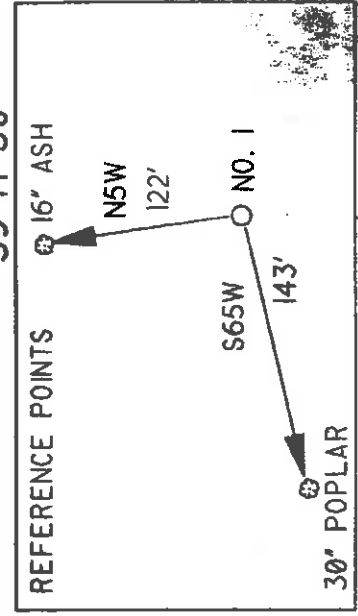


375'

LATITUDE 39°17'30"

LONGITUDE 80°52'30"



B. WARDEN 35AC.

D. HART 30 AC.

D. HART 62 AC.

E. SHEETS 13 AC.

E. SHEETS 24 AC.

E. SHEETS 193 AC.

ROUTE 50/30

FORK OF DOTSON RUN

DOTSON RUN

N3W 478.5'

N10E 145.2'

N52-30E 415.1'

N10E 145.2'

STONE

N52-30E 415.1'

N79-30E 115.5'

S85-30E 278.9'

N66-30E 299.8'

N58-45E 239.3'

N12-30W 437.3'

N170.1°E 229.6'

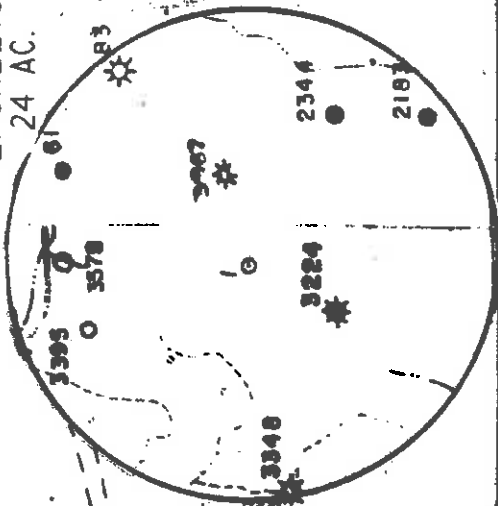
S79°42'E 1003.8'

24° W. OAK

1234.2'

NO. 1

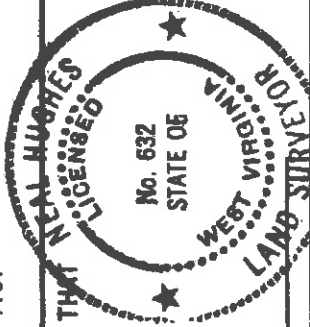
508  
2.2-7



NORTH

I THE UNDERSIGNED, DO HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND BY THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY

L.L.S. Neal Hughes  
632



(\*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

DATE DECEMBER 13, 19 95  
OPERATORS WELL NO. HART 1

API WELL NO. 47 - 017 - 04241  
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION

MINIMUM DEGREE OF ACCURACY 1/200  
FILE NO. 95-718  
SCALE 1" = 400'  
PROVEN SOURCE OF ELEVATION KNOB 1332'

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  \*GAS\* PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,135' WATERSHED DOTSON RUN

DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE PENNSBORO

SURFACE OWNER DENSEL HART ACRES 62-2/3

ROYALTY OWNER DENSEL HART, ET AL LEASE ACRES 62-2/3

PROPOSED WORK:  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5400'

COUNTY NAME PERMIT

WELL OPERATOR KEY OIL CO.  
DESIGNATED AGENT JAN CHAPMAN  
ADDRESS 22 GARTON PLAZA  
WESTON, WV 26452

6-6-89

MAR 11 1996

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

API # 47- 17-04241  
 16-Jan-96

Permitting  
 Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: HART, DENZEL L.

Operator Well No.: Hart #1

LOCATION: Elevation: 1,332.00 Quadrangle: PENNSBORO

District: CENTRAL County: DODDRIDGE  
 Latitude: 11550 Feet South of 39 Deg. 17Min. 30 Sec.  
 Longitude 375 Feet West of 80 Deg. 52 Min. 30 Sec.

