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Signed:

Date:\_\_

Martin L. Miller E. Jan. 31, 2001

## State of West Virginia Division of Environmental Protection Section of Oil and Gas

DATE: January 31, 2001 API#: 47-9501697

Section	01 011 2112 025			_
.· Well Operator	's Report of Wel	il Work		
Farm name: David Hartley	Opera	utor Well No.:_	#2	
LOCATION: Elevation: 895'				
LOCATION. Lievation.				
District: Meade	Coun	ty: <u>""v1</u>	er	
Latitude: 4500 Feet South of 39	Deg: <u>22</u>	Min30	Sec.	, j
Longitude 180 Feet West of 81	Deg <u>00</u>	Min	OSec.	<b>F</b>
o Ohio IsM Co Ing	Jegi			
Company: Ohio L&M Co., Inc.	Casing &	Used in	Left in well	Cement fill
	Tubing	drilling		up Cu. Ft.
Address: 4150 Belden Village Ave.		401	0'	N/A
NW Suite 410 Canton, OH 47718				
Agent: Jeff Sayger	11-3/4"		179'	100 Sks.
Inspector: Mike Underwood			1	
Date Permit Issued: 10-5-00	8-5/8"		1168'	275 Sks.
Date Permit Issued: 10-5-00  Date Well Work Commenced: 12-26-00				
Date Well Work Completed: 1-16-01	4-1/2"		5174'	275 Sks.
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): 5235		<u> </u>		
Fresh Water Depth (ft.): 451		J.,	Periodican	
			2001	
Salt Water Depth (ft.): 604		J	1.307001	
	<u> </u>			·
Is coal being mined in area (N/Y)? N		Env	(1) appointment of	
Coal Depths (ft.): N/A		macro v	ground a greatery account to the party of th	
OPEN FLOW DATA	ga <sup>N</sup>			<b>Š</b> 7 .
•	r* **		4000 403	
Producing formation Benson	Pay :	zone depth (f	() 4808-481	. 4
Gas: Initial open flow Show MCF/d Oil	l: Initial open	flow_0.0_	_Bbl/d	_
Final open flow 70 MCF/d	Final open flo	w <del>0.0_</del>	Bong Wife	r Frac
Time of open flow between initial and	l final tests	Ho	ours	
Static rock Pressure 1250 psig (surfa	ace pressur <b>e</b> ) a	ifter <u>18</u> F	lours	
Second producing formation	Pay zo	one depth (ft)		
Gas: Initial open flowMCF/d Oi	l: Initial open	flow	_¤ס∧מ	
Final open flow MCF/d	Final open flo	w	_Bbl/d	
Time of open flow between initial and	i final tests	Ho	ours	
Static rock Pressurepsig (surfa	ace pressure) a	afterF	Hours	
NOTE: ON BACK OF THIS FORM PITT THE	FOLI OWING	: 1). DETAIL	S OF PERFORA	ATED
INTERVALS, FRACTURING OR STIMULAT	ING, PHYSIC	AL CHANGE,	OF ALL FORM	TATIONS
LOG WHICH IS A SYSTEMATIC DETAILED	CEOLOGIC	AL KECOKD	OF ALL POINT	L.1.10110,
INCLUDING COAL ENCOUNTERED BY THE	WELLDYING	2	•	AHG 0 3 20
		/ / -		- #3 tills 3.5 .3 Z17

HARTLEY #2		•	Page 2

Weir Sandstone	2256'	- 1351
Berea Sandstone	2501'	- 1596
Gantz Sandstone	2606'	- 1701
30' Sandstone	2680'	- 1775
Gordon Sandstone	2794'	- 1889
4 <sup>th</sup> Sandstone	2868'	- 1963
5 <sup>th</sup> Sandstone	2950'	- 2045
Warren Sandstone	3383'	- 2478
Speechley Sandstone	3736'	- 2831
Balltown Sandstone	3896'	- <b>29</b> 91
Bradford Sandstone	4250'	- 3345
Riley Sandstone	4623'	- 3718
Benson Sandstone	4804'	- 3899
Alexander Sandstone	5094'	- 4189

## STRUCTURAL COMPARISON:

	Ohio L&M Co.	Inc. O	hio L&M Co., Inc.
Benson Sandstone	Hartley #2 - 3899		Hartley #1 - 3880
		1111 30 7001	

## **GEOLOGY:**

Sample analysis indicated very good sandstone development in the Benson, with fair development in the Weir, Gantz, Gordon and Bradford. A very good show of gas was encountered in the Benson. Small shows of gas were noted in the Big Injun (1920'), Gantz (2620'), Gordon (2799') and Bradford (4255'). A small show of oil and gas was reported in the Big Lime (1851'). Fair hydrocarbon fluorescence was noted in the Big Lime. Good hydrocarbon fluorescence was recorded in the Weir.

Based upon the open hole logs, the Benson Sandstone at 4808 to 4816' appears to be well developed with good gas saturations. The Big Injun, Gantz, Gordon and Warren showed fair development.

The Benson Sandstone should be very good producer of gas in this well. A completion attempt on the Big Injun, Gantz, Gordon and Bradford would also be warranted prior to abandonment.

Respectfully submitted,

NATIONAL MINERALS CORPORATION By: Douglas L. Core, President

January 9, 2001.

AUG 0 3 2001



WELL: Ohio L & M Co., Inc.#2 Hartley.

LOCATION: Meade District, Tyler County, West Virginia.

PERMIT NUMBER: Tyler-1697.

ELEVATION: 895' Ground 905' KB.

STATUS: Preparing to complete as a gas producer.

CASING: 11 3/4 " @ 179' 8 5/8" @ 1168'. -

TOTAL DEPTH: 5244' Driller 5235' Logger.

CONTRACTOR: Nexus Drilling Co..

TOOLS: Rotary.

SPUD DATE: 12/26/2000.

COMPLETED DRILLING: 1/7/2001.

FORMATION AT TOTAL DEPTH: Devonian shale.

ELECTRICAL SURVEYS: Gamma Ray- Neutron- Compensated Density-Caliper- Induction- Temperature- Noise by Allegheny Wireline Services, Inc.

SHOWS: A very good show of gas was encountered in the Benson Sandstone (4812'). Small shows of gas were noted in the Big Injun (1920'), Gantz (2620'), Gordon (2799') and Bradford (4255'). A small show of oil and gas was reported in the Big Lime (1851'). Fair hydrocarbon fluorescence was noted in the Big Lime. Good hydrocarbon fluorescence was recorded in the Weir. A more detailed description of the above mentioned fluorescence can be found on the attached Formation Evaluation Log.

FORMATION TOPS:	2 <sup>nd</sup> Cow Run Sandstone	1197'	- 292
	Gas Sand	1362'	- 457
	1st Salt Sand	1406'	- 501
	2nd Salt Sand	1515'	- 610
	3rd Salt Sand	1616'	- 711
	Maxon Sandstone	Absent	
	Little Lime	1746'	- 841
	Big Lime (Greenbrier)	1772'	- 867
	Big Injun Sandstone	1874'	- 969
	Squaw Sandstone	1986'	- 1081