

1008-2680

Date: August 21, 19 80

Operator's Well No. H-1074

API Well No. 47 - 073 - 0943
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 X / Underground storage _____ Deep _____ Shallow X /)

LOCATION: Elevation: 865' Watershed: Ohio River
District: Union County: Pleasants Quadrangle: Raven Rock W.V. 7 1/2

WELL OPERATOR Haught, Inc.
Address Route 3, Box 14
Smithville, WV 26178

DESIGNATED AGENT Warren R. Haught
Address Smithville, WV 26178

OIL & GAS ROYALTY OWNER Jack Waugh
Address St. Marys, WV 26170

COAL OPERATOR None
Address _____

Acreage 107

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Jack Waugh
Address St. Marys, WV 26170

Name _____
Address _____

Acreage 107

Name _____

FIELD SALE (IF MADE) TO:
Name _____
Address _____

Address _____
RECEIVED
AUG 25 1980
OIL & GAS DIVISION
DEPT. OF MINES

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Phillip L. Tracy
Address Rt. 3, Alma, W.V. 26320

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
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 May 17, 19 80, to the undersigned well operator from Jack Waugh

[If said deed, lease, or other contract has been recorded:]
Recorded on June 18, 19 80, in the office of the Clerk of the County Commission of Pleasants County, West Virginia, in Deed Book 156 at page 332. 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

Haught, Inc.
Well Operator

By Warren R. Haught
Its President

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) Haight, Inc.
Address Smithville, WV 26178

GEOLOGICAL TARGET FORMATION, Shale

Estimated depth of completed well, 4000' feet Rotary Cable tools

Approximate water strata depths: Fresh, 75' feet; salt, feet.

Approximate coal seam depths: None Is coal being mined in the area? Yes No

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									Kinds
Fresh water	8 5/8	K-55	20#	X		200'	200'	75 sacks	
Coal									Sizes
Intermediate									
Production	4 1/2	J-55	10.5#	X			4000'	100 sacks	Depths set
Tubing									
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 § 22-4-3a 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, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 5-4-81

Thomas E. Huzzey
Deputy Director - Oil & Gas Division

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:

W A I V E R

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

BLANKET BOND

Date 21 AUG 1980
 Well No. H-1074
 API No. 47 - 073 - 943
 State County Permit

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS

Company Name HAUGHT INC. Designated Agent WARREN HAUGHT
 Address SMITHVILLE, W.V. Address SMITHVILLE, WV
 Telephone 477-3333 Telephone 477-3333
 Landowner JACK WAUGH Soil Cons. District UPPER OHIO
 Revegetation to be carried out by WARREN HAUGHT (Agent)

This plan has been reviewed by Upper Ohio SCD. All corrections
 and additions become a part of this plan. 8/28/80 Kenneth L. Mason
 (Date) (SCD Agent)

Access Road	Location
Structure <u>CROSS DRAIN</u> (A)	Structure <u>DIVERSION DITCH</u> (1)
Spacing <u>200'</u>	Material <u>SOIL</u>
Page Ref. Manual <u>1:3</u>	Page Ref. Manual <u>1:9</u>
Structure _____ (B)	Structure <u>SEDIMENT BARRIER</u> (2)
Spacing _____	Material <u>BRUSH & TREES</u>
Page Ref. Manual _____	Page Ref. Manual <u>1:15</u>
Structure _____ (C)	Structure _____ (3)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____

All structures should be inspected regularly and repaired if necessary.

Revegetation

Treatment Area I	Treatment Area II
Lime _____ Tons/acre or correct to pH <u>6.5</u>	Lime _____ Tons/Acre or correct to pH _____
Fertilizer <u>500</u> lbs/acre (10-20-20 or equivalent)	Fertilizer _____ lbs/acre (10-20-20 or equivalent)
Mulch <u>HAY OR STRAW</u> <u>2</u> Tons/Acre	Mulch _____ Tons/Acre
Seed* <u>KY 31 FESCUE</u> <u>40</u> lbs/acre	Seed* _____ lbs/acre
_____ lbs/acre	_____ lbs/acre
_____ lbs/acre	_____ lbs/acre


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*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

SEP - 2 1980







OIL & GAS DIVISION
DEPT. OF MINES







Attach or photocopy section of involved Topographic map. Quadrangle RAVEN ROCK 7 1/2

