

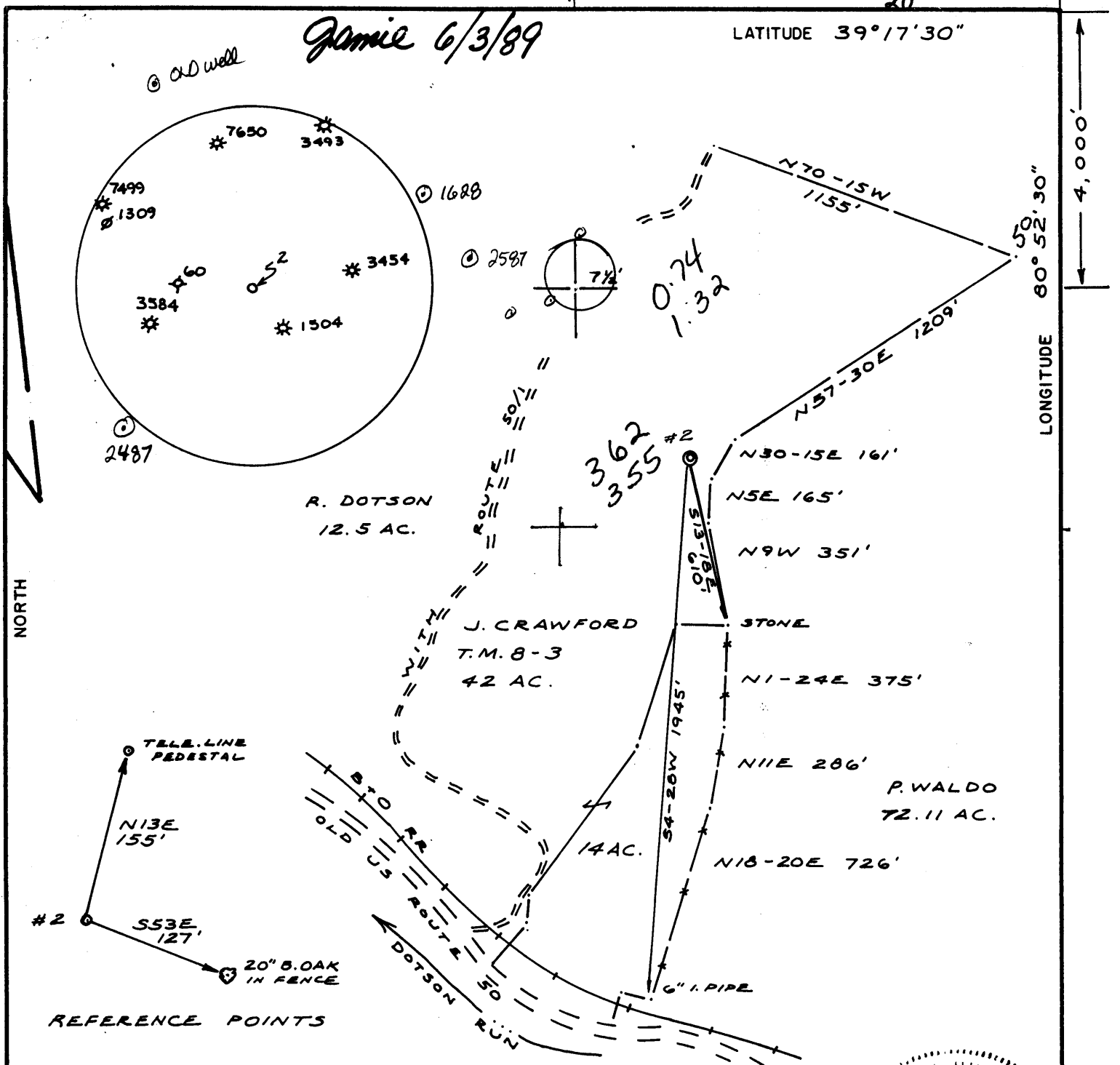
Janie 6/3/89

LATITUDE 39°17'30"

6,950' 20

LONGITUDE 80°52'30"

4,000'



FILE NO. 88-64

DRAWING NO. \_\_\_\_\_

SCALE 1" = 500'

