

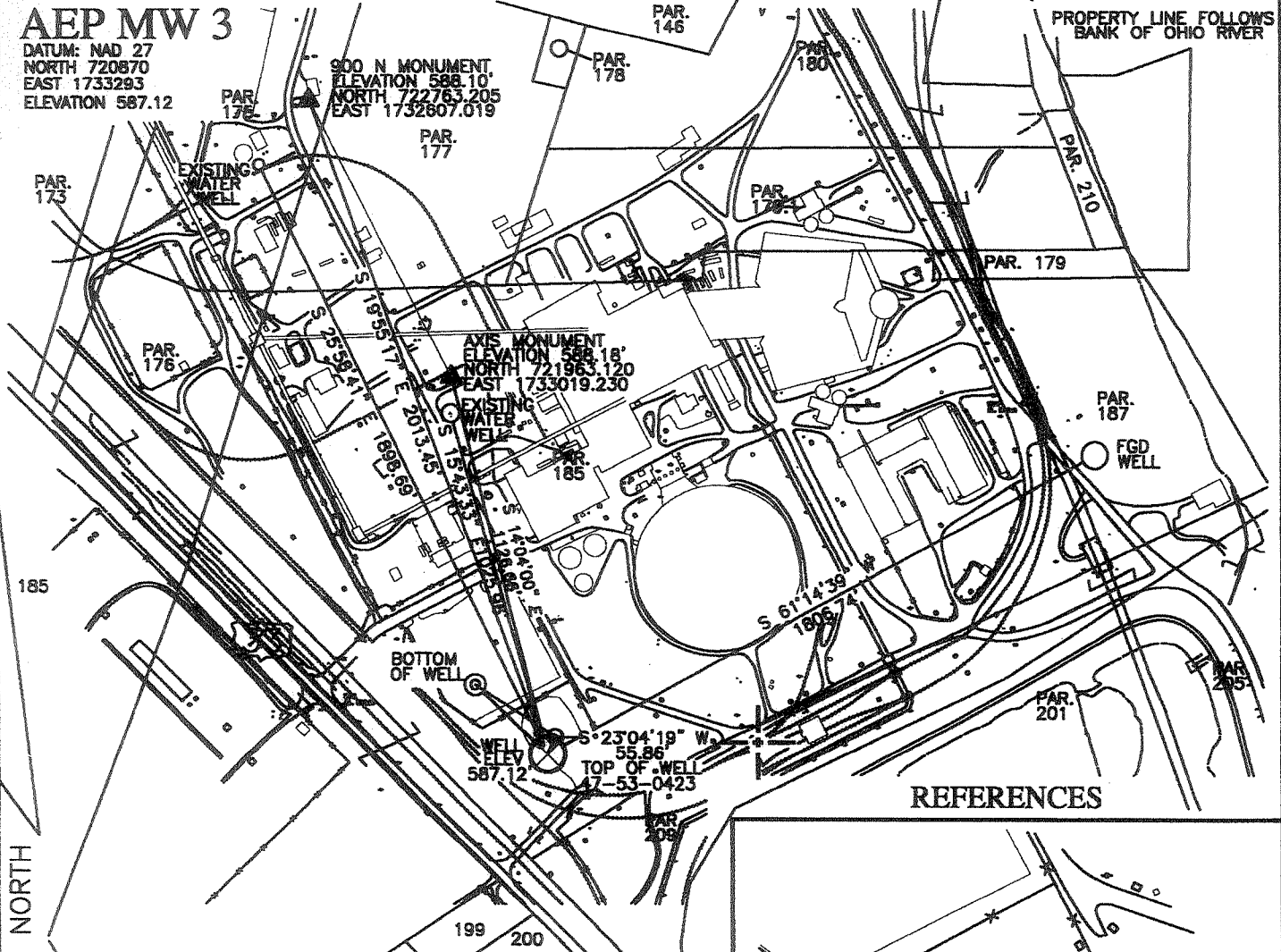
AEP MW 3

DATUM: NAD 27
 NORTH 720870
 EAST 1733293
 ELEVATION 587.12

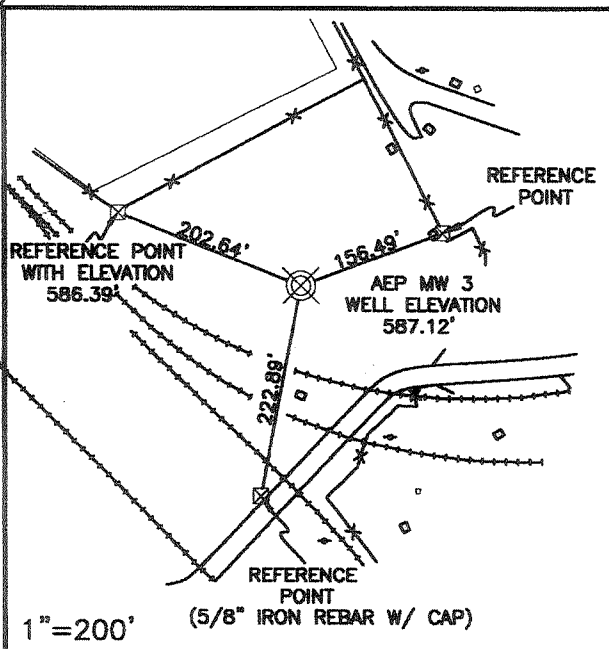
900 N MONUMENT
 ELEVATION 588.10'
 NORTH 722763.205
 EAST 1732607.019

AXIS MONUMENT
 ELEVATION 588.18'
 NORTH 721963.120
 EAST 1733019.230

PROPERTY LINE FOLLOWS
 BANK OF OHIO RIVER



REFERENCES



PAR.	OWNER	D.B.	PG.	PAR.	OWNER	D.B.	PG.
146	APP. POWER CO.	237	263	185	APP. POWER CO.	237	263
173	APP. POWER CO.	237	263	187	APP. POWER CO.	237	263
175	APP. POWER CO.	237	263	199	APP. POWER CO.	237	263
176	APP. POWER CO.	237	263	200	APP. POWER CO.	237	263
177	APP. POWER CO.	234	217	201	OHIO POWER CO.	294	274
178	APP. POWER CO.	237	263	205	OHIO POWER CO.	183	438
179	APP. POWER CO.	237	263	209	APP. POWER CO.	263	483
179.1	APP. POWER CO.	237	263	210	APP. POWER CO.	237	263
180	APP. POWER CO.	237	263				

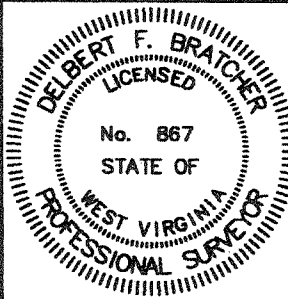
Point Surveying Mapping
 PO BOX 28
 MILLWOOD, WV 25262
 (304) 273-2915 Phone
 (304) 273-2916 Fax
**Professional Land, Site,
 Construction Industrial Surveying**

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

FILE No _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF
 ACCURACY 1:2500
 PROVEN SOURCE OF
 ELEVATION NOTED ON PLAT
 DATE 05-21-2008
 DRAWN BY J. SWISHER

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 REGU-
 LATIONS ISSUED AND PRESCRIBED BY THE
 DIVISION OF ENVIRONMENTAL PROTECTION.

