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HALLGARTEN & COMPANY

Initiating Coverage

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Canada Fluorspar (CFI.v)

Strategy: Long

Key Metrics				
Price (CAD)	$ 0.30			
12-Month Target Price (CAD)	$ 1.00			
Upside to Target	233%			
12 mth high-low	$0.25-$0.65			
Market Cap (CAD mn)	$ 31.2			
Shares Outstanding (millions)	104.0			
Diluted (mns)	117.3			
	2012	**2103e**	**2014e**	**2015e**
Consensus EPS		n/a	n/a	n/a
Hallgarten EPS		($0.03)	($0.05)	$0.07
Actual EPS	($0.018)			
P/E	n/a	n/a	n/a	4.3
Dividend	$ -	$ -	$ -	$ 0.02
Yield	0.0%	0.0%	0.0%	6.7%

Canada Fluorspar

With a French Big Brother

+ The partnership with Arkema has enabled the project both financially and in providing a guaranteed off-taker of substantial size
+ A past-producing deposit of significant size and potential to expand
+ Fluorspar remains in obscurity but that has not stopped its price surging to levels which make it economic for Western producers to re-enter the market
+ Sizeable deposits with good grades are in short supply meaning the danger of a Rare Earth style overcrowding cannot occur
+ The company has cash on hand of $3mn in the holding company and $65mn in the JV
+ The project has the potential to become one of the largest fluorite producers in the world
+ ROI, by our calculations, should be substantial
× The project has been stop-start despite having a sizeable kitty of cash on hand to get things moving along
× The Fluorite price remains subject to Chinese whims
× Capex is rather high and NAV (by consultants calculations) is not commensurate with capital employed.
× The company needs to get capex down, a difficult task in an isolated location

Some Background

Canada Flourspar is developing a large fluorspar project in St. Lawrence in Newfoundland. This involves the reactivation of past-producing underground fluorspar mines, expansion of an existing mill, construction of a new tailings management facility and a new deep-water marine terminal in the outer St. Lawrence Harbour for the export of a fluorspar concentrate product. The project is anticipated to produce between 120,000 and 136,000 tonnes of fluorspar filtercake concentrate per year.

In early 2012 we met with the CEO of Canada Fluorspar and discussed the developments there which prompted us to add a position to the Model Mining Portfolio. Almost serendipitously we started bumping into other Fluorite players such as the Chinese producer, which is listed in the US, China Zhen Zhou and Speewah, the Australian Vanadium exploration company with a potentially large Flourite deposit. The market for this obscure mineral though is not to be sneezed at with is over US$2 billion a year and the value of the downstream market globally is estimated at ~US$112 billion a year.

Background to CFI

The St. Lawrence district of Newfoundland has been the most important fluorspar mining district in Canada. The area was initially developed in the 1930s by the diversified mining company, St Lawrence

Corporation and was later joined by the American Newfoundland Fluorspar Company, (a subsidiary of Alcan), popularly known as Newfluor. Production by both companies from 1933 to 1991 totaled 4.64 million tonnes from 10 veins (three large north south veins: Tarefare, Director and Blue Beach) and three small (east-west) veins.

The late 1940s and '50s brought a post-war slump in fluorspar prices resulting in difficult conditions times for the undiversified Newfluor. The company survived only because of its parent organization, Alcan, spent hundreds of thousands of dollars in upgrading Newfluor facilities, exploring new veins and maintaining the mines when they lay idle between 1945 and 1948. Alcan also provided Newfluor with a captive market by purchasing the fluorspar for its aluminum plant in Arvida, Québec, where fluorspar was used to make artificial cryolite, a flux in the aluminum-making process.

Conditions improved in the mid-1950s. Newfluor acquired material assets of the St. Lawrence Corporation in 1965, reopened the Tarefare mine and sank new shafts on the Director and Blue Beach veins. In 1969, fluorspar prices began to pick up.

From the mid-1940s, it began to be recorded that there was a high rate of “tuberculosis” amongst miners and then it was noted that there was a very high rate of lung cancer. A plan of observations led to the discovery in November 1959 that the mine air contained radon gas in concentrations vastly exceeding the maximum permissible level. Subsequent studies indicated that the radioactive gas entered the mines dissolved in mine water, having been leached from uranium minerals located in the surrounding granite.

The established presence of radon gas combined with findings of a concurrent medical survey - the death rate from lung cancer in St. Lawrence far surpassed that in the rest of Canada particularly amongst the miners. Newfluor inherited much of its problem from the St. Lawrence Corporation by hiring ex-Corporation miners who had worked in the Iron Springs and Black Duck mines. Newfluor's ventilation program was, from the start of operations, adequate for what were assumed to be normal dust conditions. The company ordered a forced ventilation system immediately after the discovery of radiation in November 1959, and installed it in March 1960. Eventually Alcan closed the Blue Beach-Tarefare fluorspar mine in 1978.

Subsequently various operators have attempted to bring operations back online to produce acidspar, which is used for a variety of industrial purposes such as in hydrofluoric acid production. Amongst these was a group of British investors (Minworth-UK) in the late 1980s but that plan was underfunded and suffered low acidspar prices, ultimately failing and letting go of claims to the fluorspar deposit.

