

(+) DENOTES LOCATION OF WELL ON 7.5' TOPOGRAPHIC MAP

**TEE Engineering Company, Inc.**  
 320 Cutlers Hill Court  
 Lexington, KY 40509  
 (859) 263-3350  
 Fax (859) 263-3345

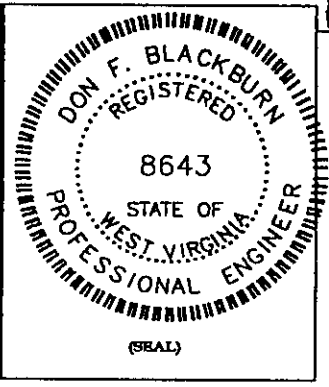
**GeoMet Operating Company, Inc.**  
 Well No. PMC South 106-104-074

FILE NO. 1883-08/2003 WELLS  
 DRAWING NO. WELL PMC SOUTH 74 PLAT  
 SCALE: 1" = 2,000'  
 MIN. DEGREE OF ACCURACY 1 : 2,500  
 PROVEN SOURCE OF ELEVATION  
 GPS STATION TEC-1 (ELEV. 2406.60)

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 LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

*Don F. Blackburn*  
 (SIGNATURE)

R.P.E. 8643 R.P.S.



**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS

DATE MARCH 20, 2003  
 OPERATOR'S WELL NO. PMC SOUTH 106-104-074  
 API WELL NO. 47 - 047 - 01782-C  
 STATE - COUNTY - PERMIT

WELL TYPE: OIL  GAS X  CBM  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 2,400.07 NORTHING 107358.82 EASTING 1769826.89  
 DISTRICT SANDY RIVER WATER SHED HITE FORK SLATE CREEK  
 QUADRANGLE BRADSHAW COUNTY McDOWELL

SURFACE OWNER POCAHONTAS MINING, LLC. ACREAGE 1,108  
 CBM ROYALTY OWNER POCAHONTAS MINING, LLC. LEASE ACREAGE 1,108  
 LEASE NO. RECORDING IN PROGRESS

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

PLUG AND ABANDON  CLEAN OUT AND REPLUG

TARGET FORMATION NEW RIVER AND POCAHONTAS COALS ESTIMATED DEPTH 2,195'  
 WELL OPERATOR GEOMET OPERATING COMPANY, INC. DESIGNATED AGENT KERRY HILL  
 ADDRESS 5336 STADIUM TRACE PARKWAY SUITE 3206 ADDRESS 330 HARPER PARK DRIVE SUITE A  
BIRMINGHAM, ALABAMA 35244 BECKLEY, WV 25801

MAY 16 2003

MCDOWELL 1782-C

*br*

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

Well Operator's Report of Well Work

FARM NAME: Pocahontas Mining, LLC. OPERATOR WELL NO.: 106-104-074

LOCATION:

Elevation: 2400.07' Quadrangle: Bradshaw

District: Sandy River County: McDowell  
Latitude: 11,977' Feet South of 37 Deg. 20 Min. 00 Sec.  
Longitude: 15,002' Feet West of 81 Deg. 45 Min. 00 Sec.

Company: <u>GeoMet Operating Company</u>	Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. Ft.
Address: <u>5336 Stadium Trace Parkway, Suite 206 Birmingham, Alabama 35244</u>	<u>13-3/8"</u>	<u>21'</u>	<u>21'</u>	
Agent: <u>Gregg Cleary</u>				
Inspector: <u>Ronnie Scott</u>	<u>8-5/8"</u>	<u>310'</u>	<u>310'</u>	<u>70/Pumped 120</u>
Date Permit Issued: <u>May 13, 2003</u>				
Date Well Work Commenced: <u>May 27, 2003</u>	<u>5-1/2"</u>	<u>2180'</u>	<u>2180'</u>	<u>378/Pumped 410</u>
Date Well Work Completed: <u>June 6, 2003</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <u>XXXX</u> Cable <u>      </u> Rig <u>      </u>				
Total Depth (feet): <u>2200'</u>				
Fresh Water Depth (feet): <u>Unknown</u>				
Salt Water Depth (feet): <u>Unknown</u>				
Is coal being mined in area (N/Y)? <u>No</u>				

Coal Depths (feet): 383, 408, 409, 459, 412, 413, 608, 779, 856, 912, 957, 995, 1047, 1090, 1307, 1341, 1342, 1373, 1403, 1404, 1420, 1519, 1604, 1623, 1662, 1740, 1766, 1824, 1825, 1827, 1869, 1874, 2002, 2007, 2019

