



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE **1" = 1000'**  
 MINIMUM DEGREE OF ACCURACY **1:200**  
 PROVEN SOURCE OF ELEVATION **HIGH POINT**  
**1121'**

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) *William P. M... ..*  
 R.P.E. \_\_\_\_\_ L.L.S. **551**

PLACE SEAL HERE

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

FORM IV-6 (8-78)



DATE **25 AUGUST**, 19 **82**  
 OPERATOR'S WELL NO. **PETTICORD #1**  
 API WELL NO. \_\_\_\_\_  
**47 - 085 - 5868**  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION **909'** WATER SHED **SOUTH FORK HUGHES RIVER**  
 DISTRICT **GRANT** COUNTY **RITCHIE**  
 QUADRANGLE **MACFARLAN 7 1/2' QUAD. Harrisville 15' WC**  
 SURFACE OWNER **WESTVACO** ACREAGE **121.3**  
 OIL & GAS ROYALTY OWNER **M.C. PETTICORD + G.W. MAZE** LEASE ACREAGE **269**  
 LEASE NO. \_\_\_\_\_  
 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 **MARCELLUS SHALE** ESTIMATED DEPTH **5900'**  
 WELL OPERATOR **EAGLE PETROLEUM** DESIGNATED AGENT **RICHARD D. MANDRAKE**  
 ADDRESS **P.O. Box 1049** ADDRESS **P.O. Box 1049**  
**PARKERSBURG, W.VA. 26101** **PARKERSBURG, W.VA. 26101**

SEP 13 1982

DEEP

DEPT. OF MINES

RECEIVED

10/17/1983

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date Aug. 10, 1983  
Operator's  
Well No. Jackson # 20  
Farm Westvaco  
API No. 47-085-586  
085-5868

OIL & GAS DIVISION  
DEPT. OF MINES WELL OPERATOR'S REPORT  
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil<sup>xx</sup> / Gas<sup>xx</sup> / Liquid Injection / Waste Disposal /  
(If "Gas," Production<sup>xx</sup> / Underground Storage / Deep / Shallow /)

LOCATION: Elevation: 909' Watershed South Fork Hughes River  
District: Grant County Ritchie Quadrangle Macfarlan

COMPANY Alan Gable Oil Development Co.  
ADDRESS P O Box 166, Davisville, WV 26142  
DESIGNATED AGENT Ronald Kodella  
ADDRESS same  
SURFACE OWNER Westvaco  
ADDRESS Rt 95, Parkersburg, WV  
MINERAL RIGHTS OWNER M.C. Petticord and George Maze  
ADDRESS Parkersburg, WV

OIL AND GAS INSPECTOR FOR THIS WORK  
Sam Hersman ADDRESS Smithville, WV  
PERMIT ISSUED # 3868 ✓  
DRILLING COMMENCED 10/82  
DRILLING COMPLETED 10/82

IF APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED  
ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.		40'	
13-10"			
9 5/8			
8 5/8		1110'	300 sks
7			
5 1/2			
4 1/2		5884'	600 sks
3			
2			
Linings used			

GEOLOGICAL TARGET FORMATION Marcellus Depth 5900 feet  
Depth of completed well 5884 feet Rotary <sup>xx</sup> / Cable Tools  
Water strata depth: Fresh N/A feet; Salt N/A feet  
Coal seam depths: n/a Is coal being mined in the area? no

OPEN FLOW DATA  
Producing formation ~~Balltown, Speechely, Gordon~~ Gantz Pay zone depth 2520-3869 feet  
Gas: Initial open flow 1040 Mcf/d Oil: Initial open flow 0 Ebl/d  
Final open flow (1017) Mcf/d Final open flow (5) Ebl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure 1145 psig (surface measurement) after 8 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation aa Pay zone depth aa feet  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Ebl/d  
Final open flow \_\_\_\_\_ Mcf/d Oil: Final open flow \_\_\_\_\_ Ebl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours

MAY 14 1984

DETAILS OF REPERFORATED INTERVALS, FROTHING OR STIMULATING, PHYSICAL CHANGE, ETC.