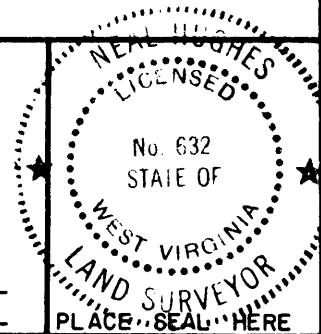
MINIMUM DEGREE OF ACCURACY 1/200

PROVEN SOURCE OF ELEVATION BM 854

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) Neal Hughes

R.P.E. \_\_\_\_\_ L.L.S. 632



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

FORM IV-6 (8-78)



Department of Mines Oil & Gas Division

DATE AUG 22, 19 88

OPERATOR'S WELL NO. 2 S. PRATT

API WELL NO. 47-017-3723

STATE COUNTY PERMIT

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_ (IF "GAS", PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW \_\_\_\_\_)

LOCATION: ELEVATION 1022' WATER SHED DOTSON RUN

DISTRICT CENTRAL 1 COUNTY DODDRIDGE

QUADRANGLE PENNSBORO 539 1338 West Union SC

SURFACE OWNER JOS. CRAWFORD ACREAGE 42

OIL & GAS ROYALTY OWNER L. HOGUE, J. PRATT, L. PRATT LEASE ACREAGE 42

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) \_\_\_\_\_

JUN 12 1989

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_ TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5400'

WELL OPERATOR KEY OIL, INC. DESIGNATED AGENT JAN CHAPMAN

ADDRESS 6 GARTON PLAZA WESTON, WV 26452 ADDRESS 6 GARTON PLAZA WESTON, WV 26452

WR-35  
**RECEIVED**  
 SEP 19 1989  
 DIVISION OF OIL & GAS  
 DEPT. OF ENERGY

08-Jun-89  
 API # 47-17-03723

State of West Virginia  
 DEPARTMENT OF ENERGY  
 Division of Oil and Gas

Well Operator's Report of Well Work

Farm Name: CRAWFORD, JOSEPH H. Operator Well No.: PRATT #2

LOCATION: Elevation: 1022.00 Quadrangle: PENNSBORO

District: CENTRAL County: DODDRIDGE  
 Latitude: 4000 Feet South of 39 Deg. 17Min. 30 Sec.  
 Longitude 6950 Feet West of 80 Deg. 52 Min. 30 Sec.

Company: Eastern American Energy Corp.  
 501 56th Street  
 Charleston, WV 25304

Agent: DONALD C. SUPCOE

Inspector: MIKE UNDERWOOD  
 Permit Issued: 06/08/89  
 Well work Commenced: 06/22/89  
 Well work Completed: 06/28/89  
 Verbal Plugging  
 Permission granted on: \_\_\_\_\_  
 Rotary X Cable \_\_\_\_\_ Rig  
 Total Depth (feet) 5450'  
 Fresh water depths (ft) 70', 420'

Salt water depths (ft) 1405'

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

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
11-3/4"	78'		
8-5/8"	1171'	1171'	C.T.S.
4-1/2"	5220'	5220'	580
1-1/2"	5098'	5098'	---

OPEN FLOW DATA

Warren (Commingle)

Producing formation Alexander, Benson, Riley, Pay zone depth (ft) 5134'-3305'  
 Gas: Initial open flow 335 MCF/d Oil: Initial open flow N/A Bbl/d  
 Final open flow 298 MCF/d Final open flow N/A Bbl/d  
 Time of open flow between initial and final tests 15 Hours  
 Static rock Pressure 1100 psig (surface pressure) after 24 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: Rich Heffelfinger  
 EASTERN AMERICAN ENERGY CORPORATION  
 Rich Heffelfinger  
 By: Vice President - Regional Operations  
 Date: September 5, 1989

SEP 25 1989

FORM WR-35  
(REVERSE)

