

**TEE Engineering Company, Inc.**  
 320 Cotters Hill Court  
 Lexington, KY 40509  
 (859) 263-3330  
 Fax (859) 263-3345

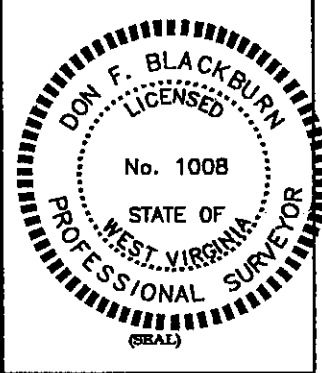
**GeoMet Operating Company, Inc.**  
 Well No. PMC North 110-109-157

FILE NO. 1883-08  
 DRAWING NO. WELL PMC-N-157 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. \_\_\_\_\_ R.P.S. 1008



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

DATE JUNE 1, 2004  
 OPERATOR'S WELL NO. PMC NORTH 110-109-157

API WELL NO. 47 - 047 - 01934-C  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 2,003.92' NORTHING 117223.94 EASTING 1776773.14  
 DISTRICT BIG CREEK WATER SHED RIGHT FORK OF LITTLE SLATE CREEK  
 QUADRANGLE BRADSHAW COUNTY McDOWELL

SURFACE OWNER POCAHONTAS MINING, LLC. ACREAGE 1,252  
 CBM ROYALTY OWNER POCAHONTAS MINING, LLC. LEASE ACREAGE 1,252  
 LEASE NO. \_\_\_\_\_ RECORDING IN PROGRESS \_\_\_\_\_

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 NEW RIVER AND POCAHONTAS COALS ESTIMATED DEPTH 1,768'  
 WELL OPERATOR GEOMET OPERATING COMPANY, INC. DESIGNATED AGENT KERRY HILL  
 ADDRESS 5336 STADIUM TRACE PARKWAY SUITE 206 BIRMINGHAM, ALABAMA 35244  
 ADDRESS 330 HARPER PARK DRIVE SUITE A BECKLEY, WV 25801

6-6 Bradshaw (CBM) 383

JUL 08 2004

Mc Dow 1934-C

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

Well Operator's Report of Well Work

FARM NAME: Pocahontas Mining Corporation OPERATOR WELL NO.: PMC North 110-109-157

LOCATION:

Elevation: 2,003.92' Quadrangle: Bradshaw

District: Big Creek County: McDowell  
Latitude: 5,111 Feet South of 37 Deg. 20 Min. 00 Sec.  
Longitude: 5,080 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>17'</u>	<u>17'</u>	
Agent: <u>Gregg Cleary</u>				
Inspector: <u>Carlos Hively</u>	<u>8-5/8"</u>	<u>702'</u>	<u>702'</u>	<u>147/Pumped 192</u>
Date Permit Issued: <u>July 9, 2004</u>				
Date Well Work Commenced: <u>August 20, 2004</u>	<u>5-1/2"</u>	<u>1775'</u>	<u>1775'</u>	<u>308/Pumped 345</u>
Date Well Work Completed: <u>August 31, 2004</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <u>XXXX</u> Cable <u>Rig</u>				
Total Depth (feet): <u>1780.49'</u>				
Fresh Water Depth (feet): <u>Unknown</u>				
Salt Water Depth (feet): <u>Unknown</u>				
Is coal being mined in area (N/Y)? <u>N</u>				

Coal Depths (feet): 746, 865, 867, 991, 1047, 1049, 1064, 1095, 1126, 1161, 1227, 1229, 1297, 1342, 1380, 1418

OPEN FLOW DATA

Producing formation All Zones Commingled Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial Open Flow 36 MCF/d Oil: Initial Open Flow \_\_\_\_\_ Bbl/d  
Final Open Flow \_\_\_\_\_ MCF/d Final Open Flow \_\_\_\_\_ Bbl/d  
Time of Open Flow between initial and final tests \_\_\_\_\_ Hours  
Static Rock Pressure 207 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: [Signature]  
BY: Karen Rye  
DATE: 9-10-2004

Mc Dow 1934

Well Name PMC North 157

PBTD

1770'

