



1) Date: December 6, 19 82

2) Operator's Well No. WI-024

3) API Well No. 47 105 1036
State County Permit

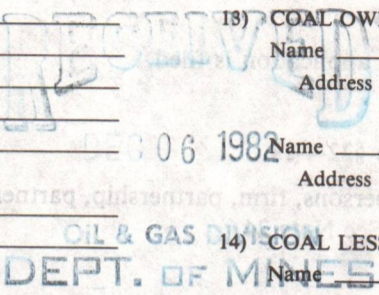
DRILLING CONTRACTOR:

Ray Resources
Charleston, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil / Gas
B (If "Gas", Production / Underground storage _____ / Deep _____ / Shallow)
- 5) LOCATION: Elevation: 982.82' Watershed: Bear Fork
District: Burning Springs County: Wirt Quadrangle: Girta 7.5'
- 6) WELL OPERATOR Bow Valley Petroleum Inc. 11) DESIGNATED AGENT W. E. Stover
Address 600 Commerce Sq. Address Culloden, WV
Charleston, WV
- 7) OIL & GAS ROYALTY OWNER Glen W. Roberts 12) COAL OPERATOR N/A
Address Box 92 Address _____
Elizabeth, WV
- 8) SURFACE OWNER Westvaco 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
Address Parkersburg, WV Name _____
Acreage 100 Address _____
- 9) FIELD SALE (IF MADE) TO: 14) COAL LESSEE WITH DECLARATION ON RECORD:
Address _____ Name _____
Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Deo Mace Address _____
Address Sandridge, WV
- 15) PROPOSED WORK: Drill / Drill deeper _____ / Redrill _____ / Fracture or stimulate _____
Plug off old formation _____ / Perforate new formation _____
Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, Marcellus-Devonian Shale
- 17) Estimated depth of completed well, 5500 feet
- 18) Approximate water strata depths: Fresh, 65 feet; salt, _____ feet.
- 19) Approximate coal seam depths: N/A Is coal being mined in the area? Yes _____ / No



20) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	13"			X		30'	30'	15 sks	Kinds
Fresh water	9 5/8"			X		265'	265'	to surface	
Coal									Sizes
Intermediate	7"			X		1950'	1950'	to surface	
Production	4 1/2"	K-55	10.5	X		5500'	5500'	275 sks	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

- 21) EXTRACTION RIGHTS
Check and provide one of the following:
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS
Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No
If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.
- 23) Required Copies (See reverse side.)

24) 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.

Notary: _____
My Commission Expires _____

Signed: Marvin Comb
Its: Geologist

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-105-1036 December 9 01/12/2024 1982
Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector. (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work.** In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

Permit expires August 9, 1983 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond: <u>Blanket</u>	Agent: <u>OK</u>	Plat: <u>[Signature]</u>	Casing: <u>[Signature]</u>	Fee: <u>426</u>
----------------------	------------------	--------------------------	----------------------------	-----------------

[Signature]
Administrator, Office of Oil and Gas

Line Item Explanation

- 1) Date of Application
- 2) Your well name and number
- 3) To be filled out by office of oil & gas
- 4A) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs: "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil.
- 4B) "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of the "Onondaga Group" or a depth less than six thousand feet, whichever is shallower.
"Deep well" means any well drilled and completed in a formation at or below the top of the uppermost member of the "Onondaga Group" or at a depth less than six thousand feet, whatever is shallower.
- 5) Where well is located
- 6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
- 7) Use separate sheet if necessary
- 8) Present surface owner at time application is filed.
- 9) Optional
- 11) See Reg. 7.01 relating to code §22-4-1k
- 12) "Coal Operator" means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
- 13 & 14) As per §22-4-20; See Note 24
- 15) Work that will be attempted—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.
- 16) Anticipated formation for which well will be completed
- 17) Self explanatory
- 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
- 19) All coal seam depths
- 20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
- 21) Code 22-4-11(c) - In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
 - (1) A brief description of the tract of land including the district and county wherein the tract is located;
 - (2) The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
 - (3) The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
 - (4) A brief description of the royalty provisions of each such lease or contract.
- 22) Code 22-4-11(d) and 22-4-11(e).
- 23) 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.
- 24) **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.**

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.

01/12/2024

Date: _____, 19____

By _____

Its _____

X-2
Line Item 21) - Pursuant to Code 22-4-11(c) the applicant, Bow Valley Petroleum, in lieu of filing the lease with the permit application, does hereby provide the following information:

- 1.) Hall Tract is located in Burning Springs District of Wirt County, West Virginia, containing 100 acres more or less, and bounded on the
North by James Scott
East by Westvaco Corp.
South by Westvaco Corp.
West by Westvaco Corp.

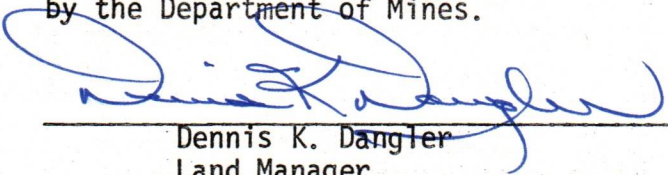
- 2.) Lessor - Glen W. Roberts (deceased)
Dorothy Parks Roberts (his wife)

Lessee - Flying Diamond Oil Corporation
Bow Valley Petroleum is successor in interest.

