

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

Farm name: STRONG HEIRS Operator Well No.: #2

LOCATION: Elevation: 864' Quadrangle: BURNING SPRINGS 7.5'

District: BURNING SPRINGS County: WIRT

Latitude: 2900 Feet South of 39 Deg. 00 Min. 00 Sec.

Longitude 1925 Feet West of 81 Deg. 17 Min. 30 Sec.

Company: C. I. McKOWN & SON, INC.

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: <u>P. O. BOX 711</u>				
<u>NEWTON, WV 25266</u>				
Agent: <u>C. I. McKOWN, II</u>	<u>9 5/8"</u>	<u>281'</u>	<u>281'</u>	<u>130</u>
Inspector: <u>ED GAINER</u>				
Date Permit Issued: <u>09-02-08</u>	<u>7"</u>	<u>1626'</u>	<u>1626'</u>	<u>307</u>
Date Well Work Commenced: <u>10-02-08</u>				
Date Well Work Completed: <u>10-09-08</u>	<u>4 1/2"</u>	<u>4902'</u>	<u>4902'</u>	<u>393</u>
Verbal Plugging: <u>N/A</u>				
Date Permission granted on:				
<u>Rotary</u> Cable Rig				
Total Depth (feet): <u>4920'</u>				
Fresh Water Depth (ft.): <u>--</u>				
Salt Water Depth (ft.): <u>1350'</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.):				

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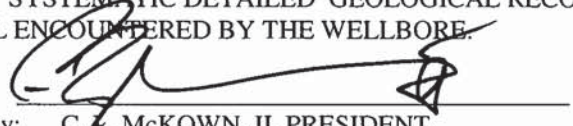
OPEN FLOW DATA

Producing formation DEVONIAN SHALE Pay zone depth (ft) 2001' - 4791'
 Gas: Initial open flow 200 MCF/d Oil: Initial open flow SHOW Bbl/d
 Final open flow 1000 MCF/d Final open flow 10 Bbl/d
 Time of open flow between initial and final tests 72 Hours
 Static rock Pressure 425 psig (surface pressure) after 48 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.

Signed:



By: C. I. McKOWN, II, PRESIDENT,
Date: 06-26-09

Perforations and Frac Detail:

1 st stage	4033' – 4791' (26 holes)	85 quality foam frac using 500 gal. 15% HCL; 720 MSCF N ₂ ; 31,300# 20/40 sand.
2 nd stage	2995' – 3826' (27 holes)	90 quality foam frac using 500 gal. 15% HCL; 653 MSCF N ₂ ; 30,000# 20/40 sand.
3 rd stage	2369' – 2879' (26 holes)	80 quality foam frac using 500 gal. 15% HCL; 587 MSCF N ₂ ; 30,000# 20/40 sand.
4 th stage	2001 – 2289 (24 holes)	80 quality foam frac using 500 gal. 15% HCL; 581 MSCF N ₂ ; 30,000# 20/40 sand.

WELL LOG:

Not logged and no
Information from

Drillers	0	1500
LIME	1500	1545
SAND	1545	1602
SHALE	1602	1877
SILT	1877	1881
SHALE	1881	1883
SILT	1883	1890
SHALE	1890	1892
SILT	1892	1897
SHALE	1897	1970
COFFEE SHALE	1970	1991
SHALE	1991	2016
SILT	2016	2022
SHALE	2022	2065
SILT	2065	2071
SHALE	2071	2090
SHALE/SILT	2090	2180
SHALE	2180	2220
SHALE/SILT	2220	2349
SILT	2349	2362
SHALE	2362	2368
SILT	2368	2376
SHALE	2376	2385
SILT	2385	2392
SHALE/SILT	2392	2595
SHALE	2595	2998
SILT	2998	3010

Cont.

SHALE	3010	3222
SHALE/SILT	3222	3274
SHALE	3274	3342
SILT	3342	3354
SHALE	3354	3521
SILT	3521	3526
SHALE	3526	3557
SILT	3557	3575
SHALE	3575	3611
SILT	3611	3624
SHALE	3624	3681
SILT	3681	3688
SHALE	3688	3806
SILT	3806	3811
SHALE w/few Silt stringers	3811	4920



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

September 02, 2008

WELL WORK PERMIT

New Well

This permit, API Well Number: 47-10501358, issued to MCKOWN, C.I. & SON, INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto.

Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, well operators report of well work, is to be submitted to this office within 90 days of completion of drilling, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: STRONG HEIRS 2
Farm Name: MENEFFEE, ROY T.

API Well Number: 47-10501358

Permit Type: New Well

Date Issued: 09/02/2008

Promoting a healthy environment.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

105-01358

1) Well Operator C. I. McKOWN & SON, INC.

307161	WIRT	Burn. Spring	Burning Springs 7.5'
Operator ID	County	District	Quadrangle

2) Operator's Well Number: Strong Heirs #2 3) Elevation: 864'

4) Well Type: (a) Oil or Gas
 (b) If Gas: Production / Underground Storage _____
 Deep _____ / Shallow

5) Proposed Target Formation(s): Devonian Shale

6) Proposed Total Depth: 5300' Feet

7) Approximate fresh water strata depths: +/- 150'

8) Approximate salt water depths: +/- 1000'

9) Approximate coal seam depths: N/A

10) Does land contain coal seams tributary to active mine? No

11) Describe proposed well work Drill and stimulate new well.

[Handwritten Signature]
8/8/08

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	
Conductor						
Fresh Water	9 5/8"	LS	32#	270'	270'	Cement to Surface
Coal						
Intermediate	7"	LS	17#	1600'	1600'	Cement to 270'
Production	4 1/2"	J-55	10.5/11.6	5300'	5300'	Cement to +/- 1750'
Tubing						
Liners						

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Packers: Kind _____
 Sizes _____
 Depths Set _____

ck 35045
650