AMMONITE RESOURCES

Geologists, Geophysicists and Engineers
Energy and Mineral Advisors Since 1982

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INDUSTRY INSIGHTS – AUGUST 2015

Dear Clients and Friends of Ammonite;

The petroleum and mining industries are currently in a tailspin due to crashing commodity prices. Ammonite's new venture due diligence business is at an all-time low in the 33 years we have been evaluating oil & gas investment opportunities for private equity funds and high net worth individuals. During 2015, some of Ammonite clients have looked at producing property acquisitions and the purchase of mineral interests, but for most transactions, the ask and bid have simply been too far apart. Deals are not being done in this market because of the uncertainties and volatility in commodity prices, and the global economy. What China does impacts everything. Will Iran and OPEC flood the market with more crude to maintain income to meet domestic budget obligations as prices plunge? The tanks are full in Cushing. What will happen to commodity prices when demand slumps after the summer driving season, and the winter of 2015-2016 is warmer than normal?

We expect that many over-leveraged public and private companies will likely run out of capital before year-end, especially as high priced hedges expire. Acquisitions and merger activity will heat-up, as many companies no longer have the luxury of waiting for commodity prices to stabilize in the $60+ range. The banks can no longer defer clamping down on borrowers who are in violation of lending covenants when oil prices are in the minus $45/bbl range. M&A activity should pick up, and soon, with buyers looking to acquire distressed assets on the cheap. Domestic and international investors with a long-term view will soon find attractive buying opportunities.

I believe that we will see a sharp rebound in oil prices when the surplus of horizontal wells waiting for completion and/or pipeline connections is finally worked off - perhaps beginning by year-end 2015. We have been surprised that USA production has held up so far this year despite the 60% drop in the rig count. Industry has brought well costs down and increased production significantly, but what further efficiencies are there now? Given the 60-70% initial year decline rates of most shale wells, it will not take long for production to plummet. The monkey wrench in this forecast, however, is the potential for increased production from OPEC and a recession in China which would keep domestic and global oil prices down longer than we would expect.

The domestic petroleum industry is hurting, and severely. Communities across the oil patch are suffering as the E&P and oil services industries contract. President Obama and Congress could help matters, and preserve America's "energy independence", by permitting crude oil exports, approving the Keystone Pipeline, and fast-tracking LNG export facility permitting.

Despite the general doom and gloom, we are seeing robust activity and interest in the Wolfcamp and Spraberry plays in the Permian Basin of West Texas, and in the Woodford and Springer shale plays in the SCOOP Area of Oklahoma. The Marcellus and Utica Plays in Pennsylvania continue to be very interesting because of their huge resource potential. Once adequate pipeline capacity is built, and LNG export facilities are operational on the USA and Canada East Coast, the Marcellus and Utica plays will be world class sources of gas supply. They are already transformational for the Appalachian Basin.

Ammonite's network of consultants have their "ears to the ground" in the petroleum industry domestic and international "trenches". I asked Ammonite's consultants to report what they are seeing in their respective areas. We all read the petroleum trade journals and online newsletters, but what follows is the "raw feed" from the geoscientists, engineers, financial analysts and landmen who are actually doing the work on the ground. The Ammonite team shared their observations with each other, which engendered additional comments from consultants. It makes for insightful reading.

Skip Hobbs
Managing Partner

Robert Merrill, Ph.D.
Geoscientist and Senior Exploration Advisor, Houston, TX

I have seen very little new venture E&P activity this year.

With oil prices where they are, companies are only drilling wells to hold leases. Services have been cut and Baker Hughes is fracking completed wells at a loss. I have seen a lot of press about re-fracking, but no one knows how to do it in such a way that wells will continue to produce at economic rates. It is media hype at this point. US E&P spending in the US is down 37%, Canada, over 40%, and International, about 16%. Much of the decrease in International is coming from NOC's.

On the other hand, initial potentials are up, which is helping economics. This is certainly true of the Wolfcamp in the Midland Basin, which is where much of the activity is focused. There is some focus on the Spraberry as well.

The Eagle Ford is doing fine, but activity is down.

In the Midland Basin M&A activity for the first half of 2015 is only 17% of 2014, but slightly *higher in the Mid-Continent where the comparable number is 27% of 2014. Interestingly, PUD's are given almost no value.*

As you are aware, any company with high debt is having problems. The more recent cases being Samson and Sabine Oil & Gas.

