



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

FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 200'
 MINIMUM DEGREE OF ACCURACY 1 in 2500
 PROVEN SOURCE OF ELEVATION Well # 355 1600'
northwest of location; elev. 1438

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) David L Jackson
 R.P.E. _____ L.L.S. 708

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE August 31, 1984
 OPERATOR'S WELL NO. B-595
 API WELL NO. 47-001-2167

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___

LOCATION: ELEVATION 1362 WATER SHED Mitchell Run
 DISTRICT Pleasant 6 COUNTY Barbour
 QUADRANGLE Philippi 7 1/2 545 Philippi 104 NE 3

SURFACE OWNER Delbert S. McCauley, et ux ACREAGE 10
 OIL & GAS ROYALTY OWNER Delbert S. McCauley, et ux LEASE ACREAGE 12
 LEASE NO. 2484

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 Elks, Benson ESTIMATED DEPTH 5600

WELL OPERATOR Berry Energy Consultants & Mgrs, Inc. DESIGNATED AGENT Berry Energy Consultants & Mgrs, Inc.
 ADDRESS P.O. Box 5, Clarksburg, WV 26301 ADDRESS P.O. Box 5, Clarksburg, WV 26301

083

OCT 20 1984

FORM IV-6 (8-78)

HT HALL

COUNTY NAME

PERMIT

6-6 Taylor Drain (316)



IV-35
(Rev 8-81)

Date December 23, 1984
Operator's
Well No. B-595
Farm Delbert S. McCauley
API No. 47 - 001 - 2167

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OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1362' Watershed Mitchell Run
District: Pleasant County Barbour Quadrangle Philippi 7 1/2'

COMPANY Berry Energy Consultants & Mgrs.
ADDRESS P.O. Box 5, Clarksburg, WVa. 26301
DESIGNATED AGENT W.B. BERRY
ADDRESS P.O. Box 5, Clarksburg, WVa. 26301
SURFACE OWNER Delbert S McCauley, et ux
ADDRESS Rt.#3, Phipippi, WVa. 26416
MINERAL RIGHTS OWNER Delbert S. McCauley et ux
ADDRESS Rt.#3, Phipippi, WVa. 26416
OIL AND GAS INSPECTOR FOR THIS WORK Donald Ellis
204 Crab Apple Lane ADDRESS Fairmont, WVa. 26554
PERMIT ISSUED October 15, 1984
DRILLING COMMENCED 11-03-84
DRILLING COMPLETED 11-11-84
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 <u>11-3/4</u> 20x18 Cond.	<u>-0-</u>	<u>-0-</u>	
<u>13-10"</u>			
<u>9 5/8</u>			
<u>8 5/8</u>	<u>1687.25</u>	<u>1687.25</u>	<u>385 Sks.</u>
<u>7</u>			
<u>5 1/2</u>			
<u>4 1/2</u>	<u>4891.30</u>	<u>4891.30</u>	<u>525 Sks.</u>
<u>3</u>			
<u>2</u>			
Liners used			

GEOLOGICAL TARGET FORMATION Haverty Depth 5600' feet

Depth of completed well 5613' feet Rotary XX / Cable Tools

Water strata depth: Fresh 80' feet; Salt None feet

Coal seam depths: 325 - 550 - 600' Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation 3rd Elk Pay zone depth 4833-4842
1st Elk 4459-4462
Benson 4218-4222 feet
Riley 3786-3878
Gas: Initial open flow No Show Mcf/d Oil: Initial open flow N/A Ebl/d
Final open flow 557 Mcf/d Final open flow N/A Ebl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1450# psig (surface measurement) after 14 ~~days~~ ^{DAYS} 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 Ebl/d

Final open flow Mcf/d Oil: Final open flow Ebl/d

Time of open flow between initial and final tests hours

Static rock pressure psig (surface measurement) after hours shut in

(Continue on JAN 7 1985 reverse side)

Fraced: November 29, 1984

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
 1st Stage: 3rd Elk; 70,000#, 20/40, 308 Bbls. Fluid, 1232 Bbls. Foam, 1,342,000 SCF N₂
 2nd Stage: 1st Elk; 50,000#, 20/40, 258 Bbls. Fluid, 1032 Bbls. Foam, 1,027,500 SCF N₂
 3rd Stage: Benson; 70,000#, 20/40, 332 Bbls. Fluid, 1328 Bbls. Foam, 1,317,112 SCF N₂
 4th Stage: Riley; 80,000#, 20/40, 365 Bbls. Fluid, 1460 Bbls. Foam, 1,260,000 SCF N₂

PERFORATIONS: { 3rd Elk; 4833-4842
 1st Elk; 4459-4462
 Benson; 4218-4222
 Riley; 3786-3878

