

Hangingstone McMurray G Pool

Executive Summary

This document provides evidence that shows the limited/defined region of influence (ROI) within the Hangingstone McMurray G Pool, despite the structural and stratigraphic similarity of the gas/water contact based on well log correlation between two closely spaced wells. The ROI of a gas well includes the area directly drained by the production of gas and areas indirectly affected. Areas indirectly affected include the area covered by a common aquifer.

The 9-21-81-10 W4 and 7-22-81-10 W4 wells are 931 metres apart, and are both completed in the B2. The difference in initial pressures between these wells was greater than 100 kPa, indicating that these wells are not in communication. The water gradient lines which intersect each well's gas gradient line are not in the same pressure system, and are not connected. The conclusion that results from this data is that the gas accumulation has a limited region of influence.

This conclusion could not have been reached from well log correlations alone, and highlights the pitfall of drawing conclusions without integrating the appropriate engineering data.

Stratigraphic Definition

For the purpose of discussion, the A1 and B2 sands are informally defined in the 9-21-81-10 W4 well (Cross Section 3) as follows:

A1 Sand:	428m to 430.4m
M45 Mud:	430.4m to 431.1m
B2 Sand:	445m to 453m

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The Hangingstone McMurray G Pool (Figure 1) has 2 wells with isolated B2 perforations. There are water zones noted on logs within the B2 in both these wells. Cross section 3 has been included for reference (see Figure 2 for location)

Pressure Depth Plotting

The initial pressures (prior to gas production from the G Pool) recorded for wells completed only in the B2 have been plotted versus elevation (Figure 3, Table 1). This plot clearly indicates that the 9-21-81-10 W4 and 7-22-81-10 W4 wells are in separate pools. There is over 100 kPa difference in initial pressures between these wells. The 9-20-81-10 W4 (EUB-defined Hangingstone McMurray I Pool) well is completed over

multiple sands, and therefore, the pressure data can only be used in a qualitative sense. 9-20-81-10 W4 has been included for reference only.

Table 1

	Completed horizon	Date on Production	Date of Pressure Test	Pressure Point Elevation (maSL)	Initial Pressure (kPaa)*
7-22-81-10 W4	B2	July 1994	Jan 1981	267.6	2178
9-21-81-10 W4	B2	July 1994	Jan 1994	263.3	2066
9-20-81-10 W4	A&B	July 1994	Jan 1992	275.8	2050

*The initial pressures are the calculated initial pressures from pressure transient analysis. Pressures were converted from gauge to absolute using 93 kPa.

The log-derived gas water contacts on the 9-21-81-10 W4 and 7-22-81-10 W4 wells are +259.9m and +260.5m respectively, which are structurally very similar. However, when the initial pressures are taken into account, and the water gradient lines are drawn through their respective contacts (Figure 3) it is apparent that not only are the gas accumulations separate, but the water must also be isolated.

