

MEMORANDUM

To: H.E. Pawson; c.c. R.J.T.

Date: April 29, 1975

From: C.O. Olesen

Ref:

Subject: Arsenic Suppression - April 14, 1975

An amount of sample was collected from agitator #5 and a set of tests were run with different portions of ferrous sulphate and lime.

Sample Preparation and Procedure

<u>Sample</u>	<u>lb. FeSO₄</u>	<u>lb. CaO</u>
1	20	20
2	30	20
3	40	20
4	30	--
5	(Blank agitator # 5)	
Blank		20

- After all reagents added, samples were agitated on rollers for one half hour.

Data

<u>Sample</u>	<u>pH</u>	<u>As</u> <u>p.p.m.</u>	<u>(24 hr. wait period)</u> <u>As. p.p.m.</u>
C.F.R.	8.0	660	---
#5 agit. disc.	11.5	25.85	---
Blank	11.5	17.33	12.5
1.	11.4	27.50	42.5
2.	11.2	35.20	40.5
3.	11.1	32.45	32.7
4.	11.5	14.30	21.4
5.	11.5	20.90	14.8

Conclusions:

- In all tested samples (1 thru 4) it showed that with the addition of ferrous sulphate it seemed to knock out the arsenic, but after a twenty-four hour wait period the suppressed arsenic reappeared. Whereas, the blank that was hit with 20 lb. CaO seemed to keep the arsenic suppressed, during the wait period and kept the pH at a high level.
- With the addition of ferrous sulphate the pH was lowered.