



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION JCT. SLS. 32 and SLS. 37 EL. 3295'

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.
 (SIGNED) Burl J. Smith
 R.P.E. 0988 L.L.S. _____

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE 8 OCTOBER, 1981
 OPERATOR'S WELL NO. PENNINGTON #1
 API WELL NO. _____
47 - 093 - 0054
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 3280' WATER SHED BLACKWATER RIVER
 DISTRICT DRY FORK COUNTY TUCKER
 QUADRANGLE BLACKWATER FALLS 7.5' Davis 15' SW
 SURFACE OWNER JOE HARMON ACREAGE 3.36
 OIL & GAS ROYALTY OWNER PENNINGTON UNIT LEASE ACREAGE 610.855 UNITIZED
 LEASE NO. _____
 PROPOSED WORK: DRILL X 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 ORISKANY ESTIMATED DEPTH 8500'
 WELL OPERATOR BEREA OIL and GAS CORP. DESIGNATED AGENT MARK SHUMACHER
 ADDRESS 901 CHEMICAL BANK BLDG. : 69 DELAWARE AV. ADDRESS ONE BEREA PLAZA
BUFFALO NEW YORK 14202 BRIDGEPORT WV 26330

OCT 29 1981



WV-05
(Rev 8-81)

Date April 15, 1982
Operator's
Well No. Pennington State Unit #
Farm Pennington State Unit.
API No. 47 - 093 - 0054

State of West Virginia
Department of Mines
Oil and Gas Division

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production x / Underground Storage ___ / Deep x / Shallow ___ /)

LOCATION: Elevation: 3280' Watershed Blackwater River
District: Dry Fork County Tucker Quadrangle Blackwater Falls 7 1/2'

OPERATOR Berea Oil and Gas Corp.
ADDRESS PO Box 299, Bridgeport, WV 26330
DESIGNATED AGENT Thomas E. Riley, P.E.
ADDRESS PO Box 299, Bridgeport, WV 26330
SURFACE OWNER Harry J. Harmon
ADDRESS Rt 1, Box 34, Davis, WV 26260
MINERAL RIGHTS OWNER Pennington State Unit #1
ADDRESS Same
OIL AND GAS INSPECTOR FOR THIS WORK Robert Stewart
ADDRESS PO Box 345, Jane Lew, WV
PERMIT ISSUED October 13, 1981
DRILLING COMMENCED 1/28/82
DRILLING COMPLETED 3/7/82
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED

Casing Tubing	Used in Drilling	Left in Well	Content fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8	3126'	3038.1'	1000 sks
8 5/8			
7			
5 1/2			
4 1/2	8572'	8530'	400 sks
3			
2 3/8"		8210	
Liners used			

MINERAL TARGET FORMATION Oriskany Depth 8500' feet
Depth of completed well 8572' feet Rotary x / Cable Tools
Water strata depth: Fresh ---- feet; Salt 1059, 3962 feet
Coal seam depths: ---- Is coal being mined in the area? No

TEST FLOW DATA

Producing formation Oriskany Pay zone depth 8303-8435 feet
Gas: Initial open flow 0 Mcf/d Oil: Initial open flow 0 Bbl/d
(Estimated)
Final open flow 250 Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 2350 psig (surface measurement) after 72 hours shut in
(if applicable due to multiple completion--)
Second producing formation _____ Pay zone depth _____ feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure _____ psig (surface measurement)

~~THIS IS CONFIDENTIAL INFORMATION~~
DO NOT RELEASE.

APR 11 1982

INDEXED 0054

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

3/26/82: Perf Oriskany - 8291-93' (2 holes), 8313' (1), 8339' (1), 8366-76' (7), 8383-90' (4), 8405-12' (5), 8441-47' (4). (Perfs corrected to PDC Log.)

3/26/82: Frac Oriskany: Formation broke @ 3900 psi. Avg press 4950#. Avg rate 39.1 BPM. HHP 4744. Pumped total of 1550 BF. ISIP 3800 psi, 5 min 3610 psi. Used 90,000# 20/40 sand, 22,500# 80/100 sand, 40#/1000 gal WG-12, 5 gal/1000 gal HC-2, 5#/1000 gal Fercheck, 25#/1000 gal FR20 (flush only), 6% HCl throughout.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
FORMATIONS FROM DRILLER'S LOG:					
Soil			0	20	
Lime			20	800	
Sand & Shale			800	812	
Red Rock			812	880	
Sand & Shale			880	900	
Sand			900	970	
Red Rock			970	990	
Sand & Shale & Red Rock			990	995	
Sand & Shale			995	1000	
Sand			1000	1043	
Sand & Shale & Red Rock			1043	1230	
Sand			1230	1256	
Sand & Shale & Red Rock			1256	1520	
Sand & Shale			1520	1620	
Red Rock & Shale			1620	1635	
Sand			1635	1725	
Sand & Shale & Red Rock			1725	1858	
Sand & Shale			1858	1880	
Sand			1880	1915	
Shale			1915	2165	
Sand & Shale			2165	2225	
Shale			2225	2350	
Sand & Shale			2350	2540	
Shale			2540	2610	
Sand & Shale			2610	2720	
FORMATIONS FROM GAMMA RAY LOG:					
Sand & Shale			2610	2900	
Sand			2900	3000	
Sand & Shale			3000	3450	
Shale			3450	3744	
Sand			3744	3754	
Shale			3754	3920	
Sand			3920	3980	

SEE ATTACHED SHEET
(Attach separate sheets as necessary)

BEREA OIL & GAS CORP.

Well Operator

By: M.V. Schumacher Mark V. Schumacher, P.E.

Date: April 15, 1982

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of formations, including ... encountered in the drill ..."

093-0054

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

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
FORMATIONS CONT'D FROM GAMMA RAY LOG:					
Shale			3980	4120	
Sand			4120	4165	
Shale			4165	4550	
Sand			4550	4570	
Sand & Shale			4570	4790	
Shale			4790	5000	
Sand & Shale			5000	5160	
Shale			5160	6800	
Sand			6800	6840	
Shale			6840	7644	
Tully Limestone			7644	7678	
Hamilton Shale			7678	7950	
Marcellus Shale			7950	8110	
Onondaga Limestone			8110	8160	
Huntersville Chert			8160	8198	
Needmore Shale			8198	8218	
Oriskany Sandstone			8218	8473	

LTD 8473'
DTD 8572'

(Attach separate sheets as necessary)

BEREA OIL & GAS CORP.

Well Operator

By: Mark V. Schumacher Mark V. Schumacher, P.E.

Date: April 15, 1982

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of formations, including

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PROPOSED WORK ORDER TO XX DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT
 NAME _____ NAME Mark V. Schumacher, P.E.
 ADDRESS _____ ADDRESS P. O. Box 299, Bridgeport, WV 26330
 TELEPHONE _____ TELEPHONE (504) 842-6931
 ESTIMATED DEPTH OF COMPLETED WELL: 8500' ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Oriskany
 TYPE OF WELL: OIL _____ GAS X COMB _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	FEET IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
26 - 3/4			
13 3/8"	30	30	To surface
9 - 5/8	3000'	3000'	To surface
8 - 5/8			
7			
5 1/2			
4 1/2	8500'	8500'	1,000, Fillup
3			Perf. Top
2			Perf. Bottom
1			Perf. Top
1/2			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 20 FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS None
 IS COAL BEING MINED IN THE AREA? No BY WHOM? _____

TO DRILL:
 SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:
 SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:
 OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.
 OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.
 Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.
 We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

 For Coal Company

 Official Title