Company: KEY OIL COMPANY  
 22 GARTON PLAZA  
 WESTON, WV 26452-0000

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD  
 Permit Issued: 01/16/96  
 Well work Commenced: 2-5-96  
 Well work Completed: 2-11-96  
 Verbal Plugging \_\_\_\_\_  
 Permission granted on: \_\_\_\_\_ Rig \_\_\_\_\_  
 Rotary X Cable \_\_\_\_\_  
 Total Depth (feet) 5550'  
 Fresh water depths (ft) 81'

Salt water depths (ft) 906'

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

OPEN FLOW DATA

BALLTOWN  
 RILEY  
 THIRD RILEY  
 BENSON

Producing formation ALEXANDER  
 Gas: Initial open flow 21 MCF/d Oil: Initial open flow 0 Bbl/d  
 Final open flow 1,417 MCF/d Final open flow SHOW Bbl/d  
 Time of open flow between initial and final tests N/A Hours  
 Static rock Pressure 1750 psig (surface pressure) after 96 Hours

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	130	130	170 SKS. TO SURFACE
8 5/8	2129	2129	560 SKS. TO SURFACE
4 1/2		5410	350 SKS.
1.5		5311	

3974-4580  
 4614-4684  
 4961-5000  
 5039-5050

Pay zone depth (ft) 5289-5369  
 Initial open flow 0 Bbl/d  
 Final open flow SHOW Bbl/d  
 Time of open flow between initial and final tests N/A Hours  
 Static rock Pressure 1750 psig (surface pressure) after 96 Hours

Second producing formation \_\_\_\_\_  
 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: KEY OIL COMPANY

BY: *Jan Chapman*

PRESIDENT

Date: MARCH 6, 1996

MAR 11 1996

Hart #1 (47-017-4241)  
Four Stage Foam Frac - Halliburton

1st Stage: Alexander (11 holes) 60 Quality Foam, 500 gal. 15% HCl, 60,000 lbs. 20-40 sand, 490,000 SCF N<sub>2</sub>, 811 bbls. foamed water.

2nd Stage: Benson (7 holes) 60 Quality Foam, 750 gal. 15% HCl, (5042.50' - 5044') 35,000 lbs. 20-40 sand, Third Riley (3 holes) 501,000 SCF N<sub>2</sub>, (4976' - 4976.50') 568 bbls. foamed water.

3rd Stage: Riley (6 holes) 60 Quality Foam, 750 gal. 15% HCl, (4639.25' - 4652.50') 10,000 lbs. 80-100 sand, 30,000 lbs. Lower Balltown (9 holes) 20-40 sand, 508,000 SCF N<sub>2</sub>, (4547' - 4570.25') 611 bbls. foamed water.

4th Stage: Balltown (14 holes) 60 Quality Foam, 750 gal. 15% HCl, (3994.75' - 4212') 10,000 lbs. 80-100 sand, 45,000 lbs. 20-40 sand, 593,000 SCF N<sub>2</sub>, 795 bbls. foamed water.

Well Log

Formation	Top Feet	Bottom Feet	Remarks
Fill & Clay	0	15	Hole damp at 81'
Shale & Red Rock	15	870	Hole damp at 906'
Sand	870	892	
Sand & Shale	892	2065	
Little Lime	2065	2106	
Pencil Cave	2106	2116	
Big Lime	2116	2204	Gas Checks:
Big Injun	2204	2250	N/S
Shale	2250	2403	N/S
Weir	2403	2452	N/S
Sand & Shale	2452	3493	N/S
Warren/Speechley	3493	3674	N/S
Sand & Shale	3674	3974	N/S
Balltown	3974	4580	N/S
Sand & Shale	4580	4614	5209
Riley	4614	4684	2/10 thru 1" w/water
Sand & Shale	4684	4961	T.D. 4/10 thru 1" w/water
Third Riley	4961	5000	
Sand & Shale	5000	5039	
Benson	5039	5050	
Sand & Shale	5050	5289	
Alexander	5289	5369	
Shale	5369	5550	
T.D.	5550		



**RECEIVED**  
WV Division of  
Environmental Protection

DEC 28 1995

1) Date: DECEMBER 27, 1995  
2) Operator's well number  
HART #1  
3) API well No: 47 - 017 - 06241  
State - County - Permit

Permitting  
**Office of Oil & Gas**  
STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:

(a) Name DENSEL L. HART  
Address RT. 1 BOX 1  
GREENWOOD, WV 26360

(b) Name \_\_\_\_\_  
Address \_\_\_\_\_

(c) Name \_\_\_\_\_  
Address \_\_\_\_\_

5) (a) Coal Operator:  
Name NONE  
Address \_\_\_\_\_

(b) Coal Owner(s) with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

Name \_\_\_\_\_  
Address \_\_\_\_\_

(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

6) Inspector MIKE UNDERWOOD  
Address RT. 2 BOX 135  
SALEM, WV 26426  
Telephone (304) - 782-1043

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

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 \_\_\_\_\_ on the above named parties, by:

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.



OFFICIAL SEAL NOTARY PUBLIC  
STATE OF WEST VIRGINIA  
KAREN COOK  
ROUTE 2, BOX 1  
JANE LEW, WV 25779

My Commission Expires Mar. 24, 2003  
I, Karen Cook Well Operator  
Its: President KEY OIL COMPANY  
Address 22 GARTON PLAZA  
WESTON, WV 26452  
Telephone 304-269-7102

subscribed and sworn before me this 27TH day of DECEMBER, 1995  
My commission expires MARCH 24, 2003 Notary Public