

ABS #1

ParaFlow™ Solution Analysis Report

Customer Name	DuPont Experimental Stn	Sample Drawn	May 18,2017
Unit Model No.	YPCST22G46CXA	Report Date	Jun 7,2017
Unit Serial No.	GLCM157836 #1	Report Number	R18325
Sample Received	Jun 1,2017	PO Number	1-50034091764

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	51.87 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.560 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	163 mg/l	225-325	179 mg/l
Alkalinity (Lithium Hydroxide)	0.191 N	0.14-0.22	0.210 N
Dissolved Copper	72 mg/l	0-100	79 mg/l
Ammonia	85 mg/l	0-100	94 mg/l
Lithium Nitrate	28 mg/l		31 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	Add .000090 lbs. of solid Li ₂ MoO ₄ per lb. of solution in the unit OR Add .000028 gals of 30% Li ₂ MoO ₄ solution per lb. of solution in the unit.
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.

ABS #2

ParaFlow™ Solution Analysis Report

Customer Name	DuPont Experimental Stn	Sample Drawn	May 25,2017
Unit Model No.	YPCST22G46CXA	Report Date	Jun 7,2017
Unit Serial No.	GBDM248980 #2	Report Number	R18638
Sample Received	Jun 1,2017	PO Number	1-50034091764

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	54.57 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.609 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	193 mg/l	225-325	196 mg/l
Alkalinity (Lithium Hydroxide)	0.170 N	0.14-0.22	0.173 N
Dissolved Copper	50 mg/l	0-100	51 mg/l
Ammonia	58 mg/l	0-100	59 mg/l
Lithium Nitrate	73 mg/l		74 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	No

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ABS #3

ParaFlow™ Solution Analysis Report

Customer Name	DuPont Experimental Stn	Sample Drawn	May 23,2017
Unit Model No.	YPC22G46CXA	Report Date	Jun 7,2017
Unit Serial No.	GADM233620 #3	Report Number	R18641
Sample Received	Jun 1,2017	PO Number	1-50034091764

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	53.13 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.583 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	242 mg/l	225-325	256 mg/l
Alkalinity (Lithium Hydroxide)	0.155 N	0.14-0.22	0.164 N
Dissolved Copper	42 mg/l	0-100	45 mg/l
Ammonia	93 mg/l	0-100	99 mg/l
Lithium Nitrate	4 mg/l		4 mg/l

Corrections Necessary

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

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ABS #4

ParaFlow™ Solution Analysis Report

Customer Name	DuPont Experimental Stn	Sample Drawn	May 23,2017
Unit Model No.	YPCST22G46CXA	Report Date	Jun 7,2017
Unit Serial No.	GNCM94230017 #4	Report Number	R18615
Sample Received	Jun 1,2017	PO Number	1-50034091764

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	52.66 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.574 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	280 mg/l	225-325	301 mg/l
Alkalinity (Lithium Hydroxide)	0.152 N	0.14-0.22	0.163 N
Dissolved Copper	19 mg/l	0-100	20 mg/l
Ammonia	77 mg/l	0-100	83 mg/l
Lithium Nitrate	0 mg/l		0 mg/l

Corrections Necessary

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

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