



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0570

Collector: RHM	RHB	Requestor: Roger Lupo	RHB
SAN ONOFRE	CA	CDPH - RHB, 1500 Capitol Av., MS 7610	
Phone Number:		Sacramento CA 95814-5006	
		Phone Number: 916-440-7955	
Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/24/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0570-01	Sample ID: R 92337	Time Collected: 10/22/2012 12:50	Sampling Point: Sediment	
	Sample Type: Soil/Sediment			
Dry Wt/Wet Wt		0.800		
K-40	HASL Ga-01-R	16.3 +/- 0.357	0.349	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 10-24-12	Lab No. (Leave Blank) 12-0570
	Date & Time Sampled 10-22-12 12:50	Serial Number R 92337
Collector Information Name: Dept./Branch: Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: Sampling Point (s): System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Groundwater	<input type="checkbox"/> Surface Water	<input type="checkbox"/> Wastewater
<input type="checkbox"/> Raw	<input type="checkbox"/> Water Treatment Plant (WTP)	<input type="checkbox"/> Distribution System	<input type="checkbox"/> Point of Use (POU)
<input type="checkbox"/> Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted			

<input type="checkbox"/> Air Filters	Date/Time _____	<input type="checkbox"/> Seawater	<input type="checkbox"/> Sludge (Semi-solid Samples)
Finishing: _____	_____	<input type="checkbox"/> Milk	<input checked="" type="checkbox"/> Soil/Sediment
Starting: _____	_____	<input type="checkbox"/> Wipes	<input type="checkbox"/> Biota (Type): _____
Net (M ³) _____		<input type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____

Air Charcoal Cartridge

COMMENTS: (Cautions, etc.): _____

Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____

Field Measurement: _____ mR/hr Radionuclide(s), if known: _____

Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

<input type="checkbox"/> Gross Alpha	<input type="checkbox"/> Gross Beta	<input type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (LSC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input type="checkbox"/> Tritium (³ H)	<input type="checkbox"/> Isotopic Americium / Curium
<input type="checkbox"/> Radium-226	<input type="checkbox"/> Carbon-14	<input type="checkbox"/> Isotopic Plutonium
<input type="checkbox"/> Radium-228	<input type="checkbox"/> Iodine-131	<input type="checkbox"/> Isotopic Thorium
<input type="checkbox"/> Radon-222	<input type="checkbox"/> Strontium-89, 90	<input type="checkbox"/> Isotopic Uranium
<input type="checkbox"/> Other (Specify): _____	<input type="checkbox"/> Nickel-63	<input type="checkbox"/> Iron-55

CHAIN OF CUSTODY

1.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____		Time Custody Released _____
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____		Time Custody Released _____
3.	Date 10-24-12	Name (Print) VA	Signature [Signature]	Date _____
	Time Custody Received 10:00	Organization DWR/LB		Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

<input type="checkbox"/> Acceptable	<input type="checkbox"/> Broken Container	<input type="checkbox"/> Leaked in Transit	<input type="checkbox"/> Improper Container
<input type="checkbox"/> Holding Time Exceeded	<input type="checkbox"/> Sample Not Cooled	<input type="checkbox"/> Insufficient Sample	

B. Preservatives/Carriers:

<input type="checkbox"/> Added While Sampling	<input type="checkbox"/> Added in Laboratory	<input type="checkbox"/> Not Added	<input type="checkbox"/> Not Applicable
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Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0510

Collector: RHM	RHB	Requestor: Roger Lupo	RHB
SAN ONOFRE CA		CDPH - RHB, 1500 Capitol Av., MS 7610	
Phone Number:		Sacramento CA 95814-5006	
		Phone Number: 916-440-7955	
Site/Project Name: San Onofre NPP / Biota / 3rd Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/10/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0510-01	Sample ID: R 92320	Time Collected: 10/9/2012 09:20	Sampling Point: San Onofre	
	Sample Type: Soil/Sediment			
Dry Wt/Wet Wt		0.7989		
K-40	EPA 901.1	20.0 +/- 0.433	0.363	pCi/g dry wt.

