DCOI TREATMENTS SUMMARY

Redacted Pursuant to Proposed
Modified Protective Order

DCOI EXPERIMENT SUMMARY

- REDACTED
-
- DCOI UP 50 – SOLID WITH MICROCRYSTALLINE WAX, NO X WITH 30 HR BUV DF CYCLES. NO ISSUES WITH GELLING, CRYSTALS OR PENETRATION. THIS IS MOST LIKELY DUE TO NO X VERY PLEASING APPEARANCE, DOES NEED HEAT TO WORK BUT RAPIDLY GOES TO LIQUID UNDER MODERATE TEMPERATURES.
- REDACTED

REDACTED

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VARIATIONS OF DCOI TESTED AT REDACTED

REDACTED

LIQUID SOLUTIONS

BLOCK

- UP-50

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TREATMENT CYCLE FOLLOWED WHILE TESTING DCOI VARIANTS

Conditioning BUV	REDACTED

REDACTED

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HIGHLIGHTED RESULTS: REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

NMR – Take Aways

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REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

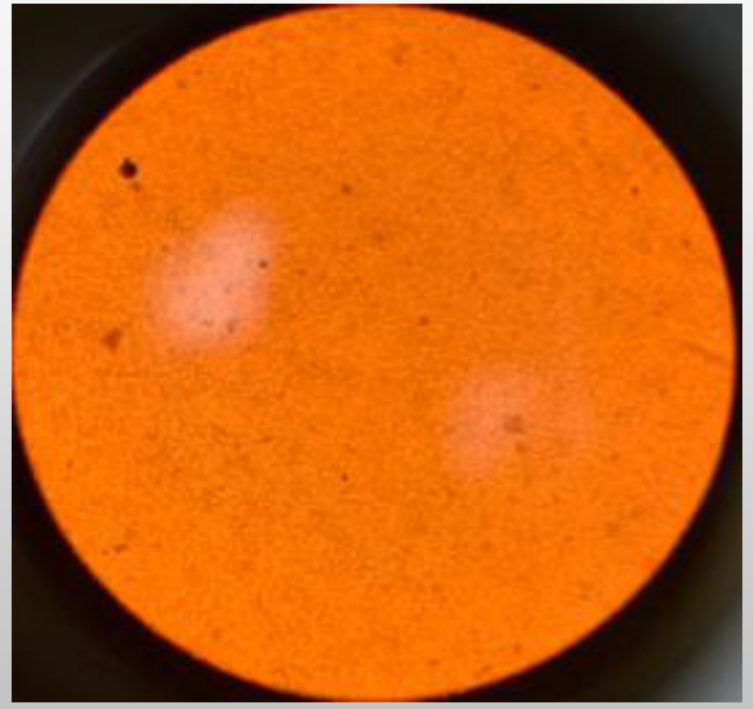
REDACTED

REDACTED

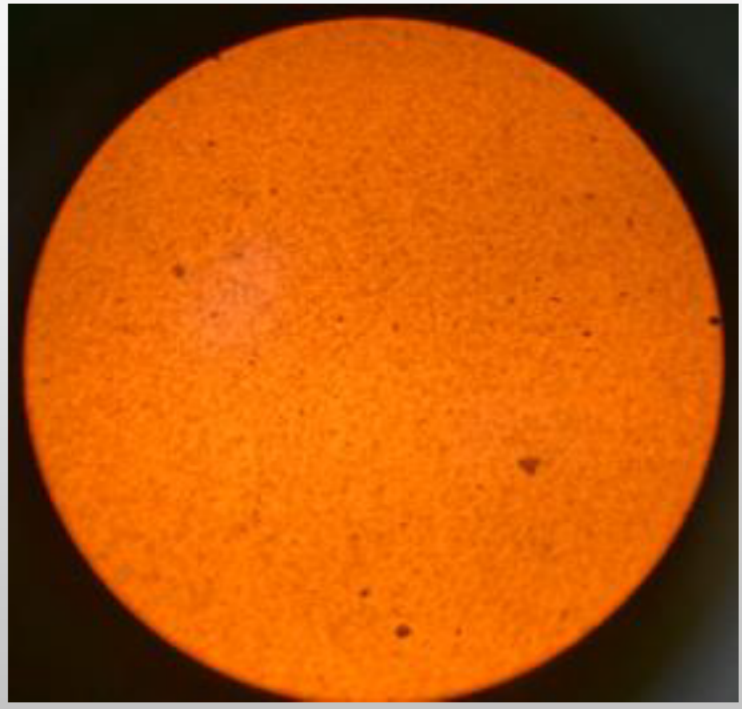
REDACTED

HIGHLIGHTED RESULTS: UP-50; 20X MAGNIFICATION
NO [REDACTED] PRESENT – NO ISSUES AT ALL

UP - 50
Treatment 5, Initial Solution
No gel present in solution



UP - 50
Treatment 6, After 10 Hours BUV
No gel present in solution



UP - 50
