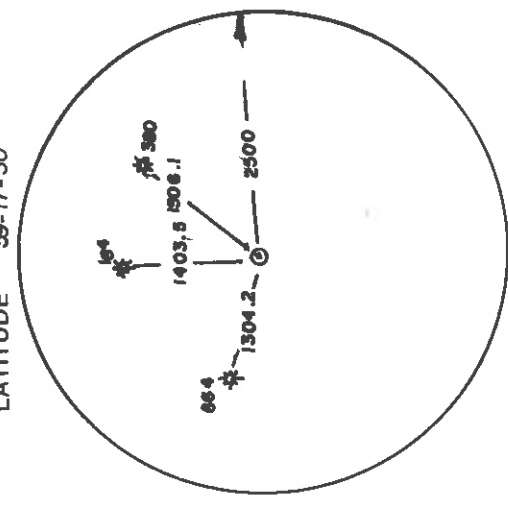


# HILL # 2

LATITUDE 39-17-30"

115'

LONGITUDE 80°46'-00"



0.225  
0.1670

BAKER  
128 AC

HEFLIN  
49 AC

- (A) N 76-29-20E 98.80'
- (B) S 34-45-10E 278.56'
- (C) N 51-04-50W 327.57'

NORTH

SPURGEON  
136 AC

(A) 14" LOCUST (SMA8)  
S 84 E 1079.10  
POST

STO. S35E 273.90

W.O.

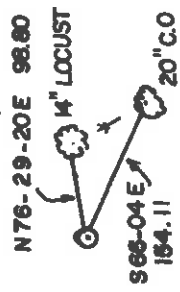
S 54-30E  
1482'

FARR  
44 AC

"E" PROPERTIES, LTD

PIERCE  
1498 AC

REFERENCES



3.10  
1-67

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

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION B.M. = 866 AT INTERS.  
 OF ROADS \_\_\_\_\_

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) *Robert H. Spaw*  
 R.P.E. \_\_\_\_\_ L.I.S. 800

PLACE SEAL HERE

## STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY OIL AND GAS DIVISION



DATE OCTOBER 19 94  
 OPERATOR'S WELL NO. 2 (TWO)  
 API WELL NO. \_\_\_\_\_

47-017 4165  
 STATE COUNTY PERMIT

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW   
 LOCATION: ELEVATION 1176 WATER SHED MIDDLE ISLAND CREEK  
 DISTRICT WEST UNION COUNTY DODDRIDGE  
 QUADRANGLE WEST UNION WVA SW  
 SURFACE OWNER "E" PROPERTIES LTD. ACREAGE 188  
 OIL & GAS ROYALTY OWNER CHELVYFRONT HEIRS LEASE ACREAGE 194

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 5500  
 WELL OPERATOR RARE EARTH MINERALS, INC DESIGNATED AGENT SAM SPATAFORE  
 ADDRESS P.O. BOX 390, CLARKSBURG WV 740 ADDRESS P.O. BOX 390 CLARKSBURG WV

COUNTY NAME

PERMIT

**RECEIVED**  
WV Division of Environmental Protection  
Environmental Protection

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

**DEC 27 1994** Well Operator's Report of Well Work

Farm name: **Permitting PROPERTIES, LTD.** Operator Well No.: **HILL #2**  
**Office of Oil & Gas**

LOCATION: Elevation: **1,176.00** Quadrangle: **WEST UNION** County: **DODDRIDGE**  
District: **WEST UNION** Feet South of 39 Deg. 17Min. 30 Sec.  
Latitude: **1150** Feet West of 80 Deg. 45 Min. 0 Sec.  
Longitude: **8800** Feet West of 80 Deg. 45 Min. 0 Sec.

Company: **RARE EARTH Minerals, Inc.**

P. O. BOX 390  
CLARKSBURG, WV 26301-0000

Agent: **SAMUEL S. SPATAFORE**

Inspector: **MIKE UNDERWOOD**  
Permit Issued: **10/21/94**  
Well work Commenced: **10/31/94**  
Well work Completed: **11/04/94**  
Verbal Plugging  
Permission granted on: **N/A**  
Rotary  Cable **Rig**  
Total Depth (feet) **5475'**  
Fresh water depths (ft) **None**

Salt water depths (ft) **None**

Is coal being mined in area (Y/N)? **N**  
Coal Depths (ft): **None**

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8	1151'	1151'	CTS 310ft <sup>3</sup>
4 1/2	None	5476'	2000 515ft <sup>3</sup>

**OPEN FLOW DATA**

Producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ 750 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure **1650** psig (surface pressure) after \_\_\_\_\_ Hours

Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: **RARE EARTH MINERALS, INC.**