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911 +H	Date Received 10-10-12	Lab No. (Leave Blank) 12-0510
	Date & Time Sampled 10-9-12 9:20	Serial Number R 92320
Collector Information Name: Dept./Branch: RCFR REMP/ Address: 761 Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: San Onofre, Sampling Point (s): Laguna Beach System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

Drinking Water Groundwater Surface Water Wastewater
 Raw Water Treatment Plant (WTP) Distribution System Point of Use (POU)
 Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

Air Filters Date/Time _____ Seawater Sludge (Semi-solid Samples) *Vegetation*
 Finishing: _____ Milk Soil/Sediment
 Starting: _____ *San Onofre Laguna Beach* Wipes Biota (Type): 112 9:20
 Net (M³) _____ Radon Canister Other: _____

Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
 Field Measurement: _____ mR/hr Radionuclide(s), if known: _____
 Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

Gross Alpha Gross Beta Gamma Scan
 Total Uranium Total Beta (LSC) NORM (Gamma)
 Total Radium Tritium (³H) Isotopic Americium / Curium
 Radium-226 Carbon-14 Isotopic Plutonium
 Radium-228 Iodine-131 Isotopic Thorium
 Radon-222 Strontium-89, 90 Isotopic Uranium
 Other (Specify): _____ Nickel-63 Iron-55

CHAIN OF CUSTODY

1.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
3.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:
 Acceptable Broken Container Leaked in Transit Improper Container
 Holding Time Exceeded Sample Not Cooled Insufficient Sample

B. Preservatives/Carriers:
 Added While Sampling Added in Laboratory Not Added Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0499

Collector: RHM	RHB	Requestor: Roger Lupo	RHB
SAN ONOFRE	CA	CDPH - RHB, 1500 Capitol Av., MS 7610	
Phone Number:		Sacramento CA 95814-5006	
		Phone Number: 916-440-7955	
Site/Project Name: San Onofre NPP / Sediment / 4th Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/5/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0499-01	Sample ID: R 92312 Sample Type: Soil/Sediment	Time Collected: 10/3/2012 15:55	Sampling Point: Sediment, SONGS	
Dry Wt/Wet Wt		0.7445		
K-40	HASL Ga-01-R	14.3 +/- 0.334	0.396	pCi/g dry wt

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 RADIOLOGIC HEALTH BRANCH
 RICHMOND

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

2538

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 10-5-12	Lab No. (Leave Blank) 12-0499
	Date & Time Sampled 10-3-12 15:55	Serial Number R 92312
Collector Information Name: Dept./Branch: Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: Sampling Point (s): System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- Drinking Water Groundwater Surface Water Wastewater
 - Raw Water Treatment Plant (WTP) Distribution System Point of Use (POU)
 - Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
-
- Air Filters Date/Time Seawater Sludge (Semi-solid Samples)
 - Finishing: _____ _____ Milk Soil/Sediment
 - Starting: _____ _____ Wipes Biota (Type): _____
 - Net (M³) _____ _____ Radon Canister Other: _____
 - Air Charcoal Cartridge

COMMENTS: (Cautions, etc.): _____

- Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
- Field Measurement: _____ mR/hr Radionuclide(s), if known: _____
- Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- Gross Alpha Gross Beta Gamma Scan
- Total Uranium Total Beta (LSC) NORM (Gamma)
- Total Radium Tritium (³H) Isotopic Americium / Curium
- Radium-226 Carbon-14 Isotopic Plutonium
- Radium-228 Iodine-131 Isotopic Thorium
- Radon-222 Strontium-89, 90 Isotopic Uranium
- Other (Specify): _____ Nickel-63 Iron-55

CHAIN OF CUSTODY

1.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
3.	Date 10-5-12	Name (Print) UA	Signature <i>[Signature]</i>	Date _____
	Time Custody Received 11:15	Organization DWR/13	Signature _____	Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
- Acceptable Broken Container Leaked in Transit Improper Container
 - Holding Time Exceeded Sample Not Cooled Insufficient Sample
- B. Preservatives/Carriers:**
- Added While Sampling Added in Laboratory Not Added Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0500

Collector: RHM	RHB	Requestor: Roger Lupo	RHB
SAN ONOFRE	CA	CDPH - RHB, 1500 Capitol Av., MS 7610	
Phone Number:		Sacramento CA 95814-5006	
Site/Project Name: San Onofre NPP / Sediment / SONGS D		Phone Number: 916-440-7955	
System No:	Billing Agency: RHB	Samples Received by Lab: 10/5/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0500-01	Sample ID: R 92313 Sample Type: Soil/Sediment	Time Collected: 10/3/2012 15:30	Sampling Point: Sediment, SONGS D	
Dry Wt/Wet Wt		0.7927		
K-40	HASL Ga-01-R	18.3 +/- 0.403	0.402	pCi/g dry wt

