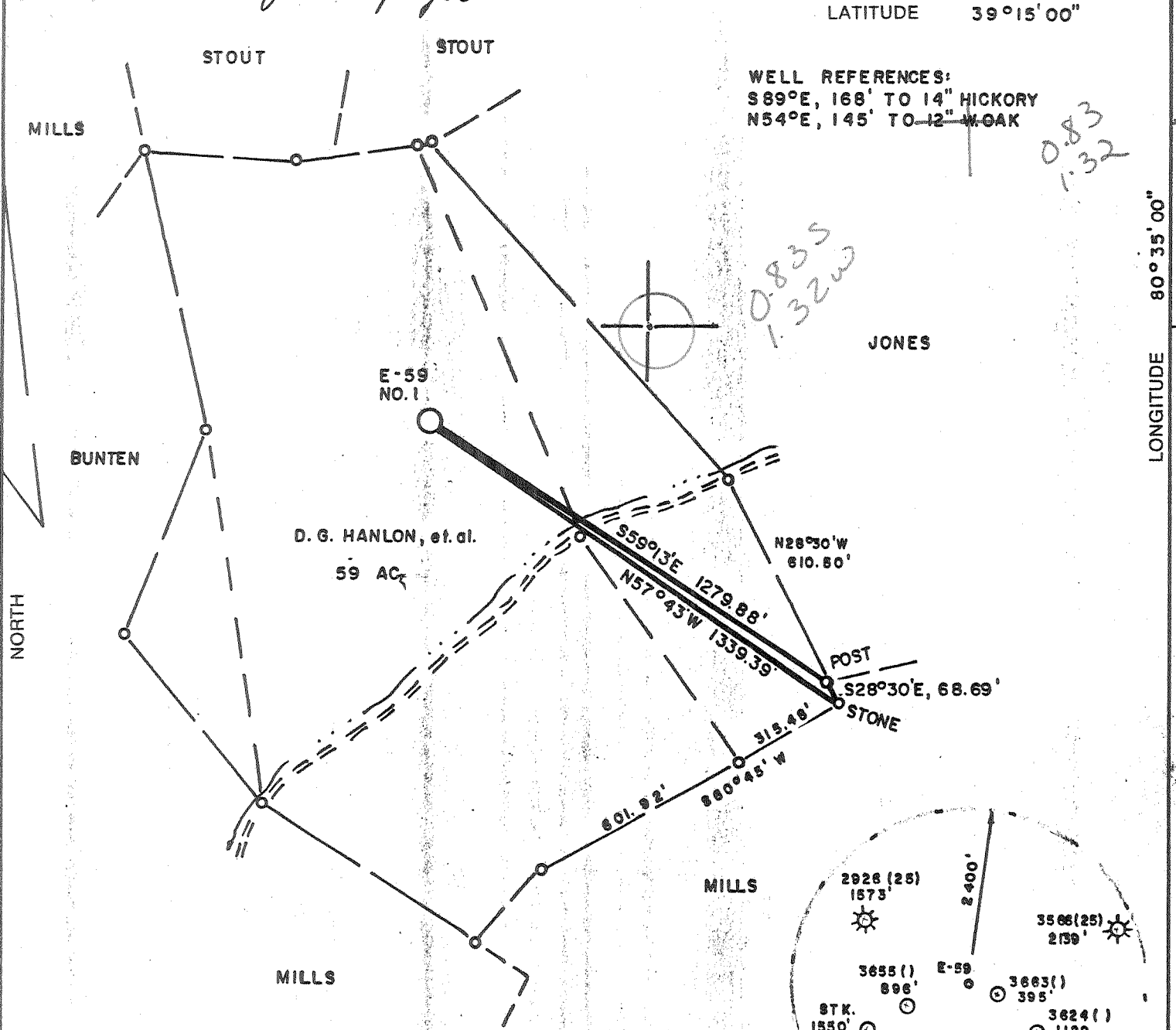


Janice 8/23/88

7060'

