



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1164

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/23/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 12/15/2011 13:40 Date/Time Received: 12/16/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / December 2011

R Number: R 92698

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1164-001	SONGS A	EPA 901.1	K-40	401 ± 20.1	68.5	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 <i>Alt: Shy Marie Piller</i>		Date Received <i>12-16-11</i>	Lab No. (Leave Blank) <i>111-1164</i>
Collector Information Name: <i>Jenny Smith</i> Dept./Branch: <i>MBC Applied Environmental</i> Address: <i>3000 Red Hill Ave. Costa Mesa, CA 92626</i> Telephone No.: <i>714-850-4330</i>		Date & Time Sampled <i>12/15/11 1340</i>	Serial Number <i>R 92698</i>
Sample Information System Name / Facility: Sampling Point (s): <i>SONGS A</i> System No.:		Reporting Information Name: <i>Steve Hsu</i> Dept./Branch: <i>CDPH - RHB</i> Address: <i>PO Box 99, 7414 MS 7610 Sacramento, CA 95899</i> Telephone No.: <i>916-2440-7910</i>	
Billing Agency <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 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 Seawater Sludge (Semi-solid Samples)
 Finishing: _____ Date/Time _____ Milk Soil/Sediment
 Starting: _____ Wipes Biota (Type): _____
 Net (M³) _____ Radon Canister Other: _____

Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____ Lead/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 *68.5*
 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: <i>12/15/11</i>	Name (Print): <i>Jenny Smith</i>	Signature: <i>[Signature]</i>	Date: <i>12/15/11</i>
	Time Custody Received: <i>1340</i>	Organization: <i>MBC</i>	Signature: _____	Time Custody Released: <i>1730</i>
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3.	Date: <i>12-16-11</i>	Name (Print): <i>UA</i>	Signature: <i>[Signature]</i>	Date: _____
	Time Custody Received: <i>14:00</i>	Organization: <i>DWRLB</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

0.01 MR/HR



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Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1165

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 01/04/2012

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 12/15/2011 13:40 Date/Time Received: 12/16/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / December 2011

R Number: R 92699

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1165-001	SONGS A	EPA 906.0	Tritium	-76.9 ± 128	223	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 SIO - 620 - 2930 Alt: Symantec Robert	Date Received 12-16-2011	Lab No. (Leave Blank) N11-1165
	Date & Time Sampled 12/15/11 1340	Serial Number R 92699
Collector Information Name: Jenny Smith Dept./Branch: NBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-R11B Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:	Billing Agency <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 Finishing: _____ Date/Time _____ Starting: _____ Net (M ³) _____	<input type="checkbox"/> Seawater <input type="checkbox"/> Milk <input type="checkbox"/> Wipes <input type="checkbox"/> Radon Canister	<input type="checkbox"/> Sludge (Semi-solid Samples) <input type="checkbox"/> Soil/Sediment <input type="checkbox"/> Biota (Type): _____ <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 (ES)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" 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: 12/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 12/15/11
Time Custody Received: 1340	Organization: NBC	Signature: [Signature]	Time Custody Released: 1730
2. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3. Date: 12-16-11	Name (Print): UA	Signature: [Signature]	Date: _____
Time Custody Received: 14:00	Organization: DWRLB	Signature: [Signature]	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: ≤ 0.01 MR/HR

<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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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1166

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/23/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 12/15/2011 13:25 Date/Time Received: 12/16/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / December 2011

R Number: R 92702

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1166-001	SONGS B	EPA 901.1	K-40	410 ± 19.0	61.4	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 A#11 510-620-2930 A#11 Sacramento Roberts	Date Received 12-16-11	Lab No. (Leave Blank) N11-1166
	Date & Time Sampled 12/15/11 1325	Serial Number R 92702
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7944	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Shipping Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input checked="" type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input checked="" 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 (BSC) 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 12/15/11	Name (Print) Jenny Smith	Signature <i>[Signature]</i>	Date 12/15/11
	Time Custody Received 1325	Organization MBC		Time Custody Released 1730
2.	Date	Name (Print)	Signature	Date
	Time Custody Received	Organization		Time Custody Released
3.	Date 12-16-11	Name (Print) UA	Signature <i>[Signature]</i>	Date
	Time Custody Received 14:00	Organization DWR/B		Time Custody Released

LABORATORY REMARKS (Leave Blank)

- ← 0.01 MR/HR
- 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

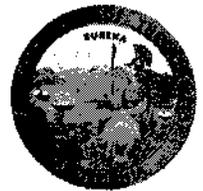


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Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1167

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 01/04/2012

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 12/15/2011 13:25 Date/Time Received: 12/16/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / December 2011

R Number: R 92703

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA95</u>	<u>Units</u>
N11-1167-001	SONGS B	EPA 906.0	Tritium	-55.9 ± 129	223	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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 510-620-2930 Alt. Symbolic Radon	Date Received 12-16-11	Lab No. (Leave Blank) N11-1167
	Date & Time Sampled 12/15/11 1325	Serial Number R 92703
Collector Information Name: Jenny Smith Dept./Branch: MBE Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-250-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-R4B Address: PO Box 991-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Billing Agency <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: _____
- Net (M³): _____
- Air Charcoal Cartridge
- Seawater
- Milk
- Wipes
- Radon Canister
- Sludge (Semi-solid Samples)
- Soil/Sediment
- Biota (Type): _____
- Other: _____

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
- 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: 12/15/11	Name (Print): Jenny Smith	Signature:	Date: 12/15/11
	Time Custody Received: 1325	Organization: MBE		Time Custody Released: 1730
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 12-16-11	Name (Print): JA	Signature:	Date: _____
	Time Custody Received: 14:00	Organization: DWRLB	Signature:	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: ≤ 0.01 MR/HR
- 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



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State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1168

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/23/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 12/15/2011 13:35 Date/Time Received: 12/16/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / December 2011

R Number: R 92705

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1168-001	SONGS C	EPA 901.1	K-40	347 ± 17.5	59.4	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Alt. Shyamala Roberts	Date Received 12-16-11	Lab No. (Leave Blank) N11-1168
	Date & Time Sampled 12/15/11 1335	Serial Number R 92705
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH - R4B Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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: _____	_____	<input type="checkbox"/> Wipes	<input type="checkbox"/> Biota (Type): _____
Net (M ³) _____	_____	<input type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____ / Cooled/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 checked="" type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (ES)	<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: 12/15/11	Name (Print): Jenny Smith	Signature:	Date: 12/15/11
	Time Custody Received: 1335	Organization: MBC		Time Custody Released: 1730
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 12-16-11	Name (Print): UA	Signature:	Date: _____
	Time Custody Received: 14:00	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
---	--	------------------------------------	---

≤ 0.01 mR/hr



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1169

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 01/04/2012

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 12/15/2011 13:35 Date/Time Received: 12/16/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / December 2011

R Number: R 92706

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA95</u>	<u>Units</u>
N11-1169-001	SONGS C	EPA 906.0	Tritium	-31.4 ± 129	223	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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 Alt: 510-620-2930 Alt: Shirley Marie Roberts	Date Received 12-16-11	Lab No. (Leave Blank) N11-1169
	Date & Time Sampled 12/15/11 1335	Serial Number R 92706
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPIA - R4B Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7440	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input checked="" 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): _____ |
| Net (M ³) _____ | _____ | <input checked="" type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.): _____

- | | | |
|--|---|--------------|
| <input type="checkbox"/> Field Treatment: Preservatives added: _____ | iced/Frozen: _____ | Other: _____ |
| <input type="checkbox"/> Field Measurement: _____ mR/hr | <input type="checkbox"/> Radionuclide(s), if known: _____ | |
| <input type="checkbox"/> 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 checked="" 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: 12/15/11	Name (Print): Jenny Smith	Signature:	Date: 12/15/11
	Time Custody Received: 1335	Organization: MBC		Time Custody Released: 1730
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 12-16-11	Name (Print): UA	Signature:	Date: _____
	Time Custody Received: 14:00	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 |



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1170

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/23/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 12/15/2011 14:15 Date/Time Received: 12/16/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / December 2011

R Number: R 92707

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1170-001	SONGS D	EPA 901.1	K-40	390 ± 19.5	65.7	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Alt. 510-620-2930	Date Received 12-16-11	Lab No. (Leave Blank) N11-1170
	Date & Time Sampled 12/15/11 1415	Serial Number R 92707
Collector Information Name: Wayne Dosselt Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7010 Sacramento, CA 95899 Telephone No.: 916-440-7440	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 12/15/11 | <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): _____ |
| 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 checked="" type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (LS) | <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: 12/15/11	Name (Print): Wayne Dosselt	Signature: <i>Wayne Dosselt</i>	Date: 12/15/11
	Time Custody Received: 1415	Organization: MBC Applied Environmental Science		Time Custody Released: 1600
2.	Date: 12/15/11	Name (Print): Jenny Smith	Signature: <i>Jenny Smith</i>	Date: 12/15/11
	Time Custody Received: 1600	Organization: MBC		Time Custody Released: 1730
3.	Date: 12-16-11	Name (Print): VA	Signature: <i>Victoria M. [unclear]</i>	Date: _____
	Time Custody Received: 14:00	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 |
|---|--|------------------------------------|---|
- ≤ 0.01 MR/HR



Drinking Water and Radiation Laboratory Branch

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FINAL Analysis Results Report for Task ID. N11-1171

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 01/04/2012

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 12/15/2011 14:15 Date/Time Received: 12/16/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / December 2011

R Number: R 92709

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA95</u>	<u>Units</u>
N11-1171-001	SONGS D	EPA 906.0	Tritium	-47.2 ± 129	223	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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 510-620-2930 Attn: Sherrill Marie Roberts	Date Received 12-16-11	Lab No. (Leave Blank) N11-1171
	Date & Time Sampled 12/15/11 1415	Serial Number R 92709
Collector Information Name: Wayne Dossett Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH -RHB Address: PO Box 99-2414 MS 7610 Sacramento, ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input checked="" 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 checked="" type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input checked="" type="checkbox"/> Milk | <input type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input checked="" type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): _____ |
| Net (M ³) _____ | | <input checked="" 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 (BSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input checked="" 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: 12/15/11	Name (Print): Wayne Dossett	Signature: [Signature]	Date: 12/15/11
	Time Custody Received: 1415	Organization: MBC Applied Environmental Sciences		Time Custody Released: 11:00
2.	Date: 12/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 12/15/11
	Time Custody Received: 11:00	Organization: MBC		Time Custody Released: 11:30
3.	Date: 12-16-11	Name (Print): VA	Signature: [Signature]	Date: _____
	Time Custody Received: 14:00	Organization: DWRI B		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 checked="" type="checkbox"/> Added in Laboratory | <input type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |
|---|---|------------------------------------|---|
- ≤ 0.01 mR/hr



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1083

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/02/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 11/15/2011 10:47 Date/Time Received: 11/17/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / November 2011

R Number: 92590

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1083-001	SONGS A	EPA 901.1	K-40	336 ± 17.5	60.1	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamale Rubera	Date Received 11/17/11	Lab No. (Leave Blank) N11-1083
	Date & Time Sampled 11/15/11 1047	Serial Number R 92590
Collector Information Name: Jenny Smith Dept/Branch: mbc Applied Environmental Address: 3000 Red Hill Ave Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept/Branch: CDPH-RHB Address: PO Box 991-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:	Billing Agency <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)

Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxzone / Fluoridated / Coagulated / pH Adjusted

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

Air Charcoal Cartridge

COMMENTS: (Cautions, etc.): _____

Field Treatment: Preservatives added: _____ Cooled/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 checked="" type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (β _{SC})	<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: 11/15/11	Name (Print): Jenny Smith	Date: 11/16/11
Time Custody Received: 1047	Organization: mbc	Time Custody Released: 0900
2. Date: _____	Name (Print): _____	Date: _____
Time Custody Received: _____	Organization: _____	Time Custody Released: _____
3. Date: 11/17/11	Name (Print): VA	Date: _____
Time Custody Received: 11:00	Organization: DWRLB	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: ≤ 0.01 MR/HR

<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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1084

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 01/04/2012

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 11/15/2011 10:47 Date/Time Received: 11/17/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / November 2011

R Number: 92591

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1084-001	SONGS A	EPA 906.0	Tritium	-31.4 ± 129	223	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Rubera		Date Received 11/17/11	Lab No. (Leave Blank) 111-1084
		Date & Time Sampled 11/15/11 1047	Serial Number R 92591
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sci Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830		Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box 99-7414 MS 7610 + Sacramento, Ca 95879 Telephone No.: 916-440-7914	
Sample Information System Name / Facility: Sampling Point (s): SONGS A System No.:		Billing Agency <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 checked="" 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 checked="" 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): _____
Net (M ³): _____		<input checked="" type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____ Cooled/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 (BSC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" 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: 11/15/11	Name (Print): Jenny Smith	Signature:	Date: 11/16/11
	Time Custody Received: 1047	Organization: MBC		Time Custody Released: 0900
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 11/17/11	Name (Print): UA	Signature:	Date: _____
	Time Custody Received: 11:00	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
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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1085

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/02/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 11/15/2011 11:16 Date/Time Received: 11/17/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / November 2011

R Number: 92594

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1085-001	SONGS B	EPA 901.1	K-40	435 ± 20.6	67.7	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Rubera	Date Received 11/17/11	Lab No. (Leave Blank) NH-1085
	Date & Time Sampled 11/15/11 1116	Serial Number R 92594
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-830-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: 2030 Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7440	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Billing Agency <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 checked="" 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 checked="" type="checkbox"/> Seawater	<input type="checkbox"/> Sludge (Semi-solid Samples)
Finishing: _____	_____	<input checked="" type="checkbox"/> Milk	<input type="checkbox"/> Soil/Sediment
Starting: _____	_____	<input type="checkbox"/> Wipes	<input type="checkbox"/> Biota (Type): _____
Net (M ³) _____		<input checked="" type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.)

Field Treatment: Preservatives added: _____

Field Measurement: _____ mR/hr

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

Cooled/Frozen: _____ Other: _____

Radionuclide(s), if known: _____

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

<input type="checkbox"/> Gross Alpha	<input type="checkbox"/> Gross Beta	<input checked="" type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (SC)	<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: 11/15/11	Name (Print): Jenny Smith	Signature:	Date: 11/16/11
	Time Custody Received: 1116	Organization: MBC		Time Custody Released: 0900
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 11/17/11	Name (Print): UA	Signature:	Date: _____
	Time Custody Received: 11:00	Organization: DWRLB	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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L 0.01 UR/HR



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1086

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 01/04/2012

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 11/15/2011 11:16 Date/Time Received: 11/17/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / November 2011

R Number: 92595

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1086-001	SONGS B	EPA 906.0	Tritium	-21.0 ± 130	223	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 11/17/11	Lab No. (Leave Blank) N11-1086
510-620-2930 Mn: Shiyamalle Rebera		Date & Time Sampled 11/15/11 1116	Serial Number R 92595
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca Telephone No.: 714 850 4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box 991-7414 ms 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7900		
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Billing Agency <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 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 Seawater Sludge (Semi-solid Samples)
 Finishing: _____ Date/Time _____
 Milk Soil/Sediment
 Starting: _____
 Wipes Biota (Type): _____
 Net (M³) _____
 Radon Canister Other: _____
 Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____
 Field Measurement: _____ mR/hr
 Rush/Priority (should be prearranged and have supervisory approval)

Cooled/Frozen: _____ Other: _____
 Radionuclide(s), if known: _____

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

Gross Alpha Gross Beta Gamma Scan
 Total Uranium Total Beta (ESC) 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: 11/15/11	Name (Print): Jenny Smith	Signature:	Date: 11/16/11
	Time Custody Received: 1116	Organization: MBC		Time Custody Released: 0900
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 11/17/11	Name (Print): UA	Signature:	Date: _____
	Time Custody Received: 11:00	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

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

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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1087

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/02/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 11/15/2011 10:55 Date/Time Received: 11/17/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / November 2011

R Number: 92597

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1087-001	SONGS C	EPA 901.1	K-40	352 ± 18.1	62.1	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Alt: Shiyamalle Rubera		Date Received 11-17-11	Lab No. (Leave Blank) 11-1087
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3020 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Date & Time Sampled 11/15/11 1055	Serial Number R 92597
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:		Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Billing Agency <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 checked="" 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 checked="" 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): _____
Net (M ³) _____		<input checked="" type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

