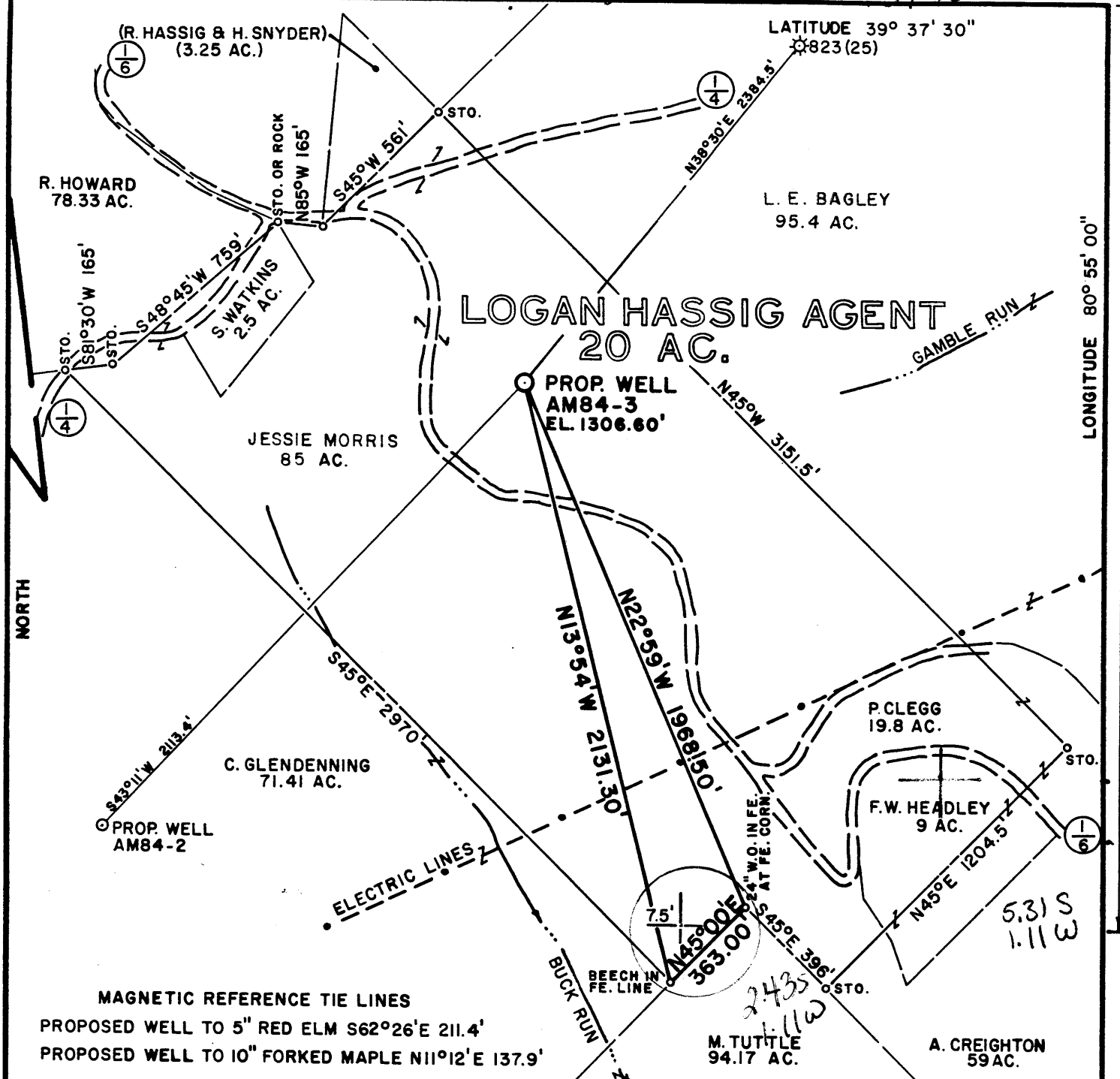
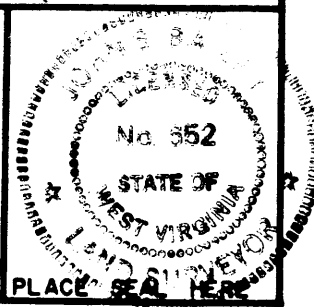


1710 12/1/84



FILE NO. MSES84-529
 DRAWN BY PJD
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1/1200
 PROVEN SOURCE OF ELEVATION U.S.G.S. BUCK KNOB CONTROL STN. 2150 NW OF LOC. - EL. 1345.'

