

14,040. 500TH 30' 9,150' WEST JESSIE GRIMM 0 (R-164) PAUL MCCULLOUGH 3 Ac. 105 P ===== === ==== ASTONE ROZILLA LOUGH 3AC. 145 P. STONE 0 752 583-30W (R-163) Z SAMUEL LOUGH 22 Ac. 134 P. GRIMMS 5.505 G.P. MYERS 58 3.96 W 1040 HICKORY 58112 W 71/2 S.A. HAMILTON THE UNDERSIGNED, HEREBY CERTIFY FILE NO. __ THAT THIS PLAT IS CORRECT TO THE DRAWING NO. EXST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED SCALE 1" = 500" SY LAW AND THE RESULATIONS ISSUED MINIMUM DEGREE OF ACCURACY 1:200 AND PRESCRISED BY THE DEPARTMENT OF (SIGNED) Willia PROVER SOURCE OF ELEVATION BOAD INT. Losso PLACE SEAL HERE (+) DENOTES LOCATION OF DATE 19 DECEMBER , 19 79 WELL ON UNITED STATES OPERATOR'S WELL TOPOSRAPHIC MAPS API WELL NO FORM IV-6 47 095 (8-78 STATE COUNTY PERMIT STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION WELL TYPE: OIL X & AS X LIQUID INJECTION WASTE DISPOSAL (IF " & AS", PRODUCTION X STORAGE DEEP X SHALLOW LOCATION; ELEVATION 856' WATER SHED GRIMMS RUN WATER SHED GRIMMS RUN DISTRICT CENTERVILLE COUNTY ________________ TYLER WEST CHUON 15'NC WADRAMELE BERRY BOURNE, W.VA. 712' QUAD SURFACE OWNER __ BERRY OIL & GAS BOAVIAL LEASE ACREAGE 32 LEASE PROPOSED WORK : DRILL X CONVERT. __DMILL DEEPER ____ REDAILL. FRACTURE OR STIMULATE ___ PLUS OFF OLD FORMATION_ PORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) PERFORATE NEW PLUS AND ASAMSON CLEAN OUT AND REPLYS TARGET FORMATION UPPER DEVONION REVINATES DEFIN 3300 WILL WERATOR C.W. RIGGS, INC. DESIGNATED AGENT C.W. RIGGS ADDRESS BOX 358, ST. MARYS, W. VA ADDRESS BOX 358, ST. MARYS W. VA 36170 6-0 Bearsville (366) /owno-89-6-6 (366)

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Operator Well No.: 1-R-165

BERRY, OPAL MRS.

Farm name:

Quadrangle: MIDDLEBOURNE Elevation: 856.00 LOCATION: District: CENTERVILLE County: TYLER
Latitude: 14320 Feet South of 39 Deg. 27Min. 0 Sec.
Longitude 9210 Feet West of 80 Deg. 52 Min. 0 Sec. Company: DRILLING APPALACHIAN CORP | Left P. O. BOX 99 ALMA, WV 26320-0099 | Casing | Used in |Cement | |Fill Up| Tubing | Drilling | in Well | Cu. Ft. | Agent: KENNETH R. MASON Size Inspector: GLEN P. ROBINSON 02/14/89 Permit Issued: Well work Commenced: 02/20/89 Well work Completed: 02/23/89 Verbal Plugging Permission granted on:_ Rotary Cable
Total Depth (feet) 44
Fresh water depths (ft) 2% 4875 55 sx NA Salt water depths (ft) Is coal being mined in area (Y/N)? N Coal Depths (ft): NA **DIVISION OF OIL & GAS** DEPARTMENT OF ENERGY OPEN FLOW DATA Producing formation BENSON Pay zone depth (ft) 4824

Gas: Initial open flow SHOW MCF/d Oil: Initial open flow NONE Bbl/d

Final open flow 334 MCF/d Final open flow NONE Bbl/d

Time of open flow between initial and final tests 72 Hours Static rock Pressure /375 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 Bbl/d

Time of open flow between initial and final tests Time of open flow between initial and final tests Hours Hours psig (surface pressure) after Static rock Pressure 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: DRILLING APPALACHIAN CORP. Kinnth Mason By: Date: 7/14/89