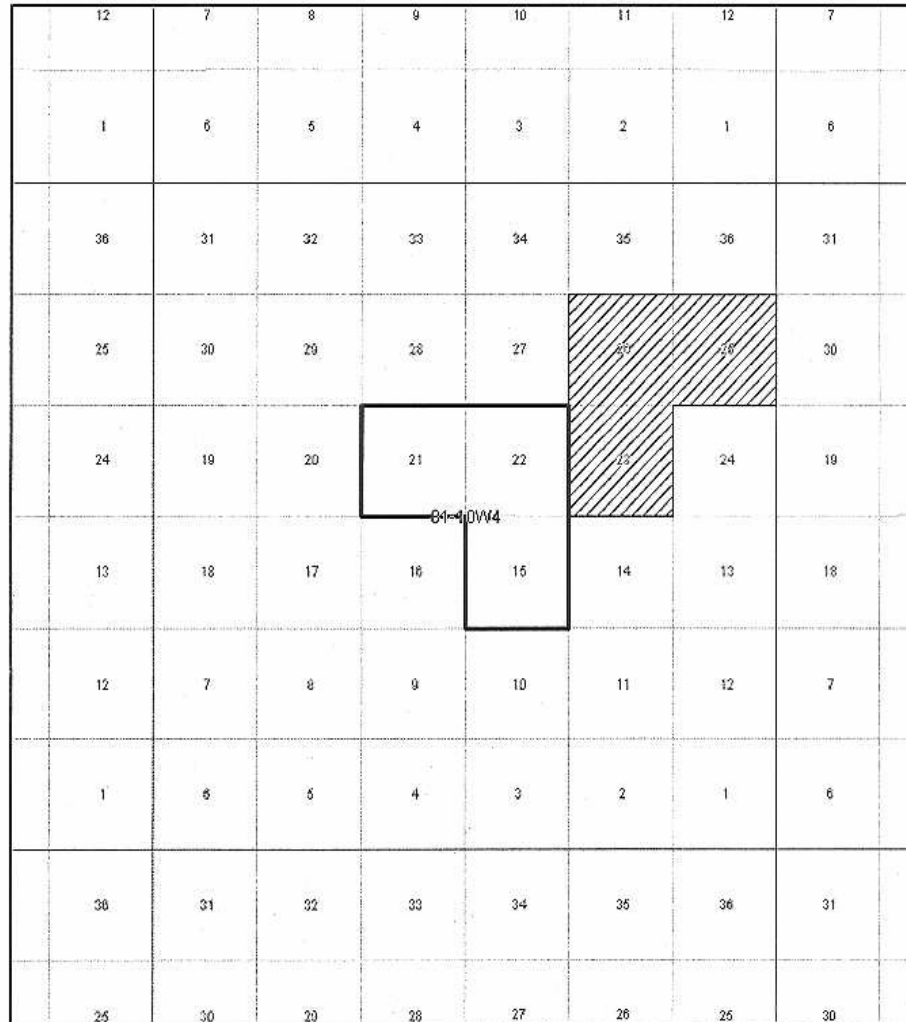
Dual tandem gauges were used in the pressure surveys on all of the wells. Table 2 summarizes the highest measured pressure from the top and bottom gauges for reference.

Table 2: Raw Pressure Data comparison

	Highest measured P (top gauge)		Highest measured P (bottom gauge)	
	Depth (mGL)	kPag	Depth (mGL)	kPag
7-22-81-10 W4	441	2058*	441	2128*
9-21-81-10 W4	440	1959.7	442	1960.3
9-20-81-10 W4	428.2	1935.2	430	1930

*this analysis utilized the top gauge in order to provide a conservative analysis

