

SILER COAL & LAND COMPANY LEASE

9629 ACRES±

WELL NO. WV 508468

NOTES ON SURVEY

1. TIES TO WELLS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 7/21/1998.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A DEED AS RECORDED IN THE OFFICE OF THE COUNTY CLERK OF BOONE COUNTY IN DEED BOOK 30 PG 431.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BOONE COUNTY IN AUGUST, 2002.
5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

PENN VIRGINIA OPERATING COMPANY LLC
9629 AC.± (SURFACE)

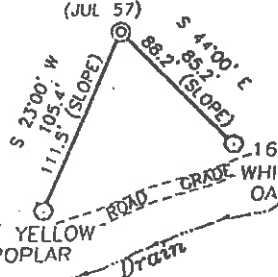
J.W. WALTER INC.

WELL NO. WV 508468
STATE PLANE COORDINATES (SOUTH ZONE)

N. 422,415
E. 1,778,380
LAT-(N) 38.157548
LONG-(W) 81.770775

REFERENCES

WELL NO. WV 508468
(JUL 57)



1" = 100'

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

DATE AUGUST 13, 2002

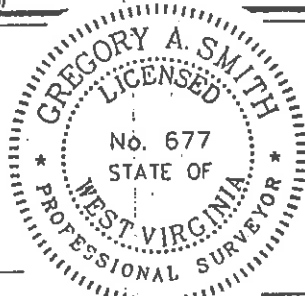
OPERATORS WELL NO. WV 508468

API WELL NO. 47-005-01824
STATE COUNTY PERMIT

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 DIVISION OF ENVIRONMENTAL PROTECTION

P.S. 677

Gregory A. Smith



MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 3878P508468(REV) (67-48&127-39)

PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS ELEVATION 738' SCALE 1" = 2000'

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



WELL TYPE : OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION : ELEVATION 975' WATERSHED MECH FORK OF WILDERNESS FORK OF FORK CREEK OF BIG COAL RIVER

DISTRICT PEYTONA COUNTY BOONE QUADRANGLE JULIAN 7.5'

SURFACE OWNER PENN VIRGINIA OPERATING COMPANY LLC ACREAGE 9629

ROYALTY OWNER EQUITABLE PRODUCTION COMPANY LEASE ACREAGE 9629

PROPOSED WORK : LEASE NO. 600-814

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD

FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION DEVONIAN SHALE

ESTIMATED DEPTH 4,440

WELL OPERATOR EQUITABLE PRODUCTION COMPANY DESIGNATED AGENT STEPHEN G. PERDUE

ADDRESS P.O. BOX 2347, CHARLESTON, WV 25328 ADDRESS P.O. BOX 2347, CHARLESTON, WV 25328

LONGITUDE 81°45'00"

LAT. 38°09'27.2"

BOONE COUNTY NAME

PERMIT 1824

(Julian - Madison 236)

SEP 11 2002

ALB

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm Name: Penn Virginia Operating

Operator Well No.: 508468

LOCATION: Elevation: 975'

Quadrangle: Julian

District: Peytona

County: Boone

Latitude: 3270	Feet South of	38	Deg.	Minutes	Seconds
Longitude: 5920	Feet West of	81	Deg.	10	0
				45	0

Company: Equitable Production Company
P.O. Box 2347, 1710 Pennsylvania Avenue
Charleston, WV 25328

Casing & Tubing Size	Used In Drilling	Left In Well	Cement Fill Up Cu. Ft.
13 3/8"	32.4'	32.4'	grouted
9 5/8"	442'	442'	206.5 ft³
7"	1265'	1265'	265.45 ft³
4 1/2"	3817'	3817'	396.8 ft³
2 3/8"		3639'	

Agent: Steve Perdue

Inspector: Richard Campbell

Permit Issued: 9/25/2002

Well work commenced: 03/06/03

Well work completed: 04/02/03

Verbal Plugging

Permission granted on:

Rotary Rig X Cable Rig _____

Total Depth 3830 feet

Fresh water depths (ft) 40', 140'

Salt water depths (ft) 804'

Is coal being mined in area? _____

Coal Depths (ft): None reported

Open Mine 269'-279'

OPEN FLOW DATA

Producing formation Lower Shale, Upper Shale, Berea, Injun / Big Lime

Pay Zone Depth (ft): _____

See Attach for details

Gas: Initial open flow 0 MCF/d

Oil: Initial open flow _____ Bbl/d

Final open flow: 198 MCF/d

Final open flow: _____

Time of open flow between initial and final tests _____ Hours

Static rock pressure 173 psig (surface pressure) after _____ Hours

Second producing formation _____

Pay Zone Depth (ft): _____

Gas: Initial open flow _____ MCF/d

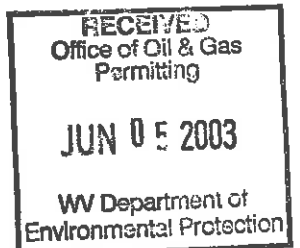
Oil: Initial open flow _____ Bbl/d

Final open flow: _____ MCF/d

Final open flow: _____

Time of open flow between initial and final tests _____ 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.

For: Kathy Brown
Equitable Production Company

By: [Signature]
Date: 6/1/03

Boo 1824

JUN 20 2003

**EQUITABLE PRODUCTION COMPANY
WR-35 COMPLETION REPORT - Attachment
Well Treatment Summary**

Well: WV-508468-Siler Coal

API# 47-005-01824

Date	03/25/03	03/25/03	03/25/03	03/25/03		
Type Frac Acid, N ₂ , Foam, Water	N ²	N ²	Variable Q Foam	Foamed Acid		
Zone Treated	Lower Shale	Upper Shale	Berea	Injun Big Lime		
# Perfs From - To:	60 2928' - 3706'	30 2061'-2696'	21 2028' - 2038'	30 1409' - 1590'		
BD Pressure @ psi	2540	3165	2835	3624		
ATP psi	2415	2830	2928	3335		
Avg. Rate, B=B/M, S= SCF/M	52,150 S	53,500 S	24 B (foam) 16,900 S	28 B 50,000 S		
Max. Treat Press psi	2585	3025	2950	3650		
ISIP psi	1635	2250	1740	2745		
Frac Gradient	.55	.98	1.31	1.36		
10 min S-I Pressure	1220	1850	1715	1925		
Material Volume						
Sand-sks			313			
Water-bbl			138			
SCF N ₂	1,255,142	612,189	363,996	476,163		
Acid-gal	750 gal 7 ½%	378 gal 7 ½%	500 gal 15%	3486 gal 15%		
NOTES:						

TOP	BOTTOM	FORMATION	REMARKS
		Coal	None reported Open mine 269' - 278' Water @ 40', 140' & 804'
543'	1035'	Salt Sand	
	1275'	Little Lime	GT @ 1313' = odor
1295'	1546'	Big Lime	GT @ 1409', 1472', 1725' & 1913' = NS
1581'	1602'	Big Injun	GT @ 2104', 2322' & 2509' = odor
1665'	1727'	Weir	GT @ 2699', 2918' = odor
2012'	2027'	Sunbury	GT @ 3110' = odor
2027'	2039'	Berea	GT @ 3300' = odor
3209'	3703'	Lower Huron	GT @ 3520' = odor
3703'		Java	
	3864'	TD	

RECEIVED Office of Oil & Gas Permitting JUN 05 2003 WV Department of Environmental Protection
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