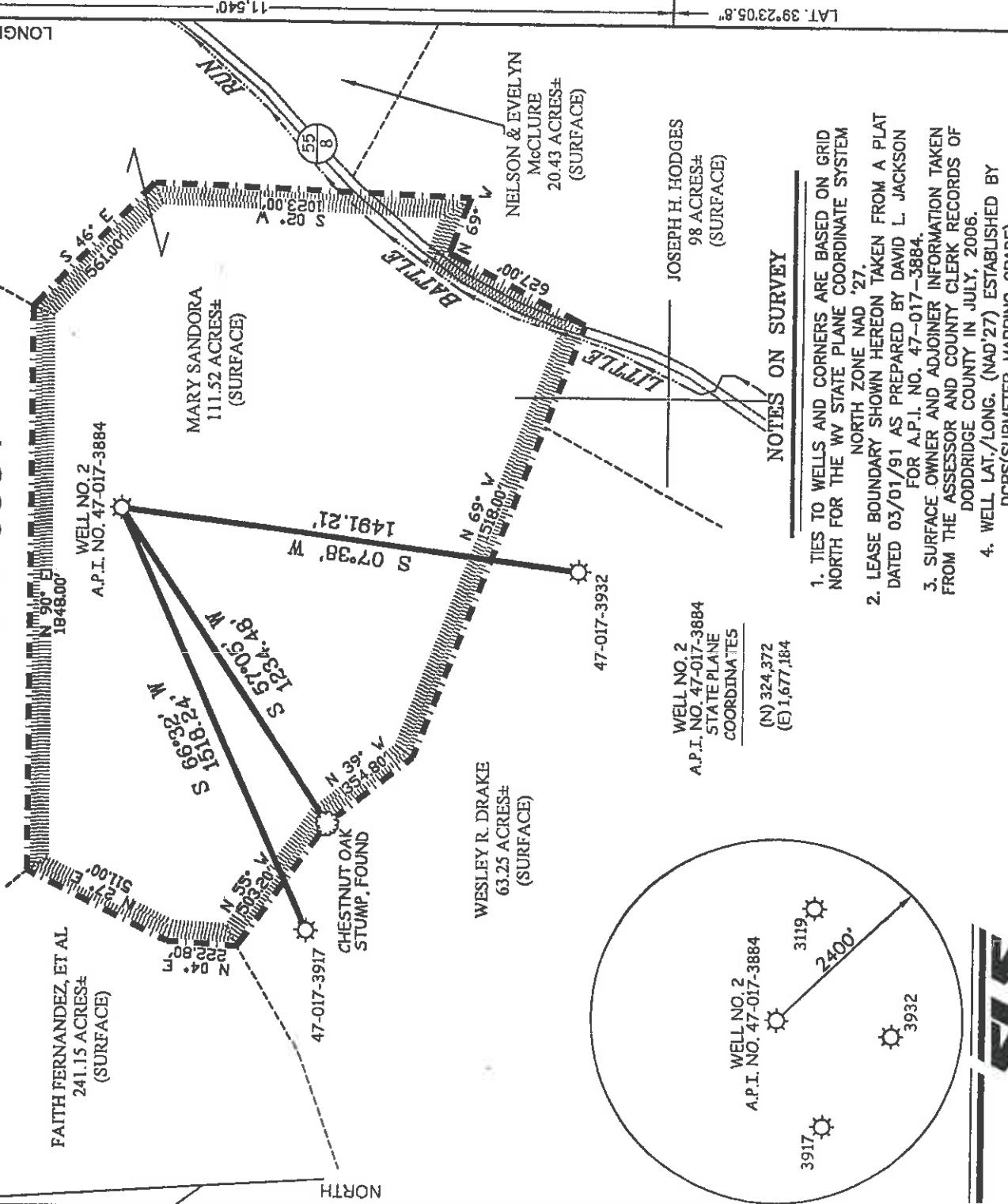


COTTRILL LEASE

76.5 ACRES±

WELL NO. 2

A.P.I. NO. 47-017-3884

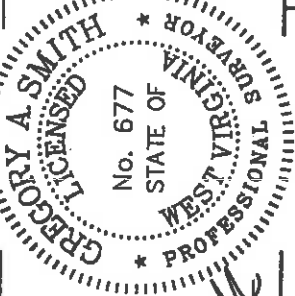


WELL NO. 2
A.P.I. NO. 47-017-3884

WELL NO. 2
A.P.I. NO. 47-017-3884
STATE PLANE
COORDINATES
(N) 324,372
(E) 1,677,184

NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A PLAT DATED 03/07/91 AS PREPARED BY DAVID L. JACKSON FOR A.P.I. NO. 47-017-3884.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JULY, 2006.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. *Gregory A. Smith*
677

(*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE JUNE 04, 20 07
OPERATORS WELL NO. COTTRILL #2
API WELL NO. 47-017-3884-3884-F PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 6463P2 (238-03)
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

WELL TYPE: OIL GAS INJECTION WASTE DISPOSAL "GAS" PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1,092' WATERSHED LITTLE BATTLE RUN
 DISTRICT McCLELLAN COUNTY DODDRIDGE
 SURFACE OWNER MARY SANDORA
 ROYALTY OWNER CLARENCE COTTRILL, ET AL
 PROPOSED WORK:
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER _____
 PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION BIG INJUN/4TH/5TH SAND
 ESTIMATED DEPTH 2,200/2,400/2,600'

WELL OPERATOR PETROLEUM DEVELOPMENT CORPORATION DESIGNATED AGENT ALAN H. SMITH
 ADDRESS 120 GENESIS BOULEVARD BRIDGEPORT, WV 26330
 COUNTY NAME PERMIT

0000 3884 F



State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and GasRECEIVED
JUL 26 1991