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

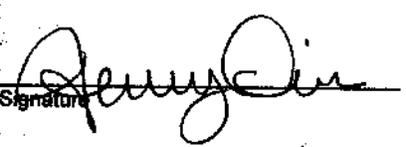
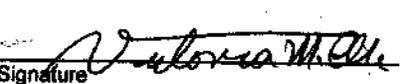
Field Measurement: _____ mR/hr Radionuclide(s), if known: _____

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 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 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: 11/15/11	Name (Print): Jenny Smith	Signature: 	Date: 11/16/11
	Time Custody Received: 1055	Organization: MBC		Time Custody Released: 0900
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 11/17/11	Name (Print): VA	Signature: 	Date: _____
	Time Custody Received: 11:00	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
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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1088

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 01/04/2012

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 11/15/2011 10:55 Date/Time Received: 11/17/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / November 2011

R Number: 92599

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1088-001	SONGS C	EPA 906.0	Tritium	1.22 ± 13.0	22.3	pCi/L

1. Precision criteria for these methods 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-800/4-80-032, 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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)

N11-1087

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911 510-620-2930 Attn: Shiyamalie Rubera	Date Received 11/17/11	Lab No. (Leave Blank) N11-1088
	Date & Time Sampled 11/15/11 1055	Serial Number R 92599
Collector Information Name: Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-744 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-4440	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 checked="" type="checkbox"/> Surface Water | <input type="checkbox"/> Wastewater |
| <input type="checkbox"/> Raw | <input type="checkbox"/> Water Treatment Plant (WTP) | <input checked="" 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 checked="" 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): _____ |
| 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)

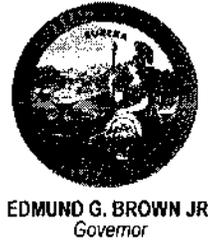
- | | | |
|---|---|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (BSC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input checked="" 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 11/15/11	Name (Print) Jenny Smith	Signature 	Date 11/16/11
	Time Custody Received 1055	Organization MBC		Time Custody Released 0900
2.	Date	Name (Print)	Signature	Date
	Time Custody Received	Organization		Time Custody Released
3.	Date 11/17/11	Name (Print) UA	Signature 	Date
	Time Custody Received 11:00	Organization DURLB	Signature 	Time Custody Released

LABORATORY REMARKS (Leave Blank)

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



Drinking Water and Radiation Laboratory Branch

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

FINAL Analysis Results Report for Task ID. N11-1089

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/02/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Jenny Smith	Date/Time Collected: 11/15/2011 11:12 Date/Time Received: 11/17/2011 11:00
Site Name: San Onofre NPP	Source Name: SONPP / November 2011
R Number: 92600	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1089-001	SONGS D	EPA 901.1	K-40	319 ± 22.6	84.9	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalee Ribera	Date Received 11/17/11	Lab No. (Leave Blank) ALU-1089
	Date & Time Sampled 11/15/11 1112	Serial Number R 92600
Collector Information Name: James Nuñez Dept./Branch: MIBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 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 (ES) 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: 11/15/11	Name (Print): James Nuñez	Signature: [Signature]	Date: 11/15/11
	Time Custody Received: 1112	Organization: MIBC Applied Environmental Sciences		Time Custody Released: 1415
2.	Date: 11/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 11/16/11
	Time Custody Received: 1415	Organization: MIBC		Time Custody Released: 0900
3.	Date: 11/16/11	Name (Print): J.A.	Signature: [Signature]	Date: _____
	Time Custody Received: 11:00	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: L 0.01 MR/HP
- 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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-1091

Analyst: Shiyamalie Ruberu

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 01/04/2012

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: James Nunez

Date/Time Collected: 11/15/2011 11:12 Date/Time Received: 11/17/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / November 2011

R Number: 92603

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-1091-001	SONGS D	EPA 906.0	Tritium	19.2 ± 130	223	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 50-620-2930 Attn: Shiyamalie Roberto	Date Received 11/17/11	Lab No. (Leave Blank) 111-1091
Collector Information Name: James Nunez Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Date & Time Sampled 11/15/11 1112	Serial Number R 92603
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Reporting Information Name: Steve HSU Dept./Branch: CDPH - RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7440	
Billing Agency <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 checked="" 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): _____ |
| 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 checked="" 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: 11/15/11	Name (Print): James Nunez	Signature:	Date: 11/15/11
	Time Custody Received: 1112	Organization: MBC Applied Environmental Sciences		Time Custody Released: 1415
2.	Date: 11/15/11	Name (Print): Johnny Smith	Signature:	Date: 11/16/11
	Time Custody Received: 1415	Organization: MBC		Time Custody Released: 0900
3.	Date: 11/17/11	Name (Print): UA	Signature:	Date: _____
	Time Custody Received: 11:00	Organization: DWRLB	Signature:	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: **2 0.01 MR/HR**
- | | | | |
|--|--|--|---|
| <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 |
|---|--|------------------------------------|---|



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0978

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 11/16/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 10/17/2011 14:07 Date/Time Received: 10/19/2011 09:35

Site Name: San Onofre NPP

Source Name: SONPP / October 2011

R Number: R 92552

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0978-001	SONGS A	EPA 901.1	K-40	354 ± 22.6	81.7	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shyamalie Rubera		Date Received 10/19/11	Lab No. (Leave Blank) N11-0978
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-440-4850		Date & Time Sampled 10/17/11 1407	Serial Number R 92552
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:		Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-744 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7900	
Billing Agency <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 checked="" 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 checked="" 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): _____
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: _____

Field Measurement: _____ mR/hr

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

Radionuclide(s), if known: _____

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

<input type="checkbox"/> Gross Alpha	<input type="checkbox"/> Gross Beta	<input checked="" type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (SC)	<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: 10/17/11	Name (Print): Jenny Smith	Signature:	Date: 10/18/11
	Time Custody Received: 1407	Organization: MBC		Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 10/19/11	Name (Print): VA	Signature:	Date: _____
	Time Custody Received: 9:35	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
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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. N11-0977

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 10/17/2011 14:07 Date/Time Received: 10/19/2011 09:30

Site Name: San Onofre NPP

Source Name: SONPP / October 2011

R Number: R 92556

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0977-001	SONGS A	EPA 906.0	Tritium	-48.7 ± 159	275	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyumelle Kubota		Date Received 10/19/11	Lab No. (Leave Blank) 111-0977
		Date & Time Sampled 10/17/11 1407	Serial Number R 92556
Collector Information Name: Jenny Smith Dept./Branch: mbc Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4835		Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7010 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:		Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RMB <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: _____ Starting: _____ Milk Soil/Sediment
 Net (M³) _____ Wipes Biota (Type): _____
 Air Charcoal Cartridge Radon Canister Other: _____

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____ Cooled/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 (ESC) 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: 10/17/11	Name (Print): Jenny Smith	Signature:	Date: 10/18/11
	Time Custody Received: 1407	Organization: mbc		Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 10/19/11	Name (Print): VA	Signature:	Date: _____
	Time Custody Received: 9:30	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: **0.01 MR/HR**
 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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0980

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 11/16/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Jenny Smith	Date/Time Collected: 10/17/2011 14:20 Date/Time Received: 10/19/2011 09:35
Site Name: San Onofre NPP	Source Name: SONPP / October 2011
R Number: 92558	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0980-001	SONGS B	EPA 901.1	K-40	353 ± 19.5	69.4	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shyamalie Rubera	Date Received 10/17/11	Lab No. (Leave Blank) 111-0980
	(Date & Time Sampled) 10/17/11 1420	Serial Number R 92558
Collector Information Name: Jenny Smith Dept./Branch: MSC Applied Environmental Services Address: 2000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-744 MS 7410 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input checked="" 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 checked="" 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 checked="" 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): _____
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: _____ Cooled/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 checked="" type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (ISC)	<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: 10/17/11	Name (Print): Jenny Smith	Signature:	Date: 10/18/11
	Time Custody Received: 1420	Organization: MSC		Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 10/19/11	Name (Print): UA	Signature:	Date: _____
	Time Custody Received: 9:35	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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0979

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 10/17/2011 14:20 Date/Time Received: 10/19/2011 09:30

Site Name: San Onofre NPP

Source Name: SONPP / October 2011

R Number: R 92559

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0979-001	SONGS B	EPA 906.0	Tritium	-130 ± 157	275	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shiyamile Kubera	Date Received 10/19/11	Lab No. (Leave Blank) N11-0979
	Date & Time Sampled 10/17/11 1420	Serial Number R 92559
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Services Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-840-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-744 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7440	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Billing Agency <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 checked="" 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 checked="" type="checkbox"/> Seawater	<input type="checkbox"/> Sludge (Semi-solid Samples)
Finishing: _____	_____	<input checked="" type="checkbox"/> Milk	<input type="checkbox"/> Soil/Sediment
Starting: _____	_____	<input type="checkbox"/> Wipes	<input type="checkbox"/> Biota (Type): _____
Net (M ³): _____	_____	<input type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

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

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

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

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

<input type="checkbox"/> Gross Alpha	<input type="checkbox"/> Gross Beta	<input type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (LSC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" 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: 10/17/11	Name (Print): Jenny Smith	Date: 10/18/11
	Time Custody Received: 1420	Organization: MBC	Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Date: _____
	Time Custody Received: _____	Organization: _____	Time Custody Released: _____
3.	Date: 10/19/11	Name (Print): JIA	Date: _____
	Time Custody Received: 9:30	Organization: DURLB	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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0.01 MR/HR



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0981

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 11/16/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 10/17/2011 14:14 Date/Time Received: 10/19/2011 09:35

Site Name: San Onofre NPP

Source Name: SONPP / October 2011

R Number: R 92560

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0981-001	SONGS C	EPA 901.1	K-40	377 ± 19.5	67.0	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shyamalie Rubera	Date Received 10/19/11	Lab No. (Leave Blank) NH-0961
	Date & Time Sampled 10/17/11 1414	Serial Number R 92560
Collector Information Name: Jenny Smith Dept./Branch: MBE Applied Environmental Services Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box 99-1414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 checked="" 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): _____
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 checked="" type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (ESC)	<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: 10/17/11	Name (Print): Jenny Smith	Signature:	Date: 10/18/11
	Time Custody Received: 1414	Organization: MBE		Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 10/19/11	Name (Print): VA	Signature:	Date: _____
	Time Custody Received: 9:35	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
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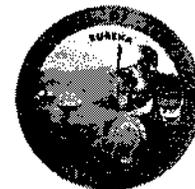


RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0982

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 10/17/2011 14:14 Date/Time Received: 10/19/2011 09:30

Site Name: San Onofre NPP

Source Name: SONPP / October 2011

R Number: R 92561

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0982-001	SONGS C	EPA 906.0	Tritium	-87.3 ± 158	275	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shyamirle Rubera 510-620-2430	Date Received 10/19/11	Lab No. (Leave Blank) 111-0982
	Date & Time Sampled 10/17/11 11A	Serial Number R 92561
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7990	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 checked="" 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): _____ |
| Net (M ³) _____ | _____ | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

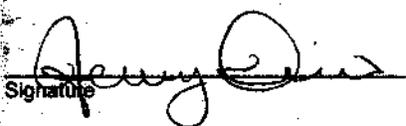
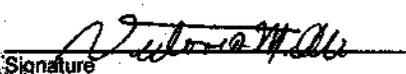
COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: _____ Ice/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 checked="" 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: 10/17/11	Name (Print): Jenny Smith	Signature: 	Date: 10/18/11
	Time Custody Received: 11A	Organization: MBC		Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 10/19/11	Name (Print): Steve UA	Signature: 	Date: _____
	Time Custody Received: 9:30	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- 4.001 MR/HR
- 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 checked="" type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |
|---|--|---|---|



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0983

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 11/16/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Jenny Smith	Date/Time Collected: 10/17/2011 11:07 Date/Time Received: 10/19/2011 09:35
Site Name: San Onofre NPP	Source Name: SONPP / October 2011
R Number: R 92562	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0983-001	SONGS D	EPA 901.1	K-40	354 ± 17.8	60.3	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamile Rubera	Date Received 10/19/11	Lab No. (Leave Blank) N11-0983
	Date & Time Sampled 10/17/11 1107	Serial Number R 92562
Collector Information Name: James Nuñez Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 checked="" 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): _____ |
| 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 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 type="checkbox"/> Iodine-131 | <input type="checkbox"/> Isotopic Thorium |
| <input type="checkbox"/> Radon-222 | <input type="checkbox"/> Strontium-88, 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: 10/17/11	Name (Print): James Nuñez	Signature:	Date: 10/18/11
	Time Custody Received: 1107	Organization: MBC		Date: 0815
				Time Custody Released: 10/18/11
2.	Date: 10/18/11	Name (Print): Jenny Smith	Signature:	Date: 10/18/11
	Time Custody Received: 0815	Organization: MBC		Date: 1500
				Time Custody Released: _____
3.	Date: 10/18/11	Name (Print): UA	Signature:	Date: _____
	Time Custody Received: 9:35	Organization: DURLB		Date: _____
				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 |
|---|--|------------------------------------|---|



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0984

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 12/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 10/17/2011 11:07 Date/Time Received: 10/19/2011 09:30

Site Name: San Onofre NPP

Source Name: SONPP / October 2011

R Number: R 92563

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0984-001	SONGS D	EPA 906.0	Tritium	-4.06 ± 160	275	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2911 Attn: Myriamale Rubera	Date Received 10/19/11	Lab No. (Leave Blank) N11-0964
	Date & Time Sampled 10/17/11 1107	Serial Number R 92563
Collector Information Name: James Nuñez Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, CA 92620 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 checked="" 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): _____
Net (M ³) _____		<input type="checkbox"/> Radon Canister	<input checked="" type="checkbox"/> Other: N11-0964
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____
 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 checked="" 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: 10/17/11	Name (Print): James Nuñez	Signature:	Date: 10/18/11
	Time Custody Received: 1107	Organization: MBC		Time Custody Released: 0815
2.	Date: 10/18/11	Name (Print): Jenny Smith	Signature:	Date: 10/18/11
	Time Custody Received: 0815	Organization: MBC		Time Custody Released: 1500
3.	Date: 10/19/11	Name (Print): VA	Signature:	Date: _____
	Time Custody Received: 9:30	Organization: DWRLB	Signature:	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: C 0.01 MR/HR

<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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0879

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 09/22/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Wayne Dossett

Date/Time Collected: 09/15/2011 12:34 Date/Time Received: 09/16/2011 09:30

Site Name: San Onofre NPP

Source Name: SONPP / September 2011

R Number: R 92535

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0879-001	SONGS A	EPA 901.1	K-40	335 ± 17.7	61.1	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamatie Rubera	Date Received 9/16/11	Lab No. (Leave Blank) N11-0879
	Date & Time Sampled 9/15/11 1234	Serial Number R 92535
Collector Information Name: Wayne Dossett Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:	Billing Agency <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 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 (BSC) 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: 9/15/11 Time Custody Received: 1234	Name (Print): Wayne Dossett Organization: MBC	Signature: <i>Wayne Dossett</i>	Date: 9/15/11 Time Custody Released: 1600
2.	Date: 9/15/11 Time Custody Received: 1600	Name (Print): Jenny Smith Organization: MBC	Signature: <i>Jenny Smith</i>	Date: 9/15/11 Time Custody Released: 1700
3.	Date: 9/16/11 Time Custody Received: 9:30	Name (Print): DWL RB Organization: UA	Signature: <i>Wayne Dossett</i>	Date: _____ Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- 2 0.01 MR/HR
- 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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0880

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Wayne Dossett

Date/Time Collected: 09/15/2011 12:34 Date/Time Received: 09/16/2011 09:30

Site Name: San Onofre NPP

Source Name: SONPP / September 2011

R Number: R 92536

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0880-001	SONGS A	EPA 906.0	Tritium	-160 ± 154	271	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalle Rubera	Date Received 9/16/11	Lab No. (Leave Blank) MLL-0480
	Date & Time Sampled 9/15/11 1234	Serial Number R 92536
Collector Information Name: Wayne Dossett Dept./Branch: MBC Applied Environmental Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7440	
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:	Billing Agency <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 Groundwater Surface Water Wastewater
 Raw Water Treatment Plant (WTP) Distribution System Point of Use (POU)
 Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted

