Upstream Insight

United States

February 2011

2010 year in review – Gulf Coast region

Executive Summary

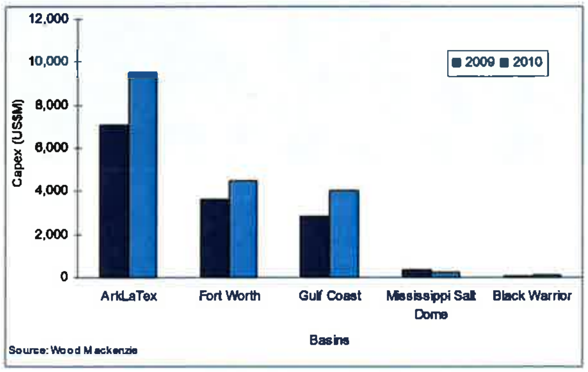
Heavy investment in shale plays drove Gulf Coast regional activity in 2010. While the Black Warrior and Mississippi Salt Dome basins remained relatively quiet, the ArkLaTex Basin Haynesville Shale, Fort Worth Basin Barnett Shale, and Gulf Coast Basin Eagle Ford Shale maintained a blistering pace despite soft gas prices.

These three shale plays, led by the Eagle Ford, also accounted for the majority of regional merger and acquisition activity. Industry committed more than US$8 billion in acquiring positions in this embryonic play, with four major deals accounting for more than half of this spend. The majority of this capital was focused on the liquid-rich portions of the shale, where current economics are some of the best in the region.

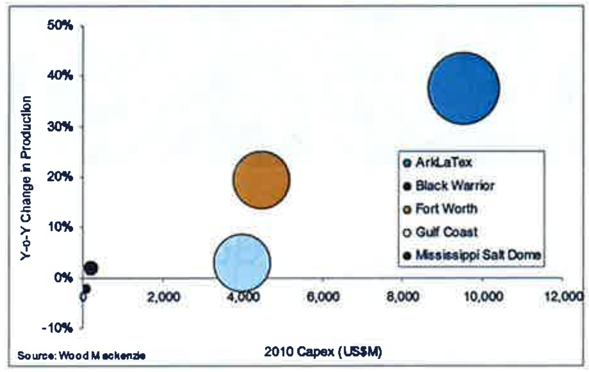
Shale basins drive spending

Overall, the Gulf Coast region saw a year-over-year (Y-o-Y) increase of 32% in capital spending and 20% in production from 2009 to 2010. Conventional production continues to decline; however, capex and production escalations in the Haynesville, Barnett, and Eagle Ford more than compensated for the conventional losses.

Year over year change in investment



Year over year change in production



Bubbles show 2010 daily production covered by Woodmac. ArkLaTex = 7.6 bcfed; Gulf Coast = 4.9 bcfed; Fort Worth = 4.7 bcfed, Mississippi Salt Dome = 0.4 bcfed; Black Warrior = 0.2 bcfed

Gulf Coast Basin

Industry returned its focus to the Gulf Coast Basin in 2010 thanks to liquid-rich production potential from the Eagle Ford Shale. Led by horizontal drilling, rig count climbed from 124 (30% horizontal) in January 2010 to 214 (60% horizontal) in December 2010. In South Texas, industry operated more horizontal rigs than vertical rigs in 2010 for the first time since before the year 2000. Also, as evidenced by the accompanying chart on page 4, the basin saw more merger and acquisition activity than any other basin in the region. In total, more than US$8.2 billion worth of deals were announced.

As discussed in our insight *Oil Window Opens in the Eagle Ford Shale*, this play is characterised by three productive windows: dry gas, gas-condensate, and oil. To date, the majority of investment has targeted the oil-prone and liquids-rich gas areas of the play. Participants range from Texas-based private independents like Hilcorp, to state-owned integrated oil companies, like CNOOC and Statoil.

ArkLaTex Basin

Drilling in the Haynesville Shale drove activity in the ArkLaTex Basin in 2010. This play alone accounted for more than 75% of the 3.8 bcfd of production growth in North America. The activity was led, in large part, by operators needing to hold by production (HBP) acreage leased under three-year drilling terms. The majority of the play's lease activity occurred in the summer of 2008, and most leases required operators to produce from the acreage within three years or lose the lease. Many operators were faced with marginal economics due to escalating service costs and a persistent gas price below US$5/mcf. However, the lease clauses forced them to continue development.

Other Northwestern Louisiana and East Texas assets were largely neglected in 2010 due to low gas prices. Non-horizontal rig count averaged 56 for the year.

