



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. 12-0573

Collector: Alan Rook	RHB	Requestor: Roger Lupo	RHB
500 S Kreamer Blvd., Suite 235		CDPH - RHB, 1500 Capitol Av., MS 7610	
Brea CA 92821		Sacramento CA 95814-5006	
Phone Number: 714-524-1880		Phone Number: 916-440-7955	
Site/Project Name: San Onofre NPP / Vista Vegetable Farm / 4th Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/25/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0573-01	Sample ID: R 93001 Sample Type: Vegetation	Time Collected: 10/22/2012 10:20	Sampling Point: #2, Lettuce	
Dry Wt/Wet Wt		0.06362		
K-40	HASL Ga-01-R	170 +/- 4.00	5.65	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 10-25-12	Lab No. (Leave Blank) 12-0573
	Date & Time Sampled 10-22-12 10:20	Serial Number R 93001
Collector Information Name: ALAN ROOK Dept./Branch: RHB BREA Address: Telephone No.: (714) 524-1880	Reporting Information Name: ROGER LUPO Dept./Branch: RHB SACRAMENTO Address: Telephone No.: (916) 440-7955	
Sample Information System Name / Facility: SAMPLE # 2 Sampling Point (s): VISTA VEGETABLE FARM System No.:	Billing Agency RAU <input type="checkbox"/> DWFOB () <input checked="" 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
- Raw
- Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted
- Groundwater
- Water Treatment Plant (WTP)
- Surface Water
- Distribution System
- Wastewater
- Point of Use (POU)
- Air Filters
- Finishing: _____ Date/Time: _____
- Starting: 10/22/2012 1020
- Net (M³): _____
- Air Charcoal Cartridge
- Seawater
- Milk
- Wipes
- Radon Canister
- Sludge (Semi-solid Samples)
- Soil/Sediment
- Biota (Type): LOCAL CROP
- Other: celtace

COMMENTS: (Cautions, etc.):

LEAF LETUCE

- Field Treatment: Preservatives added: NONE Iced/Frozen: NA Other: NA
- Field Measurement: ϕ.2 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
- Total Uranium
- Total Radium
- Radium-226
- Radium-228
- Radon-222
- Other (Specify): _____
- Gross Beta
- Total Beta (LSC)
- Tritium (³H)
- Carbon-14
- Iodine-131
- Strontium-89, 90
- Nickel-63
- Gamma Scan
- NORM (Gamma)
- Isotopic Americium / Curium
- Isotopic Plutonium
- Isotopic Thorium
- Isotopic Uranium
- Iron-55

CHAIN OF CUSTODY

1.	Date: 10/22/2012 Time Custody Received: 1020	Name (Print): ALAN ROOK Organization: RHB BREA	Signature:	Date: 10/22/2012 Time Custody Released: 1700
2.	Date: _____ Time Custody Received: _____	Name (Print): _____ Organization: _____	Signature: _____	Date: _____ Time Custody Released: _____
3.	Date: 10-25-12 Time Custody Received: 3:30	Name (Print): VA Organization: DWRLB	Signature:	Date: _____ Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:
- Acceptable
 - Holding Time Exceeded
 - Broken Container
 - Sample Not Cooled
 - Leaked in Transit
 - Insufficient Sample
 - Improper Container
- 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. 12-0571

Collector: Alan Rook	RHB	Requestor: Roger Lupo	RHB
500 S Kreamer Blvd., Suite 235		CDPH - RHB, 1500 Capitol Av., MS 7610	
Brea CA 92821		Sacramento CA 95814-5006	
Phone Number: 714-524-1880		Phone Number: 916-440-7955	
Site/Project Name: San Onofre NPP / Vista Vegetable Farm / 4th Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/25/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0571-01	Sample ID: R 93002	Time Collected: 10/22/2012 10:25	Sampling Point: #2, Tomatoes	
	Sample Type: Vegetation			
Dry Wt/Wet Wt		0.04086		
K-40	HASL Ga-01-R	39.6 +/- 1.14	2.43	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 <u>10-25-12</u>	Lab No. (Leave Blank) <u>12-0571</u>
	Date & Time Sampled <u>10-22-12 10:25</u>	Serial Number <u>R 93002</u>
Collector Information Name: <u>ALAN ROOK</u> Dept./Branch: <u>RHB BREA</u> Address: Telephone No.: <u>(714) 524-1880</u>	Reporting Information Name: <u>ROGER WPO</u> Dept./Branch: <u>RHB SACRAMENTO</u> Address: Telephone No.: <u>(916) 440-7955</u>	
Sample Information System Name / Facility: <u>SAMPLE # 2</u> Sampling Point (s): <u>VISTA VEGETABLE FARM</u> System No.:	Billing Agency <u>RAU</u> <input type="checkbox"/> DWFOB () <input checked="" 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 / Peroxizone / 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 type="checkbox"/> Soil/Sediment
Starting: <u>10/22/2012</u>	<u>1025</u>	<input type="checkbox"/> Wipes	<input checked="" type="checkbox"/> Biota (Type): <u>LOCAL CROP</u>
Net (M ³)		<input type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.): TOMATOES (FLESHY VEGETABLE)

