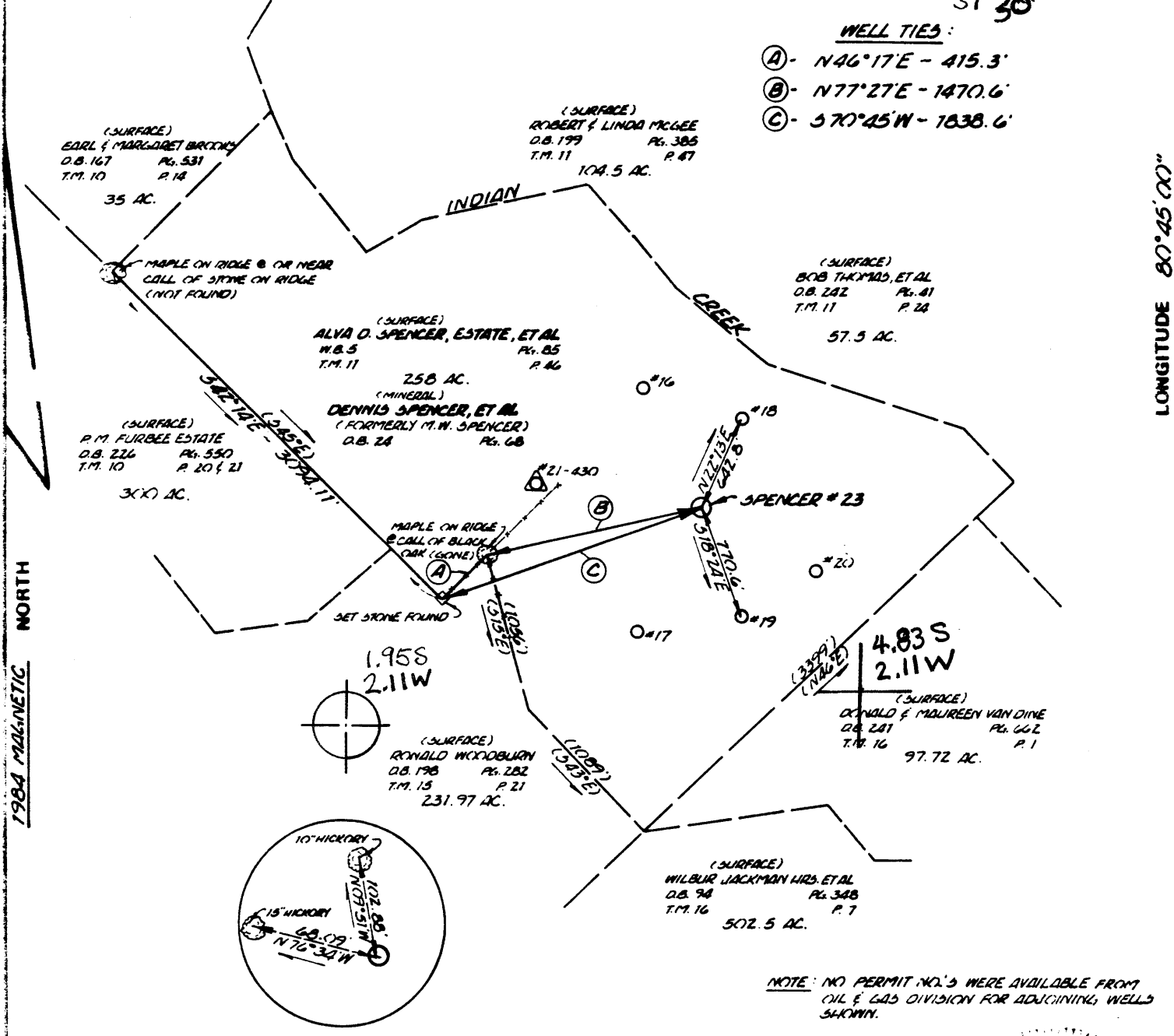


NOTE: BEARINGS & DISTANCES IN ( ) ARE DEED BEARINGS & DISTANCES.

LATITUDE 39°27'30"  
39°30'

WELL TIES:

- (A) - N46°17'E - 415.3'
- (B) - N77°27'E - 1470.6'
- (C) - S70°45'W - 1838.6'



1984 MAGNETIC NORTH

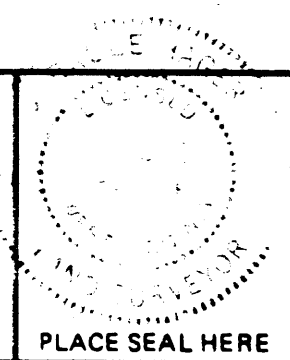
LONGITUDE 80°45'00"

NOTE: NO PERMIT NO.'S WERE AVAILABLE FROM OIL & GAS DIVISION FOR ADJACINING WELLS SHOWN.