I have recently seen some unitiization hearing notices in the Niobrara, but that activity has cut way back as well.

The reversal of the Rocky Mountain Express pipeline has had a significant influence on price. Marcellus gas is now going west rather than the Rockies gas moving to the east coast.

The Irving Refinery is no longer using Bakken crude, they are bringing in Brent crude. Shipment by rail is decreasing significantly.

Also, the Western Gulf Sale was dismal. It has been a long time since so little was bid.

Mary Van Der Loop,
Geologist and Senior Exploration Advisor, Flatonia, TX

What I have observed with my clients and the people I have talked to is folks are drawing everything very close to the vest, "counting their pennies" with invoices and any expenditures. My clients have stopped drilling, are concentrating on keeping production high, on workovers, & consolidation into core areas.

But there still are sales and acquisitions going on, I think a wave of selling is just starting. One company sold an isolated (it was isolated as far as their own operations were concerned) section in the Wolfberry trend to Apache or Pioneer (I forgot which, but one of the major Wolfberry operators), & got a very good price for it. Another company I know, with money in their back pocket, is in negotiations to buy a rather undeveloped tract in the Midland Basin Wolfcamp that will probably double their own reserves picture with this acquisition. Another company is dropping all their leases in a marginal shale play, after having spent over $200 MM in drilling, with economic success on only 25% of their horizontal wells. Another has sold/is selling two exploratory acreage positions for whatever he can get, no takers so far.

I am aware of another sale by a company that was an old Spraberry operator who got very big when the Wolfberry play and the Wolfcamp play came into being. The company had a big, very well placed acreage position in the Delaware basin Wolfcamp, and just sold the Delaware basin acreage position for over $200 MM. That was a good price - not bargain basement. I don't know if that deal has closed yet.

Companies who had a cash reserve are in a great position to get some bargains as this unfolds.

That is all the gossip I know as far as activity right now.

I am still consulting for my same two clients, and generating shallow oil vertical well prospects with the hope that I will be able to sell them, with a landman friend, to some old friends of his who are still drilling small "cheap and shallow" oil projects, whatever makes money.

Kevin Hill
Chief Geophysicist and Senior Exploration Advisor, Shreveport, LA

We have been busy despite the downturn. Hill Geophysical Consulting (HGC) recently completed seismic rock property studies of the Hosston, Cotton Valley, Bossier and Haynesville of North Louisiana and East Texas. The studies involved the full integration of available engineering and well control with 2d and 3D seismic data. Results showed "sweet spots" in the targeted formations could be brought out of the seismic data and be used to design the drilling programs to enhance the recovery of hydrocarbons. HGC's clients have put this seismic analysis to the test and have drilled better, less costly exploitation wells in their acreage. Current work also includes imaging of near-surface geology, unconventional reservoir studies using 2d and 3D seismic analysis, solution mining and mine imaging, and geological studies of the Haynesville, Bossier and Barnett Shale trends.

Hill also has been involved in numerous gas and oil storage projects. This work includes processing and detailed analysis of 2d and 3D seismic data for imaging of structural boundary positioning and rock properties. Storage of hydrocarbons in salt caverns and abandoned oil and gas fields is also a very important part of HGC's work. Hill has authored and presented numerous papers for the Solution Mining Research Institute (SMRI), Society of Exploration Geophysicists (SEG), American Association of Geologists (AAPG) and Gulf Coast Association of Geological Societies (GCAGS).

Hill Geophysical Consulting and our clients are having moderate success in Alabama and Mississippi using seismic data to find new fields or extend existing fields. In Alabama we have worked over 500 square miles of 3D seismic data and have been associated with the continued development of the two largest stratigraphic fields in the state. Little Cedar Creek and Brooklyn Fields are Jurassic Smackover fields at depths ranging from 11,000 to 14,000 feet below the surface. The fields EUR is expected to be over 75MMBO when fully exploited. We have developed methodology to predict porosity in the limestone and have been very successful in this work. In Mississippi we have been using older 2d seismic data, reprocessing it and fully integrating the well information to explore for opportunities that were not seen on the original data. We have recently drilled a well with 45 feet of oil pay high to a nearby producing oil field. We are seeing many more opportunities to expand on this work. As prices of oil and gas continue to drop, we see areas that have undrilled or under-explored oil and gas potential as excellent prospects. Cycles in the oil industry are nothing new. Our plan is to develop these potential reserves at a low price and have them producing when prices rise in the future.