**Zone and Perforation Table**

	Ball Out	Bridge Plug Set @	Est Sand Weight	Actual Sand Weight
Stage 6 Interval	888'	901'		
N2 Scf	387,000		20,000	19,200
Acid	500	15%		
Gel Volume	8,520	GAL		
ISIP	1137			
ATP	2396			
AIR	27	BPM		
	880'			
Stage 7 Interval	862'	865'	20,000	20,300
N2 Scf	266,000			
Acid	250	15%		
Gel Volume	7,308	GAL		
ISIP	1471			
ATP	2163			
AIR	26	BPM		
	No Plug			
Stage 8 Interval				
N2 Scf				
Acid				
Gel Volume				
ISIP				
ATP				
AIR		BPM		
Stage 9 Interval				
N2 Scf				
Acid				
Gel Volume				
ISIP				
ATP				
AIR				
Stage 10 Interval				
N2 Scf				
Acid				
Gel Volume				
ISIP				
ATP				
AIR				

Mc Dow 1934

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

Well Name PMC North 157 PBTB 1770'

**Zone and Perforation Table**

Frac	1376' - 1378'		Ball Out	Bridge Plug Set @	Est Sand Weight	Actual Sand Weight
Stage 1 Interval	1415'	1417'				
N2 Scf	332,000		Dropped 36 Frac Balls on PBTB Plug @ 1360'		20,000	20,000
Acid	500	15%				
Gel Volume	10,850	GAL				
ISIP	1080					
ATP	2593					
AIR	28	BPM				
Stage 2 Interval	1339'	1341'			25,000	26,000
N2 Scf	373,000		30 Perf Balls on Plug 1310'			
Acid	250	15%				
Gel Volume	8,484	GAL				
ISIP	1144					
ATP	2838					
AIR	34	BPM				
Stage 3 Interval	1224'	1226'			25,000	25,400
N2 Scf	325,000		1294' - 1296' Balled Out w/24 Perf Balls 1180'			
Acid	500					
Gel Volume	10,300	GAL				
ISIP	1285					
ATP	2458					
AIR	32	BPM				
Stage 4 Interval	1093'	1095'			25,000	22,300
N2 Scf	345,000		1122' - 1124'/1155' - 1157' Balled out w/36 Perf Balls 1080'			
Acid	500	15%				
Gel Volume	10,160	GAL				
ISIP	1081					
ATP	2832					
AIR	30	BPM				
Stage 5 Interval	1045'	1048'			25,000	25,700
N2 Scf	302,000		1061' - 1063' 1010'			
Acid	250	15%				
Gel Volume	9,620	GAL				
ISIP	2306					
ATP	2386					
AIR	28	BPM				

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

COMPANY: GEOMET HOLE #: PMC-NORTH #157  
 LOCATION: BUG HURLEY DRILL RIG #: 94  
 DATE STARTED: 08-19-04 DATED COMPLETED: 08-25-04  
 ELECTRIC LOGGED: YES GROUTED: YES

DEPTH	THICKNESS	STRATA	REMARKS
FROM	TO	FT	DESCRIPTION, VOIDS ETC
0	2	2	OVERBURDEN
2	17	15	SHALE / COAL / SANDY SHALE / SAND STONE
17	30	13	16.55' w/ 13 3/8" casing SAND STONE / SANDY SHALE
30	61	31	SANDY SHALE / SHALE / COAL / SAND STONE
61	92	31	SAND STONE W / SHALE STR / COAL / SAND SHALE
92	123	31	SANDY SHALE / 3 COAL SMS W/ SHALE / SAND STONE STR
123	154	31	SAND STONE / SANDY SHALE / COAL / SAND STONE
154	185	31	SAND STONE / SANDY SHALE STR
185	215	30	SAND SHALE / SHALE STR / SAND STONE
215	245	30	SAND STONE / SANDY SHALE / SAND STONE
245	275	30	SAND STONE / COAL STR / SAND STONE / SAND SHALE / SAND STONE
275	305	30	SAND STONE
305	335	30	SAND STONE / SHALE / SAND STONE
335	365	30	SAND STONE / COAL STR / SANDY SHALE STR
365	395	30	SAND STONE / 2 COAL STR / SANDY SHALE
395	425	30	SANDY SHALE / COAL STR
425	455	30	SANDY SHALE / COAL / SAND STONE W/ SHALE STR
455	485	30	SAND STONE / COAL STR / SANDY SHALE /
485	515	30	SHALE STR SANDY SHALE / COAL / SAND STONE
515	545	30	SAND STONE / SHALE STR / COAL / SANDY
545	575	30	SHALE SANDY SHALE / COAL STR / SAND STONE
575	605	30	W/ SHALE STR SAND STONE / COAL STR / SAND STONE / SAND SHALE