Treatment 7, Final Solution
No gel present in solution

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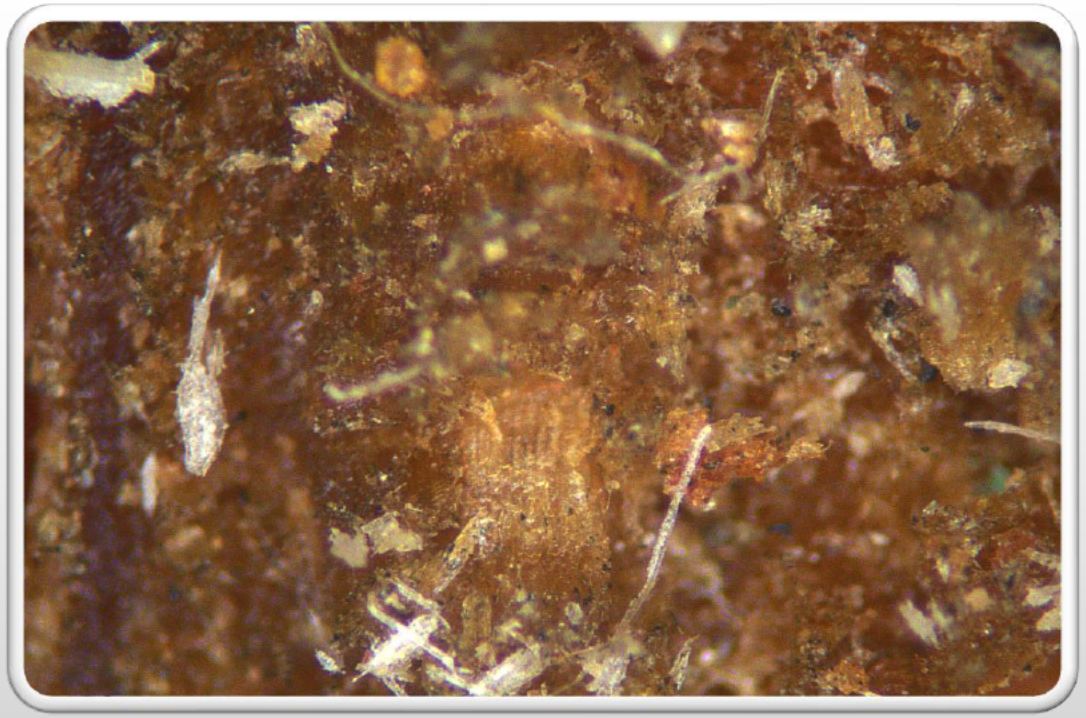

UP-50 COOKIE RADIAL AND CROSS-SECTIONAL VIEWS

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REDACTED

REDACTED

REDACTED

Redacted Pursuant to Proposed
Modified Protective Order

REDACTED

REDACTED

Redacted Pursuant to Proposed
Modified Protective Order

REDACTED

REDACTED

Redacted Pursuant to Proposed
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REDACTED

REDACTED

Treatment Solution	Treatment Number	Solution Strength (% DCOI)	Outer Zone Assay (pcf)	Inner Zone Assay (pcf)	Solution Uptake (kg/m^3)
REDACTED					
UP-50	5	2.38	0.482	0.291	30.3
UP-50	6	2.37	0.313	0.162	90.3
UP-50	7	2.40	0.283	0.110	62.1
UP-50	8	2.42	0.381	0.248	145.2
REDACTED					

DCOI WORK TO COMPLETE

- **NMR AND SEM ANALYSIS OF SOLUTION AND CRYSTALS FORMED, ADDITIONAL SAMPLES BEING RUN WITH MORE INFORMATION ON THE OTHER TRIALS. WE HAVE THE POLYMER SAMPLE SO RESULTS ARE PENDING.**
- **DEGRADATION PATHWAY FOR DCOI – NEEDS TO BE COMPLETED**

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CONCLUSIONS

- DCOI UP-50 PERFORMED SIGNIFICANTLY BETTER THAN ANY OF THE REDACTED

REDACTED

Redacted Pursuant to Proposed
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