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

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____ Ice/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: 9/15/11	Name (Print): Wayne Dossett	Signature: [Signature]	Date: 9/15/11
	Time Custody Received: 1234	Organization: MBC		Time Custody Released: 1600
2.	Date: 9/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 9/15/11
	Time Custody Received: 1600	Organization: MBC		Time Custody Released: 1700
3.	Date: 9/16/11	Name (Print): VA	Signature: [Signature]	Date: _____
	Time Custody Received: 9:30	Organization: DWRLB	Signature: [Signature]	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: C 0.01 MR/HR
 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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0881

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 09/22/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Wayne Dossett

Date/Time Collected: 09/15/2011 12:57 Date/Time Received: 09/16/2011 09:30

Site Name: San Onofre NPP

Source Name: SONPP / September 2011

R Number: R 92539

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0881-001	SONGS B	EPA 901.1	K-40	319 ± 22.5	84.4	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shiyamalic Rebera	Date Received 9/16/2011	Lab No. (Leave Blank) N11-0481
	Date & Time Sampled 9/15/11 1257	Serial Number R 92539
Collector Information Name: Wayne Dosselt Dept./Branch: MBC Applied Environmental Sci Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box 09-744 MS 7610 Sacramento, CA 95819 Telephone No.: 916-440-7970	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Billing Agency <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 checked="" 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): _____
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 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 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: 9/15/11	Name (Print): Wayne Dosselt	Signature: <i>Wayne Dosselt</i>	Date: 9/15/11
	Time Custody Received: 1257	Organization: MBC		Time Custody Released: 1600
2.	Date: 9/15/11	Name (Print): Jenny Smith	Signature: <i>Jenny Smith</i>	Date: 9/15/11
	Time Custody Received: 1600	Organization: MBC		Time Custody Released: 1700
3.	Date: 9/16/11	Name (Print): UH	Signature: <i>UH</i>	Date: _____
	Time Custody Received: 9:30	Organization: DWRLB	Signature: <i>DWRLB</i>	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

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

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

< 0.01 MR/HR



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0882

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Wayne Dossett

Date/Time Collected: 09/15/2011 12:57 Date/Time Received: 09/16/2011 09:30

Site Name: San Onofre NPP

Source Name: SONPP / September 2011

R Number: R 92540

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0882-001	SONGS B	EPA 906.0	Tritium	-185 ± 153	271	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shiyamalie Roberts		Date Received 9/16/11	Lab No. (Leave Blank) N11-0482
Collector Information Name: Wayne Dossett Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830		Date & Time Sampled 9/15/11 1257	Serial Number R 92540
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:		Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: P.O. Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
		Billing Agency <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 checked="" 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): _____ |
| 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: _____ Fed/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 checked="" 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: 9/15/11	Name (Print): Wayne Dossett	Signature: [Signature]	Date: 9/15/11
	Time Custody Received: 1257	Organization: MBC		Time Custody Released: 1600
2.	Date: 9/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 9/15/11
	Time Custody Received: 1600	Organization: MBC		Time Custody Released: 1700
3.	Date: 9/16/11	Name (Print): DWRLB	Signature: [Signature]	Date: _____
	Time Custody Received: 9:30	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: < 0.01 MR/HR
- | | | | |
|--|--|--|---|
| <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 |
|---|--|------------------------------------|---|



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0883

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 09/22/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Wayne Dossett

Date/Time Collected: 09/15/2011 12:46 Date/Time Received: 09/16/2011 09:30

Site Name: San Onofre NPP

Source Name: SONPP / September 2011

R Number: R 92541

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0883-001	SONGS C	EPA 901.1	K-40	340 ± 19.4	69.9	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Sanyamati Rubera		Date Received 9/15/11	Lab No. (Leave Blank) 111-0493
Collector Information Name: Wayne Dossett Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Date & Time Sampled 9/15/11 1246	Serial Number R 92541
Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-744 MS 7610 Sacramento, CA 95899 Telephone No.: 916-40-7900			
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:		Billing Agency <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)

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

COMMENTS: (Cautions, etc.):

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

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

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input 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 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: 9/15/11	Name (Print): Wayne Dossett	Signature: [Signature]	Date: 9/15/11	Time Custody Released: 1600
	Time Custody Received: 1246	Organization: MBC			
2.	Date: 9/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 9/15/11	Time Custody Released: 1700
	Time Custody Received: 1100	Organization: MBC			
3.	Date: 9/15/11	Name (Print): V.A.	Signature: [Signature]	Date:	Time Custody Released:
	Time Custody Received: 9:30	Organization: DWRLB			

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: **< 0.01 MR/HR**
- 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
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FINAL Analysis Results Report for Task ID. N11-0884

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/07/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Wayne Dossett	Date/Time Collected: 09/15/2011 12:46 Date/Time Received: 09/16/2011 09:30
Site Name: San Onofre NPP	Source Name: SONPP / September 2011
R Number: R 92542	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0884-001	SONGS C	EPA 906.0	Tritium	-160 ± 154	271	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Alt: Shiyatmale Robert		Date Received 9/16/11	Lab No. (Leave Blank) 111-0884
Collector Information Name: Wayne Dossett Dept/Branch: MBC Applied Environmental Service Address: 3000 Red Hill Ave Costa Mesa, Ca 92626 Telephone: 714-850-4830		Date & Time Sampled 9/15/11 246	Serial Number R 92542
Reporting Information Name: Steve HSU Dept/Branch: CDPH-RHB Address: PO Box 99-744 MS T610 Sacramento, Ca 95899 Telephone No.: 916-440-7800		Billing Agency <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"/> CDGF <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:			

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 checked="" 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): _____
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: _____ Cool/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 checked="" type="checkbox"/> Tritium (T 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: 9/15/11	Name (Print): Wayne Dossett	Signature: [Signature]	Date: 9/15/11
	Time Custody Received: 1246	Organization: MBC		Time Custody Released: 1600
2.	Date: 9/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 9/15/11
	Time Custody Received: 1600	Organization: MBC		Time Custody Released: 1700
3.	Date: 9/16/11	Name (Print): DWRLB	Signature: [Signature]	Date: _____
	Time Custody Received: 9:30	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

L 0.01 MR/HR

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
---	--	------------------------------------	---



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0885

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 09/22/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Wayne Dossett

Date/Time Collected: 09/15/2011 11:32 Date/Time Received: 09/16/2011 11:39

Site Name: San Onofre NPP

Source Name: SONPP / September 2011

R Number: R 92546

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0885-001	SONGS D	EPA 901.1	K-40	309 ± 16.4	56.4	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Hjo-620-2930 Attn: Shiyamalie Kobera	Date Received 9/16/11	Lab No. (Leave Blank) N11-0895
	Date & Time Sampled 9/15/11 1132	Serial Number R 92546
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-744 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7240	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 Groundwater Surface Water Wastewater
 - Raw Water Treatment Plant (WTP) Distribution System Point of Use (POU)
 - Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
- | | | | |
|--------------------------------------|-----------|--|--|
| <input type="checkbox"/> Air Filters | Date/Time | <input checked="" 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): _____ |
| Net (M ³) _____ | | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
- Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

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

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

- | | | |
|---|--|--|
| <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Gross Beta | <input 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 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: 9/15/11	Name (Print): Jenny Smith	Signature:	Date: 9/15/11
Time Custody Received: 1132	Organization: MBC	Signature:	Time Custody Released: 1700
2. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3. Date: 9/16/11	Name (Print): JA	Signature:	Date: _____
Time Custody Received: 9:30	Organization: DWRLB	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 |
|---|--|------------------------------------|---|
- C 0.01 MR/HR



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0886

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/10/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Wayne Dossett

Date/Time Collected: 09/15/2011 11:32 Date/Time Received: 09/16/2011 09:30

Site Name: San Onofre NPP

Source Name: SONPP / September 2011

R Number: R 92547

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0886-001	SONGS D	EPA 906.0	Tritium	33.8 ± 145	248	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Alt: Shimamoto Rebera	Date Received 9/16/11	Lab No. (Leave Blank) 111-0886
	Date & Time Sampled 9/15/11 1132	Serial Number R 92547
Collector Information Name: Jenny Smith Dept./Branch: mbc Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-550-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: P.O. Box 99-744 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-8940	
Sample Information System Name / Facility: SURAS Sampling Point (s): D System No.:	Billing Agency <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 checked="" type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input type="checkbox"/> Milk | <input type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input checked="" type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): _____ |
| Net (M ³) _____ | _____ | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: _____ Dried/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 checked="" type="checkbox"/> Tritium (3H) | <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: 9/15/11	Name (Print): Jenny Smith	Signature:	Date: 9/15/11
	Time Custody Received: 1132	Organization: MBC		Time Custody Released: 1700
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 9/16/11	Name (Print): UA	Signature:	Date: _____
	Time Custody Received: 9:30	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 |
|---|--|------------------------------------|---|
- 2.001 MR/HR



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0804

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 08/26/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 08/15/2011 11:48 Date/Time Received: 08/17/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / August 2011

R Number: R 92477

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0804-001	Songs A	EPA 901.1	K-40	370 ± 17.4	56.3	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 <i>510-620-2130 MBC - Environmental Services</i>	Date Received 8/17/11	Lab No. (Leave Blank) N11-0804
	Date & Time Sampled 8/15/11 1148	Serial Number R 92477
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7140	
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:	Billing Agency <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 / Peroxizone / Fluoridated / Coagulated / pH Adjusted
- Groundwater
- Water Treatment Plant (WTP)
- Surface Water
- Distribution System
- Wastewater
- Point of Use (POU)
- Air Filters
- Finishing: _____ Date/Time _____
- Starting: _____
- Net (M³) _____
- Air Charcoal Cartridge
- Seawater
- Milk
- Wipes
- Radon Canister
- Sludge (Semi-solid Samples)
- Soil/Sediment
- Biota (Type): _____
- Other: _____

COMMENTS: (Cautions, etc.):

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

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 (SC)
- 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: 8/15/11	Name (Print): Jenny Smith	Signature: <i>[Signature]</i>	Date: 8/16/11
	Time Custody Received: 1148	Organization: MBC		Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 8/17/11	Name (Print): VA	Signature: <i>[Signature]</i>	Date: _____
	Time Custody Received: 11:00	Organization: DWRLB		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
- < 0.01 MR/HR**



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0805

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 08/15/2011 11:48 Date/Time Received: 08/17/2011 11:10

Site Name: San Onofre NPP

Source Name: SONPP / August 2011

R Number: R 92478

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0805-001	SONGS A	EPA 906.0	Tritium	-106 ± 155	271	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Administrative Records		Date Received 8/17/11	Lab No. (Leave Blank) N11-0805
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Date & Time Sampled 8/15/11 1148	Serial Number R 92478
Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7440			
Sample Information System Name / Facility: Sampling Point (s): SONGS A System No.:		Billing Agency <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 checked="" 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): _____
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 checked="" type="checkbox"/> Tritium (H ³)	<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: 8/15/11	Name (Print): Jenny Smith	Signature:	Date: 8/16/11
	Time Custody Received: 1148	Organization: MBC		Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 8/17/11	Name (Print): VA	Signature:	Date: _____
	Time Custody Received: 11:10	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: **< 0.01 MR/HR**

<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 checked="" 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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0806

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 08/26/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 08/15/2011 12:08 Date/Time Received: 08/17/2011 11:10

Site Name: San Onofre NPP

Source Name: SONPP / August 2011

R Number: R 92481

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0806-001	Songs B	EPA 901.1	K-40	352 ± 19.0	66.4	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2130 Alt: Sacramento Region		Date Received 8/17/11	Lab No. (Leave Blank) NIK-0806
Collector Information Name: Jenny Smith Dept/Branch: mBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-450-4830		Date & Time Sampled 8/15/11 1208	Serial Number R 92481
Reporting Information Name: Steve Hsu Dept/Branch: CDPH - RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7144			
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:		Billing Agency <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 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
- | | | | |
|--------------------------------------|-----------|--|--|
| <input type="checkbox"/> Air Filters | Date/Time | <input checked="" 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): _____ |
| Net (M ³) _____ | | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
- Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: _____ Cooled/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: 8/15/11	Name (Print): Jenny Smith	Signature:	Date: 8/16/11
	Time Custody Received: 1208	Organization: MABC		Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 8/17/11	Name (Print): VA	Signature:	Date: _____
	Time Custody Received: 11:07	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: 20.01 MR/HR
- 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. N11-0807

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 08/15/2011 12:08 Date/Time Received: 08/17/2011 11:07

Site Name: San Onofre NPP

Source Name: SONPP / August 2011

R Number: R 92482

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0807-001	SONGS B	EPA 906.0	Tritium	-19.9 ± 157	271	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 All... ..	Date Received: 8-11-11	Lab No. (Leave Blank) N11-0807
	Date & Time Sampled: 8/15/11 1208	Serial Number: R 92482
Collector Information Name: Jenny Smith Dept./Branch: mbc Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95819 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Billing Agency <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 checked="" 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): _____
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 (BSC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" 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: 8/15/11	Name (Print): Jenny Smith	Signature:	Date: 8/16/11
Time Custody Received: 1208	Organization: mbc	Signature:	Time Custody Released: 1500
2. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3. Date: 8/17/11	Name (Print): UA	Signature:	Date: _____
Time Custody Received: 11:10	Organization: DWRLB	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

C 0.01 MR/HR



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0808

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 08/26/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 08/15/2011 11:57 Date/Time Received: 08/17/2011 11:05

Site Name: San Onofre NPP

Source Name: SONPP / August 2011

R Number: R 92484

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0808-001	Songs C	EPA 901.1	K-40	353 ± 17.4	57.7	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Sample Analysis Request	Date Received 8/17/11	Lab No. (Leave Blank) N11-0808
	Date & Time Sampled 8/15/11 1157	Serial Number R 92484
Collector Information Name: Jenny Smith Dept/Branch: ABC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept/Branch: CDPH - RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7490	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 checked="" 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): _____
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 checked="" type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (SC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input type="checkbox"/> Tritium (HT)	<input type="checkbox"/> Isotopic Americium / Curium
<input checked="" 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: 8/15/11	Name (Print): Jenny Smith	Signature:	Date: 8/16/11
Time Custody Received: 1157	Organization: ABC		Time Custody Released: 1500
2. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3. Date: 8/17/11	Name (Print): UA	Signature:	Date: _____
Time Custody Received: 11:05	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: **< 0.01 MR/HR**

<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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0809

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/07/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Jenny Smith	Date/Time Collected: 08/15/2011 11:57 Date/Time Received: 08/17/2011 11:13
Site Name: San Onofre NPP	Source Name: SONPP / August 2011
R Number: R 92485	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0809-001	SONGS C	EPA 906.0	Tritium	-95.7 ± 156	271	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2130 Attn: Jenny Smith or Roberto	Date Received 8/17/11	Lab No. (Leave Blank) NII-0909
	Date & Time Sampled 8/15/11 1157	Serial Number R 92485
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4330	Reporting Information Name: Steve HSU Dept./Branch: CDPH - RHB Address: PO Box 99-7414 MS 7010 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	

TYPE OF SAMPLE (Check all applicable boxes)

<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 checked="" 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): _____
Net (M ³) _____		<input checked="" type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

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

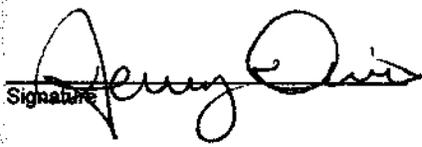
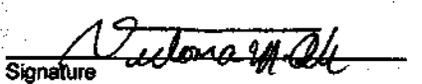
Field Measurement: _____ mR/hr Radionuclide(s), if known: _____

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 (LS)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" type="checkbox"/> Tritium (3H)	<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: 8/15/11	Name (Print): Jenny Smith	Signature: 	Date: 8/16/11
	Time Custody Received: 1157	Organization: MBC		Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 8/17/11	Name (Print): UA	Signature: 	Date: _____
	Time Custody Received: 1113	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: 0.01 uR/HR

<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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0810

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 08/26/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: James Nunez	Date/Time Collected: 08/15/2011 10:55 Date/Time Received: 08/17/2011 11:05
Site Name: San Onofre NPP	Source Name: SONPP / August 2011
R Number: R 92487	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0810-001	Songs D	EPA 901.1	K-40	322 ± 15.6	49.9	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Alt: Sacramento Hub	Date Received 8/17/11	Lab No. (Leave Blank) 111-0610
	Date & Time Sampled 8/15/11 1055	Serial Number R 92487
Collector Information Name: James Nunez Dept/Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept/Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 checked="" type="checkbox"/> Seawater | <input type="checkbox"/> Sludge (Semi-solid Samples) |
| Finishing: _____ | _____ | <input checked="" type="checkbox"/> Milk | <input type="checkbox"/> Soil/Sediment |
| Starting: _____ | _____ | <input type="checkbox"/> Wipes | <input type="checkbox"/> Biota (Type): _____ |
| Net (M ³) _____ | _____ | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.)

