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Ventures in Salt: Compass Minerals International

Rebecca M. Henderson, John Sterman, Ramana Nanda

As Michael Ducey, the President and CEO of Compass Minerals International, looked out of his office in Overland Park, Kansas on the evening of December 11, 2003, he wondered how investors would react to his company going public. Ducey had joined Compass Minerals in April 2002 as CEO and strategic investor, a few months after the private equity firm Apollo Management had acquired it from IMC Global.[1] Although salt companies were not typical candidates for IPOs, Compass Minerals had done very well in its two years as a stand-alone firm, and Ducey had encouraged his fellow investors to consider exiting via an IPO. With Goldman Sachs leading its IPO the following day, Ducey considered the response of investors and his strategy going forward. Where should he be focusing his attention? How could he ensure that the company lived up to the high expectations of its investors?

A Short History of Salt

Salt was one of the most widely used minerals in the world. Although it had thousands of applications, in the United States it was primarily used for highway deicing, and as an input into the chemicals, food-processing, water-treatment, and agricultural industries.

[1] Although some parts of the current operations of Compass Minerals go back over a hundred years, its most recent structure arose from a series of ownership changes that began in 1998. On April 1, 1998 IMC Global purchased the salt and chemicals businesses of Harris Chemical Group ($450 MM in cash and $950 MM raised in debt), including the North American Salt Company, the Great Salt Lake Minerals Corp in the US, and Salt Union in the UK. In May 1998 IMC reorganized its previous and newly acquired business, putting the chemicals products together under IMC Chemicals and organizing the salt businesses under IMC Salt. On November 28, 2001, IMC Global sold its salt business (IMC salt) and SOP business (Great Salt Lake Company) to affiliates of Apollo management as part of a re-capitalization effort, in a transaction valued at approximately $640 MM. The three salt businesses and the SOP business together were organized as subsidiaries of Compass Minerals Group.

This case was prepared by Professors Rebecca M. Henderson and John Sterman, and Ramana Nanda, Ph.D. candidate. Professor Henderson is the Eastman Kodak Leaders for Manufacturing Professor of Management. Professor Sterman is the Jay W. Forrester Professor in Computer Studies.

Salt's abundance as a mineral was not known until the 20th century. For thousands of years, salt represented both wealth and power. It had been the cause of numerous wars through human history, and was noted by Adam Smith as having been used as a form of currency in Abyssinia. The origin of the word 'salary' stems from the Roman practice of paying soldiers in salt. In fact, as Mark Kurlansky noted in his book *Salt, a World History*, "The Latin word *sal*, became the French word *solde*, meaning pay, which is the origin of the word soldier."[2]

At the broadest level, the technology for "manufacturing" salt had not changed much in thousands of years. About 4,700 years ago, the Chinese Png-tzao-kan-mu, one of the earliest known writings, described two methods of extracting and processing salt, similar to methods that were still used in 2003.[3] Aristotle was known to have mentioned the production of salt from evaporating brine in the fourth century B.C. Archeological evidence from the Iron Age, Romans, Anglo-Saxons, and Normans also showed evidence of vessels used for the evaporation of salt. At a more detailed level, however, there had been significant technological advances that had enhanced the purity of salt and the efficiency of production techniques.[4]

There are three main production processes used to manufacture dry salt:

1. *Mining rock salt* by the room-and-pillar method, where underground salt in "rooms" was drilled, cut, crushed and then transported to the surface while leaving supporting pillars in place to ensure the structural integrity of the mine. These operations recovered 45%-65% of the salt in the mines.

2. *Mechanical Evaporation,* where pressurized freshwater was pumped underground to hydraulically fracture and dissolve underground deposits of salt, and then was pumped out to the surface for "treatment." This brine could either be used directly as an important input in the chemicals industry or mechanically evaporated – typically using heat in combination with a vacuum.[5] (Hence this is also referred to as the 'vacuum pan' evaporation process.)

3. *Solar Evaporation,* that used wind and sun to evaporate sea water or brine in regions with low precipitation and high evaporation. Sea water or brine was channeled into specially constructed evaporating ponds. The brine typically contained different salts that were separated out in the process due to differences in their solubility. This process was

[2] Mark Kurlansky (2002), Penguin Books, page 63.

[3] www.saltinfo.com; Carolyn Ann Fost (1970) claims that the only real difference between salt now and in 1770 or earlier is the degree of purity. (Carolyn Ann Fost, "The Salt Industry: A Case Study in the Evaluation of Public Policy," unpublished Ph.D. dissertation, Illinois University, 1970.)

[4] For example, the Compass Minerals S1 filings note on pg 61 that "we rely on a combination of patents, trademarks, copyright… to protect our intellectual property"

[5] Since saturated solutions boil at a higher temperature than pure water, applying a vacuum enables the solution to boil at a lower temperature. Brine can also be evaporated using a grainer or open pan process that uses open pans with steam-heated immersion coils in the solution or using the 'Alberger' process where the heat is applied externally rather than with heating coils.

known as fractional crystallization and could take as long as five years from start to finish.

In addition to the dry salt produced from each of the methods, some salt firms also manufactured and sold brine. The salt produced from each of the methods varied significantly in cost and purity. Brine was the cheapest, as there was no expense incurred in evaporation. Of the various types of dry salt, rock salt was typically the cheapest and least pure, while vacuum pan salt was the purest and also the most expensive. **Exhibit 1** provides a breakdown of the average price and the quantities of salt produced in the United States for the four different categories of salt. As a point of comparison, one pound of Morton salt cost about $.50. Different types of salt were also used for very different purposes. **Exhibit 2** breaks down salt end use by type.

Salt consumption varied considerably over time. Much of the variation stemmed from fluctuations in highway deicing, which constituted about a third of total yearly salt consumption in the United States. Despite the variation in salt use depending on the severity of the winter, **Exhibit 3** shows that total salt production in the United States had grown substantially over the past century, fueled in part by growth in demand from the chemicals industry, but especially by growth in deicing demand. The demand for salt for highway deicing grew dramatically, as the number of paved lane-miles grew, and as traffic volume and consumer desire to travel at high speeds, even in winter, grew (**Exhibit 4**). Since the 1970s, production averaged about 40 million metric tons per year. **Exhibit 5** shows average nominal and inflation-adjusted salt prices over the past century. Prices in recent years averaged about $25/metric ton.

