From: "Kevin Taylor" <ktaylor@scientech.com>
To: "'Marjorie McLaughlin'" <MMM3@nrc.gov>
Date: Tue, May 10, 2005 6:31 PM
Subject: Whittaker site

Marjorie:

Because of the identification of contamination at or beyond the current fence line, two areas extending 5 - 10 feet beyond the existing fence line will be demarcated by Pat Horkman and Don Hubet (Greenville Metals) for placement of a temporary fence as follows:

1 - Along the east-west fence at the northwest corner of Section 2, approximately 100 feet (section h-i on the attached map) (See attached survey).

2 - At the southwest corner of Section 2 along the west fence line with Greenville metals, approximately 116 feet (section k-l on the attached map).

We do not plan on excavating material beyond the fence for 4 to 8 weeks. Therefore, there are no immediate plans to relocate any sections of the fence.

We are not planning on doing any formal soil sampling (for the Final Status Survey) until the fence line contamination is addressed. Excavation of this material could cross-contaminate the existing excavated areas.

Please call me if you have any questions.

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B|5

Mail Envelope Properties (42813619.8C4 : 22 : 10436)

Subject: Whittaker site
Creation Date Mon, May 9, 2005 3:59 PM
From: "Kevin Taylor" <ktaylor@scientech.com>

Created By: ktaylor@scientech.com

Recipients
nrc.gov
kp1_po.KP_DO
MMM3 (Marjorie McLaughlin)

aig.com
roger.pennifill CC

wkr.com
elardiere CC

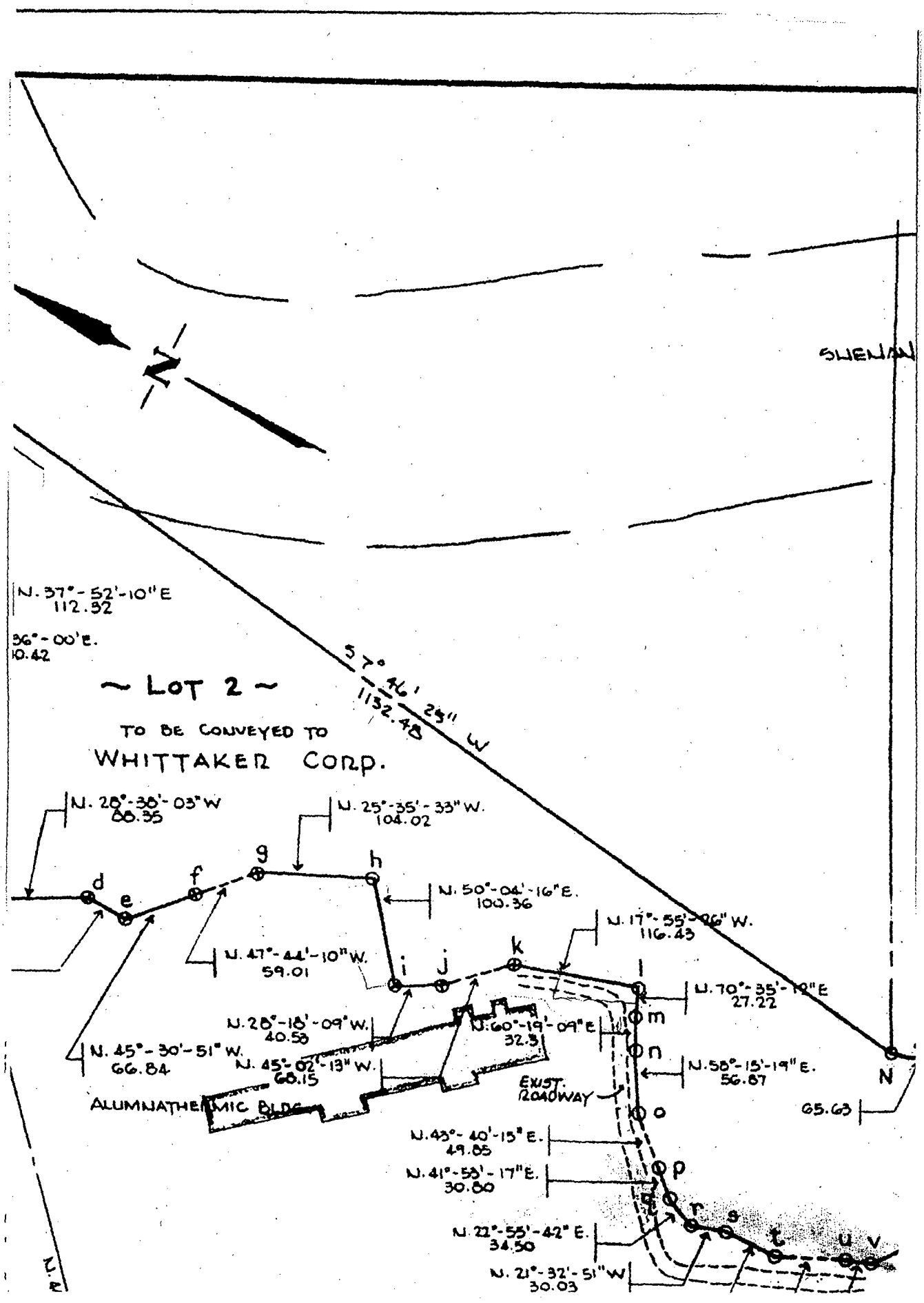
scientech.com
rmoss CC ('Rich Moss')

