

87B 9/14/87

10,700"

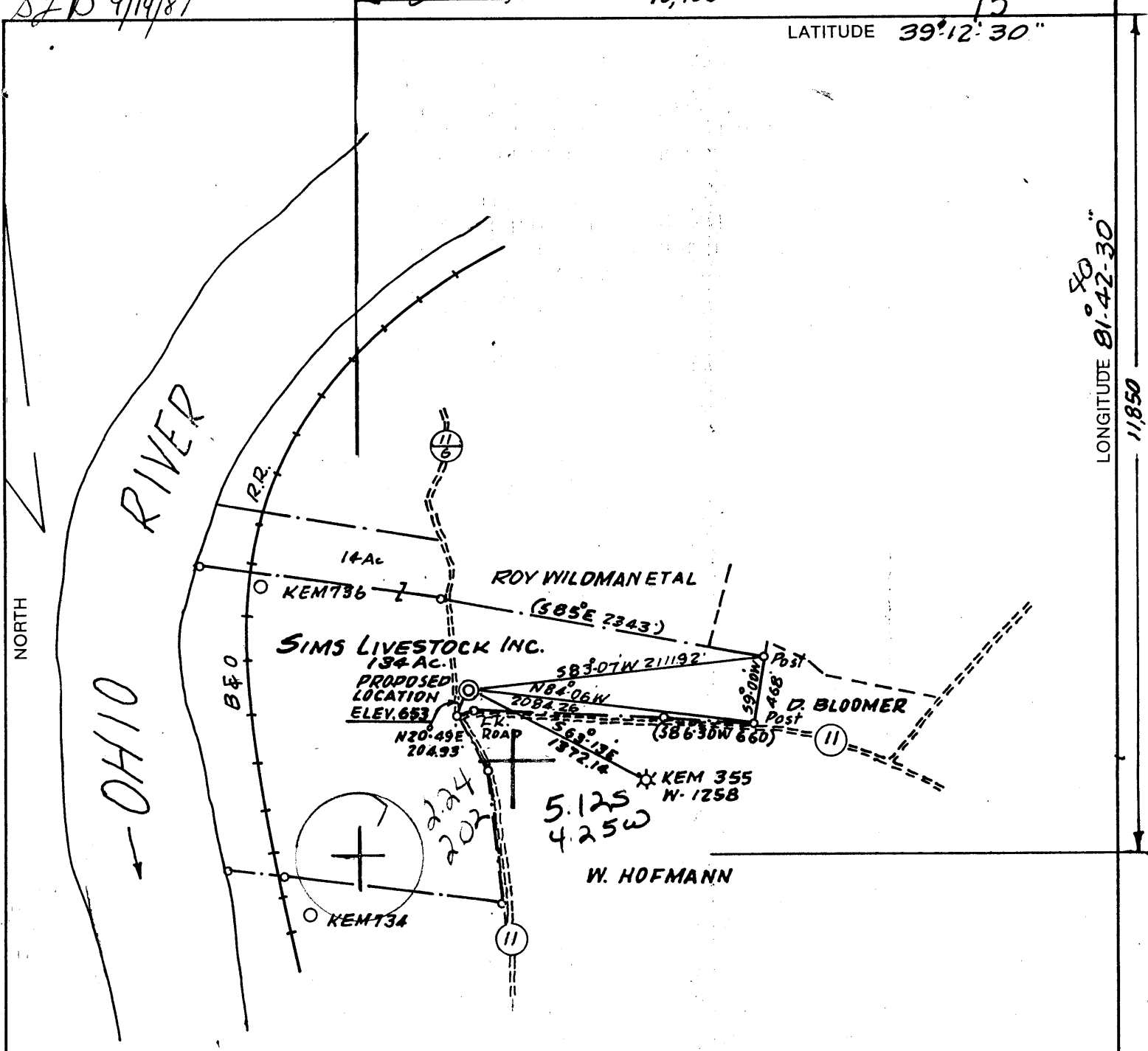
15

LATITUDE 39°12'30"

LONGITUDE 81°42'30"

11850

NORTH



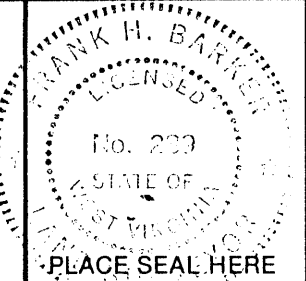
**LOCATION REFERENCE POINTS:**

$S69^{\circ}45'W \ 82'$  TO POWER POLE  
 $N75^{\circ}00'E \ 86'$  TO 4" THORN TREE

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

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION Intersection of WV RT 11 & 11/6 EL. 644

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) Frank H. Barker  
 R.P.E. \_\_\_\_\_ L.L.S. 289



**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF MINES  
**OIL AND GAS DIVISION**



DATE AUG. 20 1987  
 OPERATOR'S WELL NO. KEM 735  
 API WELL NO. \_\_\_\_\_  
47 - 107 - 1415  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 653 WATER SHED OHIO RIVER  
 DISTRICT HARRIS 2 COUNTY WOOD  
 QUADRANGLE LUBECK 449 009 1 Belleville NW  
 SURFACE OWNER SIMS LIVESTOCK INC. ACREAGE 134  
 OIL & GAS ROYALTY OWNER SIMS LIVESTOCK INC. LEASE ACREAGE 167.75  
 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 BEREA ESTIMATED DEPTH 1910  
 WELL OPERATOR KAISER EXPLORATION MINING Co. DESIGNATED AGENT R.A. PRYCE  
 ADDRESS P.O. BOX B 465 ADDRESS P.O. BOX 8  
RAVENSWOOD, WV. 26164 RAVENSWOOD, WV. 26164