Evolution of Salt Industry Structure

The first known commercial production of salt in the United States dated back to 1614, when it was produced by settlers in Virginia using solar evaporation. Salt was first extracted from underground deposits using brine in 1788 in Onondaga, New York, and the first salt mine was dug in the United States in 1799 at Saltville, Virginia.[6] Many salt production sites operated by firms in 2003 dated to the early 20th century. For example, Compass Mineral's site in Lyons, Kansas was opened around 1911, although it had changed hands many times since then. Due to the high costs of opening new mines, firms typically made capital investments to improve technology or increase capacity in small increments. For example, the cost of building an evaporation plant was ~ $70 million; the cost of digging a new rock salt mine was ~ $150 million and would take about five years.

The salt industry had become significantly more concentrated over time (**Exhibit 6**). In 1960, 53 firms operated 85 salt plants, and the four largest firms contributed only 47% of the salt production in the United States. Historical accounts put the number of establishments in 1900 at around 160, and in 1880 at 268. The early history of the U.S. salt industry, running through the early 1900s, saw alternating phases of aggressive price competition followed by attempts at price coordination among the various salt producers. The first documented attempt at price

[6] Salt Minerals Yearbook, 1992 (US Bureau of Mines)

coordination among producers was in 1817, when salt producers in Kanawha valley, West Virginia, formed a co-operative association, the Kanawha Salt Company, to restrict output in response to falling prices due to imports from the Great Lakes and Mississippi River. Prices had fallen from $.10 a pound in 1797 to $.04 cents in 1808 and then less than $.01 cent by 1817. Producers controlled prices through "dead-renting," payment for *not* producing salt, which could amount to as much as $1,500 per year in that era. Other regions formed similar associations, and there were even attempts at cross-region price coordination (e.g., the National Salt Company in the late 1880s) but in general it was hard to sustain cooperation among a large number of producers. Defection was common, resulting in price wars among producers.

By the early 2000s, there were 66 establishments owned by 29 firms producing dry salt in the United States. **Exhibit 7** shows major producers of dry salt in the United States and the total production capacity in each of their dry salt manufacturing establishments. **Exhibit 8** maps the geographical location of the salt manufacturing plants by each of the salt manufacturers. The modern production process was highly capital intensive and benefitted from economies of scale. The cost of production also depended on the depth of the salt mine[7] and the thickness of the salt deposit.[8] Since the cost of transporting salt was also high relative to its final price (sometimes as much as the cost of the product itself), the location of the salt establishment tended to have an important bearing on the market for salt, particularly for highway deicing.

Highway deicing salt was sold to states, provinces, municipalities, and road maintenance contractors which purchased the bulk salt to maintain road networks in the winter. Contracts between producers and customers tended to be one-year long, though some were longer. Contracts were decided on the basis of tendered bids in which price, service and quality were important criteria. Many other industries such as chemicals also purchased salt through annual or multi-year contracts that were negotiated privately. However general purpose salt, sold to grocery stores, hardware and automotive stores and agricultural feed suppliers, was sold either through a direct sales force or through a network of brokers who placed their products with wholesale and retail distributors.

Growing Environmental Impact

Salt, while essential for life, was toxic in high concentrations.[9] The growth in salt use for highway deicing had led to a growing environmental impact. Salt applied to highways dissolved as it melted snow and ice. The resulting sodium and chloride ions, along with impurities, some toxic to humans and animals, then washed onto the sides of the roads, where they accumulated in the soil, often killing trees and other plant life. Much of it then washed into streams and rivers,

[7] The depth can range from just 70 feet below the surface in some regions to as far as 1600-2000 feet below the surface.

[8] The differences in the cost structure can be substantial, for example a thickness of 100 feet can lead to a 25-30% cost advantage over a 25 foot thick deposit.

[9] This section is based on Kaushal, S. et al. (2005) Increased salinization of fresh water in the northeastern United States, *Proceedings of the National Academies of Science* (September 20), 102(38), 13517–13520.

causing broad-scale impact far from the point of use. Chloride concentrations of 30 mg/l (milligrams per liter) damaged land plants. Water with concentrations of 250 mg/l was not potable for human use and harmed freshwater life. A group of researchers led by Sujay Kaushal, a professor in environmental science at the University of Maryland, measured salt concentrations in freshwater streams in the northeastern United States, observing "chloride concentrations of up to 25% of the concentration of seawater in streams of Maryland, New York, and New Hampshire during winters."[10] Further, salt concentrations remained "up to 100 times greater than unimpacted forest streams during summers"[11] as salt accumulated during winter gradually washed from contaminated soils into streams. As shown in **Exhibit 9**, salt concentrations in local watersheds rose significantly as the fraction of land surface paved over increased. Toxic levels were now routinely seen in urban areas. The data shown are from the relatively warm Baltimore, Maryland, region; salt use and concentrations in more northerly, and therefore colder, regions was higher. For example, "In the White Mountains [of New Hampshire, a rural region], chloride concentrations in some rural streams now exceed 100 mg/liter on a seasonal basis."[12]

Kaushal and his team found that trends in population growth, road construction, and automobile use suggested that, under current policies, the environmental impacts of road salt would worsen substantially in coming decades:

> Impervious surfaces now cover 112,610 km^2 in the United States, an area equivalent to the state of Ohio. The amount of impervious surface coverage within the United States is expected to increase sharply with 16,093 km of new roads and 1 million single-family homes being created during the present decade. The rate of land-use change may be particularly high in segments of watersheds near surface waters such as streams, rivers, and lakes. As coverage by impervious surfaces increases, aquatic systems can receive increased and pulsed applications of salt, which can accumulate to unsafe levels in ground and surface waters over time.
>
> …Moreover, the accumulation of road salt in aquifers and groundwater has eventually led to increased salinity throughout all seasons and across years in the northeastern United States and may persist for decades, even if use of salt is discontinued.

Road salt was not currently regulated in the United States as a fresh-water pollutant, though regulation was under consideration in Canada. The growing salinization of freshwater ecosystems caused by road salt suggested, however, that the industry could soon face regulations that would require substantial cuts in salt use.

