



Note:
This survey is tied into Armco
Steel Corp. coordinate system.

Latitude (15') 37' 55" 00"
(7.5') 37' 55" 00"
15' Topo

Rowland Land Co.
2,034.17 AC

COORDINATE VALUES		
STA.	NORTH	EAST
E-24	599,122.110	3,217,883.999
E-25	000,122.277	3,217,563.734

COAL OPERATOR:
ARMCO STEEL CORP.
MONTCOAL, WV 25135

ROWLAND LAND CO.

U.S.G.S.
Bench mark
N 596,991.740
E 3,217,208.994

U.S.G.S.
Bench mark
N. 945.510

Rowland Land Co.

STICKNEY

Monument E-4
N 596,605.648
E 3,213,898.012

New Location
Drill Deeper
Abandonment

Minimum Error of Closure $1'/10,000'$
Source of Elevation USGS B.M. near Marsh Fork High School on
railroad culvert. Elevation given as 945.510
"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and
belief and shows all the information required by paragraph 6 of the rules and regulations of
the oil and gas section of the mining laws of West Virginia."
J. L. Sturgill

Company **TIPCO TEXAS INTERNATIONAL PETROLEUM CORPORATION**
Address **Suite 700 - Commerce Square Charleston, West Virginia 25301**
Farm **ROWLAND LAND CO.**
Tract **A** Acres **3,000** Lease No. **808401**
Well (Farm) No. _____ Serial No. **A-5**
Elevation (Spirit Level) **937.63** **EC**
Quadrangle **7.5' Whitesville / 15' Bald Knob**
County **Raleigh** District **Marsh Fork**
Engineer **L.G. Sturgill, LLC**
Engineer's Registration No. **412**
File No. **W75-2 W.O. 73** Drawing No. **D-34**
Date **10-19-76** Scale **1" = 1000'**

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON

WELL LOCATION MAP
FILE NO. **RAL-379**

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.
- Denotes one inch spaces on border line of original tracing.

47-081 MAR 8 1977
FB 4 PG 52





STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 5

1977
OIL AND GAS DIVISION
DEPARTMENT OF MINES

7.5' Whitesville
Quadrangle 15' Bold Knob
Permit No. RAL - 379

Rotary X Oil _____
Cable _____ Gas 0
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind)

Company <u>Texas International Petroleum Corp</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>Charleston, WV</u>				
Farm <u>Rowland Land Co.</u> Acres <u>3,000</u>				
Location (waters) <u>Marsh Fork of Coal River</u>	Size			
Well No. <u>A-5</u> Elev. <u>938</u>	20-16			Cemented w/50 sacks.
District <u>Marsh Fork</u> County <u>Raleigh</u>	Cond. 16"	38'	38'	Cemented w/100 sacks. Cmt. cir.
The surface of tract is owned in fee by _____	13-10" 11-3/4"	284'		Cemented w/80 sacks.
<u>Rowland Land Company</u>	9 5/8			
Address <u>Charleston, WV</u>	8 5/8	1,017.15'		
Mineral rights are owned by <u>Rowland Land Co.</u> Address <u>Charleston, WV</u>	7			
Drilling Commenced <u>March 3, 1977</u>	5 1/2			
Drilling Completed <u>April 24, 1977</u>	4 1/2	2,725'	2,725'	Cemented 1st stage w/150 sacks. Cemented 2nd stage w/120 sacks.
Initial open flow <u>180 MCF</u> cu. ft. _____ bbls.	3			
Final production <u>1034 M.cu.ft.</u> per day _____ bbls.	2			
Well open <u>6</u> hrs. before test <u>760</u> RP.	Liners Used			

Well treatment details: Attach copy of cementing record.
Perforated 2569 - 72' with 13 shots. Spotted 500 gallons 15% HCl. Fraced with 500 barrels gelled water 25,000 # 20/40 sand. BDP - 600 PSI. AIP - 1620 PSI. AIR - 33.3 BPM. ISIP - 400 #. Perforated 2400 - 2410', 2 shots per foot - 21 shots. Fraced with 750 barrels gelled water 10,000 # 80/100 sand, 40,000 # 20/40 sand. AIP - 1800 PSI. AIR - 40.31 BPM. BDP - 800 PSI. ISIP - 1100 PSI.