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) John A. Bailey
 R. P. E. _____ L. L. S. 652



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



DATE OCTOBER 19, 1984
 OPERATOR'S WELL NO. AM84-3
 API WELL NO. 47-095-1093
 STATE WEST VIRGINIA COUNTY TYLER PERMIT 091

Department of Mines
 Oil & Gas Division

WELL TYPE: OIL _____ GAS X LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS", PRODUCTION X STORAGE _____ DEEP _____ SHALLOW X)
 LOCATION: ELEVATION 1306.60' WATER SHED GAMBLE RUN
 DISTRICT LINCOLN 3 COUNTY TYLER
 QUADRANGLE PADEN CITY 7.5' 1960 (1972 & 1976) New Martinsville 15' WC 4
 SURFACE OWNER JESSE MORRIS ACREAGE 85
 OIL & GAS ROYALTY OWNER LOGAN HASSIG, AGENT LEASE ACREAGE 20
 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 FIFTH SAND/GORDON ESTIMATED DEPTH 4500' DEC 31 1984
 WELL OPERATOR APPLIED MECHANICS CORP. DESIGNATED AGENT C.L. STOUT
 ADDRESS RT. 1, BOX 41-J BRIDGEPORT, WV 26330
053 BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330
Willow Fork



IV-35
(Rev. 11-1-84)

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MAY 23 1985

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia

Department of Mines
Oil and Gas Division

Date May 16, 1985
Operator's
Well No. AM84-3
Farm Morris
API No. 47 - 095 - 1093

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 ___ / Underground Storage ___ / Deep ___ / Shallow X /)

LOCATION: Elevation: 1306.6 Watershed Buck Run/Gamble Run
District: Lincoln County Tyler Quadrangle Paden City 7.5

COMPANY Applied Mechanics Corporation

ADDRESS Rt. 1, Box 41-J; Bridgeport, W.Va. 26330

DESIGNATED AGENT Charles L. Stout

ADDRESS Rt. 1, Box 152; Middlebourne, W.Va. 26149

SURFACE OWNER Jesse and Diane Morris

ADDRESS 9936 William Henry Drive
Street Shore, Ohio

MINERAL RIGHTS OWNER Logan Hassig, Agent

ADDRESS P.O. Box 189; New Martinsville, W.Va.

OIL AND GAS INSPECTOR FOR THIS WORK 26155

Bob Lowther ADDRESS Middlebourne, W.Va.

PERMIT ISSUED November 26, 1984

DRILLING COMMENCED December 10, 1984

DRILLING COMPLETED December 15, 1984

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON N/A

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16			
Cond. 11 3/4			
18 1/2	30'	30'	
9 5/8			
8 5/8	1560	1560	400 sacks
7			
5 1/2			
4 1/2	3768	3768	375 sacks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Shale/Gordon Depth 3111-3130 feet

Depth of completed well 3790 feet Rotary X / Cable Tools

Water strata depth: Fresh 0 feet; Salt 0 feet

Coal seam depths: 0 Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Gordon Pay zone depth 3113-3130 feet

Gas: Initial open flow Show Mcf/d Oil: Initial open flow 0 Bbl/d

Final open flow 500 Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 5 hours

Static rock pressure 1180 psig (surface measurement) after 36 hours shut in

(If applicable due to multiple completion--)

Second producing formation Shale ^{Up Dev. Unally} Pay zone depth 3685-3730 feet

Gas: Initial open flow Show Mcf/d Oil: Initial open flow 0 Bbl/d

Final open flow 0 Mcf/d Oil: Final open flow 0 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.