[10] Kaushal, S. et al. (2005) Increased salinization of fresh water in the northeastern United States, Proceedings of the National Academies of Science. 102(38), 13517–13520.

[11] Ibid.

[12] Ibid.

Compass Minerals

Compass Minerals completed its IPO and began trading on December 12, 2003. **Exhibit 10** shows Compass Minerals' output and revenue by customer segment, and **Exhibit 11** provides an overview of Compass Minerals' financials. Compass Minerals' subsidiary, North American Salt, was the third largest producer of salt in the country. General trade salt comprised the biggest share of North American Salt's overall business by revenue, constituting just over 50% of the total. It was the third largest producer of general trade salt in the North American market with a product line that included commercial and consumer applications such as table salt, water conditioning, consumer ice control, agricultural and food processing applications, and a number of industrial applications. These general trade products were sold through both their own brands (Sifto) as well as over 70 private label brands.

Highway deicing and chemicals constituted the balance of the salt sales of North American Salt. Highway deicing constituted about 40% of its salt sales in 2002. North American Salt maintained a network of about 75 depots for the storage and distribution of highway deicing salt located on the Great Lakes and the Mississippi and Ohio River systems where the Goderich, Ontario and Cote Blanche, Louisiana mines were located. Part of the salt from the Ogden, Utah facility was also used for highway deicing and chemicals customers.

The mechanical evaporation plant in Kansas served the central and Midwestern general trade market in the United States, while the solar evaporation facility in Ogden, Utah principally served the general trade market in the western states. In addition, North American Salt served general trade customers around the Great Lakes by purchasing evaporated salt from IMC Global's potash and salt facility in Hershey, Michigan. It also owned and operated two salt packaging facilities in Illinois and Wisconsin which also served consumer deicing and water conditioning customers in central, western and parts of the northeastern United States. **Exhibit 12** summarizes the production method and ownership structure for each operation of Compass Minerals International. **Exhibit 13** shows Compass Minerals' facilities and the production capacity of each.

As of September 30, 2003 Compass Minerals had 1,541 employees, 725 of which were employed in the United States. Approximately 37% of Compass Mineral's workforce was represented by labor unions, with whom Compass had negotiated the ability to lay off workers in adverse economic times. It had also instituted a policy of variable pay to enable staff to share in the upside when the firm has a good year. **Exhibit 14** outlines the background of the main officers of Compass Minerals.

Michael Ducey built the business around a set of deeply held core values. He set a hurdle for Compass Minerals to be in the top quartile of safety statistics in the chemicals industry.[13] He

[13] This is a high bar for salt companies as mining is inherently hazardous compared to other chemical operations.

invested in creating a highly motivated and well-trained workforce. He brought to Compass Minerals a set of capabilities for good execution.[14]

As Ducey thought about where he might focus his attention in the coming year, he also considered how he should pitch his business to investors. On the one hand, the potential for tougher regulation against the use of salt in highway deicing and the food industry was a potential threat as concerns grew about its effects on both the environment and human health. On the other, salt remained a large and important market for which there were at present few substitutes. Salt's chemical properties as a preservation agent and its ability to "seal" had begun to open up a range of new uses for salt mines, from document storage to the disposal of nuclear waste.

Could Michael Ducey provide a compelling case for investors to hold a stand-alone salt company in their portfolio, and how should he continue to deliver the high performance that would be required of his firm as it transitioned into a publicly traded company?

[14] Ducey had deep experience in the chemicals business, having served as both the COO (October 1997-December 1999) and CEO (December 1999 – March 2002) of Borden Chemical. Borden Chemical was acquired in 1995 by the private equity firm KKR. KKR restructured the business and sold the dairy, packaging, foods and other businesses. In August of 2004 Borden chemical was acquired by Apollo Management LLC, the same company that bought Compass Minerals from IMC Global.

Exhibit 1 Average Dollar Value and Production for Four Methods of Salt Production (1999-2002)

Total Production of Salt in US by each method (Thousand Metric Tons 1999-2002)

	1999	*2000*	*2001*	*2002*
Vacuum and Open Pan Salt	4,190	4,200	4,120	4,100
Solar Salt	3,580	3,810	3,310	3,390
Rock Salt	14,400	15,000	17,000	13,500
Salt in Brine	22,700	22,500	20,400	19,300
Total	44,870	45,510	44,830	40,290

Price of Salt in US by Production Method ($/Metric Ton 1999-2002)

	1999	*2000*	*2001*	*2002*
Vacuum and Open Pan Salt	113	114	120	120
Solar Salt	52	51	52	54
Rock Salt	23	21	22	22
Salt in Brine	7	6	6	6
Average	26	25	26	27