REFERENCE DETAIL (NO SCALE)

FILE NO. 8400-22  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1' IN 2000'  
 PROVEN SOURCE OF ELEVATION EXISTING WELL - ALVA O. SPENCER, ET AL NO. 21 EL. 1084

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) Bruce Sager  
 R.P.E. \_\_\_\_\_ L.S. 577



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



DATE APRIL 23, 19 84  
 OPERATOR'S WELL NO. M.W. SPENCER NO. 23  
 API WELL NO. \_\_\_\_\_  
47 095 - 1078  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS \_\_\_\_\_ LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_\_\_ STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW \_\_\_\_\_  
 LOCATION: ELEVATION 780.8' WATER SHED INDIAN CREEK OF MIDDLE ISLAND CREEK  
 DISTRICT MCCELROY 5 COUNTY TYLER  
 QUADRANGLE SHURLEY 607 WEST UNION 133 NE 3  
 SURFACE OWNER ALVA O. SPENCER ESTATE, ET AL ACREAGE 258  
 OIL & GAS ROYALTY OWNER M.W. SPENCER HEIRS LEASE ACREAGE 258  
 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 BIG INJUN ESTIMATED DEPTH 1959' JUN 11 1984  
 WELL OPERATOR QUAKER STATE OIL REF. CORP. DESIGNATED AGENT CARL J. CARLSON  
 ADDRESS P.O. BOX 1327 721 ADDRESS P.O. BOX 1327  
PARKERSBURG, W.V. 26101 PARKERSBURG, W.V. 26101

RECEIVED



IV-35 (Rev 8-81)

NOV 2 - 1984

DEPT. OF MINES

State of West Virginia Department of Mines Oil and Gas Division

Date October 31, 1984 Operator's Well No. #23 Farm M.W. Spencer API No. 47 - 095 - 1078

WELL OPERATOR'S REPORT OF DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 780.8' Watershed Indian Creek of Middle Island Creek District: McElroy County Tyler Quadrangle Shirley 7.5'

COMPANY QUAKER STATE OIL REFINING CORPORATION

ADDRESS P.O. Box 1327; Parkersburg, WV 26101

DESIGNATED AGENT Carl J. Carlson

ADDRESS P.O. Box 1327; Parkersburg, WV 26101

SURFACE OWNER Alva D. Spencer Est., et al

ADDRESS c/o Dennis G. Spencer, Box 59; Alma, WV

MINERAL RIGHTS OWNER M.W. Spencer Heirs c/o 26320

ADDRESS John Kern; P.O. Box 2330; Clarksburg, WV

OIL AND GAS INSPECTOR FOR THIS WORK 26301

Robert Lowther ADDRESS General Delivery; Middlebourne, WV 26149

PERMIT ISSUED June 4, 1984

DRILLING COMMENCED July 30, 1984

DRILLING COMPLETED August 17, 1984

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

Table with 4 columns: Casing & Tubing Size, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16 Cond., 13-10", 9 5/8, 8 5/8 (453'), 7, 5 1/2, 4 1/2 (1722'), 3, 2, and Liners used.

GEOLOGICAL TARGET FORMATION Big Injun Depth 1756-1893 feet

Depth of completed well 1906' feet Rotary xx / Cable Tools xx

Water strata depth: Fresh N/A feet; Salt N/A feet

Coal seam depths: N/A Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth 1758-1846 feet

Gas: Initial open flow --- Mcf/d Oil: Initial open flow --- Bbl/d

Final open flow --- Mcf/d Final open flow 2 Bbl/d

Time of open flow between initial and final tests -- hours

Static rock pressure Vacuum 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

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

Shot with 120 qts. nitroglycerine from 1800-1845'

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sandstone			0	542	
Shale and siltstoe			542	968	
Sandstone and shale			968	1422	
Sandstone			1422	1465	
Shale			1465	1633	
Little Lime			1633	1646	
Pencil Cave			1646	1664	
Big Lime			1664	1756	
<u>Big Injun</u>			1756	1893	
Shale			1893	<u>1906</u>	T.D.

(Attach separate sheets as necessary)

QUAKER STATE OIL REFINING CORPORATION  
Well Operator

By: Michael C. Brannock Michael C. Brannock  
Date: October 31, 1984 Senior Geologist

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."



1) Date: May 15, 1984  
 2) Operator's Well No. M. W. SPENCER #23  
 3) API Well No. 47 095- 1078  
 State County Permit

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

- 4) WELL TYPE: A Oil  / Gas \_\_\_\_\_  
 B (If "Gas", Production \_\_\_\_\_ / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow \_\_\_\_\_) *DOM*
- 5) LOCATION: Elevation: 780.8 Watershed: INDIAN CREEK OF MIDDLE ISLAND CREEK  
 District: MCELROY County: TYLER Quadrangle: SHIRLEY 7.5'
- 6) WELL OPERATOR QUAKER STATE OIL REF. CORP. 7) DESIGNATED AGENT CARL J. CARLSON  
 Address P.O. BOX 1327 Address P.O. BOX 1327  
PARKERSBURG, WV 26101 PARKERSBURG, WV 26101
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name ROBERT LOWTHER Name UNKNOWN  
 Address GENERAL DELIVERY Address \_\_\_\_\_  
MIDDLEBOURNE, WV 26149 (304) 758-4764
- 10) PROPOSED WELL WORK: Drill  / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate \_\_\_\_\_  
 Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_  
 Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, BIG INJUN
- 12) Estimated depth of completed well, 1959' feet
- 13) Approximate trata depths: Fresh, 100' feet; salt, 988' feet.
- 14) Approximate coal seam depths: 428' - 430' Is coal being mined in the area? Yes \_\_\_\_\_ / No
- 15) CASING AND TUBING PROGRAM

**RECEIVED**  
 MAY 24 1984  
 OIL & GAS DIVISION  
 DEPT. OF MINES

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		Kinds	Sizes
Conductor										
Fresh water	8 5/8	H-40	20	X		460'	460'	c.t.s. NEAT		
Coal										
Intermediate										
Production	5 1/2	J-55	14	X		1703'	1703'	765'		Depths set
Tubing	2	J	4.5	X			1809'			
Liners										Perforations: Top Bottom

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-095-1078 Date June 4, 19 84

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 4, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>BLANKET</u>	Agent: <u>RD</u>	Plat: <u>MU</u>	Casing: <u>MU</u>	Fee: <u>10814</u>
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*[Signature]*  
 Administrator, Office of Oil and Gas

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.

File