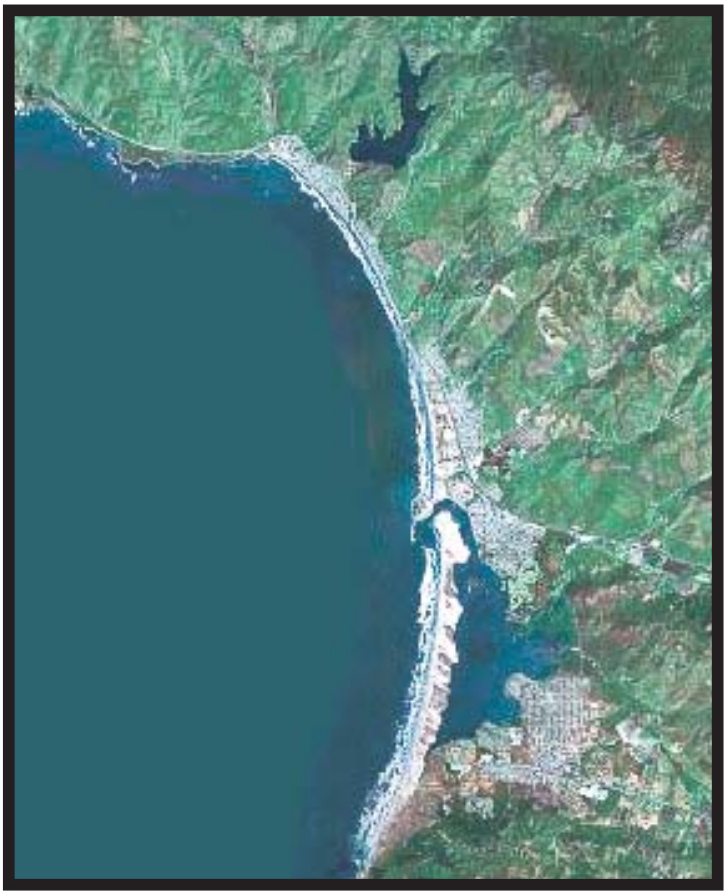
City of Morro Bay and
Cayucos Sanitary District

OFFSHORE MONITORING AND REPORTING PROGRAM

RESIDUAL BIOSOLIDS CHEMICAL ANALYSIS RESULTS

SEPTEMBER 2007



Marine Research Specialists
3140 Telegraph Rd., Suite A
Ventura, California 93003

Report to

City of Morro Bay and
Cayucos Sanitary District

955 Shasta Avenue
Morro Bay, California 93442
(805) 772-6272

MONITORING AND REPORTING PROGRAM

ANNUAL BIOSOLIDS REPORT

CHEMICAL ANALYSIS RESULTS

SEPTEMBER 2007

Prepared by

Douglas A. Coats
Bonnie Luke

Marine Research Specialists

3140 Telegraph Rd., Suite A
Ventura, California 93003

Telephone: (805) 644-1180
Telefax: (805) 289-3935
E-mail: Doug.Coats@mrsenv.com

October 2007

marine research specialists

3140 Telegraph Rd., Suite A · Ventura, CA 93003 · 805-644-1180

Mr. Bruce Keogh
Wastewater Division Manager
City of Morro Bay
955 Shasta Avenue
Morro Bay, CA 93442

4 October 2007

Reference: Chemical Analysis Results for Biosolid Samples Collected in September 2007

Dear Mr. Keogh:

Enclosed are the results of chemical analyses conducted on a representative composite of biosolid samples collected from the drying beds on 20 September 2007. Also included in this report are pertinent QA/QC data, including chains of custody and analyses of method blanks and spikes. All analyses were conducted following the requirements of Monitoring and Reporting Program Number 98-15[1] to assess compliance with the limitations specified in the Waste Discharge Requirements of the NPDES Permit.[2]

Based on a comparison between measured chemical concentrations in the composite sample and applicable State and Federal regulations, the biosolids amassed in 2007 are not considered hazardous waste, and are considered suitable for land application. A summary of the analytical results is presented in Table 1. Only a few of the more than 150 compounds analyzed in the composite sample were detected at quantifiable concentrations. Nine detected chemicals had concentrations so low they could not be quantified. All detected chemicals had concentrations well below the applicable standards. Bulk trace-metal concentrations measured in the September-2007 sample were comparable to concentrations measured in samples collected annually from 1999 through 2006.[3] The analysis of the 2007 biosolids sample included an assessment of three additional metals (barium, cobalt, and vanadium) that were not analyzed prior to 2003. They were included in the recent analyses to provide a complete suite of CAM-17 [4] analytes, even though the current NPDES discharge permit does not require analyses of these additional metals.

