

24/7 LESS PEACE IN THE PEACE

RECENT PHOTOS AND COMMENTARY OF TALISMAN ENERGY INC.'s FRACKING OPERATIONS NORTH OF HUDSON'S HOPE, BRITISH COLUMBIA September 30 - October 3, 2010

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October 13, 2010

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THREE CONSIDERATIONS

In this 44-page document, readers should consider three key questions:

1. Can the planet afford to burn British Columbia's (BC's) shale gas?
2. Should the citizens of BC allow the shale gas industry to enclose/destroy and privatize the Commons' lands and waters?
3. If we decide that we can afford to burn BC's shale gas, what is the public's "fair share" of industry's revenues?

Shale gas development in northeast B.C., particularly in the Horn River Basin near Fort Nelson, could become a major economic driver for the province. The shale gas industry could develop this resource of trillions of cubic feet of natural gas, resulting in substantial royalties for the provincial government over many decades. However, this gas is associated with high concentrations of CO₂, which is normally vented to the atmosphere as the gas is processed to market standards. (Page 3)

*The B.C. government should conduct a thorough analysis of its evolving natural gas industry and the implications for its GHG (Green House Gas) targets. In particular, it needs to extend the preliminary analysis of this paper to examine options for preventing CO₂ venting and for reduction of methane leaks from pipelines and emissions from processing facilities. Policies to be explored include carbon taxes, subsidies, regulations **and, if necessary, moratoriums.** (Page 7)*

(Source: Shale Gas and Climate Targets: Can they be Reconciled? By Marc Jaccard and Brad Griffin, for Pacific Institute for Climate Solutions, 2009.)

Royalty cuts by the British Columbia (BC) government ignited natural gas production development with potential to match or exceed the supply addition represented by the proposed Alaska pipeline from the North Slope, Canadian industry analysts say.

*The activity trigger is **a BC net-profit royalty regime that is a clone of the enticing approach Alberta enacted for its oilsands in the mid-1990s,** Peters says.*

In the gas case, the rate is held down to 2% until costs including infrastructure such as roads and pipelines are recovered from new production. After that "payout" point, the provincial levies can rise on a sliding scale determined by market conditions, but are only collected on net profits or revenues after expenses rather than following customary royalty practices of taking a share of gross sales.

*"Assuming a long-term natural gas price of US \$5.50/Mcf, the average royalty rate paid on a Horn River well would be about 15%, **significantly lower than royalties paid in comparable shale plays in the U.S. and Canada,**" the Peters research calculates. "This royalty framework has many similarities to...the Alberta oilsands royalty, which was a key driver behind spurring significant investment in the oil sands in the late 1990s and early 2000s."*

(Royalty Cuts Light a Fire Under BC Producers, Natural Gas Intelligence, July 19, 2010)



View of the Upper Peace River landscape just downstream of Hudson's Hope, as the intense autumn colors begin to fade, the winds blowing off the last remaining yellow and orange laden leaves.

There is a great anxiety among caring Peace country residents over the future fate of this area – B.C. Hydro's renewed proposal for a third dam, Site C, below the other two, threatening to flood rich, critical river habitat and farm lands.

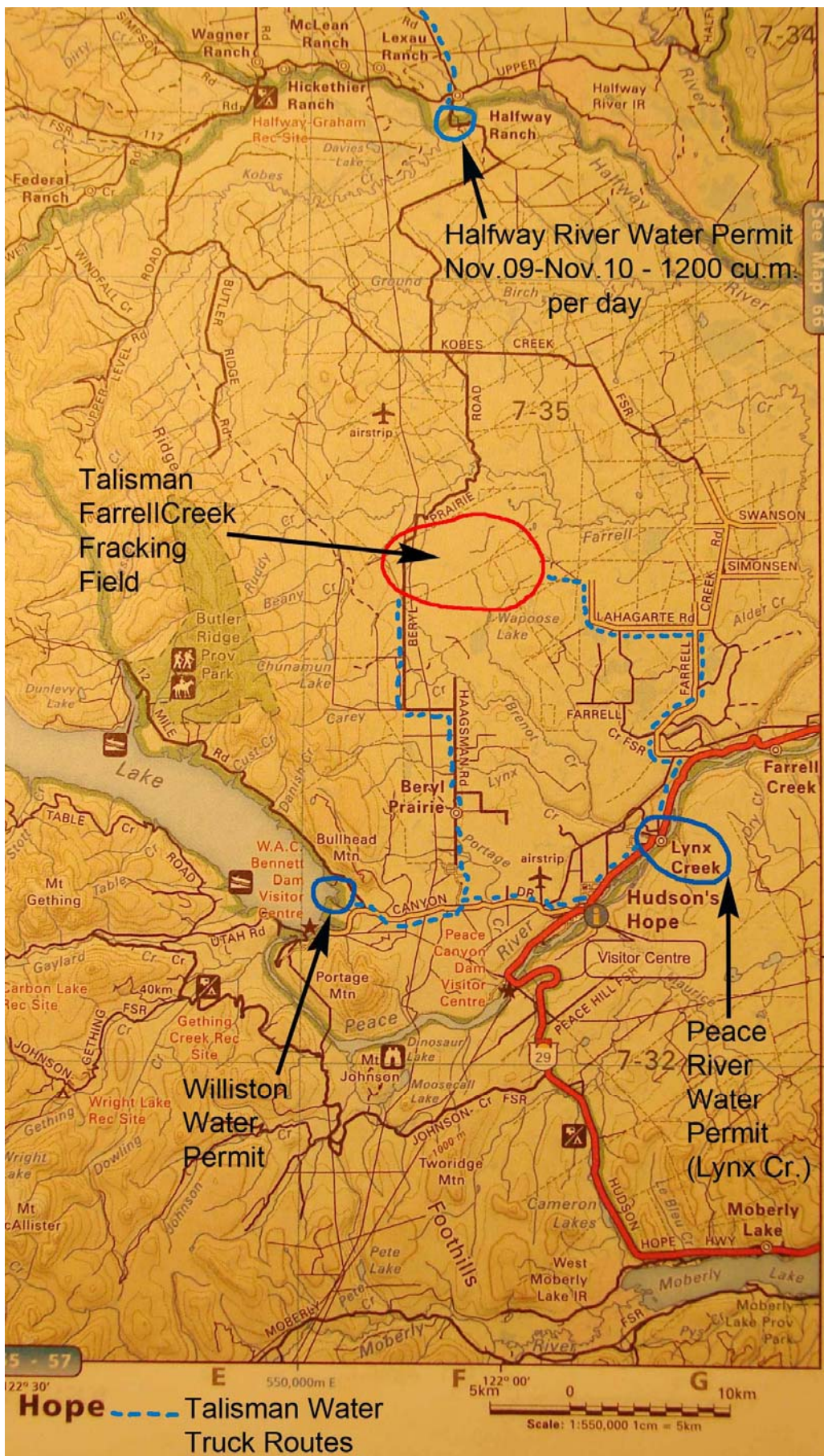
Another shadow co-looms across the landscape - the impacts associated with deep shale gas exploration and developments. In this area of northeastern British Columbia lies the Montney Shale formation, some 7 million hectares in total area as identified and studied by provincial and federal geologists. Talisman Energy Inc., which has been operating south and southwest of Hudson's Hope over the last 15 years, has great new investments and aspirations in the northwestern sector of the Montney. And it, like other large energy companies operating in northeast BC, needs a lot of the public's resources and fossil fuels from Alberta's tar sands to get the job done and the toxic gas out. And, as one or two energy companies have boldly stated, some of the shale gas energy is destined to help develop the tar sands, the corporations that co-operate the tar sands and the deep shale gas.