MAR 3 1 1989

GEOLOGICAL WELL RECORD DATA

PERMIT NUMBER: 47-095-0785 DD

From 4 1/2 inch Casing - Bottom 3814

	TOP	BOTTOM
Middle Chemung Shale	3814	4426
Riley Sand	4426	4458
Lower Chemung Shale	4458	4814
Benson Sand	4814	4816 Show Gas
Lower Chemung Shale	4816	4924
TOTAL DEPTH	4924	

WELL TREATMENT SCHEDULE:

Benson Sand

4814 - 4816

Perforated with 32 holes

Formation Break Down

4000 PSI

Hydraulic Frac with Nitrogen Assist Average Treating Rate 10 Barrels/Min 330 barrels of gel treated water 86 Sacks of 20/40 Sand

Average Treating Pressure 3500 - 4200 PSI

4924 nw 7D 3812 01d TD 1112 - newftg.



DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

8286

MAR 3 1 1989

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

FORM IV-35 (Obverse)

[08-78]

WELL OPERATOR'S REPORT 30 OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE	State County Per
/ELL TYPE: Oil X / Gas X / Liquid Injection / Waste Disposal /	
(If "Gas", Production / Underground storage / Deep / Sh.	allow /)
OCATION: Elevation: 856 Watershed: GRIMMS RUN	
District: CENTERVILLE County: TILER Quadrangle: MIDI	DIFROUGNE LA).
	,
IELL OPERATOR P.C. 191995, TUC. DESIGNATED AGENT AMEA	S PERATOR
Address Rox 358 Address	
SI-MARYS, WVA.	
'ERMITTED WORK: Drill \(\sum / Convert _ / Drill deeper _ / Redrill / ract	
المائية	IV 1 3 1980
· · · · · · · · · · · · · · · · · · ·	7 1 0 130.7
Other physical change in well (specify) Oil	& GAS DIVISION
DEP	T. OF MINES
PERMIT ISSUED ON 1-18, 1980 OIL & GAS INSPECTOR FOR THIS	
(IF APPLICABLE: PLUGGING OF DRY HOLE ON Name Third Procession From DRILLING OR	1
REWORKING. VERBAL PERMISSION OBTAINED Address ///DOLEBO:	HENE, WY
GEOLOGICAL TARGET FORMATION: Ohio SHALE Depth 38	/3 feet
Depth of completed well, $38/3$ feet Rotary \times / Cable Tools	
Water strata depth: Fresh, // feet; salt, N/A feet.	
Coal seam depths: N/A Is coal being mined in the area?	^
Work was commenced $\frac{5/22}{1900}$, and completed $\frac{5/28}{1000}$	
,	
CASING AND TUBING PROGRAM	
CASING OR SPECIFICATIONS FOOTAGE INTERVALS CEMENT FILL-UP TUBING TYPE Weight OR SACKS	FACKERS
Size Grade per ft New Used For drilling Left in well (Cubic feet)	and the state of t
	Kinds
Presh water 85 20# X 9641 964' 2055ks	
Coal	Sizes
Intermediate 100 March 100	
Production 42 10.50 X TOTAL 335 s/cs	Depths set
Tubing	
Liners (31) (98)	Perforations:
	Top Botton
OLA GAS DIVIDOR DEPT. OF MINES	
DEPT. OF MINES	

Pay zone depth 3190-

Gas: Initial open flow, ____Mcf/d Oil: Initial open flow,

Bb1/4

Final open flow, 20,000 Mcf/d Time of open flow between initial and final tests, 2 hours
Static rock pressure, 50 psig (surface measur ent) after 24 hours shut in

Final open flow,

[If applicable due to multiple completion--]

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

5 .50 Shots 3190'-3698' 2 .50 Shots 3740'-3744' 13 .50 Shots 3750'-3774'

STIMULATION 616,000 SCF NZ

WELL LOG

WEEL BOO	
15: Osw RUN	30 560 602
FORMATION Color	Bottom Including Indication of all from
	1 () And case
1575ALT	1150 1200 *TOP INTERVAL Logged
2ND SALT	1304 1394
320 SACT	1388 1465
BIGLIME	1540 1598
MAXON	1669 1676
KEENER	1692 1704
Big Injun	1736 1960
Dg u pu	1979 1986
WELCLSTRAY	2170 2270
	2339 2348
BEREA	2558 2584
50ft.	2640 2677
30 + 7	2760 2810
GORDON	
Ohio SITALE	2820 3812 GAS IN SHALE
(BROWN SHALE)	
	(Attach company)

(Attach separate sheets to complete as necessary)

Well Operator TNC

y Sh

Its

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geologial record of all formations, including coal, encountered in the drilling of a well."