Legend:  Well Site
 Access Road

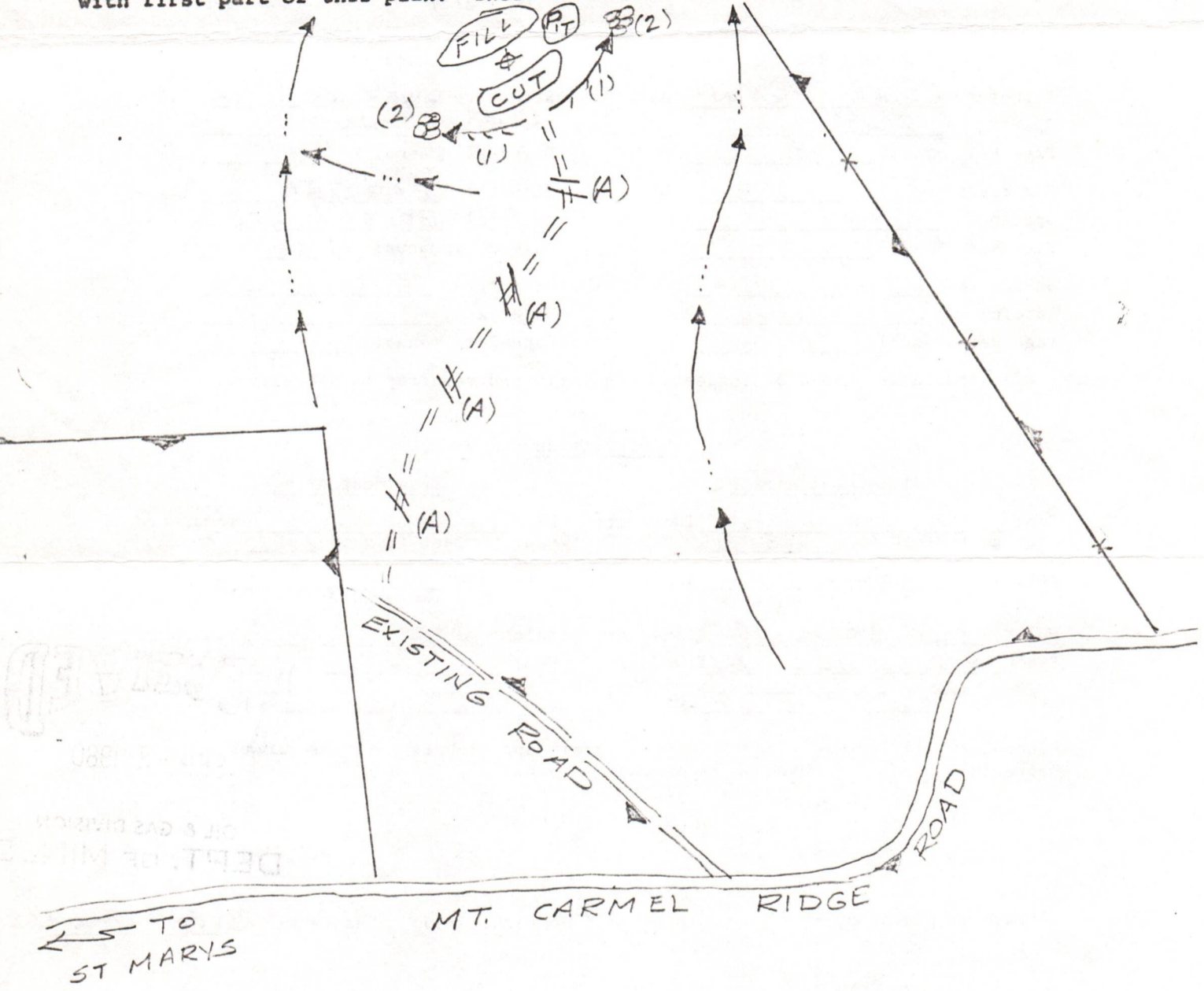


Well Site Plan

Legend: Property Boundary 
 Road 
 Existing Fence 
 Planned Fence 
 Stream 
 Open Ditch 

Diversion 
 Spring 
 Wet Spot 
 Building 
 Drain Pipe 
 Waterway 

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



Comments: SLOPE OF ACCESS ROAD 10%
ALL BRUSH & TREES TO BE CUT & PILED
ACCESS ROAD FOLLOWS RIDGE, NO DITCH NECESSARY.

