

Janie 8/7/90

# DRAKE LEASE

## 108 ACRES ±

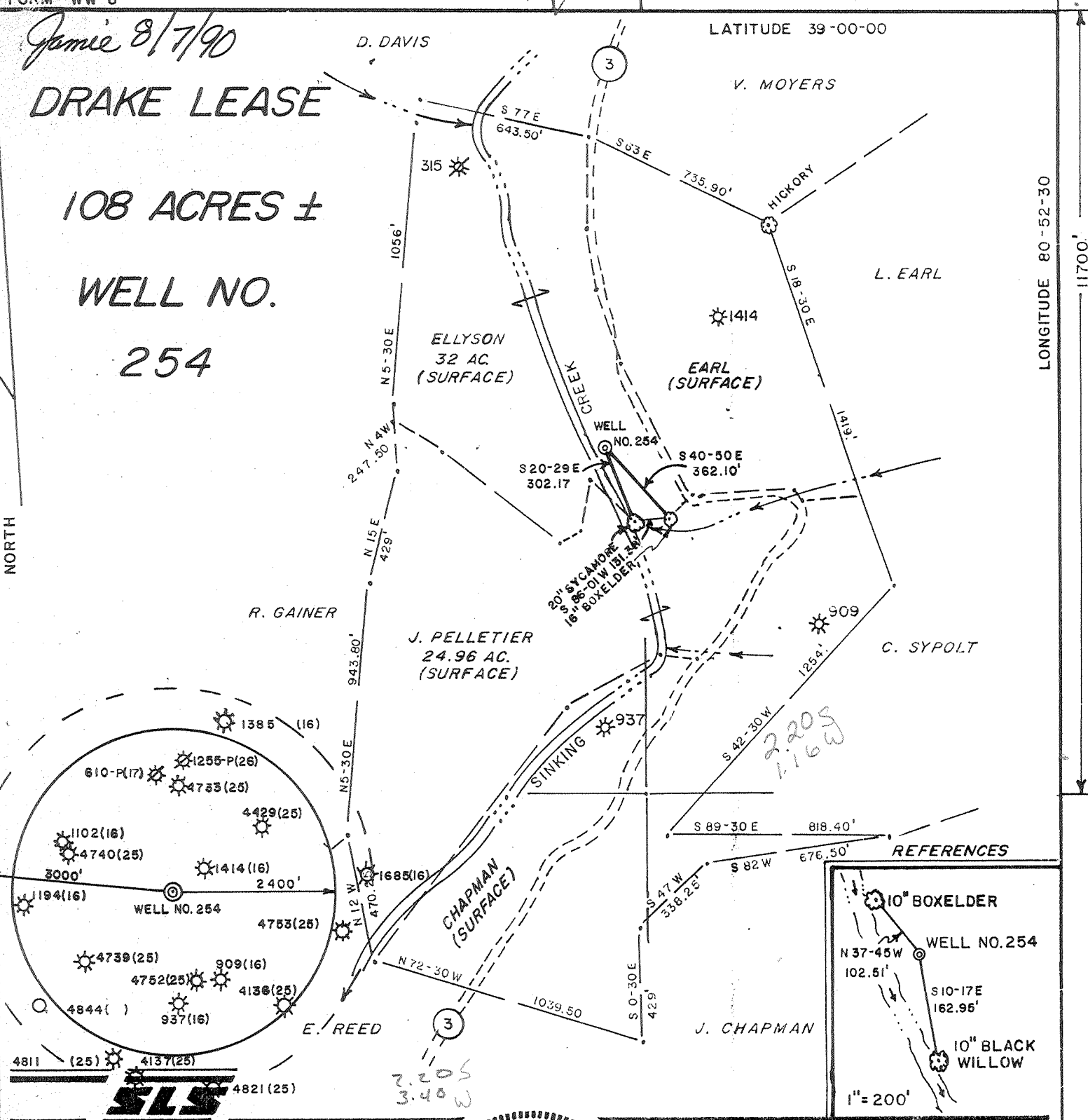
### WELL NO.

# 254

NORTH

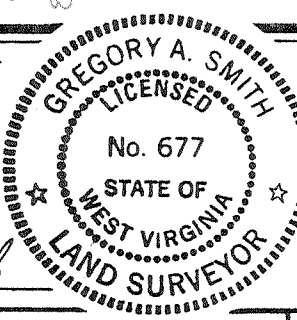
LONGITUDE 80-52-30

11700'



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 ENERGY.