Kevin, thanks for the update. You are quite busy compared with most consultants right now. Further question..... Are prospect generators selling drilling deals in the Gulf Coast right now? *Good prospects are selling slowly.*

Michael Mackenzie, Ph.D.
Senior Geological Consultant- Gulf Coast, New Orleans, LA

A couple of weeks ago I called some contacts I have in Houston and was discouraged, for the most part, from going there to try and sell prospects. As you have experienced, people aren't investing...in my case, in the onshore Gulf Coast.

Steven Schamel, Ph.D.
Geoscientist and Senior Exploration Advisor, Salt Lake City, Utah

Across the Rocky Mountain basins production rates are, at present, holding steady, or just declining slightly. Oil rates in North Dakota (Bakken) reached a record peak just a few months ago. However, that situation is not sustainable. E&P budgets are being cut by operators of all sizes and the service companies are being squeezed to near the point of breaking. The attempt to "do more with less" in the shale oil plays is proving effective in the short term. This involves optimized completions mainly in wells drilled, but not yet stimulated. If the low oil price continues for several years, even the application of the best "best practices" will reach their economic limits. I am again starting to see ads for drill rigs for sale, just as happened after the collapse of Rockies shale gas price in 2009-10. Nevertheless, there are new parts of the Niobrara play being probed with some success, such as the North Park and Sand Wash basins in northwest Colorado. And some very small operators are now exploring Mississippian-Pennsylvanian reservoirs in the D-J basin. These are the same units that have proven marginally productive in the greater Powder River basin to the north.

A few operators, notably Ecana and WPX, are moving to acquire additional proven natural gas acreage in the Piceance and San Juan basins. Both basins are well positioned to sell into the California market where the demand for gas to generate electricity is increasing. Hopes to sell Rockies gas in the East and Midwest died years ago with the rise of Marcellus gas.

In Utah we are seeing a slowing of activity as measured by a drop in the number of permits to drill and wells spudded so far (as of last week) in 2015 compared to 2014 ... 448 vs. 1388 and 117 vs. 892, respectively. The small number of companies operating in the Uinta Basin have such a large production infrastructure in place, that we can continue to see production rates for both oil and gas sustained for some time. There will be fewer new wells coming on-stream and further consolidation of operations can be expected. Utah also sells natural gas and gas-generated electricity to California, so this will help support activity in the Uinta basin. Even in this low oil price environment, Calgary-based U.S. Oil Sands is continuing to develop what the company hopes will be Utah's first commercially-viable bitumen extraction operation. Something to watch.

Unless there has been a major shift in the past few weeks, the Uinta and Paradox basins are still operating near normal - not boom days, but normal. This is, in part, due to the deep infrastructure already in place. It is more economic to keep producing than let this investment lie idle.

One additional point on the Rocky Mountain basins. Government lease sales can often serve as a forward indicator of industry activity, and here we see dark clouds. There was reportedly "little interest" in the July 14 BLM sale in Helena for parcels in Montana and the Dakotas. The Wyoming BLM sale on August 4 brought in an average $38.44 per acre, which nearly matched the results of the State of North Dakota sale the same day ($39.48/ac). Just think, as the Bakken play was first catching fire, Sinclair paid $20,000/ac for a small parcel adjacent to their legacy holdings. Utah State Lands Trust had such poor response from its April 2015 sale (most parcels had no bids) that the Q3-2015 sale scheduled for last month was cancelled.

I understand from colleagues in Kern County that the same is true for the California heavy oil projects. No, or little, funds are available for new projects or significant expansions, but existing production is still supported. If the price of natural gas, the major cost factor for the thermal recovery used, was not low, this would be a different matter. Same story with the existing infrastructure investment. Additionally, it takes far less steam ($$$) to keep the thermal wells flowing than would be needed to get them back to temperature if the steam injection stopped for a period of even a few months. California heavy crude sells for a premium over WTI, which helps the operators.

