

Darrell Gallup  
ES-Brine Mixing and Formation Fouling Test

## Report of Analysis

Lab Number: 15534 - 2

Descriptor: Inlet to Simbol lithium extraction pilot plant 4-20-11 17:00  
Simbol Feed Brine

<u>Analyte</u>	<u>mg/kg</u>
Sodium	62700
Potassium	18900
Calcium	37600
Magnesium	43.4
Lithium	232
Strontium	565
Barium	612
Iron	1680
Boron	432
Silica	132
Aluminum	2.67
Antimony	<0.5
Arsenic	0.953
Copper	4.67
Lead	115
Manganese	2100
Silver	<1
Chloride	165000
Fluoride	15.6
Sulfate	18.7
Total Alkalinity (as HCO <sub>3</sub> <sup>-</sup> )	<2
Ammonia	407
TDS (Calculated)	290000
Lab pH (units)	2.28

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## Report of Analysis

Lab Number: 15534 - 3

Descriptor: Outlet to Simbol lithium extraction pilot plant 4-21-11 12:30  
Simbol Spent Brine

<u>Analyte</u>	<u>mg/kg</u>
Sodium	68500
Potassium	18900
Calcium	37300
Magnesium	68.2
Lithium	35.7
Strontium	535
Barium	295
Iron	<0.3
Boron	387
Silica	10.7
Aluminum	<1
Antimony	<0.4
Arsenic	0.081
Copper	4.19
Lead	101
Manganese	1720
Silver	<1
Chloride	166000
Fluoride	3.06
Sulfate	61.0
Total Alkalinity (as HCO <sub>3</sub> <sup>-</sup> )	80.1
Ammonia	371
Total Inorganic Carbon (as CO <sub>2</sub> )	<20
TDS (Calculated)	294000
Lab pH (units)	5.22