OPEN FLOW DATA

Producing formation All Zones Commingled Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial Open Flow N/A MCF/d Oil: Initial Open Flow \_\_\_\_\_ Bbl/d  
Final Open Flow N/A MCF/d Final Open Flow \_\_\_\_\_ Bbl/d  
Time of Open Flow between initial and final tests N/A Hours  
Static Rock Pressure 10.4 psig (surface pressure) after 96 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:

BY:

DATE:

Dundrea Smith

RECEIVED
Office of Oil & Gas
Office of Chief
SEP 25 2003
WV Department of Environmental Protection

OCT 17 2003

*McDow 1782*

**GeoMet Operating Company, Inc.  
Perforation and Frac Volume Specification**

Well Name PMC SOUTH 074 PBTB 2182'

**Zone and Perforation Table**

Frac Stage 1 Interval			Ball Out	Bridge Plug Set @	Est Sand Weight	Actual Sand Weight
	2001	2008				
N2 Scf	217,000		1900'		20,000	22,000
Acid	200	15%				
Gel Volume	8,800					
ISIP	1,304					
ATP	2,626					
AIR	22	BPM				
Stage 2 Interval	1,823	1827				
N2 Scf	221,000		29 Balls on Plug @ 1780'			
Acid	200	15%				
Gel Volume	7,500					
ISIP	1,511					
ATP	3,688					
AIR	22	BPM				
Stage 3 Interval	1,738	1741				
N2 Scf	25,000		No Plug may have gotten into both zones after flowing back			
Acid	200	15%				
Gel Volume	2,500					
ISIP	3,800					
ATP	3,800					
AIR	3	BPM				
Stage 4 Interval	1,661	1664				
N2 Scf	420,000		1603' - 1605', 1624' - 1626' Ball Out 1500'			
Acid	350	15%				
Gel Volume	17,600					
ISIP	1,278					
ATP	2,622					
AIR	28	BPM				
Stage 5 Interval	1,402	1405				
N2 Scf	302,000		1419' - 1421'  1380'			
Acid	450	15%				
Gel Volume	11,000					
ISIP	2,002					
ATP	2,732					
AIR	25	BPM				

Well Name PMC SOUTH 074

PBTD

2182'

**Zone and Perforation Table**

	Ball Out		Bridge Plug Set @	Est Sand Weight	Actual Sand Weight
Stage 6 Interval	1,340	1,343			
N2 Scf	275,000		No Plug	30,000	18,000
Acid	400	15%			
Gel Volume	9,400				
ISIP	2,608				
ATP	3,374				
AIR	24	BPM			
Stage 7 Interval					
N2 Scf					
Acid					
Gel Volume					
ISIP					
ATP					
AIR		BPM			
Stage 8 Interval					
N2 Scf					
Acid					
Gel Volume					
ISIP					
ATP					
AIR		BPM			
Stage 9 Interval					
N2 Scf					
Acid					
Gel Volume					
ISIP					
ATP					
AIR		BPM			
Stage 10 Interval					
N2 Scf					
Acid					
Gel Volume					
ISIP					
ATP					
AIR					