Field Treatment: Preservatives added: NONE Iced/Frozen: NA Other: NA

Field Measurement: < 0.2 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 checked="" type="checkbox"/> Gross Alpha	<input checked="" type="checkbox"/> Gross Beta	<input checked="" 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 checked="" 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. <u>10/22/2012</u> Date	<u>ALAN ROOK</u> Name (Print)	<u>[Signature]</u> Signature	<u>10/22/2012</u> Date
<u>1025</u> Time Custody Received	<u>RHB BREA</u> Organization		<u>1700</u> Time Custody Released
2. _____ Date	_____ Name (Print)	_____ Signature	_____ Date
_____ Time Custody Received	_____ Organization		_____ Time Custody Released
3. <u>10-25-12</u> Date	<u>VA</u> Name (Print)	<u>[Signature]</u> Signature	_____ Date
<u>3:30</u> Time Custody Received	<u>DWR LB</u> Organization		_____ 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. 12-0572

Collector: Alan Rook	RHB	Requestor: Roger Lupo	RHB
500 S Kreamer Blvd., Suite 235		CDPH - RHB, 1500 Capitol Av., MS 7610	
Brea CA 92821		Sacramento CA 95814-5006	
Phone Number: 714-524-1880		Phone Number: 916-440-7955	
Site/Project Name: San Onofre NPP / SONGS Garden / 4th Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/25/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0572-01	Sample ID: R 93000 Sample Type: Vegetation	Time Collected: 10/22/2012 09:00	Sampling Point: #6, Spinech	
Dry Wt/Wet Wt		0.08276		
K-40	HASL Ga-01-R	37.0 +/- 0.826	0.669	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 aquare 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 <u>10-25-12</u>	Lab No. (Leave Blank) <u>12-0572</u>
	Date & Time Sampled <u>10-22-12 9:00</u>	Serial Number <u>R 93000</u>
Collector Information Name: <u>ALAN ROOK</u> Dept./Branch: <u>RHB BREA</u> Address: Telephone No.: <u>(714) 524-1880</u>	Reporting Information Name: <u>ROGER WUP</u> Dept./Branch: <u>RHB SACRAMENTO</u> Address: Telephone No.: <u>(916) 440-7955</u>	
Sample Information System Name / Facility: <u>SONGS GARDEN</u> Sampling Point (s): <u>SAMPLE # 6</u> System No.: <u>(INDICATOR)</u>	Billing Agency <u>TRAU</u> <input type="checkbox"/> DWFOB () <input checked="" 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 type="checkbox"/> Soil/Sediment |
| Starting: <u>10/22/2012</u> | <u>09:00</u> | <input type="checkbox"/> Wipes | <input checked="" type="checkbox"/> Biota (Type): <u>LOCAL CROP</u> |
| Net (M ³) | | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: <u>spinach</u> |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

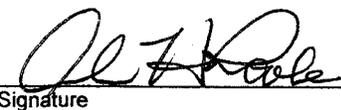
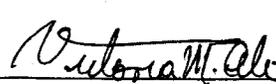
COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: NONE Iced/Frozen: NA Other: NA
- Field Measurement: < 0.2 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 checked="" type="checkbox"/> Gross Alpha | <input checked="" type="checkbox"/> Gross Beta | <input checked="" 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 checked="" 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 <u>10/22/2012</u>	Name (Print) <u>ALAN ROOK</u>		Date <u>10/22/2012</u>
	Time Custody Received <u>09:00</u>	Organization <u>RHB BREA</u>	Signature 	Time Custody Released <u>17:00</u>
2.	Date	Name (Print)	Signature	Date
	Time Custody Received	Organization	Signature	Time Custody Released
3.	Date <u>10-25-12</u>	Name (Print) <u>VA</u>	Signature	Date
	Time Custody Received <u>3:30</u>	Organization <u>DWR LB</u>	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

