

Jamie 9/14/89

*0116S
2.05W*

HURST LEASE

ECKSTEIN

LISTER

PAYNE

TODD

STONE

S 86-15 E

1000'

N 45-42 W
250.21'

NO. 1 REV.

9 ACRES ±
OF 25 ACRES ±

N 10-34 W
650.73'

SOUTH
197'

KELLEY

N 86-15 W

SOUTHERLY
410'

S 7-20 W
468.79'

S 86-15 E

1.25 AC.

STONE

N 3-45 W
208'

.99 AC.

SOUTH
208'

N 86-15 W

208'

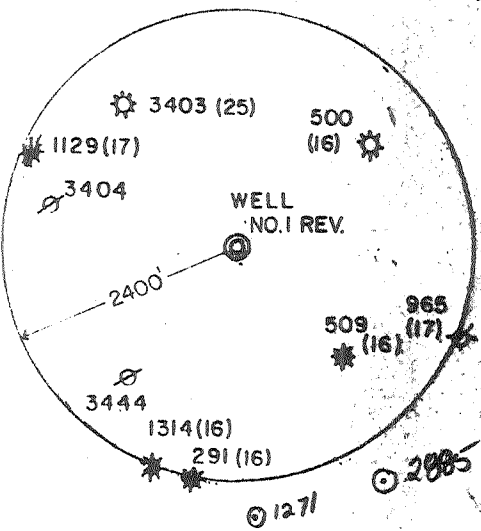
800'

134'

KELLEY

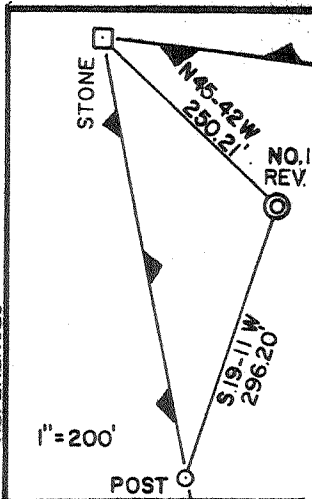
LONG

SOUTHERLY
410'



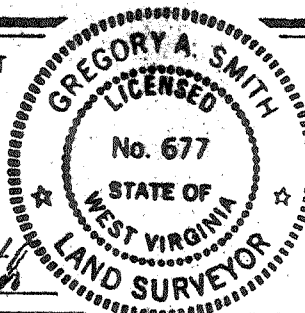
WELL NO. 1 REV.

*304 S
2.05 W*



SLS

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 ENERGY.



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

DATE AUGUST 28, 19 89

OPERATORS WELL NO. HURST NO. 1 REV.

API WELL NO. 47-017-3743-F

STATE 47 COUNTY 017 PERMIT 3743-F

L.L.S. #77 Gregory A. Smith

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 1233 (15-56)
 PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS ELEV. 875' SCALE 1" = 200'

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1000' WATERSHED LONG RUN
 DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'

SURFACE OWNER JACK HOLT ACREAGE 9 OF 25 *SC*

ROYALTY OWNER CARL HURST et al. LEASE ACREAGE 25

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 DEVONIAN SHALE

ESTIMATED DEPTH 5995' *DEC 14 1992*

WELL OPERATOR DEVONIAN APPALACHIAN COMPANY, INC. DESIGNATED AGENT ROBERT A. ANDERSON

ADDRESS 2510 7th AVE. PARKERSBURG, WV 26101 ADDRESS 2510 7th AVE. PARKERSBURG, WV 26101

OWW 6-6 Greenwood 4518 (1089)

00-05-08 EAD11GN01

058

0000 3743

COUNTY NAME

PERMIT

575

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OCT 17 1989

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

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY Well Operator's Report of Well Work

Farm name: HOLT, JACK Operator Well No.: HURST #1

LOCATION: Elevation: 1000.00 Quadrangle: WEST UNION

District: CENTRAL County: DODDRIDGE
Latitude: 850 Feet South of 39 Deg. 17Min. 30 Sec.
Longitude 10880 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: DEVONIAN APPALACHIAN COMP
ROUTE 1, BOX 114B
MINERALWELLS, WV 26150-0114

Agent: ROBERT A. ANDERSON

Inspector: MIKE UNDERWOOD
Permit Issued: 09/14/89
Well work Commenced: 10/5/89
Well work Completed: 10/15/89
Verbal Plugging _____
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 5481'
Fresh water depths (ft) 35'

Salt water depths (ft) 1380'

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 425-437'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			90 sks to sfc.
11 3/4	178'	178'	
8 5/8	1366'	1366'	321 sks to sfc.
4 1/2	5273'	5273'	461 sks

OPEN FLOW DATA

5144
4862
4674

Producing formation Alex, Bens, Riley, BradPay zone depth (ft) 4460
 Gas: Initial open flow 1,280 MCF/d Oil: Initial open flow 0 Bbl/d
 Final open flow 990/2200 MCF/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests 4 Hours
 Static rock Pressure 1650 psig (surface pressure) after 12 Hours
4244 3754

Second producing formation Bltn, Spchly, Warren Pay zone depth (ft) 3328
 Gas: Initial open flow 1,400 MCF/d Oil: Initial open flow 0 Bbl/d
 Final open flow 1,210 MCF/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests 4 Hours
 Static rock Pressure 1550 psig (surface pressure) after 12 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: DEVONIAN APPALACHIAN COMPANY, INC.