SEP 21 1987

COUNTY NAME PERMIT

FORM IV-6 (8-78) H.T. HALL

1/2 Acre Parcel (206)

Rec  
10/23/87  
IV-35  
(Rev 8-81)



Corrected Total Depth

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date October 21, 1987  
Operator's  
Well No. KEM #735  
Farm Sims Livestock  
API No. 47 - 107 - 1415

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: 653' Watershed Ohio River  
District: Harris County Wood Quadrangle Lubeck

COMPANY Kaiser Exploration & Mining Co.

ADDRESS P. O. Box 8, Ravenswood, WV 26164

DESIGNATED AGENT R. A. Pryce

ADDRESS Same

SURFACE OWNER Sims Livestock Inc.

ADDRESS Rt. 1, Box 38, New England, WV

MINERAL RIGHTS OWNER Same

ADDRESS \_\_\_\_\_

OIL AND GAS INSPECTOR FOR THIS WORK Glen

Robinson ADDRESS Rt. 1, Mineral Wells, WV

PERMIT ISSUED \_\_\_\_\_

DRILLING COMMENCED 10/5/87

DRILLING COMPLETED 10/8/87

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.			
10 3/4"	10 3/4"	263	175 sks class A
9 5/8			
8 5/8			
7	7"	1936	100 sks class A 100 sks pozmix
5 1/2			
4 1/2			
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Berea Sandstone Depth 1850 feet

Depth of completed well 1955 feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh -- feet; Salt -- feet

Coal seam depths: N/A Is coal being mined in the area? NO

Drilled on fluid not known.

OPEN FLOW DATA

Producing formation Berea Sandstone Pay zone depth 1850'-1852' feet

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

Final open flow 150 Mcf/d Final open flow -- Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 700 psig (surface measurement) after 72 hours shut in

(If applicable due to multiple completion--)

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 NOV 2 1987 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)

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

- 10/12/87 Young Wireline perforated the Berea from 1850' - 1852' with 16 (.39" dia.) shots
- 10/13/87 Halliburton 75% foam fractured the Berea with 45,000# of 20/40 sand, 15,000# of 10/20 sand, 598,000 scf of nitrogen, 319 bbl of water at 1520 psig. ISIP: 1300 psig. 5 min SIP: 1060 psig

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	96	
Sand			96	123	
Siltstone			123	319	
Sand			319	340	
Shale			340	438	
Sand			438	447	
Shale & Siltstone			447	940	
Sand			940	950	
Shale & Sand			950	1070	
Big Dunkard Sand			1070	1188	
Shale			1188	1332	
Salt Sands			1332	1488	
Shale			1488	1830	
Coffee Shale (Sunbury)			1830	1850	
Berea Sand			1850	1853	
Shale			1853	1955	
Total Depth			1955		

(Attach separate sheets as necessary)

KAISER EXPLORATION AND MINING COMPANY

Well Operator

By: R. A. P.

Date: October 21, 1987

Note: Regulation 2.02(i) provides as follows:  
 "The term 'log' or 'well log' shall mean a systematic  
 403 detailed geological record of all formations, including  
 encountered in the drilling of a well."

RECEIVED  
7/85  
SEP 03 1987



1) Date: August 20, 19 87  
2) Operator's Well No. KEM #735  
3) API Well No. 47 107 1415  
State County Permit

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

- 4) WELL TYPE: A Oil / Gas X  
B (If "Gas", Production X / Underground storage / Deep / Shallow X)  
5) LOCATION: Elevation: 635 Watershed: Ohio River  
District: Harris 2 County: Wood 107 Quadrangle: Lubeck 449  
6) WELL OPERATOR Kaiser Exploration and Mining Company CODE: 25550 7) DESIGNATED AGENT R. A. Pryce  
Address P. O. Box 8 Ravenswood, WV 26164 Address Same  
8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Glen Robinson Address Mt. Pleasant Estates Mineral Wells, WV  
9) DRILLING CONTRACTOR: Name Unknown Address  
10) PROPOSED WELL WORK: Drill X / Drill deeper / Redrill / Stimulate X / Plug off old formation / Perforate new formation / Other physical change in well (specify)  
11) GEOLOGICAL TARGET FORMATION, Berea Sandstone  
12) Estimated depth of completed well, 1910' feet  
13) Approximate trata depths: Fresh, feet; salt, feet.  
14) Approximate coal seam depths: Is coal being mined in the area? Yes / No X

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	10 3/4"			X		250'	250'	Cement to surface	Sizes
Coal									
Intermediate									
Production	7"			X		1923'	1923'	100 sks 50/50 mix	
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-107-1415 Date September 15 19 87

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.  
Permit expires September 15, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Fee:	Casing:	Fee:	MPG:	Other:
		230		6587		

John A. Smalzer  
Director, Division of Oil and Gas