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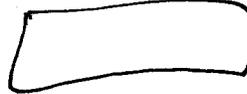
FINAL Analysis Results Report for Task ID. 12-0549

Collector: Wayne Dossett	RHB	Requestor: Roger Lupo	RHB
MBC Applied Environmental Sciences, 30		CDPH - RHB, 1500 Capitol Av., MS 7610	
Costa Mesa CA 92626		Sacramento CA 95814-5006	
Phone Number: 714-850-4830		Phone Number: 916-440-7955	
Site/Project Name: SONGS F / Biota / 4th Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/17/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0549-01	Sample ID: R 92329	Time Collected: 10/15/2012	Sampling Point: Kelp	
	Sample Type: Vegetation			

K-40	EPA 901.1	52.3 +/- 1.19	1.37	pCi/L
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Dry wt/Wet 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 10-17-12	Lab # (Leave Blank) 12549
	Date & Time Sampled 10-15-12 ?	Serial Number R 92329
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): Kelp
 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)

<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 _____	Signature _____	Time Custody Released _____
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____	Signature _____	Time Custody Released _____
3.	Date <u>10-17-12</u>	Name (Print) <u>UA</u>	Signature <u>Nature M. Oli</u>	Date _____
	Time Custody Received <u>10:30</u>	Organization <u>DWRLB</u>	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
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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. 12-0548

Collector: Wayne Dossett MBC Applied Environmental Sciences, 30 Costa Mesa CA 92626 Phone Number: 714-850-4830	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: SONGS I / Biota / 4th Qtr 2012			
System No:		Billing Agency: RHB	Samples Received by Lab: 10/17/2012

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0548-01	Sample ID: R 92328	Time Collected: 10/15/2012 09:35	Sampling Point: Kelp	
	Sample Type: Vegetation			
Dry Wt/Wet Wt		0.2604		
K-40	HASL Ga-01-R	34.5 +/- 0.815	0.988	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 <i>10-17-12</i>	Lab No. (Leave Blank) <i>12-05481</i>
	Date & Time Sampled <i>10-15-12 9:35</i>	Serial Number <i>R 92328</i>
Collector Information Name: Dept./Branch: Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: Sampling Point (s): <i>Songs + I</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): *Kelp*
 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 <i>10-17-12</i>	Name (Print) <i>UA</i>	Signature <i>Victoria M. Ch...</i>	Date _____
	Time Custody Received <i>10:30</i>	Organization <i>DWR/B</i>	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. 12-0547

Collector: Wayne Dossett MBC Applied Environmental Sciences, 30 Costa Mesa CA 92626 Phone Number: 714-850-4830	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: SONGS H / Biota / 4th Qtr 2012			
System No:		Billing Agency: RHB	Samples Received by Lab: 10/17/2012

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0547-01	Sample ID: R 92327 Sample Type: Vegetation	Time Collected: 10/15/2012 09:21	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.2080		
K-40	HASL Ga-01-R	38.8 +/- 0.940	1.22	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 10-17-12	Lab No. (Leave Blank) 12-0547
	Date & Time Sampled 10-15-12 9:21	Serial Number R 92327
Collector Information Name: Dept./Branch: Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: Sampling Point (s): Soung H 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 type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): Kelp |
| 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) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____		Time Custody Released _____
2.	Date _____	Name (Print) _____	Signature _____	Date _____
	Time Custody Received _____	Organization _____		Time Custody Released _____
3.	Date 10-17-12	Name (Print) VA	Signature [Signature]	Date _____
	Time Custody Received 10:30	Organization DWRLB		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. 12-0546

Collector: Wayne Dossett MBC Applied Environmental Sciences, 30 Costa Mesa CA 92626 Phone Number: 714-850-4830	RHB	Requestor: Roger Lupo CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento CA 95814-5006 Phone Number: 916-440-7955	RHB
Site/Project Name: SONGS G / Biota / 4th Qtr 2012		Samples Received by Lab: 10/17/2012	
System No:	Billing Agency: RHB		

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0546-01	Sample ID: R 92326 Sample Type: Vegetation	Time Collected: 10/15/2012 14:18	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.2370		
K-40	HASL Ga-01-R	53.2 +/- 1.22	1.29	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 10-17-12	Lab No. (Leave Blank) 12-0546
	Date & Time Sampled 10-15-12 14:18	Serial Number R 92326
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): Vegetation
 - 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)