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

COMPANY: GEOMET

HOLE #: PMC-NORTH #157

LOCATION: BUG HURLEY

DRILL RIG #: 94

DATE STARTED: 08-19-04

DATED COMPLETED: 08-25-04

ELECTRIC LOGGED: YES

GROUTED: YES

DEPTH	THICKNESS	STRATA	REMARKS
FROM	TO	FT	DESCRIPTION, VOIDS ETC
605	635	30	SANDY SHALE / COAL / SAND STONE
	STR		
635	665	30	SAND STONE / SHALE STRIKE / COAL
	STR		
665	695	30	SAND STONE / SANDY SHALE / COAL /
	SAND		
			STONE / SANDY SHALE
695	715	20	SANDY SHALE 701.95' w/ 8 5/8" casing
715	720	5	SANDY SHALE
720	750	30	SANDY SHALE /2 COAL STR
750	780	30	SANDY SHALE
780	820	40	SANDY SHALE / SAND STONE
820	840	20	SAND STONE/SAND SHALE/SAND STONE
	STR		
840	870	30	SANDY SHALE / SAND STONE / COAL 3/
	SANDY SHALE		
870	900	30	SANDY SHALE / SAND STONE / COAL
	STR / SAND STONE		
900	960	60	SAND STONE
960	990	30	SAND STONE / SANDY SHALE / COAL 2
990	1020	30	SAND STONE / SHALE STRKS / SANDY
	SHALE		
1020	1050	30	SAND SHALE / COAL 2
1050	1080	30	SANDY SHALE / COAL STR
1080	1110	30	SAND SHALE / COAL STR / SAND STONE
	STRK		
1110	1140	30	SANDY SHALE / COAL STR / SAND
	STONE		
1140	1170	30	SAND STONE / COAL 1 / SANDY SHALE
1170	1200	30	SANDY SHALE / COAL STRK / SANDY
	SHALE		
1200	1230	30	SAND STONE STR / SANDY SHALE /
	COAL W SHALE 2		
1230	1260	30	SAND STONE STR / SANDY SHALE
1260	1290	30	SAND SHALE / COAL STR / SAND STONE
	STR / SANDY SHALE		
1290	1320	30	COAL 1-2 / SANDY SHALE / SAND STONE
	STR / SANDY SHALE		
1320	1350	30	SANDY SHALE/COAL 2/SAND STONE
	STR/SAND SANDY SHALE		
1350	1380	30	SAND SHALE / COAL 2

M = Dow 1934

**DRILL DATA HOLE-NOAH HORN WELL DRILLING, INC**

**COMPANY:** GEOMET **HOLE #:** PMC-NORTH #157  
**LOCATION:** BUG HURLEY **DRILL RIG #:** 94  
**DATE STARTED:** 08-19-04 **DATED COMPLETED:** 08-25-04  
**ELECTRIC LOGGED:** YES **GROUTED:** YES

DEPTH	THICKNESS	STRATA	REMARKS
<b>FROM</b>	<b>TO</b>	<b>FT</b>	<b>DESCRIPTION, VOIDS ETC</b>
1380	1410	30	SANDY SHALE / SAND STONE STR / POSS
	COAL STR		
1410	1445	35	SANDY SHALE / COAL 2 / SAND STONE
1445	1475	30	SAND STONE / SAND SHALE STR / SAND
	STONE		
1475	1505	30	SAND STONE / SAND SHALE / COAL W
			SHALE / SAND STONE / SANDY SHALE
1505	1535	30	SANDY SHALE / COAL 2 W / SHALE
1535	1565	30	SANDY SHALE / COAL STR /
			SAND STONE STR
1565	1595	30	SANDSTONE / SANDY SHALE / SAND
			STONE / COAL
1595	1625	30	COAL / SAND SHALE / SAND STONE /
			SANDY SHALE / POSS COAL
1625	1655	30	SANDY SHALE / STR RED SHALE /
			SAND STONE
1655	1715	60	SAND STONE / SANDY SHALE STRKS
1715	1745	30	SANDY SHALE / SAND STONE
1745	1775	30	SAND STONE / SANDY SHALE
			1774.15' W/ 5 1/2"
	CASING		
			TD 7 7/8" HOLE

1775.00 FT. TOTAL DEPTH  
 16.55 FT. OF 13 3/8" CASING  
 701.95 FT. OF 8 5/8" CASING  
 1774.15 FT. OF 5 1/2" CASING