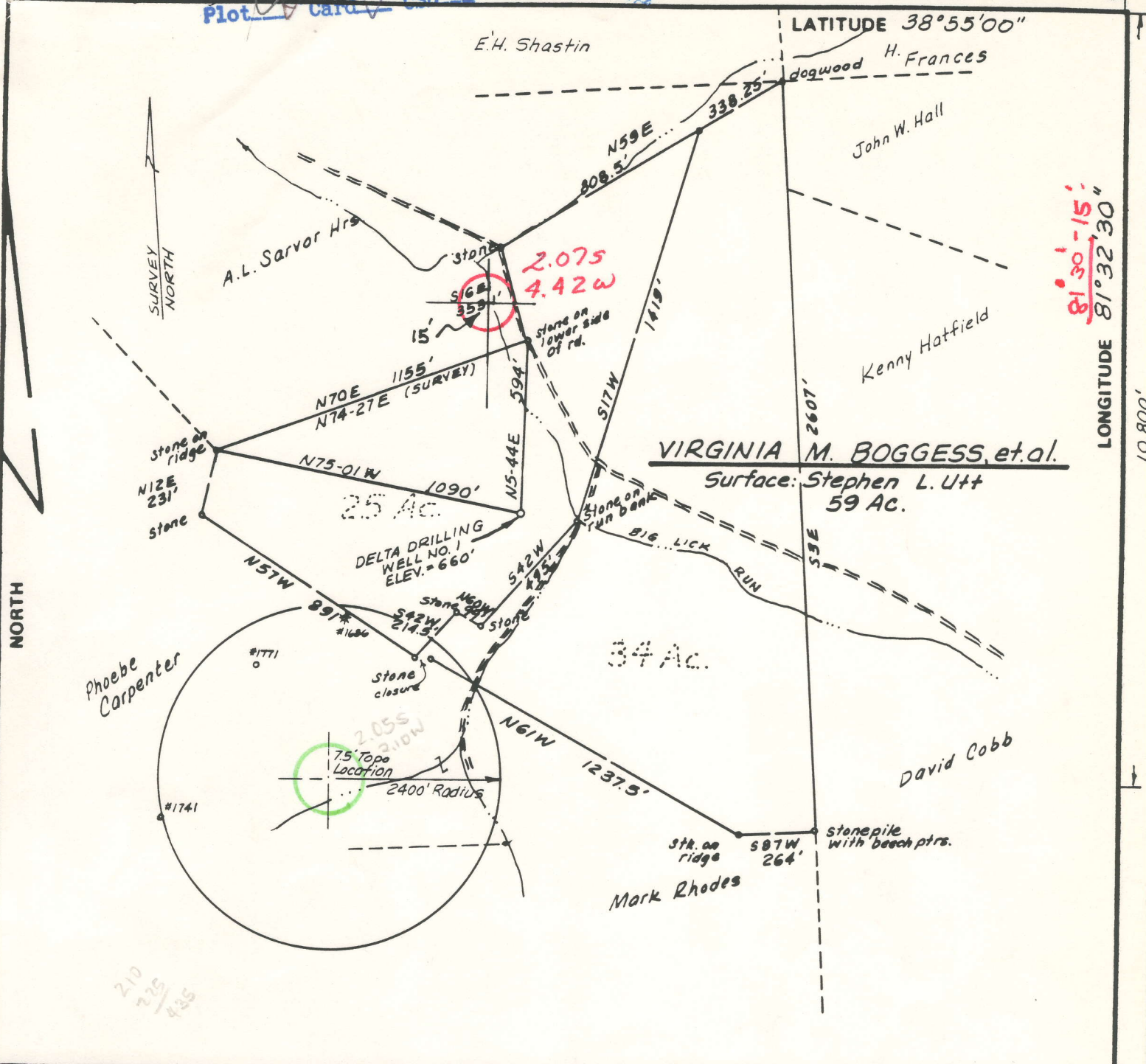


M.S. 12/2/82 Plot Card CSD



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION TOP OF KNOB 3850' ±
NE OF LOCATION, ELEV. = 1049'