L.L.S. 677 Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE AUGUST 1, 1990  
 OPERATORS WELL NO. DRAKE NO. 254  
 API WELL NO. 47 - 021 - 4886  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2398 (33-26)  
 PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS ELEV. 758' SCALE 1" = 500'

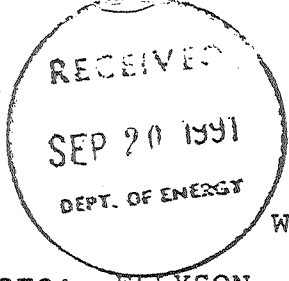
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 723' WATERSHED SINKING CREEK  
 DISTRICT DeKALB 2 COUNTY GILMER QUADRANGLE TANNER 7.5  
 SURFACE OWNER ODBERT V. ELLYSON ACREAGE 32  
 ROYALTY OWNER SCOTT SCHIMMEL ET. AL. LEASE ACREAGE 32 OF 108  
 PROPOSED WORK: LEASE NO. \_\_\_\_\_  
 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 ORISKANY  
 ESTIMATED DEPTH 6500'

WELL OPERATOR RAMSEY ASSOCIATED PETROLEUM DESIGNATED AGENT VAN RAMSEY AUG 10 1990  
 ADDRESS P.O. BOX 90 GLENVILLE, WV 26351 ADDRESS P.O. BOX 90 GLENVILLE, WV 26351

H. T. HALL 066995 DEEPPWELL 3-3 DeKalb (179) DPD-Hall

COUNTY NAME PERMIT



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

Reviewed Tom  
Recorded Tom

Well Operator's Report of Well Work

Farm name: ELLYSON, ODBERT V. Operator Well No.: DRAKE # 254

LOCATION: Elevation: 723.00 Quadrangle: TANNER

District: DEKALB County: GILMER  
Latitude: 11700 Feet South of 39 Deg. 0 Min. 0 Sec.  
Longitude 6190 Feet West of 80 Deg. 52 Min. 30 Sec.

Company: RAMSEY, VAN D.B.A. RAMSEY  
P.O. BOX 90  
GLENNVILLE, WV 26351-0090

Agent: VAN RAMSEY

Inspector: CRAIG DUCKWORTH  
Permit Issued: 08/07/90  
Well work Commenced: 08/16/90  
Well work Completed: 08/30/90  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary XX Cable \_\_\_\_\_ Rig  
Total Depth (feet) 6475  
Fresh water depths (ft) 9' to 19'

Salt water depths (ft) 6230 damp

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): \_\_\_\_\_

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8	1013'	1013'	265
4 1/2	6453'	6453'	

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Oil and Gas Section

OPEN FLOW DATA

Producing formation Helderberg Lime Pay zone depth (ft) 6340  
Gas: Initial open flow NT MCF/d Oil: Initial open flow NT Bbl/d  
Final open flow NT MCF/d Final open flow NT Bbl/d  
~~Time of open flow between initial and final tests~~ NT Hours  
Static rock Pressure 2410 psig (surface pressure) after 48 Hours

Second producing formation Onondaga Lime Pay zone depth (ft) 5990  
Gas: Initial open flow NT MCF/d Oil: Initial open flow NT Bbl/d  
Final open flow NT MCF/d Final open flow NT Bbl/d  
~~Time of open flow between initial and final tests~~ NT Hours  
Static rock Pressure 2410 psig (surface pressure) after 48 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: RAMSEY, VAN D.B.A. RAMSEY ASSOC. PET.

By: L Ramsey  
Date: 9-18-91

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FORMATION TOPS

Mud.....	0'	to 9'	(water 9' @ 1/2" stream)
Sd & Sh.....	9'	to 57'	(water 19' @ 4" stream)
Sd Sh & RR.....	57'	to 1374'	
Little Lime.....	1374'	to 1392'	
Big Lime.....	1420'	to 1490'	
Big Injun.....	1490'	to 1562'	
Speechly.....	2746'	to 3112'	
Balltown.....	3112'	to 3734'	
Bradford.....	3734'	to 3746'	
2nd Riley.....	3890'	to 4060'	
3rd Riley.....	4060'	to 4260'	
Benson.....	4260'	to 4268'	
Alexander.....	4514'	to 4554'	
1st Elk.....	4662'	to 4670'	
2nd Elk.....	4886'	to 4924'	
Devonian Shale.....	4924'	to 5990'	
Onondage Lime.....	5990'	to 6052'	
Huntersville Chert.....	6052'	to 6230'	
Oriskany Sandstone.....	6230'	to 6340'	
Helderburg Lime.....	6340'	to T.D.	
T.D.....	6475'		(gas check 23/10 1" w/w)

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Oil and Gas Section

6475

6340

(135' exp. Htg)

OCT 27 1991

11056

TREATMENT SUMMARY

Dowell Schlumberger performed a CO2/N2/65q foam frac for Ramsey Associated Petroleum on 8/30/90.