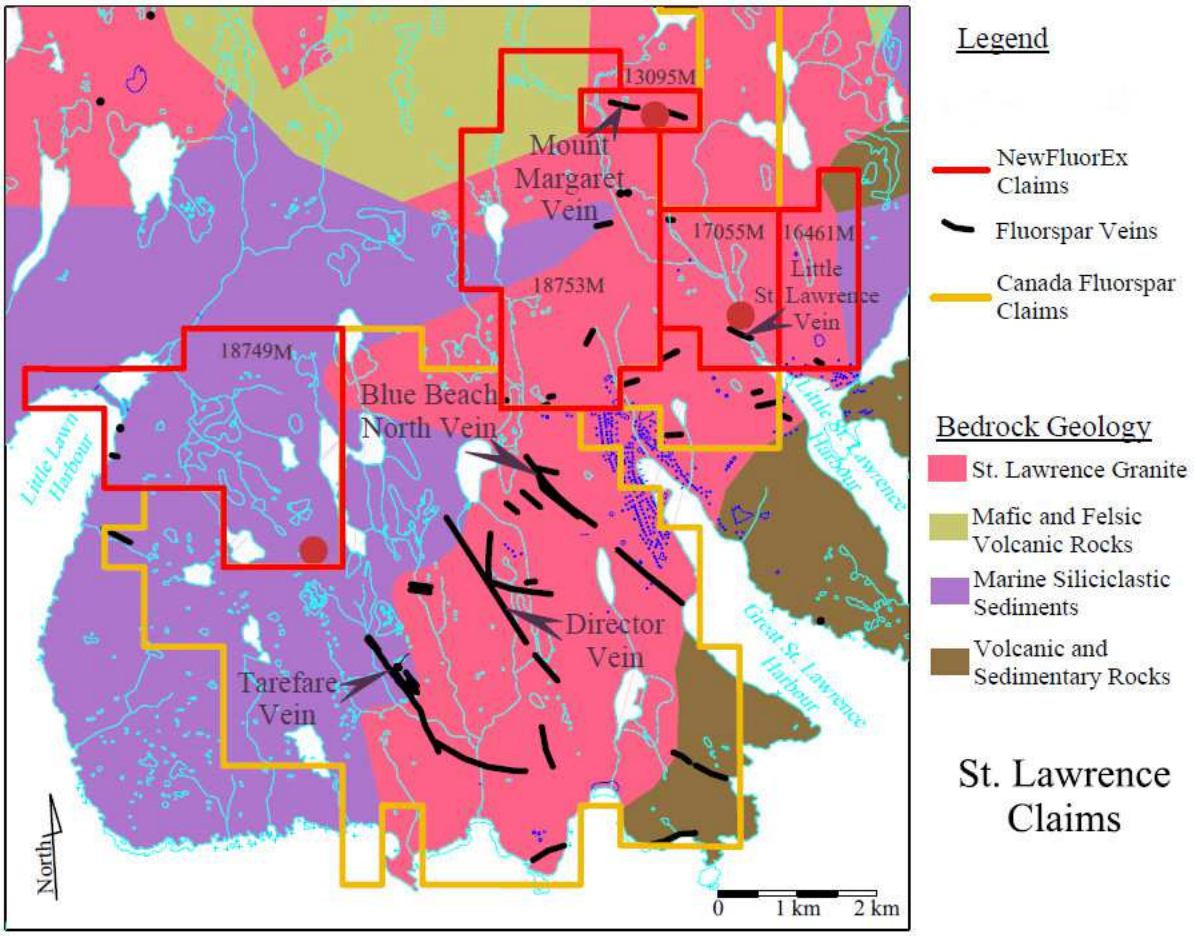
Having languished for some years, Canada Fluorspar's predecessor company, Burin Minerals, picked the concessions up in the mid-1990s. Burin was a private company founded by Canada Fluorspar's current largest shareholder, Gordon Stollery, and it obtained a listing in April 2009 via an RTO into a CPC, Riviera Capital Corp.

Geology

The area of the St. Lawrence Property is underlain by Late Precambrian and Late Devonian to

Carboniferous granites and volcanic rocks. The latter comprise porphyritic andesite, lithic and crystal tuff, and brecciated tuff. The bulk of these rocks are also affected by a sequence of hydrothermal alteration events. Over 100 veins are known, all but one found by conventional prospecting prior to 1949.

The area of past production is now covered by concessions held by CFI and a small company called Newfoundland Fluorspar Exploration Ltd. The concessions are shown in the map below:



Source: NewFluorEx

Three major types of fluorite veins are recognized. These are:

- Low-grade veins, with an average width of 7 m and grades ranging from 35% CaF_2 to 70% CaF_2, such as the Director, Tarefare, and Blue Beach North and South veins.
- High-grade veins, with an average width of 1 m or less, and grades averaging 95% CaF_2, such as the Lord and Lady Gulch, the Iron Springs and Canal veins.
- Other veins that occur in the peripheral region, which have significant barite intergrown with fluorite. Examples are Meadow Woods, Lunch Pond, Clam Pond, and Anchor Drogue veins.

The thickness of individual mineralized zones ranges from <2 m to 17 m, with an average thickness ranging from 2 m to 5 m for the Blue Beach North Vein and from 2 m to 4 m for the Tarefare Vein.

The Blue Beach vein, which is situated near the southern edge of the town of St. Lawrence. It has been traced for over 2.5 km along its southeast strike and through most of its explored extent is hosted by the St. Lawrence Granite. However, the northern most part of the vein passes into the overlying fine grained sediments of the Inlet Group where fluorite mineralization rapidly peters out. The Blue Beach vein is characterized by an abundance of both blastonite and nodular ore. The massive fluorite is compact, without vugs, and ranges from coarsely crystalline to finely banded. The principal gangue minerals are quartz and calcite, with minor galena, sphalerite and pyrite. The vein system locally branches into several zones which coalesce along strike, producing very wide ore zones locally.

Then there is the Director Vein, which is located 1.3 km southwest of the Blue Beach vein. It has a strike length in excess of 2km and varies in width from 0.3 to 30m. Like Blue Beach vein, the Director traverses more than 2km of the host granite before passing into sediments shortly before its northern termination. It exhibits pinch and swell features along strike which have created three principal ore lenses. The north (No. 1) lens is the largest (roughly 800 m long) and is separated from the No. 2 lens to the south by a 100 m long pinch. The No. 2 lens is 300 m long and a 200 m pinch separates it from the No.3 lens to the south, which is over 330 m long. Fluorite in the Director vein is commonly banded, predominantly colorless, pale blue and green and coarsely crystalline. Nodular ore and blastonite are both important constituents.

At its southern end, the Director Vein structure becomes rather diffuse and appears to feather out into a number of smaller mineralized zones at small angles to the projected strike of the main vein. Within the mineralized zones are irregularly shaped fluorspar masses, some very high grade.

The other main past-producing vein was the Tarefare - Grassy Gulch vein system is approximately 1.7 km southwest of the Director vein. It has been traced on the surface for approximately 2.5 km. There are three closely adjacent veins in this area, the TareFare, Blowout, and Hope Veins, all of which are accessible from the underground tare fare workings. Both the Blowout and Hope veins parallel the tare fare and dip steeply east.

TareFare contains abundant blastonite accompanied by crystalline, locally banded massive fluorite. Principal gangue minerals are quartz and calcite with lesser amounts of sulfides; the latter increase in relative abundance toward the north end of the vein.