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sand	Brown	H	0	10	
Sand	Grey	M	10	40	
Sand & Shale	Grey	M	40	72	½" Stream @ 45'
Red Rock	Red	S	72	93	
Sand & Shale	Grey	M	93	102	
Sand	White	H	102	164	½" Stream @ 109'
Coal	Black	S	164	170	Coal
Sand & Shale	Grey	M	170	204	
Shale	Grey	S	204	229	
Sand & Shale	Grey	M	229	255	
Sand	White	H	255	287	
Coal	Black	S	287	290	Coal
Sand & Shale	Grey	M	290	295	
Coal	Black	S	295	300	Coal
Sand & Shale	Grey	M	300	303	
Coal	Black	S	303	310	Coal
Sand & Shale	Grey	M	310	321	
Sand	White	H	321	345	
Sand & Shale	Grey	M	345	349	
Coal	Black	S	349	353	Coal
Sand & Shale	Grey	M/H	353	358	
Coal & Shale	B/G	S	358	371	Coal & Shale
Sand & Shale	Grey	M	371	380	
Sand	White	H	380	400	
Bl. Shale	Black	S	400	404	
Sand	White	H	404	440	
Bl. Shale	Black	S	440	479	
Sand	White	H	479	620	
Sd. & Shale	Grey	M	620	640	
Coal	Black	S	640	643	Coal
Sd. & Shale	Grey	M	643	798	
Red Rock	Red	S	798	830	
Sd. & Shale	Grey	H/S	830	870	
Sh. & R.R.	G/R	S	870	905	
Sdy. Shale	Grey	M	905	1090	
Little Lime	Grey	H	1090	1110	
Shale	Grey	S	1110	1153	
Big Lime	Grey	H	1153	1292	
Big Injun	Grey	S	1192	1339	

(CONTINUED)

(Attach separate sheets as necessary)

(SEE PAGE 2)

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 coal, encountered in the drilling of a well."

Berry Energy Consultants & Mgrs.
P.O. Box 5
Clarksburg, W. Va. 26301

WELL NO: B-595

PERMIT NO: 47-001-2167

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fr and salt water, coal, oil and
Sand	Grey	S	1339	1382	
Squaw	Grey	M	1382	1396	
Shale	Grey	H	1396	1530	
Gantz	Grey	M	1530	1550	
Sand	Grey	S	1550	1600	
50Foot	White	M	1600	1640	
Sand	White	S	1640	1658	
30 Foot	Grey	M	1658	1698	
Shale	Grey	H	1698	2024	Gas Ck @ 1737' - No Show
Gordon	Grey	M	2024	2054	
Red Rock	Red	S	2054	2082	
4th Sand	Grey	M	2082	2094	
Sand & Shale	Grey	M	2094	2139	
5th Sand	Grey/White	M	2139	2165	
Sd. & Shale	Grey	M/H	2165	2827	Gas Ck @ 2408 - No Show
Speechly	Grey	H	2827	2847	
Sand	White	S	2847	2956	
Balltown	Grey	H	2956	2966	
Sd. & Shale	Wh./Grey	M	2966	3770	Gas Ck @ 3530' - No Show
Rileys	Grey	M	3770	3955	
Sand	White	S	3955	4170	
Benson	Grey	M	4170	4230	
Sd. & Shale	Grey	S/H	4230	4408	
1st Elk	Grey	M	4408	4459	
Sand	White	M	4459	4821	Gas Ck @ 4713' - No Show
3rd Elk	White	M	4821	4839	
Shale	Grey	H	4839	5120	
4th Elk	Brown	M	5120	5126	Gas Ck @ 5211' - No Show
Sd. & Shale	Wh./Grey	M/H	5126	5472	
Haverty	Grey	H	5472	5540	
Sd. & Shale	Wh./Grey	M/H	5540	5613 TD.	

*Brallier
@ T.D.*

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OIL & GAS DIVISION
DEPT. OF MINES

(Attach separate sheets as necessary)

Berry Energy Consultants & Mgrs.
Well Operator

By: *WSS Perry*
Date: *12-19-84*

Notes: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a detailed geological record of all formations, strata, and other geological features encountered in the drilling of a well."

JAN 7 1985



1) Date: September 12, 19 84
 2) Operator's Well No. B-595
 3) API Well No. 47 - 001 - 2167
 State County Permit

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

- 4) WELL TYPE: A Oil Gas
 B (If "Gas", Production Underground storage Deep Shallow)
 5) LOCATION: Elevation: 1362 Watershed: Mitchell Run MT 25A
 District: Pleasant County: Barbour Quadrangle: Philippi 7 1/2'
 6) WELL OPERATOR Berry Energy Consultants & Mgr's., Inc. 7) DESIGNATED AGENT David B. Berry
 Address P. O. Box 5 Address P. O. Box 5
Clarksburg, WV 26301 Clarksburg, WV 26301
 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Phillip Tracy Russell Beall
 Address Forest Festival Terrace, Apt. 24 866-4608
Elkins, WV 26241
 9) DRILLING CONTRACTOR: Name _____ Address _____
 10) PROPOSED WELL WORK: Drill Drill deeper Redrill Stimulate
 Plug off old formation Perforate new formation
 Other physical change in well (specify) _____
 11) GEOLOGICAL TARGET FORMATION, HAVERTY
 12) Estimated depth of completed well, 5600' feet
 13) Approximate strata depths: Fresh, 80 feet; salt, NONE feet.
 14) Approximate coal seam depths: 325; 550; 600 Is coal being mined in the area? Yes No

15) 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		
Conductor	11 3/4	API	42#	X		30'	30'	Kinds <u>CTS NEAT</u> Sizes Depth set <u>or as required by rule</u> Perforations Top
Fresh water						630'	630'	
Coal								
Intermediate	8 5/8	API	24#	X		1650'	1650'	
Production	4 1/2	API	10#	X		5450'	5450'	DEPT. OF MINES OIL & GAS DIVISION SEP 15 1984
Tubing								
Liners								

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-001-2167

October 15, 19 84
 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. 8) 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.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.
 Permit expires October 15, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>18</u>	Agent: <u>MW</u>	Plat: <u>MH</u>	Casing: <u>MH</u>	Fee: <u>153</u>
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Margaret J. Glass
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

File

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 SEP 15 1984