- 3.) Oil and Gas Lease is recorded in Wirt County Records office in Book 152 at Page 722.

- 4.) Landowners Royalty is 1/8 of all oil and/or gas produced.
Overriding Royalty is 4% of 8/8ths of all oil and/or gas produced.
Both are payable to Glen W. Roberts Estate.

I, Dennis K. Dangler, the undersigned, do hereby certify that the above provided information is correct and accurate to the best of my knowledge and belief and shows all the information required by law and regulations issued and prescribed by the Department of Mines.



Dennis K. Dangler
Land Manager

RECEIVED
DEC 06 1982

OIL & GAS DIVISION
DEPT. OF MINES

01/12/2024



DATE NOVEMBER 29, 1982
WELL NO. # W1024
API NO. 47 - 105 - 1036

State of West Virginia
Department of Mines
Oil and Gas Division

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME BOW VALLEY PETROLEUM, INC. DESIGNATED AGENT W. E. STOVER
Address 600 COMMERCE SQUARE Address BOX 235
CHARLESTON, WV CULLODEN, WV
Telephone 304-344-8393 Telephone 304-562-3376
LANDOWNER WESTVACO CORP. SOIL CONS. DISTRICT LITTLE KANAWHA
Revegetation to be carried out by BOW VALLEY PETROLEUM, INC. (Agent)

This plan has been reviewed by Little Kanawha SCD. All corrections and additions become a part of this plan: 11-29-82

(Date)
Jarrett Newlon
(SCD Agent)

ACCESS ROAD

LOCATION

Structure <u>see comment</u> (A)	Structure <u>MINIMUM OF GRADING</u> (1)
Spacing <u>and sketch</u>	Material <u>NEEDED</u>
Page Ref. Manual _____	Page Ref. Manual _____
Structure _____ (B)	Structure _____ (2)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____
Structure _____ (C)	Structure _____ (3)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____

All structures should be inspected regularly and repaired if necessary. All commercial timber is to be cut and stacked and all brush and small timber to be cut and removed from the site before dirt work begins.

REVEGETATION

Treatment Area I+II

Treatment Area II

Lime 2 Tons/acre
or correct to pH 6.5
Fertilizer 600 lbs/acre
(10-20-20 or equivalent)
Mulch Hay 2 Tons/acre
Seed* Kentucky 31 Fescue 45 lbs/acre
Rye 5 lbs/acre
LADINO CLOVER 5 lbs/acre

Lime _____ Tons/acre
or correct to pH _____
Fertilizer _____ lbs/acre
(10-20-20 or equivalent)
Mulch _____ Tons/acre
Seed* _____ lbs/acre
_____ lbs/acre
_____ lbs/acre

*Inoculate all legumes such as vetch, trefoil and clovers with the proper 01/12/2024 Inoculate with 3X recommended amount.

PLAN PREPARED BY William F. Henrichs, III

ADDRESS 600 Commerce Sq.

CHARLESTON, WV

PHONE NO. 304-344-8393

NOTES: Please request landowners' cooperation to protect new seedling for one growing season. Attach separate sheets as necessary for comments.