The Onondaga formation, perforated between 5998 and 6008

feet, in the Drake #254 well was treated utilizing the following design:

Stage Name	Foam Vol. (BBL)	Foam Quality (%)	Prop Conc (PPA)	Stage Prop (LB)
Prepad	167 Bbl CO2 & 240,000 scf of N2			
S100	243	65	0.5-1.0	5000
S20	100	65	0.5	2100
S20	114	65	1.0	4800
S20	100	65	2.0	8400
Foam Flush	14	65		
N2 Flush	135,000 scf of N2			
<b>TOTALS:</b>	<b>738 BBL</b>			<b>20300 LB</b>

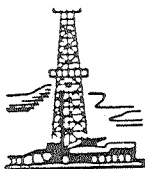
Designed injection rate was 15 BPM. Proppant was placed using the stair-step method. Fracture initiation pressure was 4180 psi at 10 BPM after which an average treating pressure of 3800 psi and an average rate of 15 BPM was calculated. A maximum pressure of 4980 psi and a maximum rate of 17 BPM with a final pressure of 4980 psi, before treatment termination, was recorded. Flush was not pumped as designed leaving 400 pounds of proppant in the tubulars. Maximum proppant concentration placed at the formation face was 2.0 PPA. Total proppant placed through the perforations was recorded as 25,500 pounds with a total liquid load of 285 BBL to recover. Foam volume pumped was 571 BBL including 1,046,350 scf of nitrogen. Instant shutdown pressure was observed to be 4870 psi.

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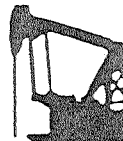
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Division of Energy  
Oil and Gas Section

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# Ramsey Associated Petroleum



P.O. Box 90  
Glennville, West Virginia 26351  
(304) 462-5744

## COMPLETION REPORT

Holbert Lease

#254

- 8-29-90 I.L.M. s/r M.I. & R.U. swabbed hole to bottom H.S. M.I. & R.U. ran C.H. Log from 6460' to 3000' and perforated 14 holes from 6398' to 6388'.
- 8-30-90 I.L.M. s/r swabbed hole to bottom, rigged down and pulled off location. D.S. M.I. & R.U. pumped 625 gal 28% HCL acid, 30 ton of CO2 and 596 mcf of N2 formation broke slow. D.S. pressured up to 5000 psi and surged psi back to 4250 psi 4760, ISP 4960, 15 min SIP 4950, 4 hr. SIP 4250. End of 1st stage in Helderburg Limestone. D.S. pumped 625 gal. 28% HCL acid, 30 ton CO2 and 1046 mcf of N2, with 25K lbs of sand 20/40 and 80/100 313 BBL of Frac Fluid. Max treating psi 4980, avg. treating psi 3800. ISP 4870, final SIP 4980.

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Oil and Gas Section

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TREATMENT SUMMARY

Dowell Schlumberger performed a CO<sub>2</sub> & N<sub>2</sub> frac for Ramsey Associated Petroleum on 8/30/90.

The Helderburg formation, perforated between 6388 and 6398 feet, in the Drake #254 well was treated.

Designed injection rate was 17 BPM.

Fracture initiation pressure was 4810 psi at

10 BPM after which an average treating pressure of 4760 psi

and an average rate of 15 BPM was calculated. A maximum pressure

of 5000 psi and a maximum rate of 15 BPM with a final

pressure of 4980 psi, before treatment termination, was recorded.

Instant shutdown pressure was observed to be 4960 psi.

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Division of Energy

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47-021-4886  
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 Issued 8/7/90  
 Expires 8/7/92  
 40780 (12) 633

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

- 1) Well Operator: RAMSEY ASSOCIATED PETROLEUM
- 2) Operator's Well Number: DRAKE WELL NO. 254 3) Elevation: 723'
- 4) Well type: (a) Oil  / or Gas  /  
 (b) If Gas: Production  / Underground Storage  /  
 Deep  / Shallow  /
- 5) Proposed Target Formation(s): Oriskany
- 6) Proposed Total Depth: 6500 feet
- 7) Approximate fresh water strata depths: 35' C152' C459
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes  / No  /
- 11) Proposed Well Work: Drill & Stimulate 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"			30'	0'	0 Sacks
Fresh Water	8-5/8"			1000'	1000' <i>CS</i>	By Rule 38 CSR 18-11.3
Coal						
Intermediate						
Production	4-1/2"			6500'	6500'	By Rule 38 CSR 18-11.1
Tubing						
Liners						

11056

PACKERS : Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

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For Division of Oil and Gas Use Only DIVISION OF OIL & GAS  
 DEPARTMENT OF ENERGY

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond *Blanket bonds D.S.*  Agent  
 (Type)

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Form WW2-A  
(09/87)  
File Copy

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

1) Date: August 2nd, 1990  
2) Operator's well number  
DRAKE WELL NO. 254  
3) API Well No: 47 - 021 - 4886  
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 ~~XXXXXXXXXXXX~~  
Address Odbert V. Ellyson  
Coxs Mills, WV 26342  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Craig Duckworth  
Address Box 107, Davisson Rt.  
Gassaway, WV 26624  
Telephone (304)- 364 - 5942

5) (a) Coal Operator:  
Name N/A  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name N/A  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name N/A  
Address \_\_\_\_\_

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  
XXX 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 7 on the above named parties, by:  
XXX 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 RAMSEY ASSOCIATED PETROLEUM  
By: \_\_\_\_\_  
Its: President  
Address P.O. Box 90  
Glenville, WV 26351  
Telephone 462 - 5744

Subscribed and sworn before me this 2nd day of August, 1990

Gregory A. Smith Notary Public  
My commission expires 12-7-92