



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1"=1000'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION HILLTOP ELEV. 1043 SW OF PROPOSED LOCATION

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) Donnis L. Fisher  
 R.P.E. \_\_\_\_\_ L.L.S. 670

PLACE SEAL HERE

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



DATE APRIL 5, 19 82  
 OPERATOR'S WELL NO. KEM 212  
 API WELL NO. \_\_\_\_\_  
47 - 035 - 1685  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP X SHALLOW \_\_\_  
 LOCATION: ELEVATION 867 WATER SHED MILL CREEK  
 DISTRICT RIPLEY COUNTY JACKSON  
 QUADRANGLE RIPLEY (75') RIPLEY (15') SW  
 SURFACE OWNER MILDRED E. HALL ACREAGE 145.6  
 OIL & GAS ROYALTY OWNER MILDRED E. HALL, ETAL LEASE ACREAGE 150  
 LEASE NO. \_\_\_\_\_  
 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 ORISKANY ESTIMATED DEPTH 5172'  
 WELL OPERATOR KAISER EXPLORATION & MINING CO. DESIGNATED AGENT KAISER EXPLORATION AND MINING COMPANY  
 ADDRESS PO BOX 8, RAVENSWOOD, WEST VIRGINIA 26168 ADDRESS PO BOX 8, RAVENSWOOD, WEST VIRGINIA 26168  
DEEP WELL 6-6 Elk-Poca (Sissonville) 197

APR 26 1982



IV-35  
(Rev 8-81)

NOV 1 1982  
OIL & GAS DIVISION  
DEPT. OF MINES

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date October 21, 1982  
Operator's Well No. KEM - 212  
Farm Mildred Hall  
API No. 47 - 035 - 1685

WELL OPERATOR'S REPORT  
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 867' Watershed Mill Creek  
District: Ripley County Jackson Quadrangle Ripley

COMPANY Kaiser Exploration & Mining Co.

ADDRESS P. O. Box 8, Ravenswood, 26164

DESIGNATED AGENT R. A. Pryce

ADDRESS P. O. Box 8, Ravenswood, 26164

SURFACE OWNER Mildred E. Hall, et al

ADDRESS Rt. 6, Box 22, Ripley, 25271

MINERAL RIGHTS OWNER Same

ADDRESS \_\_\_\_\_

OIL AND GAS INSPECTOR FOR THIS WORK Richard

Morris ADDRESS Box 372, Grantsville

PERMIT ISSUED 4/20/82

DRILLING COMMENCED 5/20/82

DRILLING COMPLETED 5/27/82

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

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"		248'	180 sx
9 5/8			
8 5/8			
7		2390'	165 sx
5 1/2			
4 1/2		5160'	225 sx
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Oriskany Ss Depth 5039 feet

Depth of completed well 5202 feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh \_\_\_\_\_ feet; Salt \_\_\_\_\_ feet

Coal seam depths: \_\_\_\_\_ Is coal being mined in the area? \_\_\_\_\_

OPEN FLOW DATA

Producing formation Oriskany Ss Pay zone depth 5090-5142 feet

Gas: Initial open flow 35 Mcf/d Oil: Initial open flow ---- Bbl/d

Final open flow 200 Mcf/d Final open flow ---- Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ hours

Static rock pressure 630 psig (surface measurement) after 36 hours shut in  
(If applicable due to multiple completion--)

PB TD 4450

Second producing formation Devonian Brown Shale Pay zone depth 4076-4316 feet

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

Final open flow 200 Mcf/d Oil: Final open flow -- Bbl/d

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

Static rock pressure 900 psig (surface measurement) after -- hours shut in

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

6/01/82 Oriskany Ss Perforation:  
5100-5112, 5148-5153  
54 holes, 0.5" in diameter

6/07/82 Oriskany Ss Frac:  
31,700 # of 20/40 sand  
Total of 585 bbl of water and  
140,000 SCF of N<sub>2</sub> used

10/06/82 Devonian Brown Shale Set permanent bridge plug at 4450' (KB); perforated  
4076-4315', shot selectively w/18 holes, 0.40" diameter

10/12/82 Devonian Brown Shale 60,000# of 204/0 sand; treatment rate was 10-13 BPM  
Treatment pressure: 2250-2600 psig; ISIP: 950 psig  
Total of 840,000 SCF of nitrogen

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale			0	70	
Sandstone			70	190	
Shale			190	260	
Sandstone and shale			260	1730	
Limestone			1730	2047	
Shale			2047	2505	
Coffee Shale			2505	2528	
Berea Ss			2528	2538	s/g at 2533
Shale			2538	3763	s/g at 3648
Brown shale			3763	4320	s/g at 4186
Shale			4320	4505	
Marcellus			4565	4984	
Onondaga Ls			4984	5033	
Oriskany Ss			5033	5130	
Helderberg			5130	5205	T.D.

4076  
2538  
-----  
1538

(Attach separate sheets as necessary)

KAISER EXPLORATION AND MINING COMPANY  
Well Operator

By: K.A.P.

