

Latitude

31.52.30

+ 1.115
1.55

Longitude

82 17 30

Topo Location

7.5' Loc. 1.115 15' Loc. _____
1.550 (calc.) _____

Company Phoenix Land

Farm EKE / Phoenix

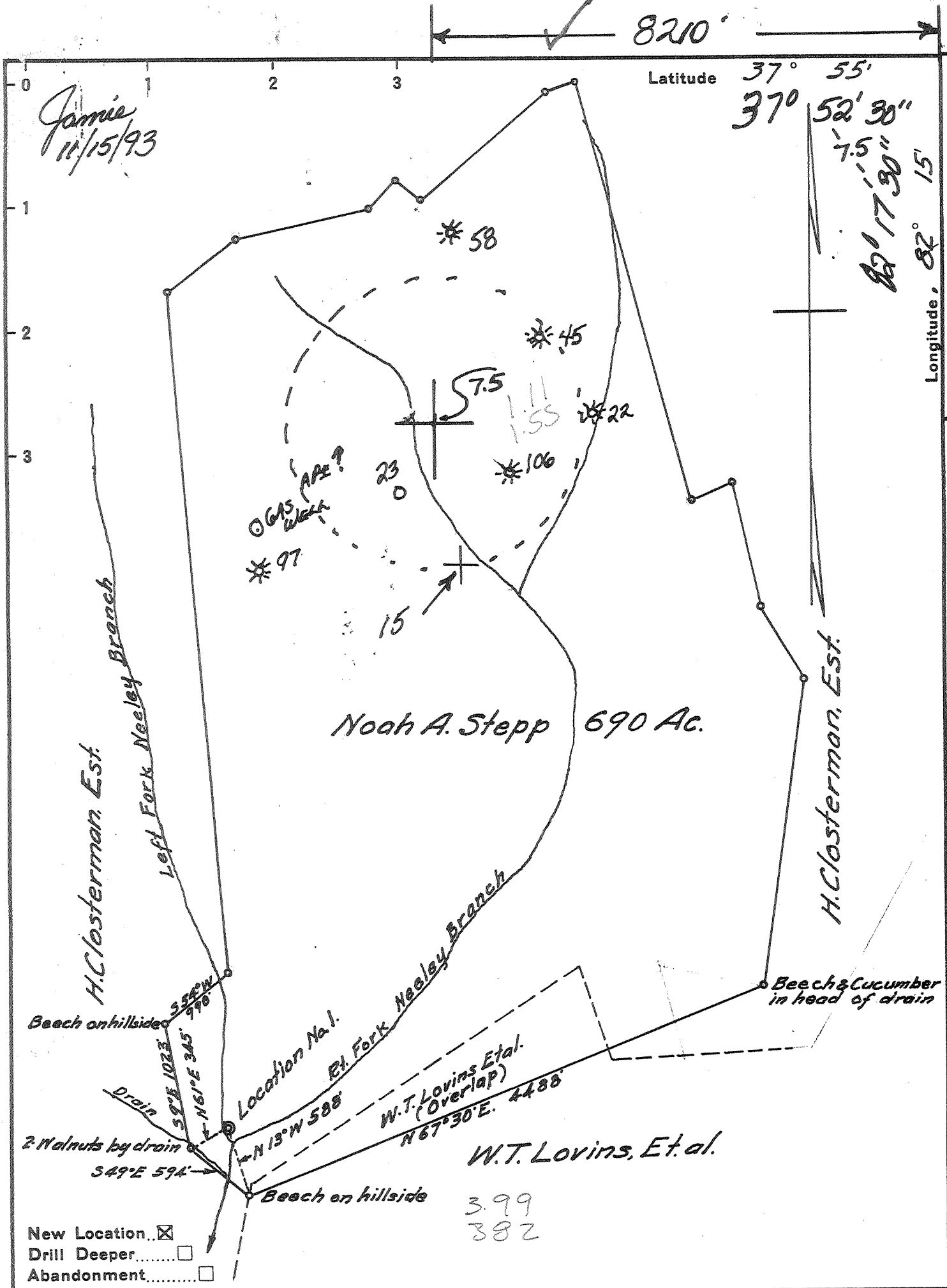
15' Quad Naugatack - 7.5
(sec.)

