

**From:** "Bowman, Greg " <GBowm90@entergy.com>  
**To:** "sms4@nrc.gov" <sms4@nrc.gov>  
**Date:** 3/15/06 8:28AM  
**Subject:** FW: Tritium results Reanalysis of Trap Rock, Algonquin, Gypsum

---

**From:** Croulet, Donald  
**Sent:** Monday, February 06, 2006 6:26 AM  
**To:** Conroy, Pat; Cox, Mark R; Bowman, Greg ; 'James Noggle'; Jones, T. R.; 'Timothy Rice'; Janicki, John; PRICE, ERNEST JR; Robert Oliveira (boliveira@amnucins.com)  
**Subject:** <mailto:boliveira@amnucins.com>Subject : FW: Tritium results Reanalysis of Trap Rock, Algonquin, Gypsum

---

**From:** Hinrichs, Gary  
**Sent:** Friday, February 03, 2006 1:01 PM  
**To:** Croulet, Donald  
**Subject:** FW: Tritium results Reanalysis of Trap Rock, Algonquin, Gypsum

This is what Mark Cox was looking for

---

**From:** Sachatello, Ronald  
**Sent:** Friday, February 03, 2006 12:48 PM  
**To:** Hinrichs, Gary  
**Subject:** FW: Tritium results Reanalysis of Trap Rock, Algonquin, Gypsum

Gary:

This is what I just got on the subject...

Sach

---

**From:** Gorman, Barrie  
**Sent:** Friday, February 03, 2006 11:54 AM  
**To:** Burns, Thomas; Lavera, Ron; Mayer, Don; Sachatello, Ronald  
**Cc:** Axelson, William L; Baker, Dave; Pittenger, William; Boucher, Crystal; Colville, Richard; Mayer, Don  
**Subject:** Tritium results Reanalysis of Trap Rock, Algonquin, Gypsum

Attached are the subject sample reanalysis. All 3 sample results were less than LLD. These sample results represent a new aliquot of each sample from the original container that was distilled and counted in a new sample vial.

The original results for these samples, which were reported as positive activity (>LLD), are considered to be the result of contamination on the tritium analyzer sample holder rack. Additional testing and evaluation is in progress to confirm the contamination and documentation will be provided for your review. The racks have been removed from service and immediate short term corrective actions were set in place to prevent future contamination issues.

The contamination of these samples will be documented in a JAF Condition Report (CR) that I will forward to you as soon as the CR is entered.

A/128

Sample status: Currently in the tritium counter are the three original vials followed by the 4 samples received on 02/02/06. These samples will be done counting on Saturday night and the results will be processed and forwarded to you on Monday AM (02/06/06).

I will be at VY next week attending Entergy training. I will be in contact with the lab on a regular basis and will provide you with a channel of communication once I set up at VY.  
Barrie

<<IPEC tritium reanalysis.PDF>>

**Mail Envelope Properties** (4418167A.024 : 23 : 57380)

**Subject:** FW: Tritium results Reanalysis of Trap Rock, Algonquin, Gypsum  
**Creation Date:** 3/15/06 8:26AM  
**From:** "Bowman, Greg " <GBowm90@entergy.com>  
**Created By:** GBowm90@entergy.com

**Recipients**

nrc.gov  
kp1\_po.KP\_DO  
SMS4 (Stacy Smith)

**Post Office**  
kp1\_po.KP\_DO

**Route**  
nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	2552	03/15/06 08:26AM
TEXT.htm	5589	
IPEC tritium reanalysis.PDF	230404	
Mime.822	326257	

**Options**

**Expiration Date:** None  
**Priority:** Standard  
**Reply Requested:** No  
**Return Notification:** None  
  
**Concealed Subject:** No  
**Security:** Standard

**TRITIUM PROGRAM**  
**Tritium Analysis Sample Run ID Sheet**

Run No. 06-11

Plant Eff.  Environmental  Other

Sample Count Date 2/1/2006

Background Count Time(min.) 100


Background (CPM) 9.58

Background Counting Eff. 0.353

Background (DPM) 27.17

2-5	QC STD	3/14/2002	12:00	NA	E3050	100	34.94	71.80	0.353	10062 ± 265
22-2	ALGONQUIN OUTFALL	1/24/2006	12:00	20060275B	IP-06-044	100	10.68	1.36	0.374	<469
22-3	GYPSUM PLANT STREAM	1/24/2006	12:00	20060276B	IP-06-045	100	10.39	1.88	0.358	<469
22-4	TRAP ROCK QUARRY	1/24/2006	12:00	20060277B	IP-06-046	100	11.07	2.65	0.371	<469



Page 1 of 1

Completed By: DJ BAKER  


Date: 2-3-06

JAF ENVIRONMENTAL LABORATORY			
Tritium Activity Calculation			
Sample ID	QC STD	ELMS #:	NA
Sample On Date / Time :	03/14/02 @ 12:00	Client ID No.	E3050
Sample Off Date / Time :	03/14/02 @ 12:00	Run No.	06-11
Sample Count Date:	02/01/06 @ 12:00	Sample Distilled:	NO
Elapsed Time (count date to off date) yrs	3.89	Decay Factor:	0.8036
Background Gross counts: <u>958.22</u>			
Background count time (minutes) <u>100</u>			
Background Counts, CPM: <u>9.58</u>			
Background DPM <u>27.17</u>			
Critical Level (CL) CPM <u>0.72</u>			
Sample Gross counts: <u>3493.6667</u>			
Sample Count Time (minutes) <u>100</u>			
Sample CPM: <u>34.94</u>			
Sample Net CPM: <u>25.35</u>			
Sample DPM: <u>71.80</u>			
sample volume (L) <u>0.004</u>			
Background Counting Efficiency	<u>0.353</u>	CL Ratio=	35.21 ✓
LLD value (pCi/L)	<u>&lt;583</u>	Act/Error Ratio=	38.0 ✓
Sample Counting Efficiency	<u>0.353</u>		
Sample Activity (pCi/L) ± 1 sigma	<u>10062 ± 265</u>		
Comments: <i>QC. RATIO = 100.3% TO THE KNOWN</i>			
Note: If CL ratio is <1.0 OR Act/Error Ratio is <2.7 then the LLD value is reported as a "Less Than" Activity.			
Technician:	<i>D.J. BAKER</i>	Date:	<i>2-3-06</i>
Supervisor review:	<i>B. Gorman</i>	Date:	<i>2/3/06</i>