FORM WW-2B

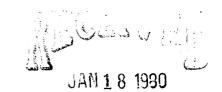
1095-0785-DD-F losued 2/14/89 Gypores 2/14/89 Page 2 Of 5

		ATE	OF	WES'	T VI	<u>RGI</u>				
DEPARTMENT	OF	ENE	RGY					OIL	AND	GAS
WEI	ıL	WORK	PE	CRMI	T AP		CATI			

	DEPART	MENT OF		VISION OF O APPLICATIO						
1) Well Ope	erator:	DRILLING A	PPALACHIAN C	ORPORATION /	4425 1	470				
					/ /	levation: 856'				
			or Gas							
	(b)	If Gas:		n_X/ Underg	round Stora Shall					
5) Proposed	Proposed Target Formation(s): Benson/Riley									
6) Proposed	6) Proposed Total Depth: 5100± feet									
7) Approxim	nate fres	h water s	strata dept	hs: 130						
8) Approxim	nate salt	water de	epths:	n/a						
9) Approxim	nate coal	seam de	oths:	n/a						
10) Does lan	nd contai	n coal se	eams tribut	ary to act	ive mine?	Yes/ No <u>X</u> /				
11) Proposed	Well Wo	rk: Drill	deeper, per	forate new fo	rmation, frac	ture				
12)			ormation							
		CASII	NG AND TUBI	NG PROGRAM						
TYPE	s i	PECIFICAT	rions	FOOTAGE I	NTERVALS	CEMENT				
	Size	Grade	Weight per ft.		Left in well	Fill-up (cu. ft.)				
Conductor										
Fresh Water	8-5/8"		20#	964'	964'	205 sks				
Coal						1 tines				
Intermediate					421					
Production	4-늧"		10.5#		3808'	335 sks				
Tubing	2-7/8"	upset	ubing		5,000±'	200 sks				
Liners										
PACKERS : Kin Siz					DE	CEIVE				
Dep	ths set				777	FEB 1 0 1989 2				
y) , Fee(s) p	(-	114			Only DIVI DEPA Lamation Fur	SION OF OIL & GAS RTMENT OF ENERG ID WPCP				
Plat (WW-9	Ww-	-2B (B	ond OB	(Type)	_ Agent				