Coal was encountered at None reported Feet _____ Inches _____
 Fresh water 78', 100', 330', 420' FEET Salt Water _____ Feet _____
 Producing Sand Lower WEIR Depth 2569' - 2572', 2400' - 2410'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand			0	28		
Sand & Shale			28	35		
Sand			35	78		
Sandy Shale			78	80		
Sand			80	327		
Sandy Shale			327	333		
Sand			333	347		
Shale			347	385		
Sandy Shale			385	398		
Sand			398	476		
Sandy Shale			476	537		
Sand			537	565		
Shale			565	635		
Sand			635	890		
Sand & Shale			890	896		
Sand			896	915		
Sand & Shale			915	945		
Sand			945	991		
Shale			991	1081		
Sand			1081	1170		
Shale			1170	1192		
Sand			1192	1264		
Sand, Shale, Red Rock			1264	1363		
Sand			1363	1394		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet 5	Bottom Feet	Oil, Gas or Water	* Remarks
Shale & Red Rock			1394	1467		
Sand			1467	1493		
Shale & Red Rock			1493	1524		
Sand			1524	1558		
Sandy Shle & Red Rock			1558	1788		
Sand & Shale			1788	1836		
Lower Maxton			1836	1863		
Shale			1863	1899		
Little Lime			1899	2000		
Big Lime			2000	2320		
Sand & Shale			2320	2390		
Weir Sand			2390	2573		
Shale			2573	2755		T.D.

Date August 4, 19 77

APPROVED Texas International Owner
 By James M. Blanton (L)
 Division Manager
 (Title)



RECEIVED

MAR 1 1977

OIL & GAS DIVISION
DEPT. OF MINES

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE October 26, 1976

Surface Owner Rowland Land Company
Address Charleston, West Virginia
Mineral Owner Same as above
Address Same as above.
Coal Owner Same as above.
Address Same as above.
Coal Operator Armco Steel
Address Montcoal, West Virginia

Company Texas International Petroleum
Address Charleston, West Virginia
Farm Rowland Land Co. Acres 3,000
Location (waters) Marsh Fork of Coal River
Well No. A-5 Elevation 938-937.63'
District Marsh Fork County Raleigh
Quadrangle Whitesville 7.5

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22,
of the W. Va. Code, the location is hereby approved
for drilling. This permit shall expire if
operations have not commenced by 7-1-77.

INSPECTOR
TO BE NOTIFIED Paul Thomas
ADDRESS Summersville, W. Va.
PHONE 872-3070

[Signature]
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated February 5 1942 by Rowland Land Co. made to Columbia Carbon Company and recorded on the 5th day of Feb. 1942, in Raleigh County, Book 11 Page 252

NEW WELL DRILL DEEPER REDRILL FRACTURE OR STIMULATE
OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Address
of
Well Operator

Very truly yours, [Signature]
Texas International Petroleum
(Sign Name) _____
Well Operator
706 Commerce Square
Street
Charleston
City or Town
West Virginia 25301
State

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

RAL-379 PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

47-081

Signed by [Signature]

BLANKET BOND

**THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION**

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Unknown _____ NAME James M. Blanton _____
 ADDRESS _____ ADDRESS 706 Comm. Sq., Charleston, WV _____
 TELEPHONE _____ TELEPHONE (304) 343-4609 _____
 ESTIMATED DEPTH OF COMPLETED WELL: 2700 _____ ROTARY X _____ CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Weir Sand _____
 TYPE OF WELL: OIL _____ GAS X _____ COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10	20'	20'	
9 - 5/8			
8 - 5/8	350'	350'	Cement to surface.
7			
5 1/2			
4 1/2		2700'	Cement with 100 sks.
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 20 FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS 300 _____
 IS COAL BEING MINED IN THE AREA? Yes _____ BY WHOM? Armco Steel. _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for Armco Steel _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the Armco Steel _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

Clayton L. Conroy

 For Coal Company

Official Title