Post Office	**Route**
kp1_po.KP_DO	nrc.gov
	aig.com
	wkr.com
	scientech.com

Files	**Size**	**Date & Time**
MESSAGE	1183	Monday, May 9, 2005 3:59 PM
TEXT.htm	3014	
fenceln-2.pdf	35511	
fenceline 4-27-05.xls	499712	
Mime.822	729235	

Options

Expiration Date:	None
Priority:	Standard
ReplyRequested:	No
Return Notification:	None
Concealed Subject:	No
Security:	Standard


SWENAN
N. 37°-52'-10" E
112.32
36°-00' E.
10.42
~ LOT 2 ~
TO BE CONVEYED TO
WHITTAKER CORP.
S 7° 46' 29" W
1132.48
N. 28°-38'-03" W
66.35
N. 25°-35'-33" W.
104.02
N. 50°-04'-16" E.
100.36
N. 17°-55'-06" W.
116.43
N. 47°-44'-10" W.
59.01
N. 70°-35'-10" E
27.22
N. 28°-18'-09" W.
40.58
N. 60°-19'-09" E
32.3
N. 45°-30'-51" W.
66.84
N. 45°-02'-13" W.
60.15
N. 58°-15'-19" E.
56.87
EXIST. ROADWAY
ALUMNATHEMIC BLDG
65.63
N. 43°-40'-15" E.
49.85
N. 41°-53'-17" E.
30.80
N. 22°-55'-42" E.
34.50
N. 21°-32'-51" W
30.03
d
e
f
g
h
i
j
k
l
m
n
o
p
q
r
s
t
u
v
N

Survey Cover Sheet

Survey Number_____

Surveyor: J. Trowbridge (Print) _____ (Sign) 04/27/2005 (Date)

Reviewer: P. Horkman (Print) _____ (Sign) 04/27/2005 (Date)

Survey Location:	Section 2-NW corner
Survey Purpose:	2x2 Na-I readings

Survey Meters

Meter Model #	2221/44-10	Meter Model #		Meter Model #	
Meter / Probe Serial #	163697/207829	Meter / Probe Serial #		Meter / Probe Serial #	
Cal Due	02/11/2006	Cal Due		Cal Due	
Efficiency	11.1%	Efficiency		Efficiency	
Type (α, βγ)	γ	Type (α, βγ)		Type (α, βγ)	
Sample Time	N/A	Sample Time		Sample Time	
Background Time	10 min.	Background Time		Background Time	
Background (cpm)	8900	Background (cpm)		Background (cpm)	
MDC (dpm/100cm²)	N/A	MDC (dpm/100cm²)		MDC (dpm/100cm²)	
Guideline (dpm/100cm²)	N/A	Guideline (dpm/100cm²)		Guideline (dpm/100cm²)	
Action Level (gross cpm)	N/A	Action Level (gross cpm)		Action Level (gross cpm)	

Circle One: Smear / Direct / Scan*

Point #	Log #	Units:cpm βγ	Units:cpm α
1	N/A	8304	N/A
2	N/A	12268	N/A
3	N/A	14831	N/A
4	N/A	134314	N/A
5	N/A	59210	N/A
6	N/A	26250	N/A
7	N/A	18254	N/A
8	N/A	11541	N/A
9	N/A	117740	N/A
10	N/A	20272	N/A
11	N/A	24377	N/A
12	N/A	17346	N/A
13	N/A	8566	N/A