Thanks for the NYT article on Utah's dinosaurs. When you are next in town, I will take you to the new Natural History Museum of Utah, which is quite close to us. It has a fabulous display of our own breeds.

Betsy Suppes
Senior Geoscience Consultant, Johnstown, PA

What I see in the Appalachian Basin is that operators have taken a hit on prices for natural gas. While end-users (read upper mid-Atlantic and New England) are still paying mini-bar prices for natural gas in their homes and businesses, the Appalachian operators are receiving 50-70 cents/MCF. With that said, I know one independent who drilled 10 vertical oil wells last winter, so either they needed to drill to hold the lease, or are a contrarian.

There is still great speculation in oil and gas interests in western Tioga and eastern Potter County as a result of SWEPI's gang-buster Utica well. Since there have not been additional wells to condemn the play, it is a buy/lease and wait in that area. Of course, with only one gas transmission pipeline to take the gas to market, prices from natural gas wells will be suppressed until additional pipelines are built. Despite the speculation in prices, I know that one oil and gas mineral buyer is not buying in the area as the market is limited.

There is also continuing interest in the southwestern Pennsylvania counties among oil and gas interest buyers. While the prices are not as robust as 2013-early 2014, they are still buying. I did hear of a group that was offering a low-ball offer to an octogenarian. Although the number of acres would have attracted anyone's interest, I am unsure if the buyer was not targeting the owner because of his age.

For the minerals owner, I would think that it is a terrific opportunity to lease because the operator probably will not drill and that they will have a non-depleting revenue stream. I would hope by now that Appalachian landowners have been educated sufficiently that they are *using real oil and gas attorneys and not the same lawyer that draws up their will.*

In Pennsylvania, Governor Wolf made creating a severance tax on operators part of his campaign platform. The media did not explain that the current "impact fee" actually is based upon production rate, the essence of a severance tax. While the non-oil and gas employed public gets most of their information from the media, some reporters have incorrectly stated that the impact fee (collects money just like a tax) is based upon the number of wells drilled. Trade associations have been working the statehouse to educate the congressional representatives. Operators are concentrating their drilling on the wet gas and oil windows of the Utica and Marcellus. As I have stated before, the greatest threat to a domestic petroleum supply is over- legislation, not terrorism.

For the oil and gas investor, it is a terrific buying opportunity. As they say, you can predict trends, but not timing.

On a personal note, I have also had two head hunters contact me last week. Both are out of Houston; the economics of relocation vs. in-place staff seems a bit counter-intuitive, but perhaps they place a premium on Pennsylvanians!

Mark Hughes
Senior Consultant for Land, Henderson, Kentucky

In the Marcellus and Utica--very quiet except for pipeline work in Pa., Ohio, West Va.-we certainly haven't heard of anything new anticipated or started in these areas!

We did a fair amount of work in Michigan 1+ years ago and the parties we worked for have been trying to find viable partners since they put together their basic prospect drill sites and no commitments (or immediate hope) for any.

Illinois has two small plays going on in the Southern central area and they may be looking for partners, (but have just gone silent in the last month and a half). However, with the issues on permitting seemingly settled and price stricken, all deeper work appears to be at a standstill and no one is predicting any hoped for changes yet. Yet, there are still some local operators (Countrymark Refining and Blackridge to name two) who have plans to, and appear to be moving more slowly forward with some new deeper horizons. Nothing further has taken place with the 8+ Woolsey wells drilled (below 7000 feet) both vertically and some cored horizontally over the last 2 1/2 years both in Ill. and Ind.??

Posted price this week in the Ill. Basin is $35.50.

Indiana has a bit of new slightly deeper work going on along the Wabash and I see where a Michigan company is going to drill a Trenton test in Miami County which is at 1100 feet.

W. Ky. has an Oklahoma company ?? who has been working in three counties for the last year and we have heard some speculation as to a deeper play or?? but nothing further to report.

A Texas company is looking at a little deeper test or two here in W. Ky but that is still TBD>

Kimmeridge has three – 4300 to 8000 foot deep wells across the river (Posey county Ind.) from us that are uncompleted or TBD from 3-5 months ago.

Finally, Cimarex, EQT, Chesapeake, Continental and several other companies have drilled wells (and at least 3 are completed or in the process) some very interesting wells in Eastern Ky. (in several different counties) and although acreage work has slowed-drill site preparation (title wise) appears to proceed---

Stay tuned-more will (eventually) come here! this will pass and there will be hope.
Best to you all!