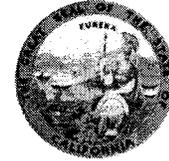
- Gross Alpha Gross Beta Gamma Scan
- Total Uranium Total Beta (LSC) NORM (Gamma)
- Total Radium Tritium (³H) Isotopic Americium / Curium
- Radium-226 Carbon-14 Isotopic Plutonium
- Radium-228 Iodine-131 Isotopic Thorium
- Radon-222 Strontium-89, 90 Isotopic Uranium
- Other (Specify): _____ Nickel-63 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 <u>10-17-12</u>	Name (Print) <u>VA</u>	_____	Date _____
	Date <u>10:30</u>	Name (Print) <u>DWR LB</u>	Signature <u>Victoria M. Al...</u>	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. 12-0542

Collector: Wayne Dossett	RHB	Requestor: Roger Lupo	RHB
MBC Applied Environmental Sciences, 30		CDPH - RHB, 1500 Capitol Av., MS 7610	
Costa Mesa CA 92626		Sacramento CA 95814-5006	
Phone Number: 714-850-4830		Phone Number: 916-440-7955	
Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/17/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0542-01	Sample ID: R 92330	Time Collected: 10/15/2012 10:16	Sampling Point: Vegetation	
	Sample Type: Vegetation			
Dry Wt/Wet Wt		0.2321		
K-40	HASL Ga-01-R	44.6 +/- 1.02	1.01	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 10-17-12	Lab No. (Leave Blank) 12-0542
	Date & Time Sampled 10-15-12 10:16	Serial Number R 92330
Collector Information Name: Dept./Branch: SS/WTD Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: Sampling Point (s): Soups A 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): **Vegetation**
- 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 10-17-12	Name (Print) UA	_____	Date _____
	Date 10:30	Name (Print) DWR LB	Signature Victoria M. [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. 12-0543

Collector: Wayne Dossett	RHB	Requestor: Roger Lupo	RHB
MBC Applied Environmental Sciences, 30		CDPH - RHB, 1500 Capitol Av., MS 7610	
Costa Mesa CA 92626		Sacramento CA 95814-5006	
Phone Number: 714-850-4830		Phone Number: 916-440-7955	
Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/17/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0543-01	Sample ID: R 92331	Time Collected: 10/15/2012 09:53	Sampling Point: Vegetation	
	Sample Type: Vegetation			
Dry Wt/Wet Wt		0.2057		
K-40	HASL Ga-01-R	56.5 +/- 1.25	0.955	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 10-17-12	Lab No. (Leave Blank) 12-0543
	Date & Time Sampled 10-15-12 9:53	Serial Number R 92331
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): Vegetation
 - 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 <u>10-17-12</u>	Name (Print) <u>VA</u>	Signature <u>[Signature]</u>	Date _____
	Date <u>10:30</u>	Name (Print) <u>DWRLB</u>	Signature _____	Date _____
	Time Custody Received _____	Organization _____		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. 12-0544

Collector: Wayne Dossett	RHB	Requestor: Roger Lupo	RHB
MBC Applied Environmental Sciences, 30		CDPH - RHB, 1500 Capitol Av., MS 7610	
Costa Mesa CA 92626		Sacramento CA 95814-5006	
Phone Number: 714-850-4830		Phone Number: 916-440-7955	
Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/17/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0544-01	Sample ID: R 92332	Time Collected: 10/15/2012 10:43	Sampling Point: Vegetation	
	Sample Type: Biota			
Dry Wt/Wet Wt		0.2177		
K-40	HASL Ga-01-R	41.6 +/- 0.959	1.18	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 10-17-12	Lab No. (Leave Blank) 12-0544
	Date & Time Sampled 10-15-12 12:10:43	Serial Number R 92332
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 checked="" type="checkbox"/> Air Filters | Date/Time | <input type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input type="checkbox"/> Milk | <input type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): <u>Vegetation</u> |
| 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)

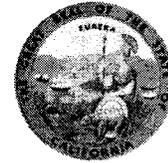
- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (LSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <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 <u>10-17-12</u>	Name (Print) <u>UA</u>	_____	Date _____
	Time Custody Received <u>10:30</u>	Organization <u>DWR LB</u>	Signature <u>[Signature]</u>	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. 12-0545