Signature: Norman R. Haight Smithville, WV 26178 477-3333
 Agent Address Phone Number

Please request landowners cooperation to protect new seeding for one growing season.

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

WELL OPERATOR'S REPORT

OF
DRILLING, FRACURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas / Liquid Injection Waste Disposal
 (If "Gas", Production / Underground storage / Deep / Shallow)
 LOCATION: Elevation: 865' Watershed: Ohio River
 District: Union County: Pleasants Quadrangle: Raven Rock WV 7 1/2'
 WELL OPERATOR Haight, Inc. Jack Waugh H-1074
 Address Rt. 3 Box 14 DESIGNATED AGENT Warren R. Haight
Smithville, WV 26178 Address Smithville, WV 26178

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

PERMIT ISSUED ON September 4, 19 80 , OIL & GAS INSPECTOR FOR THIS WORK:
 Name Phillip L. Tracy
 IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED Address Rt. 3
Alma, WV 26320

GEOLOGICAL TARGET FORMATION: Shale Depth 3947 to 4500 feet
 Depth of completed well, 4500' feet Rotary / Cable Tools
 Water strata depth: Fresh, _____ feet; salt, _____ feet.
 Coal seam depths: None Is coal being mined in the area? No
 Work was commenced December 22, 19 80, and completed January 1, 19 81

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	FATHERS
	Size	Grade	Weight per foot	New / Used	For drilling	Left in well		
Conductor								Kinds
Fresh water	8-5/8	K-55	20#	X	540'	540'	80 sacks	
Coal								Sizes
Intermediate								
Production	4 1/2"	J-55	10.5#	X		4409'	500 sacks	Deaths set
Tubing								
Linners								Corrosions:
								Top Bottom
								4172 4344

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 JUN - 4 1981

OPEN FLOW DATA

OIL & GAS DIVISION

DEPT. OF MINES

Producing formation Shale Pay zone depth 3947 to 4500 feet
 Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
 Final open flow, 45 Mcf/d Final open flow, _____ Bbl/d
 Time of open flow between initial and final tests, 8 hours
 Static rock pressure, 860 psig (surface measurement) after 12 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 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

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

Nitrogen fraced by B.J. Hughes Production Services -- 720,000 SCF
 1000 Gal. Acid

Perforations 20--4172 -- 4344

WELL LOG

FORMATION	Color	Hard, or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fr and salt water, coal, oil and
Clay			0	9	
Sand Stone			9	18	
Red Rock			18	20	
Sand Stone			20	34	
Shale			34	40	
Sand Gravel			40	47	
Red Rock			47	63	
Shale/Sand			63	125	
Red Rock			125	140	
Shale			140	150	
Red Rock			150	180	
Sand/Shale			180	245	
Red Rock			245	265	
Shale			265	290	
Red Rock			290	300	
Shale			300	340	
Red Rock			340	350	
Shale			350	380	
Red Rock			380	400	
Shale			400	435	
Red Rock			435	450	
Shale			450	490	
Red Rock			490	520	
Shale			520	550	
Red Rock			550	560	
Shale			560	638	
Red Rock			638	661	
Shale			661	698	
Red Rock			698	705	
Sand			705	716	
Shale			716	736	
Red Rock			736	741	
Sand/Shale			741	1092	
Sand			1092	1200	
Sand/Shale			1200	1260	
Shale			1260	1280	
Sand			1280	1320	
Shale			1320	1400	
Sand			1400	1480	
Lime			1480	1500	
Shale/Sand			1500	1830	
Shale			1830	1917	
Sand			1917	1925	
Sandy Shale			1925	2250	
Sand			2250	2269	
Sandy Shale			2269	2550	
Sand			2550	2590	
Sand/Shale			2590	3049	
Shale			3049	3280	
Sand/Shale			3280	3560	
Shale			3560	3670	
Sand/Shale			3670	3730	
Shale			3730	3810	
Sand/Shale			3810	3947	
Shale			3947	4500	T.D.