Source: US Bureau of Mines, Mineral Commodity Summaries 2002

Exhibit 2 End Use by Production Method—'000 Metric Tons (2001, 2002)*

End use	Standard industrial classification	Vacuum and open pans		Solar		Rock		Brine		Total[3]	
		2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
Chemical:											
Chloralkali producers	2812	29	23	313	324	511	634	18,100	17,400	18,900	18,300
Other chemical	28 (excludes 2812, 2899)	253	240	183	172	722	716	2	2	1,160	1,130
Total		282	263	496	496	1,230	1,350	18,100	17,400	20,100	19,500
Food-processing industry:											
Meat packers	201	261	262	53	56	97	76	--	(4)	411	395
Dairy	202	118	125	7	8	3	3	--	--	128	136
Canning	2091, 203	135	143	40	43	38	42	1	1	213	229
Baking	205	223	197	6	5	13	13	--	--	242	215
Grain mill products	204 (excludes 2047)	92	89	9	8	24	23	--	--	125	120
Other food processing	206-208, 2047, 2099	521	537	75	70	65	82	1	1	663	690
Total		1,350	1,350	192	190	241	239	2	2	1,780	1,780
General industrial:											
Textiles and dyeing	22	114	105	44	38	10	11	4	(4)	172	155
Metal processing	33, 34, 35, 37	5	7	30	27	89	84	--	--	124	118
Rubber	2822, 30 (excludes 3079)	3	3	1	1	1	1	56	56	61	61
Oil	13, 29	32	34	184	100	50	54	2,000	1,820	2,260	2,010
Pulp and paper	26	13	11	45	45	26	21	16	16	100	93
Tanning and/or leather	311	17	18	27	20	43	41	--	--	87	79
Other industrial	XX	94	117	66	81	81	80	1	1	242	279
Total		278	294	397	312	300	293	2,080	1,890	3,050	2,790
Agricultural:											
Feed retailers and/or dealers mixers	5159	356	330	363	330	454	381	(4)	--	1,170	1,040
Feed manufacturers	2048	52	55	129	130	352	322	--	--	533	507
Direct-buying end user	02	5	5	17	14	63	51	--	--	85	70
Total		413	390	510	474	869	753	(4)	--	1,790	1,620
Water treatment:											
Government (Federal, State, local)	2899	17	17	74	95	73	123	3	3	168	238
Commercial or other	2899	134	130	140	163	68	128	2	2	344	424
Total		151	147	215	258	141	252	5	5	512	662
Ice control and/or stabilization:											
Government (Federal, State, local)	9621	2	2	818	708	13,900	10,800	--	--	14,800	11,600
Commercial or other	XX	7	2	226	146	1,790	1,590	--	--	2,030	1,730
Total		8	4	1,040	854	15,700	12,400	--	--	16,800	13,300
Distributors:											
Agricultural distribution	5191	95	88	126	111	60	46	--	--	280	245
Grocery wholesalers and/or retailers	514, 54	531	515	240	220	53	45	--	--	824	781
Institutional wholesalers and end users	58, 70	107	106	51	49	37	32	(4)	(4)	195	187
Water-conditioning distribution	7399	150	123	388	385	22	16	1	1	560	525
U.S. Government resale	9199	(4)	(4)	(4)	(4)	1	1	--	--	2	1
Other wholesalers and/or retailers	5251	795	849	831	847	388	231	1	(4)	2,020	1,930
Total		1,680	1,680	1,640	1,610	561	371	2	2	3,880	3,670
Other[5]		77	110	75	52	539	67	151	110	842	339
Grand total		4,230	4,240	4,570	4,250	19,600	15,800	20,300	19,400	48,700	43,600

XX Not applicable. -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]The quality of imports included in the total for each type of salt is the amount reported by the U.S. salt industry, not the quantity reported by the U.S. Census Bureau that appears in tables 1, 11, and 12.

[3]Because data include salt imported, produced, and/or sold from inventory from regional distribution centers, salt sold or used by type may differ from totals shown in tables 1, 3, and 4, which are derived from plant reports at salt production locations. Data may differ from totals shown in table 6 because of changes in inventory and/or incomplete data reporting.

[4]Less than 1/2 unit.

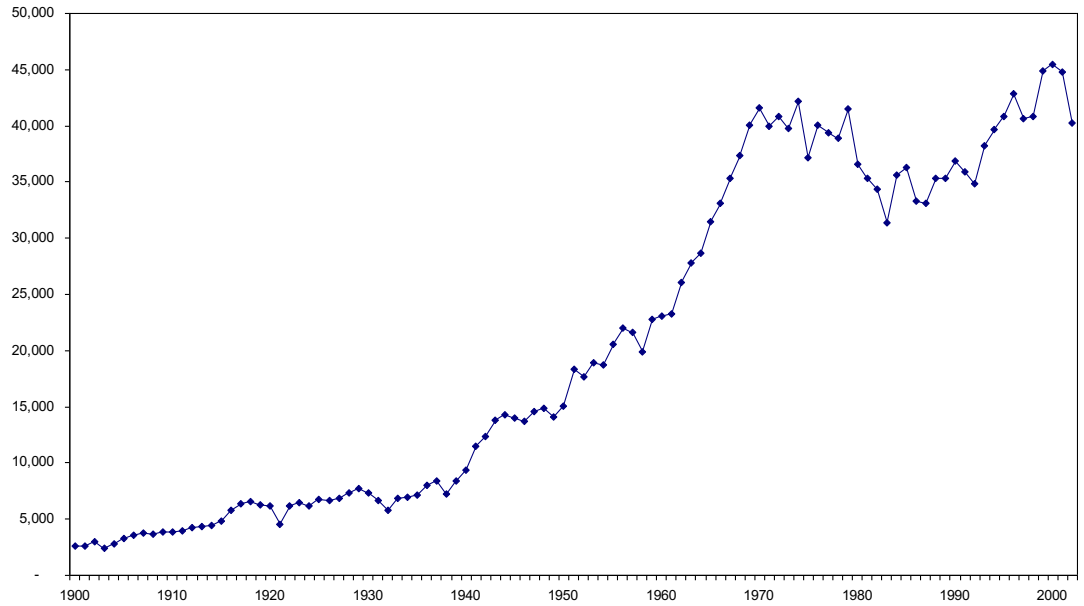
[5]Includes exports.

** Note: Because this table includes data on imported salt and/ or sold from inventory from regional distribution centers, the totals will differ somewhat from the total production outlined in Table 1 above*

Source: US Bureau of Mines, Minerals Yearbook 2002 (Table 5 on Salt)

http://minerals.er.usgs.gov/minerals/pubs/commodity/salt/index.html

Exhibit 3 Total Salt Production for All Production Methods, US; ('000 Metric Tons, 1900-2002)