STATE OF WEST VIRGINIA



DEPARTMENT OF MINES

Oil and Gas Division

OIL & GAS DIVISION DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,		
Charleston, W. Va.	DATE1-15-80	
Surface Owner Opal Berry		
	Company C. W. Riggs, Inc. Address Box 358, St. Marys, W. Va.	
Mineral Owner Opal Berry	Farm Berry Acres 32	
Address Middlebourne W. Va.	Location (waters) Grimms Run	
Coal Owner Opal Berry	Well No. R-165 Elevation 856	; '
Address Middlebourne, W. Va.	District Centerville County Tyler	-
	Quadrangle Middlebourne, W. Va.	
Address	- U. V.Cl	
THIS PERMIT MUST BE POSTED AT THE WELL SITE		
All provisions being in accordance with Chapter 22,		
The W. Va. Code, the location is hereby approved	INSPECTOR	
for <u>drilling</u> . This permit shall expire if	TO BE NOTIFIED Phil Tracy	
perditions have not commenced by 10-25-80	ADDRESS Hiddlebourne, W. Va.	
Notot & del	PHONE758-4573	
Deputy Director - Oil & Gas Division		
GENTLEMEN:		
the undersigned well operator is entitled to drill u	ipon the above named farm or tract of bind for oil and gas, having	fee
Berry Loren Bagle	lease dated December 17 to 79 by Opal	
1979 in Myler Court P.	y and recorded on the 18th day of Dec.	
1979, in <u>Tyler</u> County, Book		
NEW WELLDRILL DEEPE	REDRULL FRACTURE OR STIMULAT	Œ
OIL AND GAS WELL ORIGINALLY DE	RILLED BEFORE JUNE 5, 1969.	
The enclosed plat was prepared by a registered enghave been notified as of the above date.	gineer or licensed land surveyor and all coal owners and/or operate	DIE
The above named coal owners and/or operator are to make by Section 3 of the Code, must be received by	hereby notified that any objection they wish to make, or are requir by, or filed with the Department of Mines within ten (10) days.	ređ
	illed by registered mail, or delivered to the above named coal operato	
or coal owners at their above shown respective address	day before on an Al	be
same day with the mailing or delivery of this copy to	the Department of Mines at Charleston, West Virginia.	
PLEASE SUBMIT COPIES OF ALL	Very truly yours	
GEOPHYSICAL LOGS DIRECTLY TO:	(Sign Name) OV. Jegas	
LECT VIDCINIA CROLOGICAL AND	Well Operator	
WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY	Box 358 Address Street	
P. O. BOX 879	of	
MORGANTOWN, WEST VIRGINIA 26505 We	ell Operator St. Marys	
AC-304 - 292-6331		
	W. Va.	
ሻ ኒ	A CONTRACT OF THE CONTRACT OF	

*SECTION 3.... If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BUTE

47-095-0785

PERMIT NUMBER

Page 1 of 5 Form WW2-A (09/87) File Copy



DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date: Feb. 8, 1989						
Operator's well number						
Berry #1						
API Well No: 47 - 095 -	0785 -DD					
State - County -	Permit					

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

٦)	Surface Owner(s) to be served:	5) (a) Coal Operator:
	(a) Name <u>Mrs. Opal Berry</u>	Name
	Address Alma, WV 26320	Address
	(b) Name	(b) Coal Owner(s) with Declaration
	Address	Name
		Address
	(c) Name	
	Address	Name
		Name
		Address
6)	Inspector clam mahinan	(a) Carl Tagger with 2 2
J ,	Inspector Glen Robinson	(C) Coar Lessee with Declaration
	Rt 1, #6 Mt. Pleasant Estates	Name
	Mineral Wells WV 26150	Address
	Telephone (304)	
	TO THE PERSON(S) NAMED ABO	OVE TAKE NOTICE THAT:
		•
<u>_x</u>	Included is the lease or leases or	other continuing contract or
contr	acts by which I hold the right to e	extract oil and gas OP
Y	Included is the information require	od by Chapter 228 Article 1
Secti	ion 8(d) of the Code of West Virgini	is (see page 2)
	I certify that as required under ou	na tocc paye 2)
T h	re correct char as required under Cr	napter 22B of the West Virginia Code
T UG/	e served copies of this notice and	application, a location plat, and
accor	mpanying documents pages 1 through	5 on the above named parties, by:
	Personal Service (Affidavit at	tached)
	Certified Mail (Postmarked pos	stal receipt attached)
	Publication (Notice of Publication	ation attached)
	I have read and understand Chapter	22B and 38 CSR 11-18 and I agree
to th	ne terms and conditions of any permi	it issued under this analisation
	I certify under nenalty of law that	I have personally examined and am
fami 1	iar with the information submitted	. I have personally examined and am
2++24	liar with the information submitted	on this application form and all
alldC	chments, and that based on my inquir	y of those individuals immediately
respo	onsible for obtaining the information	on, I believe that the information
is tr	que, accurate, and complete.	
	I am aware that there are signification	ant penalties for submitting false
infor	mation, including the possibility of	of fine and imprisonment.
	Well Operator	DRILLING ARPALACHIAN CORPORATION
	D	mueth R. Mason -
		President
	. Address	PO Box 99, Alma, WV 26320
	Tolophone	/aa.) === /aa.
Cubaa	Telephone	(304) 758-4638
อนมรัต	ribed and sworn before me this <u>8th</u>	day of <u>February</u> , 19 <u>89</u>
		16/1//
	Jan 20 - 1997	My Justin Notary Public
Му сс	ommission expires	
		//
	•	