Collector: Wayne Dossett	RHB	Requestor: Roger Lupo	RHB
MBC Applied Environmental Sciences, 30		CDPH - RHB, 1500 Capitol Av., MS 7610	
Costa Mesa CA 92626		Sacramento CA 95814-5006	
Phone Number: 714-850-4830		Phone Number: 916-440-7955	
Site/Project Name: San Onofre NPP / Biota / 4th Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 10/17/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0545-01	Sample ID: R 92333 Sample Type: Vegetation	Time Collected: 10/15/2012 08:34	Sampling Point: Vegetation	
Dry Wt/Wet Wt		0.2762		
K-40	HASL Ga-01-R	45.9 +/- 1.05	1.02	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 10-17-12	Lab No. (Leave Blank) 12-0545
	Date & Time Sampled 10-15-12 8:34	Serial Number R 92333
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): Vegetation
 - 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 <u>10-17-12</u>	Name (Print) <u>UA</u>	Signature <u>[Signature]</u>	Date _____
	Date <u>10-30</u>	Name (Print) <u>DWR/LB</u>	Signature _____	Date _____
	Time Custody Received _____	Organization _____		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. 12-0065

Collector: RHM	RHB	Requestor: Steve Hsu	RHB
SAN ONOFRE CA		1500 Capitol Avenue, MS 7610	
Phone Number:		Sacramento CA 95814-5006	
Site/Project Name: San Onofre NPP		Phone Number: 916-440-7940	
System No:	Billing Agency: RHB	Samples Received by Lab: 4/18/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0065-01	Sample ID: R 91963 Sample Type: Vegetation	Time Collected: 4/16/2012 11:40	Sampling Point: Barn Kelp	
Dry Wt/Wet Wt		0.161		
K-40	HASL Ga-01-R	78.1 +/- 1.71	1.51	pCi/g dry wt

- Precision criteria for these method were determined to be acceptable.
- 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.
- 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 4-18-12	Lab No. (Leave Blank) 12-0065
	Date & Time Sampled 4-16-12 11:40	Serial Number R 91963
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): (Barn Kelp) 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 4-18-12	Name (Print) UA	_____	Date _____
	Time Custody Received 10:00	Organization DWRLB	Signature Victoria M. Ali	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. 12-0063

Collector: RHM	RHB	Requestor: Steve Hsu	RHB
SAN ONOFRE CA		1500 Capitol Avenue, MS 7610	
Phone Number:		Sacramento CA 95814-5006	
Site/Project Name: San Onofre NPP		Phone Number: 916-440-7940	
System No:	Billing Agency: RHB	Samples Received by Lab: 4/18/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0063-01	Sample ID: R 91961 Sample Type: Vegetation	Time Collected: 4/16/2012 11:10	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.202		
K-40	HASL Ga-01-R	67.8 +/- 1.55	0.853	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 4-18-12	Lab No. (Leave Blank) 12-0063
	Date & Time Sampled 4-16-12 11:10	Serial Number R 91961
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): 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): **Kelp**
 - 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 4-18-12	Name (Print) UA	Signature <i>[Signature]</i>	Date _____
	Time Custody Received 10:00	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



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. 12-0064

Collector: RHM	RHB	Requestor: Steve Hsu	RHB
SAN ONOFRE CA		1500 Capitol Avenue, MS 7610	
Phone Number:		Sacramento CA 95814-5006	
Site/Project Name: San Onofre NPP		Phone Number: 916-440-7940	
System No:	Billing Agency: RHB	Samples Received by Lab: 4/18/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0064-01	Sample ID: R 91962 Sample Type: Vegetation	Time Collected: 4/16/2012 10:45	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.1272		
K-40	HASL Ga-01-R	108 +/- 2.35	1.51	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 4-18-12	Lab No. (Leave Blank) 12-0064
	Date & Time Sampled 4-16-12 10:45	Serial Number R 91962
Collector Information Name: Dept./Branch: Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: San Onofre Sampling Point (s): San Mateo 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): Kelp
 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)

<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 <u>4-18-12</u>	Name (Print) <u>UA</u>	Signature <u>Victoria M. Ali</u>	Date _____
	Date <u>10:00</u>	Name (Print) <u>DWRLB</u>	Signature _____	Date _____
	Time Custody Received _____	Organization _____		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. 12-0070

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: San Onofre NPP / Biota / 2nd Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/18/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0070-01	Sample ID: R 91968 Sample Type: Vegetation	Time Collected: 4/16/2012 10:30	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.1742		
K-40	HASL Ga-01-R	66.3 +/- 1.47	1.34	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 4-18-12	Lab No. (Leave Blank) 12-0070
	Date & Time Sampled 4-16-12 10:30	Serial Number R 91968
Collector Information Name: RHM Dept./Branch: Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: San Onofre Sampling Point (s): (Wheeler North Artificial Reef) 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 type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input checked="" type="checkbox"/> Biota (Type): Kelp |
| 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) _____	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 4-18-12	Name (Print) VJA	Signature [Signature]	Date _____
	Date 10:00	Name (Print) DWRLB	Signature _____	Date _____
	Time Custody Received _____	Organization _____	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
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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. 12-0069