The irony of the threat from B.C. Hydro's proposed Site C dam is a recent alternative purpose declared by the provincial B.C. Liberals in early 2010 as to where the majority of that generating power is now re-routed: for the deep shale gas energy companies in northeast B.C. (P.S: not for electric cars).



Emerging amidst the once tranquil country forests of the Peace River area west of Fort St. John, and north of Hudson's Hope, is one of Talisman Energy's erected drilling towers for deep shale gas within the Montney formation shales. The red paint on the top of the tower almost seems to blend in with and add to the brilliant autumn colors. However, reality quickly sets in when one of the hundreds of daily water tanker trucks passes by with its roaring diesel engine, about to deliver fresh water to the Talisman fracking operation holding pits. Local residents report a minimum average of 200 tanker trucks per day, many with Alberta license plates, roaring along and dusting up the rural countryside roads and farms.



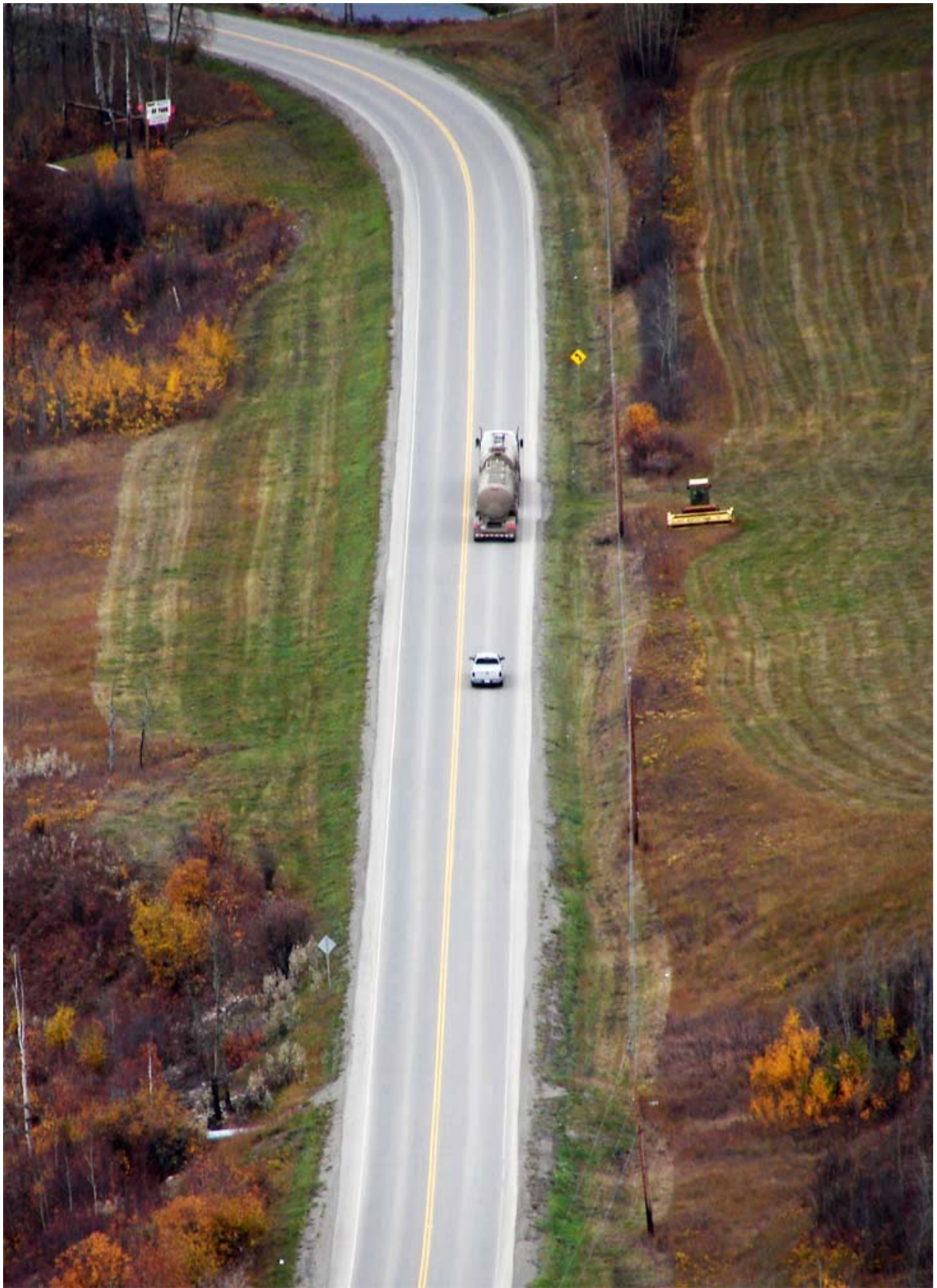


Trucking large quantities of fresh water from the headwaters of the Peace River at and below the W.A.C. Bennett dam (Williston Reservoir) in (mostly) double tanker trucks is a controversial and prickly issue with local farmers who have had to suffer through a long drought this year, anxious over their crops and domestic herds, whilst watching water trucks zip by. To compound their frustrations, Talisman Energy, as many other fracking energy companies, not only is not required to pay the provincial or local government for the precious life-giving liquid that is about to become polluted, poisoned and withdrawn from the global water cycle, but farms and fields could also become new operational fracking grounds as provincial legislation grants energy companies private property access.