- Field Treatment: Preservatives added: _____ Rad/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 checked="" type="checkbox"/> Gamma Scan |
| <input type="checkbox"/> Total Uranium | <input type="checkbox"/> Total Beta (ES) | <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: 8/15/11	Name (Print): James Nunez	Signature:	Date: 8/15/11
	Time Custody Received: 1055	Organization: MBC		Time Custody Released: 1545
2.	Date: 8/15/11	Name (Print): Jenny Smith	Signature:	Date: 8/16/11
	Time Custody Received: 1545	Organization: MBC		Time Custody Released: 1500
3.	Date: 8/17/11	Name (Print): VA	Signature:	Date: _____
	Time Custody Received: 11:05	Organization: DWRLB	Signature:	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: **< 0.01 mR/HR**
- | | | | |
|--|--|--|---|
| <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 |
|---|--|------------------------------------|---|



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0811

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/10/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 08/15/2011 10:55 Date/Time Received: 08/17/2011 11:15

Site Name: San Onofre NPP

Source Name: SONPP / August 2011

R Number: R 92488

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0811-001	SONGS D	EPA 906.0	Tritium	-5.96 ± 144	248	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shyngweide Roberts	Date Received 8/12/11	Lab No. (Leave Blank) N11-0811
	Date & Time Sampled 8/15/11 1055	Serial Number R 92488
Collector Information Name: James Nuñez Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714 - 850 - 4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: P.O. Box 97-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916 - 440 - 7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input checked="" 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: _____ Cooled/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: 8/15/11	Name (Print): James Nuñez	Signature: [Signature]	Date: 8/15/11
	Time Custody Received: 1055	Organization: MBC		Date: 8/15/11
2.	Date: 8/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 8/16/11
	Time Custody Received: 1545	Organization: MBC		Date: 8/16/11
3.	Date: 8/17/11	Name (Print): UA	Signature: [Signature]	Date: 8/17/11
	Time Custody Received: 11:15	Organization: DWRLB	Signature: [Signature]	Date: 8/17/11

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

0.01 MR/HR



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0727

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 08/24/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name:

Date/Time Collected: 07/18/2011 11:39 Date/Time Received: 07/19/2011 11:35

Site Name: San Onofre NPP

Source Name: SONPP / July 2011

R Number: R 92463

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0727-001	SONGS A	EPA 901.1	K-40	382 ± 20.0	69.7	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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.

0727

REQUEST FOR SAMPLE ANALYSIS (Radiochemical)

Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 510-620-2911 Attn: Shiyamalie Rubera		Date Received 7/19/11	Lab No. (Leave Blank) N11-0727
Collector Information Name: JENNY SMITH Dept/Branch: MBC Applied Environmental Services Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Date & Time Sampled 7/19/11 1139	Serial Number R 92463
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:		Reporting Information Name: Steve Hsu Dept/Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7440	
Billing Agency <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 checked="" 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): _____
Net (M ³): _____		<input checked="" type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

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

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

<input type="checkbox"/> Gross Alpha	<input 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 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: 7/18/11	Name (Print): Jenny Smith	Signature:	Date: 7/18/11
Time Custody Received: 1139	Organization: MBC	Signature:	Time Custody Released: 1800
2. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3. Date: 7/19/11	Name (Print): UA	Signature:	Date: _____
Time Custody Received: 11:40	Organization: DWRLB	Signature:	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

Condition at Time of Receipt: **< 0.01 MR/HR**
 Acceptable Broken Container Leaked in Transit Improper Container
 Holding Time Exceeded Sample Not Cooled Insufficient Sample
 Preservatives/Carriers: Added in Laboratory Not Added Not Applicable
 Added While Sampling



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0728

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/10/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 07/18/2011 11:39 Date/Time Received: 07/19/2011 11:35

Site Name: San Onofre NPP

Source Name: SONPP / July 2011

R Number: R 92464

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0728-001	SONGS A	EPA 906.0	Tritium	31.8 ± 145	248	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where S_0 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 Attn: Shiyamalie Rubera		Date Received 7/19/11	Lab No. (Leave Blank) N11-0728
Collector Information Name: JENNY SMITH Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave, Costa Mesa, CA 92626 Telephone No: 714-850-4830		Date & Time Sampled 7/19/11 1139	Serial Number R 92464
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:		Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: 20 BOX 99-7414 MS 7010 Sacramento, CA 95899 Telephone No: 916-440-7940	
Billing Agency <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 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: _____ Cooled/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 (TSC) 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: 18 July 11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 18 July 11
	Time Custody Received: 1139	Organization: MBC	Signature: [Signature]	Time Custody Released: 1800
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3.	Date: 7/19/11	Name (Print): VIA	Signature: [Signature]	Date: _____
	Time Custody Received: 11:35	Organization: DWRLB	Signature: [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

< 0.01 MR/HR



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0729

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 08/24/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 07/18/2011 11:58 Date/Time Received: 07/19/2011 11:40

Site Name: San Onofre NPP

Source Name: SONPP / July 2011

R Number: R 92465

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDAss</u>	<u>Units</u>
N11-0729-001	SONGS B	EPA 901.1	K-40	381 ± 18.4	60.9	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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 Attn: Shyamalie Robera		Date Received 7/19/11	Lab No. (Leave Blank) N11-0709
Collector Information Name: Jenny Smith Dept./Branch: M3C Applied Environmental Science Address: 3000 Red Hill Costa Mesa, Ca. Telephone No.: 714-890-4850		Date & Time Sampled 7/18/11 11:58	Serial Number R 92465
Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-9400		Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input checked="" type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:			

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: _____ Cooled/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-90 Isotopic Uranium
 Other (Specify): _____ Nickel-63 Iron-55

CHAIN OF CUSTODY

1.	Date: 18 July 11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 18 July 11
	Time Custody Received: 11:58	Organization: M3C		Time Custody Released: 1800
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 7/19/11	Name (Print): UA	Signature: [Signature]	Date: _____
	Time Custody Received: 11:40	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

< 0.01 MR/HR



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0730

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/10/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 07/18/2011 11:58 Date/Time Received: 07/19/2011 11:35

Site Name: San Onofre NPP

Source Name: SONPP / July 2011

R Number: R 92466

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0730-001	SONGS B	EPA 906.0	Tritium	-13.9 ± 144	248	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shiyamalie Roberto		Date Received 7/19/11	Lab No. (Leave Blank) 111-0230
Collector Information Name: JENNY SMITH Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Date & Time Sampled 7/18/11 11:58	Serial Number R-92466
Reporting Information Name: Steve HSU Dept./Branch: CDPH - RHB Address: PO Box 99-744 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940			
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:		Billing Agency <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 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: _____ Cooled/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 (LS)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" type="checkbox"/> Tritium (3H)	<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: 18 Jun 11	Name (Print): Jenny Smith	Signature:	Date: 18 Jun 11
	Time Custody Received: 11:58	Organization: MAC	Signature:	Time Custody Released: 1800
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3.	Date: 7/19/11	Name (Print): UA	Signature:	Date: _____
	Time Custody Received: 11:35	Organization: DWRLB	Signature:	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: **< 0.01 mR/hr**
 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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0731

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 08/24/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 07/18/2011 11:49 Date/Time Received: 07/19/2011 11:40

Site Name: San Onofre NPP

Source Name: SONPP / July 2011

R Number: R 92468

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0731-001	SONGS C	EPA 901.1	K-40	350 ± 23.3	85.8	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Rubera	Date Received 7/19/11	Lab No. (Leave Blank) N11-0731
	Date & Time Sampled 7/18/11 1149	Serial Number R 92468
Collector Information Name: JENNY SMITH Dept./Branch: mbc Applied Environmental Science Address: 3000 Red Hill Ave Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-744 MS 7010 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 checked="" 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): _____
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 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 (3H)	<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: 18 July 11	Name (Print): Jenny Smith	Signature:	Date: 18 July 11
Time Custody Received: 1149	Organization: mbc		Time Custody Released: 1800
2. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3. Date: 7/19/11	Name (Print): VA	Signature:	Date: _____
Time Custody Received: 1140	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: **< 0.01 mR/hr**

<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 checked="" type="checkbox"/> Not Added	<input type="checkbox"/> Not Applicable
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92468



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0732

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/10/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 07/18/2011 11:49 Date/Time Received: 07/19/2011 11:30

Site Name: San Onofre NPP

Source Name: SONPP / July 2011

R Number: R 92473

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0732-001	SONGS C	EPA 906.0	Tritium	107 ± 147	248	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shyamalie Rubera		Date Received 7/19/11	Lab No. (Leave Blank) N11-0732
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830		Date & Time Sampled 7/18/11 1149	Serial Number R 92473
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:		Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7010 Sacramento, Ca 95899 Telephone No.: 916-440-7990	
		Billing Agency N11-0732 <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 checked="" 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 checked="" 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): _____
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: _____ Cooled/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 checked="" 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: 18 July 11	Name (Print): Jenny Smith	Signature:	Date: 18 July 11
	Time Custody Received: 1149	Organization: MBC		Time Custody Released: 1800
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 7/19/11	Name (Print): VA	Signature:	Date: _____
	Time Custody Received: 11:30	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: **< 0.01 MR/HR**

<input checked="" 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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0733

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 08/22/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 07/18/2011 14:55 Date/Time Received: 07/19/2011 11:45

Site Name: San Onofre NPP

Source Name: SONPP / July 2011

R Number: R 92470

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0733-001	SONGS D	EPA 901.1	K-40	358 ± 19.1	66.6	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Rubera	Date Received 7/19/11	Lab No. (Leave Blank) N11-0733
	Date & Time Sampled 7/19/11 1455	Serial Number R 92470
Collector Information Name: Robert Moore Dept/Branch: mbc Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept/Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610: Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 checked="" 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): _____
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 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 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: 18 July 11 1455	Name (Print): Robert Moore	Signature: [Signature]	Date: 12 July 11
	Time Custody Received	Organization: mbc	Signature: [Signature]	Time Custody Released: 1600
2.	Date: 18 July 11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 18 July 11
	Time Custody Received: 1600	Organization: mbc	Signature: [Signature]	Time Custody Released: 1800
3.	Date: 7/19/11	Name (Print): [Blank]	Signature: [Signature]	Date: [Blank]
	Time Custody Received: 11:45	Organization: DWRLB	Signature: [Signature]	Time Custody Released: [Blank]

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: C 0.01 MR/HR

<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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0734

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 10/10/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 07/18/2011 14:55 Date/Time Received: 07/19/2011 11:35

Site Name: San Onofre NPP

Source Name: SONPP / July 2011

R Number: R 92474

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0734-001	SONGS D	EPA 906.0	Tritium	87.4 ± 146	248	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 510-620-2911 Attn: Shiyamalce Robero		Date Received 7/19/11	Lab No. (Leave Blank) MLL-0734
Collector Information Name: Robert Moore Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Date & Time Sampled 7/18/11 1455	Serial Number R 92474
Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-744 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940		Billing Agency <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) _____	
Sample Information System Name / Facility: SONGS Sampling Point (s): System No.: D			

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 Seawater Sludge (Semi-solid Samples)
- Finishing: _____ Date/Time: _____ 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: 18 July 11	Name (Print): Robert Moore	Signature: [Signature]	Date: 18 July 11
	Time Custody Received: 1455	Organization: MBC		Time Custody Released: 1600
2.	Date: 18 July 11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 18 July 11
	Time Custody Received: 1600	Organization: MBC		Time Custody Released: 1800
3.	Date: 7/19/11	Name (Print): JA	Signature: [Signature]	Date: _____
	Time Custody Received: 11:36	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: 2.001 MR/HR
- 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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0646

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 06/15/2011 11:20 Date/Time Received: 06/17/2011 10:10

Site Name: San Onofre NPP

Source Name: SONPP / June 2011

R Number: R 92418

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA95</u>	<u>Units</u>
N11-0646-001	SONGS A	EPA 901.1	K-40	336 ± 23.1	86.3	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Rubera		Date Received 6/17/11	Lab No. (Leave Blank) M11-0646
Collector Information Name: Jenny Smith Dept./Branch: mBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Date & Time Sampled 6/15/11 1120	Serial Number R 92418
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:		Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-442-7940	
Billing Agency <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 checked="" type="checkbox"/> Seawater	<input type="checkbox"/> Sludge (Semi-solid Samples)
Finishing: _____	_____	<input type="checkbox"/> Milk	<input type="checkbox"/> Soil/Sediment
Starting: _____	_____	<input checked="" type="checkbox"/> Wipes	<input type="checkbox"/> Biota (Type): _____
Net (M ³) _____		<input checked="" type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____
 Field Measurement: _____ mR/hr
 Rush/Priority (should be prearranged and have supervisory approval)

Rad/Frozen: _____ Other: _____
 Radionuclide(s), if known: _____

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

<input type="checkbox"/> Gross Alpha	<input 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 checked="" 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: 6/15/11	Name (Print): Jenny Smith	Signature: _____	Date: 6/16/11
	Time Custody Received: 1120	Organization: mBC		Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 6/17/11	Name (Print): A. TAN	Signature: _____	Date: _____
	Time Custody Received: 10:10	Organization: DDWEM	Signature: Angela Tan	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: 0.01 M_r/hr

<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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0647

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 06/15/2011 11:20 Date/Time Received: 06/17/2011 10:10

Site Name: San Onofre NPP

Source Name: SONPP / June 2011

R Number: R 92419

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0647-001	SONGS A	EPA 906.0	Tritium	-264 ± 145	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shyamalie Rubera	Date Received 6/17/11	Lab No. (Leave Blank) K11-0647
	Date & Time Sampled 6/15/11 1120	Serial Number R 92419

Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-840-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: P.O. Box 99-74 K MS 7010 Sacramento, CA 95899 Telephone No.: 916-440-7900
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Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:	Billing Agency <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) _____
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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 checked="" 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): _____
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 checked="" 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: 6/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 6/16/11
Time Custody Received: 1120	Organization: MBC	Signature: [Signature]	Time Custody Released: 1500
2. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3. Date: 6/17/11	Name (Print): A TAN	Signature: [Signature]	Date: _____
Time Custody Received: 10:10	Organization: DDWEM	Signature: Angela Tan	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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804
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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0648

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 06/15/2011 11:36 Date/Time Received: 06/17/2011 11:36

Site Name: San Onofre NPP

Source Name: SONPP / June 2011

R Number: R 92422

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0648-001	SONGS B	EPA 901.1	K-40	377 ± 22.4	85.6	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Rubera		Date Received 6/17/11	Lab No. (Leave Blank) NH-0648
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Science Address: 3200 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830		Date & Time Sampled 6/15/11 1130	Serial Number R 92422
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:		Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO. Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input checked="" 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 checked="" 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): _____
Net (M ²) _____		<input checked="" 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 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 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: 6/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 6/15/11
Time Custody Received: 1130	Organization: MBC	Signature: [Signature]	Time Custody Released: 1500
2. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3. Date: 6/17/11	Name (Print): A. TAN	Signature: [Signature]	Date: _____
Time Custody Received: 10:10	Organization: DDWEM	Signature: Angela Tan	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

<input type="checkbox"/> Acceptable	<input type="checkbox"/> Broken Container/hr	<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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0.01 M/hr



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0649

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 06/15/2011 11:36 Date/Time Received: 06/17/2011 10:10

Site Name: San Onofre NPP

Source Name: SONPP / June 2011

R Number: R092423

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0649-001	SONGS B	EPA 906.0	Tritium	-80.3 ± 150	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shyamalie Rubera		Date Received 6/17/11	Lab No. (Leave Blank) N11-0649
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave Costa Mesa, CA 92626 Telephone No.: 714-830-4830		Date & Time Sampled 6/15/11 1130	Serial Number R 92423
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:		Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: P.O. Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7220	
Billing Agency <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 checked="" type="checkbox"/> Seawater	<input type="checkbox"/> Sludge (Semi-solid Samples)
Finishing: _____	_____	<input checked="" type="checkbox"/> Milk	<input type="checkbox"/> Soil/Sediment
Starting: _____	_____	<input type="checkbox"/> Wipes	<input type="checkbox"/> Biota (Type): _____
Net (M ³) _____		<input type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

