

AS 6/12/86

39' 25"

LATITUDE 39° 22' 30"

670'

6885'

LONGITUDE 80° 45' 00"

BOOHER

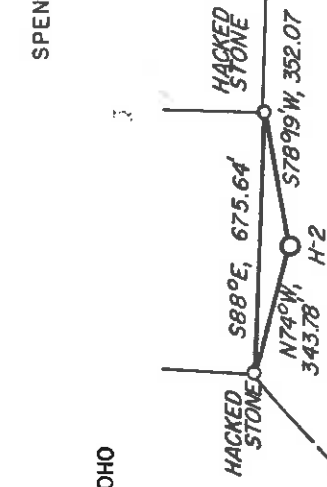
BROWN

YOH0

SPENCER

BRANCH OF KNIGHTS FORK

24
3

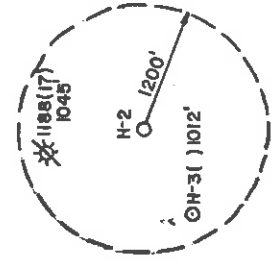


NORTH

JAMES D. SPENCER
50.38 AC.



4195
O.1212
Circ



WELL REFERENCES:

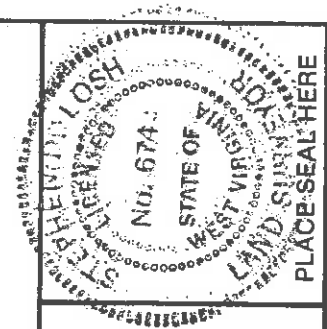
N15°30'E, 66.50' TO 3" RED MAPLE
N61°E, 117' TO 3" BLACK GUM

LAND SURVEYING SERVICES
1412 NORTH 18 TH ST.
CLARKSBURG, WV 26301
PHONE: 304-623-1214

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

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF
ACCURACY 1" IN 200
PROVEN SOURCE OF
ELEVATION TOP OF KNOB 762' SW
OF LOC. AT ELEV. 1307

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.I.S. NO. 674
STEPHEN D. LOSH
PLACE SEAL HERE



STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



DATE MAY 20, 19 86
OPERATOR'S WELL NO. J. SPENCER (H-2)
API WELL NO. _____

47-017-3502
STATE COUNTY PERMIT

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
(IF "GAS,") PRODUCTION X STORAGE DEEP SHALLOW X
LOCATION: ELEVATION 1143 WATERSHED KNIGHTS FORK
DISTRICT GRANT 3 COUNTY DODDRIDGE
QUADRANGLE WEST UNION 671 133 ECG
SURFACE OWNER JAMES D. SPENCER ACREAGE 50.38
OIL & GAS ROYALTY OWNER JAMES D. SPENCER LEASE ACREAGE 50.38

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 BIG INJUN ESTIMATED DEPTH 2450'
WELL OPERATOR RANGER PETROLEUM, L.T.D. DESIGNATED AGENT KENNETH L. POIE
ADDRESS 411 EAST MAIN ST., P.O. DRAWER 510 ADDRESS 411 EAST MAIN ST., P.O. DRAWER 510
CLARKSBURG, WV 26301 Swiger (Flint Run) (97)
CLARKSBURG, WV 26301

PERMIT JUN 10 1986

COUNTY NAME

PERMIT



WR-35

Date October 29, 1986
Operator's Well No. H-2
Farm J. Spencer
API No. 47-017-3502

State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

RECEIVED
NOV 03 1986

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY
WELL OPERATOR'S REPORT
OF
ENHANCING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1143' Watershed Knights Fork
District: Grant County Doddridge Quadrangle West Union 7 1/2'

COMPANY Ranger Petroleum, Ltd.
ADDRESS P.O. Drawer 510, Clarksburg, WV 26302
DESIGNATED AGENT Kenneth L. Pote
ADDRESS P.O. Drawer 510, Clarksburg, WV 26302
SURFACE OWNER James D. Spencer
ADDRESS P.O. Box 216, New Manchester, WV 26056
MINERAL RIGHTS OWNER James D. Spencer
ADDRESS P.O. Box 216, New Manchester, WV 26056

OIL AND GAS INSPECTOR FOR THIS WORK Mike
Rt. 2, Box 114
Underwood, Salem, WV 26426

PERMIT ISSUED June 12, 1986
DRILLING COMMENCED June 29, 1986
DRILLING COMPLETED August 20, 1986

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
CN

Casing Tubing	Used in Drilling in Well	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.	20'	0'	
13-10"			
9 5/8			
8 5/8			
7	504'	504'	130 Sks.
5 1/2			
4 1/2		2313'	50 Sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Big Injun Depth 2450' feet
Depth of completed well' 2359 feet Rotary x / Cable Tools _____
Water strata depths: Fresh 47 feet; Salt 1554 feet
Coal seam depths: N/A Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Keener & Big Injun Pay zone depth 2141-2240 feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 25 Mcf/d Final open flow 2 Bbl/d

Time of open flow between initial and final tests _____ hours
after _____ hours shut in

Static rock pressure 100 psig (surface measurement) after _____ hours 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 _____ 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 measurement) after _____ hours shut in

(Continue on reverse side)

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

1st Stage
 Big Injun, Perfs: 2197-2240 w/11 Holes, Fraced with 30,000# SD, 376 BBLS S/L Fluid,
 52,000 SCF Nitrogen.

