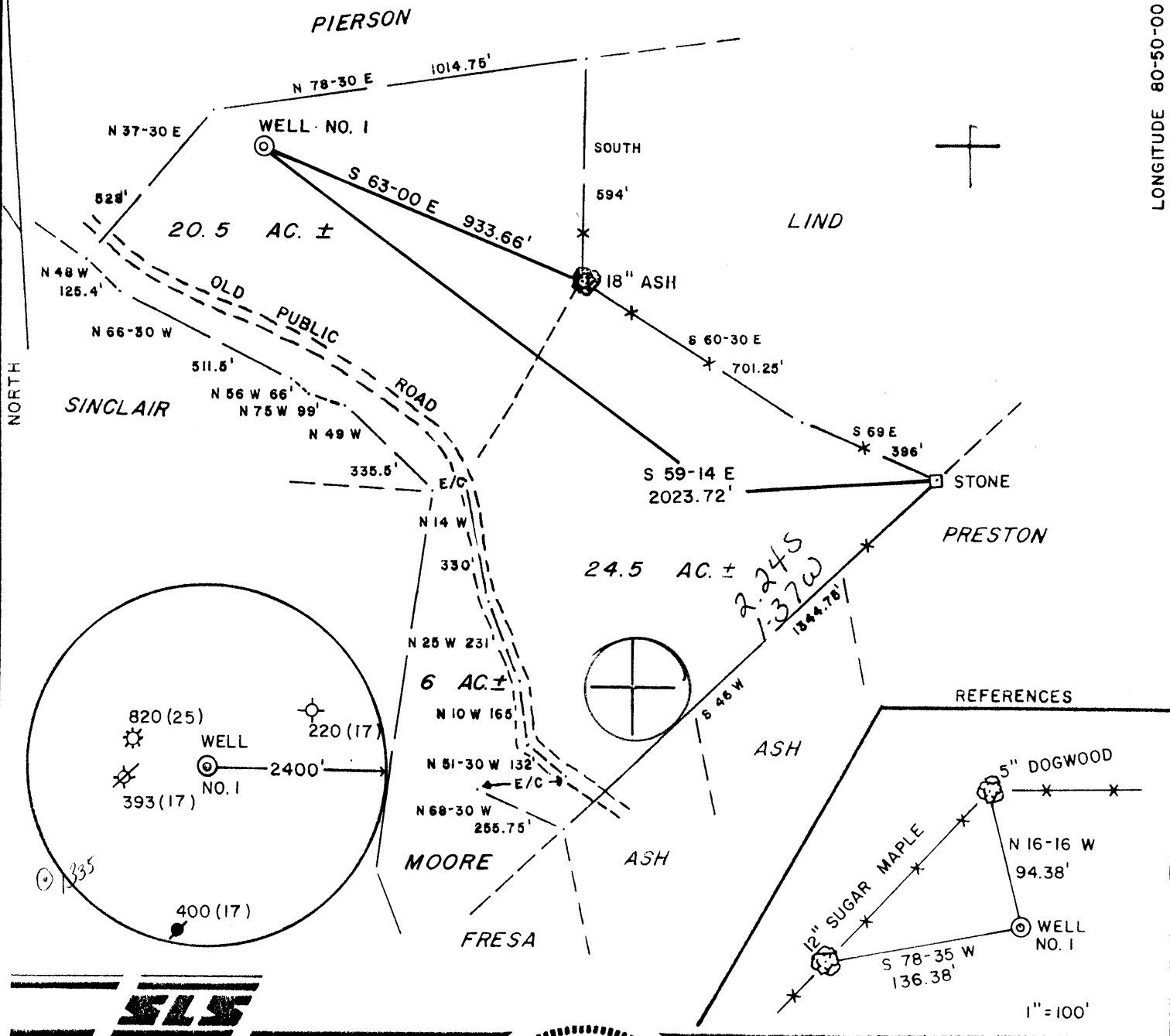


Janie 9/29/89

CASEY / MOORE LEASE

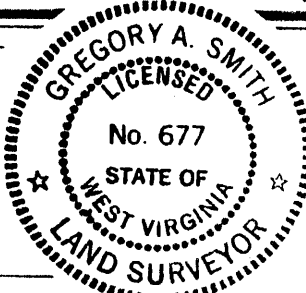
WELL NO. 1

45 ACRES ±



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. Gregory A. Smith
677



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE AUGUST 23, 19 89
OPERATORS WELL NO. CASEY / MOORE NO. 1
API WELL NO. 47 - 095 - 1328
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 1959 (26-39)
PROVEN SOURCE OF ELEVATION BENCH MARK ELEV. 732' SCALE 1" = 400'

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION: ELEVATION 960' WATERSHED MIDDLE ISLAND CREEK West Union
DISTRICT CENTERVILLE 1 COUNTY TYLER QUADRANGLE SHIRLEY 7.5' 607

SURFACE OWNER GEORGE W. & CAROLYN MOORE ACREAGE 51 133
ROYALTY OWNER ANNE E. CASEY, et. al. LEASE ACREAGE 45 OF 51 5

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
PHYSICAL CHANGE IN WELL (SPECIFY) ___ TARGET FORMATION BENSON ESTIMATED DEPTH 5100' SEP 1 1989

WELL OPERATOR THE COASTAL CORP. DESIGNATED AGENT WILLIAM CARPENTER
ADDRESS P.O. BOX 4119 PARKERSBURG, WV 26101 ADDRESS P.O. BOX 4119 PARKERSBURG, WV 26101