THIS IS AN ESTIMATE ONLY ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO	X DRILL	DEEPEN	RACTURE STIMULATE			
DRILLING CONTRACTOR: (If NAME Haught Drillin	R nown)	RESPONSIBLE AGENT				
ADDRESS Smithwills	T	NAME C. W. Riggs, Inc.				
ADDRESS <u>Smithville</u> TELEPHONE 477-3333		ADDRESS -St. Ma	rys. W. V.			
TOOD! HOIVE		TELEPHONE _084-	3974			
PROPOSED CEOLOGICAL TOTAL		ROTARY X	CABLE TOOLS			
PROPOSED GEOLOGICAL FORM TYPE OF WELL: OIL.	MATION: 5th Sand		• •			
OIL_	GAS	COMB X STORAGE	DISPOSAL			
	RECYCLI	ING WATER FLO	OOD OTHER			
TENTATIVE CASING PROGRAM			· · · · · · · · · · · · · · · · · · ·			
	1 :					
CASING AND TUBING	USED FOR	HITIN				
SIZE	DRILLING	WITE	CEMINT HILL EP OR SACKS CUBIC LE			
20 - 16			THE CORPORATION OF THE PARTY OF			
0 4 111						
9 - 5/8 250 · 8 - 5/8		250'	Comont to-			
7		• •	cement top-bottom			
5 1/1	Marketin marketin delication of the second s					
4 1/2 3400 1		The state of the s	10 No			
1	The state of the s	3400'	200 sks.			
2	The second secon		P. rt. Top			
			Port Rostrom			
1			Pet losp			
		<u>† · · · · · · · · · · · · · · · · · · ·</u>	Pat Reff. on			
APPROXIMATE ERECU WATER	N. T. State Co.	• • • • • • • • • • • • • • • • • • •				
APPROXIMATE FRESH WATER I	DEPTHS 100' FEET	SALT WATER	FEET			
APPROXIMATE COAL DEPTHS_		The first to the	•			
IS COAL BEING MINED IN THE	AREA?no	BY WHOM				
TO DRILL:			and the second of the second o			
SUBMIT FIVE (5) COPIES O OF PLAT.	OF OG - 1, \$100.00 PERMIT	FEE, PERFORMANCE PO	ND AND PERMANENT COPY			
O DRILL DEEPER OR REDRILL						
SUBMIT FIVE (5) COPIES OF	COC 1 SHOWING COLUMN	IAL PERMIT NUMBER AND PY OF THE PLAT AND TH	PERFORMANCE BOND ON E. ORIGINAL WELL RECORD			
			WELL RECORD			
O FRACTURE - STIMULATE:						
OIL AND/OR GAS WELL ORIGINATION OF PERMANENT PLAT A	GINALLY DRILLED BEFORT ND ORIGINAL WELL RECO	E JUNE 5, 1929, FIVE (5) CC DRD.	PHES OCT 1, PERFORMANCE			
OIL AND/OR GAS WELL ORIGING ORIGINAL PERMIT NUME	GINALLY DRILLED ON ANT BER,AND PERFORMANCE B	D/OR AFTER JUNE 5, 1929,	FIVE COPIES OG - 1, SHOW-			
Required forms must be filed w four (24) hours in advance.			spector to be notified to			
t working.			mounted (wenty.			
,	Total	The second se	and the second second			
4						
The following waiver must be						
The following waiver must be executed the second se	completed by the coal operat	or if the permit is to be issu	ed within ten days of receipt			
AIVER: I the undersigned. Agent f	or.					
AIVER: I the undersigned, Agent f this lease have examined a	and place on any	Coal Company, Owner or	Operator of the coal under			
	The state of the particular that particular the particular the particular that particular the particular that particular the	tion proposed well location				
providing operator has com	Coal Company hav	e no objections to said well lons in Articles 4, 5, and 7, C	being drilled at this location, hapter 22 of the West Virginia			
2 s						
Ve		Par C	oal Company			
4						
₹ ﴿		en e	Commence of the Commence of th			