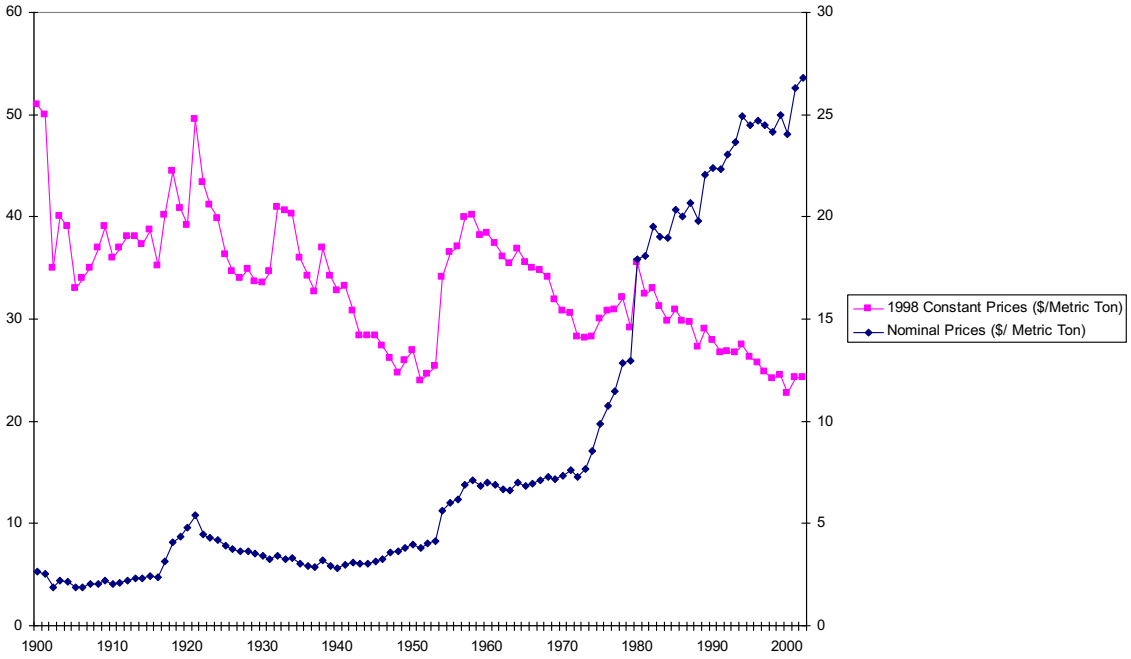
Source: US Bureau of Mines

Exhibit 4 Population, GDP and Road Mileage in US (1900-2000)

	Population (Millions)	*Real GDP (Billion 2000 $)*	*System Mileage in US (Statute Miles)*	*Estimated US Roadway Lane-Miles*
1900	76	328	U	U
1910	92	473	U	U
1920	106	607	U	U
1930	123	791	U	U
1940	132	1,034	U	U
1950	152	1,777	U	U
1960	181	2,501	3,545,693	U
1970	205	3,771	3,730,082	U
1980	228	5,161	3,859,837	7,922,174
1990	250	7,112	3,866,926	8,051,081
2000	282	9,817	3,936,222	8,224,245

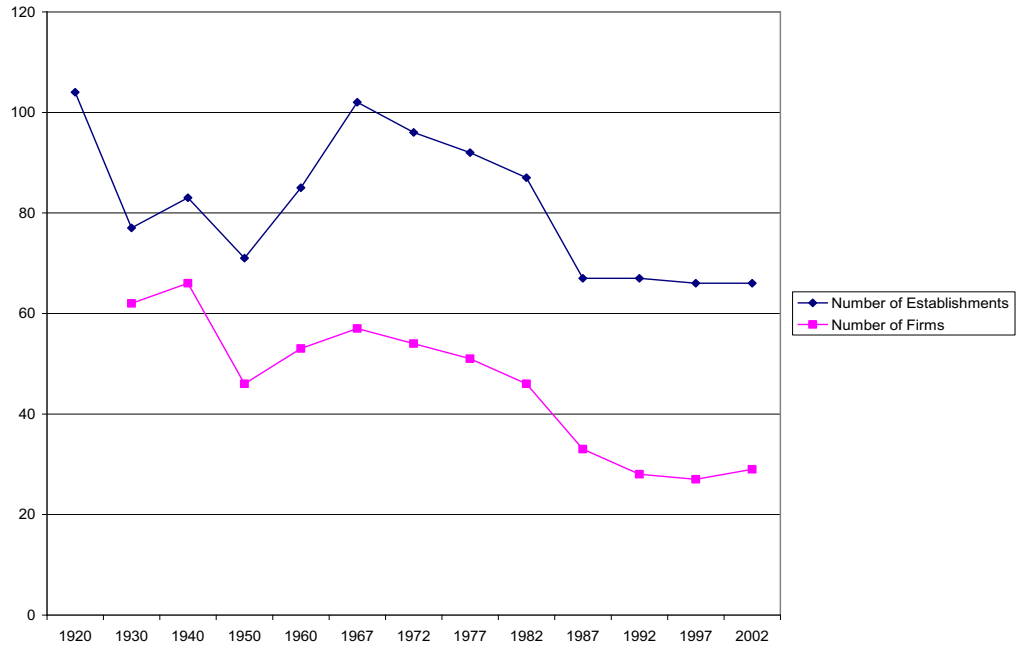
Source: Louis Johnston and Samuel H. Williamson, "The Annual Real and Nominal GDP for the United States, 1789 – Present;" Economic History Services, March 2004, URL : http://www.eh.net/hmit/gdp/
US Department of Transportation http://www.bts.gov/publications/national_transportation_statistics/

Exhibit 5 Average Nominal and Real US Salt Price for All Production Methods ($/metric ton)



Source: US Bureau of Mines

Exhibit 6 Number of Firms and Establishments producing salt in US (1920-2002)



Source: US Bureau of Mines, Fost (1970)

Exhibit 7 Production Capacity of Dry Salt Establishments in US ('000 Tons/year)