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

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

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

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

<input type="checkbox"/> Gross Alpha	<input type="checkbox"/> Gross Beta	<input type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (ESC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" 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: 6/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 6/16/11
Time Custody Received: 1130	Organization: MBC	Signature: [Signature]	Time Custody Released: 1500
2. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3. Date: 6/17/11	Name (Print): A TAN	Signature: [Signature]	Date: _____
Time Custody Received: 18:10	Organization: DDWEM	Signature: Angela Tan	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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0650

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 06/15/2011 11:29 Date/Time Received: 06/17/2011 10:10

Site Name: San Onofre NPP

Source Name: SONPP / June 2011

R Number: R 92426

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0650-001	SONGS C	EPA 901.1	K-40	324 ± 16.8	57.5	pCi/L

1. Precision criteria for these methods 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-800/4-80-032, 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shyamalie Rubera	Date Received 6/17/11	Lab No. (Leave Blank) K11-0650
	Date & Time Sampled 6/15/11 1129	Serial Number R 92426
Collector Information Name: Penny Smith Dept./Branch: MBC Applied Environmental Services Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-950-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: P.O. Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7990	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 Groundwater Surface Water Wastewater
 Raw Water Treatment Plant (WTP) Distribution System Point of Use (POU)
 Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted

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

Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____ Fed/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: 6/15/11 Time Custody Received: 1129	Name (Print): Jenny Smith Organization: MBC	Signature:	Date: 6/16/11 Time Custody Released: 1500
2. Date: _____ Time Custody Received: _____	Name (Print): _____ Organization: _____	Signature: _____	Date: _____ Time Custody Released: _____
3. Date: 6/17/11 Time Custody Received: 10:10	Name (Print): A TAN Organization: DDWEM	Signature:	Date: _____ Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: 0.01 MR/hr

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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0651

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 06/15/2011 11:29 Date/Time Received: 06/17/2011 10:10

Site Name: San Onofre NPP

Source Name: SONPP / June 2011

R Number: R 92427

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0651-001	SONGS C	EPA 906.0	Tritium	11.8 ± 152	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shiyamale Rubera	Date Received 6/15/11	Lab No. (Leave Blank) RM-0651
	Date & Time Sampled 6/15/11 1129	Serial Number R 92427
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO. Box 99-7414 MS 7610 Sacramento, ca 95899 Telephone No.: 916-440-7340	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 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 (BSC) 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: 6/15/11	Name (Print): Jenny Smith	Signature:	Date: 6/16/11
	Time Custody Received: 1129	Organization: MBC		Time Custody Released: 1500
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 6/17/11	Name (Print): A. TAN	Signature:	Date: _____
	Time Custody Received: 1818	Organization: DDWEM		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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0652

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor

Name: Steve Hsu Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue
City: Sacramento State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: James Nunez Date/Time Collected: 06/15/2011 11:02 Date/Time Received: 06/17/2011 10:10
Site Name: San Onofre NPP Source Name: SONPP / June 2011
R Number: R 92430 Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0652-001	SONGS D	EPA 901.1	K-40	384 ± 17.0	51.9	pci/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalle Rubera	Date Received 6/17/11	Lab No. (Leave Blank) N11-0652
	Date & Time Sampled 6/15/11 110211	Serial Number R 92430
Collector Information Name: James Nunez Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO. Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7440	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 checked="" 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): _____
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: _____ Cooled/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 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 (3H)	<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: 6/15/11	Name (Print): James Nunez	Signature:	Date: 6/15/11
Time Custody Received: 1102	Organization: MBC Applied Environmental Sciences	Signature:	Time Custody Released: 1400
2. Date: 6/15/11	Name (Print): Jenny Smith	Signature:	Date: 6/16/11
Time Custody Received: 1400	Organization: MBC	Signature:	Time Custody Released: 1500
3. Date: 6/17/11	Name (Print): A. TAN	Signature:	Date: _____
Time Custody Received: 10:10	Organization: DDWEM	Signature:	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: 0-01 MR

<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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0653

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: James Nunez

Date/Time Collected: 06/15/2011 11:02 Date/Time Received: 06/17/2011 10:10

Site Name: San Onofre NPP

Source Name: SONPP / June 2011

R Number: r 92431

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0653-001	SONGS D	EPA 906.0	Tritium	106 ± 154	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Robera	Date Received 6/17/11	Lab No. (Leave Blank) N11-0653
	Date & Time Sampled 6/15/11 1102	Serial Number R 92431
Collector Information Name: James Nuñez Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RMB Address: P.O. Box 9957414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 checked="" 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): _____ |
| 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 (±SC) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input checked="" 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: 6/15/11	Name (Print): James Nuñez	Signature: _____	Date: 6/15/11
	Time Custody Received: 1102	Organization: MBC Applied Environmental Sciences	Signature: _____	Time Custody Released: 1400
2.	Date: 6/15/11	Name (Print): Jenny Smith	Signature: _____	Date: 6/16/11
	Time Custody Received: 1400	Organization: MBC	Signature: _____	Time Custody Released: 1500
3.	Date: 6/17/11	Name (Print): A. TAN	Signature: _____	Date: _____
	Time Custody Received: 10:10	Organization: DDWEM	Signature: Angela Tan	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 |
|---|--|------------------------------------|---|



Howard Backer, MD, MPH
Interim Director

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0572

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/01/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Bob Moore	Date/Time Collected: 05/16/2011 12:48 Date/Time Received: 05/18/2011 14:00
Site Name: San Onofre NPP	Source Name: SONPP / May 2011
R Number: R92411	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0572-001	SONGS A	EPA 901.1	K-40	346 ± 22.9	84.3	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Rubera		Date Received 5/18/11	Lab No: (Leave Blank) M11-0572
Collector Information Name: Robert Moore Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830		Date & Time Sampled 5/16/11 1248	Serial Number R 92411
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:		Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box CA-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input checked="" 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 / Peroxizone / Fluoridated / Coagulated / pH Adjusted
- Groundwater
- Water Treatment Plant (WTP)
- Surface Water
- Distribution System
- Wastewater
- Point of Use (POU)
- Air Filters
- Finishing: _____ Date/Time _____
- Starting: _____
- Net (M³) _____
- Air Charcoal Cartridge
- Seawater
- Milk
- Wipes
- Radon Canister
- Sludge (Semi-solid Samples)
- Soil/Sediment
- Biota (Type): _____
- Other: _____

COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: _____ Used/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
- 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: 16 May 11	Name (Print): Robert Moore	Signature:	Date: 17 May 11
	Time Custody Received: 0900 1248	Organization: MBC		Time Custody Released: 0900
2.	Date: 17 May 11	Name (Print): Jenny Smith	Signature:	Date: 17 May 11
	Time Custody Received: 0900	Organization: MBC		Time Custody Released: 1700
3.	Date: 5/18/11	Name (Print): A. TAN	Signature:	Date: _____
	Time Custody Received: 14:00	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: < 0.01 mR/hg
- 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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0573

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Bob Moore	Date/Time Collected: 05/16/2011 12:48 Date/Time Received: 05/18/2011 14:00
Site Name: San Onofre NPP	Source Name: SONPP / May 2011
R Number: R92400	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA95</u>	<u>Units</u>
N11-0573-001	SONGS A	EPA 906.0	Tritium	-64.6 ± 150	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Rubera		Date Received 5/18/11	Lab No. (Leave Blank) M11-0573
Collector Information Name: Robert Moore Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-250-4830		Date & Time Sampled 5/16/11 1248	Serial Number R 92400
Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940			
Sample Information System Name / Facility: Sampling Point (s): SONGS A System No.:		Billing Agency <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: _____
- Net (M³) _____
- Seawater
- Milk
- Wipes
- Radon Canister
- Sludge (Semi-solid Samples)
- Soil/Sediment
- Biota (Type): _____
- Other: _____
- Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: _____ Lead/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
- 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: 16 May 11	Name (Print): Robert Moore	Signature: [Signature]	Date: 17 May 11
	Time Custody Received: 1248	Organization: MBC	Signature: [Signature]	Time Custody Released: 0900
2.	Date: 17 May 11	Name (Print): Jenna Smith	Signature: [Signature]	Date: 17 May 11
	Time Custody Received: 0900	Organization: MBC	Signature: [Signature]	Time Custody Released: 1700
3.	Date: 5/18/11	Name (Print): A. TAN	Signature: [Signature]	Date: _____
	Time Custody Received: 14:00	Organization: DWRIB	Signature: Angela Tan	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



Howard Backer, MD, MPH
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California Department of Public Health

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0574

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/01/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Bob Moore

Date/Time Collected: 05/16/2011 13:07 Date/Time Received: 05/18/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / May 2011

R Number: R92401

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0574-001	SONGS B	EPA 901.1	K-40	386 ± 22.4	85.2	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Rubera		Date Received 5/18/11	Lab No. (Leave Blank) N11-0524
Collector Information Name: Robert Moore Dept./Branch: MBC Applied Environmental Services Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-830-4830		Date & Time Sampled 5/16/11 1307	Serial Number R 92401
Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7410 Sacramento, Ca 95899 Telephone No.: 916-440-7940		Billing Agency <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) _____	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:			

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

COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: _____ Feed/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 (β_{SC}) 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: 16 May 11	Name (Print): Robert Moore	Signature: [Signature]	Date: 17 May 11
	Time Custody Received: 1307	Organization: MBC		Time Custody Released: 8:00
2.	Date: 17 May 11	Name (Print): [Signature]	Signature: [Signature]	Date: 17 May 11
	Time Custody Received: 0900	Organization: MBC		Time Custody Released: 1700
3.	Date: 5/18/11	Name (Print): A TAN	Signature: [Signature]	Date:
	Time Custody Received: 14:50	Organization: DW RHB	Signature: Angela Tan	Time Custody Released:

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: 20.01 mR/hr
- 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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0575

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Bob Moore

Date/Time Collected: 05/16/2011 13:07 Date/Time Received: 05/18/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / May 2011

R Number: R92402

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0575-001	SONGS B	EPA 906.0	Tritium	-70.5 ± 150	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyumalie Robera		Date Received 5/18/11	Lab No. (Leave Blank) N11-0575
Collector Information Name: Robert Moore Dept/Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Date & Time Sampled 5/16/11 1307	Serial Number R 92402
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:		Reporting Information Name: Steve Hsu Dept/Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Billing Agency <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 checked="" 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 checked="" 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): _____
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: _____ Cooled/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 checked="" 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: 16 May 11	Name (Print): Robert Moore	Signature: [Signature]	Date: 17 May 11
Time Custody Received: 1307	Organization: MBC	Signature: [Signature]	Time Custody Released: 0900
2. Date: 17 May 11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 17 May 11
Time Custody Received: 0900	Organization: MBC	Signature: [Signature]	Time Custody Released: 1700
3. Date: 5/18/11	Name (Print): A TAN	Signature: [Signature]	Date: _____
Time Custody Received: 14:00	Organization: DWRRLB	Signature: Angela Tan	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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Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0576

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/01/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Bob Moore

Date/Time Collected: 05/16/2011 12:58 Date/Time Received: 05/18/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / May 2011

R Number: R92410

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0576-001	SONGS C	EPA 901.1	K-40	335 ± 16.9	56.7	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalle Rubera	Date Received 5/18/11	Lab No. (Leave Blank) NH-0576
	Date & Time Sampled 5/16/11 1258	Serial Number R 92410
Collector Information Name: Robert Moore Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 ms 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 checked="" type="checkbox"/> Seawater	<input type="checkbox"/> Sludge (Semi-solid Samples)
Finishing: _____	_____	<input type="checkbox"/> Milk	<input type="checkbox"/> Soil/Sediment
Starting: _____	_____	<input checked="" type="checkbox"/> Wipes	<input type="checkbox"/> Biota (Type): _____
Net (M ³) _____	_____	<input checked="" 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 checked="" type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (SC)	<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: 16 May 11	Name (Print): Robert Moore	Signature: [Signature]	Date: 17 May 11
Time Custody Received: 1258	Organization: MBC	Signature: [Signature]	Time Custody Released: 0900
2. Date: 17 May 11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 17 May 11
Time Custody Received: 0900	Organization: MBC	Signature: [Signature]	Time Custody Released: 1700
3. Date: 5/18/11	Name (Print): A. TAN	Signature: [Signature]	Date: _____
Time Custody Received: 14:00	Organization: DWRLB	Signature: Angela Tan	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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20.01 Mx/hr



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0577

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Bob Moore

Date/Time Collected: 05/16/2011 12:58 Date/Time Received: 05/18/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / May 2011

R Number: R92405

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0577-001	SONGS C	EPA 906.0	Tritium	-50.9 ± 150	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Rubera	Date Received 5/18/11	Lab No. (Leave Blank) N11-0577
	Date & Time Sampled 5/16/11 1258	Serial Number R 92405
Collector Information Name: Robert Moore Dept./Branch: 300-MBC Applied Environmental Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU. Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input checked="" 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 checked="" 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): _____
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: _____ Cooled/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 checked="" 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: 16 May 11	Name (Print): Robert Moore	Signature: [Signature]	Date: 17 May 11
Time Custody Received: 1258	Organization: MBC	Signature: [Signature]	Time Custody Released: 0900
2. Date: 17 May 11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 17 May 11
Time Custody Received: 0900	Organization: MBC	Signature: [Signature]	Time Custody Released: 1700
3. Date: 5/18/11	Name (Print): A. TAN	Signature: [Signature]	Date: _____
Time Custody Received: 14:00	Organization: DWR/RB	Signature: [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

Howard Backer, MD, MPH
Interim Director

FINAL Analysis Results Report for Task ID. N11-0578

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/01/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Bob Moore

Date/Time Collected: 05/16/2011 14:42 Date/Time Received: 05/18/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / May 2011

R Number: R92417

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0578-001	SONGS D	EPA 901.1	K-40	361 ± 17.2	55.6	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Affn: Shiyamalie Rubera	Date Received 5/18/11	Lab No. (Leave Blank) M11-0578
	Date & Time Sampled 5/16/11 1442	Serial Number R 92417
Collector Information Name: Jimmy Nuñez Dept./Branch: MBC Applied Environmental Services Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input checked="" 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 Seawater Sludge (Semi-solid Samples)
 Finishing: _____ Date/Time _____
 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. <u>16 May 11</u> Date	<u>Jimmy Nuñez</u> Name (Print)	<u>[Signature]</u> Signature	<u>16 May 11</u> Date
<u>1442</u> Time Custody Received	<u>MBC</u> Organization		<u>1540</u> Time Custody Released
2. <u>16 May 11</u> Date	<u>Jenny Smith</u> Name (Print)	<u>[Signature]</u> Signature	<u>17 May 11</u> Date
<u>1540</u> Time Custody Received	<u>MBC</u> Organization		<u>1700</u> Time Custody Released
3. <u>5/18/11</u> Date	<u>A. TAN</u> Name (Print)	<u>[Signature]</u> Signature	<u> </u> Date
<u>14:00</u> Time Custody Received	<u>DWRLB</u> Organization	<u>Angela Tan</u> Signature	<u> </u> Time Custody Released

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: 0.01 mR/hr

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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0579

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/29/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Bob Moore

Date/Time Collected: 05/16/2011 14:42 Date/Time Received: 05/18/2011 14:00

Site Name: San Onofre NPP

Source Name: SONPP / May 2011

R Number: R92416

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0579-001	SONGS D	EPA 906.0	Tritium	-116 ± 149	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalie Rubera		Date Received 5/18/11	Lab No. (Leave Blank) N11-0579
Collector Information Name: Jimmy Nuñez Dept./Branch: MBC Applied Environmental Science Address: 300 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830		Date & Time Sampled 5/16/11 1442	Serial Number R 92416
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:		Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7419 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Billing Agency <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: _____ Date/Time _____
- Net (M³) _____
- Air Charcoal Cartridge
- Seawater
- Milk
- Wipes
- Radon Canister
- Sludge (Semi-solid Samples)
- Soil/Sediment
- Biota (Type): _____
- Other: _____

