



Analytical Chemists April 22, 2011

Laboratory Report

Introduction: This report package contains total of 5 pages divided into 3 sections:

Case Narrative

(2 pages): An overview of the work performed at FGL,

Sample Results

(2 pages): Results for each sample submitted.

Quality Control

(1 page): Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID#	Matrix
Bottle 1st Uranium Portion	04/07/2011	04/11/2011	SP 1103577-001	DW
Bottle 2nd Uranium Portion	04/07/2011	04/11/2011	SP 1103577-002	DW

Sampling and Receipt Information: All samples were received, prepared and analyzed within the method specified holding times. All samples arrived at room temperature. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	04/20/2011:205836 All analysis quality controls are within established criteria.
	04/19/2011:204213 All preparation quality controls are within established criteria, except: The following note applies to Gross Beta: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
903.0	04/19/2011;205787 All analysis quality controls are within established criteria.
	04/18/2011:204162 All preparation quality controls are within established criteria.
908.0	04/16/2011:205547 All analysis quality controls are within established criteria.
	04/16/2011:205548 All analysis quality controls are within established criteria.
	04/15/2011;204077 All preparation quality controls are within established criteria.





April 22, 2011 Chemists

Sampled On : April 7, 2011-00:00

Sampled By : Not Available

Received On : April 11, 2011-10:15

Matrix

: Drinking Water

Description : Bottle:

: Bottle 2nd Uranium Portion

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
	237000000000000000000000000000000000000		22000	200 2000 5 700	Method	Date/ID	Method	Date/ID
Radio Chemistry P:1								
Gross Beta	0.000 ± 0.991	1.86	pCi/L	50	900.0	04/19/11:204213	900.0	04/20/11:205836
Total Alpha Radium (226)	0.000 ± 0.877	1.65	pCi/L	3	903.0	04/18/11:204162	903.0	04/19/11:205787
Uranium	0.000 ± 2.19	1.90	pCi/L	20	908.0	04/15/11:204077	908.0	04/16/11:205548

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2 * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference.

MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV).

AV = (Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following

If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:
Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L
Uranium is less than or equal to 20 pCi/L
Radium 226 + Radium 228 is less than or equal to 5 pCi/L

WATER FILTRATION

Note: Samples are held for 3-6 months prior to disposal.

April 22, 2011

Certification:: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By Kelly A. Dunnahoo, B.S.

Digitally signed by Kelly A. Dannahoo, B.S.
Title: Laboratory Director
Date: 2011-04-25







April 22, 2011 Chemists

Sampled On : April 12, 2011-00:00

Sampled By : Not Available

Received On : April 12, 2011-10:30

Matrix

: Drinking Water

Description : Pitcher Plus

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
	Result & Error		Onns		Method	Date/ID	Method	Date/ID
Radio Chemistry ^P		TO ST	Maria I					
Gross Beta	0.697 ± 1.64	2.51	pCi/L	50	900.0	04/19/11:204213	900.0	04/20/11:205836
Total Alpha Radium (226)	0.000 ± 0.398	0.824	pCi/L	3	903.0	04/18/11;204162	903.0	04/19/11:205787
Uranium	0.000 ± 0.681	0.475	pCi/L	20	908.0	04/15/11:204077	908.0	04/16/11:205548

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers; (P) Plastic Preservatives: N/A * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL/AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = (Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L Radium 226 + Radium 228 is less than or equal to 5 pCi/L

ER FILTRATION

Note: Samples are held for 3-6 months prior to disposal.





Analytical Chemists

April 22, 2011

Quality Control - Radio

Constituent		Method	Date/ID	Type	e Units	Conc.	QC Data	DQO	Note
Radio Beta		900.0	04/20/2011:205836	CCV CCB	epni epni	10150	92.9 % 0.3400	87 - 106 0.56	
Gross Beta		900.0	04/19/2011:204213 (SP 1103747-001)	Blank LCS MS MSD MSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	46.13 92.26 92.26 300.7	0.93 107 % 47.6 % 53.3 % 10.5%	4 75-125 80-130 80-130 ≤30	435 435
Alpha		903.0	04/19/2011:205787	CCV	cpm cpm	10150	39.8 % 0.0500	38 - 46 0.15	
Total Alpha R	adium (226)	903.0	04/18/2011:204162	RgBlk LCS BS BSD BSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	18.16 20.89 20.89 20.89	0.1 66.3 % 55,1 % 44.6 % 21,1%	2 52-89 43-92 43-92 ≤35.5	
Alpha	908.0	04/16/2011:205547	CCV CCB	cpm cpm	10160	41.5 % 0.100	38 - 47 0.19	2	
		908.0	04/16/2011:205548	CCV	cpm cpm	10160	43.7 % 0.100	38 - 47 0.15	
Jranium		908,0	04/15/2011:204077	RgBlk LRS BS BSD BSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	20.86 20.86 20.86 20.86	0.32 74.8 % 93.3 % 90.2 % 3.4%	1 54-105 75-125 75-125 <20	
Definition CCV	: Continuing Ca	dibration Verifica	tion - Analyzed to verif	7	- 4				
CCB Blank RgBlk LCS MS	: Method Blank : Method Reage : Laboratory Co : Matrix Spikes matrix affects a : Matrix Spike I are an indication	: - Prepared to ver ent Blank - Prepar outrol Standard/Sa - A random samp nalyte recovery, Duplicate of MS/N n of how that sam - A blank is spiked	Analyzed to verify the if that the preparation ed to correct for any reample - Prepared to verible is spiked with a known SD pair - A random saple matrix affects analy I with a known amount	process is no agent contrib fy that the pr wn amount of ample duplicate recovery.	ot contributing utions to same eparation pro f analyte. The ate is spiked	g contaminat ple result, icess is not a e recoveries a with a know	ffecting analyt are an indication	e recovery. on of how tha	ecoverio

