

ParaFlow™ Solution Analysis Report

Customer Name	DuPont Experimental Stn	Sample Drawn	Oct 3,2016
Unit Model No.	YPCST22G46CXA	Report Date	Oct 17,2016
Unit Serial No.	GLCM157836 #1	Report Number	R18841
Sample Received	Oct 11,2016	PO Number	1-41018275797

Inhibitor Type: **Molybdate**

	<u>Sample Data</u>	<u>Allowable Range</u> (Based on 55% LiBr)	<u>Converted Data</u> (Sample data converted to 55%)
Sample Concentration	52.39 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.569 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	217 mg/l	225-325	235 mg/l
Alkalinity (Lithium Hydroxide)	0.194 N	0.14-0.22	0.210 N
Dissolved Copper	50 mg/l	0-100	54 mg/l
Ammonia	89 mg/l	0-100	96 mg/l
Lithium Nitrate	7 mg/l		8 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	No
Lithium Hydroxide	No
Copper Removal	No
Ammonia Removal	No

Data included in this report are the result of only one solution sample. If there is a drastic change in any parameter as compared with the last sample result, prior to adding chemicals or performing Copper or Ammonia Removal, it may be advisable to resample. The best method of preventing problems due to improper solution chemistry is by taking regular samples and trending the sample data. Maintaining proper Solution Chemistry is critical to the life of your ParaFlow Unit. **York Factory Service** is factory trained and authorized to perform the necessary chemical additions and adjustments required to keep your unit operable and reliable.

ParaFlow™ Solution Analysis Report

Customer Name	DuPont Experimental Stn	Sample Drawn	Oct 3,2016
Unit Model No.	YPCST22G46CXA	Report Date	Oct 17,2016
Unit Serial No.	GBDM248980 #2	Report Number	R18812
Sample Received	Oct 11,2016	PO Number	1-41018275797

Inhibitor Type: Molybdate

	<u>Sample Data</u>	<u>Allowable Range</u> <small>(Based on 55% LiBr)</small>	<u>Converted Data</u> <small>(Sample data converted to 55%)</small>
Sample Concentration	51.95		55.00
Sample Specific Gravity	1.562		1.620
Lithium Molybdate Inhibitor	144	225-325	158
Alkalinity (Lithium Hydroxide)	0.156	0.14-0.22	0.171
Dissolved Copper	46	0-100	51
Ammonia	74	0-100	81
Lithium Nitrate	12		13

Corrections Necessary

Lithium Molybdate Inhibitor	Add .000103 lbs. of solid Li ₂ MoO ₄ per lb. of solution in the unit OR Add .000032 gals of 30% Li ₂ MoO ₄ solution per lb. of solution in the unit.
Lithium Hydroxide	No
Copper Removal	No
Ammonia Removal	No

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Customer Name	DuPont Experimental Stn	Sample Drawn	Oct 4,2016
Unit Model No.	YPC22G46CXA	Report Date	Oct 17,2016
Unit Serial No.	GADM233620 #3	Report Number	R18796
Sample Received	Oct 11,2016	PO Number	1-41018275797

Inhibitor Type: **Molybdate**

	<u>Sample Data</u>	<u>Allowable Range</u> (Based on 55% LiBr)	<u>Converted Data</u> (Sample data converted to 55%)
Sample Concentration	52.93 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.579 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	184 mg/l	225-325	196 mg/l
Alkalinity (Lithium Hydroxide)	0.152 N	0.14-0.22	0.162 N
Dissolved Copper	45 mg/l	0-100	48 mg/l
Ammonia	104 mg/l	0-100	111 mg/l
Lithium Nitrate	26 mg/l		28 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	Add .000080 lbs. of solid Li ₂ MoO ₄ per lb. of solution in the unit OR Add .000025 gals of 30% Li ₂ MoO ₄ solution per lb. of solution in the unit.
Lithium Hydroxide	No
Copper Removal	No
Ammonia Removal	Yes

Consult York Factory Service

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Customer Name	DuPont Experimental Stn	Sample Drawn	Oct 4,2016
Unit Model No.	YPCST22G46CXA	Report Date	Oct 17,2016
Unit Serial No.	GNCM94230017 #4	Report Number	R18840
Sample Received	Oct 11,2016	PO Number	1-41018275797

Inhibitor Type: **Molybdate**

	<u>Sample Data</u>	<u>Allowable Range</u> (Based on 55% LiBr)	<u>Converted Data</u> (Sample data converted to 55%)
Sample Concentration	52.68 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.575 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	280 mg/l	225-325	301 mg/l
Alkalinity (Lithium Hydroxide)	0.146 N	0.14-0.22	0.157 N
Dissolved Copper	24 mg/l	0-100	26 mg/l
Ammonia	61 mg/l	0-100	66 mg/l
Lithium Nitrate	42 mg/l		45 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	No
Lithium Hydroxide	No
Copper Removal	No
Ammonia Removal	No

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