Seismic reflections

The next major US resource play

This week's EnerCom Oil & Gas Conference, probably the premier London event featuring US E&P independents, provided a number of insights. Arguably the most interesting of all concerned Goodrich Petroleum's comments on the prospectivity of the Tuscaloosa Marine Shale (TMS) in Louisiana and Mississippi. This is effectively an extension of the prolific Eagle Ford play of Texas. We believe interest in the TMS is likely to grow in the coming months as new drilling results are reported.

The TMS backdrop looks positive

The TMS is an unconventional Middle Cretaceous age resource formation that extends through central Louisiana and southern Mississippi. It contains inter-bedded siltstones and fine grained sandstones that have provided the hydrocarbon source rock in these two states for the conventional Austin Chalk plays. The TMS is of similar age to the Eagle Ford and is analogous in terms of key physical characteristics. Oil and gas has been extracted from conventional wells in the TMS since the 1970s, but only over the past four years or so have horizontal drilling techniques and multi-stage fracking been applied. Making the TMS play particularly interesting are a thick pay zone, an over-pressured formation (high oil saturations and ease of lifting), an oil-rich mix (90% oil and 10% high Btu gas) and high-quality oil at 38-44 degrees API. Significantly, oil of this quality near the Gulf Coast sells at par to LLS and very close to par with Brent. This contrasts with the resource plays further north, where light oil sells at par or even a discount to lower priced WTI. The downside to the TMS is that it is relatively deep at 11,000-13,000 ft and includes clay, which is potentially detrimental to permeability. These do not, however, appear to be insuperable problems. So far, drilling results have been encouraging. A Louisiana State University study has suggested that the TMS may contain 7bn barrels recoverable. The key players in the TMS are Encana, Devon Energy, Goodrich and EOG.

Which way for natural gas?

Not surprisingly, there was much discussion at the EnerCom Conference concerning the independents reorienting their businesses from gas to liquids and the direction of US gas prices. Concerning the latter point, the consensus is that prices probably bottomed back in April at \$1.84/mmbtu using the Henry Hub benchmark. The trend is expected to firm over the next two or three years to maybe \$4-5/mmbtu. The key factors here are the sharp drop in the dry gas rig count and likely strengthening demand, particularly in power generation and petrochemicals, reflecting highly competitive US gas prices. In the medium term, GTL projects and vehicular fuels in the form of CNG and LNG also potentially offer new or expanding markets. The expected continuing upward trend in gas produced as a by-product of oil-focused drilling activity is likely to constrain gas prices over the next few years. For many US independents the pain of depressed gas prices has been offset in whole or in part by the switch to liquids and hedging. As a result, cash margins have, for some, held up at excellent levels of \$40-50/boe plus.



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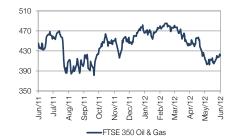
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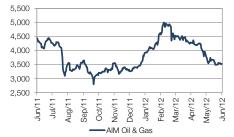
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Exhibit 1: Best and worst performers

1 week					
No.	Best performers	% change	No.	Worst performers	% change
1	NAUTICAL PETROLEUM PLC	63.5%	1	MAX PETROLEUM PLC	-20.0%
2	GASOL PLC	14.3%	2	CHARIOT OIL & GAS LTD	-16.2%
3	ROXI PETROLEUM PLC	12.0%	3	ENDEAVOUR INTERNATIONAL CORP	-16.2%
4	RANGE RESOURCES LTD	10.1%	4	BORDERS & SOUTHERN PETROLEUM	-14.5%
5	FRONTERA RESOURCES CORP	7.4%	5	AFREN PLC	-14.0%

	1 month					
No.	Best performers	% change	No.	Worst performers	% change	
1	NAUTICAL PETROLEUM PLC	59.7%	1	PETRO MATAD LTD	-52.3%	
2	FRONTERA RESOURCES CORP	37.9%	2	INDEPENDENT RESOURCES PLC	-40.0%	
3	ROXI PETROLEUM PLC	21.7%	3	LENI GAS & OIL PLC	-33.5%	
4	AMERISUR RESOURCES PLC	18.9%	4	ENEGI OIL PLC	-33.1%	
5	COVE ENERGY PLC	18.8%	5	GREEN DRAGON GAS LTD	-30.6%	

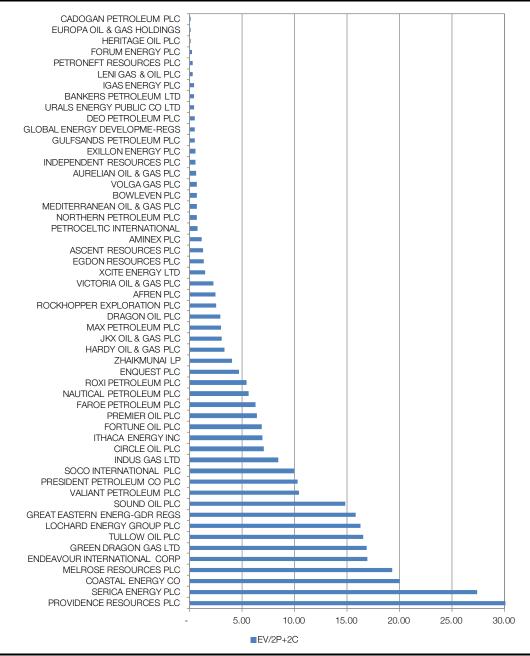
	3 months					
No.	Best performers	% change	No.	Worst performers	% change	
1	FORUM ENERGY PLC	100.0%	1	PETRO MATAD LTD	-64.5%	
2	GASOL PLC	70.7%	2	CHARIOT OIL & GAS LTD	-61.6%	
3	FALKLAND OIL & GAS LTD	50.0%	3	EXILLON ENERGY PLC	-59.3%	
4	NAUTICAL PETROLEUM PLC	35.7%	4	BANKERS PETROLEUM LTD	-58.6%	
5	IGAS ENERGY PLC	29.5%	5	LENI GAS & OIL PLC	-53.1%	

	6 months				
No.	Best performers	% change	No. Worst performers	% change	
1	FORUM ENERGY PLC	169.2%	1 PETRO MATAD LTD	-67.7%	
2	COVE ENERGY PLC	166.2%	2 PETRONEFT RESOURCES PLC	-65.6%	
3	PROVIDENCE RESOURCES PLC	140.0%	3 EXILLON ENERGY PLC	-65.4%	
4	KEA PETROLEUM PLC	119.4%	4 BANKERS PETROLEUM LTD	-59.7%	
5	FALKLAND OIL & GAS LTD	87.3%	5 GULFSANDS PETROLEUM PLC	-49.4%	

	1 year					
No.	Best performers	% change	No. Worst performers	% change		
1	FORUM ENERGY PLC	247.0%	1 PETRO MATAD LTD	-93.7%		
2	COVE ENERGY PLC	218.9%	2 FRONTERA RESOURCES CORP	-87.8%		
3	COASTAL ENERGY CO	123.2%	3 PETRONEFT RESOURCES PLC	-85.0%		
4	PROVIDENCE RESOURCES PLC	92.5%	4 BOWLEVEN PLC	-81.6%		
5	FALKLAND OIL & GAS LTD	49.4%	5 EXILLON ENERGY PLC	-79.3%		

Source: Bloomberg

Exhibit 2: EV/2P + 2C rankings



Source: Bloomberg, company releases, Edison Investment Research

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