(SIGNED) Delbert F. Bratcher
 R.P.E. _____ R.P.S. _____



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



DATE 20
 OPERATOR'S WELL No. AEP MW 3
 API WELL No. 47 053 -00491
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID WASTE IF "GAS" INJECTION DISPOSAL PRODUCTION STORAGE DEEP SHALLOW OTHER
 LOCATION: ELEVATION 587.12' WATER SHED MIDDLE OHIO
 DISTRICT GRAHAM COUNTY MASON
 QUADRANGLE NEW HAVEN
 SURFACE OWNER APPALACHIAN POWER CO ACREAGE 2460
 OIL & GAS ROYALTY OWNER APPALACHIAN POWER CO LEASE ACREAGE N/A
 LEASE No. N/A

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

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION ROSE RUN-COPPER RIDGE ESTIMATED DEPTH 8400 FT
 WELL OPERATOR APPALACHIAN POWER CO DESIGNATED AGENT RICHARD D. THOMPSON
 ADDRESS US RT. 33 MOUNTAINEER PLANT ADDRESS US RT. 33 MOUNTAINEER PLANT
 NEW HAVEN, WV 25265-0419 NEW HAVEN, WV 25265-0419

JUN 27 2008

FORM IV-6 (8-78)

MAS 0491

8733' LONGITUDE W 81°55'00"

WR-35
Rev (5-01)

DATE: 6/30/09
API #: 47-5300491

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

Well Operator's Report of Well Work

CO₂ seg monitoring well

Farm name: Appalachian Power Co. Operator Well No.: MW-3

LOCATION: Elevation: 585.8 ft. Quadrangle: New Haven

District: Graham County: Mason
Latitude: 68,689 Feet South of 39 Deg. 00 Min. 00 Sec.
Longitude 6,123 Feet West of 81 Deg. 55 Min. 00 Sec.