As indicated on the map (see page 5) for Talisman's Farrell Creek Fracking Field, there are two water extraction permit sources for the water tanker trucks. This is the Lynx Creek site - the B.C. Oil and Gas Commission has authorized a revised withdrawal limit here of 5,000 cubic meters (1,100,000 imperial gallons, or 5 million litres) per day. That's almost enough water for 2 frack jobs. It would take 125 water trucks, carrying 40 cubic meters each load, to match this daily water withdrawal limit.





A farmer harvests his dried up fields from his combine and watches hundreds of water trucks pass by, 24/7.



Currently, Talisman has its fingers crossed, hopeful the corporate-friendly BC Liberals will grant it a permanent fresh water withdrawal license from B.C. Hydro's Williston Reservoir for a fixed 8 inch water line destined to be built through farmers fields for its Farrell Creek area operations. In the meantime, Talisman has a revised water withdrawal permit here for 6,000 cubic meters per day (1,320,000 gallons, or 6 million litres). That's almost enough water for 2 frack jobs. It would take 150 water trucks, carrying 40 cubic meters each load, to match the daily water withdrawal limit.

Currently, in September, 2010, with this year's drought in the Peace, the gigantic Williston Reservoir is just over 4 meters below its average water level, the lowest levels that usually only appear in January during the freeze up. It's the concerned talk of the locals, as fresh water is becoming more scarce.

Talisman Energy's combined permitted water withdrawals on the Peace system is 11,000 cubic meters per day (2.42 million imperial gallons) at the 2 sites, or 275 water trucks at 40 cubic meters per truck.





At already extremely low water levels, Talisman’s water withdrawal pipe extends just beyond the widely exposed shore to its intake site. In the distance one can observe the steep banks of the Williston Reservoir which have continuously slumped into the recreational “lake” since the late 1960s when the reservoir was born.





The operator of the water truck in these photos stated that he was only allowed to fill and haul a maximum of 40 cubic meters (40,000 liters) in order to comply with highway limit load rules.
Question: do all water truck operators obey these guidelines?



QUESTION: What is a reasonable price that Talisman, and other gas energy companies operating in BC, should pay for the private use of ALL the public's surface and sub-surface water sources for fracking purposes, with the understanding that this fresh water will be polluted and then all sourced surface-fed water removed from the earth's water cycle?



How much are we being charged for bottled water? If you are flying domestically in Canada, Westjet is currently charging passengers \$3.95 for a litre of water. For a litre of water at a movie cinema dispenser, it will cost you about the same. Other prices in supermarkets are far less, and some may charge you about \$5 for four litres. Local and regional government charge far less for bulk water use for both residential domestic and industrial customers.

What if, for instance, the provincial government were to charge Talisman 10 cents (a dime) a litre for the water it is currently permitted to withdraw, based on the rationale of estimating a true environmental cost of the public's fresh water being polluted and removed from the water cycle?

For its two water withdrawal points on the Peace River system Talisman is permitted to remove 11,000 cubic meters of fresh water per day, or 11 million litres, without paying a dime. So, at a set fee of \$0.10 (a dime) per litre, Talisman would have to pay the government (the public) **\$1.1 million per day** if all the daily water was removed from the two sites. For each water truck carrying 40 cubic meters, or 40,000 litres of fresh water, that translates to \$4,000 of public revenue per truck for each delivery.

If, for instance, Talisman uses on average 3,000 cubic meters per frack with an average of 16 fracks for each of its deep horizontal wells, Talisman would require 48,000 cubic metres, or 48 million litres, or 1,200 water truck loads of fresh water per well. At \$0.10 per litre, that would mean \$4.8 million in revenue lost to the public for fracking one well 16 times.

How many wells has Talisman fracked, and how many more will it frack in the future, with no revenue to the government? How many wells have all the deep shale gas energy companies fracked, and how many more will be fracked in the future without a water tax revenue to the government?



De-watering northeast BC in deep shale gas tenures over the last few years and over the next 40 years – Will this water use issue (amidst other significant cumulative environmental effects not yet seriously applied by the government) be the biggest corporate give-away in BC's history?

For instance, if the same hypothetical water extraction levy had been in effect when Houston, Texas-based Apache Corporation conducted the world's largest, longest, and continuous frack operation 80 kilometres north of Fort Nelson over a 111-day period in early 2010, by fracking 16 wells, an average of 17 times for each well, at about 3,000 cubic metres per well, for a total use of about 816,000 cubic metres of fresh water (816 million litres), it would have owed the government **\$81,600,000**.



Water trucks going back to load up and get some more of the good free stuff. Farrell Creek road.



Location: at the paved Farrell Creek road turnoff intersection onto LeHegarate dirt road. Due to the steady and justified complaints of locals on the Beryl Prairie Road (about 15 kilometers to the west) about continuous fine dust stirred up by the continuous procession of water trucks, Talisman has its trucks temporarily re-routed to travel up the Farrell Road while the government is updating the Beryl Prairie Road to keep down the dust by paving the country road (our taxdollars at work again!). The trucks keep hauling 24 hours in the day: day in, day out.





A March 17, 2010 B.C. government news release, *Northern Road Construction to Create 1,200 Jobs*, stated that the Beryl Prairie Road required “completion of base strengthening and sealcoating” for “approximately 10 km”. A series of new highway upgrades were being co-sponsored by both the federal and BC provincial governments. Though the Beryl Prairie road had been up for discussion for paving since December, 2008 with the District of Hudson’s Hope, the fracking trucks prompted the project onto the priority list.





Fracking water trucks perform throughout the day and night, filling up from and driving beside the Peace River. Above, a line up of water trucks filling up at night (10 pm) at the Lynx Creek Load Out.