POOL ORDER: 444 328007 2003-12-01

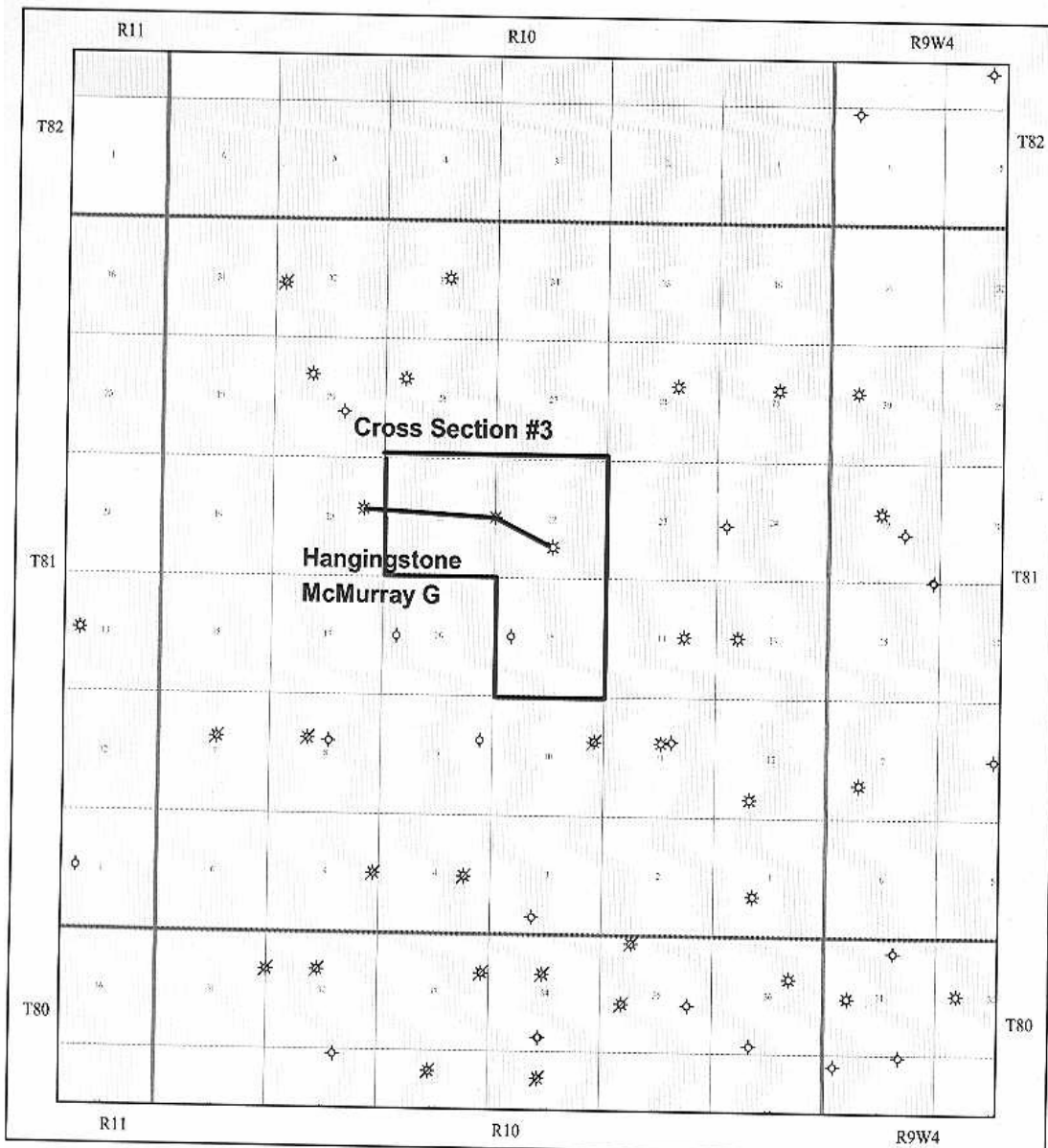


Field/Pool Code: **444 328007**
 Field Name: **HANGINGSTONE**
 Pool Name: **MCMURRAY G**
 Reference Well: **00/09-21-081-10W4/0**
 Well Depth: **445 - 449.5 m**
 Area of Change: 
 Pool Order 444 328007 2001-02-01 is rescinded.

Effective Date: **2003-12-01**




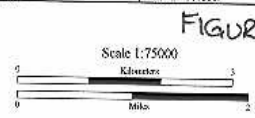
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WELL LEGEND	
Bottom Hole Location:	
○ Location	◇ Suspended
* Gas	◇ Dry & Abandoned
* Suspended Gas	

PROPRIETARY DATA LEGEND	
Regions:	
	Paramount TRUST Lands

Paramount Energy Trust	
Hangingstone McMurray G Pool	
EUB Order and cross section	
 Map Software by IHS Energy Vol. 22 No. 11, Nov 12, 2003 © 2003 IHS Energy	Author: Date: December 10, 2003 File: 2EUBHangMCMG Submissions.MXD Scale: 1:75000