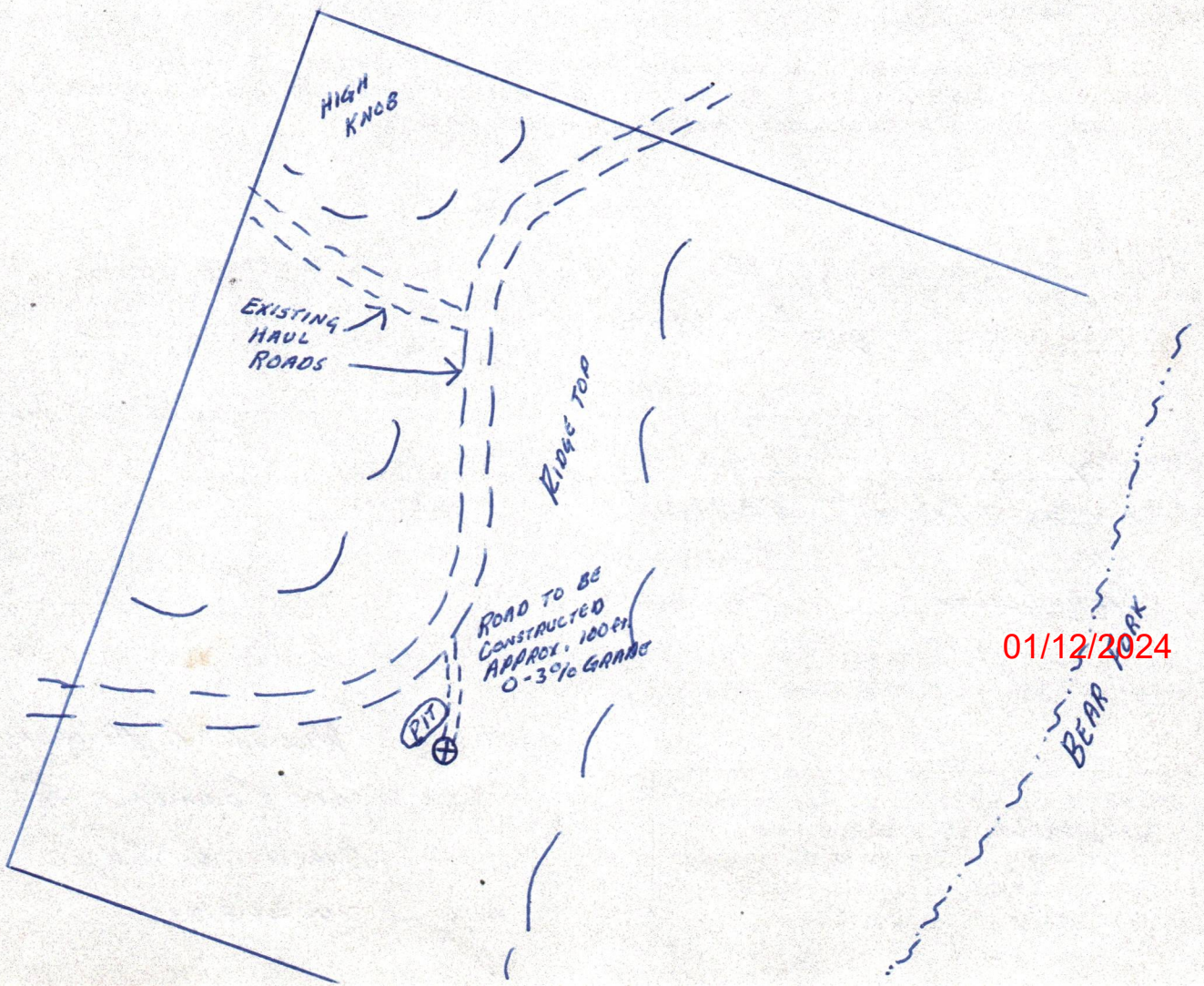
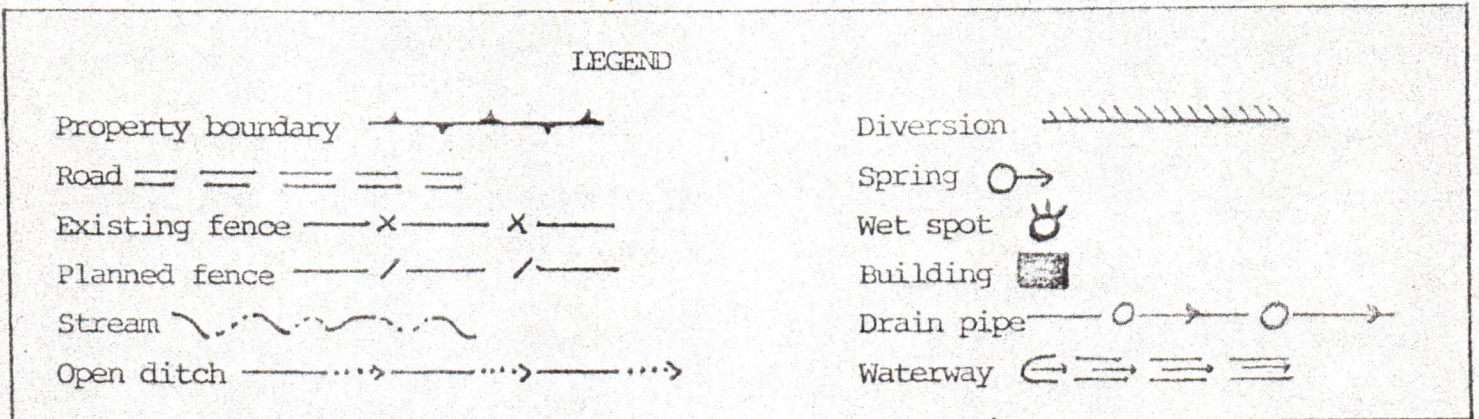
ATTACH OR PHOTOCOPY SECTION OF
INVOLVED TOPOGRAPHIC MAP.
QUADRANGLE GIRTA



ACCESS ROAD AND LOCATION ARE ON
A RELATIVELY FLAT BENCH ON THE
RIDGE TOP. CONSTRUCTION OF LOCATION
WILL REQUIRE A MINIMUM OF GRADING.
ALL TIMBER DISTURBED WILL BE CUT
AND STACKED.

WELL SITE PLAN

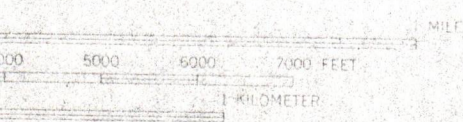
Sketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with the first part of this plan. Include all natural drainage.





01/12/2024

INTERIOR - GEOLOGICAL SURVEY, RESTON, VIRGINIA - 1977
478000m E 81



ROAD CLASSIFICATION

- Heavy duty ————— Light-duty
- Medium duty - - - - - Unimproved dirt
- Slate Route

GIRTA, W. VA.