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
- 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: 16 May 11	Name (Print): Jimmy Nuñez	Signature:	Date: 16 May 11
	Time Custody Received: 1442	Organization: MBC		Time Custody Released: 1540
2.	Date: 16 May 11	Name (Print): Jenny Smith	Signature:	Date: 17 May 11
	Time Custody Received: 1540	Organization: MBC		Time Custody Released: 1700
3.	Date: 5/18/11	Name (Print): A TAN	Signature:	Date: _____
	Time Custody Received: 1400	Organization: DWPLB		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



Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0462

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/01/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 04/18/2011 15:41 Date/Time Received: 04/20/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / April 2011

R Number: R91106

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0462-001	SONGS A	EPA 901.1	K-40	363 ± 16.6	51.6	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Conygnathie Rubera		Date Received 4/20/11	Lab No. (Leave Blank) N11-0462
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Science Address: 3500 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830		Date & Time Sampled 4/18/11 1541	Serial Number R 91106
Reporting Information Name: Steve HSU Dept./Branch: CDPH - RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940			
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:		Billing Agency <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"/> GDFG <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: _____
 Starting: _____ Milk Soil/Sediment
 Net (M³) _____ Wipes Biota (Type): _____
 Air Charcoal Cartridge Radon Canister Other: _____

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: 4/18/11	Name (Print): Jenny Smith	Signature:	Date: 4/19/11
	Time Custody Received: 1541	Organization: MBC	Signature: _____	Time Custody Released: 1700
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3.	Date: 4/20/11	Name (Print): A TAN	Signature:	Date: _____
	Time Custody Received: 11:00	Organization: DWRLB	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

< 0.1 MR/hr



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0463

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 07/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 04/18/2011 15:41 Date/Time Received: 04/20/2011 11:00

Site Name: San Onofre NPP

Source Name: SONGS / April 2011

R Number: R91107

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0463-001	SONGS A	EPA 906.0	Tritium	-97.4 ± 168	293	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Athi Shivanille Rubera	Date Received 4/20/11	Lab No. (Leave Blank) N11-0463
	Date & Time Sampled 4/18/11 1541	Serial Number R 91107
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box 99-7414 MS 7010 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:	Billing Agency <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 checked="" 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): _____ |
| Net (M ³) _____ | _____ | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

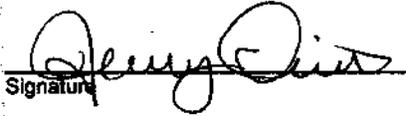
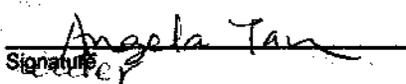
COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: _____ Cooled/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 checked="" 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: 4/18/11	Name (Print): Jenny Smith	Signature: 	Date: 4/19/11
	Time Custody Received: 1541	Organization: MBC		Date: 1700
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 4/18/11	Name (Print): A TAN	Signature: 	Date: _____
	Time Custody Received: 11:00	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 White Sampling | <input type="checkbox"/> Added in Laboratory | <input type="checkbox"/> Not Added | <input type="checkbox"/> Not Applicable |
|---|--|------------------------------------|---|
- Handwritten notes: 20.1 MR/hr, 4/18/11 1541, 4/20/11



Howard Backer, MD, MPH
Interim Director

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0464

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/01/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 04/18/2011 16:00 Date/Time Received: 04/20/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / April 2011

R Number: R91110

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA95</u>	<u>Units</u>
N11-0464-001	SONGS B	EPA 901.1	K-40	356 ± 16.1	49.1	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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 4/20/11	Lab No. (Leave Blank) N11-0464
Attn: Shiyamalie Rubera 510-620-2930		Date & Time Sampled 4/18/11 1600	Serial Number R 91110
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414, MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940		
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Billing Agency <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 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 Seawater Sludge (Semi-solid Samples)
 Finishing: _____ Date/Time _____
 Milk Soil/Sediment
 Starting: _____
 Wipes Biota (Type): _____
 Net (M³) _____
 Radon Canister Other: _____

Air Charcoal Cartridge

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____
 Field Measurement: _____ mR/hr
 Rush/Priority (should be prearranged and have supervisory approval)

_____ / Frozen: _____ Other: _____
 Radionuclide(s), if known: _____

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: 4/18/11 Time Custody Received: 1600	Name (Print): Jonny Smith Organization: MBC	Signature:	Date: 4/19/11 Time Custody Released: 1700
2. Date: _____ Time Custody Received: _____	Name (Print): _____ Organization: _____	Signature: _____	Date: _____ Time Custody Released: _____
3. Date: 4/20/11 Time Custody Received: 1600	Name (Print): A. TAN Organization: DWRIB	Signature:	Date: _____ Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: <0.01 MR/hr

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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0465

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 07/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 04/18/2011 16:00 Date/Time Received: 04/20/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / April 2011

R Number: R91113

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0465-001	SONGS B	EPA 906.0	Tritium	-4.43 ± 170	293	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamalle Ruberg		Date Received 4/20/11	Lab No. (Leave Blank) N11-0465
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Science Address: 3020 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830		Date & Time Sampled 4/18/11 1600	Serial Number R 91113
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:		Reporting Information Name: Steve HSU Dept./Branch: CDPH - RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Billing Agency		<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 Groundwater Surface Water Wastewater
 Raw Water Treatment Plant (WTP) Distribution System Point of Use (POU)
 Treated (circle one): Chlorinated / Chloraminated / Chlorine Dioxide / Ozonated / Peroxizone / 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

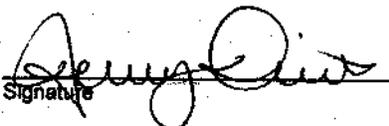
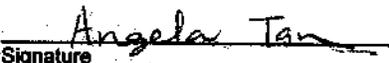
COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____ Cooled/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 (SC) 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: 4/18/11	Name (Print): Jenny Smith	Signature: 	Date: 4/19/11
	Time Custody Received: 1600	Organization: MBC		Time Custody Released: 1700
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 4/20/11	Name (Print): A. TAN	Signature: 	Date: _____
	Time Custody Received: 11:00	Organization: DWRLB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

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

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



Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0466

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/01/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 04/18/2011 15:52 Date/Time Received: 04/20/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / April 2011

R Number: R91116

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0466-001	SONGS C	EPA 901.1	K-40	363 ± 16.5	51.5	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shiyamalie Rubera	Date Received 4/20/11	Lab No. (Leave Blank) N11-0466
	Date & Time Sampled 4/18/11 1552	Serial Number R 91116
Collector Information Name: Jenny Smith Dept./Branch: mbc Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 ms 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7440	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 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 (SC) 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: 4/18/11	Name (Print): Jenny Smith	Signature:	Date: 4/19/11
	Time Custody Received: 1552	Organization: MBC	Signature: _____	Time Custody Released: 1700
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3.	Date: 4/20/11	Name (Print): A TAN	Signature:	Date: _____
	Time Custody Received: 11:00	Organization: DWRLB	Signature: _____	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: *DWRLB < 0.1 MR/hr*

- 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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0468

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 07/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 04/18/2011 15:52 Date/Time Received: 04/20/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / April 2011

R Number: R91117

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0468-001	SONGS C	EPA 906.0	Tritium	-35.4 ± 170	293	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shiyamile Rubera	Date Received 4/20/11	Lab No. (Leave Blank) N11-0468
	Date & Time Sampled 4/18/11 1552	Serial Number R 91117
Collector Information Name: Jenny Smith Dept./Branch: NBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-54830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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: _____
- Net (M³) _____
- Air Charcoal Cartridge
- Seawater
- Milk
- Wipes
- Radon Canister
- Sludge (Semi-solid Samples)
- Soil/Sediment
- Biota (Type): _____
- Other: _____

COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: _____ Ice/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)

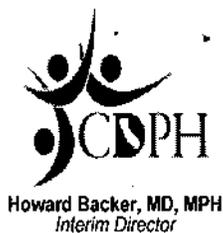
- Gross Alpha
- Total Uranium
- Total Radium
- Radium-226
- Radium-228
- Radon-222
- Other (Specify): _____
- Gross Beta
- Total Beta (TSC)
- Tritium (H)
- Carbon-14
- Iodine-131
- Strontium-89, 90
- Nickel-63
- Gamma Scan
- NORM (Gamma)
- Isotopic Americium / Curium
- Isotopic Plutonium
- Isotopic Thorium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

CHAIN OF CUSTODY

1.	Date: 4/18/11	Name (Print): Jenny Smith	Signature:	Date: 4/19/11
	Time Custody Received: 1552	Organization: NBC		Time Custody Released: 1700
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 4/20/11	Name (Print): A TAN	Signature:	Date: _____
	Time Custody Received: 11:00	Organization: DWRLB		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
- Handwritten notes: 4/18/11 1552, 4/20/11 11:00, 4/18/11 1552, 4/20/11 11:00, R 91117, ca water



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. N11-0469

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 06/01/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 04/18/2011 10:57 Date/Time Received: 04/20/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / April 2011

R Number: R91119

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0469-001	SONGS D	EPA 901.1	K-40	360 ± 16.7	53.0	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 510-620-2911 Attn: Shiyamalie Rubera		Date Received _____	Lab No. (Leave Blank) N11-0469
Collector Information Name: James Nuñez Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830		Date & Time Sampled 4/18/11 10:57	Serial Number R 91119
Reporting Information Name: Steve HSU Dept./Branch: PO Box 99-744 MS 7010 Address: Sacramento, Ca 95899 Telephone No.: 916-440-7440		CDPH - RHB	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.: _____		Billing Agency <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 / Peroxizone / Fluoridated / Coagulated / pH Adjusted
- Groundwater
- Water Treatment Plant (WTP)
- Surface Water
- Distribution System
- Wastewater
- Point of Use (POU)
- Air Filters
- Finishing: _____ Date/Time: _____
- Starting: _____
- Net (M³): _____
- Air Charcoal Cartridge
- Seawater
- Milk
- Wipes
- Radon Canister
- Sludge (Semi-solid Samples)
- Soil/Sediment
- Biota (Type): _____
- Other: _____

COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: _____ Ice/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
- 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: 4/18/11	Name (Print): James Nuñez	Signature:	Date: 4/18/11
	Time Custody Received: 1057	Organization: MBC		Time Custody Released: 1800
2.	Date: 4/18/11	Name (Print): Jenny Smith	Signature:	Date: 4/19/11
	Time Custody Received: 1800	Organization: MBC		Time Custody Released: 11:00 AM JNS
3.	Date: 4/20/11	Name (Print): A. TAN	Signature:	Date: _____
	Time Custody Received: 11:00	Organization: BW/RIB		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:** < 0.01 MR/hr
- 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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0470

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 07/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: James Nunez

Date/Time Collected: 04/18/2011 10:57 Date/Time Received: 04/20/2011 11:00

Site Name: San Onofre NPP

Source Name: SONPP / April 2011

R Number: R91120

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0470-001	SONGS D	EPA 906.0	Tritium	-79.7 ± 169	293	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 510-620-2911 Attn: Shiyamalie Rubera		Date Received 4/20/11	Lab No. (Leave Blank) N11-0470
		Date & Time Sampled 4/18/11 1057	Serial Number R 91120
Collector Information Name: James Nuñez Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Reporting Information Name: Steve Hsu Dept./Branch: DCDPH-RHB Address: PO Box 99-744 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:		Billing Agency <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 checked="" 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): _____
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: _____ Ice/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 (SC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" 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: 4/18/11	Name (Print): James Nuñez	Signature:	Date: 4/18/11
	Time Custody Received: 1057	Organization: MBC		Date: 1800
2.	Date: 4/18/11	Name (Print): Jenny Smith	Signature:	Date: 4/19/11
	Time Custody Received: 1800	Organization: MBC		Date: 1900
3.	Date: 4/20/11	Name (Print): A. TAN	Signature:	Date: _____
	Time Custody Received: 11:00	Organization: DW/RIBI		Date: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: **LO. DIMR/HR**

<input type="checkbox"/> Acceptable	<input type="checkbox"/> Broken Container	<input type="checkbox"/> Leaked in Transit	<input type="checkbox"/> Improper Container R 91120
<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
---	--	------------------------------------	---

4/18/11 1057
4/20/11



Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0259

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/26/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 03/15/2011 10:59 Date/Time Received: 03/16/2011 11:30

Site Name: San Onofre NPP

Source Name: SONGS A

R Number: R 91027

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0259-001	SONGS A	EPA 901.1	K-40	385 ± 24.0	86.9	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Alt: 510/620-2130 Alt: 510/620-2130	Date Received 3/16/11	Lab No. (Leave Blank) NII-0259-001
	Date & Time Sampled 3/15/11 1059	Serial Number R 91027
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Address: 2000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSJ Dept./Branch: EDPH-RHB Address: PO Box 99-7414 MS7610 Sacramento, Ca 95899 Telephone No.: 916-440-5140	
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:	Billing Agency <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 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: _____
 Starting: _____
 Net (M³) _____
 Air Charcoal Cartridge

Milk Soil/Sediment
 Wipes Biota (Type): _____
 Radon Canister Other: _____

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 3/15/11	Name (Print) Jenny Smith	Signature <i>Jenny Smith</i>	Date 3/15/11
	Time Custody Received 1059	Organization MBC		Time Custody Released 1700
2.	Date	Name (Print)	Signature	Date
	Time Custody Received	Organization		Time Custody Released
3.	Date 3/16/11	Name (Print) A TAN	Signature <i>Angela Tan</i>	Date
	Time Custody Received 11:30	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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0260

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 07/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 03/15/2011 10:59 Date/Time Received: 03/16/2011 13:35

Site Name: San Onofre NPP

Source Name: SONPP / March 2011

R Number: R 91028

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0260-001	SONGS A	EPA 906.0	Tritium	44.3 ± 172	293	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Shiyonille Kuber	Date Received 3/16/11	Lab No. (Leave Blank) N11-0260
	Date & Time Sampled 3/15/11 1059	Serial Number R 91028
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3500 Red Hill Ave, Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:	Billing Agency <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 checked="" 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): _____
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: _____ / Cooled/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 checked="" 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: 3/15/11	Name (Print): Jenny Smith	Signature:	Date: 3/15/11
	Time Custody Received: 1059	Organization: MBC		Time Custody Released: 1100
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 3/16/11	Name (Print): A TAN	Signature:	Date: _____
	Time Custody Received: 11:30	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



Howard Backer, MD, MPH
Interim Director

Drinking Water and Radiation Laboratory Branch

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

EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0268

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/26/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 03/15/2011 11:16 Date/Time Received: 06/16/2011 11:30

Site Name: San Onofre NPP

Source Name: SONPP / March 2011

R Number: R91032

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0268-001	SONGS B	EPA 901.1	K-40	401 ± 22.3	82.8	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Alt: Shyamalie Kuberu	Date Received 3/16/11	Lab No. (Leave Blank) M11-0268
	Date & Time Sampled 3/15/11 1116	Serial Number R 91032
Collector Information Name: Jenny Smith Dept./Branch: MBE Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH - R4B Address: PO Box 91-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7700	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Billing Agency <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 checked="" 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): _____
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: _____ Cooled/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 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 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: 3/15/11	Name (Print): Jenny Smith	Signature:	Date: 3/15/11
	Time Custody Received: 1116	Organization: MBE		Time Custody Released: 1700
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 3/16/11	Name (Print): A. TAN	Signature:	Date: _____
	Time Custody Received: 11:30	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



RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0269

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 07/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 03/15/2011 11:16 Date/Time Received: 03/16/2011 11:30

Site Name: San Onofre NPP

Source Name: SONPP / March 2011

R Number: R91033

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0269-001	SONGS B	EPA 906.0	Tritium	-86.4 ± 168	293	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Myrille Robert		Date Received 3/16/11	Lab No. (Leave Blank) N11-0269
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Services Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830		Date & Time Sampled 3/15/11 1116	Serial Number R 91033
Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940			
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:		Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input checked="" 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 checked="" 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): _____
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: _____ Rad/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 checked="" 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: 3/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 3/15/11
	Time Custody Received: 1116	Organization: MBC		Time Custody Released: 1700
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 3/16/11	Name (Print): A TAN	Signature: [Signature]	Date: _____
	Time Custody Received: 1130	Organization: DWALB	Signature: Angela Tan	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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Howard Backer, MD, MPH
Interim Director

Drinking Water and Radiation Laboratory Branch

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

EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0270

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/26/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 03/15/2011 11:09 Date/Time Received: 03/16/2011 11:30