Environment Minister Says Alberta Well Positioned To Deal With Shale Gas

By Paul Wells,
July 19, 2010,
Daily Oil Bulletin

http://www.airwaterland.ca/issues/printer.asp?article=dob%2F100719%2Fdob2010_lj0000.html

The interface between water and natural gas development occurs in four main ways: surface water used during drilling; water pumped into tight and shale gas formations for reservoir stimulation; water produced from reservoirs where it is naturally occurring but not drinkable; and the penetration of ground water aquifers by wells drilled for natural gas production.

While shale gas is only beginning to emerge in Alberta, both Talisman Energy Inc. and Encana Corporation have extensive shale gas experience from their programs in both northeastern British Columbia and the United States. And when it comes to water use and disposal, the game plan can vary from play to play as water sources and disposal options can be vastly different.

“Water, as everyone knows, is a huge issue in North America. And each play we operate in has slightly different nuances in how we treat water,” said Jim Fraser, Talisman’s senior vice-president, North America.

“Overall, we look at it from a supply standpoint, a usage standpoint and a disposal standpoint.”

For water sources in its Pennsylvania Marcellus program Fraser said Talisman uses surface water from creeks and rivers, while in the Eagle Ford in south Texas the company drills water supply wells as at about 5,000 feet there is a very active aquifer that can be accessed.

“And in northeast B.C. we take surface water as well as from a very large lake called Williston Lake and it’s a very, very large water source,” he said.

While source water can be an issue in some jurisdictions, the potential impacts of fracturing on groundwater and disposal of the water after fracturing has occurred are major issues facing the industry, especially in the U.S. And the regulatory environment for hydraulic fracturing in the U.S. seems poised to tighten, especially in the wake of the BP oil spill in the Gulf of Mexico, which has increased public skepticism about the oil and gas industry’s safety assurances.

The Environmental Protection Agency, at the request of the U.S. Congress, is about to start studying the effects of fracturing on groundwater and initial findings are expected to be ready by late 2012.

“In Pennsylvania - in the U.S. - the disposal of water is a huge topic. What we do in our recycled water in the Marcellus is we re-use 100% - not 99, not 98, nor 97, but 100% of it,” Fraser said.

“We work with a chemical company that actually treats that water and the contaminants are actually precipitated out in solid form and then those chemicals can be sent to a landfill and then we re-use the water.”

The company will have a different plan for its Montney program in the Farrell Creek area of northeastern B.C.

“In B.C. we haven’t even started our frac program in our Montney program, it’s starting this week,” Fraser said.

*“As far as what we’re going to do with the water when we get it back, fortunately in B.C. and Alberta there’s numerous opportunities for commercial disposal which are sub surface underground injection. So that’s our plan going forward in the Montney ... **I think it’s a very good way to dispose of water.**”*

Fraser noted that Talisman will also re-use as much of the water as possible, but that because the program is just evolving, exact numbers are not yet available.

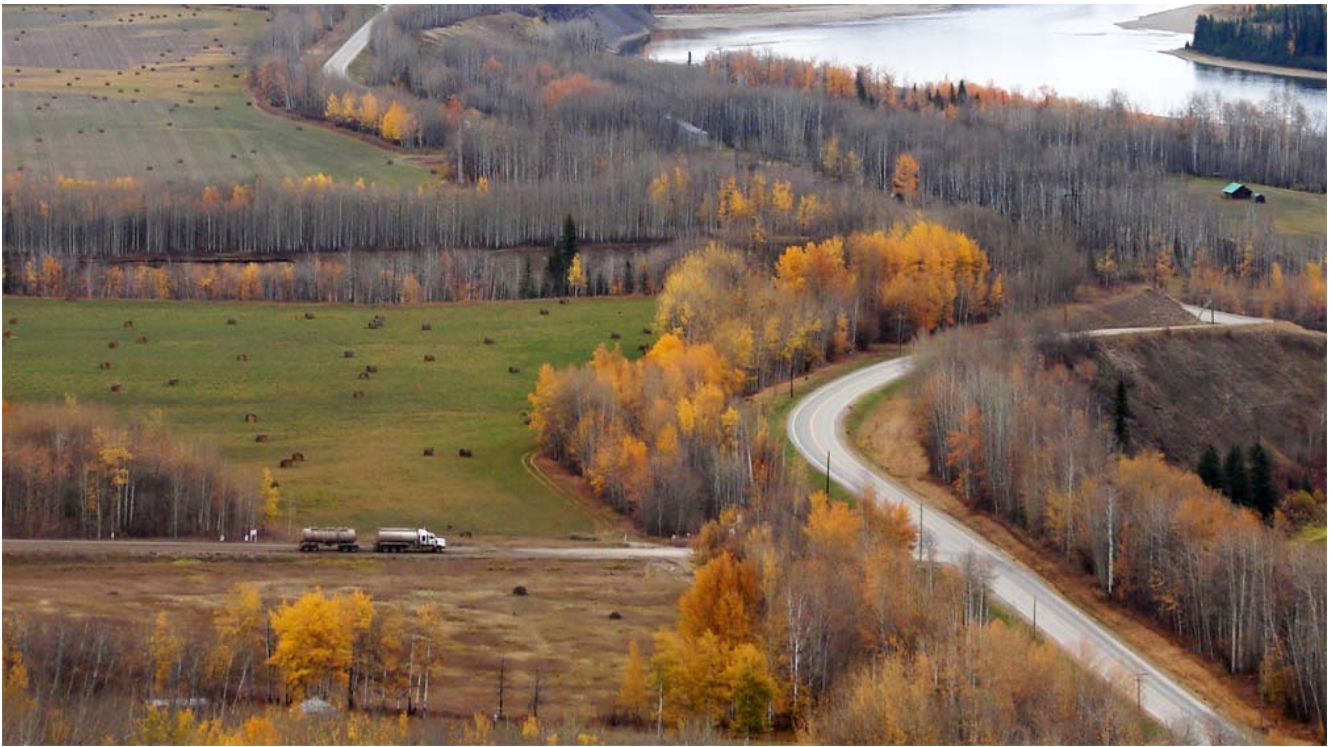
“We just don’t have a real good data base yet as far as how much water we’re going to get back and how much we use,” he said. “Our first intent would be to re-use it; the second intent is to send it to commercial disposal facilities.”