Shale---perforated ^{up Dev. undiff} 3685-3730---19 holes
treated using 500 gal. acid & 750,000 S.C.F. nitrogen

Gordon--perforated 3113-3116---4 holes
" 3125-3130---6 holes
treated using: foam---22,000 gal.
acid---250 gal.
sand (20-40)---14,800 #

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Top soil	Red	Soft	0	8	
Sand	Grey	Hard	8	103	
Shale	Grey	Soft	103	119	
Red Rock	Red	Soft	119	133	
Shale	Grey	Soft	133	194	
Red Rock	Red	Soft	194	210	
Shale	Grey	Soft	210	471	
Red Rock	Red	Soft	471	480	
Sand & Shale	Grey	Soft	480	720	
Red Rock	Red	Soft	720	733	
Shale	Grey	Soft	733	965	
Sand	Grey	Hard	965	980	
Sand & Shale	Grey	Soft	980	1440	
Red Rock	Grey	Soft	1440	1450	
Sand	Grey	Hard	1450	1650	water 1/4" stream 1530
Shale & Sand	Grey	Hard & Soft	1650	1948	
Sand	Grey	Hard	1948	1986	-----Maxon Sand
Shale	Grey	Soft	1986	2056	
Lime	Grey	Hard	2056	2136	-----Big Lime
Sand	Grey	Hard	2136	2313	-----Big Injun (oil show 2196)
Shale	Grey	Soft	2313	2524	
Sand	Grey	Soft	2524	2617	-----Weir Sand
Shale & Sand	Grey	Hard	2617	3111	-----Gordon Sand
Shale	Grey	Hard	3111	3800	
			TD	3800	Up Dev. @ TD.

(Attach separate sheets as necessary)

Applied Mechanics Corporation
Well Operator
By: Charles L. Stout, Pres.
Date: May 16, 1985

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."

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DEC - 7 1984



1) Date: November 26, 1984
 2) Operator's Well No. AM84-3
 3) API Well No. 47 - 095 - 1093
 State County Permit

**OIL & GAS DIV.
DEPT. OF MINES**

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

- 4) WELL TYPE: A Oil / Gas /
 B (If "Gas", Production / Underground storage / Deep / Shallow /)
- 5) LOCATION: Elevation: 1306.60' Watershed: Gamble Run
 District: Lincoln County: Tyler Quadrangle: Paden City 7.5
- 6) WELL OPERATOR Applied Mechanics
 Address Rt. 1, Box 41-J
Bridgeport, WV 26330 *2475*
- 7) DESIGNATED AGENT C. L. Stout
 Address Rt. 1, Box 41-J
Bridgeport, WV 26330
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Robert A. Lowther
 Address General Delivery
Middlebourne, WV
- 9) DRILLING CONTRACTOR:
 Name _____
 Address _____
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate /
 Plug off old formation / Perforate new formation /
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Fifth Sand/Gordon
- 12) Estimated depth of completed well, 4500 feet
- 13) Approximate trata depths: Fresh, 630, 850 feet; salt, 1540 feet.
- 14) Approximate coal seam depths: _____ Is coal being mined in the area? Yes / No /
- 15) 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	11 3/4	H-40	42		<input checked="" type="checkbox"/>	20	20		Kinds	
Fresh water										
Coal									Sizes	
Intermediate	8 5/8	J-55	23	<input checked="" type="checkbox"/>		1200	1200	Circulate <i>to surface NEAR</i> <i>400 SF or less required</i> <i>by rule D15.01</i>		
Production	4 1/2	J-55	10.5	<input checked="" type="checkbox"/>			4400			
Tubing									Perforations:	
Liners									Top Bottom	

**OFFICE USE ONLY
DRILLING PERMIT**

Permit number 47-095-1093 Date December 7, 19 84

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 December 7, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>8</u>	<u>MN</u>	<u>MN</u>	<u>MN</u>	<u>399</u>

Margaret J. Hass
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.