: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation

: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation

: Data Quality Objective - This is the criteria against which the quality control data is compared.

: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

MSRPD

BSRPD

Explanation

DQO

and analysis.

and analysis.

the preparation process is not affecting analyte recovery.

ANALYTICAL CHEMISTS

GENERAL MINERAL, PHYSICAL, INORGANIC, & RADIOLOGICAL CHEMICAL ANALYSES

Date of Report: July 3, 1996 Laboratory

Sample ID No. SP 605173-01

Signature Lab

Name of Sampler: Paul Mead

Director: C

Employed By: Environmental Sycs

Date/time Sample

Date/Time Sample

Date Analyses

Collected: 06/26/1996-1000 Rec. @ Lab: 06/21/1996-1000 Completed: 06/28/1996

System

System

Number:

Name or Number of Sample Source; 49606151-3 (Dn-Filtered)

User ID:

Station Number:

Date/Time of Sample: 9 6 0 6 2 6 1 0 0 0 YYMMDDTTTT

Laboratory Code: 5 8 6 7

Phone #(805) 659-0910

RADIOLOGICAL CHEMICALS

MCL			ENTRY	RESULT	DLR
	pCi/L	Radon 222	82303	540	4
	pCi/L	Radon 222 Counting Error	82302	£ 30	انصها

Name or Number of Sample Source: 49606151-4 (Filtered)

User ID:

Station Number:

Date/Time of Sample: 9 6 0 6 2 6 1 0 0 0 YYMMDDTTTT

Laboratory Code: 5 8 6 7

Submitted by:

FGL Environmental

Phone #(805) 659-0910

RADIOLOGICAL CHEMICALS

MCL	UNITS	CHEMICAL	ENTRY	RESULT	DLR
j f to	pCi/L	Radon 222	82303		•
	pCi/L	Radon 222 Counting Error	82302	± 10	

DLR - Detection Limit for Reporting purposes MCL . Maximum Contaminate Level

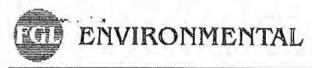
HD - Not Datected at or above DLR

+ Indicates Secondary Drinking Water Standards

Corporate Offices & Laboratory PO Box 272 / 853 Corporation Street Santa Paula, OA 93081-0272 TEL: 005/659-0010 a FAX: 805/525-4172

Office & Laboratory 2500 Stagecoach Road Stockton, CA 96216 TEL: 209/042-0101 FAX: 209/842-0423

Flotd Ollico Visalia, CA TEL: 209/734-8473 FAX: 209/734-8435 Mobile: 209/737-2399





April 22, 2011 Chemists

Sampled On : April 7, 2011-00:00

Sampled By : Not Available

Received On : April 11, 2011-10:15

Matrix

: Drinking Water

WATER FILTRATION

Description

: Bottle 1st Uranium Portion

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Radio Chemistry P.1	111333							***
Gross Beta	0.000 ± 1.14	1.93	pCi/L	50	900.0	04/19/11:204213	900.0	04/20/11:205836
Total Alpha Radium (226)	0.551 ± 1.19	1.65	pCi/L	3	903.0	04/18/11:204162	903.0	64/19/11:205787
Uranium	4.61 ± 4.04	1.79	pCi/L	20	908.0	04/15/11:204077	908,0	04/16/11:205547

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2 * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL/AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = (Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compilance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance: Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.

Note: Cs-137 utilized in Gross Beta Radioactivity removal test. In each portion of Cs-137 added 100% was removed. Michel M. Franco, Radiochemistry Technical Advisor