By: \_\_\_\_\_  
Date: **DECEMBER 15, 1994**

Completion Information

1st Stage Perfs - 5324-5387 - 13 Holes - Fracture with 515 BBLS Gel Fluid and 30,000# sand @ 25 BPM  
 2nd Stage Perfs - 4235-5067 - 8 Holes - Fracture with 394 BBLS Gel Fluid and 20,000# sand @ 15 BPM  
 3rd Stage Perfs - 3431-3480 - 12 Holes - Fracture with 500 BBLS Gel Fluid and 25,000# sand @ 25 BPM

Formation	Top/Bottom	Comments
Fill	0/18	
Red Rock & Shale	18/35	
Sand	35/79	
Shale & Red Rock	79/100	Gas Check @ 3491 4/10 - 1" w/w
Sand	100/105	Gas Check @ 3742 4/10 - 1" w/w
Red Rock & Shale	105/123	Gas Check @ 4334 4/10 - 1" w/w
Sand	123/131	Gas Check @ 4766 4/10 - 1" w/w
Sand & Shale	131/262	Gas Check @ 5170 4/10 - 1" w/w
Shale	262/378	Gas Check @ 5475 4/10 - 1" w/w
Red Rock & Shale	378/845	
Sand & Shale	845/1956	
Sand	1956/2000	
Shale	2000/2020	
Little Lime	2020/2045	
B. Monday	2045/2055	
Big Lime	2055/2196	
Sand & Shale	2196/2239	
Injun	2239/2252	
Sand & Shale	2252/2300	
Shale	2300/2460	
Sand & Shale	2460/2900	
Shale	2900/3120	
Sand	3120/3360	
Shale	3360/3420	
Sand & Shale	3420/3628	
Shale	3628/4070	
Sand	4070/4275	
Shale	4275/5092	
Benson	5092/5112	
Shale	5112/5168	
Sand & Shale	5168/5475	
TD	5475	

Warren, Spechley	3420-3588	2nd Riley	4980-5010
Bradford	4590-4664	Benson	5060-5090
1st Riley	4886-4924	Alexander	5320-5394

OCT 20 1994

FORM WW-2B

017-4165 Issued 10/21/94  
Expires 10/21/96  
Page 3 of 7

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

5697

8

671

1) Well Operator: Rare Earth Minerals, Inc. 40900 3) Elevation: 1176'

2) Operator's Well Number: Hill #2

4) Well type: (a) Oil  / or Gas  /

(b) If Gas: Production  / Underground Storage   
Deep  / Shallow

1916

) Proposed Target Formation(s): Alexander 429

) Proposed Total Depth: 5500 feet

) Approximate fresh water strata depths: 90 - 135

o) Approximate salt water depths: 1825

9) Approximate coal seam depths: 0

10) Does land contain coal seams tributary to active mine? Yes  / No

11) Proposed Well Work: Drill and 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"		47lb.	30'		
Fresh Water						
Coal						
Intermediate	8 5/8"		20lb.	1150'	1150'	CTS 15% Excess
Production	4 1/2"		10 1/2 lb.		5450'	CTS 15% Excess
Tubing						
Liners						

PACKERS : Kind

Sizes

Depths set

10/23/94

For Division of Oil and Gas Use Only  
 Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond  Agent  
 (Type)

**RECEIVED**  
WV Division of  
Environmental Protection

1) Date: October 14, 1994  
2) Operator's well number  
Hill #2  
3) API Well No: 47 - 017 - A165  
State - County - Permit

Permitting  
Office of Oil & ~~Gas~~ STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- |  |  |
|--|--|
| (a) Name "E" Properties, LTD.<br>Address c/o David E. Bowyer<br>P.O. Box 202 | 5) (a) Coal Operator:<br>Name NONE<br>Address _____              |
| (b) Name West Union, WV 26456<br>Address (304)782-2400                       | (b) Coal Owner(s) with Declaration<br>Name NONE<br>Address _____ |
| (c) Name _____<br>Address _____  | Name NONE<br>Address _____                                       |
- 6) Inspector Mike Underwood  
Address Rt. 2 Box 135  
Salem, WV 26426  
Telephone (304) - 782-1043
- |  |
|--|
| (c) Coal Lessee with Declaration<br>Name NONE<br>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 7 on the above named parties, by:

- X Personal Service (Affidavit attached)
- \_\_\_\_\_ 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 Sam S. Spatafore II  
By: \_\_\_\_\_  
Its: Designated Agent  
Address P.O. Box 390  
Clarksburg, WV 26302-0390  
Telephone (304) 622-4001

Subscribed and sworn before me this 14th day of October, 19 94

My commission expires September 28, 2001

Notary Public  
GREGG SEAL NOTARY PUBLIC  
STATE OF WEST VIRGINIA  
ROBERT GARY HALL  
ROUTE 1, BOX 20  
WALKERSVILLE, WV 26447  
My Commission Expires Sept. 28, 2001