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: San Onofre NPP / Biota / 2nd Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/18/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0069-01	Sample ID: R 91967 Sample Type: Vegetation	Time Collected: 4/16/2012 10:10	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.1725		
K-40	HASL Ga-01-R	58.8 +/- 1.29	1.21	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 4-14-12	Lab No. (Leave Blank) 12-0069
	Date & Time Sampled 4-16-12 10:10	Serial Number R 91967
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): (San Clemente Pier reef) 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): **Kelp**
 Net (M³) _____ Radon Canister Other: _____
 Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____ Iced/Frozen: _____ Other: **4-18-12**
 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): **Kelp** Nickel-63 Iron-55

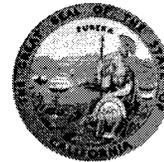
CHAIN OF CUSTODY

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 4-16-12	Name (Print) VA	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. 12-0068

Collector: RHM	RHB	Requestor: Steve Hsu	RHB
SAN ONOFRE CA		1500 Capitol Avenue, MS 7610	
Phone Number:		Sacramento CA 95814-5006	95814-5006
		Phone Number: 916-440-7940	
Site/Project Name: San Onofre NPP / Biota / 2nd Qtr 2012			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/18/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0068-01	Sample ID: R 91966 Sample Type: Vegetation	Time Collected: 4/16/2012 09:55	Sampling Point: Capistrano Beach Reef Kelp	
Dry Wt/Wet Wt		0.1247		
K-40	HASL Ga-01-R	117 +/- 2.49	1.41	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 4-18-12	Lab No. (Leave Blank) 12-0064
	Date & Time Sampled 4-16-12 9:55	Serial Number R 91966
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): (Capistrano Beach reef) 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): **Kelp**
 - 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)

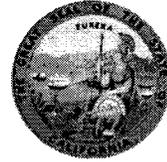
- Gross Alpha Gross Beta Gamma Scan
- Total Uranium Total Beta (LSC) NORM (Gamma)
- Total Radium Tritium (³H) Isotopic Americium / Curium
- Radium-226 Carbon-14 Isotopic Plutonium
- Radium-228 Iodine-131 Isotopic Thorium
- Radon-222 Strontium-89, 90 Isotopic Uranium
- Other (Specify): _____ Nickel-63 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 4-18-12	Name (Print) VA	Signature Victoria M. De	Date _____
	Time Custody Received 10:00	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



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. 12-0067

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			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/18/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0067-01	Sample ID: R 91965	Time Collected: 4/16/2012 09:25	Sampling Point: Dana Point Kelp	
	Sample Type: Vegetation			
Dry Wt/Wet Wt		0.1256		
K-40	HASL Ga-01-R	110 +/- 2.40	1.67	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 4-16-12	Lab No. (Leave Blank) 12-0067
	Date & Time Sampled 4-16-12 9:25	Serial Number R 91965
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): (Dana point) 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): **Seaweed**
 - 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 4-16-12	Name (Print) JA	Signature <i>[Signature]</i>	Date _____
	Time Custody Received 10:00	Organization DWR/LB	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. 12-0066

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			
System No:	Billing Agency: RHB	Samples Received by Lab: 4/18/2012	

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 12-0066-01	Sample ID: R 91964 Sample Type: Vegetation	Time Collected: 4/16/2012 09:05	Sampling Point: Salt Creek Kelp	
Dry Wt/Wet Wt		0.1368		
K-40	HASL Ga-01-R	95.0 +/- 2.10	1.73	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 S_b 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 4-18-12	Lab No. (Leave Blank) 12-0066
	Date & Time Sampled 4-16-12 9:05	Serial Number R 91964
Collector Information Name: Dept./Branch: RHM Address: Telephone No.:	Reporting Information Name: Dept./Branch: Address: Telephone No.:	
Sample Information System Name / Facility: Salt Creek Kelp 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): Kelp
 - 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 <u>4-18-12</u>	Name (Print) <u>VA</u>	Signature <u>[Signature]</u>	Date _____
	Time Custody Received <u>10:00</u>	Organization <u>DWRLB</u>		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