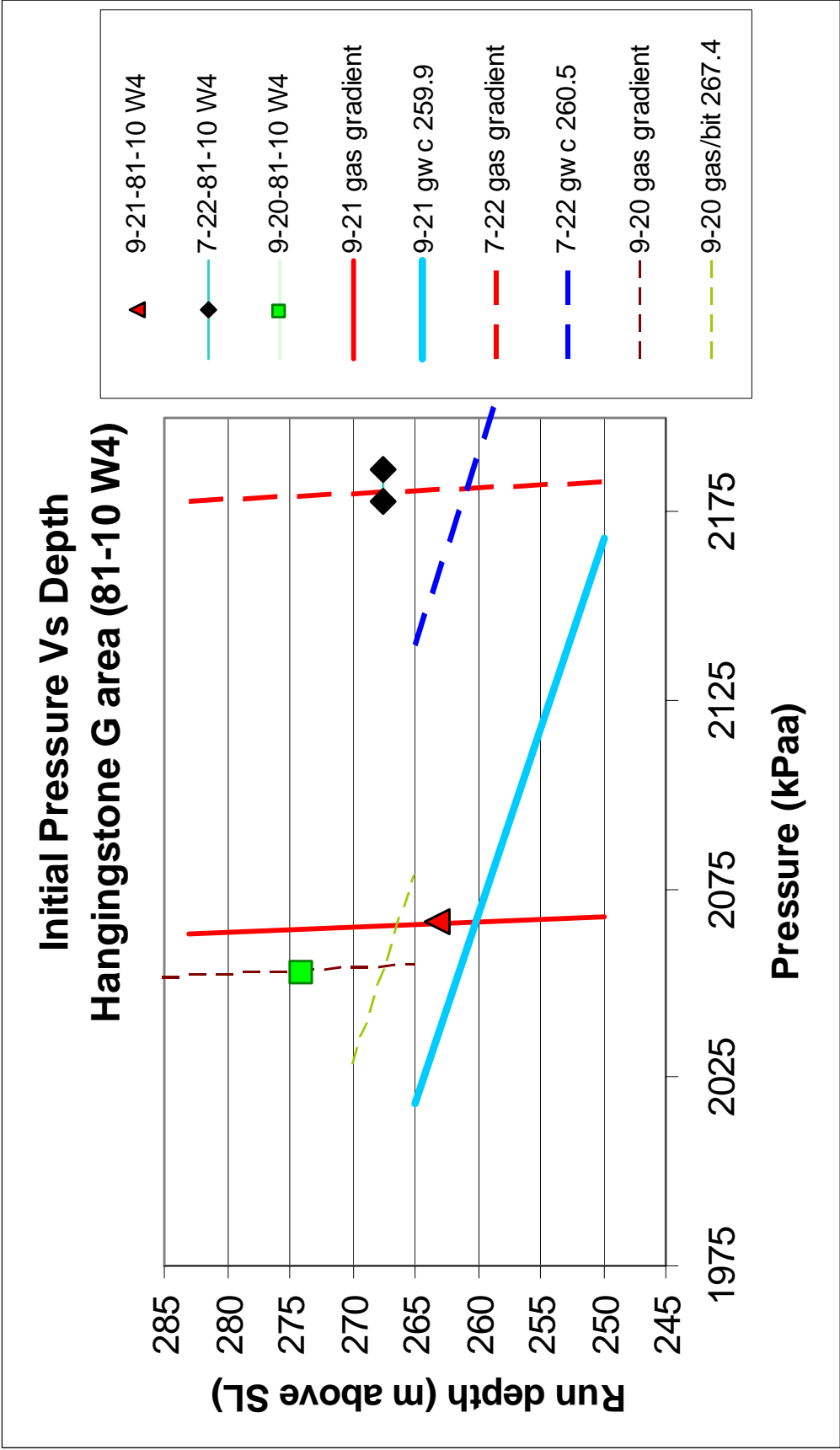


FIGURE 3