Site Name: San Onofre NPP

Source Name: SONPP / March 2011

R Number: R91036

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0270-001	SONGS C	EPA 901.1	K-40	350 ± 23.0	84.3	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Attn: Inyama Kuberu	Date Received 3/16/11	Lab No. (Leave Blank) N11-0270
	Date & Time Sampled 3/15/11 1109	Serial Number R 91036
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Science Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 checked="" type="checkbox"/> Seawater	<input type="checkbox"/> Sludge (Semi-solid Samples)
Finishing: _____	_____	<input checked="" type="checkbox"/> Milk	<input type="checkbox"/> Soil/Sediment
Starting: _____	_____	<input type="checkbox"/> Wipes	<input type="checkbox"/> Biota (Type): _____
Net (M ³) _____		<input type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.): _____

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

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

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

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

<input type="checkbox"/> Gross Alpha	<input type="checkbox"/> Gross Beta	<input checked="" type="checkbox"/> Gamma Scan
<input type="checkbox"/> Total Uranium	<input type="checkbox"/> Total Beta (SC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input type="checkbox"/> Tritium (3H)	<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: 3/15/11	Name (Print): Jenny Smith	Signature: [Signature]	Date: 3/15/11
Time Custody Received: 1109	Organization: MBC		Time Custody Released: 1700
2. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3. Date: 3/16/11	Name (Print): A TAN	Signature: [Signature]	Date: _____
Time Custody Received: 11:30	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
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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0271

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 07/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Jenny Smith

Date/Time Collected: 03/15/2011 11:09 Date/Time Received: 03/16/2011 11:30

Site Name: San Onofre NPP

Source Name: SONPP / March 2011

R Number: R91037

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0271-001	SONGS C	EPA 906.0	Tritium	95.2 ± 173	293	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Alt: 510-620-2930 Attn: Jenny Smith	Date Received 3/16/11	Lab No. (Leave Blank) N11-0271
	Date & Time Sampled 3/15/11 1109	Serial Number R 91037
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box 99-7914 MS 760 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 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

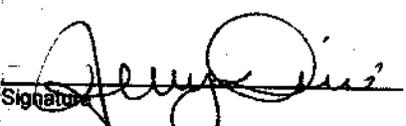
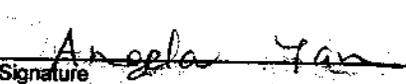
COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____ Cooled/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 checked="" 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: 3/15/11	Name (Print): Jenny Smith	Signature: 	Date: 3/15/11
	Time Custody Received: 1109	Organization: MBC		Time Custody Released: 1700
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____
3.	Date: 3/16/11	Name (Print): A TAN	Signature: 	Date: _____
	Time Custody Received: 11:30	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



Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0272

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/26/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: James Nunez

Date/Time Collected: 03/15/2011 11:02 Date/Time Received: 03/16/2011 11:30

Site Name: San Onofre NPP

Source Name: SONPP / March 2011

R Number: R91038

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0272-001	SONGS D	EPA 901.1	K-40	347 ± 16.7	54.2	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shirley Mace Roberu	Date Received 3/16/11	Lab No. (Leave Blank) N11-0272
	Date & Time Sampled 3/15/11 1102	Serial Number R 91038
Collector Information Name: James Nuñez Dept./Branch: MBC Applied Environmental Sciences Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 checked="" type="checkbox"/> Seawater	<input type="checkbox"/> Sludge (Semi-solid Samples)
Finishing: _____	_____	<input type="checkbox"/> Milk	<input type="checkbox"/> Soil/Sediment
Starting: _____	_____	<input checked="" type="checkbox"/> Wipes	<input type="checkbox"/> Biota (Type): _____
Net (M ³) _____	_____	<input type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

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

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

<input type="checkbox"/> Gross Alpha	<input type="checkbox"/> Gross Beta	<input 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 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: 3/15/11	Name (Print): James Nuñez	Signature:	Date: 3/15/11
	Time Custody Received: 1402	Organization: MBC		Date: 1900
2.	Date: 3/15/11	Name (Print): Jenny Smith	Signature:	Date: 3/15/11
	Time Custody Received: 1400	Organization: MBC		Date: 1700
3.	Date: 3/16/11	Name (Print): A TAN	Signature:	Date: _____
	Time Custody Received: 11:30	Organization: DW/RIB		Date: _____

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 checked="" 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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RON CHAPMAN, MD, MPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0273

Analyst: Malkiat Gohal

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 07/07/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: James Nunez

Date/Time Collected: 03/15/2011 11:02 Date/Time Received: 03/16/2011 11:30

Site Name: San Onofre NPP

Source Name: SONPP / March 2011

R Number: R91039

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0273-001	SONGS D	EPA 906.0	Tritium	-182 ± 115	293	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-(620)-2911 Attn: Shyamala Robert	Date Received 3/16/11	Lab No. (Leave Blank) N11-0273
	Date & Time Sampled 3/15/11 1102	Serial Number R 91039
Collector Information Name: James Nuñez Dept./Branch: MBC Applied Environmental Sci Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 checked="" 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): _____
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 checked="" 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: 3/15/11 Time Custody Received: 1400	Name (Print): James Nuñez Organization: MBC	Signature:	Date: 3/15/11 Time Custody Released: 1400
2. Date: 3/15/11 Time Custody Received: 1400	Name (Print): Jenny Smith Organization: MBC	Signature:	Date: 3/15/11 Time Custody Released: 1700
3. Date: 3/16/11 Time Custody Received: 11:30	Name (Print): A. TAN Organization: DWRLB	Signature:	Date: _____ 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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MARK B. HORTON, MD, MSPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN, JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0179

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 03/11/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Robert Moore

Date/Time Collected: 02/15/2011 12:12 Date/Time Received: 02/28/2011 08:40

Site Name: San Onofre NPP

Source Name: SONPP / February 2011

R Number: R91486

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0179-001	SONGS A	EPA 901.1	K-40	260 ± 22.7	73.0	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 (510) 620-2130 ATTN: ST. JAMES RUISTU		Date Received 2/11/11	Lab No. (Leave Blank) N11-0179
Collector Information Name: Robert Moore Dept/Branch: MBC Applied Environmental Address: 3000 Red Hill Ave Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Date & Time Sampled 2/11/11 1212	Serial Number R-91486
Reporting Information Name: Steve Hsu Dept/Branch: CDPH-RHB Address: PO Box 97-7414 MS 7610 Sacramento, CA 95879 Telephone No.: 916-440-7940			
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.: A		Billing Agency <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 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: _____ Cooled/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.	15 Feb 11 Date	Robert Moore Name (Print)		16 Feb 11 Date
	1212 Time Custody Received	MBC Organization	Robert Hsu Signature	0830 Time Custody Released
2.	16 Feb 11 Date	Erny Smith Name (Print)		16 Feb 11 Date
	0830 Time Custody Received	MBC Organization	[Signature] Signature	1500 Time Custody Released
3.	_____ Date	_____ Name (Print)		_____ Date
	_____ Time Custody Received	_____ Organization	_____ Signature	_____ Time Custody Released

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: 0.01 MR/hr
- 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



Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0180

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/25/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Robert Moore

Date/Time Collected: 02/15/2011 12:12 Date/Time Received: 02/28/2011 08:42

Site Name: San Onofre NPP

Source Name: SONPP / February 2011

R Number: R91487

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0180-001	SONGS A	EPA 906.0	Tritium	-69.1 ± 150	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2130 Attn: Shyngmille Ruber	Date Received	Lab No. (Leave Blank) N11-0180
	Date & Time Sampled 2/5/11 1212	Serial Number R 91487
Collector Information Name: Robert Moore Dept/Branch: MBC Applied Environmental Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept/Branch: CDPH-RHB Address: P.O. Box 99-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:	Billing Agency <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 checked="" 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): _____
Net (M ³) _____	_____	<input checked="" type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____

Field Measurement: _____ mR/hr

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

Cooled/Frozen: _____ Other: _____

Radionuclide(s), if known: _____

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 checked="" 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. <u>15 Feb 11</u> Date	<u>Robert Moore</u> Name (Print)	<u>Robert Moore</u> Signature	<u>16 Feb 11</u> Date
<u>1212</u> Time Custody Received	<u>MBC</u> Organization		<u>0830</u> Time Custody Released
2. <u>16 Feb 11</u> Date	<u>Jenny Smith</u> Name (Print)	<u>Jenny Smith</u> Signature	<u>16 Feb 11</u> Date
<u>0830</u> Time Custody Received	<u>MBC</u> Organization		<u>1500</u> Time Custody Released
3. _____ Date	_____ Name (Print)	_____ Signature	_____ Date
_____ Time Custody Received	_____ Organization	_____ Signature	_____ Time Custody Released

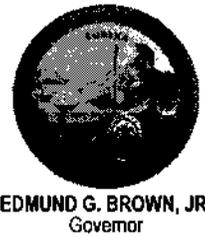
LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt:

<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. N11-0181

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 03/11/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Robert Moore	Date/Time Collected: 02/15/2011 12:37 Date/Time Received: 02/28/2011 08:46
Site Name: San Onofre NPP	Source Name: SONPP / February 2011
R Number: R91488	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA95</u>	<u>Units</u>
N11-0181-001	SONGS B	EPA 901.1	K-40	366 ± 16.5	50.6	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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 _____	Lab No. (Leave Blank) N11-0181
Address: 510-620-2930 Attn: Shilpa KUBALU		Date & Time Sampled 2/15/11 1237	Serial Number R 91488
Collector Information Name: Robert Moore Dept./Branch: MBC Applied Environmental Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.: _____		Billing Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> KRHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input type="checkbox"/> DWTPB <input checked="" 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 checked="" 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): _____
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: _____ Cooled/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 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 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: 15 Feb 11	Name (Print): Robert Moore	Signature: _____	Date: 16 Feb 11
Time Custody Received: 1237	Organization: MBC	Signature: _____	Time Custody Released: 0830
2. Date: 16 Feb 11	Name (Print): Jenny Smith	Signature: _____	Date: 16 Feb 11
Time Custody Received: 0830	Organization: JCS MBC	Signature: _____	Time Custody Released: 1500
3. Date: _____	Name (Print): _____	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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Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0182

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/25/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Robert Moore

Date/Time Collected: 02/15/2011 12:37 Date/Time Received: 02/28/2011 08:52

Site Name: San Onofre NPP

Source Name: SONPP / February 2011

R Number: R91489

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0182-001	SONGS B	EPA 906.0	Tritium	37.3 ± 152	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Alt: Shingwike KUXIU 510-620-2130	Date Received	Lab No. (Leave Blank) M11-0182
	Date & Time Sampled 2/15/11 1237	Serial Number R 91489
Collector Information Name: Robert Moore Dept./Branch: mbc Applied Environmental Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-350-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7140	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Billing Agency <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 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: _____ Field 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 checked="" type="checkbox"/> Tritium (³ H)	<input type="checkbox"/> Isotopic Americium / Curium
<input type="checkbox"/> Radium-226	<input checked="" 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

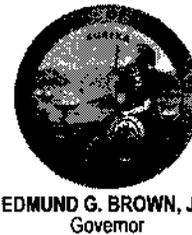
CHAIN OF CUSTODY

1. Date: 15 Feb 11	Name (Print): Robert Moore	Signature: Robert Moore	Date: 16 Feb 11
Time Custody Received: 1237	Organization: mbc	Signature: Robert Moore	Time Custody Released: 0830
2. Date: 16 Feb 11	Name (Print): Jenny Smith	Signature: Jenny Smith	Date: 16 Feb 11
Time Custody Received: 0830	Organization: mbc	Signature: Jenny Smith	Time Custody Released: 1500
3. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

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

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



Drinking Water and Radiation Laboratory Branch

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

FINAL Analysis Results Report for Task ID. N11-0183

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 03/11/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Robert Moore	Date/Time Collected: 02/15/2011 12:27 Date/Time Received: 02/28/2011 08:55
Site Name: San Onofre NPP	Source Name: SONPP / February 2011
R Number: R91494	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0183-001	SONGS C	EPA 901.1	K-40	332 ± 17.1	58.1	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 (510-620)-2930 MINNESOTA THE REDUCED	Date Received	Lab No. (Leave Blank)
	Date & Time Sampled	Serial Number
Collector Information Name: Robert Moore Dept./Branch: MBC Applied Environmental Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-485-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH - RHB Address: PO Box 79-7414 MS-7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	R 91494
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Billing Agency <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 checked="" 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): _____
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 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 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: 15 Feb 11	Name (Print): Robert Moore	Signature:	Date: 16 Feb 11
	Time Custody Received: 1227	Organization: MBC	Signature:	Time Custody Released: 0830
2.	Date: 16 Feb 11	Name (Print): Jenny Smith	Signature:	Date: 16 Feb 11
	Time Custody Received: 0830	Organization: MBC	Signature:	Time Custody Released: 1500
3.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

0.01 MR/hr

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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Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0184

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/25/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Robert Moore	Date/Time Collected: 02/15/2011 12:27 Date/Time Received: 02/28/2011 08:57
Site Name: San Onofre NPP	Source Name: SONPP / February 2011
R Number: R91495	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA95</u>	<u>Units</u>
N11-0184-001	SONGS C	EPA 906.0	Tritium	-50.4 ± 150	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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 510-620-2730 AHHS/SH/Environmental Ruben		Date Received 	Lab No. (Leave Blank) NH-0184
Collector Information Name: Dept./Branch: MBC Applied Environmental Address: 3000 Red Hill Ave, Costa Mesa, CA 92626 Telephone No.: 714-850-4830		Date & Time Sampled 2/15/11 1227	Serial Number R 91495
Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95829 Telephone No.: 916-440-7440			
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:		Billing Agency <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 checked="" 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): _____
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: _____ Fed/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 (SC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" 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: 15 Feb 11	Name (Print): Robert Moore	Signature: <i>Robert Moore</i>	Date: 16 Feb 11
	Time Custody Received: 1227	Organization: MBC	Signature: <i>Robert Moore</i>	Time Custody Released: 0830
2.	Date: 16 Feb 11	Name (Print): Jenny Smith	Signature: <i>Jenny Smith</i>	Date: 16 Feb 11
	Time Custody Received: 0830	Organization: MBC	Signature: <i>Jenny Smith</i>	Time Custody Released: 1500
3.	Date: _____	Name (Print): _____	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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MARK B. HORTON, MD, MSPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN, JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0185

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 03/11/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Robert Moore

Date/Time Collected: 02/15/2011 11:16 Date/Time Received: 02/28/2011 09:00

Site Name: San Onofre NPP

Source Name: SONPP / February 2011

R Number: R91000

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0185-001	SONGS D	EPA 901.1	K-40	336 ± 23.2	86.7	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-29130 AHA: DYNAMIC RUDERS		Date Received _____	Lab No. (Leave Blank) N11-0185
Collector Information Name: James Nunez Dept/Branch: m3c Applied Environmental Address: 3000 Red Hill Ave. Colton, Ca 92626 Telephone No.: 714-850-4830		Date & Time Sampled 2/15/11 1116	Serial Number R 91000
Reporting Information Name: Steve Hsu Dept/Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, Ca 95834 Telephone No.: 916-440-7940			
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.: _____		Billing Agency <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 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
- | | | | |
|--------------------------------------|-----------|--|--|
| <input type="checkbox"/> Air Filters | Date/Time | <input checked="" 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): _____ |
| Net (M ³) _____ | | <input type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
- Air Charcoal Cartridge

COMMENTS: (Cautions, etc.)