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations,

Haught, Inc.
Well Operator

By Warren R. Haught

Its President

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

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JAN - 2 1981

INSPECTOR'S WELL REPORT

OIL & GAS DIVISION
DEPT. OF MINES
Oil or Gas Well _____
(KIND)

Permit No. PLES-943

Company <u>Haught, Inc.</u>	CASING AND TUBING	USED IN DRILLING	Left in well	PACKERS
Address <u>Smithsville, West Virginia</u>	Size			
Farm <u>Jack Waugh</u>	16			Kind of Packer _____
Well No. <u># 1074</u>	13			Size of _____
District <u>Union</u> County <u>Pleasants</u>	10			
Drilling commenced _____	8 1/4	557'	C.T.S.	260 sacks cement
Drilling completed _____ Total depth <u>2138'</u>	6 3/4			Depth set _____
Date shot _____ Depth of shot _____	5 3/16			
Initial open flow _____ /10ths Water in _____ Inch	3			Perf. top _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	2			Perf. bottom _____
Volume _____ Cu. Ft.	Liners Used			Perf. top _____
Rock pressure _____ lbs. _____ hrs.				Perf. bottom _____
Oil _____ bbls., 1st 24 hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Fresh water _____ feet _____ feet	NAME OF SERVICE COMPANY _____			
Salt water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names _____

Remarks:

Contractor, Haught Drilling Co-Rotary

December 30, 1980
DATE

William J. Blosser #502
DISTRICT WELL INSPECTOR
William J. Blosser

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

DISTRICT WELL INSPECTOR

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

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DEC 24 1980

INSPECTOR'S WELL REPORT

OIL & GAS DIVISION
DEPT. OF MINES
Oil or Gas Well (KIND)

Permit No. PLES-943

Company <u>Haught Inc.</u>	CASING AND TUBING	USED IN DRILLING	Left in well	PACKERS
	Size			
Address <u>Smithsville, West Virginia</u>	16			Kind of Packer _____
Farm <u>Jack Waugh</u>	13			
Well No. <u>H-1074</u>	10			Size of _____
District <u>Union</u> County <u>Pleasants</u>	8 1/4			
Drilling commenced _____	6 3/4			Depth set _____
Drilling completed _____ Total depth _____	5 3/16			
Date shot _____ Depth of shot _____	3			Perf. top _____
Initial open flow _____ /10ths Water in _____ Inch	2			Perf. bottom _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	Liners Used _____			Perf. top _____
Volume _____ Cu. Ft.				Perf. bottom _____
Rock pressure _____ lbs. _____ hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Oil _____ bbls., 1st 24 hrs.	NAME OF SERVICE COMPANY _____			
Fresh water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
Salt water _____ feet _____ feet	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names _____

Remarks:

Rigging up, Good pit, good road, approved by this inspector

Contractor, Haught Inc--Rotary-rig-16

December 22, 1980
DATE

William J. Blosser #502
DISTRICT WELL INSPECTOR
William J. Blosser

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

DISTRICT WELL INSPECTOR

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

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MAR - 8 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 073-0943

Oil or Gas Well _____
(KIND)

Company	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
<u>Haught inc</u>	Size			
<u>Smithville w. Va.</u>	16			Kind of Packer
<u>Jack Waugh</u>	13			
<u>H-1074</u>	10			Size of
<u>Union</u> County <u>Pleasants</u>	9 1/4			
Drilling commenced	6 5/8			Depth set
Drilling completed _____ Total depth _____	5 3/16			
Date shot _____ Depth of shot _____	3			Perf. top
Initial open flow _____ /10ths Water in _____ Inch	2			Perf. bottom
Open flow after tubing _____ /10ths Merc. in _____ Inch	Liners Used			Perf. top
Volume _____ Cu. Ft.				Perf. bottom
Rock pressure _____ lbs. _____ hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Oil _____ bbls., 1st 24 hrs.	NAME OF SERVICE COMPANY _____			
Fresh water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
Salt water _____ feet _____ feet	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names _____

Remarks: Final Inspection accepted

3-5-82
DATE

R.A. Lowther 512
DISTRICT WELL INSPECTOR

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

DISTRICT WELL INSPECTOR



State of West Virginia

Department of Mines
Oil and Gas Division

Charleston 25305

March 16, 1982

WALTER N. MILLER
DIRECTOR

Haught, Inc.
Route 3, Box 14
Smithville, West Virginia 26178

Dear Sir:

The required records and reports have been received in this office and the District Inspectors have submitted Final Inspections for the following wells listed below:

<u>PERMIT NO.</u>	<u>FARM & WELL NO.</u>	<u>DISTRICT</u>
PLEA-871	Jessie L. Taylor #H-1009	McKim
PLEA-0928	Lewis E. Snider #H-1049	MCKim
PLEA-0939	Jimmie Brammer #H-1057	Union
PLEA-0942	Jack Waugh #H-1073	Union
→ PLEA-0943	Jack Waugh #H-1074	Union
PLEA-0990	Paul M. Wilson, et al #H-1116	Washington
PLEA-1020	Cecil Lee Fetty #H-1076	McKim
PLEA-1038	Clifford Cunningham #H-1141	Washington
PLEA-1067	Watson-Haas Lumber Co. #H-1185	Washington
PLEA-1142	Benson D. Ward #H-1237	McKim

In accordance with Chapter 22, Article 4, Section 2, the bond coverage for above captioned wells will stay in force for life of well. Reclamation requirements have been approved..... ..

Very truly yours,

Fred Burdette

FILED
AUG 26 1981
OIL & GAS DIVISION
DEPT. OF MINES

1.0 API well number: (If not available, leave blank. 14 digits.)	47-073-0943												
2.0 Type of determination being sought: (Use the codes found on the front of this form.)	107 Section of NGPA												
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	865' feet												
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	Haught, Inc. Seller Code Name Rt. 3 Box 14 Street Smithville, WV 26178 City State Zip Code												
5.0 Location of this well: [Complete (a) or (b).] (a) For onshore wells (35 letters maximum for field name.)	Union District Field Name Pleasants County WV County State												
(b) For OCS wells:	N/A Area Name Block Number Date of Lease: <table style="margin-left: auto; margin-right: auto; border: none;"> <tr> <td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td> </tr> <tr> <td style="border: none;">Mo.</td><td style="border: none;">Day</td><td style="border: none;">Yr.</td><td colspan="3" style="border: none;">OCS Lease Number</td> </tr> </table>							Mo.	Day	Yr.	OCS Lease Number		
Mo.	Day	Yr.	OCS Lease Number										
(c) Name and identification number of this well: (35 letters and digits maximum.)	Jack Waugh H-1074												
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)	Shale												
6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)	Columbia Gas Transmission Corp. Buyer Code Name												
(b) Date of the contract:	<table style="border: none;"> <tr> <td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td> </tr> <tr> <td style="border: none;">Mo.</td><td style="border: none;">Day</td><td style="border: none;">Yr.</td><td colspan="3"></td> </tr> </table>							Mo.	Day	Yr.			
Mo.	Day	Yr.											
(c) Estimated annual production:	15 MMct.												
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:25%;">(a) Base Price (S/MMBTU)</th> <th style="width:25%;">(b) Tax</th> <th style="width:25%;">(c) All Other Prices [Indicate (+) or (-).]</th> <th style="width:25%;">(d) Total of (a), (b) and (c)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">-----</td> <td style="text-align: center;">-----</td> <td style="text-align: center;">-----</td> <td style="text-align: center;">-----</td> </tr> <tr> <td style="text-align: center;">4.976</td> <td style="text-align: center;">-.637</td> <td style="text-align: center;">-.01</td> <td style="text-align: center;">5.623</td> </tr> </tbody> </table>	(a) Base Price (S/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-).]	(d) Total of (a), (b) and (c)	-----	-----	-----	-----	4.976	-.637	-.01	5.623
(a) Base Price (S/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-).]	(d) Total of (a), (b) and (c)										
-----	-----	-----	-----										
4.976	-.637	-.01	5.623										
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:25%;">(a) Base Price (S/MMBTU)</th> <th style="width:25%;">(b) Tax</th> <th style="width:25%;">(c) All Other Prices [Indicate (+) or (-).]</th> <th style="width:25%;">(d) Total of (a), (b) and (c)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">4.976</td> <td style="text-align: center;">-.637</td> <td style="text-align: center;">-.01</td> <td style="text-align: center;">5.623</td> </tr> </tbody> </table>	(a) Base Price (S/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-).]	(d) Total of (a), (b) and (c)	4.976	-.637	-.01	5.623				
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4.976	-.637	-.01	5.623										
9.0 Person responsible for this application:	Warren R. Haught President Name Title Signature August 24, 1981 477-3333 Date Application is Completed Phone Number												

Agency Use Only
Date Received by Juris. Agency AUG 26 1981
Date Received by FERC

NOV 20 1981

PARTICIPANTS:

DATE: _____

BUYER-SELLER CODE

WELL OPERATOR: Haight, Inc

N.A.