LATITUDE 39°15'00"

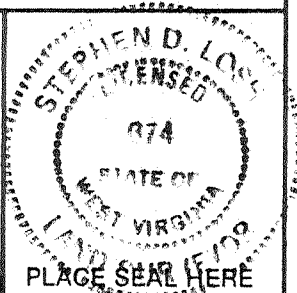


LAND SURVEYING SERVICES
21 CEDAR LANE
BRIDGEPORT, WV 26330
PHONE: 304-842-2018

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

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 400'
MINIMUM DEGREE OF ACCURACY 1 in 200
PROVEN SOURCE OF ELEVATION TOP OF KNOB 2800'S.E. OF LOCATION ELEV. - 1288'

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.
(SIGNED) Stephen D. Losh
R.P.E. _____ L.L.S. 674
STEPHEN D. LOSH



STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

DATE AUGUST 11, 19 88
OPERATOR'S WELL NO. E-59
API WELL NO. RICHARDS NO. 1
47 - 017 - 3670
STATE COUNTY PERMIT

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

LOCATION: ELEVATION 1040' WATER SHED BUCKEYE CREEK
DISTRICT GREENBRIER 4 COUNTY DODDRIDGE
QUADRANGLE BIG ISAAC 75 min. 252 1232 Vadsine

SURFACE OWNER WILLIAM C. LANTZ ACREAGE 44.22
OIL & GAS ROYALTY OWNER DAVID G. HANLON, et. al. LEASE ACREAGE 59
LEASE NO. _____

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 ALEXANDER ESTIMATED DEPTH 5750'
WELL OPERATOR EXCEL ENERGY, INC. DESIGNATED AGENT HARRY BARNETT
ADDRESS P.O. BOX 1020 ADDRESS P.O. BOX 1020
BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330

SEP 09 1988

6-6 Zinnia (145)

FORM WW-6
H.T. HALL 48673

COUNTY NAME
PERMIT



IV-35
(Rev 8-81)

Date October 17, 1988
Operator's
Well No. RICHARDS E-59
Farm RICHARDS #1
API No. 047 - 017 - 3670

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OCT 21 1988

State of West Virginia
Department of Mines
Oil and Gas Division

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY 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 X / Underground Storage ___ / Deep ___ / Shallow ___ /)

LOCATION: Elevation: 1,040' Watershed BUCKEYE CREEK
District: GREENBRIER County DODDRIDGE Quadrangle BIG ISAAC

COMPANY EXCEL ENERGY, INC.
ADDRESS P.O. BOX 1020, BRIDGEPORT, WV 26330
DESIGNATED AGENT H.L. BARNETT
ADDRESS P.O. BOX 1020, BRIDGEPORT, WV 26330
SURFACE OWNER WILLIAM C. LANTZ
ADDRESS 105 Winding Way, Clarksburg, WV 26301
MINERAL RIGHTS OWNER D. HANLON ET.AL.
ADDRESS Unknown
OIL AND GAS INSPECTOR FOR THIS WORK _____
MIKE UNDERWOOD ADDRESS Rt.2, Box 114, Salem, WV
PERMIT ISSUED September 9, 1988 26426
DRILLING COMMENCED September 28, 1988
DRILLING COMPLETED OCTOBER 3, 1988
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.	20'	20'	
13-10"			
9 5/8			
8 5/8	1176'	1176'	C.T.S.
7			
5 1/2			
4 1/2	5449'	5449'	775 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION BENSON - ALEXANDER Depth 5,700 feet
Depth of completed well 5,449 feet Rotary X / Cable Tools _____
Water strata depth: Fresh 640, 900 feet; Salt --- feet
Coal seam depths: N/A Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation ALEXANDER Pay zone depth 5,326 - 5,386 feet
Gas: Initial open flow SHOW Mcf/d Oil: Initial open flow --- Bbl/d
Final open flow 1,300 Mcf/d Final open flow --- Bbl/d
Time of open flow between initial and final tests _____ hours