Susan R. Eaton
Geoscientist and Senior Exploration Advisor, Calgary, Alberta

Unfortunately, I depart in 48 hours on an expedition to Svalbard, Norway, and haven't even started packing. I sent you two emails, last week, which represented what's going on in Canada ($19 USD differential for Canadian crude (which reflects distance to market in the US and its sulphur-rich makeup). And, the M&A report (which includes the rig count) shows that not much is going on…

Below is my best attempt, given my time constraints:

- *Approval and/or construction of bitumen pipelines stalled to Eastern Canada and Pacific terminus, inside Canada, due to provincial in-fighting, climate change and First Nations opposition*
- *No new bitumen investments or project start-ups*
- *SAGD operations still steaming if they started this prior to commodity collapse; Keystone stalled, and soon to be rejected by Obama*
- *Montney-Duvernay liquids-rich unconventional shale gas plays are stalling due to commodity prices*
- *Oilsands mines (new ones) being put on hold*
- *No capital is entering Canada for M&A or E&P*
- *M&A scene is slow in Canada (i.e., companies are still hanging on before being forced, by their bankers, to make a move or suffer bankruptcy)*
- *State Oil Companies are not looking at Canada anymore*
- *American oil companies (generally gas leveraged) are expected to exit Canada*
- *Alberta threw out its conservative government, after 44 years in power, replacing it with a socialist (i.e., New Democrat) government which was made up of 50 women members (this introduces geopolitical risk into investments in Alberta)*
- *Huge layoffs*
- *Minimal E&P spending*
- *E&P companies going bankrupt*
- *LNG export projects are stalled in Western Canada's Pacific terminus, due to concerns about regulatory approvals, offshore tanker traffic , global LNG markets and First Nations concerns*
- *Two LNG export projects approved in Nova Scotia by the National Energy Board*

Please feel free to share the above with our Ammonite peers.

Susan told me over the phone that Canadian companies have laid off contract employees and simply are not hiring consultants. Geotechnical employees with less than 10 years experience and more than 20 years of experience are being laid off. One engineering colleague has had only 20 hours billable time this year!

Thomas O'Connor
International Petroleum Management Advisor, Seattle, WA and Cairo, Egypt

Interesting project that you have set upon us.

I agree that things are pretty dead, but there are glimmers.

Most of the developing countries that produce crude oil have taken a great shock when suddenly their national income dropped by more than 50%, such as what happened in South Sudan. There are some faint indications that some of these countries are making plans to mount Exploration Promotion Programs as a means of bringing in more Foreign Direct Investment, but nothing certain yet in most areas. Myanmar, Pakistan, Egypt and a couple of others are asking for expressions of interest, which is good sign for the mid-term future.

Many of the strong exploration companies which at the same time lack solid production components, such as Africa Oil, Tullow, etc. could face bankruptcy because of their adverse cash flow situations. It will be a while before they start their aggressive acts moving again.

I am starting to get requests to talk about possible projects, mostly in Africa, mostly "off the wall" type things, but they are indications that there are people out there who are starting to see opportunities and are looking for mechanisms to take advantage of them.

Straight out consulting contacts are still slim, but within the last two months, I have been asked on three occasions if I would be interested in joining in "expressions of interest". The answer has of course, been yes, but then followed by the usual long silence.

I am still trying to ride on the shirttail of a law firm that feels it has an edge in the Mexican opening up to the industry game, but if so, they are playing their hand rather poorly I think I know more than they do, just by reading the trade press, which I keep passing on to them. Hope springs eternal and I still cling to the shirttail, but without too much hope. Having said that, I did some high-level overview advisory stuff for them in Timore-Lest, which was well received.

Two training projects on Petroleum Economics and Risk Assessment that I had previously lined up at the beginning of the year, have fallen through along with the price of oil and most companies have folded their tent and are still hunkered down. So far, not much indication that anybody wants to start calling in people to do training again. Bummer.

On a more personal level, I am once again starting to get calls from head hunters, which has not happened for a great while and this infers that somebody out there is thinking of moving forward *and in so doing is looking for implementation vehicles.*

Executive summary - You are right; its still pretty dead out there, but there are signs of life here and there, that somethings are stirring. Stay tuned.