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. Mark C. Echard
 (SIGNED) MARK C. ECHARD
 R.P.E. _____ L.L.S. 490

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-78)



DATE DECEMBER 1, 19 82
 OPERATOR'S WELL NO. ONE
 API WELL NO. _____
47 - 035 - 1783
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 LOCATION: ELEVATION 660' WATER SHED BIG LICK RUN
 DISTRICT RAVENSWOOD COUNTY JACKSON
 QUADRANGLE LIVERPOOL 7.5' Ripley 15' EC
 SURFACE OWNER STEPHEN L. UTT ACREAGE 59
 OIL & GAS ROYALTY OWNER VIRGINIA M. BOGGESS, et al. LEASE ACREAGE 59
 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) _____
 PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION BROWN SHALE ESTIMATED DEPTH 4990'
 WELL OPERATOR DELTA DRILLING CO. DESIGNATED AGENT JOHN O. KIZER
 ADDRESS 200 FLEET ST. - SUITE 4005 ADDRESS P.O. BOX 951
PITTSBURGH, PA. 15220 CHARLESTON, W.VA. 25323

DEC 13 1982



Rec'd 19500 1983

IV-35
(Rev 8-81)

Date September 14, 1983
Operator's 1
Well No. _____
Farm V.M. Boggess
API No. 47 - 035 - 1783

State of West Virginia
Department of Mines
Oil and Gas Division

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 X /)

LOCATION: Elevation: 660 Watershed Big Lick Run
District: Ravenswood County Jackson Quadrangle Liverpool 7.5"

COMPANY DELTA DRILLING CO., N.E. PROD.
ADDRESS 200 Fleet Street - Suite 4005
Pittsburgh, PA. 15220
DESIGNATED AGENT John O. Kizer
ADDRESS P.O. Box #951, Charleston, W.VA. 25323
SURFACE OWNER Stephen L. Utt
ADDRESS 731 Clearview Hts., Charleston, W. VA
MINERAL RIGHTS OWNER Virginia M. Boggess 25312
ADDRESS 684 Hunter ST., Logan, Ohio 43138
OIL AND GAS INSPECTOR FOR THIS WORK Homer Dougherty
Linden Route
Box #3A ADDRESS Looneyville, W. VA. 25259
PERMIT ISSUED December 1, 1982
DRILLING COMMENCED 12/20/82
DRILLING COMPLETED 12/28/82
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"		195'	190'
9 5/8			
8 5/8		2187'	2150'
7			
5 1/2			
4 1/2		5012'	2500'
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Brown Shale Depth 4990 feet
Depth of completed well 5027 feet Rotary X / Cable Tools _____
Water strata depth: Fresh 250 feet; Salt _____ feet
Coal seam depths: _____ Is coal being mined in the area? no

OPEN FLOW DATA
Producing formation Brown Shale Pay zone depth 4900 feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 335 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure 1125 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 _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure _____ psig (surface measurement) after _____ hours shut in

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

PERFORATIONS	75 QUALITY FOAM	SAND	AVE. INJECTION RATE
<i>Huron → Rhinestreet → Sonyea</i> <u>4370 - 4980 (14)</u>	32,000	40,000#	45 BBL./MIN.
<u>2985 - 4177 (15)</u>	32,000	40,000#	48 BBL./MIN.

Op Dev → Huron

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
SUB			0	10	
SAND & SHALE			10	168	1" STREAM AT 40'
RED ROCK			168	180	
SHALE			180	190	
SAND			190	197	
SAND & SHALE			197	230	
SAND			230	264	2" STREAM @ 250'
SAND & SHALE			264	280	
RED ROCK			280	305	
SAND & SHALE			305	545	
SHALE & RED ROCK			545	625	
SANDY SHALE			625	660	
RED ROCK			660	735	
SAND			735	810	
SAND & SHALE			810	840	
SAND			840	1030	
SAND & SHALE			1030	1150	
SAND			1150	1285	
SAND			1285	1345	
SAND & SHALE			1345	1390	
SAND			1390	1440	
SAND & SHALE			1440	1450	
SAND			1450	1530	
SAND & SHALE			1530	1680	
WHITE SAND			1680	1770	
BIG LIME			1770	1884	
SHALE			1884	1907	
BIG INJUN			1907	1957	
SHALE			1957	2110	
SAND			2110	2126	
SHALE			2126	2325	
SAND <i>Bene?</i>			2325	2340	
SHALE			2340	5028 T.D.	


