



Allen, Pam, NMENV

From: Kliphuis, Trais, NMENV
Sent: Tuesday, May 20, 2014 2:26 PM
To: Allen, Pam, NMENV
Cc: Maestas, Ricardo, NMENV; Smith, Coleman, NMENV; Holmes, Steve, NMENV
Subject: FW: from SRNL
Attachments: WIPP FAS Sample.xlsx; Sample ID e-mail.pdf; FAS 118 TC 65783_Young_05_16_2014_CR.xls; FAS 118 05-16-2014 20140515 anions sys2r.xls

More files for the WIPP record. Thanks.

From: Percy, Mark - NWP [<mailto:Mark.Percy@wipp.ws>]
Sent: Tuesday, May 20, 2014 2:24 PM
To: Kliphuis, Trais, NMENV
Subject: from SRNL

Trais,
Please find the attached and the previous e-mails with analytical data from SRNL.
I will do better at keeping you and your group up to date.

Mark Percy
Central Characterization Program
Nuclear Waste Partnership LLC
Contractor for the U.S. Department of Energy
575-234-7394 (W)
575-499-7339 (C)



A URS-led partnership with B&W and AREVA



To: John Young
From: Tom White

05/16/14

The one sigma percent uncertainty is 10%

System 2

IC RESULTS

The results of the following samples were analyzed with a Dionex instrument and the data is recorded in the ELN

	Fluoride	Formate	Chloride	Nitrite	Bromide	Nitrate	Phosphate	Sulfate	Oxalate	Cust ID
SPL ID	µg/g of wipe	µg/g of wipe	µg/g of wipe	µg/g of wipe	µg/g of wipe	µg/g of wipe	µg/g of wipe	µg/g of wipe	µg/g of wipe	
300311131	10900	5440	1810	<1810	<1810	<1810	<1810	<1810	<1810	YOUNG-tc 65784-section c of wipp FAS sample
300311132	5860	5360	21500	<977	<977	2930	<977	14700	1950	YOUNG-tc 65784-section c of wipp FAS sample

ICP-OES Results

Description: SECTION D OF WIPP FAS SAMPLE

Travel Copy: 65783

Instrument: Leeman Prodigy ICP-ES

Reviewer: John Young

Comments:

Ca, Cr, Zn noted in blank. Units compensate for 1/8 smear to 25 ml

Method Detection Limit (MDL) = Instrument Detection Limit (IDL) x Dilution Factor.
 Uncertainty is the RMS of the method uncertainty and the sample uncertainty.

USER_SAMPLEID:	ADS GENERATED BLANK	300311038_D(311109)
SAMPLE_ID:	300311129	300311130
UNITS:	ug/smear	ur/smear
Element		
Ag	< 10.8 (N/A %RSD)	< 10.8 (N/A %RSD)
Al	< 61.9 (N/A %RSD)	268 (11.8 %RSD)
B	< 156 (N/A %RSD)	< 156 (N/A %RSD)
Ba	< 5.6 (N/A %RSD)	< 5.6 (N/A %RSD)
Be	< 0.8 (N/A %RSD)	< 0.8 (N/A %RSD)
Ca	< 100 (N/A %RSD)	< 100 (N/A %RSD)
Cd	< 11.2 (N/A %RSD)	< 11.2 (N/A %RSD)
Ce	< 90.6 (N/A %RSD)	< 90.6 (N/A %RSD)
Co	< 19.1 (N/A %RSD)	< 19.1 (N/A %RSD)
Cr	< 20 (N/A %RSD)	< 20 (N/A %RSD)
Cu	< 22 (N/A %RSD)	< 22 (N/A %RSD)
Fe	122 (10.1 %RSD)	290 (10 %RSD)
Gd	< 45.8 (N/A %RSD)	< 45.8 (N/A %RSD)
K	< 416 (N/A %RSD)	< 416 (N/A %RSD)
La	< 11.4 (N/A %RSD)	< 11.4 (N/A %RSD)
Li	< 50.8 (N/A %RSD)	< 50.8 (N/A %RSD)
Mg	58.7 (10 %RSD)	5420 (10 %RSD)
Mn	< 7.28 (N/A %RSD)	7.4 (13.5 %RSD)
Mo	< 119 (N/A %RSD)	< 119 (N/A %RSD)
Na	< 349 (N/A %RSD)	4660 (10.1 %RSD)
Ni	< 95.6 (N/A %RSD)	< 95.6 (N/A %RSD)
P	< 284 (N/A %RSD)	< 284 (N/A %RSD)
Pb	< 78.4 (N/A %RSD)	458 (10.7 %RSD)
S	< 12000 (N/A %RSD)	< 12000 (N/A %RSD)
Sb	< 232 (N/A %RSD)	< 232 (N/A %RSD)
Si	< 155 (N/A %RSD)	700 (10.2 %RSD)
Sn	< 811 (N/A %RSD)	< 811 (N/A %RSD)
Sr	< 119 (N/A %RSD)	< 119 (N/A %RSD)
Th	< 76.3 (N/A %RSD)	< 76.3 (N/A %RSD)
Ti	< 33.6 (N/A %RSD)	< 33.6 (N/A %RSD)
U	< 779 (N/A %RSD)	< 779 (N/A %RSD)
V	< 5.68 (N/A %RSD)	< 5.68 (N/A %RSD)
Zn	< 50 (N/A %RSD)	< 50 (N/A %RSD)
Zr	< 175 (N/A %RSD)	< 175 (N/A %RSD)