Mike McAllister, vice-president of Encana’s Canada Deep Basin business unit, said the company will also either re-use or dispose of frac water from its northeastern B.C. operations in a similar fashion as Talisman.

However, he said the company’s programs at Horn River and the Montney will tap into non-potable water sources whenever possible.

“What we’re looking at in Encana is going to non-potable sources of water, and the Horn River is a great example of that. It’s a non-potable source of water that’s sour - greater than 4,000 milligrams per litre of total dissolved solids - therefore it’s not water that’s going to be used by the public,” he said.





Junction of the Farrell Creek road with Highway 29. Steep hill that tanker and all fracking trucks ascend to and descend from the plateau above the ancient Peace River valley.





One thing all Talisman's hired water trucks have in common: they empty their water loads into large inter-connected holding pits near the numerous fracking job sites. The water pits vary in size, and are scattered through the public lands that Talisman has tenure leases on. The pit sites are withdrawn from the provincial Timber Harvesting Land Base (alienated), and the earth dug out from the pits is used for building roads and fracking (drilling) pads, storage sites, compressor sites, and camps.





Talisman's operations have a unique signature over a large geographical area. Water pits are coordinated, for the most part, built near to each other, and inter-connected with large pipes that run alongside and under the dirt roads. Often gravity works in the undulating landscape to fill each pit, as one is lowered or emptied. Sometimes large diesel pumps are required to fill, empty, or transfer the water travelling in pipes between pits and off to fracking sites.





Long lengths of 8-10 inch diameter rubber-like pipes transport the fresh water to fracking sites.





Some of the excavated pits hold significant volumes of water. This pit holds a maximum of 22,670 cubic meters (4,987,400 imperial gallons, or 22.67 million litres). It would take 567 water tanker trucks, carrying a load of 40 cubic meters each, to fill this pit alone. This pit would hold enough water for about 7 to 8 fracks. Below is a diesel engine used to pump and transfer water from this pit.



TALISMAN ENERGY	
d-82-1/94-B-01	
Depth (m)	Volume (m ³)
2	1950
3	3860
4	6930
5	9510
6	13400
7	18100
7.8	22670

TALISMAN ENERGY	
b-74-I/94-B-01	
Depth (m)	Volume (m ³)
2	660
3	1250
4	2000
5	3080
6	4350
7	6000
8	7950
8.7	9500

Another water pit, which holds a maximum of 9,500 cubic meters (2.09 million imperial gallons), is good for about 3 fracks, and is located adjacent to a Talisman multi-well site, for 6 wells (location: a-74-I/94-B-1). It would take 238 water tanker trucks to fill this water pit to capacity.





This is another water pit for one of Talisman's numerous fracking sites (posted location: B94-1/94-B-1, Lat: 56 14' 39.55", Long: 122 03' 2.22"), which contains 2 stationary unloading pipes for water trucks. The pit holds a maximum capacity of 25,380 cubic meters, at a depth of 6.5 meters. There are seven wells registered on the adjacent pad already, three of which were getting fracked during September to October, 2010. The darker tones along the water pit's edge indicates recent fresh water draw-down rate during the fracking job.

Each well may be fracked up to 16 times, and depending upon the depth and total length of the well bore, there are rumours that Talisman may be planning up to 24 fracks per well in some locations. Assuming an average of 16 fracks needed for each of the 7 deep wells, for a grand total of 112 fracks, there may be required as much as 336,000 total cubic meters of fresh water, using a figure of 3,000 cubic meters per frack (73,920,000 imperial gallons, or 336 million litres). That's about 8,400 truck loads of water, at 40 cubic meters per truck, just for this single drilling pad amongst Talisman numerous pads. These estimates could be lower or higher, depending up the variables for each site.

Then, there's the waste water after the fracking. All that must be trucked out afterwards to disposal sites. Figures vary on the recovery volumes toxic waste waters, from 40 percent on up for each well.



Water truck emptying its fresh water load for Talisman's fracking site.





Fracking operation in high gear. The operation, with an array of diesel compressors, trucks, tanks, is a complex process. After fresh water, frack sand, and toxics are injected deep into the earth to “frack” out the gas, the polluted waters resurface through pressure and are transported into large holding tanks.





The actual volume holding capacity for Talisman's two post-fracked polluted/toxic water tanks on this frack site was not obtained. As you can see, the specially lined steel tanks hold large volumes of water which are supposed to be

designed to prevent the toxic waters from leaking into the soil. Here you can see the tainted yellow-brown water being pumped into one of the two tanks after fracking, this one which is already about half full (depending on the actual depth of the tank). The other tank has already been filled. The tainted frack water from these tanks are connected to pipes that transport the water under diesel engine pressure to be loaded onto water trucks then transported to a designated deep well injection site.





Another Talisman multi-well pad site, situated just east of the one described above. The steel containment tanks are storing drilling wastes from the well bore process, and may later hold the frack fluid wastes. Below is another large water pit designed for this frack site.





Located between the two fracking pads shown above (pages 28 and 30), are two gigantic lined fluid pits, which are most likely designed to temporarily hold contaminated waste frack water. This pit, adjacent to the other pit to the west, had no signs erected to describe pit capacity nor pit identification.