Company: Appalachian Power Co. DBA AEP

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: <u>U.S.Rt. 33, Mountaineer Plant New Haven, WV 25265-0419</u>	16"	296'	296'	296 cf
	10-3/4"	1800'	1800'	1007 cf
Agent: <u>Richard D. Thompson</u>	7-5/8"	7394'	7394'	420 cf
Inspector: <u>Jamie Stevens</u>	4-1/2"	1041'	1041'	99 cf
Date Permit Issued: <u>06/24/2008</u>	2-3/8"	7730'	7730'	-
Date Well Work Commenced: <u>09/25/2008</u>				
Date Well Work Completed: <u>6/20/2009</u>				
Verbal Plugging: <u>n/a</u>				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig: <u>UDI 51</u>				
Total Depth (feet): <u>8335'</u>				
Fresh Water Depth (ft.): <u>250'</u>				
Salt Water Depth (ft.): <u>1232'</u>				
Is coal being mined in area (N/Y)? <u>Yes</u>				
Coal Depths (ft.): <u>417'-1073' layered</u>				

OPEN FLOW DATA

Formation of interest: Rose Run Pay zone depth (ft): 7,746'
Gas: Initial open flow: 0 MCF/d Oil: Initial open flow: 0 Bbl/d
Final open flow: 0 MCF/d Final open flow: 0 Bbl/d
Time of open flow between initial and final tests: 0 Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Formation of interest: Copper Ridge Pay zone depth (ft): 7,852'
Gas: Initial open flow: 0 MCF/d Oil: Initial open flow: 0 Bbl/d
Final open flow: 0 MCF/d Final open flow: 0 Bbl/d
Time of open flow between initial and final tests: 0 Hours
Static rock Pressure _____ psig (surface pressure) after _____ 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: Richard D. Thompson
By: Richard D. Thompson
Date: 7/9/09

JUL 24 2009

Mason 00491

AEP Mountaineer Plant, MW-3 Perforations

Run	Perforated Zone	Lithology
1	7,756 – 7,777	Rose Run sandstone
2	7,804 – 7,819	Rose Run sandstone
3	7,832 – 7,860	Rose Run sandstone
Shot Density = 2 shots per foot 400 gallons 15% HCl spotted prior to perforating, swabbed back		

AEP Mountaineer Plant, MW-3 Well Log Summary

Lithology or Formation	Depth
Ground Surface/Alluvium/ Undiff. Pennsylvania Bedrock	0-1,152 ^(a)
Sharon Sandstone	1,152
Maxville Limestone	1,240
Cuyahoga Shale	1,258
Sunbury (Coffee) shale	1,722*
Berea sandstone	1,732*
Chagrin shale	1,753*
Lower Huron shale	2,817*
Java shale	3,178*
Pipe Creek shale	3,278*
Angola shale	3,294*
Rhinestreet shale	3,381*
Hamilton shale	3,542*
Marcellus shale	3,584*
Onondaga limestone	3,594*
Helderberg limestone	3,722*
Salina dolomite	3,814*
Lockport dolomite	4,358*
Niagaran/Rose Hill shale	4,580*
Dayton/Casing Shell limestone	4,788*
Brassfield/Packer Shell limestone	4,850*
Tuscarora/Clinton sandstone	4,883*
Medina sandstone	5,021
Queenston shale	5,026
Utica Shale	5,638
Point Pleasant Shale	6,276
Trenton limestone	6,358
Black River limestone	6,480
Gull River limestone	6,972
Lower Chazy limestone	7,028
Glenwood/Wells Creek shale	7,088
St. Peter sandstone	7,164
Beekmantown dolomite	7,196
Rose Run sandstone	7,746
Copper Ridge dolomite	7,852

* Formation not logged, values from adjacent AEP-2 injection well.

(a) – Coal found from 417' – 1,073'