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 RADIOLOGIC HEALTH BRANCH
 RICHMOND

- (1) Precision criteria for these method were determined to be acceptable.
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- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 10-5-12	Lab No. (Leave Blank) 12-0500
	Date & Time Sampled 10-3-12 15:30	Serial Number R 92313
Collector Information Name: Dept./Branch: Address: RHM Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: San Onofre / Sampling Point (s): Soup D System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- Drinking Water Groundwater Surface Water Wastewater
 - Raw Water Treatment Plant (WTP) Distribution System Point of Use (POU)
 - Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
-
- Air Filters Date/Time Seawater Sludge (Semi-solid Samples)
 - Finishing: _____ _____ Milk Soil/Sediment
 - Starting: _____ _____ Wipes Biota (Type): _____
 - Net (M³) _____ _____ Radon Canister Other: _____
 - Air Charcoal Cartridge

COMMENTS: (Cautions, etc.): _____

- Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
- Field Measurement: _____ mR/hr Radionuclide(s), if known: _____
- Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- Gross Alpha Gross Beta Gamma Scan
- Total Uranium Total Beta (LSC) NORM (Gamma)
- Total Radium Tritium (³H) Isotopic Americium / Curium
- Radium-226 Carbon-14 Isotopic Plutonium
- Radium-228 Iodine-131 Isotopic Thorium
- Radon-222 Strontium-89, 90 Isotopic Uranium
- Other (Specify); _____ Nickel-63 Iron-55

CHAIN OF CUSTODY

1.	Date _____	Name (Print) _____	_____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
2.	Date _____	Name (Print) _____	_____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
3.	Date _____	Name (Print) _____	_____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
- Acceptable Broken Container Leaked in Transit Improper Container
 - Holding Time Exceeded Sample Not Cooled Insufficient Sample
- B. Preservatives/Carriers:**
- Added While Sampling Added in Laboratory Not Added Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0501

Collector: RHM	RHB	Requestor: Roger Lupo	RHB
SAN ONOFRE	CA	CDPH - RHB, 1500 Capitol Av., MS 7610	
Phone Number:		Sacramento CA 95814-5006	
		Phone Number: 916-440-7955	
Site/Project Name: San Onofre NPP / Sediment / 4th Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/5/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0501-01	Sample ID: R 92314 Sample Type: Soil/Sediment	Time Collected: 10/3/2012 14:25	Sampling Point: Sediment, SONGS F	
Dry Wt/Wet Wt		0.7572		
K-40	HASL Ga-01-R	14.7 +/- 0.334	0.365	pCi/g dry wt

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 2012 OCT 18 PM 1:40
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 RICHMOND

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 10-5-12	Lab No. (Leave Blank) 12-0501
	Date & Time Sampled 10-3-12 1425	Serial Number R 92314
Collector Information Name: Dept./Branch: RHM Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: San Onofre, Sampling Point (s): Song F System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- | | | | |
|---|--|--|--|
| <input type="checkbox"/> Drinking Water | <input type="checkbox"/> Groundwater | <input type="checkbox"/> Surface Water | <input type="checkbox"/> Wastewater |
| <input type="checkbox"/> Raw | <input type="checkbox"/> Water Treatment Plant (WTP) | <input type="checkbox"/> Distribution System | <input type="checkbox"/> Point of Use (POU) |
| <input type="checkbox"/> Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted | | | |
| <input type="checkbox"/> Air Filters | Date/Time | <input type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input type="checkbox"/> Milk | <input checked="" type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): _____ |
| Net (M ³) _____ | | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.): _____

- Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: **120500**
- Field Measurement: _____ mR/hr Radionuclide(s), if known: _____
- Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (LSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89, 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

1.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____		Time Custody Released _____
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____		Time Custody Released _____
3.	Date 10-5-12	Name (Print) UA	Signature [Signature]	Date _____
	Time Custody Received 11:15	Organization DWR RB	Signature [Signature]	Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Acceptable | <input type="checkbox"/> Broken Container | <input type="checkbox"/> Leaked in Transit | <input type="checkbox"/> Improper Container |
| <input type="checkbox"/> Holding Time Exceeded | <input type="checkbox"/> Sample Not Cooled | <input type="checkbox"/> Insufficient Sample | |
- B. Preservatives/Carriers:**
- | | | | |
|---|--|------------------------------------|---|
| <input type="checkbox"/> Added While Sampling | <input type="checkbox"/> Added in Laboratory | <input type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |
|---|--|------------------------------------|---|