Date: October 21, 1982

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."



Date: April 7, 19 82

Operator's Well No. KEM #212

API Well No. 47 035 1685

State County Permit

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

WELL TYPE: Oil      / Gas X /  
(If "Gas", Production X / Underground storage      / Deep X / Shallow      /)

LOCATION: Elevation: 867 Watershed: Mill Creek  
District: Ripley County: Jackson Quadrangle: Ripley

WELL OPERATOR Kaiser Exploration and Mining Co. DESIGNATED AGENT R. A. Pryce  
Address P. O. Box 8 Address Same  
Ravenswood, WV 26164

OIL & GAS ROYALTY OWNER Mildred F. Hall, et al  
Address Rt. 6, Box 22  
Ripley, WV 25271  
Acreage 150

COAL OPERATOR None  
Address     

SURFACE OWNER Same  
Address       
Acreage     

COAL OWNER(S) WITH DECLARATION ON RECORD:  
Name Same  
Address       
Name      APR 12 1982  
Address      OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

FIELD SALE (IF MADE) TO:  
Address     

COAL LESSEE WITH DECLARATION ON RECORD:  
Name       
Address     

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Richard Morris  
Address P. O. Box 372  
Grantsville, WV

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed      / lease X  
other contract      / dated June 19, 19 80, to the undersigned well operator from James W. & Mildred Hall  
(If said deed, lease, or other contract has been recorded:)

Recorded on December 9, 19 80, in the office of the Clerk of the County Commission of Jackson County, West Va., in Lease Book 158 at page 307. A permit is requested as follows:

PROPOSED WORK: Drill      / Drill deeper      / Redrill      / Fracture or stimulate      /  
Plug off old formation      / Perforate new formation      /  
Other physical change in well (specify)       
      
    —planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
1615 WASHINGTON STREET EAST CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

Kaiser Exploration and Mining Company  
Well Operator  
By       
Its General Manager

BLANKET BOND

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Clint Hurt & Associates, Inc.

Address P. O. ox 388

Elkview, WV 25071

GEOLOGICAL TARGET FORMATION, Oriskany

Estimated depth of completed well, 5172 feet Rotary        / Cable tools        /

Approximate water strata depths: Fresh,        feet; salt,        feet.

Approximate coal seam depths:        Is coal being mined in the area? Yes        / No        /

CASING AND TUBING PROGRAM

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		
Conductor									Kinds
Fresh Water	10 3/4					250	250	150 sks class A	(to surface)
Coal									Sizes
Intermediate	7"					2437	2437	65 sks 50/50 pozmix	
Production	4 1/2"					5172	5172	100 sks class A	Depths set pozmix
Tubing									
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form Iv-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE.

ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,

ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY

APPROVED FOR drilling THIS PERMIT SHALL EXPIRE

IF OPERATIONS HAVE NOT COMMENCED BY 12-20-82

BY [Signature]

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

WAIVER

The undersigned coal operator        / owner        / lessee        / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date:       , 19       

By       

Its

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS WELLS DIVISION  
PARTIAL

NOV 1982

OIL & GAS WELLS  
DIVISION

**AFFIDAVIT OF PLUGGING AND FILLING WELL**

AFFIDAVIT SHOULD BE MADE IN TRIPPLICATE. ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

None COAL OPERATOR OR OWNER	Kaiser Exploration and Mining Company
-- ADDRESS	P. O. Box 8, Ravenswood, WV 26164
None COAL OPERATOR OR OWNER	October 26 19 82
-- ADDRESS	Ripley District
Mildred E. Hall, et al LEASE OR PROPERTY OWNER	Jackson County
Rt. 6, Box 22, Ripley, WV 25271 ADDRESS	Well No. KEM #212
	Mildred E. Hall Farm

STATE INSPECTOR SUPERVISING PLUGGING \_\_\_\_\_

**AFFIDAVIT**

STATE OF WEST VIRGINIA,

County of Jackson } ss:

R. L. Coty and R. A. Pryce

being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by KEMGAS, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 6 day of October, 19 82, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD FORMATION	FILLING MATERIAL	PLUGS USED SIZE & KIND	CASING	
			CSG PULLED	CSG LEFT IN
Oriskany Perf. 5100'-5153' (KB)	Permanent bridge plug set @ 4450' (KB)	4 1/2" Gearhart (3.71" O.D.)	Owen	None pulled
	<u>Plug back to Brown Shale Interval</u>			
COAL SEAMS			DESCRIPTION OF MONUMENT	
(NAME)				
(NAME)				
(NAME)				
(NAME)				

and that the work of plugging and filling said well was completed on the 6th day of October, 19 82.

And further deponents saith not.

Sworn to and subscribed before me this 27 day of October, 19 82

*R. A. Pryce*  
R. L. Coty  
*Richard Allen Hallbert*

My commission expires:  
December 1, 1985

Notary Public.  
Permit No. JAC-1685  
035-

Jack 1685