All trace-metal concentrations measured in the September-2007 sample were below Total Threshold Limit Concentrations (TTLC) that would designate them as hazardous under federal regulations.[5] Similarly, dry-weight concentrations for all the metals were well below the federally mandated limits, including the monthly limit for biosolids suitable for land application. One metal, copper, had a bulk wet-weight concentration that exceeded ten-times the Soluble Threshold Limit Concentration (STLC). As a result, a

---

[1] Monitoring and Reporting Program No. 98-15 for City of Morro Bay and Cayucos Sanitary District Wastewater Treatment Plant, San Luis Obispo County promulgated by the State of California Regional Water Quality Control Board Central Coast Region and the United States Environmental Protection Agency Region IX, San Francisco California. 11 December 1998.

[2] State of California Regional Water Quality Control Board Central Coast Region Waste Discharge Requirements Order No. 98-15 and United States Environmental Protection Agency Region IX, San Francisco California National Pollutant Discharge Elimination System Permit No. CA0047881 for City of Morro Bay and Cayucos Sanitary District Wastewater Treatment Plant, San Luis Obispo County.

[3] Marine Research Specialists (MRS). 1999 through 2005. City of Morro Bay and Cayucos Sanitary District, Residual Biosolids Chemical Analysis Results. Prepared for the City of Morro Bay and Cayucos Sanitary District, Morro Bay, CA.

[4] CAM is an acronym for California Administrative Manual and CAM-17 refers to the list of heavy metals identified in the California Code of Regulations (CCR), Title 22, Chapter 11: *Identification and Listing of Hazardous Waste*.

[5] U.S. Government Printing Office (USGPO). 1997b. Code of Federal Regulations. Environmental Protection. Standards for the use or disposal of Sewage Sludge, Land Application, Pollutant Limits. Chapter 40, Part 503, Subpart B. 1 July 1997 edition.

waste extraction tests (WET) was conducted on this compound. The test indicated that soluble concentrations of copper were below the applicable STLC limits that would designate the biosolids as hazardous in the State of California.

Copper occurs naturally in the mineralogy of ambient sediments in the central coast region. As a result, its presence in bulk biosolid samples is not unexpected because sediments enter the collection system through runoff. Copper also enters the collection system through internal corrosion of household plumbing systems, which probably accounts for its consistent detection at low concentrations within effluent samples. As with other metals, the bulk copper concentration determined in the September-2007 sample was comparable to concentrations measured in biosolids samples collected historically.

One synthetic organic contaminant, bis(2-ethylhexyl) phthalate, was detected at quantifiable concentrations in the September-2007 biosolid sample. Bis(2-ethylhexyl)phthalate (BEHP) is a compound that has been consistently detected at low levels in effluent and biosolid samples collected over the past decade.[6] There is no limit on this compound specified in State and Federal regulations governing biosolids. Phthalate esters, such as BEHP, are components of synthetic dyes, resins, plasticizers, insecticides, and, pharmaceuticals. Nearly 2.7 million metric tons (6 billion pounds) of phthalate esters are produced each year, of which more than half is BEHP. BEHP is a physical plasticizer added to plastic resins to soften them, providing increased flexibility. It is not, however, covalently bound to the resin, which allows it to slowly leach out of the plastic and into the environment over time through evaporation or dissolution. Because of their mobility, high vapor pressure, and the massive scale at which they are produced, phthalate esters, and BEHP in particular, have become pervasive in the environment.

Other compounds listed in Table 1 further characterize the biosolids as required in the waste discharge requirements. Although testing for asbestos is no longer required as part of the NPDES permit, this test was included for completeness.

Please contact the undersigned if you have any questions regarding these results.

Sincerely,

Douglas A. Coats, Ph.D.
Program Manager
Enclosure (Five Report Copies)

[6] Section 2.2.12, Page 2-43 of the MBCSD 2005 Annual Report to the City of Morro Bay and Cayucos Sanitary District. Prepared by Marine Research Specialists, February 2006.