Fort Worth Basin

Production from the Barnett Shale resumed growth, in spite of significant rig reductions compared to the 2008 peak. As with the ArkLaTex Basin, operators with freshly leased core positions in urban Fort Worth, and surrounding areas, needed to hold their leases with production. Drilling in the non-core counties essentially stopped, and many operators allowed leases to expire.

Several Barnett operators continued the trend of signing joint ventures with international operators to help fund development. Chesapeake's US$2 billion deal with French firm Total was the most noteworthy transaction of the year.

The basin also illustrated industry's shift to liquid-rich unconventional gas plays. The northern portion of the play, primarily Montague, Cooke, and parts of Wise counties, is oil prone and produces a rich gas stream where NGLs can be extracted to improve economics. The play was dubbed the Barnett Combo by discoverer EOG due to this production mix. EOG controls the majority of the acreage in Montague and Cooke, but Pioneer and ConocoPhillips announced commitments to liquid-rich Barnett acreage as well.

Rig count in the non-oily sections of the play rose until September, but finished the year more or less flat around 60. Rigs targeting the Combo more than doubled to finish the year at 18.

Mississippi Salt Dome and Black Warrior basins

Neither the Mississippi Salt Dome or Black Warrior basins witnessed a lot of activity in 2010 due to low gas prices.

The Mississippi Salt Dome did see continued investment from Denbury Resources, which controls the region's only natural source of CO_2 and uses it in an enhanced oil recovery (EOR) programme. One of the most significant events was Denbury's placing into service its Green Pipeline, which will transport CO_2 for use in EOR operations at the Hastings field in Harris County, Texas.

Several operators in the Black Warrior Basin were actively marketing their mature CBM assets in 2010. Walter Energy, a leading coal producer, closed its US$210 million acquisition of HighMount's Black Warrior CBM in Tuscaloosa County.

2010 M&A Activity

The following table highlights some of the most significant regional M&A transactions compiled during 2010.

Select Regional M&A Deals

Key Assets	Buyers	Sellers	Consideration (US$M)	Deal Date
Eagle Ford	CNOOC Ltd	Chesapeake Energy	2,160.0	11-Oct-2010
Eagle Ford	Statoil, Talisman	Enduring Resources	1,325.0	10-Oct-2010
Eagle Ford	Reliance	Pioneer Natural Resources	1,315.0	24-Jun-2010
Eagle Ford	Shell	Harrison Ranch	1,000.0	28-May-2010
Eagle Ford	Plains E&P	Dan A Hughes Company	578.0	5-Oct-2010
Eagle Ford	KKR	Hilcorp Energy	400.0	14-Jun-2010
Eagle Ford	Talisman	Common Resources	360.0	5-May-2010
Eagle Ford	Anadarko, Newfield Exploration	TXCO Resources	307.0	4-Jan-2010
Eagle Ford	Chesapeake Energy	Antares Energy, San Isidro Development Co.	200.0	29-Nov-2010
Eagle Ford	Statoil	Talisman	180.0	10-Oct-2010
Eagle Ford	BP	Lewis Energy	160.0	1-Mar-2010
Eagle Ford	Petrohawk Energy	GeoSouthern Energy	159.0	24-Mar-2010
Eagle Ford	Goodrich Petroleum	Blackbrush Oil & Gas	59.0	12-Apr-2010
Eagle Ford	Penn Virginia Corp.	Undisclosed (M&A)	31.1	12-Aug-2010
Eagle Ford	Hilcorp Energy	Lucas Energy	11.3	2-Mar-2010
Eagle Ford	Hunt Oil	Magnum Hunter	10.0	25-May-2010
Eagle Ford	Marathon	Denali Oil & Gas Partners	10.0	29-Nov-2010
Haynesville Shale	ExxonMobil	Ellora Energy	570.0	21-Jul-2010
Haynesville Shale	BG, EXCO Resources	Common Resources	446.0	21-Apr-2010
Haynesville Shale	BG, EXCO Resources	Southwestern Energy	355.0	16-Jun-2010
Haynesville Shale	BG, EXCO Resources	Mainland Resources	28.2	15-Mar-2010
Haynesville Shale*	Endeavour International	J-W Operating	15.0	6-Jan-2010
Barnett Shale	Total	Chesapeake Energy	2,250.0	4-Jan-2010
Barnett Shale	EnerVest	Talon Oil & Gas	967.0	26-Oct-2010
Barnett Shale	Quicksilver Resources	Undisclosed (M&A)	116.0	11-May-2010
Black Warrior CBM	Walter Energy	HighMount E&P	210.0	28-Apr-2010
Conventional Gas	Occidental	Shell	1,800.0	10-Dec-2010

** Deal also includes Marcellus Shale acreage in Appalachian Basin*

Source: Wood Mackenzie M&A Service

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