DEPT. OF ENERGY

Well Operator's Report of Well Work

Farm name: SANDORA, RALPH & MARY Operator Well No.: COTTRILL #2

LOCATION: Elevation: 1072.00 Quadrangle: CENTER POINT

District: MCCLELLAN

Latitude: 11570 Feet South of 39 Deg. DODDRIDGE
Longitude 4850 Feet West of 80 Deg. 25Min. 0 Sec.County: DODDRIDGE
Deg. 25Min. 0 Sec.
Deg. 37 Min. 30 Sec.Company: PETROLEUM DEVELOPMENT COR
P. O. BOX 26
BRIDGEPORT, WV 26330-0026

Agent: ERIC R. STEARNS

Inspector: MIKE UNDERWOOD
Permit Issued: 04/01/91
Well work Commenced: 07/05/91
Well work Completed: 07/11/91
Verbal Plugging
Permission granted on: Rig
Rotary Cable
Total Depth (feet) 5299'
Fresh water depths (ft)
88: 850; 1460
Salt water depths (ft)Is coal being mined in area (Y/N)? N
Coal Depths (ft): 213-216; 654-657;
1352-1355

OPEN FLOW DATA

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	213'	213'	130 sks
8 5/8"	1697'	1697'	400 sks
4 1/2"	5240'	5240'	540 sks

Producing formation Benson

Gas: Initial open flow _____ MCF/d Oil: _____ MCF/d
Final open flow 331 MCF/d Initial open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Bbl/d
Static rock pressure 1500 psig (surface pressure) after 48 Hours

Second producing formation

Gas: Initial open flow _____ MCF/d Oil: _____ MCF/d
Final open flow _____ MCF/d Initial open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Bbl/d
Static rock pressure _____ psig (surface pressure) after _____ Hours

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: PETROLEUM DEVELOPMENT CORP.