2nd Stage
 Keener, Perfs: 2141-52 w/8 Holes, Fraced with 25,000# SD, 230 BBLS S/L Fluid

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Slate	Gray, Soft		0'	10'	
RedRock	Red, Soft		10'	30'	Hit Water @ 47'
Slate	Gray, Soft		30'	47'	
Sand	Brown, Hard		47'	61'	
Lime	White, Hard		61'	65'	
Sand	Gray, Hard		65'	74'	
Shale	Gray, Soft		74'	130'	
Shale	Gray, Hard		130'	150'	
Shale	Red, Soft		150'	285'	
Shale	Gray, Hard		285'	335'	
Shale and Sand	Gray, Hard		335'	377'	
RedRock	D.Gray, Soft		377'	440'	
Shale	Gray, Hard		440'	480'	
RedRock	Red, Soft		480'	496'	
Shale	Gray, Hard		496'	509'	
Shale	Gray, Soft		509'	527'	
Sand	Gray, Soft		527'	572'	
Shale	D.Gray, Hard		572'	584'	
Sand	Gray, Soft		584'	658'	
Red Rock	Red, Soft		658'	702'	
Sand	Gray, Hard		702'	705'	
Shale	Gray, Soft		705'	773'	
RedRock	Red, Soft		773'	782'	
Shale	Gray, Soft		782'	796'	
Sand	Gray, Hard		796'	804'	
Shale	Gray & Red, Soft		804'	1072'	
Shale	Gray, Hard		1072'	1115'	
Shale	Gray, Soft		1115'	1260'	
Shale	Gray & Blue, Hard		1260'	1265'	
Shale	Gray, Soft		1265'	1437'	
Shale-Lime	Gray, Hard		1437'	1444'	
Shale	Gray, Hard		1444'	1554'	
Sand	White, Hard		1554'	1614'	
Shale	Gray, Soft		1614'	1664'	
Sand	Gray, Hard		1664'	1687'	
Shale	Gray, Hard		1687'	1760'	
Sand	Gray, Soft		1760'	1845'	
Shale	Gray, Hard		1845'	1865'	
Sand & Shale	Gray, Hard		1865'	1910'	

Water, go to soap.

(Attach separate sheets as necessary)

By: _____
 Well Operator

Date: _____

Notes: Regulation 2.02(i) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic
 detailed geological record of all formations including
 lithology, structure, and other data obtained in the drilling of a well."

RANGER PETROLEUM, LTD.

Spencer #H-2

Grant Dist., Doddridge Co., WV

Permit No. 47-017-3502 *pg. 2*

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Shale		Gray, Soft	1910'	1934'		
Sand		White, Hard	1934'	1954'		
Shale		Gray, Soft	1954'	1970'		
Sand & Shale		Gray, Med.	1970'	2032'		
Lime		Gray & Blk, Hard	2032'	2138'		
Sand		White, Hard	2138'	2236'		
Shale		Gray, Soft	2236'	2359'		
TD						

Log Tops: Big Lime 2072'
 Keener 2132'
 Big Injun 2155'
 TD 2340'

Dated October 29, 1986
RANGER PETROLEUM, LTD.
APPROVED: *[Signature]* Owner

10/10/10

10/10/10

10/10/10

JUN 12 1986



1) Date: May 28, 1986
 2) Operator's Well No. Spencer #H-2
 3) API Well No. 47-017-3502 Permit

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

4) WELL TYPE: A Oil Gas B (if "Gas", Production
 Undergrnd storage Deep Shallow
 5) LOCATION: Watershed: Knights Fork
 Elevation: 1143' County: Doddridge Quadrangle: West Union 7.5' E 70
 District: Grant 7223
 6) WELL OPERATOR: Ranger Petroleum, Ltd. CODE: 40825 7) DESIGNATED AGENT: Kenneth L. Pote
 P.O. Drawer 510
 Address: P.O. Drawer 510
 Clarksburg, WV 26301

8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name: Mike Underwood
 Address: Route 2, Box 114
 Salem, WV 26426

10) PROPOSED WELL WORK: Drill Plug off old formation Perforate new formation
 deeper Redrill Stimulate
 Other physical change in well (specify):

11) GEOLOGICAL TARGET FORMATION, Big Injun 311
 12) Estimated depth of completed well, 2500 feet
 13) Approximate trata depths: Fresh, 95 feet; salt, 1588 feet.
 14) Approximate coal seam depths: Is coal being mined in the area? Yes No

CASING OR TUBING TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	For drilling	Left in well		
Conductor	11 3/4"	H	42#	20'			
Fresh water							
Coal	7"	H	17#	500'	500'		CTS REC Pk 15.05
Intermediate	4 1/2"	J	9.5#		2400'		200 SILS OR AS REQUIRED BY RULES.01
Production							
Tubing							
Lim.							

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-017-3502 Date June 12 1986

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 June 12, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: AB	Plat: AS	Casing Fee: 14/17	WPCP: AS	S&E: AS	Other:
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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.
 Director, Division of Oil and Gas
 Margaret J. Hesse