THE PERIODIC TABLE

	V	0)	S	41	w	0	ы	
HAYDEN HAYDEN IMONEIL SPECIALTY PRODUCTS WWW.hmpublis	87 223.02 Francium ALKALI METALS	132.91 Cosum 132.91	37 85.47 Rusiaum	19 39.10 Potassum	11 22,99 Sodium	5.94 Libraria	1 008 1 008	IA
publish	88 226.03 Radium 1147011 1147011	56 137.33 Barrum	38 87.62 Strondum	20 40.08	12 24.31 Magnessum	4 9.01 Beryllum	2 IIA	
ing.com	AC 39 227 03 Actinum	138.91 Lanthanum	39 88.91 Yttrium.	21 44.96 Scandium	3 IIIB			
LANTHANIDES.	104 (261) Ruirenfordum	72 178,49 Halnium	21° 40 91.22 Zirconum	22 47.88 Triantum	4 IVB	1.008 —		
58 140.12 Cerium 150 232.04	105 (262)	73 180.95	41 92.91 Niobium	23 50.94 Vanadium	S VB			
59 140.91 Pratsrodymlum 91 231.04 Probacinium	106 (263) Seaborgium	74 183.85 Tungsten	Mo 42 95.94 Molyadenum	24 52.00 Chromium	AIA 9	ATOMIC NUMBER ATOMIC WEIGHT		
14.24 Neodymlum 92 238.03 Uranlum	107 (262) Battelury	75 186.21 Rhenium	43 (97.9) Technotium	M ₁₀ 25 54.94 Manganese	7 VIIB	BER		
10 113 61 (145) Promethlum 10 93 237.05 Neptucklum	108 (265) (265)	OS 76 190.2 0smium	101,07 Rumenium	26 55.85) 00			
SID 62 150.36 Samarium Pul 94 (240) Putonium	109 (266) Methenum	77 192.22 Iridium	Rh 45 102.91 Rhodium	27 58.93 Cobalt	snin 6			
152.97 Europium 95 243.06	Unnamed Discovery 110 Nov. 1994	78 195.08 Patinum	106.42 Paladium	28 58.69 Nicket	10	()		
Gd 64 157.25 Gadolinium O 10 96 (247) Durlum	Unnamed Discovery 111 111 Nov. 1994	Au 79 196.97	A.G 47 107.87 Silver	29 83.55 Copper	II IB	= ESTIMATES		
158.93 158.93 7erblum 87 (248) 80/teflum	Unnamed Discovery 112 1996	80 S9 Nercury	Cd 48 112.41 Cadmium	Z 11 30 65,39 2mc	12 113	TES		
Dy 66 162.50 0ysprosium Cf 98 (251) Collioralum		81 204.38 Thaillium	114.82	Ga 31 69.72	13 26.98 Aluminum	5 10.81 Baran	13 IIIA	
HO 67 164.93 Holmlum FS 99 252.08 Einsteinium	Unnamed Discovery 114 1999	Pb 82 207.2	Sp 118.71	Ge 32 72.61 Germanium		12.01 Carbon	14 IVA	
68 167.26 Eiblum 100 257.10		83 208.98 Bismuth		and the state of the same	15 30.97 Phosphorus	7 Z	IS VA	
101 101 101 101 101 101 101 (257)	Unnamed Discovery 116 1999	Po 84 (209) Polonium	Te 52 127.80	Se 34 78.96 Salectum	32.07 Sultar	16.00 000 000 000	16 VIA	
70 173.04 Ytterbium 102 259.10 Nobelium	HALOGENS	A 1 85 (210) Astatine	126.90	35 79.90	35.45 Chlorine	19.00	17 VIIA	
71 174.97 Lutetium 103 262.11	Unnamed Obscovery 118 1999	86 (222) Rudon	131.29 Xenon	83.80 83.80	A. 39.95	10 20.18	4.00 Hatum	VIIIA



ONLINE CATALOG

www.nukepills.com 1-866-283-3986 info@nukepills.com



IOSAT Potassium Iodide

volume pricing available



Radiation Water Filtration Straw

\$34.99

volume pricing available

Nukepills Family

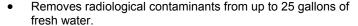
Emergency Kit

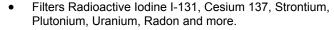
\$99.99

- FDA Approved as a nuclear radiation blocking agent
- Individually foil-sealed for single unit dosing











RADTriage Radiation Detector

\$34.99

- Potassium lodide to block radioactive iodine
- lodowash™ to decontaminate radioactive iodine
- Radiacwash™ Towelettes to decontaminate radiation



- Dept of Homeland Security (DHS) tested and approved
- Fits in wallet or badge holder
- Instant detection of dirty bomb | nuclear radiation
- Freeze it to store for up to 5 years until ready to use



Dirty Bomb Emergency Kit

\$279.99



RADPAK⁷

"Must haves" for up to 7 people \$99.99

- RADTriage™ Radiation Detectors (2)
- Special solutions and wipes for dirty bomb decontamination
- N95 face masks to block radioactive particulate matter
- 7 Iosat Potassium Iodide packs (14 130mg tabs each pack) 7 Radiacwash Towelettes
- 1 RADTriage Radiation Detector



Radiacwash **Towelettes**

\$29.99



N95 Face Masks \$29.99

- Remove radiocontamination from hands and small objects
- Individually packaged towelettes saturated in a special Radiacwash solution
- Box of 100

- NIOSH and FDA Approved
- Individually sealed to maintain freshness and integrity
- FLU protection and to block radioactive particulate matter
- 20 N95 masks per box



Iodowash **Decontamination Kit**

\$99.99

Bottles available separately

Rad Wipes

volume pricing available

- Decontaminates radioactive iodine (I-131) using special resinbased solution and Rad Wipes
- Rad Waste bag and gloves for safe cleanup

Rad Wipes prevent leakage of decontamination fluids to hands, gloves, and countertops