By: Robert A. Anderson
Date: 10/17/89

OCT 20 1989

Alexander: 5163-68-6 shots 5155-57'-4 shots, 5144-50'-10 shots
 N2 foam frac with 5,000# 80/100 & 25,000# 20/40 Ottawa sand. 1st stage
 Benson: 4862-68'-6 shots, 4802-04'-2 shots, 4781-87'-8 shots,
 2nd Riley: 4684-86'-2 shots, 4777-78'-2 shots. Frac with 5,000# 80/100
 & 30,000# 20/40 Ottawa sand and N2 foam 2nd stage
 Bradford: 4460-69'-8 shots, 4445-50'-4 shots,
 Balltown: 4250-56'-4 shots, 4246-48'-2 shots
 Speechley: 3778'-2 shots, 3817'-2 shots
 frac with 5,000# & 30,000# 80/100-20/40 Ottawa sand with N2 foam 3rd stage
 Warren: 3488-90'-6 shots, 3377-82'-4 shots, 3346-50'-4 shots, 3330-35'-6 shot
 frac with 5,000# 80/100 & 25,000# 20/40 Ottawa sand and N2 foam

1st stage-spot 500 gal 15% HCl, 2nd stage-spot 500 gal 28% HCl
 3rd stage-spot 750 gal 28% HCl, 4th stage-spot 500 gal 28% HCl

<u>Formation</u>	<u>Top</u>	<u>Bottom</u>	<u>Remarks</u>
Clay	0	10	
Shale, sand	10	425	
Coal	425	437	
sand, shale, red rock	437	680	
sand, shale	680	1896	
Big Lime	1896	2000	
Big Injun	2000	2052	
shale	2052	2208	
Weir	2208	2328	gas on camera
shale & siltstone	2328	3286	
Warren	3286	3387	
siltstone & shale	3387	3730	
Speechley	3730	3868	
siltstone & shale	3868	4244	
Balltown	4244	4286	gas on camera
shale & siltstone	4286	4460	
Bradford	4460	4476	gas on camera
siltstone & shale	4476	4670	
Riley	4670	4714	
siltstone & shale	4714	4782	
Benson	4782	4866	gas on camera
siltstone & shale	4866	5136	
Alexander	5136	5172	
Devonian Shale	5172	TD	

5481

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 OCT 17 1989

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

47/1/89

884 8 1 120

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

FEB 19 93
Permitting
Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: HOLT, JACK

Operator Well No.: HURST 1

LOCATION: Elevation: 1000.00 Quadrangle: WEST UNION

District: CENTRAL County: DODDRIDGE
Latitude: 850 Feet South of 39 Deg. 17Min. 30 Sec.
Longitude 10880 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: DEVONIAN APPALACHIAN COMP
ROUTE 1, BOX 114B
MINERAL WELLS, WV 26150-0114

Agent: ROBERT A. ANDERSON

Inspector: MIKE UNDERWOOD
Permit Issued: 12/10/92
Well work Commenced: 2-3/93
Well work Completed: 2-10/93
Verbal Plugging _____
Permission granted on: all
Rotary Cable Rig _____
Total Depth (feet) _____
Fresh water depths (ft) _____
Recompletion
Salt water depths (ft) _____
Is coal being mined in area (Y/N)? N
Coal Depths (ft): _____

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
NO CHANGE			
SEE ORIGINAL WR-35			

OPEN FLOW DATA

Producing formation WEIR Pay zone depth (ft) 2207-2395
 Gas: Initial open flow 600 MCF/d Oil: Initial open flow 0 Bbl/d
 Final open flow 200 MCF/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests 4 Hours
 Static rock Pressure 720 psig (surface pressure) after 12 Hours

Second producing formation Blue sand? Salt ss? Pay zone depth (ft) 1610-1786
 Gas: Initial open flow 600 MCF/d Oil: Initial open flow 0 Bbl/d
 Final open flow 200 MCF/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests 4 Hours
 Static rock Pressure 720 psig (surface pressure) after 12 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: DEVONIAN APPALACHIAN COMPANY, INC.

Reviewed JMG
Recorded _____

By: [Signature]
Date: 2-17-93

* See original WR-35 for well log

Hu #1

1st Stage: Perforate 2395-2 holes, 2387-90 3 holes, 2243 2 holes, 2239-41 3 holes, 2232-34 3 holes, 2229 2 holes, 2211-13 3 holes, 2207-09 3 holes. Frac with 500 gal. 22% HCl, 50 sks 80/100 sand, 500 sks 20/40 sand, 720 bbl H2O, Nitrogen assist.

2nd Stage: Perforate 1782-86 10 holes, 1737 2 holes, 1627 2 holes, 1610 2 holes, 500 gal. 22% HCl, water flush.