By: Eric R. Stearns

Date: July 23, 1991

AUG 5 1991

ottrill #2

PAGE FORMATION

ST Benson 13 (3178-5181)

80/100 20/40 ACID N2
SKS SKS GAL (MCF)

100 450 500 75

W E L L L O G

FORMATION

TOP FEET BOTTOM FEET

REMARKS: FRESH & SALT
WATER, COAL, OIL, & GAS

KB - GL
sand, shale, RR
Little Lime
sand, shale
Big Lime
Big Injun
sand, shale
3quaw
sand, shale
gantz
sand, shale
50'
sand, shale
Gordon
sand, shale
4th
sand, shale
5th
sand, shale
Elizabeth
sand, shale
Speechley
sand, shale
Balltown
sand, shale
Bradford
sand, shale
Riley
sand, shale
Benson
sand, shale

0
10
1993
2014
2025
2025
2112
2230
2239
2251
2251
2570
2588
2606
2649
2815
2835
2880
2880
2941
2951
3006
3006
3123
3123
3135
3525
4024
4093
4545
4618
4618
4699
4786
5071
5150
5142
5317
5317

10
1993
2014
2025
2112
2230
2239
2251
2570
2588
2606
2649
2815
2835
2880
2941
2951
3006
3006
3123
3123
3135
3525
4024
4093
4545
4618
4699
4786
5071
5150
5142
5317
5317

5299

1/2" stream H2O @ 88'
1/4" stream H2O @ 850'
1/2" stream H2O @ 1460'
Coal 213-216;654-657
Coal 1352-1355
gas chk @ 2194' No Show
gas chk @ 2225' 40/10-2" H2O
gas chk @ 2414' 40/10-2" H2O

gas chk @ 2756' 30/10-2" H2O

gas chk @ 3004' 24/10-2" H2O

gas chk @ 3722' 40/10-2" H2O
gas chk @ 4223' 46/10-2" H2O
gas chk @ 4690' 50/10-2" H2O
gas chk @ 4908' 32/10-2" H2O
gas chk @ 5189' 20/10-2" H2O
Driller TD
Logger TD

12054

017-3884
Dated 04/01/91

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION

Page 256 of 35
Expires 09/01/93

- 1) Well Operator: Petroleum Development Corporation 38200 (S)
- 2) Operator's Well Number: Cottrill #2
- 4) Well type: (a) Oil or Gas
- (b) If Gas: Production Underground Storage
Deep Shallow
- 5) Proposed Target Formation(s): Alexander 42g
- 6) Proposed Total Depth: 6000 feet
- 7) Approximate fresh water strata depths: 30, 225, 385
- 8) Approximate salt water depths: 1520
- 9) Approximate coal seam depths: 244, 280
- 10) Does land contain coal seams tributary to active mine? Yes No
- 11) Proposed Well Work: Drill & Stimulate New Well
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	11 3/4	H-40	40	30 201 ^P	30 206 ¹¹²⁴	Fill-up (cu. ft.) C.V.S.
Fresh Water						
Coal						
Intermediate	8 5/8		20/23	1628	1628	surface
Production	4 1/2			6000	6000	3808/811
Tubing						
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

017-3884
Fee(s) paid: For Division of Oil and Gas, Use Only
Plat WW-9 WW-2B Bond Reclamation Fund WPCP
Agent

1) Date: March 6, 1991
2) Operator's Well number Cottrill #2
3) API Well No: 47 - 017 - 3884
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name Ralph & Mary Sandora
Address General Delivery
Center Point, WV 26339
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Mike Underwood
Address Rt. 2, Box 135
Salem, WV 26426
Telephone (304) - 782-1043

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

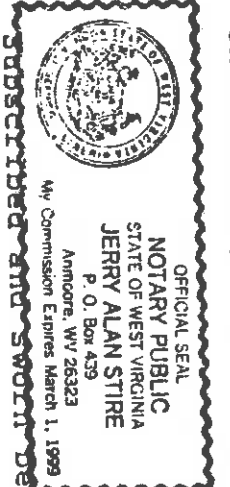
Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
XX Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)
I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:

XX Personal Service (Affidavit attached)

XX Certified Mail (Postmarked postal receipt attached)

Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.
I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.
Well Operator _____
Geologist _____



BY: _____
Its: _____
Address _____
Telephone _____
P.O. Box 26
Bridgedort, WV 26330
304-842-6256
_____ day of _____, 19 91
_____ day of _____, 19 91
_____ day of _____, 19 91

My commission expires _____
March 6, 1991
Jerry Alan Stire Notary Public

WR-35
Rev (5-01)