On a smaller scale there is the Hares Ears Vein, which is located approximately midway between the Director and Tare fare veins. It was reported that the ore was shipping grade as mined, containing only about 6% silica. The original vein had an average width of 3m and the northern extensions discovered during later mining ranged from 0.3 m to over 2 m in thickness.

Exploration & Resource

The current resource on the property is largely a result of drilling since Burin (BML) became involved.

From May to December 1999, BML completed 14,090 m of diamond drilling in 43 holes (27 holes on the Blue Beach North Vein and 16 holes on the Tarefare Vein) and confirmed the presence of the fluorite mineralization at these two veins as documented in the historic Alcan drilling and underground sampling.

From June to December 2008, BML completed 18,368 m of drilling in 62 diamond drill holes, including two repeat holes. Twenty-three of the holes tested the Blue Beach North Vein and 37 of the holes tested the Tarefare Vein and the Blowout Vein. In general, the BML drilling extended the fluorite mineralization along strike and at depth.

CFI's resource is shown at the right and was prepared in early 2009 by Hrayr Agnerian of the consultants, Scott Wilson Mining. The estimate used a cut-off grade of 20% CaF_2.

CFI - Mineral Resources Estimate

(April 2009)	Tonnes	Grade (CaF2)
Indicated		
Blue Beach North	4,390	39.0%
Tarefare No. 2	4,700	44.8%
Total Indicated	9,090	42.0%
Inferred		
Blue Beach North	355	30.0%
Blowout Veins	595	31.8%
Total Inferred	950	31.1%

It is interesting to note that CFI managed to bag Arkema as an investor with a sizeable cash commitment despite only having a resource that is all Indicated and Inferred. This shows the advantage of having a past producing mine on one's concession. This reinforces our fondness for brownfield over greenfield at this point in the Mining Supercycle.

Fluorite - Not the Word on Everyone's Lips

Fluorspar is scarcely the word on everybody's lips and in fact hardly gets a mention despite its economic importance and the grip that China has had on supplies in recent years. Our previous interaction with mineral was in relation to some rather unique REE deposits in New Mexico that occurred in concurrence with Fluorspar. However, Fluorspar is ranked fifth in the United States' list of foreign source-reliant minerals and included in the European Union's list of 14 critical minerals.

Applications

Calcium fluoride (CaF2) comes in three industrial grades:

- Acid grade (>97% CaF2)
- Ceramic grade (93-97% CaF2)
- Metallurgical grade (60-93% CaF2).

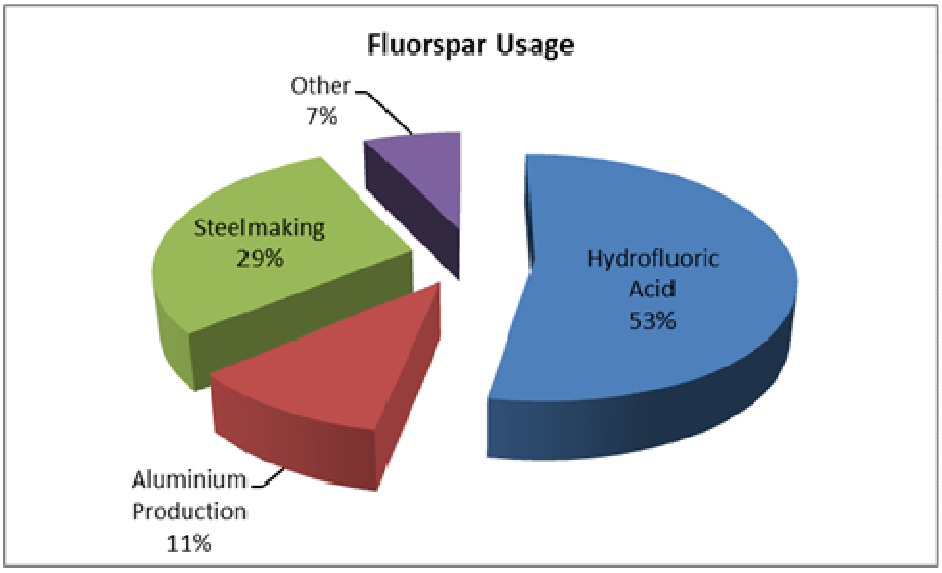
Calcium fluoride is a vital component in several industrial applications, including steel production. It is also used to make hydrogen fluoride (HF) which, in turn, is used in the production of refrigerants and to

make: aluminium tri-fluoride (AlF_3), critical in aluminium smelting; uranium fluoride (UF_6), used in nuclear power stations; and lithium hexafluorophosphate ($LiPF_6$), used to make lithium batteries. tri-fluoride used in the manufacture of various downstream products, which are then re-imported at high cost.

Fluorspar is used in the production of hydrofluoric acid which is the primary feedstock for the manufacture of virtually all organic and inorganic fluorine-containing compounds including fluoropolymers and fluorocarbons. Some examples are anaesthetics, non-stick coatings, and fire retardant clothing. It is also used in the production of electronic components, aluminum, and steel.

Hydrogen fluoride is generally made from acid-grade fluorspar, the top 97.2% grade. Fluorspar-linked products are used in refrigeration, ceramics, chemicals, dental products and pharmaceuticals, as well as nuclear physics.

Fluorspar is not without its alternatives/substitutes. Aluminum smelting dross, borax, calcium chloride, iron oxides, manganese ore, silica sand, and titanium dioxide have been used as substitutes for fluorspar fluxes in the steel industry while the by-product fluorosilicic acid has been used as a substitute in aluminum fluoride production and also has the potential to be used as a substitute in HF production.



Fluorite is especially critical for making lithium batteries and a key ingredient in industries including pharmacy, chemical, optics and environmental protection

Geology

Fluorite (CaF_2), is virtually the only fluorine mineral of commercial significance. When mined it is usually called fluorspar. Another mineral, cryolite (Na3AlF6), was important last century for the production of soda, alum and aluminium sulphate, and also in production of aluminium, but the only known source, in Greenland, has been exhausted. Most cryolite now used is manufactured.

Fluoroapatite, the major phosphate-bearing mineral in sedimentary phosphate deposits, is a major potential source of fluorine. (Commercially produced phosphates may contain up to 3–4% fluorine.)