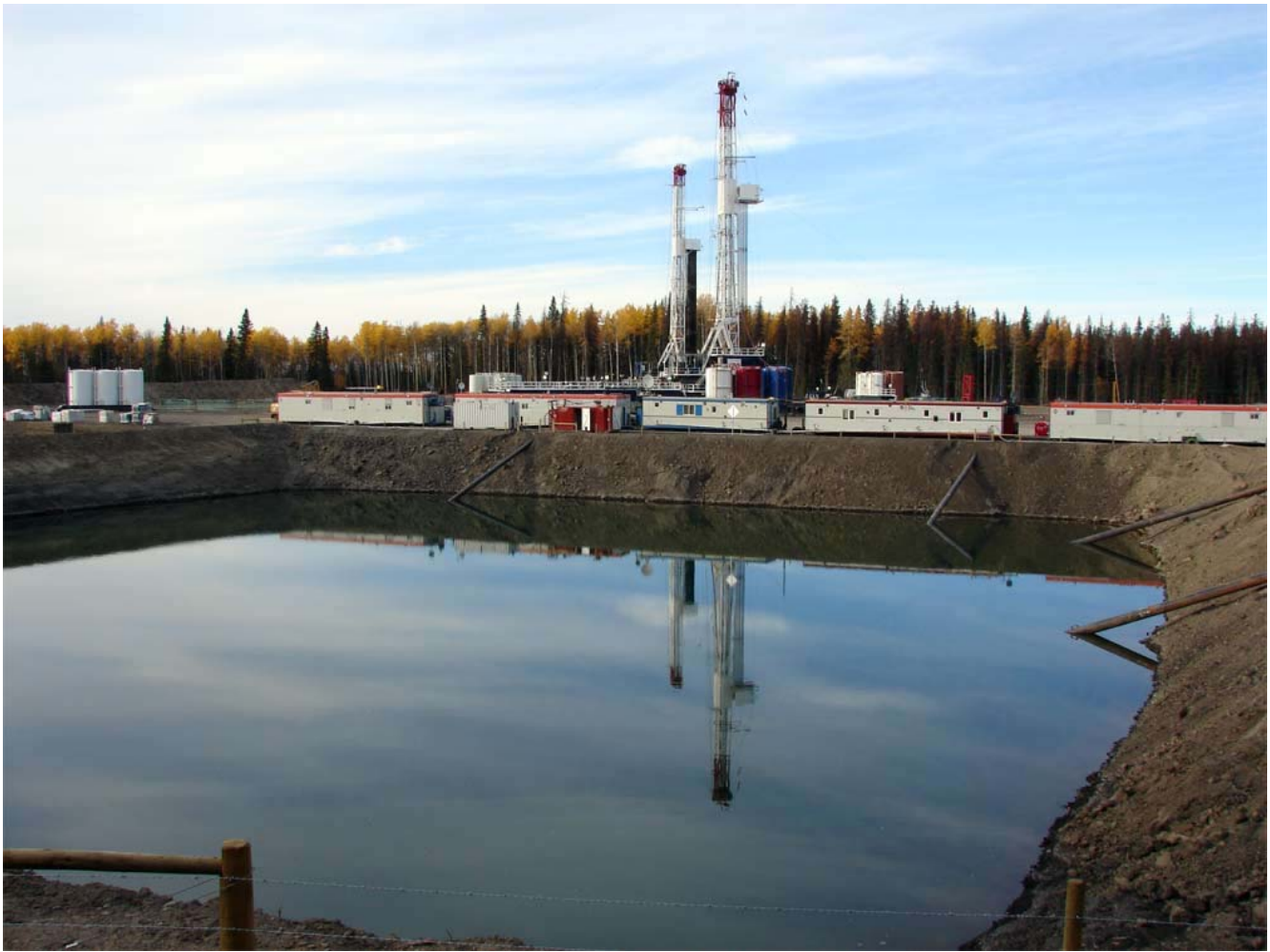
A single container water truck is passing by (in blue) empty on its way back to load up with more fresh free water from the Peace River.





At the far end of what appears to be a tranquil forest access road is another Talisman well site.





The fresh water pit at this multi-well location (c-65I/94-B-1) holds a maximum volume of 25,863 cubic meters (5,689,860 imperial gallons), at a depth of 6.5 meters. It takes 647 tanker trucks, at 40 cubic meters each, to fill this pit to its maximum limit. This pit holds enough water for about 8 fracks.



TALISMAN ENERGY	
PIT # 4 POND VOLUME	
Depth (m)	Volume (m ³)
1	616
2	2758
3	5980
4	10191
5	15454
6	21785
6.5 (Max Capacity)	25863







Talisman's Farrell Creek Fracking Field guest Lodge. The camp is situated near to its natural gas processing plant, seen below at LSD (Land Sub Division) B-88-I/94-B-1.





About 20 kilometres north of the Farrell Creek fracking Field (see map, page 5), Talisman has two water withdrawal permits beside the Halfway River bridge, near the Halfway Ranch (bridge area shown in above photo from a higher vantage point). On the long rubber map in photo below is where many water tanker trucks withdrew water in late September, 2010, for operations some 30 km north.





Another perspective of Talisman's Halfway River withdrawal area. Empty tanker trucks travel over the narrow bridge north to south (to the left) and around a sharp right-hand turnoff which leads down onto the exposed river bed. The black horizontal pipe next to the white vertical post in photo below is where the water is withdrawn. Each truck is supposed to register the volumes of water withdrawn on data sheets kept at this site.



A-10-S/94-B-9 HALFWAY RIVER
3-32-05

Date - 2010	Panda Ticket	Unit #	Load Time	am / pm	Water In / Out (m ³)	Daily Accumulate Water Cost	Trucking Cost	NEED GST	TOTAL Total Cost
SEPT 30	LEE	247	12:00	Am	40 m ³	40		1158	\$ -
30	RON	45	12:00	Am	40 m ³	80		1188	\$ -
30	Richard	168	12:45	Am	37 m ³	119 m ³			\$ -
30	Richard	168	2:30	Am	37 m ³	156 m ³		1044	\$ -
30	MIKE	125	4:00	Am	38 m ³	194			\$ -
30	Richard	168	4:10	Am	37 m ³	231			\$ -
30	AL	73	4:55	Am	48	279			\$ -
30	MIKE	125	6:20	Am	38	317			\$ -
30	Richard	168	6:20	Am	37	354			\$ -
30	AL	73	8:00	Am	48	402			\$ -
30	TYLER	65	8:10	AM	35	437		763	\$ -
30	ANDREW	168	8:40	Am	37	474			\$ -
30	MIKE	125	8:50	Am	38	512			\$ -
30	RON	45	9:30	Am	40	552			\$ -
30	LEE	247	9:30	Am	40	592		608	\$ -
30	TYLER	65	10:50	AM	35	627		573	\$ -
30	AL	73	10:55	Am	48	675			\$ -
30	ANDREW	168	11:40	Am	37	712			\$ -
30	MIKE	125	12:30	Pm	38 m ³	750 m ³			\$ -
30	LEE	247	1:05	Pm	40 m ³	790 m ³			\$ -
30	RON	45	2:05	PM	40	830		370	\$ 46
30	TYLER	65	2:55	PM	35	865		335	\$ 42
					0.0	\$0.00	\$0.00	\$0.00	\$0.00

For instance, on this individual selected log sheet for September 30, 2010, are 22 entries. In the middle column are registered the individual tanker truck water volume withdrawals, three of which at 48 cubic meters are well over the 40 cubic meter road limit guidelines. To the immediate right of this middle column are the daily accumulated volumes added after each water truck is filled, to indicate how close to the permitted withdrawal volume each tanker has made. By 3pm, on September 30th, 865 cubic meters of accumulated water were reportedly withdrawn. A total of nine more entries were made the same day, the last made at 9:15 pm, for a total of 1,211 cubic metres of water from the Halfway River.