DFT = 439

DF = 424

70-5481

(original)

72,571

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

Page of
Issued 9/14/89 Expires 9/14/91

- 1) Well Operator: Devonian Appalachian Company, Inc. ⁴⁵¹⁸ 13530 (1) 670
- 2) Operator's Well Number: Hurst Well No. 1 3) Elevation: 1011'
- 4) Well type: (a) Oil / or Gas X /
(b) If Gas: Production X / Underground Storage /
Deep / Shallow X /
- 5) Proposed Target Formation(s): Devonian Shale ⁴³⁷
- 6) Proposed Total Depth: 5995 feet 506'
- 7) Approximate fresh water strata depths: 175' 124' possibly @ 128'
- 8) Approximate salt water depths: N/A 1474, 1461'
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes / No X /
- 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"			30'	0	10 Sacks
Fresh Water	8-5/8"			1411'	1411'	By Rule 38 CSR 18-11.3
Coal						
Intermediate						
Production	4-1/2"			5995'	5995'	By Rule 38 CSR 18-11.1
Tubing						
Liners						

RECEIVED
AUG 23 1989

PACKERS : Kind
Sizes
Depths set

For Division of Oil and Gas Use Only
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
Plat WW-9 WW-2B Bond Single Agent
(Type) CD

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AUG 23 1989

1) Date: _____
2) Operator's well number _____ Hurst #1 _____
3) API Well No: 47 - 017 - 3743
State - County - Permit _____

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY
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 Jack Holt
Address N/O Box 5
GREENWOOD, WV 26360
(b) Name _____
Address _____
(c) Name _____
Address _____
5) (a) Coal Operator:
Name N/A
Address _____
(b) Coal Owner(s) with Declaration
Name N/A
Address _____
Name N/A
Address _____
6) Inspector Mike Underwood
Address Rt 2 Box 135
Salem, WV 26426
Telephone (304) 782-1043
(c) Coal Lessee with Declaration
Name N/A
Address _____

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

_____ 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:

- _____ Personal Service (Affidavit attached)
- _____ 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.



OFFICIAL SEAL
Notary Public, State of West Virginia
JAMES H. WALTERS, JR.
ST. RT. 83, BOX 38
ELLENBORO, W. VA. 26346

My Commission Expires August 10, 1998

Well Operator Devonian Appalachian Co. Inc.
By: Robert A. Anderson
Its: President
Address Rt 1 Box 114B
Mineral Wells, WV 26150
Telephone 304-489-9314

Subscribed and sworn before me this 21 day of Aug, 1989

James H. Walters Jr

Notary Public

My commission expires Aug 10, 1998

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Environmental Protection

16526

017-3743-Frac.
Issued 12/10/92

FORM WW-2B DEC 0 7 92

Page ___ of ___

Permitting
Office of

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

Exp. 12/10/94

- 1) Well Operator: Devonian Appalachian Co. Inc ⁴⁵¹⁸ #13530 (1) 670
- 2) Operator's Well Number: 11025 #1 3) Elevation: 1000
- 4) Well type: (a) Oil ___ / or Gas ✓ /
(b) If Gas: Production ✓ / Underground Storage ___ /
Deep ___ / Shallow ___ /
- 5) Proposed Target Formation(s): Weir, Big Fawn, Blue Monday ³⁸⁷
- 6) Proposed Total Depth: N/A feet
- 7) Approximate fresh water strata depths: N/A
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No ✓ /
- 11) Proposed Well Work: Set temporary plug, Frac New Zones, Knock out plug and Comingle all zones
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT Fill-up (cu. ft.)
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor						
Fresh Water	<u>8 3/4</u>			<u>178</u>	<u>178</u>	} existing from well. Records
Coal						
Intermediate	<u>8 5/8</u>			<u>1366</u>	<u>1366</u>	
Production	<u>4 1/2</u>			<u>5273</u>	<u>5273</u>	
Tubing						
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

For Division of Oil and Gas Use Only

4336
42
 Fee(s) paid: Well Work Permit Reclamation Fund WPCR
 Plat WW-9 WW-2B Bond Agent

DEC 0 7 1992
OFFICE OF OIL & GAS

- 1) Date: Hurst #1 10/20/92
- 2) Operator's well number Hurst #1
- 3) API Well No: 47 - 17 - 3743 - Fre
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 JACK AIR
 - Address Rt 1 Box 110 Air
Greenswood WV 26360
 - (b) Name _____
 - Address _____
 - (c) Name _____
 - Address _____
- 5) (a) Coal Operator:
 - Name _____
 - Address _____
 - (b) Coal Owner(s) with Declaration
 - Name _____
 - Address _____
 - (c) Coal Lessee with Declaration
 - Name _____
 - Address _____
- 6) Inspector Mike Underwood
- Address Rt 2 Box 135
Salom, W.V. 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

Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

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I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Reverend Appalachian Co. Inc

By: Robert L. Anderson

Its: President

Address Rt 1 Box 114 B
Mineral Wells, WV 26150

Telephone (304) 489-9314

Subscribed and sworn before me this 1st day of Dec., 1992

Lynda R. Sheets Notary Public

My commission expires Nov 29 1993