Table 1. Summary of Results for Biosolids Analyses

		Wet Weight				Dry Weight		
		Measured		Limit		Measured	Limit	
Constituent	**Units**	**Bulk** [7]	**WET** [8]	**STLC** [9]	**TTLC** [10]	**Bulk**	**Monthly** [11]	**Ceiling** [12]
Solids	%	84.1	— [13]	—	—	—	—	—
Total Dissolved Solids	ppm	—	4,500.	—	—	—	—	—
Cyanide	ppm	2.1	—	—	—	2.5	—	—
Antimony	ppm	*1.9* [14]	—	15.	500.	2.3	—	—
Arsenic	ppm	4.1	—	5.	500.	4.9	41.	75.
Barium	ppm	520.	—	100.	10,000.	618.	—	—
Beryllium	ppm	0.25	—	0.75	75.	0.30	—	—
Boron	ppm	17.	—	—	—	20.	—	—
Cadmium	ppm	3.6	—	1.	100.	4.3	39.	85.
Chromium (Total)	ppm	43.	—	560.	2500.	51.	—	—
Chromium (Hexavalent)	ppm	—	<0.10	5.	500.	—	—	—
Cobalt	ppm	5.3	—	80.	8,000.	6.3	1,500.	4,300.
Copper	ppm	**500.** [15]	3.9	25.	2,500.	595.	1,500.	4,300.
Lead	ppm	44.	—	5.	1,000.	52.	300.	840.
Mercury	ppm	0.53	—	0.2	20.	0.63	17.	57.
Molybdenum	ppm	19.	—	350.	3,500.	23.	—	—
Nickel	ppm	37.	—	20.	2,000.	44.	420.	420.
Selenium	ppm	7.4	—	1.	100.	8.8	100.	100.
Silver	ppm	4.3	—	5.	500.	5.1	—	—
Thallium	ppm	<1.7	—	7.	700.	<3.6	—	—
Vanadium	ppm	25.	—	24.	2,400.	30.	—	—
Zinc	ppm	1,100.	—	250.	5,000.	1,308.	2,800.	7,500.
Asbestos	%	ND	—	—	1.	ND	—	—
Bis(2-ethylhexyl) phthalate	ppm	43.	—	—	—	51.	—	—
Hydrogen-Ion	pH	6.76	—	—	—	—	—	—
Phosphate	mg/kg	86,000.	—	—	—	102,259.	—	—

[7] The total wet-weight concentration (mg/Kg) within a bulk biosolid sample consisting of the entire millable solid matrix rather than just the leachate

[8] Waste Extraction Tests (WET) measure the soluble leachate (mg/L) or the extractable amount of a substance contained within a bulk sample of biosolids. A WET is indicated if the bulk wet-weight concentration of a contaminant in a biosolids sample exceeds ten times the STLC.

[9] Soluble Threshold Limit Concentrations (STLC) apply to the measured concentration in the liquid extract from a biosolid sample, as determined by a WET. Biosolids with leachate concentrations exceeding the STLC are classified as hazardous in the State of California as described in the California Code of Regulations (CCR), Title 22, Chapter 11: *Identification and Listing of Hazardous Waste*.

[10] Total Threshold Limit Concentrations (TTLC) apply to the total wet-weight concentration of a contaminant (mg/Kg) within a bulk biosolid sample consisting of the entire millable solid matrix rather than just the leachate. Biosolids are designated as hazardous wastes in the State of California if measured bulk concentrations exceed the TTLC as described in the CCRs, *op. cit.*

[11] Federally mandated dry-weight limits imposed on biosolids suitable for application on agricultural land apply to monthly average concentrations as defined in Table 3 of the Code of Federal Regulations (CFRs). Environmental Protection. Standards for the use or disposal of Sewage Sludge, Land Application, Pollutant Limits. Chapter 40, Part 503, Subpart B [40 CFR §503.13(b)(1)].

[12] Federally mandated dry-weight ceiling concentrations above which biosolids are considered hazardous waste as defined in Table 1 of the CFRs, *op. cit.*

[13] "—" indicates that the measurement was not required or its limit was not specified.

[14] Italicized concentrations were too low to be reliably quantified.

[15] Bulk concentrations shown in bold were greater than ten times the STLC and a WET was conducted.

		Wet Weight				Dry Weight		
		Measured		Limit		Measured	Limit	
Constituent	**Units**	**Bulk** [7]	**WET** [8]	**STLC** [9]	**TTLC** [10]	**Bulk**	**Monthly** [11]	**Ceiling** [12]
Ammonia	mg/kg	5,500.	—	—	—	6,540.	—	—
TKN	mg/kg	30,000.	—	—	—	35,672.	—	—
Organic Nitrogen[16]	mg/kg	24,500.	—	—	—	29,132.	—	—
Nitrate as NO_3	mg/kg	200.	—	—	—	238.	—	—
Oil & Grease	ppm	43,000.	—	—	—	51,130.	—	—