*5028
2340
2688
Rhinestreet @ T.D.*

One n 5025 WTL

(Attach separate sheets as necessary)

DELTA DRILLING COMPANY, NORTHEAST PRODUCTION DIVISION

Well Operator

By: W.G. Darden, Production Div. Mgr 

Date: September 14, 1983

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 ... encountered in the drilling of a well."



1) Date: DECEMBER 1, 19 82
 2) Operator's Well No. V.M. BOGGESS, et. al. 41
 3) API Well No. 47 State 085 County 1783 Permit 035-1783

DRILLING CONTRACTOR:

FOX DRILLING COMPANY
GLENVILLE, W. VA. 26351

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil _____ / Gas X /
 B (If "Gas", Production X / Underground storage _____ / Deep _____ / Shallow X /)
- 5) LOCATION: Elevation: 660 Watershed: BIG LICK RUN
 District: RAVINSWOOD County: JACKSON Quadrangle: LIVERPOOL 7.5'
- 6) WELL OPERATOR DELTA DRILLING CO. 11) DESIGNATED AGENT JOHN W. KIZER
 Address 200 FLEET ST., SUITE 4005 Address P. O. BOX 951
PITTSBURGH, PA. 15220 CHARLESTON, W. VA. 25323
- 7) OIL & GAS ROYALTY OWNER VIRGINIA MAE BOGGESS, et. al. 12) COAL OPERATOR N/A
 Address 604 HUNTER STREET Address _____
LOGAN, OHIO 43138
- 8) SURFACE OWNER STEPHEN L. UTT 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address 731 CLEARVIEW HEIGHTS Name N/A
CHARLESTON, W. VA. 25312 Address _____
- 9) FIELD SALE (IF MADE) TO:
 Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name ROMER H. DOUGHERTY Address _____
 Address LINDEN RT., BOX 3-A
LOONEYVILLE, W. VA. 25259
- 15) PROPOSED WORK: Drill X / Drill deeper _____ / Redrill _____ / Fracture or stimulate _____ /
 Plug off old formation _____ / Perforate new formation _____ /
 Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, BROWN SHALE
- 17) Estimated depth of completed well, 4990 feet
- 18) Approximate water strata depths: Fresh, _____ feet; salt, _____ feet.
- 19) Approximate coal seam depths: _____ Is coal being mined in the area? Yes _____ / No _____ /

20) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	<u>13 3/8"</u>					<u>20 FT</u>	<u>20 FT</u>		Kinds
Fresh water	<u>11 3/4"</u>					<u>200 FT</u>	<u>200 FT</u>	<u>To Surface</u>	
Coal									Sizes
Intermediate	<u>8 5/8"</u>					<u>2385 FT</u>	<u>2385 FT</u>	<u>To Surface</u>	
Production	<u>4 1/2"</u>					<u>4990 FT</u>	<u>4990 FT</u>	<u>900 SKS</u>	Depths set
Tubing									
Liners									Perforations: Top Bottom

21) EXTRACTION RIGHTS

Check and provide one of the following:

- Included in the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)

22) ROYALTY PROVISIONS

Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

23) Required Copies (See reverse side.)

24) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

Notary: _____
 My Commission Expires _____

Signed: Joff Davis
 Its: _____

OFFICE USE ONLY
DRILLING PERMIT

Permit number _____ Date _____

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. 10) 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.)

Permit expires Aug 2 1992 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>W. H. T. S.</u>	<u>T. S.</u>	<u>T. S.</u>	<u>T. S.</u>	<u>3166</u>

Administrator, Office of Oil and Gas