FIRST PURCHASER: Columbia Gas Transmission

004030

OTHER: _____

0.16%

W. Va. Department of Mines, Oil & Gas Division
 WELL DETERMINATION FILE NUMBER
81-08-26-107-073 = 0943
 Use Above File Number on all Communications
 Relating to Determination of this Well

Qualified J. Huggins

CHECK EACH ITEM AS COMPLETE OR NOTE WHAT IS MISSING

ITEM NO.

- 1. FERC -121 Items not completed - Line No. 7.0 all
- 2. IV-1 Agent Warren R Haight
- 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: 12-22-80 Date completed 1-1-81 Deepened
- (5) Production Depth: 3947-4500
- (5) Production Formation: Shale
- (5) Final Open Flow: 45 mcf
- (5) After Frac. R. P. 860 # 12 hrs
- (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 Report: _____
- (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? yes
- Additional information _____ Does computer program confirm? _____
- Was Determination Objected to _____ By Whom? _____

###

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

Date August 24 1981

Operator's Well No. H-1074

API Well No. 073 - 0943
State WV County Putnam

WELL CLASSIFICATION FORM
HIGH COST GAS WELL - DEVONIAN SHALE
MGPA Section 107

DESIGNATED AGENT Warren R. Haught

ADDRESS Rt. 3 Box 14
Smithville, WV 26178

WELL OPERATOR Haught, Inc.

ADDRESS Rt. 3 Box 14
Smithville, WV 26178

LOCATION: Elevation 865'

Watershed Ohio River

Dist Union County Pleasants Loc Raven R

GAS PURCHASER Columbia Gas Transmission

ADDRESS P.O. Box 1273
Charleston, WV 25325

Gas Purchase Contract No. Applied For

Meter Chart Code _____

Date of Contract: _____

Date surface drilling began December 22, 1980

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

$$Pws = Pwh e^{\frac{(.01875)(SG)(D)}{Z T}}$$

Pws = Static Bottom Hole Pressure

Pwh = Wellhead Pressure

SG = Specific Gravity

D = Depth to center of Perforations

Z = Average Compressibility factor

T = Average Temperature (°R)

Pws = 969 psig.

Pwh = 860

SG = .72

D = 4258

Z = .85

T = 562

AFFIDAVIT

I, Warren R. Haught, 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 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.

Warren R. Haught

STATE OF WEST VIRGINIA.

COUNTY OF Ritchie TO WIT

I, Lenna G. Haught, a Notary Public in and for the state and county aforesaid do certify that Warren R. Haught whose name is signed to the writing above, bearing date the 24 day of August, 1981, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 24 day of August, 1981.

My term of office expires on the 18th day of May, 1986.

Lenna G. Haught
Notary Public

[NOTARIAL SEAL]



4-5

60 8-26-80

LATITUDE 39° 25' 15"

7 1/2'

1,130' SOUTH
4,650' WEST

LONGITUDE 81° 10'

FRANK M. REYNOLDS
137 Ac.

1" IRON PIPE

ROAD INTERSECTION
ELEV. 994'

STONE

JACK WAUGH
107 Ac.

JACK WAUGH
ADDITION
(SUBDIVISION)

GALE SISTERS
37 1/2 Ac.

LINDEN REYNOLDS

SOLOMON BILLS
374 Ac.

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1:200
PROVEN SOURCE OF ELEVATION Road INT. 994

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) _____
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 21 AUGUST 1980
OPERATOR'S WELL NO. H-1074
API WELL NO. 47-073-0943
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 865 WATER SHED OHIO RIVER
DISTRICT UNION COUNTY PLEASANTS
QUADRANGLE RAVEN ROCK W.VA. 7 1/2 QUAD. ST. MARYS 15
SURFACE OWNER JACK WAUGH ACREAGE 107
OIL & GAS ROYALTY OWNER JACK WAUGH LEASE ACREAGE 107
LEASE NO. _____
PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION SHALE ESTIMATED DEPTH 4000'
WELL OPERATOR HAUGHT INC. DESIGNATED AGENT WARREN HAUGHT
ADDRESS SMITHVILLE W.VA. 26178 ADDRESS SMITHVILLE W.VA. 26178