RECEIVED

DEC 06 1982

OIL & GAS DIVISION
DEPT. OF MINES

01/12/2024

B-1



IV-35
(Rev 8-81)

RECEIVED

DEC 22 1983

OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date December 16, 1983
Operator's
Well No. WI024
Farm Roberts
API No. 47 - 105 - 1036

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

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

LOCATION: Elevation: 982' Watershed Bear Fork
District: Burning Springs County Wirt Quadrangle

COMPANY Bow Valley Petroleum, Inc.
ADDRESS 600 Commerce Sq. Charleston, WV.
DESIGNATED AGENT Robert Long
ADDRESS Box 235 Culloden, WV.
SURFACE OWNER Westvaco
ADDRESS Parkersburg, WV.
MINERAL RIGHTS OWNER Roberts Estate
ADDRESS Box 92 Elizabeth, WV.
OIL AND GAS INSPECTOR FOR THIS WORK Deo
Mace ADDRESS Sandridge, WV.

PERMIT ISSUED December 9, 1982
DRILLING COMMENCED December 21, 1982
DRILLING COMPLETED December 30, 1982

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Cond.	20	20	15sks
13-10"	264	264	175sks
9 5/8			
8 5/8	2151	2151	150sks
7			
5 1/2			
4 1/2	5816	5816	625sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Marcellus Shale Depth 5800 feet
Depth of completed well 5816' feet Rotary X / Cable Tools
Water strata depth: Fresh 480 feet; Salt 1772 feet
Coal seam depths: None Encountered Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Devonian Shale Pay zone depth 5458'-2484' feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow 400 Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 48 hours after frac
Static rock pressure 510 psig (surface measurement) after ___ hours shut in
(If applicable due to multiple completion--)
Second producing formation ___ Pay zone depth 01/12/2024 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) after ___ hours shut in

(Continue on reverse side)

Wirt 1036

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
WELL TREATED TWO STAGES

1st Stage Frac Perforated 5458'-3995' 31 holes. Spot 1000 gals HCL (15%). Treated with 1,100,000 scf N₂. Breakdown 2550#. Average Injection Rate 52,000 scf/min.

2nd Stage Frac Perforated 3851-2484' (30 holes). Spot 1000 gals 15% HCL. Injection Rate 1,260,000 scf/N₂ at 70,000 scf/min. Breakdown 2250#. Max. Treating Pressure = 2425#.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Red Rock&Sand	Red/Tan	Soft	0	70	
Sand	Brown	Soft	70	280	Water @ 480'
Red Rock&Shale	Gray	Soft	280	360	Oil @ 1680'
Sand	Buff	Hard	360	455	
Shale	Gray	Soft	455	490	
Sand	White	Hard	490	1105	
Sand&Shale	Gray	Soft	1105	1250	Gas Checks @
Sand	Tan	Hard	1250	1450	2543' No show
Sand&Shale	Gray	Soft	1450	1755	3649' " "
Sand	White	Hard	1755	1860	3954' Slight Odor
Lime	Gray	Hard	1860	1920	5093' No show
Keener Sand	Gray/Brown	Hard	1920	2060	Electric Log Data
Injun Sand	White	Hard	2060	2100	Base Injun - 2028'
Shale&Silt	Gray	Soft	2100	4500	Berea Top - 2426'
Sandy Shale	Brown	Med	4500	5230	Gordon Top-2774'
Shale	Gray	Soft	5230	5400	Rhinestreet top - 5334'
Shale	Black	Soft	5400	5680	Marcellus top - 5708'
Shale	Dk. Brown	Soft	5680	5740	
Sandy Shale			5740	5816	

(Attach separate sheets as necessary)

Bow Valley Petroleum, Inc.

Well Operator

By: *Martin Combes* 01/12/2024

Date: *12-20-23*

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

B-3

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

RECEIVED

JAN 4 - 1983

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 105-1036

Oil or Gas Well
(KIND)

Company Baw Valley
 Address _____
 Farm Roberts
 Well No. W1 024
 District Bunny Spring County Wirt
 Drilling commenced _____
 Drilling completed _____ Total depth _____
 Date shot _____ Depth of shot _____
 Initial open flow _____ /10ths Water in _____ Inch
 Open flow after tubing _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 1/4			
6 3/8			Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____
 NAME OF SERVICE COMPANY _____
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES

Drillers' Names JW Jeps 21

Remarks: Moving Dig on Soc.

12-30-82

DATE

W. M. Mace

01/12/2024

DISTRICT WELL INSPECTOR

Form 26
2/16/82

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

INSPECTOR'S PLUGGING REPORT

Permit No. _____ Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner	Location	Amount	Packer	Location		
PLUGS USED AND DEPTH PLACED			BRIDGES	CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST

Drillers' Names _____

Remarks: _____

_____ I hereby certify I visited the above well on this date.

DATE

01/12/2024

DISTRICT WELL INSPECTOR

B-4

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

RECEIVED

JAN 1 1983

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 105-1036

Oil or Gas Well _____
(KIND)

