

M.J. 12/3/82

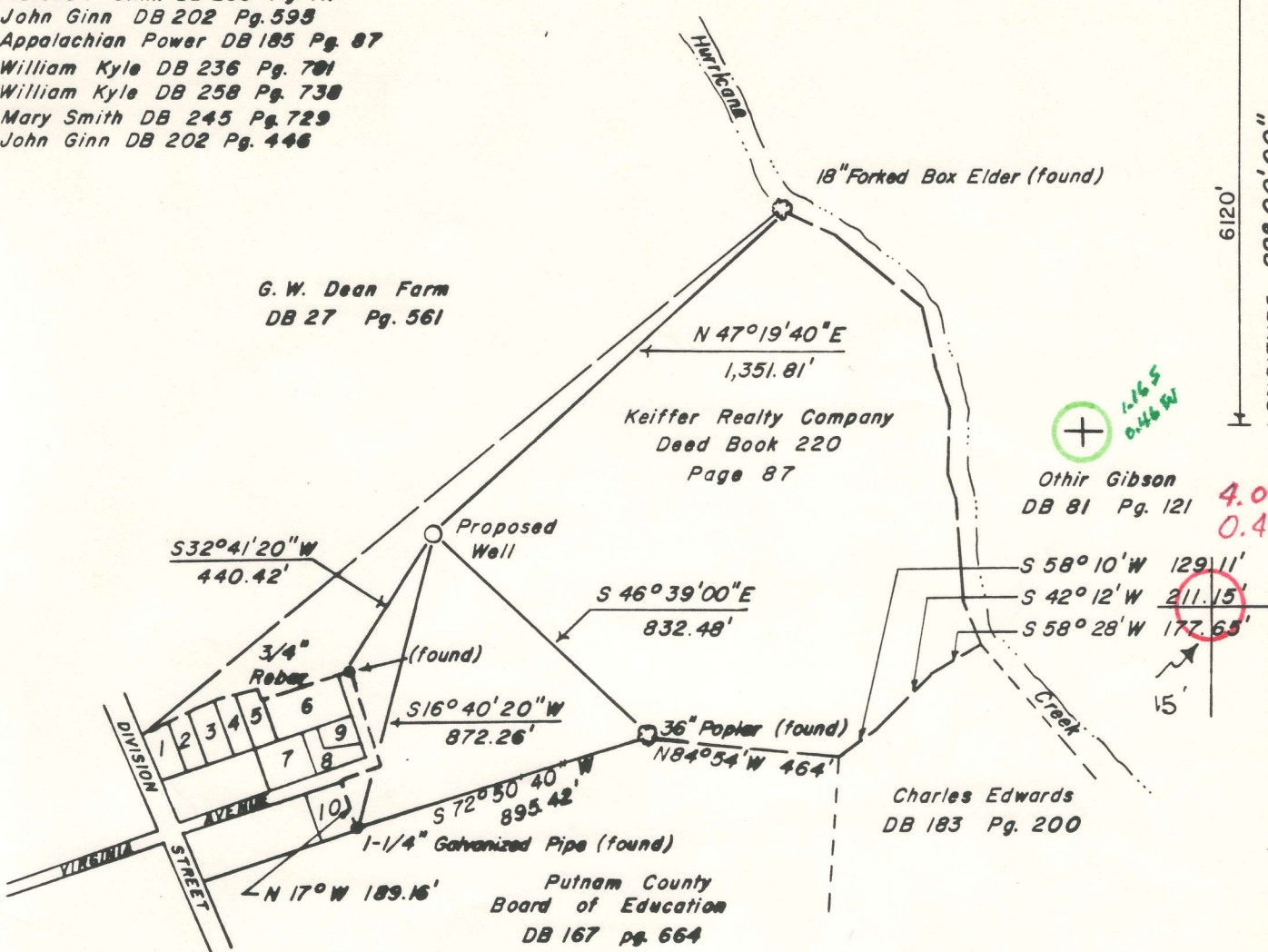
Plot Card CSD

LATITUDE 38° 27' 30"
30 2430'