- Field Treatment: Preservatives added: _____
- Field Measurement: _____ mR/hr
- 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: 15 Feb 11	Name (Print): James Nunez	Signature: _____	Date: 16 Feb 11
	Time Custody Received: 11:15	Organization: m3c	Signature: _____	Time Custody Released: 0830
2.	Date: 16 Feb 11	Name (Print): _____	Signature: _____	Date: 16 Feb 11
	Time Custody Received: 0830	Organization: m3c	Signature: _____	Time Custody Released: 1500
3.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: 0.01 MA/hr
- 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



Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0186

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/25/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Robert Moore

Date/Time Collected: 02/15/2011 11:16 Date/Time Received: 02/28/2011 09:02

Site Name: San Onofre NPP

Source Name: SONGS / February 2011

R Number: R91001

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA95</u>	<u>Units</u>
N11-0186-001	SONGS D	EPA 906.0	Tritium	-108 ± 149	260	pCi/L

1. Precision criteria for these methods 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-800/4-80-032, 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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 Attn: Shyamale Rubin		Date Received _____	Lab No. (Leave Blank) N11-0186
Collector Information Name: James Nunez Dept/Branch: MBC Applied Environmental Address: 3000 Red Hill Ave. Costa Mesa, Ca 92626 Telephone No.: 714-850-4830		Date & Time Sampled 2/15/11 1116	Serial Number R 91001
Reporting Information Name: Steve HSU Dept/Branch: CDPH-RHB Address: PO Box 97-7414 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940		Billing Agency <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) _____	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.: _____			

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 checked="" 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): _____
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 (ESC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" 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. <u>15 Feb 11</u> Date	<u>James Nunez</u> Name (Print)	<u>[Signature]</u> Signature	<u>16 Feb 11</u> Date
<u>1116</u> Time Custody Received	<u>MBC</u> Organization		<u>0830</u> Time Custody Released
2. <u>16 Feb 11</u> Date	<u>Jenny Smith</u> Name (Print)	<u>[Signature]</u> Signature	<u>16 Feb 11</u> Date
<u>0830</u> Time Custody Received	<u>MBC</u> Organization		<u>1500</u> Time Custody Released
3. _____ Date	_____ Name (Print)	_____ 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



MARK B. HORTON, MD, MSPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN, JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0167

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 03/11/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Wayne Dossett

Date/Time Collected: 01/17/2011 11:10 Date/Time Received: 02/25/2011 11:30

Site Name: San Onofre NPP

Source Name: SONPP / January 2011

R Number: R91423

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0167-001	SONGS A	EPA 901.1	K-40	359 ± 23.6	87.2	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shyamalie Rubaru	Date Received	Lab No. (Leave Blank) N11-0167
	Date & Time Sampled 01/17/11 1110	Serial Number R 91423
Collector Information Name: Wayne Dossett Dept./Branch: MBC Applied Envir. Sciences Address: 3000 Red Hill Ave Costa Mesa, Ca 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-714 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGSA Sampling Point (s): System No.:	Billing Agency <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 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 (SC) 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: 01/17/11	Name (Print): Wayne Dossett	Signature:	Date: 01/17/11
	Time Custody Received: 1110	Organization: MBC		Time Custody Released: 1500
2.	Date: 01/17/11	Name (Print): Andy Smith	Signature:	Date: 01/18/11
	Time Custody Received: 1500	Organization: MBC		Time Custody Released: 1400
3.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

A. Condition at Time of Receipt: *0009 MAR/HR*
 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



Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0168

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/25/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Wayne Dossett

Date/Time Collected: 01/17/2011 11:10 Date/Time Received: 02/25/2011 11:32

Site Name: San Onofre NPP

Source Name: SONPP / January 2011

R Number: R91424

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0168-001	SONGS A	EPA 906.0	Tritium	-80.3 ± 149	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shirley Marie Ruben	Date Received	Lab No. (Leave Blank) N11-0168
	Date & Time Sampled 11/17/11 1110	Serial Number R 91424
Collector Information Name: Wayne Dossett Dept./Branch: MBC Applied Enviro Sciences Address: 3000 Red Hill Ave Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7140	
Sample Information System Name / Facility: SONGS Sampling Point (s): A System No.:	Billing Agency <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 checked="" 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): _____ |
| Net (M ³) _____ | _____ | <input checked="" type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: _____ Red/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 checked="" 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: 11/17/11	Name (Print): Wayne Dossett	Signature:	Date: 01/17/11
	Time Custody Received: 1110	Organization: MBC		Time Custody Released: 1500
2.	Date: 01/17/11	Name (Print): Jenny Smith	Signature:	Date: 01/18/11
	Time Custody Received: 1500	Organization: MBC		Time Custody Released: 1400
3.	Date: _____	Name (Print): _____	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 |
|---|--|------------------------------------|---|



MARK B. HORTON, MD, MSPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN, JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0169

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 03/11/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Wayne Dossett	Date/Time Collected: 01/17/2011 11:25 Date/Time Received: 02/25/2011 11:35
Site Name: San Onofre NPP	Source Name: SONPP / January 2011
R Number: R91426	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0169-001	SONGS B	EPA 901.1	K-40	383 ± 16.8	51.1	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 <i>510-620-2930 Attn: Janyanille Roberu</i>	Date Received	Lab No. (Leave Blank) <i>M70-0169</i>
	Date & Time Sampled <i>1/17/11 1125</i>	Serial Number <i>R 91426</i>
Collector Information Name: <i>Wayne Dosselt</i> Dept./Branch: <i>MBC Applied Envir. Sciences</i> Address: <i>3000 Red Hill Ave. Costa Mesa, CA 92626</i> Telephone No.: <i>714-850-4830</i>	Reporting Information Name: <i>Steve HSU</i> Dept./Branch: <i>CDPH-RHB</i> Address: <i>PO Box 99-7414 MS 7610 Sacramento CA 95899</i> Telephone No.: <i>916-440-7940</i>	
Sample Information System Name / Facility: <i>SONGS</i> Sampling Point (s): <i>B</i> System No.:	Billing Agency <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 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: _____ Fed/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 (Bq) 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: <i>1/17/11</i>	Name (Print): <i>Wayne Dosselt</i>	Signature: <i>Wayne Dosselt</i>	Date: <i>01/17/11</i>
	Time Custody Received: <i>1125</i>	Organization: <i>MBC</i>		Time Custody Released: <i>1500</i>
2.	Date: <i>01/17/11</i>	Name (Print): <i>Jany Smith</i>	Signature: <i>Jany Smith</i>	Date: <i>01/18/11</i>
	Time Custody Received: <i>1500</i>	Organization: <i>MBC</i>		Time Custody Released: <i>1400</i>
3.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____		Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

0.001414 R/hr

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



Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0170

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/25/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Wayne Dossett

Date/Time Collected: 01/17/2011 11:25 Date/Time Received: 02/25/2011 11:37

Site Name: San Onofre NPP

Source Name: SONPP / January 2011

R Number: R91428

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0170-001	SONGS B	EPA 906.0	Tritium	-37.3 ± 150	260	pCi/L

1. Precision criteria for these methods 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-800/4-80-032, 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Ariyamalie Roberto	Date Received	Lab. No. (Leave Blank) M11-0170
	Date & Time Sampled 1/17/11 1125	Serial Number R 91428
Collector Information Name: Wayne Dossett Dept/Branch: MBC Applied Envir. Sciences Address: 3000 Red Hill Ave Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept/Branch: CDPH - RHB Address: PO Box 99-7414 MS T610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): B System No.:	Billing Agency <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 checked="" 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): _____
Net (M ³) _____	_____	<input checked="" type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.):

Field Treatment: Preservatives added: _____ Cooled/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 (SC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" 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 checked="" type="checkbox"/> Other (Specify): _____	<input type="checkbox"/> Nickel-63	<input type="checkbox"/> Iron-55

CHAIN OF CUSTODY

1.	Date: 1/17/11	Name (Print): Wayne Dossett	Signature: <i>Wayne Dossett</i>	Date: 01/17/11
	Time Custody Received: 1125	Organization: MBC		Time Custody Released: 1500
2.	Date: 01/17/11	Name (Print): Jenny Smith	Signature: <i>Jenny Smith</i>	Date: 01/18/11
	Time Custody Received: 1500	Organization: MBC		Time Custody Released: 1400
3.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____

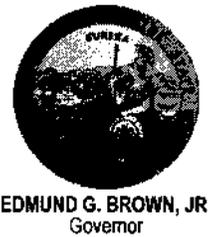
LABORATORY REMARKS (Leave Blank)

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
---	--	------------------------------------	---



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. N11-0171

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 03/11/2011

Requestor			
Name: Steve Hsu	Organization: Radiologic Health Branch		
Address: MS 7610, 1500 Capitol Avenue			
City: Sacramento	State: CA	Zip Code: 95814-5006	Phone: 916-440-7940

Site and Sample Information			
Collector's Name: Wayne Dossett	Date/Time Collected: 01/17/2011 11:17	Date/Time Received: 02/25/2011 11:39	
Site Name: San Onofre NPP	Source Name: SONPP / January 2011		
R Number: R91431	Sample Type: Seawater		

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0171-001	SONGS C	EPA 901.1	K-40	333 ± 16.6	54.7	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 Alt: 510-1020-2930 Alt: Shiyamalte Roberu		Date Received _____	Lab No. (Leave Blank) N11-0411
Collector Information Name: Wayne Dossett Dept./Branch: MBC Applied Environ. Sciences Address: 2000 Red Hill Ave Costa Mesa, Ca 92626 Telephone No.: 714-950-4830		Date & Time Sampled 1/17/11 1117	Serial Number R 91431
Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box 99-744 MS 7610 Sacramento, Ca 95899 Telephone No.: 916-440-5740		Shipping Agency <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 checked="" type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.: _____			

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 checked="" 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): _____ |
| 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 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 checked="" type="checkbox"/> Radium-226 | <input type="checkbox"/> Carbon-14 | <input type="checkbox"/> Isotopic Plutonium |
| <input checked="" 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: 1/17/11	Name (Print): Wayne Dossett	Signature: <i>Wayne Dossett</i>	Date: 01/17/11
	Time Custody Received: 1117	Organization: MBC	Signature: <i>Wayne Dossett</i>	Time Custody Released: 1500
2.	Date: 01/17/11	Name (Print): Jenny Smith	Signature: <i>Jenny Smith</i>	Date: 01/18/11
	Time Custody Received: 1500	Organization: MBC	Signature: <i>Jenny Smith</i>	Time Custody Released: 1400
3.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: 0.01MR/hr
- | | | | |
|--|---|--|---|
| <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 Collected | <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 |
|---|--|------------------------------------|---|



Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0172

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/25/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Wayne Dossett	Date/Time Collected: 01/17/2011 11:17 Date/Time Received: 02/25/2011 11:41
Site Name: San Onofre NPP	Source Name: SONPP / January 2011
R Number: R91432	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0172-001	SONGS C	EPA 906.0	Tritium	-114 ± 149	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyannille Rubero	Date Received	Lab No. (Leave Blank) NH-0172
	Date & Time Sampled 1/17/11 1117	Serial Number R 91432
Collector Information Name: Wayne Dossett Dept./Branch: MBC Applied Environ. Science Address: 3000 Red Hill Ave Costa Mesa, CA 92626 Telephone No.: 714-850-4830	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7940	
Sample Information System Name / Facility: SONGS Sampling Point (s): C System No.:	Shipping Agency <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 checked="" type="checkbox"/> Seawater	<input type="checkbox"/> Sludge (Semi-solid Samples)
Finishing: _____	_____	<input checked="" type="checkbox"/> Milk	<input type="checkbox"/> Soil/Sediment
Starting: _____	_____	<input type="checkbox"/> Wipes	<input type="checkbox"/> Biota (Type): _____
Net (M ³) _____	_____	<input checked="" type="checkbox"/> Radon Canister	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Air Charcoal Cartridge			

COMMENTS: (Cautions, etc.)

Field Treatment: Preservatives added: _____ Cooled/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 (SC)	<input type="checkbox"/> NORM (Gamma)
<input type="checkbox"/> Total Radium	<input checked="" 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: 1/17/11	Name (Print): Wayne Dossett	Signature: [Signature]	Date: 01/17/11
Time Custody Received: 1117	Organization: MBC	Signature: [Signature]	Time Custody Released: 1500
2. Date: 01/17/11	Name (Print): Penny Smith	Signature: [Signature]	Date: 01/18/11
Time Custody Received: 1500	Organization: MBC	Signature: [Signature]	Time Custody Released: 1500
3. Date: _____	Name (Print): _____	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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MARK B. HORTON, MD, MSPH
Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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



EDMUND G. BROWN, JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0173

Analyst: Angela Tan

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 03/11/2011

Requestor

Name: Steve Hsu

Organization: Radiologic Health Branch

Address: MS 7610, 1500 Capitol Avenue

City: Sacramento

State: CA

Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information

Collector's Name: Wayne Dossett

Date/Time Collected: 01/17/2011 10:30 Date/Time Received: 02/25/2011 11:43

Site Name: San Onofre NPP

Source Name: SONPP / January 2011

R Number: R91435

Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0173-001	SONGS D	EPA 901.1	K-40	350 ± 17.0	55.7	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 Attn: Shiyamale Roberu		Date Received 	Lab No. (Leave Blank) N11-0173
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environ. Science Address: 3000 Red Hill Ave Costa Mesa, CA 92626 Telephone No.: 714-850-4800		Date & Time Sampled 1/17/11 1030	Serial Number R 91435
Reporting Information Name: Steve Hsu Dept./Branch: CDPH - RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95879 Telephone No.: 916-440-4140		Sampling Agency <input type="checkbox"/> DWFOB () <input checked="" type="checkbox"/> RHB <input type="checkbox"/> RWQCB () <input type="checkbox"/> DTSC <input checked="" type="checkbox"/> DWTPB <input type="checkbox"/> FDB <input type="checkbox"/> DWR <input type="checkbox"/> CDFG <input type="checkbox"/> EMB <input type="checkbox"/> Other (Specify) _____	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:			

TYPE OF SAMPLE (Check all applicable boxes)

- | | | | |
|---|--|--|--|
| <input type="checkbox"/> Drinking Water | <input type="checkbox"/> Groundwater | <input checked="" 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 checked="" 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): _____ |
| Net (M ³): _____ | | <input checked="" type="checkbox"/> Radon Canister | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Air Charcoal Cartridge | | | |

COMMENTS: (Cautions, etc.):

- Field Treatment: Preservatives added: _____ Cooled/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 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 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: 01/17/11	Name (Print): Jenny Smith	Signature:	Date: 01/18/11
Time Custody Received: 1030	Organization: MBC	Signature:	Time Custody Released: 1400
2. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3. Date: _____	Name (Print): _____	Signature: _____	Date: _____
Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt: **8.81 MR/hr**
- | | | | |
|--|--|--|---|
| <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 |
|---|--|------------------------------------|---|



Howard Backer, MD, MPH
Interim Director

State of California - Health and Human Services Agency
California Department of Public Health

Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN JR.
Governor

FINAL Analysis Results Report for Task ID. N11-0174

Analyst: Sony Cai

Analysis Approved By: Shiyamalie Ruberu

Analysis Approval Date: 05/25/2011

Requestor	
Name: Steve Hsu	Organization: Radiologic Health Branch
Address: MS 7610, 1500 Capitol Avenue	
City: Sacramento	State: CA Zip Code: 95814-5006 Phone: 916-440-7940

Site and Sample Information	
Collector's Name: Wayne Dossett	Date/Time Collected: 01/17/2011 10:30 Date/Time Received: 02/25/2011 11:45
Site Name: San Onofre NPP	Source Name: SONPP / January 2011
R Number: R91436	Sample Type: Seawater

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0174-001	SONGS D	EPA 906.0	Tritium	-230 ± 146	260	pCi/L

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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 510-620-2930 A#11: Shiyamalle Ruleru	Date Received	Lab No. (Leave Blank) 1111-0174
	Date & Time Sampled 11/17/11 11030	Serial Number R 91436
Collector Information Name: Jenny Smith Dept./Branch: MBC Applied Environ. Science Address: 3000 Red Hill Ave. Costa Mesa, CA 92626 Telephone No.: 714-850-3333	Reporting Information Name: Steve HSU Dept./Branch: CDPH-RHB Address: PO Box 99-7414 MS 7610 Sacramento, CA 95899 Telephone No.: 916-440-7440	
Sample Information System Name / Facility: SONGS Sampling Point (s): D System No.:	Billing Agency <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 checked="" 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): _____ |
| 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: _____ Cold/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 (5C) | <input type="checkbox"/> NORM (Gamma) |
| <input type="checkbox"/> Total Radium | <input checked="" type="checkbox"/> Tritium (3H) | <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: 01/17/11	Name (Print): Jenny Smith	Signature: <i>Jenny Smith</i>	Date: 01/18/11
	Time Custody Received: 1030	Organization: MBC ASD	Signature: <i>Steve Hsu</i>	Time Custody Released: 1000
2.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____
3.	Date: _____	Name (Print): _____	Signature: _____	Date: _____
	Time Custody Received: _____	Organization: _____	Signature: _____	Time Custody Released: _____

LABORATORY REMARKS (Leave Blank)

- A. Condition at Time of Receipt:**
- | | | | |
|--|--|--|---|
| <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 |
|---|--|------------------------------------|---|