….and more…..

Skip,

In the hurry to get a response out the door to you in time for your lunch with the WSJ, I forgot to mention Mexico and this is likely to be one of the questions that you will be asked during the luncheon interview.

As you know, Mexico has made the momentous political decision to end Pemex's exclusive position in the petroleum economic sector, and open the sector up to international competition. The legislation has been passed, the regulatory agency put in place and Round Zero, during which Pemex was allowed to select the blocks for which it had the interest, skill set and budget to operate, has been taken. This round was successfully accomplished. Pemex retained title to 83% of the nation's P1/P2 reserves and 21% of P3 potential.

Round One, for the shallow water offshore closed in July 2015 and did not go so well; only two of the fourteen blocks put on offer were awarded and both went to the same consortium led by a privately held Mexican company and two partners (Sierra Oil and Gas, Talos Energy and Premier Petroleum . The blocks on offer were shallow water, heavily explored areas in which 9 fields are located containing an estimated 256 million bbl of P2 reserves and infrastructure in place. 34 companies expressed interest, of which 26 were pre-qualified to bid. Of the 14 blocks, 8 received no bids and 4 block bids were rejected because they were non-compliant regarding the State's requirement for a minimum of 40% of the operating profit. As a result, the objective of bringing the specialized expertise and much needed funding into the country was not realized.

Round Two, which was to include much of the deep water area as well as onshore blocks, and scheduled for September 2015, has been postponed for several months. An analysis of the results of the failure of Round One suggests that the international price of oil had little to do with it. Rather, the proposed terms of contract were overly harsh and and overly protective of Mexican rights. It is not entirely clear yet, but it would seem that the Government has opted to re-evaluate its terms and conditions before opening of Round Two.

Within the last week, the regulatory agency has issued a request for proposals to modernize its PSC administration procedures to insure that they meet international best practices and are optimized fit for purpose.

Taking all of the above together, Mexico has made the move to open up its sector, has a plan and is now well into the implementation of the plan. Industry response has been overall quite good and it is reasonable to expect that Round Two and succeeding rounds, will go off smoothly in spite of the major downturn of the price of oil.

Dr. Robert Merrill responded to above:

The interesting thing about Round 1 was the Petroleum Law forced them to take the Sierra, Talos, Premier bid when a bid from Statoil was quite close. We know that Statoil has the ability to perform, the question is, what about the winning bidders?

To which Tom O'Connor replied………

Bob, you are absolutely right. The Statoil bid was apparently only a few percentage points below that of Sierra et al. But it fell below the minimum threshold of net operating profit to the state. The existing rules did not allow for any negotiations and therefor the awards had to go to the underfunded, unproven consortium. This is one of the points being put under review before the next round.

David Bodecott
Geoscientist and Senior Exploration Advisor, Penrith, England

It has been carnage and slaughter for the oil sector on London UKX, especially on AIM (junior market) during the past two weeks, especially with major global market falls on Friday 21st (UKX down 3%).

Despite excellent results this week Premier Oil's price has been crucified over the past week, yet they are in very good shape. They have 60,000 BOPD and fields coming on stream over the next two years. They are now the operator of Rockhopper's Sea Lion field in the Falklands (my former company) gearing up for development and with additional new discoveries in the area. But the oil price fall has hit them and others very hard. Tullow is heavily discounted despite good West Africa production and lots of new discoveries in Kenya.

Malcy's blog is predicting 30 something dollars US for WTI as almost a cert.
Everything on my watchlist is red and at historic lows, Rockhopper my former company is close to float price in 2005 (42 pence UK), despite having found a giant field that is fully financed to first oil in an area where we drilled ten wells for 300 M USD, with another big discovery, and more to come for sure. RKH have just bought some production in Egypt (ca. 1000 BOPD) but the market has reacted unfavourably due to the dilution and falling oil price after the deal.
Sea Dragon have done another Egypt deal to gain 1500 BOPD but with huge dilution.
The two Egypt deals are described in the attachment. With a population of 80 million, Egypt is the biggest ME country by miles and despite security issues and a friend of mine describing it as "hanging like a thread", it may be too big to be allowed to fail like Libya and others which have only tiny populations.