- 1.) Marshall Ginn & John Ginn DB 250 Pg. 62
- 2.) Marshall Ginn & John Ginn DB 246 Pg. 252
- 3.) Marshall Ginn & John Ginn DB 235 Pg. 676
- 4.) Marshall Ginn DB 253 Pg. 411
- 5.) John Ginn DB 202 Pg. 599
- 6.) Appalachian Power DB 185 Pg. 87
- 7.) William Kyle DB 236 Pg. 701
- 8.) William Kyle DB 258 Pg. 738
- 9.) Mary Smith DB 245 Pg. 729
- 10.) John Ginn DB 202 Pg. 446

LONGITUDE 82° 00' 00"

NORTH



FILE NO _____
 DRAWING NO E 170-148-122
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:2500
 PROVEN SOURCE OF ELEVATION BM Y-35
Scott Depot

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) [Signature]
 RPE _____ LLS 753

PLACE SEAL HERE

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



DATE November 19 82
 OPERATOR'S WELL NO Keiffer No. 1
 API WELL NO _____
47 - 079 - 1102
 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 639.30' WATER SHED Hurricane Creek
 DISTRICT Teays Valley COUNTY Putnam
 QUADRANGLE Hurricane 7.5' Series Milton 15' NE
 SURFACE OWNER Keiffer Realty Company ACREAGE 49.5±
 OIL & GAS ROYALTY OWNER Keiffer Realty Company LEASE ACREAGE 49.5 ±
 LEASE NO Put-3
 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 4250 6-6
 WELL OPERATOR Buffalo Resources DESIGNATED AGENT John Foster Hurricane Creek
 ADDRESS 818 Oakwood Road ADDRESS 818 Oakwood Road (210)
Charleston, WV 25314 Charleston, WV 25314

DEC 13 1982

RECEIVED

JAN 21 1984



OIL & GAS DIVISION

DEPT. OF MINES

IV-35
(Rev 8-81)

Date Feb. 3, 1983
Operator's
Well No. #1
Farm Keiffer
API No. 47 - 079 - 1102

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 x / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production ___ / Underground Storage ___ / Deep ___ / Shallow x /)

LOCATION: Elevation: 639.30 Watershed Hurricane Creek
District: Teays Valley County Putnam Quadrangle Hurricane

COMPANY Buffalo Resources Corp.
ADDRESS 818 Oakwood Rd., Charleston, WV
DESIGNATED AGENT John M. Foster
ADDRESS SAME
SURFACE OWNER Keiffer Realty Co.
ADDRESS 324 6th Ave., St. Albans, WV
MINERAL RIGHTS OWNER SAME
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Kenneth
Butcher ADDRESS 736-4885
PERMIT ISSUED 12-3-82
DRILLING COMMENCED 12-7-82
DRILLING COMPLETED 12-13-82
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON _____

Casing & Tubing Size Cond.	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16			
13-10"			
9 5/8	325	325	To Surface
8 5/8			
7	1774	1774	Back to 9 5/8 casing
5 1/2			
4 1/2	4157	4157	To 7" casing
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale, Berea Sand- Depth 4182 feet
Depth of completed well 4182 feet Rotary x ^{stone} Cable Tools _____
Water strata depth: Fresh 300 feet; Salt 1750 feet
Coal seam depths: None Mineable Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3317-4071 feet
Gas: Initial open flow Show Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 103 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 6 hours

Static rock pressure 640 psig (surface measurement) after 24 hours shut in
(If applicable due to multiple completion--)

Second producing formation Berea Pay zone depth 2190-2220 feet
Gas: Initial open flow Show Mcf/d Oil: Initial open flow trace Bbl/d
Final open flow Show Mcf/d Oil: Final open flow 5 Bbl/d
Time of open flow between initial and final tests 24 hours

Static rock pressure 600 psig (surface measurement) after 24 hours shut in

FEB 06 1984

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

Perforated Shale with 27 holes (.41" diameter) as follows: 3317, 3322, 3352, 3354, 3382, 3394, 3403, 3410, 3416, 3418, 3520, 3529, 3536, 3543, 3552, 3569, 3664, 3681, 3810, 3912, 3852, 3854, 4035, 4041, 4048, 4069, 4071. Fractured with 1000 barrels 80% quality foam using 15,000 lbs. 80-100 mesh sand and 25,000 lbs. 20-40 mesh sand.