Company	*Location*	*State*	*Rock*	*Solar*	*Vacuum Pan*	*Brine*
American Rock Salt Co.	Hampton Corners	NY	2,268			
Cargill, Inc.	Avery Island	LA	2,449			
	St. Clair	MI			386	
	Akron	OH			272	x
	Cleveland	OH	2,631			
	Lake Point	UT		726		
	Newark	CA		680	136	x
	Hutchinson	KS			408	
	Breaux Bridge	LA			181	x
	Watkins Glen	NY			408	
	Lansing	NY	2,177			
	Freedom	OK		272		
Corpus Christi Brine Service, Inc.	Benavides	TX				x
Detroit Salt Co. L.C.	Detroit	MI	1,089			
Dow Chemical Co.	Plaquemine	LA				x
	Freeport	TX				x
E.I. duPont de Nemours	New Johnsonville	TN			209	
Huck Salt Co.	Fallon	NV	18			
Hutchinson Salt Co.	Hutchinson	KS	680			
Independent Salt Co.	Kanapolis	KS	680			
Yale E. Key, Inc	Hobbs	NM				x
LaRoche Chemicals	Gramercy	LA				x
Lyons Salt Co.	Lyons	KS	408			
Moab Salt Inc.	Moab	UT		227		
Morton International Inc.	Glendale	AZ		136		
	South Hutchinson	KS			318	x
	Weeks Island	LA	1,633		113	x
	Manistee	MI			327	
	Silver Springs	NY			318	
	Fairport	OH	1,814			
	Rittman	OH			544	x
	Grand Saline	TX	363		136	
	Grantsville	UT		454		
New Mexico Salt and Mineral Corp.	Loving	NM		27		
North American Salt Co	Cote Blanche	LA	2,540			
	Lyons	KS			386	
	Hersey	MI			272	
	Ogden	UT		1,361		
Olin Corp	McIntosh	AL				x
Pacific Salt and Chemical Co.	Trona	CA		181		
Permian Brine Sales, Inc.	Odessa	TX				x
PPG Industries, Inc.	Lake Charles	LA				x
	New Martinsville	WV				x
Redmond Clay & Salt Co., Inc.	Redmond	UT	136			
South Bay Saltworks Co	Chula Vista	CA		113		
Superior Salt Co.	Twentynine Palms	CA		23		
Tetra Technologies, Inc.	Amboy	CA		68		
Texas Brine Corp.	Chacahoula	LA				x
	Napoleonville	LA				x
	Dale	NY				x
	Wyoming	NY				x
	Beaumont	TX				x
	Clemville	TX				x
	Corpus Christi	TX				x
	LaPorte	TX				x
US Salt L.L.C.	Watkins Glen	NY			304	
Union Texas Products Corp.	Plaquemine	LA				x
United Salt Corp.	Carlsbad	NM		363		
	Baytown	TX			726	
	Hockley	TX	136			
Vulcan Materials Co.	Wichita	KS				x
Total Production Capacity	**50,110**		**19,024**	**4,631**	**5,443**	**21,012**

Source: US Geological Survey

Exhibit 8a Map of the Major U.S. Salt Fields and Manufacturing Plants

Source: Salt Institute; www.saltinstitute.org

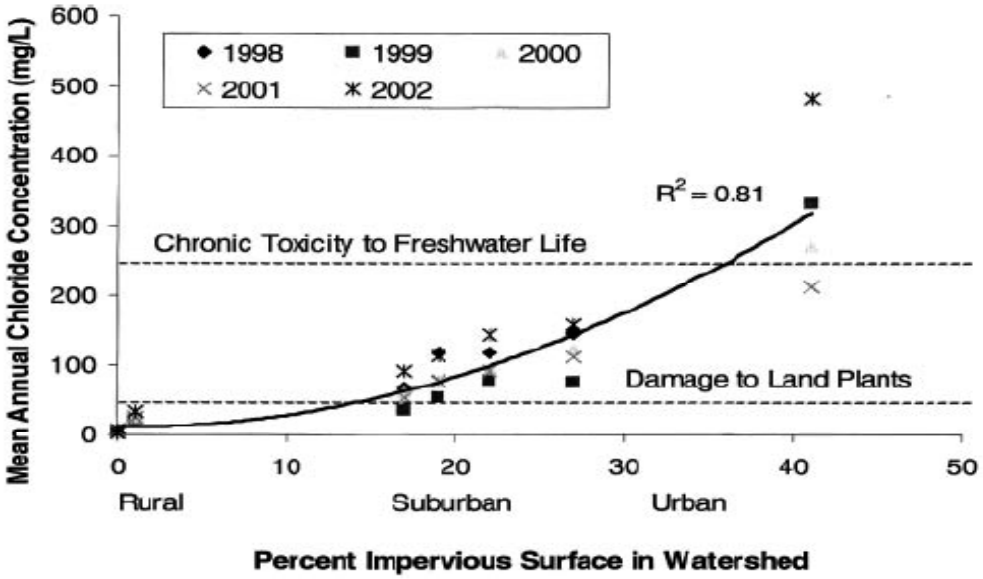
Exhibit 8b Detail of Salt production sites in Canada and North Eastern US

Source: Salt Institute; www.saltinstitute.org

Exhibit 8c Salt Production Sites in South and Western United States

Source: Salt Institute; www.saltinstitut.org

Exhibit 9 ***Relationship Between Impervious (paved) Surface Area and Chloride Concentrations in Local Watershed***



Source: Kaushal, S. et al. (2005) Increased salinization of fresh water in the northeastern United States, Proceedings of the National Academies of Science. 102(38), 13517–13520.

Exhibit 10 ***Compass Minerals Total Shipments* by Market in 2002 ('000 Metric Tons)***

	United States	*Canada*	*UK*	*Total*
Highway deicing and Chemicals	5,104	2,162	699	7,965
General Trade Salt **	1,629	506	651	2,786
Sulphate of Potash	242			242
Total	6,975	2,668	1,350	10,993

** Total shipments to US differ from total production as some shipments are from Canadian mines*

*** includes Retail and Wholesale distribution, agriculture, water conditioning and food processing*

Source: Compass Minerals S1 Filing, November 5th 2003

Exhibit 11 Compass Minerals Financials (1999-2003)

	For the nine months ended December 31,	For the years ended December 31,				For the nine months ended September 30,		For the twelve months ended September 30,
	1998	1999	2000	2001	2002	2002	2003	2003(7)
	(dollars in millions, except per share data)							
Statement of Operations Data:								
Sales	$ 277.7	$ 494.4	$ 509.2	$ 523.2	$ 502.6	$ 336.9	$ 398.5	$ 564.2
Cost of sales—shipping and handling	55.8	126.9	140.0	143.2	137.5	91.2	109.3	155.6
Cost of sales—products(1)	111.8	213.1	227.7	224.4	202.1	144.6	168.3	225.8
Depreciation and amortization(2)	34.3	55.1	44.3	32.6	37.1	28.7	31.2	39.6
Selling, general and administrative expenses	36.7	37.2	35.5	38.9	40.6	30.1	34.3	44.8
Goodwill write-down(3)	—	87.5	191.0	—	—	—	—	—
Restructuring and other charges(3)(4)	20.3	13.7	425.9	27.0	7.7	6.8	—	0.9
Operating earnings (loss)	18.8	(39.1)	(555.2)	57.1	77.6	35.5	55.4	97.5
Interest expense(5)	17.4	19.0	16.4	14.4	42.4	31.8	40.5	51.1
Net income (loss)	(14.4)	(67.5)	(467.7)	19.0	18.9	0.3	11.3	29.9
Dividends on preferred stock	—	—	—	0.8	10.6	7.9	1.2	3.9
Gain on redemption of preferred stock	—	—	—	—	—	—	(8.2)	(8.2)
Net income (loss) available for common stock	(14.4)	(67.5)	(467.7)	18.2	8.3	(7.6)	18.3	34.2
Balance Sheet Data (at period end):								
Total cash and cash equivalents	$ 4.9	$ 4.3	$ 0.3	$ 15.9	$ 11.9	$ 7.5	$ 3.6	$ 3.6
Total assets	1,423.0	1,290.5	636.0	655.6	644.1	598.0	620.3	620.3
Series A redeemable preferred stock	—	—	—	74.6	19.1	83.1	1.8	1.8
Total debt(6)	264.7	196.0	152.4	526.5	507.8	451.2	601.6	601.6