McDerm 1722

# DRILL DATA HOLE - NOAH HORN WELL DRILLING, INC.

COMPANY: GEO-MET

HOLE NO. PMC SOUTH 074

LOCATION: PEA PATCH

DRILL: RIG 23

DATE STARTED: 05-22-03

ELECTRIC LOGGED: YES

DATE COMPLETED: 05-28-03

GROUTED: YES

DEPTH		THICKNESS	STRATA	REMARKS
FROM	TO	FT.	DESCRIPTION	VOIDS, ETC
0	5	5.00	OVERBURDEN	
5	20.50	15.50	SHALE/COAL/SANDY SHALE SANDSTONE	20.50' OF 13-3/8" PIPE
20.50	30.00	9.50	SANDSTONE/COAL STRKS/SANDSTONE	
30.00	61.00	31.00	SANDSTONE/SANDY SHALE STRKS.	
61.00	92.00	31.00	SANDY SHALE/SAND	
92.00	123.00	31.00	SANDSTONE/SANDY SHALE	
123.00	154.00	31.00	SANDSTONE/SHALE STRKS/COAL/SAND	
154.00	185.00	31.00	SAND STRKS/SANDY SHALE	
185.00	215.00	30.00	SANDY SHALE/COAL/SAND	
215.00	245.00	30.00	SANDY SHALE/COAL/SANDY SHALE	
245.00	275.00	30.00	SAND/SANDY SHALE/SAND	
275.00	305.00	30.00	HARD SAND/SANDY SHALE	
305.00	325.00	20.00	SANDY SHALE/SAND STRKS.	310.60' OF 8-5/8" PIPE
325.00	360.00	35.00	SANDY SHALE	
360.00	390.00	30.00	SANDY SHALE/COAL/SAND	
390.00	420.00	30.00	SAND/COAL/SAND	
420.00	450.00	30.00	SANDSTONE	
450.00	480.00	30.00	COAL W/SHALE/SAND	
480.00	510.00	30.00	SAND/SANDY SHALE/SAND	
510.00	540.00	30.00	SANDSTONE	
540.00	570.00	30.00	SAND/SANDY SHALE/SAND	
570.00	600.00	30.00	SHALE/STRKS/SAND	
600.00	630.00	30.00	SAND/SANDY SHALE	
630.00	660.00	30.00	SANDY SHALE/SAND	
660.00	690.00	30.00	SANDSTONE	
690.00	720.00	30.00	SANDY SHALE/SAND STRKS/SANDY SHALE	
720.00	750.00	30.00	SANDY SHALE/SAND	
750.00	780.00	30.00	SANDY SHALE/SAND/COAL/SANDY SHALE	
780.00	810.00	30.00	SANDSTONE	
810.00	840.00	30.00	SAND/SANDY SHALE STRKS.	
840.00	870.00	30.00	SANDY SHALE/COAL/SAND	
870.00	900.00	30.00	SANDSTONE	
900.00	930.00	30.00	SANDY SHALE/SAND	
930.00	960.00	30.00	SAND/SANDY SHALE/COAL/SAND	
960.00	990.00	30.00	SAND/SANDY SHALE/SAND	

GEO-MET  
HOLE #PMC SOUTH-074  
PAGE 2

990.00	1020.00	30.00	SANDY SHALE/SAND
1020.00	1050.00	30.00	SAND/SANDY SHALE/COAL STRKS. SHALE
1050.00	1080.00	30.00	SANDY SHALE/SAND STRKS.
1080.00	1110.00	30.00	COAL/SANDY SHALE
1110.00	1140.00	30.00	SAND/SANDY SHALE
1140.00	1170.00	30.00	SANDY SHALE
1170.00	1200.00	30.00	SANDY SHALE/SAND
1200.00	1230.00	30.00	SAND/SANDY SHALE
1230.00	1260.00	30.00	SANDSTONE
1260.00	1290.00	30.00	SANDY SHALE/SAND
1290.00	1320.00	30.00	SANDY SHALE
1320.00	1350.00	30.00	SANDY SHALE/COAL/SANDY SHALE
1350.00	1380.00	30.00	SANDY SHALE/COAL STRKS.
1380.00	1410.00	30.00	SANDY SHALE/COAL/SANDY SHALE
1410.00	1440.00	30.00	SANDY SHALE/SANDSTONE
1440.00	1470.00	30.00	SANDSTONE/SANDY SHALE
1470.00	1500.00	30.00	SANDSTONE
1500.00	1530.00	30.00	SANDSTONE/COAL STRKS/SANDSTONE
1530.00	1560.00	30.00	SANDSTONE/SANDY SHALE
1560.00	1620.00	60.00	SAND SHALE/COAL STRKS/SANDY SHALE
1620.00	1650.00	30.00	SANDY SHALE/SANDSTONE
1650.00	1680.00	30.00	COAL/SANDY SHALE/SANDSTONE
1680.00	1710.00	30.00	SANDSTONECOAL/SANDY SHALE
1710.00	1740.00	30.00	SANDY SHALE/COAL/SANDY SHALE
1740.00	1770.00	30.00	SANDY SHALE/SANDSTONE
1770.00	1800.00	30.00	SANDSTONE/COAL STRKS/SANDY SHALE
1800.00	1830.00	30.00	SANDY SHALE/COAL STRKS/SANDY SH.
1830.00	1860.00	30.00	SANDY SHALE/SANDSTONE
1860.00	1920.00	60.00	SANDSTONE/SANDY SHALE/SANDSTONE
1920.00	1980.00	60.00	SANDY SHALE/SANDSTONE
1980.00	2010.00	30.00	SANDY SHALE/SANDSTONE
2010.00	2070.00	60.00	SANDSTONE/SANDY SHALE/SANDSTONE
2070.00	2100.00	30.00	SANDSTONE/SANDY SHALE STRKS.
2100.00	2130.00	30.00	SANDSTONE
2130.00	2160.00	30.00	SANDSTONE/RED SHALE/SANDY SHALE
2160.00	2190.00	30.00	SANDY SHALE/SANDSTONE STRKS.
2190.00	2200.00	30.00	SANDY SHALE

TOTAL DEPTH: 2200.00  
20.50' OF 13-3/8" PIPE  
310.60' OF 8-5/8" PIPE

OCT 17 2003

Mc Dow 1782