Fluorite occurs in a wide range of geological environments. The most commercially important deposit types include: hydrothermal veins and stockworks associated with felsic igneous rocks; stratiform replacement deposits in carbonate rocks; skarns and other contact metamorphic rocks; at the margin of carbonatite and alkali igneous rock complexes; and residual deposits in the regolith. Fluorite also occurs as a gangue mineral in some base metal deposits (e.g. Mississippi Valley type deposits). These consist of veins or replacement bodies and cavity fillings of fluorite, carbonates, quartz and silver–lead–zinc mineralisation in carbonate sequences. Other deposit types (for fluorine) of lesser economic significance include pegmatites and lacustrine sedimentary deposits (e.g. Piancino in Italy).

Source: China Shen Zhou

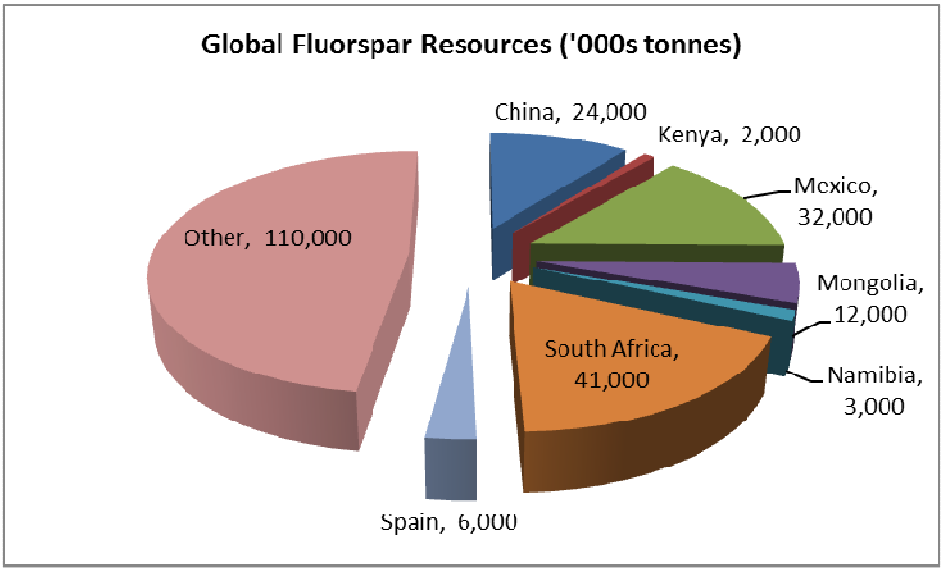
Fluorite may occur as a vein deposit, especially with metallic minerals, where it often forms a part of the gangue (the surrounding "host-rock" in which valuable minerals occur) and may be associated with galena, sphalerite, barite, quartz, and calcite. It is a common mineral in deposits of hydrothermal origin and has been noted as a primary mineral in granites and other igneous rocks and as a common minor constituent of dolostone and limestone.

Global Resources

Fluorite is a widely occurring mineral which is frequently found in large deposits. Notable deposits occur in China, Germany, Austria, Switzerland, England, Norway, Mexico, and both the Province of Ontario and Newfoundland and Labrador in Canada. Large deposits also occur in Kenya in the Kerio Valley area within the Great Rift Valley. South Africa hosts the largest reserves of fluorspar at 41-million tons, followed by Mexico with 32-million tons and China with 21-million tons.

In the United States, deposits are found in Missouri, Oklahoma, Illinois, Kentucky, Colorado, New Mexico, Arizona, Ohio, New Hampshire, New York, Alaska, and Texas. Illinois was the largest producer of fluorite in the United States, but the last fluorite mine in Illinois was closed in 1995.

The table below shows the USGS' current view of where the major Fluorite resources are distributed. The USGS has noted that identified world fluorspar resources were approximately 500 million tons of contained fluorspar. The quantity of fluorine present in phosphate rock deposits is enormous.



Source: USGS

Current U.S. reserves of phosphate rock are estimated to be one billion tons, which at 3.5% fluorine would contain 35 million tons of fluorine, equivalent to about 72 million tons of fluorspar. World reserves of phosphate rock are estimated to be 18 billion tons, equivalent to 630 million tons of fluorine and 1.29 billion tons of fluorspar. Thus is not a shortage of Fluorspar resources only a shortage of production in the Western world at this time. However as we all know the mining capital markets are tough going even for well-known commodities let alone that of obscure elements such as Fluorspar. The key component in any plan has to be securing an off-taker arrangement.

Production

The international market consumes approximately 5-6 million tonnes of Fluorspar per annum with an estimated value of US$1.6 billion to US$2.3bn.

South Africa was the leading producer with, in 2010, some 280,000 tonnes produced. South Africa's Witkop and Buffalo fluorspar mines are owned by Fluormin (FLOR.L), the Doornhoek mine is owned by ENRC, of Kazakhstan and the Vergenoeg mine is owned by Minersa, of Spain.

Development work by a firm called Hastie Mining resulted in the new U.S. fluorspar mine at Burna in western Kentucky. This facility began production in the second half of 2010 and has capacity to produce about 50,000 tons of fluorspar per year.

The German specialty chemicals company Lanxess sources some of its fluorspar from South Africa for its hydrogen-fluoride manufacturing facility in Leverkusen.

Flourite - Annual Production						
'000 tpa						
		2007	2008	2009	2010	2011e
China		3200	3250	2900	3300	3300
Mexico		933	1060	1040	1070	1070
Mongolia		380	380	460	420	420
Russia		180	269	240	250	250
South Africa		285	316	204	200	270
Spain		150	149	140	135	140
Namibia		118	109	64	95	100
Kenya		82	98	16	45	115
Morocco		90	61	75	75	90
Other Countries		270	350	180	420	445
Total		5690	6040	5460	6010	6200
Sources: USGS, Fluorspar 2007-2010 and 2011 (e=estimated)						

China doing that thing it does

The Chinese government closely controls the total fluorite production through licensing requirements and production limitations. China has been the world's leading producer over the last 20 years. The availability of Chinese material on the international market has decreased significantly over the past five years. The reasons for flat production in China might be its policies on export quotas and tariffs combining with rapidly increasing domestic demand.