Other Financial Data:								
Cash flows provided by operating activities	$ 25.7	$ 78.4	$ 72.1	$ 112.4	$ 82.4	$ 57.8	$ 51.4	$ 76.0
Cash flows used for investing activities	(39.3)	(48.1)	(34.0)	(43.6)	(19.1)	(11.8)	(31.0)	(38.3)
Cash flows (used for) provided by financing activities	6.4	(33.6)	(43.3)	(53.7)	(69.8)	(56.5)	(30.1)	(43.4)
Capital expenditures	39.6	45.6	33.7	43.0	19.5	12.1	9.7	17.1

(1) "Cost of sales—products" is presented net of depreciation and amortization.
(2) "Depreciation and amortization" for purposes of this table excludes amortization of deferred financing costs.
(3) Based on anticipated proceeds from the sale of the Company by IMC Global, we recorded an asset impairment charge of $616.6 million, $482.1 million after tax, in the fourth quarter of 2000. In connection with this non-cash charge, goodwill was reduced $191.0 million and intangible assets—mineral interests was reduced $425.6 million. The goodwill write-down in 1999 was the result of lowering goodwill to its recoverable value based on estimated future discounted cash flows of the business.
(4) "Restructuring and other charges" include primarily those charges related to the impairment of idled assets in December of 1998, the restructuring of our business in the fourth quarter of 1999 designed to reduce employee headcount and an asset impairment in the fourth quarter of 2000 related to the planned disposition of the Company by IMC Global as described in (3) above. During 2001, we incurred $27.0 million of transaction and transition costs in connection with the Recapitalization. During 2002, we incurred $7.7 million of transition costs in connection with separating the Company from IMC Global. Substantially all cash payments related to these charges have been made.
(5) As we have incurred substantial indebtedness in connection with the Recapitalization, we believe it is helpful to provide a measure describing the cash requirements necessary to satisfy our debt service in terms of "cash interest expense," which is interest expense less non-cash interest related to the 12¾% senior discount notes due 2012, or the "senior discount notes," the 12% senior subordinated discount notes due 2013, or the "subordinated discount notes," the senior subordinated debentures issued to IMC Global in connection with the Recapitalization, or the "Seller Notes," and the amortization of debt issuance costs, plus amortization of the original issuance premium. For a discussion of our indebtedness, see Note 8 to our audited combined and consolidated financial statements and "Description of Certain Indebtedness." For a discussion of the Seller Notes, see Note 11 to our audited combined and consolidated financial statements. Cash interest expense was $39.6 million, $29.7 million, $28.1 million and $38.0 million for the year ended December 31, 2002, the nine months ended September 30, 2002 and 2003, and the twelve months ended September 30, 2003, respectively. Cash interest expense is not calculated under GAAP. While cash interest expense and similar variations thereof are commonly used as a measure of the ability to meet debt service requirements, it is not necessarily comparable to other similarly titled captions of other companies due to potential inconsistencies in the method of calculation.
(6) "Total debt" does not include $9.3 million and $10.1 million of our senior subordinated debentures, or the "Settlement Notes," as of December 31, 2002 and September 30, 2003, respectively, including interest, currently held by a wholly owned subsidiary, subject to reissuance if expected future levels of equity returns are not achieved (see Note 11 to our audited combined and consolidated financial statements). See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Management's Discussion on Critical Accounting Policies—Seller Notes and Settlement Notes."
(7) We have presented operating and financial data for the twelve months ended September 30, 2003 because of the seasonality of our salt sales and the resulting variability in operating results from quarter to quarter. Therefore, the operating and financial data for the twelve months ended September 30, 2003 accompanies the operating and financial data for the nine months ended September 30, 2003 to provide a more accurate and complete description of our results of operations.

Source: Compass Minerals S1 Filing, November 5, 2003.

Exhibit 12 Compass Minerals Principal Properties

Location	Use	Land and Related Surface Rights		Mineral Reserves	
		Owned/ Leased	Expiration of Lease	Owned/ Leased	Expiration of Lease
Ogden, Utah	SOP and solar salt production facility	Owned	N/A	Leased	(1)
Lyons, Kansas	Evaporated salt production facility	Owned	N/A	Owned	N/A
Cote Blanche, Louisiana	Rock salt production facility	Leased	2060	Leased	2060
Weston Point, Cheshire, U.K.	Evaporated salt production facility	Owned	N/A	Owned	N/A
Winsford, Cheshire, U.K.	Rock salt production facility	Owned	N/A	Owned	N/A
Goderich, Ontario, Canada	Evaporated salt and rock salt production facility	Owned	N/A	Leased	2022(2)
Unity, Saskatchewan, Canada	Evaporated salt production facility	Owned	N/A	Leased	2009/2016(3)
Amherst, Nova Scotia, Canada	Evaporated salt production facility	Owned	N/A	Owned	N/A
Overland Park, Kansas	Corporate headquarters	Leased	2008	N/A	N/A

(1) The Ogden lease automatically renews on an annual basis.
(2) Subject to the right of renewal through 2043.
(3) Consists of two leases expiring in 2009 and 2016 subject to the right of renewal through 2030 and 2037, respectively.