7.5' Quad _____

District Kermit

WELL LOCATION PLAT

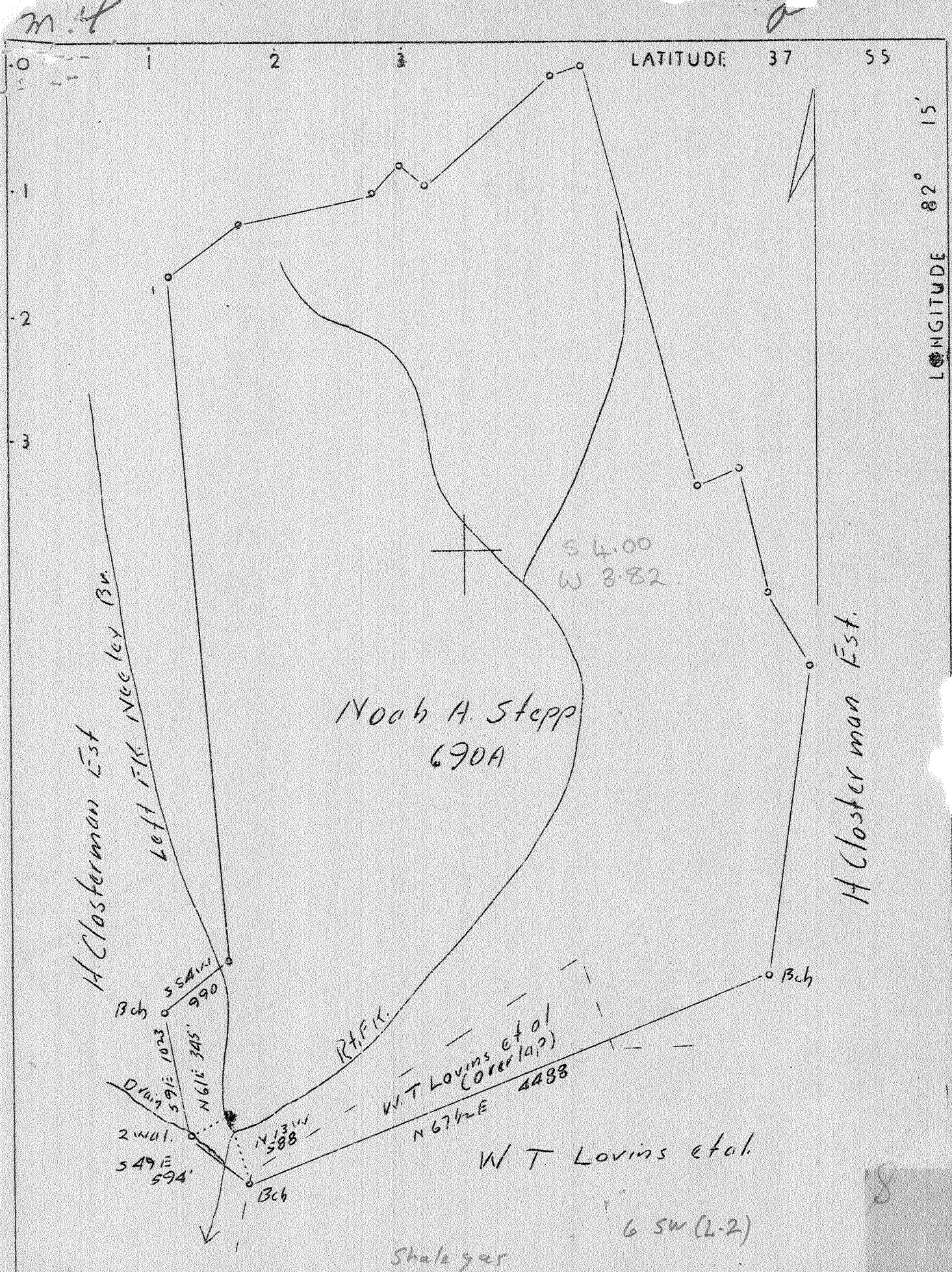
County 059 Permit 42F



Company East Kentucky Energy 4232
 Address PO Box 416, Arney, Ky. 41224
 Farm Noah A. Stepp
 Tract 1 Acres 690 Lease No. 1
 Well (Farm) No. 1 Serial No. _____
 Elevation (Spirit Level) 780
 Quadrangle Naugatuck 15 & 7.5 EC
 County Mingo District Kermit
 Engineer L. B. Ewing
 Engineer's Registration No. 309
 File No. _____ Drawing No. _____
 Date 8-7-37 Scale 1" = 1000'

STATE OF WEST VIRGINIA
 Division of Environmental Protection
 Office of Oil & Gas
 Nitro, W.V.
 WELL LOCATION MAP
 Oil Well No. 47-059-00042-7

+ 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.



Company E.L. Lusher
 Address 317-9th St., Huntington, W. Va.
 Farm Noah A. Stepp
 Tract 1 Acres 690 Lease No. 1
 Well (Farm) No. 1 Serial No. _____
 Elevation (Spirit Level) 780
 Quadrangle Naugatuck **(-EC)**
 County Mingo District Kermit
 Engineer G.C. Ewing
 Engineer's Registration No. 309
 File No. _____ Drawing No. _____
 Date 8-7-37 Scale 1"-1000'

STATE OF WEST VIRGINIA
 Department of Mines
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 File No. MINGO-42

+ 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.