Company Baw Valley
 Address _____
 Farm Roberts
 Well No. W1 024
 District Bunny Sp. County Wirt
 Drilling commenced 12-31-82
 Drilling completed _____ Total depth _____
 Date shot _____ Depth of shot _____
 Initial open flow _____ /10ths Water in _____ Inch
 Open flow after tubing _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 1/4			
6 3/8			Depth set _____
5 3/16			
3			Perf. top _____
2			
Liners Used			Perf. bottom _____
			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____

NAME OF SERVICE COMPANY _____

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES

Drillers' Names S. W. Jacks 21

Remarks: 269' of 11 3/4" casing, 125 SKS B.J. Hughes 1-4-83

1-6-83
DATE

Wm Mace 01/12/2024
DISTRICT WELL INSPECTOR

Form 26
2/16/82

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

INSPECTOR'S PLUGGING REPORT

Permit No. _____ Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner Location Amount Packer Location

PLUGS USED AND DEPTH PLACED			BRIDGES		CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION		RECOVERED	SIZE	LOST

Drillers' Names _____

Remarks: _____

I hereby certify I visited the above well on this date.

01/12/2024

DISTRICT WELL INSPECTOR

B-5

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

RECEIVED

JAN 26 1983

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 109-1036

Oil or Gas Well _____
(KIND)

Company Bow Valley
 Address _____
 Farm Roberts
 Well No. W1 024
 District Burnin Spring County Wirt
 Drilling commenced _____
 Drilling completed 1-21-83 Total depth 5815
 Date shot _____ Depth of shot _____
 Initial open flow _____ /10ths Water in _____ Inch
 Open flow after tubing _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 1/4			
6 3/8			Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____
 NAME OF SERVICE COMPANY _____
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES

Drillers' Names S.W. Jack 21

Remarks: 70. 5815'

1-11-83
DATE

W. Mace 01/12/2024
DISTRICT WELL INSPECTOR

FORM 26
2/16/82

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

INSPECTOR'S PLUGGING REPORT

Permit No. _____ Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner Location Amount Packer Location

PLUGS USED AND DEPTH PLACED			BRIDGES	CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST

Drillers' Names _____

Remarks: _____

_____ I hereby certify I visited the above well on this date.
DATE

01/12/2024

DISTRICT WELL INSPECTOR

B-12



State of West Virginia
Department of Mines
Oil and Gas Division
Charleston 25305

RECEIVED
OCT 16 1984
OIL & GAS DIVISION
DEPT. OF MINES

FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT
December 28, 1983

COMPANY Bow Valley Petroleum, Inc.
600 Commerce Square
Charleston, West Virginia 25301

PERMIT NO 105-1036
FARM & WELL NO Roberts, #WI024
DIST. & COUNTY Burning Springs/Wirt

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to Starting Work		
25.04	Prepared before Drilling to Prevent Waste		
25.03	High-Pressure Drilling		
16.01	Required Permits at Wellsite		
15.03	Adequate Fresh Water Casing		
15.02	Adequate Coal Casing		
15.01	Adequate Production Casing		
15.04	Adequate Cement Strenght		
15.05	Cement Type		
23.02	Maintained Access Roads	✓	
25.01	Necessary Equipment to Prevent Waste	✓	
23.04	Reclaimed Drilling Pits	✓	
23.05	No Surface or Underground Pollution	✓	
23.07	Requirements for Production & Gathering Pipelines	✓	
16.01	Well Records on Site		
16.02	Well Records Filed		
7.05	Identification Markings	✓	

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED Homer H. Dougherty
DATE 10/9/84

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

TLL v AB
Administrator-Oil & Gas Division

January 4, 1985

DATE 01/12/2024

RECEIVED

MAR - 5 1984

OIL & GAS DIVISION 189
DEPT. OF ENERGY Seller Code

1.0 API well number: (If not available, leave blank. 14 digits.)	<u>47 105</u> 103															
2.0 Type of determination being sought: (Use the codes found on the front of this form.)	<u>107</u> Section of NGPA															
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	<u>5486</u> feet															
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	Bow Valley Petroleum, Inc. Name <u>600 Commerce Square</u> Street <u>Charleston,</u> WV 25301 City State Zip Code															
5.0 Location of this well: [Complete (a) or (b).] (a) For onshore wells (35 letters maximum for field name.)	<u>BURNING SPRINGS</u> Field Name <u>WIRT</u> County WV State															
(b) For OCS wells:	Area Name _____ Block Number _____ Date of Lease: _____ Mo. Day Yr. OCS Lease Number _____															
(c) Name and identification number of this well: (35 letters and digits maximum.)	<u>Roberts WI 024</u>															
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)	_____															
6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)	<u>Columbia Gas Transmission Corp</u> 04030 Name Buyer Code															
(b) Date of the contract:	_____ Mo. Day Yr.															
(c) Estimated annual production:	_____ MMcf.															
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;"></th> <th style="width: 15%;">(a) Base Price (\$/MMBTU)</th> <th style="width: 15%;">(b) Tax</th> <th style="width: 15%;">(c) All Other Prices [Indicate (+) or (-).]</th> <th style="width: 20%;">(d) Total of (a), (b) and (c)</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">7.0 Contract price: (As of filing date. Complete to 3 decimal places.)</td> <td style="text-align: center;"><u>5.718</u></td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> </tr> <tr> <td style="padding: 5px;">8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)</td> <td style="text-align: center;"><u>5.718</u></td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> </tr> </tbody> </table>		(a) Base Price (\$/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-).]	(d) Total of (a), (b) and (c)	7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	<u>5.718</u>	---	---	---	8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	<u>5.718</u>	---	---	---
	(a) Base Price (\$/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-).]	(d) Total of (a), (b) and (c)												
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	<u>5.718</u>	---	---	---												
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	<u>5.718</u>	---	---	---												
9.0 Person responsible for this application:	<u>Robert Hart</u> General Mgr. - V.P. Name Title x <u>Robert Hart</u> Signature _____ (304) 344-8393 Date Application is Completed Phone Number															