[16] The amount of nitrogen measure by the TKN without ammonia

ANALYTICAL RESULTS

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Total Concentrations (TTLC)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Antimony	2.3	1.9	mg/kg	10	0.60	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	J,A01
Arsenic	4.9	4.1	mg/kg	2.0	0.88	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Barium	620	520	mg/kg	1.0	0.11	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Beryllium	0.29	0.25	mg/kg	1.0	0.078	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	J,A01
Cadmium	4.3	3.6	mg/kg	1.0	0.46	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Chromium	51	43	mg/kg	1.0	0.17	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Cobalt	6.3	5.3	mg/kg	5.0	0.17	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Copper	590	500	mg/kg	2.0	0.17	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Lead	52	44	mg/kg	5.0	0.36	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Mercury	0.63	0.53	mg/kg	0.16	0.014	EPA-7471A	09/06/07	09/07/07 09:35	MEV	CETAC1	1.042	BQI0293	ND	
Molybdenum	23	19	mg/kg	5.0	0.22	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Nickel	43	37	mg/kg	1.0	0.14	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Selenium	8.8	7.4	mg/kg	2.0	0.80	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Silver	5.1	4.3	mg/kg	1.0	0.12	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Thallium	ND	ND	mg/kg	10	1.7	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Vanadium	30	25	mg/kg	1.0	0.19	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Zinc	1300	1100	mg/kg	5.0	0.82	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01
Boron	20	17	mg/kg	10	1.6	EPA-6010E	09/07/07	09/08/07 16:58	PPS	TJA61E	1.980	BQI0319	ND	A01

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Chemical Analysis

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Moisture	0	15.9	%	0.05	0.05	Calc	09/06/07	09/21/07 14:22	MSA	Calc	1	BQI0282	ND	
Total Cyanide	2.4	2.1	mg/kg	0.50	0.25	EPA-9012	09/14/07	09/14/07 12:31	TDC	KONE-1	1	BQI0708	ND	
pH	6.76	6.76	pH Units	0.05	0.05	EPA-9045	09/11/07	09/11/07 14:30	JSM	B360	1	BQI0533		pH1:3
Nitrate as NO3	230	200	mg/kg	44	4.8	EPA-300.0	09/13/07	09/14/07 01:18	LMB	IC1	10	BQI0646	ND	A01
Total Kjeldahl Nitrogen	36000	30000	mg/kg	2000	1000	EPA-351.2	09/07/07	09/10/07 15:54	FAD	SC-1	50	BQI0366	ND	A01
Ammonia as N	6500	5500	mg/kg	500	200	EPA-350.1	09/21/07	09/21/07 14:15	FAD	AAII-5	99.900	BQI0942	ND	A01
Total Phosphate	100000	86000	mg/kg	15000	6000	EPA-365.4	09/07/07	09/10/07 14:42	FAD	SC-1	500	BQI0368	ND	A01
Solids	100	84.1	%	0.05	0.05	SM-2540G	09/07/07	09/07/07 09:55	VBA	MANUAL	1	BQI0347		

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 11:01

WET Test (STLC)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Copper	3.9	mg/L	0.10	0.0093	EPA-6010B	09/13/07	09/21/07 15:39	PRA	TJA61E	1	BQI0601	0.016	

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 11:01

Modified WET Test (STLC)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Hexavalent Chromium	ND	mg/L	0.20	0.10	EPA-7196	09/12/07	09/12/07 16:06	TDC	KONE-1	1	BQI0672	ND	
Total Dissolved Solids @ 180 C	4500	mg/L	200	200	EPA-160.1	09/13/07	09/13/07 09:40	VEL	MANUAL	20	BQI0877	ND	

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

EPA Method 1664

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Oil and Grease	51000	43000	mg/kg	100	54	EPA-1664F	09/13/07	09/13/07 13:00	JAK	Inst	2	BQI0711	ND	A09