Perforated Berea with 20 holes (.38" diameter) between 2198-2212. Fractured with 600 barrels 80% quality foam with 10,000 lb. 80-100 mesh sand and 20,000 lbs. 20-40 mesh sand.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
SEE ATTACHED GEOLOGIC LOG					

(Attach separate sheets as necessary)

BUFFALO RESOURCES CORPORATION

Well Operator

By:



John M. Foster

Date: December 29, 1982

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."

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

WELL LOG Keiffer #1 47-079-1102

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Soil & Rock			0	20	None
Sandy Shale			20	90	"
Silty Shale			90	300	"
Shale			300	380	"
Sandy Shale			380	490	Water flow observed
Shale and Silt			490	550	None
Sandy Shale			550	670	"
Shale			670	710	"
Silty Shale			710	1080	"
Lime			1080	1170	"
Shale w/Lime			1170	1225	"
Limestone			1225	1645	Big Lime Formation
Shale			1645	1695	None
Sandstone			1695	1770	Big Injun Formation
Shale			1770	2175	None
Shale			2175	2190	Coffee Shale
Sandstone			2190	2220	Berea Sandstone - <u>show of oil</u>
Shale			2220	3310	None
Shale			3310	3690	Upper Huron

(Attach separate sheets as necessary.)

over →

Well Operator _____

By: _____

Date: _____

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 minerals, encountered in the drilling of a well."

FEB 06 1984

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

WELL LOG Keiffer #1 47-079-1102

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale			3690	4000	None
Shale			4000	4182	Lower Huron
				4182	Total Depth
				300	Shale
				380	Sandy Shale
				490	Shale and Silt
				520	Sandy Shale
				670	Shale
				710	Silty Shale
				108	Lime
				117	Shale w/Lime
				123	Limestone
				168	Shale
				170	Sandstone
				215	Shale
				218	Shale
				230	Sandstone
				330	Shale
				390	Shale

Top of Onondaga @ 4171
determined from
density log and
sample description log
J. Schrietering

(Top of Onondaga
4171 density log
4168 sample description log
(Stratigraphic Inc.)

(Attach separate sheets as necessary)

← 1000

Well Operator

By: _____

Date: _____

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."

RECEIVED



Date 12-29-82

Operator's

Well No. 1

Farm Keiffer

API No. 47-079-1102

IV-35 DEC 29 1982
(Rev 8-81) OIL AND GAS DIVISION
WV DEPARTMENT 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 X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production ___ / Underground Storage ___ / Deep ___ / Shallow X /)

LOCATION: Elevation: 639.30 Watershed Hurricane Creek
District: Teays Valle County Putnam Quadrangle Hurricane 7.5' series

COMPANY Buffalo Resources Corp.
ADDRESS 818 Oakwood Rd., Suite 102
DESIGNATED AGENT John M. Foster
ADDRESS SAME
SURFACE OWNER Keiffer Realty Co.
ADDRESS 324 6th Ave., St. Albans, WV
MINERAL RIGHTS OWNER SAME
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Kenneth
Butcher ADDRESS 736-4885
PERMIT ISSUED 12-3-82
DRILLING COMMENCED 12-7-82
DRILLING COMPLETED 12-13-82
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON _____