Source: Compass Minerals S1 Filing, November 5th 2003

Exhibit 13 Annual Production Capacity for Compass Minerals' Locations

Location	Annual Production Capacity (tons)	Product Type
North America		
Goderich, Ontario Mine	6,500,000	Rock
Cote Blanche, Louisiana Mine	2,800,000	Rock
Ogden, Utah Plant	1,500,000	Solar
Lyons, Kansas Plant	425,000	Evaporated
Unity, Saskatchewan Plant	175,000	Evaporated
Goderich, Ontario Plant	170,000	Evaporated
Amherst, Nova Scotia Plant	115,000	Evaporated
United Kingdom		
Winsford, Cheshire Mine	2,000,000	Rock
Weston Point, Cheshire Plant	850,000	Evaporated

Note: The Goderich, Ontario mine is 100 feet thick, versus approximately 25 feet for competitors.

Source: Compass Minerals S1 Filing, November 5th 2003.

Exhibit 14a Organizational Structure of Compass Minerals International

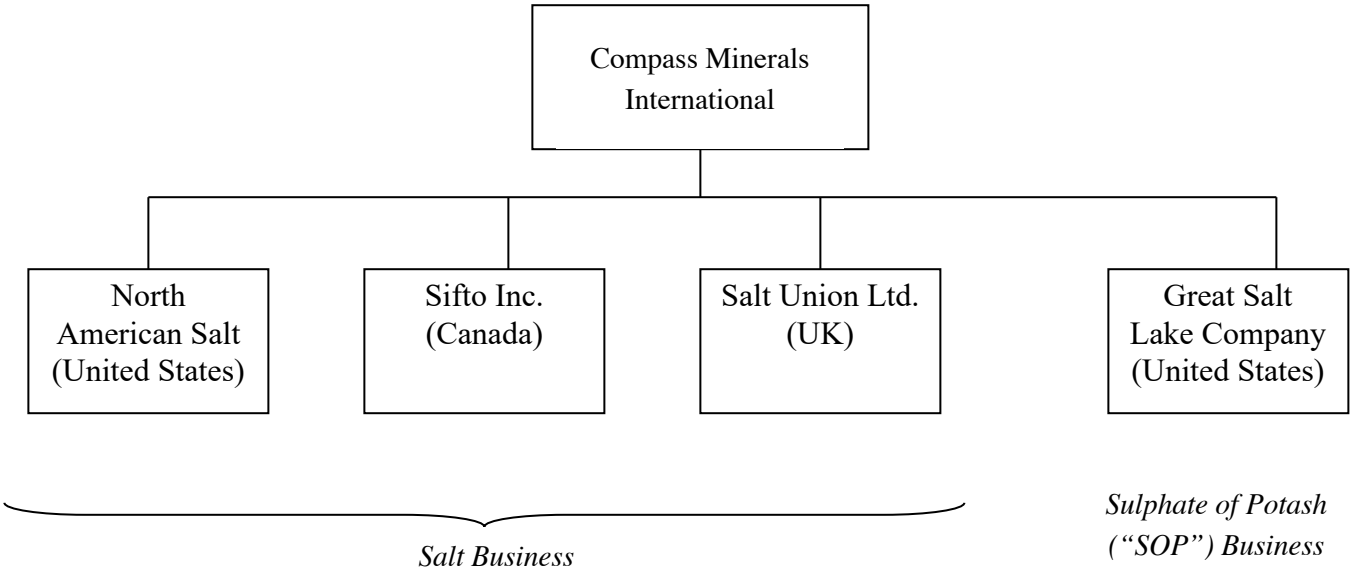


Exhibit 14b Principal Officers of Compass Minerals International:

Michael E. Ducey was appointed the President and Chief Executive Office of CMI in December 2002. Mr. Ducey joined CMG as the President and Chief Executive Officer on April 1, 2002. Prior to joining CMG, Mr. Ducey worked approximately 30 years for Borden Chemical, a diversified chemical company, in various positions including President and Chief Executive Officer (December 1999 to march 2002) and Executive Vice President and Chief Operation Officer (October 1997 to December 1999). (2003 pay $937.00K)

Rodney L. Underdown was appointed Chief Financial Officer of CMI in December 2002 and has served as a Vice President of CMI since November 2001. Mr. Underdown has served as the Chief Financial Officer of CMG since November 2001. Prior to that he served as the Vice President, Finance of CMG's salt division since June 1998 when the company was purchased by IMC Global. Mr. Underdown joined the Harris Chemical Group in September 1997, where he served as the Director of Corporate Reporting. Prior to his career at Harris Chemical Group, Mr. Underdown was employed with Arther Andersen for nine years, where he most recently served as an Audit Manager. (2003 pay $670.00K)

Keith E. Clark has served as the Vice President and General Manager of CMG's General trade business unit since August 1997, when North American Salt Company was still under the management of Harris Chemical Group. Prior to this position, Mr. Clark served as Vice President, Operations for North American Salt for two years, beginning in April 1995. Prior to his career at Harris Chemical Group, Mr. Clark held various operations positions at US Steel Corporation and General Chemical Inc., where he most recently served as the Operations Manager at General Chemical. (2003 pay $1.23M)

David J. Goadby has served as the Vice President of CMG since November 2001 and as the Managing Director of Salt Union Ltd., our U.K. subsidiary, since April 1994, when IMC Inorganic Chemicals, Inc. was still under the management of Harris Chemical Group. Prior to that position, Mr. Goadby served as the Commercial Manager of Salt Union Ltd. for two years. From 1984 until 1992, Mr. Goadby was employed with Imperial Chemical Industries plc in various production and distribution positions, where he most recently served as Business Manager Sulphur Chemicals. (2003 pay $308.00K)

Steven Wolf has served as the Vice President and General Manager, Highway Deicing of CMG since 1994, when CMG, formerly known as IMC Inorganic Chemicals, Inc., was still under the management of Harris Chemical Group. Mr. Wolf joined Harris Chemical Group in 1991, assuming various management responsibilities. Prior to his career at Harris Chemical Group, Mr. Wolf was employed by Kerr McGee, where he served as a Senior Vice President. Mr. Wolf also became the General Manager, SOP of CMG in August 2003. (2003 pay $1.48M).