A useful hint on the motor behind firmer Fluorspar prices is gleaned from looking to the state of play in Chinese export markets. Repeating in more gradual form than we have seen in REE, the Chinese started tightening a fair while back and, in the meantime, Western end-users were the frogs in the boiling water (though that never generates much sympathy from us). The progression goes like this:

- 2003 – export rebate reduced from 17% to 13%
- 2004 – Export rebate lowered from 13% to 3%
- 2005 – Export rebate reduced to zero
- 2006 – Export tax of 10% instituted
- 2007 – Export tax hiked to 15%
- 2010 – Production quota of 4.75m tpa introduced
- 2011 – Export quota removed

Interestingly the last of these moves might be the first case of the Chinese admitting they had "lost" control of a market. Though from China this is interpreted as being a move to production quotas (control at source) rather than export quotas (control along the value chain). The WTO dispute settlement panel found in July 2011 that China's export duties and export quotas were inconsistent with WTO rules. The announcement stated, "China's actions were not justified as conservation measures,

environmental protection measures, or short supply measures".

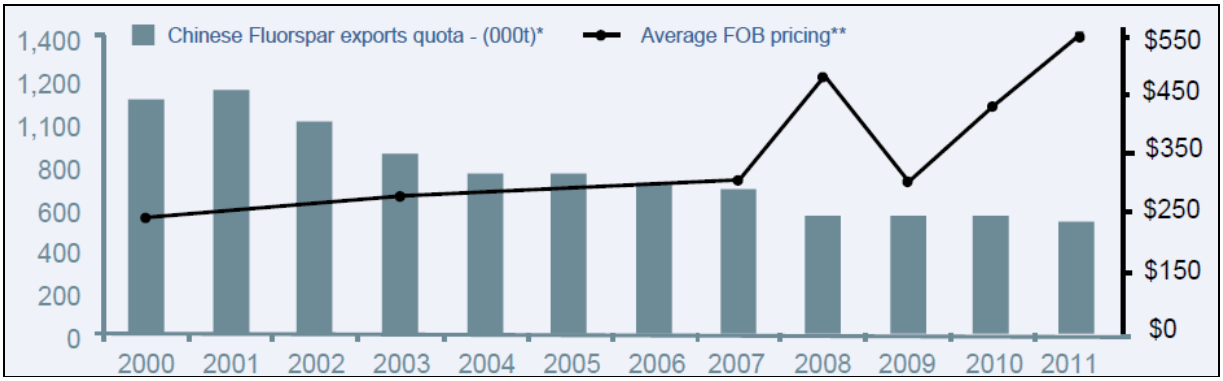
The leading Chinese producer, China Shen Zhou (which we also met last year), feels that the trend is toward production quotas that are more province-specific (citing provincial quotas that already exist for talc, magnesite and rare earths, and others). We find it hard to see how this though does not result in a proliferation of mines and a lack of central control which has dogged coal, antimony and Rare Earth production in recent years.

It has been noted though that China has been producing about its theoretical share of the global resources meaning, as with so many things, it has squandered a potentially scarce asset while those it forced out of the market still have their resources relatively undepleted. This augurs for less Chinese influence on the market (from the supply-side at least) in the coming decades.

Strangely, the government acted (supposedly) to better control fluorite supply and enhance market prices by issuing new regulations in 2010 to limit the exploration of fluorite mineral resources in China. We cannot see why exploration should be truncated to control supply.

Price trends

Fluorite's market price went up over 192% between 2009 and 2011



Source: Industrial Metals

Benefactors transform the Outlook

Arkema made an initial investment of CAD$15.5 million in mid-2011 acquiring 9.9% of CFI (10.3 million common shares at $0.75 per share or twice the current stock price) and a further 10% of the common shares (10.4 million subscription receipts at a price of $0.75 each) which on conversion would give Arkema a total of 19.9% of CFI. The second investment tranche consisted of CAD$68mn injected into a partnership owned equally by CFI and Arkema. CFI contributed the mining rights and permits related to the Blue Beach mine, Tarefare mine, the mill facilities and the tailings pond needed to produce fluorspar.

In a case of it "never raining but pouring" in August of 2011 the government of Newfoundland and Labrador announced a $17 million repayable "contribution" to CFI to set in motion its fluorspar mine.

The money appears to be dedicated towards the construction of the deep water loading facility at the mine.

Somewhat typically of the mining space at the time of the Arkema of France's entry into CFI the market barely reacted. This parochialism was typical of a period in which the market was only interested in Chinese majors making crazy takeover offers. That an industrial company, Arkema, should fund CFI to move forward its mine reactivation was regarded with disinterest. How things are changed though, for now the market is much more aware that an off-taker agreement (with equity participation) is about the only guarantee of survival for an up and coming pre-production story.

The Strategic Investor – Some Background

Arkema was created in 2004 when French oil major Total restructured its Chemicals business and was listed on the Paris Bourse (now the Euronext) in May 2006.

It is now one of France's leading chemicals producer with operations in more than 40 countries, 14,000 employees and eight research centers and a total of 85 production plants in Europe, North America and Asia. It has annual revenues of €5.9 billion and has its headquarters at Colombes, near Paris.

The group is organized into three business segments: Vinyl Products, Industrial Chemicals and Performance Products.

- High Performance Materials segment gathers four high value added product lines: Specialty polyamides, Fluoropolymers (PVDF), molecular sieves for filtration and adsorption and organic peroxides.
- Industrial Specialties (the segment that will take CFI's production) produces major chemical intermediates such as thiochemicals (for animal nutrition, gas natural odorant), fluorochemicals (for refrigeration, air conditioning, blowing agent for insulating foam), PMMA (or arcylic glass for furnitures, automotive applications, noise barriers), and hydrogen peroxide (pulp and textile bleaching, chemical synthesis, water treatment).[9]
- Coating Solutions – originally just upstream acrylic monomers, the company has moved downstream into every segment of the coating market. Its portfolio of coating materials and technologies includes waterborne, solvent borne, powder coating resins and additives from Arkema Coating Resins, rheology additives for waterborne coatings from Coatex and photocure resins for optic fibers, graphic arts, electronics, etc. from Sartomer.

Like so many other industrial companies with a strong need for industrial/specialty minerals it has found itself at the mercy of China which has gone from being a low value-added (and cheap) supplier of inputs to being a vertically integrated competitor with a vested interest in taking down major European and North American companies. This should have been foreseen but so many companies were in such a thrall to cheap Chinese inputs that biting the bullet and doing deals to secure their upstream were eschewed. While American end-users still rub their lucky rabbit's foot and hope China will be back in business as supplier of first resort, many Europeans, Japanese and Korean end-users are furiously trying to pin down alternative sources of supply. This has been seen in Tungsten, Rare Earths and Lithium. Finally the more obscure world of Fluorspar has seen Arkema seize *first-mover* status.

