

New Location . X  
 Drill Deeper .....  
 Redrill .....  
 Abandonment ..... X  
 9/2/76

"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 1 of the rule and regulations of the oil and gas section of the mining laws of West Virginia."

Company WEIRTON STL. DIV.-NATL. STL. CORP.  
 Address WEIRTON, W. VA. 26062  
 Form G.O. - R & D Natl. Stl. Corp.  
 Tract Acres 374.84 Lease No.  
 Well (Farm) No. GO-R&D-1 Serial No.  
 Elevation (Spirit Level) 1145.0  
 Quadrangle W.VA.-OHIO-PA. STEUBENVILLE EC/NE  
 County BROOKE District CROSS CRK.  
 Engineer JJ Wargacki  
 Engineer's Registration No. 2246

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
 WELL LOCATION MAP  
 FILE NO. Bro-77-P

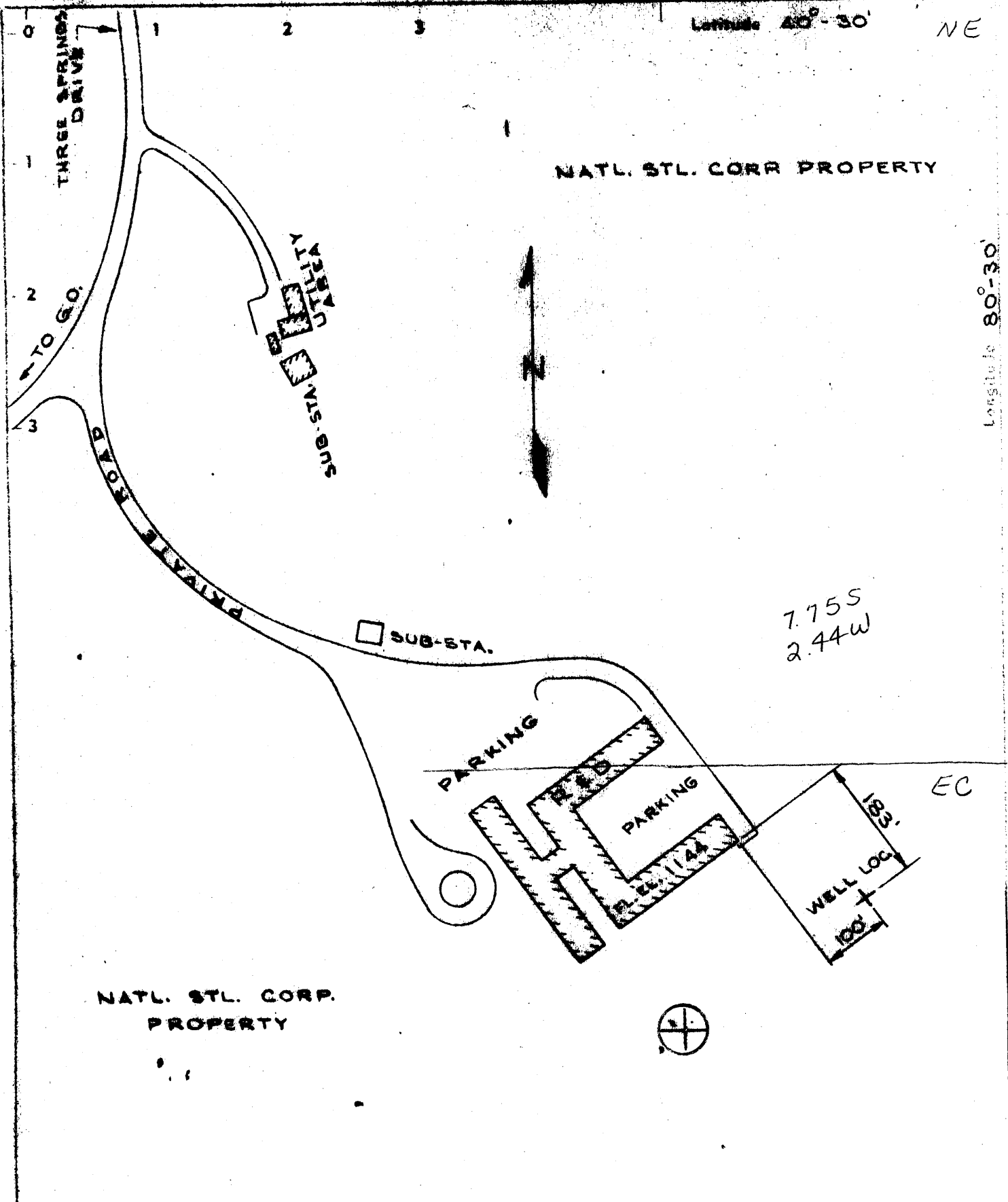
Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown

Denotes one inch spaces on border line of original tracing

47-009

File No. Drawing No.  
 Date 8-4-75 Scale 1"=200'

2100 Guder Sand



7.75S  
2.44W

EC

- New Location
- Drill Deeper
- Redrill
- Abandonment

"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."

Company **WEIRTON STEEL DIV - NATL. STL. CORR.**  
 Address **WEIRTON, W. VA. 26062**  
 Firm **G.O. - R & D Natl. Stl. Corp.**  
 Tract **Acres 374.84 Lease No.**  
 Well (Form) No. **GO-R&D-1** Serial No.  
 Elevation (Spirit Level) **1145.0**  
 Quadrangle **W. VA. - OHIO - PA. STEUBENVILLE (EC) NE**  
 County **BROOKE** District **CROSS CRK.**  
 Engineer **JJ Wargacki**  
 Engineer's Registration No. **2246**  
 File No. **8-4-75** Drawing No.  
 Date **8-4-75** Scale **1"=200'**

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

**WELL LOCATION MAP**  
 FILE NO **Bro-77**

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.