Circle One: Smear / Direct / Scan*

Point #	Log #	Units:dpm/100cm2 βγ	Units:dpm/100cm2 α

Circle One: Smear / Direct / Scan*

Point #	Log #	Units:dpm/100cm2 βγ	Units:dpm/100cm2 α

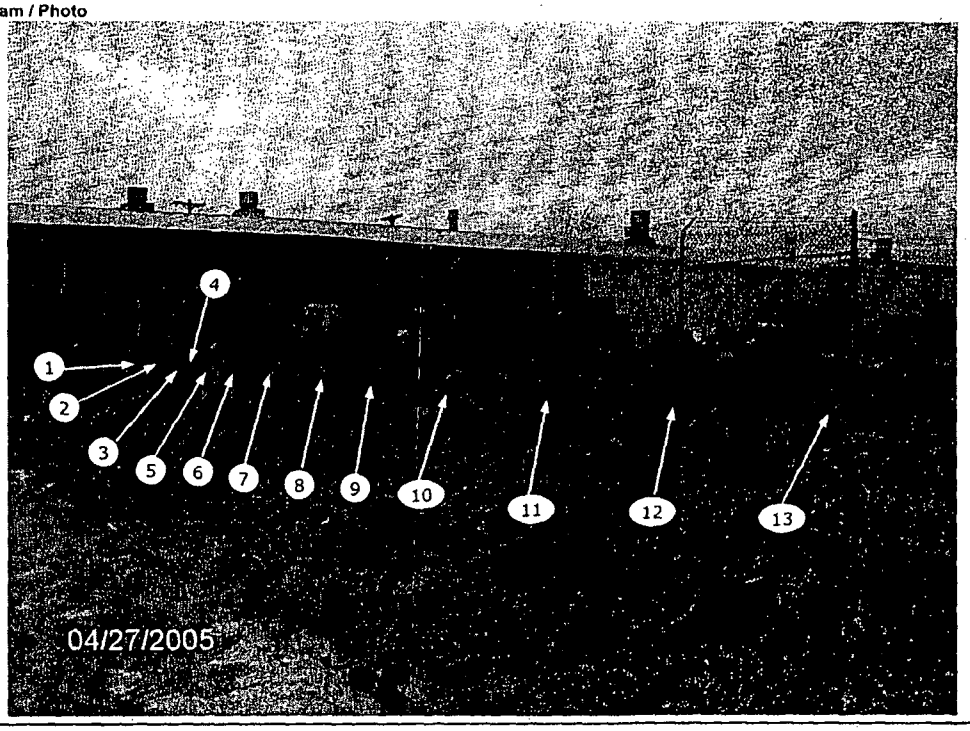
* Scan Measurements: Calculate the ScanMDC. The average and maximum counts are to be recorded in the βγ and α columns respectively.

Survey Cover Sheet

Survey Number_____

Survey Location:	Section 2-NW corner
Survey Purpose:	2x2 Na-I readings

Diagram / Photo



Notes: Readings taken at each fence post.

Reading #4 taken 2' north of fence approx at a 2' depth, between posts 54 and 55.

When the contamination was initially detected at reading point # 4 it was still on the south side of the fence, we then tried to remediate the contamination only to find out it continued north under the fence.

Excavation was stopped due to concern of fence collapse.

Reading #/Post #-1-57, 2-56, 3-55, 4-between 55 and 54, 5-54, 6-53, 7-52, 8-51, 9-50, 10-49, 11-48, 12-47, 13-46.

$$MDC_{Smear} = \frac{3 + 3.29\sqrt{R_B t_S\left(1+\frac{t_S}{t_B}\right)}}{\varepsilon_S(\varepsilon_i)(t_S)}$$

$$ScanMDC = \frac{1.38\left(\frac{60}{i}\right)\sqrt{R_B\left(\frac{i}{60}\right)}}{\sqrt{0.5}\,\varepsilon_S(\varepsilon_i)\left(\frac{probe\ area}{100cm^2}\right)}$$

$$MDC_{Fixed} = \frac{3 + 3.29\sqrt{R_B t_S\left(1+\frac{t_S}{t_B}\right)}}{\varepsilon_S(\varepsilon_i)(t_s)\left(\frac{probe\ area}{100cm^2}\right)}$$

$$A_l = R_B + \left(guideline * \varepsilon_S(\varepsilon_i)\right)$$

$$dpm\ /\ 100\ cm^2 = \frac{gross\ cpm - bkg\ cpm}{\varepsilon_S(\varepsilon_i)}$$

Where :

R_B = background counting rate

t_B = background counting time

t_S = sample counting time

A_l = action level

ε_S = surface efficiency

ε_i = intrinsic instrument efficiency

i = is inverse of the scanning speed in detector - widths per second (i.e., for 1/2 - width per second, i = 2)