DATE: 03/20/08
AP/ #: 47-017-03884 - F

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Mary Sandora Operator Well No.: Cottrill 2
LOCATION: Elevation: 1072.00 Quadrangle: Center Point
District: McClellan County: Doddridge
Latitude: 11570 Feet South of 39 Deg. 25 Min. 0 Sec.
Longitude 4850 Feet West of 80 Deg. 37 Min. 30 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>120 Genesis Boulevard</u>	<u>11 3/4"</u>	<u>213'</u>	<u>213'</u>	<u>130 sks</u>
<u>Bridgeport, WV 26330</u>	<u>8 5/8"</u>	<u>1697'</u>	<u>1697'</u>	<u>400 sks</u>
Agent: <u>Alan H. Smith</u>	<u>4 1/2"</u>	<u>5240'</u>	<u>5240'</u>	<u>540 sks</u>
Inspector: <u>Mike Underwood</u>				
Date Permit Issued: <u>07/03/2007</u>				
Date Well Work Commenced: <u>8/7/2007</u>				
Date Well Work Completed: <u>8/7/2007</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): <u>5299'</u>				
Fresh Water Depth (ft.): <u>88; 850; 1460</u>				
Salt Water Depth (ft.):				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>213-216; 654-657; 1352-1355</u>				

OPEN FLOW DATA

Producing formation Banison
 Gas: Initial open flow 131 MCF/d Oil: Initial open flow 3178-81 Bbl/d
 Final open flow 131 MCF/d Oil: Final open flow 3178-81 Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure 1500 psig (surface pressure) after 48 Hours
 Second producing formation 5th Sand Pay zone depth (ft) 2825'-2835'
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow 41 MCF/d Oil: Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure 500 psig (surface pressure) after 48 Hours
 Third producing formation 4th Sand Pay zone depth (ft) 2617'-2623'
 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 pressure) after _____ Hours

0000 3884 F

MAY 02 2008

Forth producing formation Big Injun Pay zone depth (ft) 2178'-2202'
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow comm. _____ MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure _____ COMM. _____ psig (surface pressure) after _____ Hours

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.

Signed: *Alan H. Smith*
 By: Alan H. Smith
 Date: 03/20/08

307111 #2					
STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACTD GAL
1ST	Benson	13 (9178-5181)	100	450	500
2 nd	Benson				75

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL, & GAS
KB - GL.	0	10	
sand, shale, RR	1993	1993	1/2" stream H2O @ 88'
Little lime	2014	2014	1/4" stream H2O @ 850'
sand, shale	2014	2025	1/2" stream H2O @ 1460'
Big Lime	2025	2112	Coal 213-216/654-657
Big Injun	2112	2230	Coal 1352-1355
sand, shale	2230	2239	gas chk @ 2194' No Show
Squaw	2239	2251	gas chk @ 2225' 40/10-2" H2O
sand, shale	2251	2570	gas chk @ 2414' 40/10-2" H2O
Gantz	2570	2588	
sand, shale	2588	2606	
50'	2606	2649	gas chk @ 2756' 30/10-2" H2O
Gordon	2649	2815	
sand, shale	2815	2835	
4th	2835	2880	
sand, shale	2880	2941	gas chk @ 3004' 24/10-2" H2O
5th	2941	2951	
sand, shale	2951	3006	
Rizabetch	3006	3123	
sand, shale	3123	3135	
Speechley	3135	3525	gas chk @ 3722' 40/10-2" H2O
sand, shale	3525	4024	gas chk @ 4223' 46/10-2" H2O
Baltimore	4024	4093	gas chk @ 4690' 50/10-2" H2O
Bradford	4093	4545	
sand, shale	4545	4618	
Riley	4618	4699	gas chk @ 4908' 32/10-2" H2O
sand, shale	4699	4786	
Benson	4786	5071	gas chk @ 5189' 20/10-2" H2O
sand, shale	5071	5150	Driller TD
	5150	5142	
	5142	5317	
	5317	5299	Logger TD

6005 S O YAH