JAF ENVIRONMENTAL LABORATORY			
Tritium Activity Calculation			
Sample ID	ALGONQUIN OUTFALL	ELMS #:	20060275B
Sample On Date / Time :	01/24/06 @ 12:00	Client ID No.	IP-06-044
Sample Off Date / Time :	01/24/06 @ 12:00	Run No.	06-11
Sample Count Date:	02/01/06 @ 12:00	Sample Distilled:	YES
Elapsed Time (count date to off date) yrs	0.02	Decay Factor:	0.9988
Background Gross counts:	958.22		
Background count time (minutes)	100		
Background Counts, CPM:	9.58		
Background DPM	27.17		
Critical Level (CL) CPM	0.72		
Sample Gross counts:	1067.6667		
Sample Count Time (minutes)	100		
Sample CPM:	10.68		
Sample Net CPM:	1.09		
Sample DPM:	1.36		
sample volume (L)	0.004		
Background Counting Efficiency	0.353	CL Ratio= 1.52	✓
LLD value (pCi/L)	<469	Act/Error Ratio= 1.1	✓
Sample Counting Efficiency	0.374		
Sample Activity (pCi/L) ± 1 sigma	153 ± 136		
Comments:			
Note: if CL ratio is <1.0 OR Act/Error Ratio is <2.7 then the LLD value is reported as a "Less Than" Activity.			
Technician: <u>DJ BAKER</u> <i>[Signature]</i>		Date: <u>2-3-06</u>	
Supervisor review: <u>B. Gorman</u> <i>[Signature]</i>		Date: <u>2/03/06</u>	
print / sign			

<b>JAF ENVIRONMENTAL LABORATORY</b>			
<b>Tritium Activity Calculation</b>			
Sample ID	GYPSUM PLANT STREAM	ELMS #:	20060276B
Sample On Date / Time :	01/24/06 @ 12:00	Client ID No.	IP-06-045
Sample Off Date / Time :	01/24/06 @ 12:00	Run No.	06-11
Sample Count Date:	02/01/06 @ 12:00	Sample Distilled:	YES
Elapsed Time (count date to off date) yrs	0.02	Decay Factor:	0.9988
<b>Background Data</b>			
Background Gross counts:	958.22		
Background count time (minutes)	100		
Background Counts, CPM:	9.58		
Background DPM	27.17		
Critical Level (CL) CPM	0.72		
<b>Sample Data</b>			
Sample Gross counts:	1038.6667		
Sample Count Time (minutes)	100		
Sample CPM:	10.39		
Sample Net CPM:	0.80		
Sample DPM:	1.88		
sample volume (L)	0.004		
Background Counting Efficiency		0.353	CL Ratio= 1.12 ✓
LLD value (pCi/L)		<469	Act/Error Ratio= 1.5 ✓
Sample Counting Efficiency		0.358	
Sample Activity (pCi/L) ± 1 sigma		212 ± 141	
Comments:			
Note: If CL ratio is <1.0 OR Act/Error Ratio is <1.7 then the LLD value is reported as a "Less Than" Activity.			
Technician: <u>D.J. BAKER</u> 		Date: <u>2-3-06</u>	
Supervisor review: <u>B. Gorman</u> 		Date: <u>2/03/06</u>	
		print / sign	

JAF ENVIRONMENTAL LABORATORY			
Tritium Activity Calculation			
Sample ID	TRAP ROCK QUARRY	ELMS #:	20060277B
Sample On Date / Time :	01/24/06 @ 12:00	Client ID No.	IP-06-046
Sample Off Date / Time :	01/24/06 @ 12:00	Run No.	06-11
Sample Count Date:	02/01/06 @ 12:00	Sample Distilled:	YES
Elapsed Time (count date to off date) yrs	0.02	Decay Factor:	0.9988
<b>Background Data</b>			
Background Gross counts:	958.22		
Background count time (minutes)	100		
Background Counts, CPM:	9.58		
Background DPM	27.17		
Critical Level (CL) CPM	0.72		
<b>Sample Data</b>			
Sample Gross counts:	1107.3333		
Sample Count Time (minutes)	100		
Sample CPM:	11.07		
Sample Net CPM:	1.49		
Sample DPM:	2.65		
sample volume (L)	0.004		
Background Counting Efficiency		0.353	CL Ratio= 2.07 ✓
LLD value (pCi/L)		<u>&lt;469</u>	Act/Error Ratio= 2.2 ✓
Sample Counting Efficiency		0.371	
Sample Activity (pCi/L) ± 1 sigma		299 ±	138
Comments:			
Note: If CL ratio is <1.0 OR Act/Error Ratio is <2.7 then the LLD value is reported as a "Less Than" Activity.			
Technician: <u>DJ BAKER</u> <i>[Signature]</i>		Date: <u>2-3-06</u>	
Supervisor review: <u>B. Gorman</u> <i>[Signature]</i>		Date: <u>2/03/06</u>	
print / sign			