575

COUNTY NAME PERMIT

195

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

Well Operator's Report of Well Work

Farm name: MOORE, GEORGE & CAROLYN Operator Well No.: CASEY #1

LOCATION: Elevation: 965.00 Quadrangle: SHIRLEY

District: CENTERVILLE County: TYLER
Latitude: 11880 Feet South of 39 Deg. 25Min. 0 Sec.
Longitude 7250 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: COASTAL CORP., THE
P. O. BOX 4119
PARKERSBURG, WV 26104-0000

Agent: WILLIAM E. CARPENTER

Inspector: GLEN P. ROBINSON
Permit Issued: 08/29/89
Well work Commenced: 9/19/89
Well work Completed: 10/2/89
Verbal Plugging
Permission granted on:
Rotary Cable _____ Rig
Total Depth (feet) 5133
Fresh water depths (ft) 70' 506'

Salt water depths (ft) _____
1400'

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 230-235

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4		125	118 cuft
8 5/8		1919	603 cuft
4 1/2		5040	503 cuft

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

OPEN FLOW DATA

Producing formation Benson/Riley Pay zone depth (ft) 4191-4540
Gas: Initial open flow 1400 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 1000 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 1750 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: COASTAL CORP., THE

By: William E. Carpenter
Date: 11/9/89

NOV 20 1989
NOV 20 1989

Casey #1

1st Stage - Shot 14 .39 holes from 4926' to 4930' and broke down with 500 gals of 15% HCL Acid at 1681 lbs. Ran 50 sacks of 80/100 mesh sand and 350 sacks of 20/40 mesh sand at a rate of 22.6 BPM for a total volumn of 437 bbls. Average treating pressure was 2699 lbs., with an ISIP of 1487 lbs.

2nd Stage - Shot 16 .39 holes form 4191' to 4550' and broke down with 500 gals of 15% HCL Acid at 1543 lbs. Ran 50 sacks of 80/100 mesh sand and 250 sacks of 20/40 mesh sand at a rate of 22.8 BPM for a total volumn of 418 bbls. Average treating pressure was 2384 lbs., with an ISIP of 1550 lbs.

<u>Formation</u>	<u>Color</u>	<u>Hard/Soft</u>	<u>Top</u>	<u>Bottom</u>	
Clay	Red/yellow	soft	0	15	
Sand	White	Hard	15	85	water 70'
Sandy Shale	Gray	Hard	85	101	
Shale	Red	Soft	101	150	
Shale sand	Gray	Med	150	170	
Shale	Red	Soft	170	190	
Sand	White	Med	190	230	
Coal	Black	Soft	230	235	
Shale	Gray	Soft	235	245	
Sand	White	Med	245	265	
Shale	Gray	Soft	265	295	
Sand	White	Med	295	320	
Shale	Red	Soft	320	330	
Shale	Gray	Med	330	480	
Sand	White	Hard	480	506	Hole wet
Sand /shale	Gray	Med	506	910	
Shale	Gray	Med	910	1210	
Sand	White	Med	1210	1270	
Shale	Gray	Med	1270	1300	
Shale	Gray	Med	1300	1385	
Sand	White	Hard	1385	1525	water 1400'
Sandy Shale	Gray	Med	1525	1754	
Sand	White	Hard	1754	1825	
Lime	White	Hard	1825	1851	
Sand/Shale	Gray	Med	1851	2365	
Sandy/Shale	White	Soft	2365	2550	
Shale	Red	Soft	2550	2570	
Sand/Shale	Red	Soft	2570	2670	
Sand	White	Med	2670	2680	gordan sand gas &
Shale			2680	4653	oil
Shale			4653	5133	

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NOV 13 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

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

- 1) Well Operator: ¹⁹¹⁵ The Coastal Corporation 10125, 1, 606
- 2) Operator's Well Number: Casey #1 3) Elevation: 965
- 4) Well type: (a) Oil or Gas
(b) If Gas: Production Underground Storage
Deep Shallow
- 5) Proposed Target Formation(s): Benson, Riley 435
- 6) Proposed Total Depth: 5100' feet
- 7) Approximate fresh water strata depths: 286', 486', 546'
- 8) Approximate salt water depths: 1516, 1536', 1615'
- 9) Approximate coal seam depths: 763', 764', 795', 796'
- 10) Does land contain coal seams tributary to active mine? Yes No
- 11) Proposed Well Work: Drill and Stimulate New Well
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
<u>8/24/89</u> Conductor	11 3/4			120'	120'	CTS
Fresh Water						
Coal						<u>38CSR-18-11.3</u>
Intermediate	8 5/8	ERW	23#	1950	1950	By rule 38 CSR 18 11-2.2
Production	4 1/2	ERW	10.5#	5045	5045	By rule 38 CSR 18 11-1
Tubing						
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

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AUG 29 1989

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 Sure Agent
(Type)



1) Date: 8/23/89
2) Operator's well number
Casey #1
3) API Well No: 47 - 095 - 1328
State - County - Permit

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY
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 George W. and Carolyn Moore
Address 650 Beachler Rd
Tallmadge, OH 44278
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Glen P. Robinson
Address Rt 1 #6 Mt. Pleasant Est.
Mineralwells, WV 26150
Telephone (304)- 489-9162

5) (a) Coal Operator:
Name N/A
Address _____
(b) Coal Owner(s) with Declaration
Name N/A
Address _____
Name _____
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

_____ 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 The Coastal Corporation
By: [Signature]
Its: Field Supervisor
Address P O Box 448
Parkersburg, WV 26104
Telephone 304-428-3471

Subscribed and sworn before me this 25th day of August, 1989

[Signature] Notary Public
My commission expires May 24, 1999