ICP-OES Res

Description:
Travel Copy:
Instrument:
Reviewer:
Comments:

Method Detectio
Uncertainty is

USER_SAM
SAMP

Element

Ag
Al
B
Ba
Be
Ca
Cd
Ce
Co
Cr
Cu
Fe
Gd
K
La
Li
Mg
Mn
Mo
Na
Ni
P
Pb
S
Sb
Si
Sn
Sr
Th
Ti
U
V
Zn
Zr

ICP-OES Re

Description:
Travel Copy:
Instrument:
Reviewer:
Comments:

Method Detectio
Uncertainty is

USER_SAM
SAMP

Element

Ag
Al
B
Ba
Be
Ca
Cd
Ce
Co
Cr
Cu
Fe
Gd
K
La
Li
Mg
Mn
Mo
Na
Ni
P
Pb
S
Sb
Si
Sn
Sr
Th
Ti
U
V
Zn
Zr

ICP-OES Re:

Description:
Travel Copy:
Instrument:
Reviewer:
Comments:

Method Detectio
Uncertainty is

USER_SAM
SAMP

Element

Ag
Al
B
Ba
Be
Ca
Cd
Ce
Co
Cr
Cu
Fe
Gd
K
La
Li
Mg
Mn
Mo
Na
Ni
P
Pb
S
Sb
Si
Sn
Sr
Th
Ti
U
V
Zn
Zr

Pearcy, Mark - NWP

From: leigh.brown@srnl.doe.gov
Sent: Saturday, May 17, 2014 8:01 AM
To: Chester, Curtis - NWP; cchester82@gmail.com
Cc: Zimmerman, John - LEX; Pearcy, Mark - NWP; Lynette.Connelly@srnl.doe.gov; mark.barnes@srnl.doe.gov; david.diprete@srnl.doe.gov; john.young@srnl.doe.gov; charles02.coleman@srnl.doe.gov; thomas02.white@srnl.doe.gov; amy.ekechukwu@srnl.doe.gov; robin.young@srnl.doe.gov; clint.gregory@srnl.doe.gov
Subject: Analytical Chemistry Preliminary Data Report, SRNL, WIPP Smear and FAS samples rec'd 5/8/14
Attachments: 20140513 anion sys2r.xls; 20140515 anions sys2r.xls; TC 65779_Young_05_14_2014_CR.xls; TC 65783_Young_05_16_2014_CR.xls; tictoc results smears.pdf

Curtis,

I have attached data reports containing preliminary data for the following samples that were received from the WIPP facility on 5/8/14. This is rough data that needs further refinement. It has not been normalized to the whole sample or fully reviewed.