Static rock pressure 1,510 psig (surface measurement) after 72 hours shut in
(If applicable due to multiple completion--)

Second producing formation BENSON-RILEY Pay zone depth 4,893 - 5,030 feet
Gas: Initial open flow SHOW Mcf/d Oil: Initial open flow --- Bbl/d
Final open flow 1,300 Mcf/d Oil: Final open flow --- Bbl/d
Time of open flow between initial and final tests _____ hours

Static rock pressure 1,510 psig (surface measurement) after 72 hours shut in

(Continue on reverse side)

OCT 28 1988

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

STAGE I ^{alex} (5,326'-5,386') 11 holes, 350 sks sand, 500 gal 15% HCL, 160 BBL 75Q Foam.
 STAGE II (4,893'-5,030') 11 holes, 320 sks sand, 750 gal 15% HCL, 210 BBL 75Q Foam.
Ely Benson

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DEPARTMENT OF ENERGY

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
RED ROCK			0	10	
SAND			10	40	Damp @ 40'
SAND & SHALE			40	400	
RED ROCK			400	450	
SAND & SHALE			450	1270	1" Stream H ₂ O @ 690' 1 1/2" Stream H ₂ O @ 900'
SAND			1270	1340	
SAND & SHALE			1340	2060	
BIG LIME			2060	2120	
BIG INJUN			2120	2200	
SHALE			2200	2800	
GORDON			2800	2850	Gas show
SHALE			2850	4880	
RILEY			4880	4910	
SHALE			4910	5020	
BENSON			5020	5030	Gas show
SHALE			5030	5300	
ALEXANDER			5300	5390	
SHALE			5390	5516 DTD	
				5522 LTD	

(Attach separate sheets as necessary)

EXCEL ENERGY, INC.

Well Operator

By: *Bradley W. Thomas*
 Date: Bradley W. Thomas, Consultant
 October 17, 1988

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."
 157A

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

- 1) Well Operator: EXCEL ENERGY, INC. 16570, 4, 252
- 2) Operator's Well Number: E-59 3) Elevation: 1288
- 4) Well type: (a) Oil ___ / or Gas X /
(b) If Gas: Production X / Underground Storage ___ /
Deep ___ / Shallow X /
- 5) Proposed Target Formation(s): ALEXANDER
- 6) Proposed Total Depth: 5700 feet
- 7) Approximate fresh water strata depths: 30, 60, 155, 640', 500'
- 8) Approximate salt water depths: _____
- 9) Approximate coal seam depths: 155, 485, 800 @ 798'-802'
- 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	SANDED IN
Fresh Water						
Coal						
Intermediate	8 5/8		20#	1100	1100	250 SKS
Production	4 1/2		10.5 #	5400	5400	300 SKS
Tubing						
Liners						

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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 50 Blanket Agent _____

(Type)

2070
26
19

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1)
2)
3)

Date: AUGUST 12, 1988
Operator's well number
E-59
API Well No: 47 - 017 - 3670
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 WILLIAM C. LANTZ
Address 105 WINDING WAY
CLARKSBURG, WV 26301
(b) Name _____
Address _____
(c) Name _____
Address _____

5) (a) Coal Operator:
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name _____
Address _____
Name _____
Address _____

6) Inspector MIKE H. UNDERWOOD
Address RT. 2, Box 114
SALEM, W.V. 26426
Telephone (304) - 782-1043

(c) Coal Lessee with Declaration
Name _____
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
X 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)
X 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 EXCEL ENERGY, INC.
By: SARA AMAN SARA AMAN
Its: CORPORATE SECRETARY
Address P.O. Box 1020
BRIDGEPORT, WV 26330
Telephone (304) 842-6927

Subscribed and sworn before me this 12th day of August, 1988

Keith J. Jarron Notary Public
My commission expires 12/20/90