The Project

It might be useful to note first that, besides its mineral concessions and the old underground mine thereon, CFI also has:

- A mothballed conventional flotation mill, with a capacity of 80,000 tonnes per year
- Mine and mill infrastructure including office buildings, shops, and equipment
- Permission received in 1997 to use Shoal Cove Pond for tailings impoundment

In late January 2013 Canada Fluorspar announced the details of a new Preliminary Feasibility Study for its fluorspar project. This new PFS replaced the earlier one published in May 2011. The new PFS was prepared by the independent engineering firm, Roscoe Postle Associates. The PFS is based on updated capital and operating costs, and the existing resource estimate and the plan contemplates a 131,000 tonne per annum fluorspar production facility.

The basic metrics of the latest plan are:

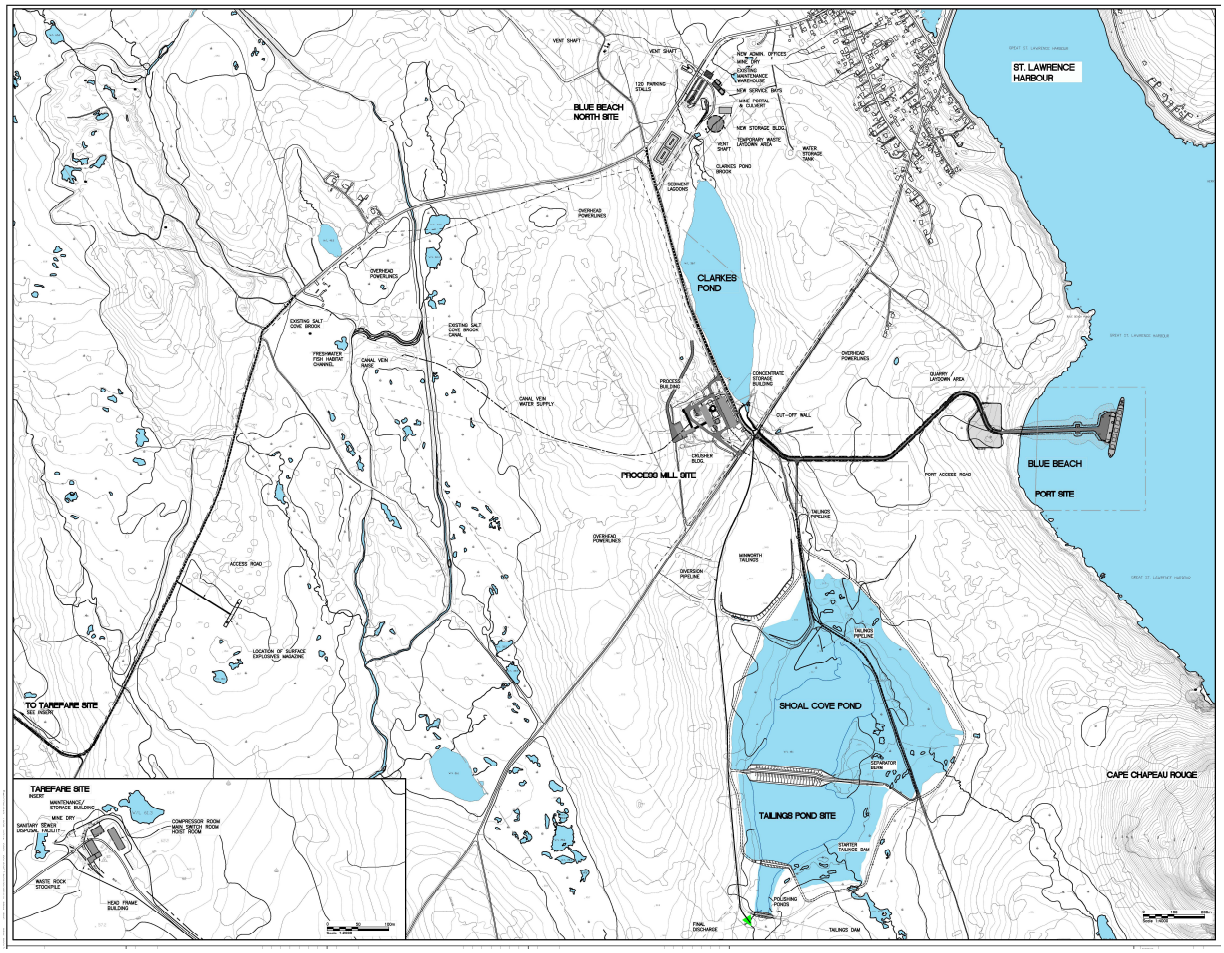
- production of fluorspar is estimated to average 131,000 tpa
- a fourteen year mine life
- the capital costs (shown below) associated with the pre-production phase are estimated to be $154 million while the ongoing capital costs are estimated to be $72.5 million (which is expected to be paid from cash flow generated by the project)

Capex	Pre-production	LOM ongoing	Total
(USD millions)			
Mine & Mill	66.2	27.5	93.6
Infrastructure & Indirect	73.5	9.9	83.4
Sustaining Capital		25.6	25.6
Closure		5.8	5.8
Contingency	14	3.7	17.7
Total Capital Cost	153.6	72.5	226.1

CFI-NL plans to restart underground mining operations by developing the lower levels of the Blue Beach North Vein and the Tarefare Vein. The Blue Beach North mine which will provide the first 6½ years of production followed by an additional 7 ½ years of production from the Tarefare No. 2 mine. The Alimak mining method was selected as the most suitable for the ore body geometry because it is expected to provide safe, efficient and cost effective extraction.

The run of mine production over the mine life is anticipated to average approximately 386,000 tpa of ore (412,000 tpa at Blue Beach and 365,000 tpa at Tarefare) providing an average

concentrate production of 131,000 tpa, with a maximum of 136,000 tpa. Processing will consist of initial upgrading of the mill feed via a dense media separation plant, followed by grinding and flotation, to produce a high quality concentrate grading 97.5% CaF_2 and less than 1% SiO_2. The close proximity to tide water, (within two kilometres of the mill site), provides a significant cost advantage for the project.