Agency Use Only

MAR 5 1984

Date Received by Juris. Agency

Date Received by FERC

PARTICIPANTS:

DATE: _____

BUYER-SELLER CODE

WELL OPERATOR:

Bow Valley Petroleum, Inc. APR 25 1984

040189

FIRST PURCHASER:

Columbia Gas Trans.

004030

OTHER: _____

Dev

W. Va. Department of Mines, Oil & Gas Division
 WELL DETERMINATION FILE NUMBER
840305-107-105-1036
 Use Above File Number on all Communications
 Relating to Determination of this Well

OK

APPROVED

APR 27 1984

CHECK EACH ITEM AS COMPLETE OR NOTE WHAT IS MISSING

ITEM NO.

1. FERC -121 _____ Items not completed - Line No. _____
2. IV-1 Agent _____
3. IV-2 Well Permit _____
4. IV-6 Well Plat _____
5. IV-35 Well Record _____ Drilling _____ Deepening _____
6. IV-36 Gas-Oil Test: Gas Only _____ Was Oil Produced? _____ Ratio _____
7. IV-39 Annual Production _____ years
8. IV-40 90 day Production _____ Days off line: _____
9. IV-48 Application for certification. Complete? _____
- 10-17. IV Form 51 - 52 - 53 - 54 - 55 - 56 - 57 - 58 Complete? _____ Affidavit Signed _____
- 18-28. Other: Survey _____ Logs _____ Geological Charts _____
 Structure Map _____ 1: 4000 Map _____ Well Tabulations _____
 Gas Analyses _____
- (5) Date commenced: _____ Date completed _____ Deepened _____
- (5) Production Depth: _____
- (5) Production Formation: _____
- (5) Final Open Flow: _____
- (5) After Frac. R. P. _____
- (6) Other Gas Test: _____
- (7) Avg. Daily Gas from Annual Production: _____
- (8) Avg. Daily Gas from 90-day ending w/1-120 days _____
- (8) Line Pressure: _____ PSIG from Daily Rep. _____
- (5) Oil Production: _____ From Completion Report _____
- 10-17. Does lease inventory indicate enhanced recovery being done? _____
- 10-17. Is affidavit signed? _____ Notarized? _____
- Does official well record with the Department confirm the submitted information? 01/12/2024
- Additional information _____ Does computer program confirm? _____
- Was Determination Objected to _____ By Whom? _____

STATE APPLICATION FOR WELL CLASSIFICATION

WELL OPERATOR Bow Valley Petroleum Inc.
ADDRESS 600 Commerce Sq.
Charleston, WV 25301

DESIGNATED AGENT Robert N. Hart
ADDRESS 600 Commerce Sq.
Charleston, WV 25301

Gas Purchase Contract No. _____ and Date Being Negotiated
(Month, day and year)

Meter Chart Code _____

Name of First Purchaser Columbia Gas Transmission Corporation
Box 1273
Charleston, WV 25325
(City) (State) (Zip Code)

FERC Seller Code 040189

FERC Buyer Code 004030

TYPE OF DETERMINATION BEING SOUGHT:

- (1) Initial determination (See FERC Form 121.) Section of NGPA 107 Category Code _____
- (2) Determination that increased production is the result of enhanced recovery technology.
- (3) Determination of a seasonally affected well.

Robert Hart Vice Pres./Gen. Manager
Name (Print) Title

X Robert Hart
Signature
600 Commerce Square
Street or P. O. Box
Charleston, WV 25301
City State (Zip Code)
304 344-8393
Area Phone Number
Code

(Certificate of Proof of Service to Purchaser)

Mailed copy to Columbia Gas Transmission - Contract Department c/o
Jackie Sydnor

(All of the above to be completed by the Operator/Applicant)

(To be completed by Jurisdictional Agency. Executed copy to be returned to Operator/Applicant and purchaser, if known).

The Department of Mines has received a request for certification of the above described well as meeting the requirements of Section _____ under the Natural Gas Policy Act of 1976. (NGPA); or for determination that increased production is the result of enhanced recovery technology under Section 108 of (NGPA); or for determination of a seasonally affected well under Section 108 of (NGPA).

All interested parties are hereby notified that on the _____ day of _____, 19____, at the office of the Oil and Gas Division in Charleston, West Virginia, or as soon thereafter as it may be heard, there will be a public hearing, if requested, or if objection is filed.