6-6-240
 Deep Well

Noah A. Stepp No. 1 Well.

Kermit District, Mingo County, W. Va.

By E. L. Lusher.

Permit No. Min-42.

Elevation, 780' L.

166 M. cu. ft. gas; R. P., 525 lbs.

Located 4.08 mi. S. of 37° 55' and 3.88 mi. W. of 82° 15'—EC—Nau-
tuck Quadrangle.

In forks of Neely Branch of Marrowbone Creek.

0.54 mi. N. E. of Baisden School; 3.37 mi. E. of Selwyn.

	Top.	Bottom.	Thickness.	Elevation (top)
Big Lime -----	1638	1830	192	— 858
Big Injun Sand-----	1835	1866	31	—1055
Berea Sand -----	2393	2450	57	—1613
Corniferous Lime-----	3695	3700	5+	—2915

Thickness, Devonian Shales, 1245 feet. Total depth, 3700'.
Remarks: Completed Jan. 19, 1938. Shot at 3700'.
Water at 1450' and 1460'.
On 670 acres.

WEST VIRGINIA DEPARTMENT OF MINES

OIL AND GAS DIVISION

WELL RECORD

Permit No. Mingo-42

Gas Well

Naugatuck Quad. *EC*

CASING & TUBING

Company	E.L.Lusher	10	63 5	63 5
Address	Barboursville, W.Va.	8 1/2	1276 6	
Farm	Noah A. Stepp Acres 670	6 5/8	1600	1600
Location	Morrowbone Creek			
Well No.	1 Elev.			
District	Kormit County Mingo			
Surface	Noah A. Stepp, Chatteroy, W.Va.			
Mineral	Same			
Drilling	Commenced Oct. 27, 1937			
	Completed Jan. 19, 1938			
Date Shot	Jan. 23, 1938			Depth 3700
Volume	166,000 Cu.Ft.			
Rock Press.	525#			

Formation	Color	Hor	TOP	Base	Result	Formation	Color	Hor	TOP	Base	Result
Sand			0	20		Slate			1555	1589	
Gravel			20	25		Little Lime			1589	1638	
Sand			25	62		Big Lime			1638	1830	
Slate			62	66		Slate			1830	1835	
Lime			66	110		Big Injun			1835	1866	
Sand			110	112		Slate			1866	2114	
Slate			112	148		Sand-Shells			2114	2135	
Slate			148	158		Slate			2135	2365	
Sand			158	175		Shale	Coffee		2365	2393	
Slate			175	185		Berea Sand			2393	2450	
Sand			185	240		Slate			2450	2460	
Slate			240	258		Shale	Black		2460	2535	
Sand-Broken			258	265		Slate			2535	2860	
Slate			265	325		Shale	Gray		2860	3090	
Coal			325	329		Shale	Brown		3090	3365	
Slate			329	375		Shale	Gray		3365	3610	
Sand-Broken			375	385		Shale	Black		3610	3695	
Lime			385	450		Corniferous Lime			3695	3700	gas
Slate			450	455		TOTAL DEPTH			(461)	3700	
Lime			455	478							
Coal			478	483							
Slate			483	490							
Sand			490	545							
Slate			545	568							
Sand			568	640							
Slate-Shells			640	685							
Lime			685	700							
Sand			700	715							
Salt			715	900							
Sand		S	900	1255							
Slate			1255	1270							
Lime	Black		1270	1285							
Maxon Sand			1285	1370							
Coal			1370	1374							
Slate			1374	1380							
Sand			1380	1407							
Slate			1407	1412							
Lime			1412	1430							
Red Rock			1430	1432	Water						
Slate			1432	1440	1450						
Sand			1440	1495							
Lime			1495	1508	Water						
Red Rock			1508	1512	1460						
Slate			1512	1520							
Sand Maxon			1520	1538							
Slate		311	1538	1550							
Red Rock			1550	1555							

Per Wall



State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

Date 3-19-96
Operator's
Well No. EKE/Phoenix #1
Farm NOAH STEPP
API No. MAL 42 -

NOV 14 1996
DIVISION OF
PRODUCTION

059-604

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 870 6L Watershed Neely Br / Marrowbone CK
District: Kermit County Mingo Quadrangle Nanga tuck

COMPANY Phoenix Land Co (EKE)
ADDRESS PO Box 416 Inez Ky 41224
DESIGNATED AGENT Fred Bentley
ADDRESS Lenore WVa Ph 304-475-4822
SURFACE OWNER EKE/Phoenix Land
ADDRESS PO Box 416 Inez Ky 41224
MINERAL RIGHTS OWNER EAST KY EN/Phoenix Land
ADDRESS SAME
OIL AND GAS INSPECTOR FOR THIS WORK OFIE
HELMICK ADDRESS _____
PERMIT ISSUED 11/16/93
DRILLING COMMENCED 12/20/93
DRILLING COMPLETED 3/19/96
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"			
9 5/8			
8 5/8			
7 6 5/8	OLD 6 5/8 CSG →	6600	
5 1/2			
4 1/2	355 10.5# →	1900'	60 SACKS 81.6 cu ft
3			
2 3/8	355 4.7# 1/4	1861'	
Liners used			