RCO Smears

Sample ID	SRNL LIMS#
Leach blank	300311087
Wipe#1	300311088
Wipe#2	300311089
Digestion blank	300311090
Wipe #3	300311091
Wipe #4	300311092

- IC Anions, (verbally reported on 5/14 conference call)

- Carbon, (verbally reported on 5/14 conference call)

- Metals

Fixed Air Sampler (FAS)

Sample ID	SRNL LIMS#
FAS leach blank	300311131
FAS section C	300311132
FAS digestion blank	300311129
FAS section D	300311130

-IC anions,

-metals

Thanks, Leigh

Leigh W. Brown | SRNL Savannah River National Laboratory | SRNS Savannah River Nuclear Solutions, LLC | Aiken,
SC 29808 | leigh.brown@srnl.doe.gov | Office 803.725.1278 | Pager 803.725.7243 ext. 19598

Wipp FAS

Radioisotope	DPM/sample	1 Sigma %Unc
Be-7	4.72E+02	5%
K-40	4.35E+01	18.55%
Cs-137	1.15E+01	7.71%
Tl-208	2.10E+00	18.06%
Pb-212	2.79E+00	30.93%
Np-237/Pa-233	1.32E+01	9.57%
U-237	1.08E+02	5%
Np-239	3.14E+02	5%
Am-243	3.42E+02	5%
Pu-239	1.04E+05	7.29%
Am-241	2.74E+06	5%
from ICP-MS	Th-232	4.42E+06 Calculated from U-237
	Th-232	1.79E-02
	U-235	7.04E-01 (u-235 enrichment 5.54%)
	U-238	1.87E+00

WiPP FAS Sections (results of 1st gamma analysis)

Section		Am-241 (dpm/sample)	1 Sigma %Unc
A	quarter in reserve	6.86E+05	5.00%
B	quarter to LANL	6.84E+05	5.00%
C	eighth	3.50E+05	5.00%
D	eighth	3.41E+05	5.00%
E	eighth	3.12E+05	5.00%
F	eighth	4.03E+05	5.00%
	total	2.78E+06	

CAM Filters	ADS LIMS #	Am-241 (dpm/sample)	
1	311039	3.48E+05	
2	311040	7.50E+06	* Long Gamma Count Complete
3	311041	6.65E+06	
4	311042	8.73E+06	
5	311043	3.48E+06	
6	311044	6.98E+06	
7	311045	6.83E+06	* Long Gamma Count Complete
8	311046	7.37E+06	
9	311047	5.97E+06	
10	311048	3.50E+05	
11	311049	5.80E+06	* Counting overnight: 5/15
12	311050	1.07E+04	
13	311051	7.25E+03	
14	311052	1.24E+04	
15	311053	1.01E+04	
16	311054	1.39E+04	
17	311055	1.70E+04	

ICD-10 Results

File Name: Tony 31129.130
 Instrument: Agilent 8453 7700, no 2042
 Analysis Date: 1/15/2014
 Analyst: Lorretta Fawcett
 Sample Name: Muck Juice
 Method: Instrument Retention Limit (IRL) = Instrument Retention Limit (IRL) x Dilution Factor
 Method Uncertainty is 0.1%
 Reported IRL values reflect variance of replicate measurements.

WV	Opening Check		Peak		Closing Check	
	WV	Intensity	WV	Intensity	WV	Intensity
31	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
32	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
33	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
34	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
35	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
36	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
37	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
38	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
39	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
40	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
41	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
42	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
43	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
44	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
45	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
46	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
47	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
48	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
49	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
50	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
51	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
52	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
53	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
54	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
55	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
56	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
57	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
58	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
59	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
60	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
61	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
62	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
63	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
64	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
65	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
66	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
67	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
68	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
69	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
70	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
71	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
72	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
73	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
74	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
75	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
76	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
77	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
78	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
79	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
80	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
81	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
82	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
83	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
84	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
85	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
86	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
87	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
88	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
89	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
90	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
91	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
92	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
93	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
94	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
95	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
96	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
97	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
98	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
99	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01
100	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01	1.00E+01

blank name(s)
 0.027
 sample name (s)
 0.038
 Mobilization Factor is set from 1/8 to PAD
 App/Version 4/04/04
 2/10/04 8:00:00 1.10E+01

Smoothed Data