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

4-STAGE FOAM FRAC

- Stage 1: Alexander - 12 holes (5134'-5125') Breakdown 1500 psi, 60 quality foam, 500 gals 15% HCl, 40,000 lbs. 20/40 sand, 30 lbs./1000 gals Gel, 433,500 scf of N<sub>2</sub>
- Stage 2: Benson - 8 holes (4892'-4840') Breakdown 3700 psi, 60 quality foam, 500 gals 15% HCl, 20,000 lbs. 20/40 sand, 30 lbs./1000 gals Gel, 397,700 scf of N<sub>2</sub>
- Stage 3: Riley - 12 holes (4472'-4453') Breakdown 2200 psi, 75 quality foam, 500 gals 28% HCl, 27,000 lbs. 20/40 sand, 30 lbs./1000 gals Gel, 622,394 scf of N<sub>2</sub>
- Stage 4: Warren - 13 holes (3352.5'-3305.5') Breakdown 3000 psi, 75 quality foam, 650 gals 28% HCl, 25,000 lbs. 20/40 sand, 30 lbs./1000 gals Gel, 562,050 scf of N<sub>2</sub>

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale			0	186	Water @ 70'
Red Rock & Shale			186	465	Water @ 420'
Sand & Shale			465	880	
Shale & Red Rock			880	1154	
Shale			1154	1368	
Sand & Shale			1368	1810	Water @ 1405'
Little Lime			1810	1828	
Shale			1828	1846	
Big Lime			1846	1916	
Big Injun			1916	2006	
Sand & Shale			2006	2202	
Weir			2202	2323	
Sand & Shale			2323	3302	
Warren			3302	3356	
Sand & Shale			3356	4447	
Riley			4447	4482	
Sand & Shale			4482	4836	
Benson			4836	4844	
Sand & Shale			4844	5100	
Alexander			5100	5163	Gas Check
Sand & Shale			5163	5450 T.D.	5400' - 2/10 thru 2" w/water

017-372

(Attach separate sheets as necessary)

017-3723

Issued 6/8/89 Expires

6/8/91

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

- 1) Well Operator: KEY OIL COMPANY *JAC. 25655, 1, 538*
- 2) Operator's Well Number: Pratt #2 3) Elevation: 1022'
- 4) Well type: (a) Oil X / or Gas X /  
(b) If Gas: Production X / Underground Storage    /  
Deep    / Shallow X /
- 5) Proposed Target Formation(s): Alexander *439*
- 6) Proposed Total Depth: 5500 feet
- 7) Approximate fresh water strata depths: 150 *0340'*
- 8) Approximate salt water depths: -0- *2083' 1454, 1718'*
- 9) Approximate coal seam depths: -0- *OK*
- 10) Does land contain coal seams tributary to active mine? Yes    / No X /
- 11) Proposed Well Work: Drill, Stimulate, Produce *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		42	42	-0-	<i>o.k. m.u.</i>
Fresh Water	8-5/8	ERW	23	1172	1172	<i>320 sacks to surface</i> <i>38CSR18-11.3</i>
Coal						
Intermediate	4-1/2	J-55	11.6	5500	5500	<i>280 sacks</i> <i>38CSR18-11.1</i>
Production						
Tubing						
Liners						

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MAY-23-1989

PACKERS : Kind  
Sizes  
Depths set

For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Fee(s) paid: *JH* Well Work Permit *JH* Reclamation Fund *JH* WSCP  
*JH* Plat *JH* WW-9 *JH* WW-28 *JH* Bond *JH* Agent  
*2055*  
*12*  
*ash consolidated*

**RECEIVED**  
MAY 23 1989

Page 1 of  
Form WW2-A  
(09/87)  
File Copy

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

1) Date: November 28, 1988  
2) Operator's well number  
Pratt #2  
3) API Well No: 47 - 017 - 3723  
State - County - Permit

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 Joseph H. Crawford  
Address Box 323  
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 Route 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  
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 \_\_\_\_\_ on the above named parties, by:  
\_\_\_\_\_ Personal Service (Affidavit attached)  
X \_\_\_\_\_ 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 KEY OIL, INC.  
By: Jan E. Chapman Jan E. Chapman  
Its: Vice President/Designated Agent  
Address 6 Garton Plaza  
Weston, WV 26452  
Telephone 304-269-7102

Subscribed and sworn before me this 28th day of November, 1988

Alicia S. Swisher Notary Public  
My commission expires October 19, 1998