A number of companies have been trying to do production deals e.g. Egypt in order to escape the problem of fund-raising on the markets by creating cash flow to cover overheads.

Another deal subject of a recent fund-raising by Westhouse was for Oilex - details below, so perhaps the smart money is gearing up to move back into the business as our colleague Mr O'Connor suggested.

The North Sea production situation and world-wide small company exploration will be drastic at these oil prices and if the low prices are sustained, overall production will decline much more rapidly. I still predict Saudi will blink first - I do not see their strategy as sustainable for their own economy and political situation. Presumably Venezuela, Nigeria etc will be bankrupt soon. Iranian production post-nuclear deal will not help. I think any upturn will be sudden, unpredictable and unexpected however, driven by Saudi production cut.

I am a Director of Chariot Oil and Gas - they are in good shape with cash in the bank and few commitments, but despite the market conditions, looking forward to more exploration and a transformational discovery. Active off Morocco, Mauritania, Namibia and Brazil.

I watch the Falklands situation closely. Premier, now operating the former Rockhopper licences (60/40, RKH having sold a 60% interest in Sea Lion etc. for a carry to first oil plus cash) have made another discovery at Isobel. This was on acreage that used to belong to Desire petroleum that RKH farmed into in 2005 and subsequently increased interest. Falklands Oil and Gas took over Desire in order to get a small piece of Sea Lion field and as a result they also have a piece of Isobel. All their oil came from Desire. Another operator, Argos, was not able to farm out so sold their interests to Noble for a 5% royalty plus some cash. The Eirik Raude rig is currently active for Noble and Premier in a continuing campaign which is proving successful in the North Falkland Basin. This basin has better weather then Brazil or the North Sea, it takes 10-12 days to get to reservoir at Sea Lion, TD in 15 days typically, costs are as good as anywhere else offshore or better, fiscal regime is excellent and success rates are high - much more oil to be found. Between 2010 and 2012 RKH drilled ten offshore wells for 300 MM USD.

Looking forward to September and end of holidays when the City and the business should consolidate with many new opportunities coming up.

Let me know if you need any more on Falklands or anything else.

Ammonite's Observations on the Capital Markets for Petroleum Financing

- Bank funding is in major contraction mode as cash flows decline and hedged Positions run off across all sectors.
- Borrowing base values will be hit again in October and banks are under increased scrutiny and reviews by bank and auditor and SEC regulators to control their write downs and loan losses so this will add to conservative bank price decks regardless of the actual forward curves.
- The "risk off" momentum shift from all energy stocks including majors and pipelines looks more like " a run-away stampede" But,
- Private equity funds have been flush and funding large amounts in big size to replace the banks and the public markets. This has been in the form of a combination of second lien or senior unsecured debt and convertible debt and equity.

- These funds are also funding "drilling jv's" to provide commitments to drill low risk PUD's in well-known basins with operators that know the basins. Several of these have been announced to date and more could be announced before year-end .
- Cash and liquidity are king as forced asset sales and mergers and acquisitions are likely to increase even if oil prices stabilize around $60/bl.

It not only looks worse than the spring of 1986- it is worse in terms of crashing cash flows and loss of liquidity and access to funding sources for all but the large and well established mid-size producers , service and drilling companies. Everyone is hoping for oil prices to bottom near $40/bbl soon and stabilize north of $50/bbl by year end. But the many uncontrollable global factors make this a short trader's dream market. Only they and the large ("smart??") PE funds can take advantage of the mess.

Meanwhile, for the long term, other investors and lenders wait to see confirmation of a floor and a higher forward price curve.

What we do know from previous cycles after huge layoffs and many stacked rigs - is that when the market returns to a balanced supply- demand position, the price will snap back as those skilled drilling, fracking and completion teams will not be able to just turn the switches on. Lower prices for longer?- but how long will that be and how much pain to our US and Canadian industry that has done such a great job over the past 20 plus years.

The Mining Industry –

David Abbott
Geologist and Senior Mining Consultant, Denver, CO

I was on a conference call with some mining colleagues this morning. Some expressed the view that mining would remain in the doldrums through 2016 while others thought there would be an upswing in activity in the next few months. Just goes to demonstrate how good prognostications are. I have been retained by a Nevada mining company that wants to file with the SEC for its plans as an exploration company. I don't know what will happen with the offering, but I'm requiring a retainer up front.

