

ABS #1

ParaFlow™ Solution Analysis Report

Customer Name	DuPont Experimental Stn	Sample Drawn	Jun 18,2018
Unit Model No.	YPCST22G46CXA	Report Date	Jul 23,2018
Unit Serial No.	GLCM157836 #1	Report Number	R19988
Sample Received	Jul 17,2018	PO Number	1-68767221225

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	51.66 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.557 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	109 mg/l	225-325	121 mg/l
Alkalinity (Lithium Hydroxide)	0.201 N	0.14-0.22	0.223 N
Dissolved Copper	59 mg/l	0-100	65 mg/l
Ammonia	117 mg/l	0-100	130 mg/l
Lithium Nitrate	30 mg/l		33 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	Add .000127 lbs. of solid Li ₂ MoO ₄ per lb. of solution in the unit OR Add .000039 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

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	Jun 21,2018
Unit Model No.	YPCST22G46CXA	Report Date	Jul 23,2018
Unit Serial No.	GBDM248980 #2	Report Number	R19957
Sample Received	Jul 17,2018	PO Number	1-68767221225

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	53.85 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.596 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	198 mg/l	225-325	205 mg/l
Alkalinity (Lithium Hydroxide)	0.180 N	0.14-0.22	0.187 N
Dissolved Copper	69 mg/l	0-100	72 mg/l
Ammonia	84 mg/l	0-100	87 mg/l
Lithium Nitrate	13 mg/l		13 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	Add .000074 lbs. of solid Li ₂ MoO ₄ per lb. of solution in the unit OR Add .000023 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	Jun 29,2018
Unit Model No.	YPC22G46CXA	Report Date	Jul 23,2018
Unit Serial No.	GADM233620 #3	Report Number	R19979
Sample Received	Jul 17,2018	PO Number	1-68767221225

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	50.90 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.543 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	250 mg/l	225-325	284 mg/l
Alkalinity (Lithium Hydroxide)	0.155 N	0.14-0.22	0.176 N
Dissolved Copper	44 mg/l	0-100	50 mg/l
Ammonia	121 mg/l	0-100	137 mg/l
Lithium Nitrate	60 mg/l		68 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	No	
Lithium Hydroxide	No	
Copper Removal	No	
Ammonia Removal	Yes	Consult York Factory Service

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ParaFlow™ Solution Analysis Report

Customer Name	DuPont Experimental Stn	Sample Drawn	Jul 6,2018
Unit Model No.	YPCST22G46CXA	Report Date	Jul 23,2018
Unit Serial No.	GNCM94230017 #4	Report Number	R20000
Sample Received	Jul 17,2018	PO Number	1-68767221225

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	51.36 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.551 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	170 mg/l	225-325	190 mg/l
Alkalinity (Lithium Hydroxide)	0.152 N	0.14-0.22	0.170 N
Dissolved Copper	33 mg/l	0-100	37 mg/l
Ammonia	81 mg/l	0-100	91 mg/l
Lithium Nitrate	52 mg/l		58 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	Add .000084 lbs. of solid Li ₂ MoO ₄ per lb. of solution in the unit OR Add .000026 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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