Talisman Outlook for 2010

<http://ar.talisman-energy.com/2009/managements-discussion-and-analysis/outlook-for-2010.html>

North America

Talisman plans to spend \$1.9 billion in North America in 2010, \$1.6 billion of which will be spent on shale programs. Within the Pennsylvania Marcellus and Montney shale plays, development drilling is expected to more than double from 2009 levels.

In the Pennsylvania Marcellus, the Company has budgeted close to \$1 billion, ramping up to 10 rigs (currently six) over the course of 2010. Talisman plans to drill 170 net wells in the Pennsylvania Marcellus in 2010 (up from 45.5 in 2009), with about 145 wells completed and tied-in. Talisman expects to exit 2010 at between 250–300 mmcf/d, up from 65 mmcf/d at the end of 2009. Plans are built on an expected ultimate recovery per well of 3.5 bcf, with 30 day initial production rates of 3 mmcf/d. The majority of Pennsylvania Marcellus wells have been permitted and the Company has secured sufficient egress capacity, water access and disposal for its 2010 plans.

In the Montney Shale, Talisman is moving the Farrell Creek area into commercial development with approximately 25 horizontal development wells expected in 2010 and plans to complete 17 of these during the year. In addition, Talisman expects to drill 10–15 Montney shale pilot wells. The Company will increase its number of rigs in the Montney Shale in 2010 and spend approximately \$550 million.

Spending on the conventional asset base will be limited to \$270 million, a significant portion of which will be focused on the Chauvin oil development drilling program, with the remainder spent on focused, high return, tight gas drilling in the Ojay and Wild River production areas.

Talisman Energy Inc. has reported its operating and financial results for the first quarter of 2010.

http://www.oilvoice.com/n/Talisman_Energy_Reports_First_Quarter_Operating_and_Financial_Results/73517d5c8.aspx

“We continue to make excellent progress on our strategic transition,” said John A. Manzoni, President and Chief Executive Officer. “During the quarter, we announced a number of agreements to sell additional non-core properties in North America. The metrics for these predominantly gas-weighted assets were very good. The agreements are at different stages of completion and we expect the sales process to be completed by mid-year. These sales give us additional financial flexibility and help continue to strengthen the focus on our low-cost North American shale gas programs.”

Overview of Operations

North America

In North America, production averaged 157,000 mboe/d for the first quarter, down 13% from a year ago. Production from continuing operations was 128,000 mboe/d,

down 5% from the same period in 2009. Natural gas volumes decreased 4% year over year, but were unchanged compared to the fourth quarter as growing volumes from shale development offset declines in conventional areas. Capital spending included \$247 million in shale areas for development and piloting activities, plus \$30 million on other properties.

In the Pennsylvania Marcellus area, the company drilled 35 gross wells (30.5 net) in the quarter, 26 operated and nine non-operated. Seven horizontal rigs were employed in the operated program for most of the quarter. At the end of the quarter, eight rigs were drilling. Twenty-one operated wells and one non-operated well were brought on production and, at the end of April, the company had 41 gross (34 net) wells rig released, which are awaiting completion.

Talisman exited the quarter with production of 97 mmcf/d from 49 wells. Average production for the quarter was 85 mmcf/d, reaching 150 mmcf/d at the end of April. Average 30-day initial production rates for wells brought onstream during the quarter were approximately 5 mmcf/d.

In the Montney Shale, Talisman drilled a total of six gross (5.2 net) wells, with three gross (three net) horizontal development wells in the Farrell Creek area, which are expected to be completed in the second half of this year. Talisman exited the quarter with production of 22 mmcf/d. Four operated rigs were drilling in the Farrell Creek area at the end of March.

Talisman is carrying out a pilot program in the Greater Cypress area of the Montney Shale and completed three gross (two net) wells during the quarter.

Talisman is continuing its pilot program in the Quebec Utica Shale and drilled two horizontal wells during the first quarter. These wells will likely be tested in the second half of 2010. The company had encouraging test results from the Saint Edouard horizontal well, which was drilled in 2009, with a 30-day initial production rate of over 5 mmcf/d.

Talisman has entered into agreements to acquire 37,000 net operated acres in the liquids transition window of the Eagle Ford shale play for US\$360 million where the company expects to drill seven wells in 2010. The acquisition comes with approximately 2,000 boe/d of production and a contiguous acreage position. The assets have been largely de-risked through six assessment wells and are ready to go into development. The company expects to commence a single rig drilling program in June of this year.

Production from Talisman's conventional areas was 676 mmcf/d natural gas and 26,000 bbls/d of liquids. In total, 25 gross (19 net) wells were drilled in the first quarter.

David Bell Photo

Representatives from Talisman Energy, the mayor, Peace River Regional District chair and many other regional dignitaries were on hand Wednesday for the grand opening of Talisman's new 15-person Fort St. John office. A ribbon cutting ceremony was followed by a tour of the new facility.



Talisman sets up shop in Fort St. John

September 17, 2010

David Bell
Staff Writer
Alaska Highway News.

Global oil and gas heavy-hitter Talisman Energy has just transferred their Grande Prairie office to Fort St. John, saying that the future of natural gas is unconventional shale.

“It reflects our change in strategy, where we were focusing our growth efforts in North America in shale. This is where the shale is,” said Dick Unsworth, Talisman VP Montney delivery unit, following a press conference Wednesday.

While the company has been in the region for a number of years, it was felt that a 15-person office in downtown Fort St. John would put them closer to the action.

Unsworth said the company has invested \$330 million into the Farrell Creek project since January, where four drilling rigs will work 25 wells by the end of this year.

