pump schedule. Flushed with 100Q foam. 5 min SIP 1095 psi. 10 min SIP 1034 psi. ATP 2500 psi. ATR 44 bpm down hole. Proppant concentrations 0.25 2. 5 ppg down hole. RD HES Services.

Materials used: 53 sks 16/30 sand; 87,000 scf N₂,

556 3rd Stage – Poca # (841.9'–~~X~~844.2' (18 holes). #L

RU Key Energy and perforate Poca #6 interval under pressure using 3 1/8" HSC 841.9'– 1844.2' (18 holes).. All shots fired. RI hole and set plug at 900.0' RD Key. RU HES Services. Pump 50 gal FE acid ahead of frac ball. Drop ball and pump 200 additional gal acid and 8 bbl TW for break down. Break formation down at 2818 psi. ISIP 2340 psi. BHTP 2500 psi.. N₂ VF 603 scf/bbl. 5 min SIP 2101 psi. 10 min SIP 1976 psi. ATP 2300 psi. ATR 84.5 bpm downhole. RD HES.

Materials used: 164 sks 16/30 sand; 135,000 scf N₂

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 1280