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0081

Collector: RHM	RHB	Requestor: Steve Hsu	RHB
SAN ONOFRE CA		1500 Capitol Avenue, MS 7610	
Phone Number:		Sacramento CA 95814-5006	
		Phone Number: 916-440-7940	
Site/Project Name: SONPP / Unit 2 Outfall / 2nd Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/26/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0081-01	Sample ID: R 91972	Time Collected: 4/24/2012 16:10	Sampling Point: Sediment	
	Sample Type: Soil/Sediment			
Dry Wt/Wet Wt		0.7664		
K-40	HASL Ga-01-R	15.1 +/- 0.332	0.263	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
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REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received <i>4-26-12</i>	Lab No. (Leave Blank) <i>12-0081</i>
	Date & Time Sampled <i>4-24-12 16:10</i>	Serial Number <i>R 91972</i>
Collector Information Name: Dept./Branch: <i>RHM</i> Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: <i>San Onofre</i> Sampling Point (s): <i>Unit 2 Outfall</i> System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- Drinking Water Groundwater Surface Water Wastewater
 - Raw Water Treatment Plant (WTP) Distribution System Point of Use (POU)
 - Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
-
- Air Filters Date/Time Seawater Sludge (Semi-solid Samples)
 - Finishing: _____ _____ Milk Soil/Sediment
 - Starting: _____ _____ Wipes Biota (Type): _____
 - Net (M³) _____ _____ Radon Canister Other: _____
 - Air Charcoal Cartridge

COMMENTS: (Cautions, etc.): _____

- Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
- Field Measurement: _____ mR/hr Radionuclide(s), if known: _____
- Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- Gross Alpha Gross Beta Gamma Scan
- Total Uranium Total Beta (LSC) NORM (Gamma)
- Total Radium Tritium (³H) Isotopic Americium / Curium
- Radium-226 Carbon-14 Isotopic Plutonium
- Radium-228 Iodine-131 Isotopic Thorium
- Radon-222 Strontium-89, 90 Isotopic Uranium
- Other (Specify): _____ Nickel-63 Iron-55

CHAIN OF CUSTODY

1.	Date _____	Name (Print) _____	_____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
2.	Date _____	Name (Print) _____	_____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
3.	Date <i>4-26-12</i>	Name (Print) <i>UA</i>	_____	Date _____
	Time Custody Received <i>10:00</i>	Organization <i>DWR/LB</i>	Signature <i>Vuloria M. Ali</i>	Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
- Acceptable Broken Container Leaked in Transit Improper Container
 - Holding Time Exceeded Sample Not Cooled Insufficient Sample
- B. Preservatives/Carriers:**
- Added While Sampling Added in Laboratory Not Added Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0082

Collector: RHM	RHB	Requestor: Steve Hsu	RHB
SAN ONOFRE	CA	1500 Capitol Avenue, MS 7610	
Phone Number:		Sacramento CA 95814-5006	
Site/Project Name: SONPP / Unit 3 Outfall / 2nd Qtr 2012		Phone Number: 916-440-7940	
System No:	Billing Agency: RHB	Samples Received by Lab: 4/26/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0082-01	Sample ID: R 91973	Time Collected: 4/24/2012 15:45	Sampling Point: Sediment	
	Sample Type: Soil/Sediment			
Dry Wt/Wet Wt		0.7533		
K-40	HASL Ga-01-R	17.8 +/- 0.384	0.312	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 4-26-12	Lab No. (Leave Blank) 12-0042
	Date & Time Sampled 4-24-12 15:45	Serial Number R 91973
Collector Information Name: Dept./Branch: RHM Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: San Onofre Sampling Point (s): Unit 3 Outfall System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

Drinking Water Groundwater Surface Water Wastewater
 Raw Water Treatment Plant (WTP) Distribution System Point of Use (POU)
 Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

Air Filters Date/Time _____ Seawater Sludge (Semi-solid Samples)
 Finishing: _____ Milk Soil/Sediment
 Starting: _____ Wipes Biota (Type): _____
 Net (M³) _____ Radon Canister Other: _____
 Air Charcoal Cartridge

COMMENTS: (Cautions, etc.): _____

Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
 Field Measurement: _____ mR/hr Radionuclide(s), if known: _____
 Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