**47-009**



**RECEIVED**

SEP 2 1976

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

OIL & GAS DIVISION  
DEPT. OF MINES

**Oil and Gas Division**

**WELL RECORD**

Quadrangle Steubenville

Permit No. BRO 77

Rotary  Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas \_\_\_\_\_  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal Dry \_\_\_\_\_  
(Kind)

Company Weirton Steel Div. Nat St. Corp.  
Address Weirton, W. Va. 26062  
Farm Nat. St. Corp. R & D Acres 374.84  
Location (waters) Harmon Creek  
Well No. 1 Elev. 1155 EKB  
District Cross Creek County Brooke  
The surface of tract is owned in fee by \_\_\_\_\_  
Company  
Address \_\_\_\_\_  
Mineral rights are owned by Company  
Address \_\_\_\_\_  
Drilling Commenced 9-8-75  
Drilling Completed 9-22-75  
Initial open flow \_\_\_\_\_ cu. ft. \_\_\_\_\_ bbls.  
Final production 8M cu. ft. per day \_\_\_\_\_ bbls.  
Well open \_\_\_\_\_ hrs. before test 29.5# RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 10-10"	30'	30'	15 sks
9 5/8			
8 5/8			
7	168'	168'	66 sks
5 1/2			
4 1/2		1750'	260 sks.
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Well fractured in Berea, Weir, Big Injun, Blue Monday, Maxton, Salt Sand

Coal was encountered at 267-280, 558-562, 729-735, 802-803 Feet

Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand \_\_\_\_\_ Depth \_\_\_\_\_

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Fill			0	25		
Shale & sand			25	60		
Coal blossom ?			-	-		
Sand & shale			60	264		
Coal			264	267		
Shale			267	280		
Sand			280	348		
Sandy shale			348	402		
Sand			402	440		
Shale & sand			440	504		
Sand			504	520		
Shale & sand			520	558		
Coal			558	562		
Sandy shale			562	604		
Sand			604	686		
Sandy shale			686	729		
Coal			729	735		
Sandy shale			735	802		
Coal			802	803		
Shale			803	823		
Shaley sand			823	892		

(over)

\* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet /	Bottom Feet	Oil, Gas or Water	* Remarks
Sand			892	900		
Shale			900	908		
Sand			908	938		
Shale & Sand			938	1012		
Sand			1012	1022		
Lime			1022	1053		
Sand			1053	1242		
Sandy Shale			1242	1350		
Shale			1350	1361		
Shaley Sand			1361	1372		
Sandy Shale			1372	1512		
Shaley Sand			1512	1542		
Sandy Shale			1542	1592		
Berea			1592	1618	Gas smell	1594-1600
Sandy Shale			1618	1646		
Shaley Sand			1646	1664		
Sandy Shale			1664	1936		
<u>Gordon</u>			1936	--		
Total Depth			--	1949		

Date September 1 19 76

APPROVED Weirton Steel Owner

By \_\_\_\_\_ (Title)



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

AUG 26 1975

OIL & GAS DIVISION  
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,

Charleston, W. Va.

Weirton Steel Division

Surface Owner National Steel Corporation

Address P.O. Box 431, Weirton, W.Va. 26062

Mineral Owner Weirton Steel Division

Address P.O. Box 431, Weirton, W.Va. 26062

Coal Owner Not Applicable

Address Not Applicable

Coal Operator Not Applicable

Address Not Applicable

DATE August 19, 1975

Weirton Steel Division

Company National Steel Corporation

Address P.O. Box 431, Weirton, W.Va. 26062

Farm National Steel Corp. Acres 374.84

Location (waters) Ohio River

Well No. G.O.-R&D-1 Elevation 1145.0

District Cross Creek County Brooke

Quadrangle W.Va.-Ohio-Pa.; Steubenville

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 12-31-75

Robert L. Fonda  
Deputy Director - Oil & Gas Division

INSPECTOR TO BE NOTIFIED Ronald Courner  
PH: 438-8172 ADDRESS Mineral Wells  
W.Va.

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 \_\_\_\_\_ 19\_\_\_\_ by \_\_\_\_\_ made to \_\_\_\_\_ and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, in \_\_\_\_\_ County, Book \_\_\_\_\_ Page \_\_\_\_\_

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, W. Va. 26505  
AC 304-296-4461

Very truly yours,

(Sign Name) J. W. ...  
Well Operator

Address of Well Operator

P.O. Box 431  
Street  
Weirton  
City or Town  
West Virginia 26062  
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.

BLANKET BOND

Bro-77 PERMIT NUMBER  
47-009  
J. W. ...

**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 Paramount Exploration, Inc. NAME \_\_\_\_\_  
 ADDRESS Box 330; Waynesburg, Pa. 15370 ADDRESS \_\_\_\_\_  
 TELEPHONE 412 - 627-6144 TELEPHONE \_\_\_\_\_  
 ESTIMATED DEPTH OF COMPLETED WELL: 2100 Ft. ROTARY X CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Gordon 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			
9 - 5/8			
8 - 5/8			
7	250 Ft.	250 Ft.	Circulate
5 1/2			
4 1/2	2100 Ft.	2100 Ft.	Circulate
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 150 FEET \_\_\_\_\_ SALT WATER \_\_\_\_\_ FEET \_\_\_\_\_  
 APPROXIMATE COAL DEPTHS Not Applicable  
 IS COAL BEING MINED IN THE AREA? No BY WHOM? \_\_\_\_\_

**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 \_\_\_\_\_ 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 \_\_\_\_\_ 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.

\_\_\_\_\_  
For Coal Company

\_\_\_\_\_  
Official Title