The cash operating cost for producing fluorspar will be $231.69 per tonne of concentrate produced. Several factors contribute to the projected low operating cost including:

- High grade ore
- High recoveries
- Existing Infrastructure and historical operations
- Close proximity to tide water
- Access to suitable process water

The re-development of the St. Lawrence fluorspar mine will create a maximum of 370 full-time construction jobs over the two-year build period. Once Canada Fluorspar begins production,

employment is anticipated to be constant with more than 160 full-time positions throughout the 15-year life of the mine.

Economics

The PFS base case pre-tax NPV is $124 million and the pre-tax IRR is 16.4%, assuming a 5% discount rate. With the revision of the PFS the estimated average annual production has grown from 122,000 to 131,000 MT, capital cost has moved from US$98 million to $154 million and Operating costs from $208 per mt to $231 per mt, when compared to the May 2011 PFS.

The base case assumes that the long term price of fluorspar is US$500 per tonne supported by long term demand and stable prices of Fluorspar Acid Grade, Filtercake less that 5 ppm As, ex-Tampico, Mexico over the prior 18 months at approximately US$500-550 per tonne (as quoted in Industrial Minerals from July 4, 2011 to January 21, 2013). The base case also assumes that consumption grows annually.

As mentioned earlier the cash operating cost for producing fluorspar will be $231.69 per tonne of concentrate produced. The table at the right summarizes the total average annual operating costs associated with the anticipated production of 131,000 tpa of fluorspar concentrate.

Annual OpEx	
US$ mns	
Mining	17.3
Processing	7.2
Site Services	3.1
GSA	2.7
Total Op Costs	**30.3**

Using $400 per tonne pricing, this would give annual revenues of just over US$52mn per annum. Using the very rough Opex numbers provided above the net margin would be around $20mn from this unit. Half of that would pertain to Arkema though… Higher fluorspar prices such as the $550 (at the current time) would represent an enormous boost. At those levels, profits would double to $40mn (or $20mn for CFI).

Directors and Management

Richard Carl has a Bachelor of Commerce and Finance from the University of Toronto. He also holds a Chartered Financial Analyst degree. He is the President and Chief Operating Officer of AGS Capital Corp., a diversified investment company controlled by Gordon Stollery. He is the co-founder of AGS Energy, a private equity fund in the Canadian oil and gas industry. He is a Board Member of a number of public and private companies with experience on Audit, Reserve and Compensation and Governance committees, including sitting as chairman of some of those committees. Formerly President and Country manager of Credit Suisse Canada and Senior Vice President, Nesbitt Burns responsible for equity sales and trading operations in Canada and in the United States.

Senator George Furey, Director, was appointed to the Senate in August of 1999 where he has been the Chairman or a member of a number of committees including the Senate Standing Committee on Banking, Trade and Commerce, the Senate Standing Committee on National Finance, the Budget Sub-committee of Internal Economy and is currently the Chairman of the Senate Standing Committee of

Internal Economy, Budgets and Administration. Senator Furey is a strong and respected leader and has had very successful careers in education, law and politics. Senator Furey holds a B.A., B.Ed. (1970, 1971) and Masters of Education from Memorial University (1976) and an LL.B from Dalhousie University (1983).

Lindsay Gorrill, Director, has a Bachelor of Business Administration in finance and marketing from the University of Simon Fraser. He is a certified Chartered Accountant with 20 years of experience in the industrial mineral business; specializing in geological discovery, to mining, to production to market. He has marketed industrial minerals internationally. He is the director of several public companies that are resourced based.

Andrew Krusen, Director, has been actively involved in the oil and gas and mining industries for the past 30 years and has held positions as a director or officer with many private and public companies including Guardian Oil Company, Gulf Star Energy, Golf Standard, Morrison Petroleums, Highpine Oil and Gas Limited, Alliance Tubulars Ltd. and Gridiron Services. Mr. Krusen also has extensive capital market experience and is a director of Raymond James Trust Company. Mr. Krusen holds a BA in Geology from Princeton University (1970).

Leo Power, Director, has extensive experience as a director of mining and oil and gas companies. He has been the Chairman of the Board of Directors of Ptarmigan Resources Ltd. a private oil and gas exploration company in Newfoundland and Labrador, is a director and member of the Audit Committee of Mining Corporation, a TSX listed mining company and is a director of New Island Resources, a TSXV listed mining company. He is also a member of the Faculty of Business Administration Advisory Board and Chair to the Resources Sub-Committee at Memorial University and from 1984-1993 served as the special assistant to the Hon. John C. Crosbie, Member of Parliament with a brief interlude in 1989 as Principal Secretary to Newfoundland Premier Tom Rideout. Additionally he is a principal shareholder in a number of private enterprises in the Maritime Provinces. He holds a BA from Memorial University (1983), an MBA from York University (2005) and a Master of Oil and Gas Studies from Memorial University (2008).

Arkema is represented by Patricia McCarthy as a Director of CFI. She has been a senior vice president, finance and chief financial officer of Arkema since 2005. Prior to this position, she held various finance positions in publishing companies including Pearson Education France, CampusPress France, Simon & Schuster Macmillan France that she co-founded, Editions Sybex. She also held several finance positions with Top-Log, a software distributor and started her financial career in public accounting with Arthur Andersen. She is a graduate of ESSEC (École Supérieure des Sciences Économiques et Commerciales) in France and holds a DESCF (Graduate Diploma in Accounting and Finance).

Bernard Roche, Director, is a 38 year veteran of Arkema and is currently the CEO of Arkema. As part of his role as CEO, Mr. Roche oversees all Health, Safety and Environment functions within Arkema, and as such has been instrumental in developing various safety and environmental programs and procedures within Arkema.