Gross Alpha Gross Beta Gamma Scan
 Total Uranium Total Beta (LSC) NORM (Gamma)
 Total Radium Tritium (³H) Isotopic Americium / Curium
 Radium-226 Carbon-14 Isotopic Plutonium
 Radium-228 Iodine-131 Isotopic Thorium
 Radon-222 Strontium-89, 90 Isotopic Uranium
 Other (Specify): _____ Nickel-63 Iron-55

CHAIN OF CUSTODY

1.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
3.	Date 4-26-12	Name (Print) VA	Signature [Signature]	Date _____
	Time Custody Received 10:00	Organization DWR/CRB	Signature _____	Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:
 Acceptable Broken Container Leaked in Transit Improper Container
 Holding Time Exceeded Sample Not Cooled Insufficient Sample

B. Preservatives/Carriers:
 Added While Sampling Added in Laboratory Not Added Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0080

Collector: RHM	RHB	Requestor: Steve Hsu	RHB
		1500 Capitol Avenue, MS 7610	
SAN ONOFRE	CA	Sacramento	CA 95814-5006
Phone Number:		Phone Number:	916-440-7940
Site/Project Name: SONPP / Unit 1 Ourfall / 2nd Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/26/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0080-01	Sample ID: R 91971	Time Collected: 4/24/2012 15:20	Sampling Point: Sediment	
	Sample Type: Soil/Sediment			
Dry Wt/Wet Wt		0.8086		
K-40	HASL Ga-01-R	14.3 +/- 0.316	0.274	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 4-26-12	Lab No. (Leave Blank) 12-0080
	Date & Time Sampled 4-24-12 15:20	Serial Number R 91971
Collector Information Name: Dept./Branch: RHM Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: San Onofre Sampling Point (s): unit 1 outfall System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- | | | | |
|---|--|--|--|
| <input type="checkbox"/> Drinking Water | <input type="checkbox"/> Groundwater | <input type="checkbox"/> Surface Water | <input type="checkbox"/> Wastewater |
| <input type="checkbox"/> Raw | <input type="checkbox"/> Water Treatment Plant (WTP) | <input type="checkbox"/> Distribution System | <input type="checkbox"/> Point of Use (POU) |
| <input type="checkbox"/> Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted | | | |
| <input type="checkbox"/> Air Filters | Date/Time | <input type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input type="checkbox"/> Milk | <input checked="" type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): _____ |
| Net (M ³) _____ | | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.): _____

- Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
- Field Measurement: _____ mR/hr Radionuclide(s), if known: _____
- Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (LSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input type="checkbox"/> Tritium (³ H) | <input type="checkbox"/> Isotopic Americium / Curium |
| <input type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input type="checkbox"/> Radium-228 | <input type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-89, 90 | <input type="checkbox"/> Isotopic Uranium |
| <input type="checkbox"/> Other (Specify): _____ | <input type="checkbox"/> Nickel-63 | <input type="checkbox"/> Iron-55 |

CHAIN OF CUSTODY

1.	Date _____	Name (Print) _____	_____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
2.	Date _____	Name (Print) _____	_____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
3.	Date 4-26-12	Name (Print) VA	_____	Date _____
	Time Custody Received 10:00	Organization DWR/B	Signature Victoria M. Ah	Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Acceptable | <input type="checkbox"/> Broken Container | <input type="checkbox"/> Leaked in Transit | <input type="checkbox"/> Improper Container |
| <input type="checkbox"/> Holding Time Exceeded | <input type="checkbox"/> Sample Not Cooled | <input type="checkbox"/> Insufficient Sample | |
- B. Preservatives/Carriers:**
- | | | | |
|---|--|------------------------------------|---|
| <input type="checkbox"/> Added While Sampling | <input type="checkbox"/> Added in Laboratory | <input type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |
|---|--|------------------------------------|---|



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0083

Collector: RHM	RHB	Requestor: Steve Hsu	RHB
SAN ONOFRE	CA	1500 Capitol Avenue, MS 7610	
Phone Number:		Sacramento CA 95814-5006	
		Phone Number: 916-440-7940	
Site/Project Name: SONPP / Upcoast / 2nd Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/26/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0083-01	Sample ID: R 91974	Time Collected: 4/24/2012 14:35	Sampling Point: Sediment	
	Sample Type: Soil/Sediment			
Dry Wt/Wet Wt		0.7341		
K-40	HASL Ga-01-R	15.4 +/- 0.350	0.413	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 4-26-12	Lab No. (Leave Blank) 12-0083
	Date & Time Sampled 4-24-12 14:35	Serial Number R 91974
Collector Information Name: Dept./Branch: RHM Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: Sau Onofre Sampling Point (s): Songs Upcoast System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