Status Report On the Appalachian Coal Industry

Nick Fedorko
Senior Consulting Geologist – Coal and Aggregates
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Appalachian coal producers find themselves in difficult financial times due to the confluence of a number of market and regulatory factors, including the success of eastern shale gas production and the resulting loss of electrical power generation market share, a shrinking market worldwide, a worldwide coal glut, falling prices, high operating costs, high debt loads, and federal government regulatory pressures.

Natural gas production from the Marcellus Shale in the Appalachians and the subsequent drop in natural gas prices has made it attractive for electrical power generation plants to switch to gas and for the power generation industry to invest in new gas-fired generation plants. Some 3.2% of coal-fired power generation disappeared in 2012 alone. In 2014, EIA reported that coal produced 39% and natural gas 27% of U.S electricity. The gap is rapidly narrowing. According to Argus Coal Daily (August 28, 2015), gas consumption for power generation in June was up 22% compared to June 2014. The federal government move forward to reduce greenhouse gas emissions has aided the switch to gas and exacerbated loss of coal market share.

Market pressure from cheap natural gas, coupled with a worldwide glut of coal on the market, and China cutting back imports of coal to prop up its own industry have led to falling prices. Northern Appalachian thermal coal prices have fallen from a peak near $140/short ton in 2008 to about $52/short ton currently. Central Appalachian current prices are even lower at around $49/short ton. Argus Coal Daily (August 28, 2015) reports that low gas prices will likely limit increases in coal prices in the near term. The price of metallurgical coal has also fallen, a market that in the past helped some Appalachian producers maintain profitability. Current prices are below $100/short ton, down from a recent high of about $190/short ton in late 2011. EIA data shows a steady decline in Appalachian annual coal production with a 3.7% drop from 2012 to 2013 alone.

The result is bankruptcies. This recent trend started with Patriot Coal Company, the entity spun off from Peabody Coal Company to operate their eastern holdings when they left the Appalachians in 2007. Patriot filed for protection in 2011, emerged from bankruptcy in 2013, only to file again in 2015. The remaining assets are now scheduled for auction. In August 2015, Alpha Natural Resources, the second largest coal company in the U.S. (Peabody is number 1) also filed for bankruptcy. Formed in 2002, Alpha grew quickly by purchasing Foundation Coal Company and Massey Energy, acquiring considerable debt and liability in the process. Other notable Appalachian bankruptcies include James River Coal Company and Walter Energy.

One Appalachian coal company that is determined to remain standing is Murray Energy. Murray purchased all of Consol Energy’s West Virginia mining operations in the Pittsburgh coal bed in 2013. More recently they acquired Foresight Energy LP. Very recently, Murray bought Columbian coal mines from Goldman Sachs in a bid to become a player in the world coal market. At about the same time, Murray lowered its earnings outlook for 2015. Time will tell whether their “get bigger” strategy will succeed or fail.

Consol Energy headed in the other direction. Having gotten in the natural gas business via pre-mining methane drainage, Consol branched off into commercial oil and gas production and decided that would be their core business, hence the sale of older mining assets to Murray. Wisely, they kept the newer, nonunion, profitable, longwall mining operations in the Pittsburgh coal bed in southwest Pennsylvania.

Anecdotal Addenda

- A new neighbor works for Transcor Corporation-Energy buying coal and selling it to end users. He reports that as recently as January he was paying $55/ton for Pittsburgh coal to sell to Canadian cement manufacturers. In his latest transaction he bought Pittsburgh coal for $42/ton.
- L.J. Hughes and Sons, Summersville, WV is the largest exploration core drilling company in WV and one of the largest in the Appalachians. The coal industry is their

largest customer. They reported to me that in a good year they have 20 rigs out during the Spring through Fall drilling season. The last 2 or 3 years have seen an average of 16 rigs deployed. In 2015, that has dwindled to 6 rigs. Likewise, bid requests have slowed dramatically.

- In late 2013, I was working on two coring projects that were to start back up in Spring 2014. Both projects were put on indefinite hold and have not been reactivated to date.

I hope that the above reports from the "trenches: has been insightful reading. Please keep Ammonite in mind when you next need an independent due diligence review of a petroleum or mining investment opportunity.

Skip Hobbs