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8	325	325	To Surface
8 5/8			
7	1774	1774	Back to 9 5/8" casing
5 1/2			
4 1/2	4157	4157	To 7" casing
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale, Berea Sand- Depth 4182 feet
Depth of completed well 4182 feet Rotary X stone Cable Tools _____
Water strata depth: Fresh 300 feet; Salt 1750 feet
Coal seam depths: None Mineable Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3317-4071 feet
Gas: Initial open flow Show Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow Testing Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure Testing psig (surface measurement) after _____ hours shut in
(If applicable due to multiple completion--)
Second producing formation Berea Pay zone depth 2190-2220 feet
Gas: Initial open flow Show Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow Testing Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure Testing psig (surface measurement) after _____ hours shut in

SEP 12 1982

(Continue on reverse side)



1) Date: November 19, 1982
 2) Operator's Well No. Keiffer No. 1
 3) API Well No. 47 079 1102
 State County Permit

DRILLING CONTRACTOR:
Stint Hunt & Associates
Blairview, WV

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil / Gas X /
 B (If "Gas", Production X / Underground storage / Deep / Shallow X /)
- 5) LOCATION: Elevation: 639.30 Watershed: Hurricane Creek
 District: Teays Valley County: Putnam Quadrangle: Hurricane 7.5
- 6) WELL OPERATOR Buffalo Resources Corp. 11) DESIGNATED AGENT John Foster
 Address 818 Oakwood Road Address 818 Oakwood Road
Charleston, WV 25314 Charleston, WV 25314
- 7) OIL & GAS ROYALTY OWNER Keiffer Realty Co. 12) COAL OPERATOR N/A
 Address 324 6th Ave. Address
St. Albans, WV 25177
- 8) SURFACE OWNER Keiffer Realty Co. 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address 324 6th Ave. Name Keiffer Realty Co.
St. Albans, WV 25177 Address 324 6th Ave.
 St. Albans, WV 25177
- 9) FIELD SALE (IF MADE) TO:
 Address
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Martin Nichols
 Address P. O. Box 554
Clendenin, WV 25045
- 15) PROPOSED WORK: Drill X / Drill deeper / Redrill / Fracture or stimulate
 Plug off old formation / Perforate new formation
 Other physical change in well (specify) Devonian Shale, Berea Sandstone
- 16) GEOLOGICAL TARGET FORMATION,
- 17) Estimated depth of completed well, 4250 feet
- 18) Approximate water strata depths: Fresh, 250 feet; salt, 1800, 1100 feet.
- 19) Approximate coal seam depths: None Mineable Is coal being mined in the area? Yes / No X /

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	<u>9 5/8</u>	<u>H</u>	<u>48#</u>	<u>X</u>		<u>30-60</u>	<u>30-60</u>	<u>To surface</u>	Kinds <u>None</u>
Fresh water	<u>9 5/8</u>	<u>H40</u>	<u>32#</u>	<u>X</u>		<u>300</u>	<u>300</u>	<u>To surface</u>	<u>None</u>
Coal									Sizes <u> </u>
Intermediate	<u>7</u>	<u>K35</u>	<u>20#</u>	<u>X</u>		<u>1820</u>	<u>1820</u>	<u>Back to 9 5/8"</u>	<u>Casing None</u>
Production	<u>4 1/2</u>	<u>K35</u>	<u>10.5#</u>	<u>X</u>		<u>4250</u>	<u>4250</u>	<u>To 7" casing</u>	Depths set <u>Tension</u>
Tubing	<u>2 3/8</u>	<u>K</u>	<u>4.0</u>	<u>X</u>		<u>4250</u>	<u>4250</u>	<u>None</u>	<u>2 3/8 x4 set at 4200</u>
Liners									Perforations: <u>Devonian, Berea</u>
									Top <u> </u> Bottom <u> </u>

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: William Edward Bennett
 My Commission Expires

Signed:
 Its: Designated Agent

OFFICE USE ONLY
DRILLING PERMIT

Permit number 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 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
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 Administrator, Office of Oil and Gas