Drinking Water Groundwater Surface Water Wastewater
 Raw Water Treatment Plant (WTP) Distribution System Point of Use (POU)
 Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

Air Filters Date/Time _____ Seawater Sludge (Semi-solid Samples)
 Finishing: _____ Milk Soil/Sediment
 Starting: _____ Wipes Biota (Type): **Sediment**
 Net (M³) _____ Radon Canister Other: _____
 Air Charcoal Cartridge

COMMENTS: (Cautions, etc.): _____

Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
 Field Measurement: _____ mR/hr Radionuclide(s), if known: _____
 Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

Gross Alpha Gross Beta Gamma Scan
 Total Uranium Total Beta (LSC) NORM (Gamma)
 Total Radium Tritium (³H) Isotopic Americium / Curium
 Radium-226 Carbon-14 Isotopic Plutonium
 Radium-228 Iodine-131 Isotopic Thorium
 Radon-222 Strontium-89, 90 Isotopic Uranium
 Other (Specify); _____ Nickel-63 Iron-55

CHAIN OF CUSTODY

1.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
3.	Date 4-26-12	Name (Print) JA	Signature [Signature]	Date _____
	Date 10:00	Name (Print) DWRLB	Signature [Signature]	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:
 Acceptable Broken Container Leaked in Transit Improper Container
 Holding Time Exceeded Sample Not Cooled Insufficient Sample

B. Preservatives/Carriers:
 Added While Sampling Added in Laboratory Not Added Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 12-0043

Collector: RHM	RHB	Requestor: Steve Hsu	RHB
		1500 Capitol Avenue, MS 7610	
SAN ONOFRE	CA	Sacramento	CA 95814-5006
Phone Number:		Phone Number:	916-440-7940
Site/Project Name: San Onofre NPP / Biota / 2nd Qtr 2012			
System No:	Billing Agency:	Samples Received by Lab: 4/12/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0043-01	Sample ID: R 92675 Sample Type: Soil/Sediment	Time Collected: 4/10/2012 10:00	Sampling Point: Sediment / SONGS C	
Dry Wt/Wet Wt		0.7529		
K-40	HASL Ga-01-R	19.3 +/- 0.422	0.234	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911	Date Received 4-12-12	Lab No. (Leave Blank) 12-0043
	Date & Time Sampled 4-10-12 10:00	Serial Number R 92675
Collector Information Name: Dept./Branch: Address: RHM Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: Sampling Point (s): Songs C System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

- Drinking Water Groundwater Surface Water Wastewater
 - Raw Water Treatment Plant (WTP) Distribution System Point of Use (POU)
 - Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
-
- Air Filters Date/Time Seawater Sludge (Semi-solid Samples)
 - Finishing: _____ _____ Milk Soil/Sediment
 - Starting: _____ _____ Wipes Biota (Type): _____
 - Net (M³) _____ Radon Canister Other: _____
 - Air Charcoal Cartridge

COMMENTS: (Cautions, etc.): _____

- Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: _____
- Field Measurement: _____ mR/hr Radionuclide(s), if known: _____
- Rush/Priority (should be prearranged and have supervisory approval)

ANALYSIS REQUESTED (For questions, please call 510-620-2911)

- Gross Alpha Gross Beta Gamma Scan
- Total Uranium Total Beta (LSC) NORM (Gamma)
- Total Radium Tritium (³H) Isotopic Americium / Curium
- Radium-226 Carbon-14 Isotopic Plutonium
- Radium-228 Iodine-131 Isotopic Thorium
- Radon-222 Strontium-89, 90 Isotopic Uranium
- Other (Specify): _____ Nickel-63 Iron-55

CHAIN OF CUSTODY

1.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____		Time Custody Released _____
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____		Time Custody Released _____
3.	Date 4-12-12	Name (Print) UA	Signature Victoria M. Ali	Date _____
	Time Custody Received 11:00	Organization DWRLB		Time Custody Released _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
- Acceptable Broken Container Leaked in Transit Improper Container
 - Holding Time Exceeded Sample Not Cooled Insufficient Sample
- B. Preservatives/Carriers:**
- Added While Sampling Added in Laboratory Not Added Not Applicable