

ABS #1

ParaFlow™ Solution Analysis Report

Customer Name	DuPont Experimental Stn	Sample Drawn	Oct 30,2015
Unit Model No.	YPCST22G46CXA	Report Date	Nov 5,2015
Unit Serial No.	GLCM157836 #1	Report Number	R17352
Sample Received	Nov 4,2015	PO Number	1-26533858401

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	49.21 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.515 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	431 mg/l	225-325	515 mg/l
Alkalinity (Lithium Hydroxide)	0.205 N	0.14-0.22	0.245 N
Dissolved Copper	20 mg/l	0-100	24 mg/l
Ammonia	90 mg/l	0-100	108 mg/l
Lithium Nitrate	0 mg/l		0 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	No
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	Sep 11,2015
Unit Model No.	YPCST22G46CXA	Report Date	Oct 22,2015
Unit Serial No.	GBDM248980 #2	Report Number	R17362
Sample Received	Oct 16,2015	PO Number	1-25906878304

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	55.57 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.628 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	156 mg/l	225-325	154 mg/l
Alkalinity (Lithium Hydroxide)	0.186 N	0.14-0.22	0.183 N
Dissolved Copper	85 mg/l	0-100	84 mg/l
Ammonia	58 mg/l	0-100	57 mg/l
Lithium Nitrate	12 mg/l		12 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	Add .000106 lbs. of solid Li ₂ MoO ₄ per lb. of solution in the unit OR Add .000033 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	Oct 9,2015
Unit Model No.	YPC22G46CXA	Report Date	Oct 22,2015
Unit Serial No.	GADM233620 #3	Report Number	R17364
Sample Received	Oct 16,2015	PO Number	1-25906878304

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	52.32 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.568 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	118 mg/l	225-325	128 mg/l
Alkalinity (Lithium Hydroxide)	0.162 N	0.14-0.22	0.176 N
Dissolved Copper	23 mg/l	0-100	25 mg/l
Ammonia	99 mg/l	0-100	108 mg/l
Lithium Nitrate	2 mg/l		2 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	Add .000122 lbs. of solid Li ₂ MoO ₄ per lb. of solution in the unit OR Add .000038 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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ABS #4

ParaFlow™ Solution Analysis Report

Customer Name	DuPont Experimental Strn	Sample Drawn	Oct 9,2015
Unit Model No.	YPCST22G46CXA	Report Date	Oct 22,2015
Unit Serial No.	GNCM94230017 #4	Report Number	R17602
Sample Received	Oct 16,2015	PO Number	1-25906878304

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	48.64 % LiBr		55.00 % LiBr
Sample Specific Gravity	1.506 at 75°F		1.620 at 75°F
Lithium Molybdate Inhibitor	151 mg/l	225-325	184 mg/l
Alkalinity (Lithium Hydroxide)	0.143 N	0.14-0.22	0.174 N
Dissolved Copper	32 mg/l	0-100	39 mg/l
Ammonia	117 mg/l	0-100	142 mg/l
Lithium Nitrate	4 mg/l		5 mg/l

Corrections Necessary

Lithium Molybdate Inhibitor	Add .000088 lbs. of solid Li ₂ MoO ₄ per lb. of solution in the unit OR Add .000027 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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