William Assini, Director, is a Chartered Accountant with over 25 years of management, finance and accounting experience. He was a Partner and Senior Vice President with PricewaterhouseCoopers LLP

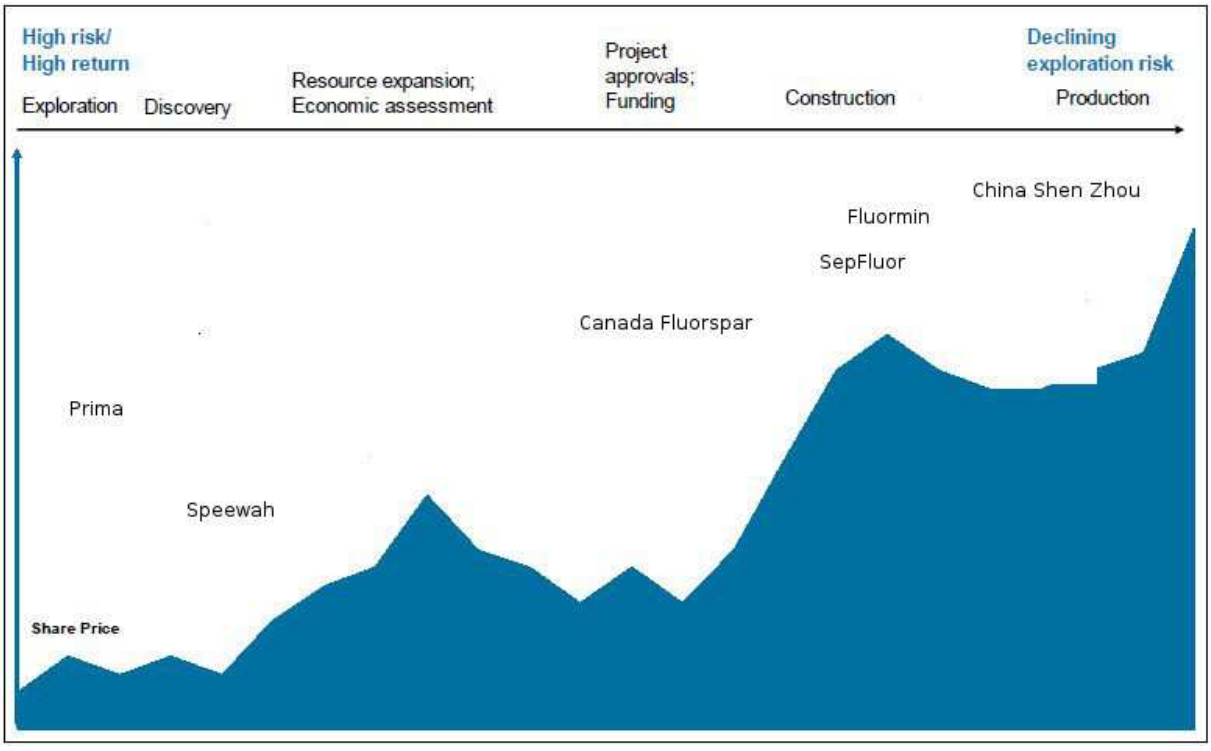
for 17 years before becoming a Corporate Director. He currently serves as a Director of subsidaries companies contained within the Power Financial Group. He is currently Chair of the Audit Committee of Investors Group Investment Management Ltd, Investors Group Corporate Class Limited. These entities have in excess of $60bn in assets under administration. He also serves as a committee member of the Investment Review and Conduct committees of those companies. He serves as a Director of Investors Group Trust Company and M.R.S. Company Ltd; both being captive financial trust companies of IGM Financial.

He is currently a Director and Chair of The Audit Committee of GoviEx Uranium Inc., a mineral resources exploration company focused on uranium properties in Africa together with his roles as a member of the H.R. and Compensation and the Nominating and Corporate Governance committees. He serves as an independent Director and Chair of the Audit Committee at CFI.

He is a graduate of McGill University, a member of the Institute of Chartered Accountants of Ontario, a member of the Canadian Association of Insolvency and Restructuring Professionals, a member of the Institute of Corporate Directors and a Federally Licensed Trustee.

The Fluorspar Lifecycle Chart

Below can be seen the Lifecycle chart for Fluorspar with some of the players of which we know.



Source: Hallgarten

Risks

The risks CFI are considerably mitigated by having a Big Brother in the form of a well-cashed up offtaker. This guarantees not only financing ability but longer term viability through committed sales. However risks always exist and those that we can conjure with are:

- China starts releasing more product into the market to soften prices
- Ongoing delay in starting project as partners try to "market-time" entry into production
- Continued stock price weakness hampers CFI's ability to keep up its 50% of the JV arrangement resulting in dilution
- CapEx blowout
- Market disinterest in "learning a new metal" after investors' failed self-education in Rare Earths, Lithium and Graphite.

The Capex number already looks over-padded to us so that is probably not a real concern, more dangerous though is the prospect of self-inflicted delay (as seems to have happened so far). This might allow another party to slip into the game ahead of CFI and become the market darling (if such a thing still exists in the current cynical investment world). China sabotaging prices would be consistent with other actions it has taken in other metals (Rare Earths most noticeably). However the world is not short of graphite deposits what is most lacking is financing for such projects. That, at least, CFI has managed to secure.

Conclusion

It seems to be a recurring theme that we find most attractive those companies operating in metals that were once scorned because they had markets skewed and in many cases ruined by Chinese foul play on pricing. The story is repeated over and over again in Rare Earths, Graphite, Tungsten, Antimony and Fluorite. These metals could be said to have suffered "Lost Decades" under the domination of the Chinese of these metals production and pricing. The Chinese are now paying the price of having squandered scarce resources and are cutting back exports (or switching to being net importers). The one advantage the Rare Earth boom brought is that (somewhat like the Boy Who Cried Wolf) it has scared off others from the dubious practice of piling into the next hot sector. Thus Graphite tried to generate some heat and produced maybe 20 listed plays but this was a far cry from REE's 200 plus spawning. So when Fluorspar appeared as a problem area for supply, the proliferation of players was starkly absent and a mere handful of names have sought to stake out their claims to this obscure element.

Canada Fluorite have managed to pull ahead of this small field by bagging one of the major offtakers as both a partner and a shareholder meaning financing for the project is in hand and there is an assurance of a market no matter which way the Chinese might jump in the future (or how many other wannabes flood into the fluorite space).

It is rare to find a deal (excepting Donner Metals) that is well-funded and scarcely dilutive which gets a mine functioning in relatively short order with a major as an off-taker. For those reasons we added Canada Fluorspar to the Model Mining Portfolio with a 12-month target price of $1.00.


Historic Chart for Cdn:CFI by Stockwatch.com 604.687.1500 - (c) 2013
Wed Mar 6 2013 Op=0.28 Hi=0.29 Lo=0.28 Cl=0.29 Vol=50,000 Year hi=0.65 lo=0.25
Cdn:CFI Use
0.70
0.675
0.65
0.625
0.60
0.575
0.55
0.525
0.50
0.475
0.45
0.425
0.40
0.375
0.35
0.325
0.30
0.275
0.25
Volume
7.5 M
5.0 M
2.5 M
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
2012
2013

Important disclosures

I, Christopher Ecclestone, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

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