“For next year, we are optimistic that we will be continuing with the same level of activity, possibly more.”

He said the region's potential is huge.

“We have been encouraged by results to date and our longer term vision for the Montney is that it should be able to compete with the best North American shale plays. In North America if you add up all of our potential resources, the Montney represents about 75 per cent. It is a very significant piece of Talisman's overall North American natural gas resource.”

The natural gas development is unconventional shale plays, accessed through a process called fracturing or 'fracking'.

The reservoir permeability of shale plays is a tiny fraction of conventional gas.

"It is the advent of technology that has allowed us to really take that natural gas out of the reservoir. One of the key ways of doing that is to fracture that shale."

Unsworth said water conservation is a priority to Talisman.

"We are very aware and concerned about the amount of water usage and how we can do that in a manner that is going to have a minimal impact on the environment. One of the keys to the success of minimizing the impact is being able to recycle and reuse that water that you are using. Right now, based on the first wells that we have drilled, we recover about 80 per cent of the water that we have used in fracturing those wells. We recover that over a number of months of production. We then recycle that water in the next fracture. We are continually looking at how we can optimize, recycle and minimize the amount of fresh water that we have to bring in."

Local contractor use and labour is also a focus.

We have had what we call our 'local economic engagement strategy' in place for a number of years now and the focus is, the recognition that when we are operating in an area that that community really needs to benefit from the activity and from our operations. As part of our bidding process, we have as one of the criteria local content. We purposely look at the companies when we are evaluating bids to see what their local presence is, and that is taken into account in the awards that we do."

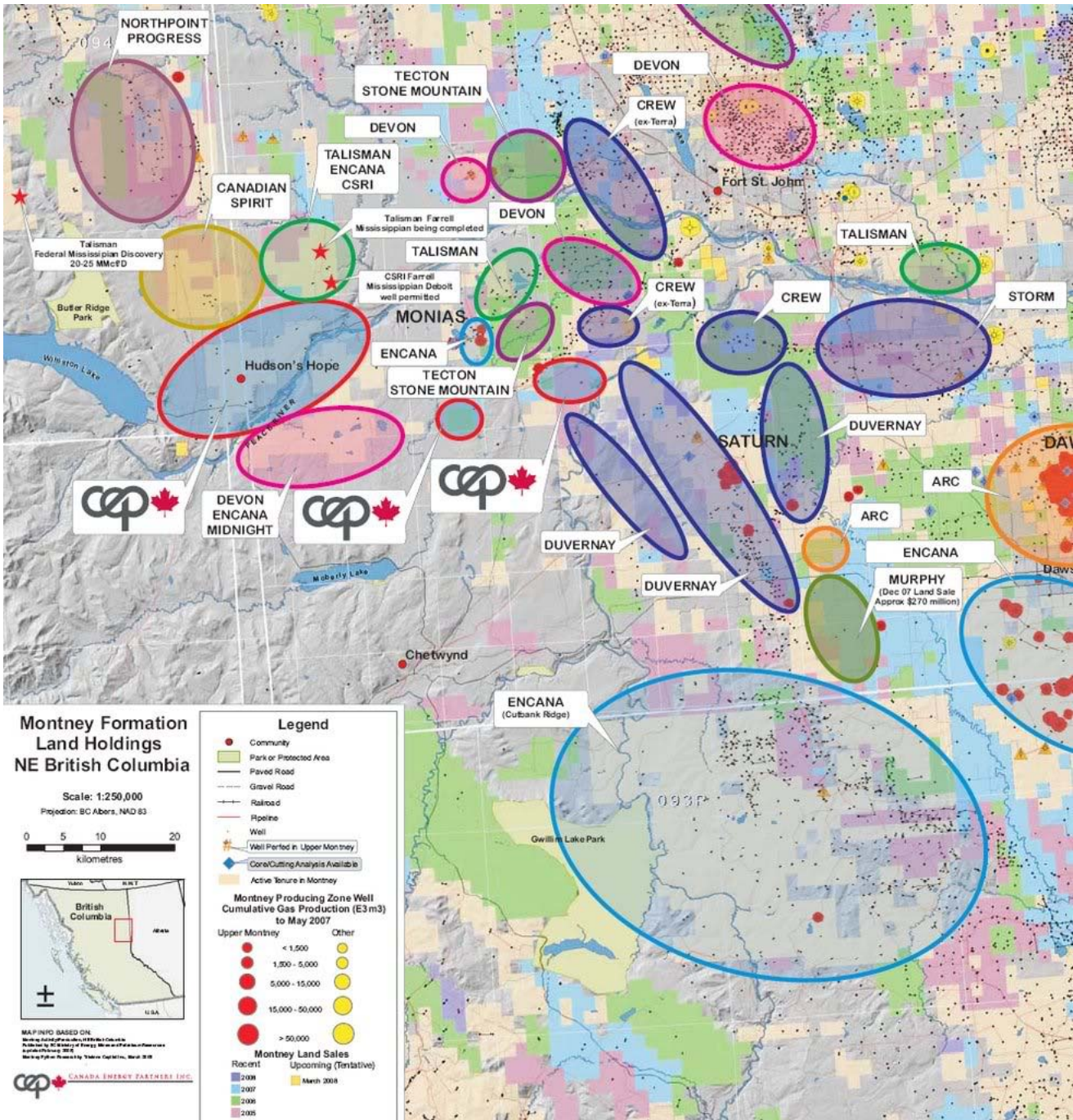
He said since 2009 the company has used 236 companies based in Fort St. John and Hudson's Hope awarding contracts of \$100 million.

Mayor Bruce Lantz was very enthusiastic about the new enterprise.

"This shows first of all the growth of Talisman and their involvement in the North and South Peace areas. It is the further maturing of the company's efforts in this area. From the city's perspective, of course, we welcome a company that has a track record like Talisman of community involvement, hiring local, local procurement, those are all good things," he said.

"We are the energy capital and this shows that, I am happy to hear that this is just the first step for them. They fully anticipate that they will outgrow these quarters relatively quickly and they will be looking to buy or build a larger facility in Fort St. John in years to come."

Activity on the part of Talisman and other energy companies will directly benefit the local economy, he said.



Some of the “players” in the Montney fairway.