This Application is assigned File No. _____

Initial review of information submitted indicates the well is, is not entitled to certification as claimed under the Natural Gas Policy Act (NGPA). A review of this evidence and any additional evidence will be made at the time appointed for a public hearing or as soon thereafter as the matter may be heard.

Unless objections are timely filed or a request for a hearing is made within fifteen (15) days, a hearing will not be held except on ex parte motion of the department and the matter will go to determination.

WEST VIRGINIA DEPARTMENT OF MINES

MAR 5 1984

Date received by
Jurisdictional Agency

Director 01/12/2024
By _____
Title _____

DEPARTMENT OF MINES OIL AND GAS DIVISION

Operator's Well No. WT 024

API Well No.

47 - 105 - 1036
State County Permit

WELL CLASSIFICATION FORM

HIGH COST GAS WELL -- DEVONIAN SHALE

NGPA Section 107

DESIGNATED AGENT Robert Hart

ADDRESS 600 Commerce Square
Charleston, WV 25301

LOCATION Elevation 982
Watershed BEAR FORK
Dist. SPRING County WIRT Quad. G127A

WELL OPERATOR Bow Valley Petroleum Inc.
ADDRESS 600 Commerce Square
Charleston, WV 25301

GAS PURCHASER Columbia Gas Trans. Corp.
ADDRESS Box 1273
Charleston, WV 25325

Gas Purchase Contract No. _____
Meter Chart Code _____
Date of Contract _____

* * * * *

Date surface drilling began: Dec 21 1982

Indicate the bottom hole pressure of the well and explain how this was calculated.

$$BHP_1 = PWH + PWH \left[2.71828 \left(\frac{GL}{53.34 \left[\frac{TWH + TBH}{2} + 460 \right]} \right) - 1 \right]$$

PWH - WELL HEAD PRESSURE
L - DEPTH TO MIDDLE OF PRODUCING FORM. 510
G - SPECIFIC GRAVITY OF THE GAS 0.95
TWH - TEMPERATURE AT WELL HEAD OF 116
TBH - TEMPERATURE BOTTOM HOLE OF

BHP₁ = 822.1

AFFIDAVIT

I, Charleston B. Roberts, having been first sworn according to law, state that I have calculated the percentage of footage of the producing interval which is not Devonian Shale as indicated by a Gamma Ray index of less than 0.7 if a Gamma Ray log described in subparagraph (3)(i) or (3)(ii)(A) has been filed, or as indicated by the report described in subparagraph (3)(ii)(B); I have demonstrated that the percentage of potentially disqualifying non-shale footage is equal to or less than five (5) percent of the gross Devonian age interval; and I have no knowledge of any information not described in the application which is inconsistent with a conclusion that the well qualifies as a high-cost natural gas well.

Charleston B. Roberts

STATE OF WEST VIRGINIA

COUNTY OF Kanawha, TO-WIT:

I, Helen Mae Snodgrass, a Notary Public in and for the state and county aforesaid, do certify that Charleston B. Roberts, whose name is signed to the writing above, bearing date the 28th day of February, 1984 01/12/2024 acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 29th day of February, 1984.
My term of office expires on the 25th day of July, 1988.

(NOTARIAL SEAL)

Helen Mae Snodgrass
Notary Public

DEVONIAN SHALE GAMMA RAY LOG ANALYSIS
APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL
PRICE UNDER THE NATURAL GAS POLICY ACT

Operator: Bow Valley Petroleum

Agent: MARVIN COMBS

Type Determination being sought - 107 (Devonian Shale)

API Well No.: 47-105-1036

Well Name: ROBERTS WI-024

West Virginia Office of Oil and Gas
References: SJA File No.

County: WIRT

Vol. _____ Page _____ Line _____

I. NOTE: A Gamma Ray Log has been marked with the (a) Shale Base Line, (b) a line representing 0.7 x (Shale Base Line), (c) intervals with Gamma Ray units less than 0.7 x (Shale Base Line) and that log is included with this analysis.

II. Gamma Ray elevation indices:

A. Shale Base Line (API Units)

1. GR Value at Base Line = 150 * API Units
2. Remarks:

0-200 Api SCALE

B. Gamma Ray Log Value at 0.7 x Value at Base Line

1. GR Value = 150 * API Units
2. Calculation: 0.7 (GR Value at Base Line)
 0.7 (150 *) = 105 API Units

III. Intervals with GR index less than 0.7 x (Value at Base Line):

Interval		Thickness of Interval Feet	Feet of less than* 0.7 (Shale Base Line) Feet
From**	To***		
<u>2426</u>	<u>5786</u>	<u>3360</u>	<u>32</u>

Total Devonian Interval 3386

Total Less Than 0.7 (Shale Base) 32

% Less Than 0.7 (Shale Base Line) = $\frac{.0095}{.0095} \times 100 = \underline{\underline{.95}} \%$

*Marked on log included with analysis.