3853-69	7 holes	
3731-36	10	
3698-3700	3	} Huron 2 MMCF N2
3689-91	3	
3652-54	3	
3525-27	3	
3512-14	3	
3438-39	2	
2801-05	5	
2520-22	3	

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fr and salt water, coal, oil and c
Red Rock			0	1200	
1st Salt			1322	1350	
2nd Salt			1453	1504	
3rd Salt			1670	1726	
Maxon			1748	1760	
Big Lime			1856	1900	
Keener			1901	1951	
Big Injun			1960	2013	
Squaw			2026	2032	
Berea			2402	2404	
Gantz			2514	2530	
Gordon			2798	2806	
Upper Speechley			3488	3552	
Lower Speechley			3592	3660	
Balltown			3636	3870	
Bradford			3952	4102	
Riley			4385	4625	
Benson			4680	4705	
Alexander			4840	4885	
Hamilton			5410	5725	
				TD 5884 <del>Re-entrant</del> @ J.D.	5884 2404 <hr/> 3480

(Attach separate sheets as necessary)

Alan Gable Oil Development Co.

Well Operator

By: Jubal S. Terry

Date: Aug. 10, 1983

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic  
record of all operations, including



Date: August 30, 19 82

FORM IV-2 (Obverse) (12-81)

Operator's Well No. Petticord #1

API Well No. 47 085 5868

State County Permit

STATE OF WEST VIRGINIA DEPARTMENT OF MINES, OIL AND GAS DIVISION OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil X / Gas X (If "Gas", Production / Underground storage / Deep / Shallow X /)

LOCATION: Elevation: 909' Watershed: South Fork Hughes River District: Grant County: Ritchie Quadrangle: MacFarlan

WELL OPERATOR Eagle Petroleum Company Address P.O. Box 1049 Parkersburg, W. Va. 26102

DESIGNATED AGENT R. D. Mandrake Address P.O. Box 1049 Parkersburg, W. Va. 26102

OIL & GAS ROYALTY OWNER G. W. Maze Address Petroleum, W. Va.

COAL OPERATOR NA Address

Acreage 269

SURFACE OWNER Westvaco

COAL OWNER(S) WITH DECLARATION ON RECORD:

Name

Address RECEIVED

Name SEP 3 1982

Address OIL AND GAS DIVISION WV DEPARTMENT OF MINES

FIELD SALE (IF MADE) TO: Address

COAL LESSEE WITH DECLARATION ON RECORD:

Name

Address

OIL & GAS INSPECTOR TO BE NOTIFIED Name Address

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease other contract X / dated July 16, 19 82, to the undersigned well operator from Reserve Exploration Corp.

(IF said deed, lease, or other contract has been recorded:) Recorded on July 21, 19 82, in the office of the Clerk of the County Commission of Ritchie County, West Va., in Lease Book 146 at page 404. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper / Redrill / Fracture or stimulate / Plug off old formation / Perforate new formation / Other physical change in well (specify)

-planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO: WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION 1615 WASHINGTON STREET EAST CHARLESTON, WV 25311 TELEPHONE: (304) 348-3092

Eagle Petroleum Company Well Operator By [Signature] Its Operations Manager

BLANKET BOND

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) C H M Drilling Co.  
Address Marietta, Ohio 45750

GEOLOGICAL TARGET FORMATION, Marcellus Shale

Estimated depth of completed well, 5,900 feet Rotary X / Cable tools \_\_\_\_\_ /

Approximate water strata depths: Fresh, 100 feet; salt, 700 feet.

Approximate coal seam depths: \_\_\_\_\_ Is coal being mined in the area? Yes \_\_\_\_\_ / No X /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS			New	Used	FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft			For drilling	Left in well		
Conductor	13 <sup>3</sup> / <sub>8</sub>			X		40'	40'	15 SX	Kinds
Fresh Water	8 <sup>5</sup> / <sub>8</sub>		20#	X		1100'	1050'	To surface	
Coal									Sizes
Intermediate									
Production	4 <sup>1</sup> / <sub>2</sub>		10.5#	X		5920'	5900'	As Required	Depths set
Tubing								by Reg. 15.01	
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE.

ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22, ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY APPROVED FOR Drilling. THIS PERMIT SHALL EXPIRE IF OPERATIONS HAVE NOT COMMENCED BY 5-8-83.  
BY [Signature]

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

WAIVER

The undersigned coal operator \_\_\_\_\_ / owner \_\_\_\_\_ / lessee \_\_\_\_\_ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: \_\_\_\_\_, 19 \_\_\_\_\_

By \_\_\_\_\_  
Its \_\_\_\_\_