30 sacks Poz 1.5"
30 Sack "A" 1.18
est fyst
+ 7.15' SHOE AND
PERF. JT

GEOLOGICAL TARGET FORMATION Injun Sand Depth 1848-1858 feet
Depth of completed well _____ feet Rotary / Cable Tools _____
Water strata depth: Fresh _____ feet; Salt _____ feet
Coal seam depths: _____ Is coal being mined in the area? _____

OPEN FLOW DATA

Producing formation Injun Sand Pay zone depth 1848-1858 feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 298 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 96 hours
Static rock pressure 189 psig (surface measurement) after 8 hours shut in
(If applicable due to multiple completion--) NA
Second producing formation _____ Pay zone depth _____ feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure _____ psig (surface measurement) after _____ hours shut in

(Continue on reverse side)

NOV 15 1996

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

CSG, TBC,
and CMT

Ran 4 1/2 to 1900' + 7.15' shoe and perf. jt., perforate Injun at 1848-1858
10 holes. (81.6 cu ft cement of 4 1/2 back to 7" 30 sacks)

Ran 1861' J55 Tubing, 2 3/8 diam 4.7 # ft

Frac Job 30000# 20/40 Sand Foam Frac, 71K Nit. Assist
Break down Press 1823#, TP 1700# AVG.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas

(Attach separate sheets as necessary)

Phoenix Land Co (EKE)
Well Operator
By: Frederick M. Bentley
Date: 3-19-26

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."

Received 10/29/93.

059-0042-PP-F
Issued 11/16/93

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

Expires Page 1 of 1
11/16/95
14925 (3) 502

18212

- 1) Well Operator: ⁴²³² East Kentucky Energy PO Box 416 Inez Ky 41224
- 2) Operator's Well Number: well # 1 3) Elevation: 760.62
- 4) Well type: (a) Oil ___ / or Gas ___ /
(b) If Gas: Production / Underground Storage ___ /
Deep ___ / Shallow ___ /
- 5) Proposed Target Formation(s): ³⁷¹ Big Lime 1638-1830 Injua 1835-1866
- 6) Proposed Total Depth: 1950 feet
- 7) Approximate fresh water strata depths: N/A
- 8) Approximate salt water depths: 1450-1460
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes / No ___ /
- 11) Proposed Well Work: Run 4 1/2" casing, cement back into existing 7",
Bond log, perforate, frac, flowback, produce. Possibly run tubing, if oil
set tank, build levee, lay pipeline
- 12) CASING AND TUBING PROGRAM

TYPE SPECIFICATIONS FOOTAGE INTERVALS CEMENT

TYPE	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor						
Fresh Water	10"			<i>Expanding from</i>	63.5'	
Coal	8 1/4				1276.5'	
Intermediate	6 5/8				1600'	
Production	4 1/2	J55	10.5	"	- 1930	38500 gal.
OPTIONAL Tubing	2"	J55			- 1925	
Liners	-					

PACKERS : Kind NONE 4 1/2" to be cemented
Sizes ~~included in a log~~ Form to be filled out & submitted
Depths set ~~if the Commission is found to be unlicensed use~~

#23 check # 5617
For Division of Oil and Gas Use Only *Index Cement for Plus.*
 Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond *Blanket Surety.* Agent
(Type)

1) Date: 25 OCTOBER 1993
2) Operator's well number
Well # 1
3) API Well No: 47 - 059 - 0042-FRAC
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 East Kentucky Energy
Address Inez Kentucky
PO Box 416 Inez 41224
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector _____
Address _____
Telephone (304)- _____

5) (a) Coal Operator:
Name Marrowbone Development
Address PO Box 119 Naugatuck WV
25685
(b) Coal Owner(s) with Declaration
Name East Kentucky Energy
Address Inez Kentucky 41224
Name _____
Address _____
(c) Coal Lessee with Declaration
Name SAME (East Ky Energy)
Address _____

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Note: Marrowbone mines coal for East Kentucky Energy, who owns the property fee simple, 2m2.
_____ 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.

Well Operator East Kentucky Energy
By: [Signature]
Its: X Agent
Address PO Box 416 Inez Ky 41224
Telephone 606 298 4328

Subscribed and sworn before me this 25 day of OCTOBER, 1993

X Cheryl Abel Loper
My commission expires 3-14-2000