**Top of Devonian Section Recorded on First Interval in this Column.

***Lesser of TD or Bottom of Devonian Section Recorded as last Interval in this Column.

01/12/2024

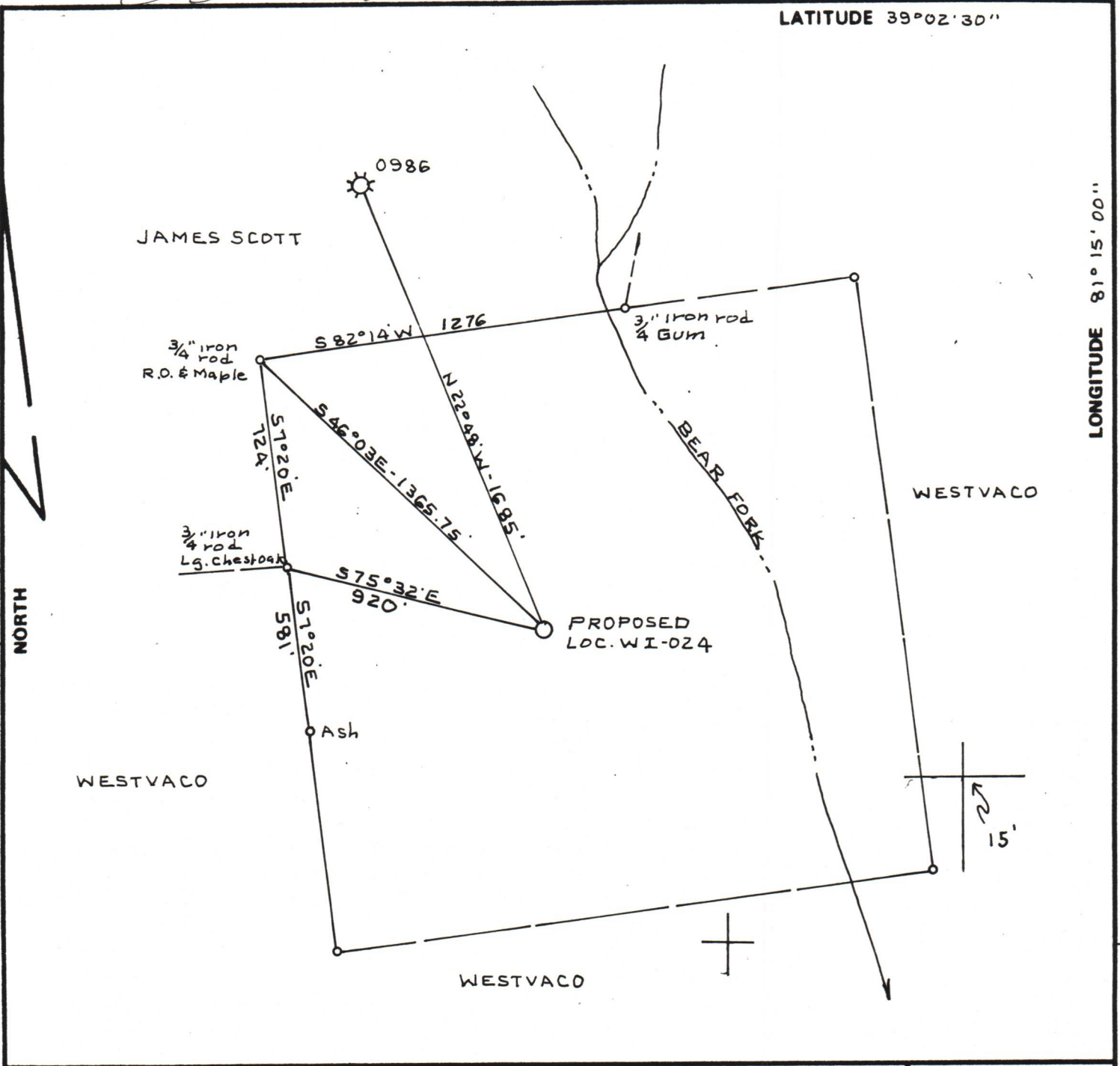
12/8/82

5450'

LATITUDE 39°02'30"

LONGITUDE 81°15'00"

NORTH



FILE NO. BK 74 PG 14
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1-200'
 PROVEN SOURCE OF ELEVATION BOW VALLEY WELL (997) 0986

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) C. S. Volley Jr.
 R.P.E. _____ I.L.S. 92

PLACE SEAL HERE

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



DATE DEC 2, 1982
 OPERATOR'S WELL NO. WI-024
 API WELL NO. 47-105-1036
 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 ___ SHALLOW X
 LOCATION: ELEVATION 982.82 WATER SHED BEAR FORK
 DISTRICT BURNING SPRINGS COUNTY WIRT
 QUADRANGLE GIRTA 7.5'
 SURFACE OWNER WESTVACO ACREAGE 100
 OIL & GAS ROYALTY OWNER GLEN W. ROBERTS LEASE ACREAGE 100 01/12/2024
 LEASE NO. 1826
 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 DEVONIAN SHALE ESTIMATED DEPTH 5500'
 WELL OPERATOR BOW VALLEY PETRO. INC. DESIGNATED AGENT W.E. STOVER
 ADDRESS 600 COMMERCE SQUARE ADDRESS BOX 235
CHARLESTON, WVA 25301 CULLODEN, WVA 25510

WIRT 1056