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Organochlorine Pesticides and PCB's (EPA Method 8080)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Aldrin	ND	ND	mg/kg	0.015	0.0073	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
alpha-BHC	ND	ND	mg/kg	0.015	0.0014	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	V11
beta-BHC	ND	ND	mg/kg	0.015	0.0076	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
delta-BHC	ND	ND	mg/kg	0.015	0.0023	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
gamma-BHC (Lindane)	ND	ND	mg/kg	0.015	0.0018	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	V11
Chlordane (Technical)	ND	ND	mg/kg	1.5	0.45	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
4,4'-DDD	ND	ND	mg/kg	0.015	0.0014	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
4,4'-DDE	ND	ND	mg/kg	0.015	0.0021	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
4,4'-DDT	ND	ND	mg/kg	0.015	0.0017	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	V11
Dieldrin	ND	ND	mg/kg	0.015	0.0016	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
Endosulfan I	ND	ND	mg/kg	0.015	0.0025	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
Endosulfan II	ND	ND	mg/kg	0.015	0.0045	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
Endosulfan sulfate	ND	ND	mg/kg	0.015	0.0019	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
Endrin	ND	ND	mg/kg	0.015	0.0013	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
Endrin aldehyde	ND	ND	mg/kg	0.015	0.0013	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	V11
Heptachlor	ND	ND	mg/kg	0.015	0.0058	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	V11
Heptachlor epoxide	ND	ND	mg/kg	0.015	0.0076	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
Methoxychlor	ND	ND	mg/kg	0.015	0.0042	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	V11
Toxaphene	ND	ND	mg/kg	1.5	0.22	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
PCB-1016	ND	ND	mg/kg	0.30	0.082	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
PCB-1221	ND	ND	mg/kg	0.30	0.15	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
PCB-1232	ND	ND	mg/kg	0.30	0.036	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Organochlorine Pesticides and PCB's (EPA Method 8080)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
PCB-1242	ND	ND	mg/kg	0.30	0.049	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
PCB-1248	ND	ND	mg/kg	0.30	0.036	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
PCB-1254	ND	ND	mg/kg	0.30	0.024	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
PCB-1260	ND	ND	mg/kg	0.30	0.067	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
Total PCB's (Summation)	ND	ND	mg/kg	0.30	0.15	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436	ND	
TCMX (Surrogate)	0	0	%	70 - 120	(LCL - UCL)	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436		A18
Dibutyl chlorendate (Surrogate)	0	0	%	79 - 136	(LCL - UCL)	EPA-8080	09/07/07	09/12/07 23:17	JRS	GC-1	30.303	BQI0436		A18

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Organo-Phosphorus Pesticide Analysis (EPA Method 8140)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Azinphos methyl	ND	ND	mg/kg	0.030	0.0057	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Bolstar	ND	ND	mg/kg	0.030	0.0042	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Chlorpyrifos	ND	ND	mg/kg	0.030	0.0024	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Coumaphos	ND	ND	mg/kg	0.030	0.0066	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Demeton O/S	ND	ND	mg/kg	0.030	0.0045	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Diazinon	ND	ND	mg/kg	0.030	0.0018	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	V11
Dichlorvos	ND	ND	mg/kg	0.030	0.019	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	V11
Disulfoton	ND	ND	mg/kg	0.030	0.0033	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Ethoprop	ND	ND	mg/kg	0.030	0.0024	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Fensulfothion	ND	ND	mg/kg	0.030	0.016	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	V11
Fenthion	ND	ND	mg/kg	0.030	0.0030	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Merphos	ND	ND	mg/kg	0.030	0.0033	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Methyl parathion	ND	ND	mg/kg	0.030	0.0062	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Mevinphos	ND	ND	mg/kg	0.030	0.0042	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Naled	ND	ND	mg/kg	0.030	0.0051	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	V11
Phorate	ND	ND	mg/kg	0.030	0.0018	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Ronnel (Fenchlorphos)	ND	ND	mg/kg	0.030	0.0048	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Stirophos (Tetrachlorvinphos)	ND	ND	mg/kg	0.030	0.0075	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Tokuthion (Prothiofos)	ND	ND	mg/kg	0.030	0.0030	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Trichloronate	ND	ND	mg/kg	0.030	0.0033	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437	ND	
Triphenylphosphate (Surrogate)	416	416	%	60 - 129	(LCL - UCL)	EPA-8140	09/07/07	09/10/07 21:11	OAA	GC-7	3	BQI0437		S09

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Volatile Organic Analysis (EPA Method 8240)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ND	mg/kg	0.050	0.014	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Bromodichloromethane	ND	ND	mg/kg	0.050	0.011	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Bromoform	ND	ND	mg/kg	0.050	0.023	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Bromomethane	ND	ND	mg/kg	0.050	0.019	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Carbon tetrachloride	ND	ND	mg/kg	0.050	0.018	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Chlorobenzene	ND	ND	mg/kg	0.050	0.011	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Chloroethane	ND	ND	mg/kg	0.050	0.016	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Chloroform	ND	ND	mg/kg	0.050	0.011	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Chloromethane	ND	ND	mg/kg	0.050	0.017	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10,V11
Dibromochloromethane	ND	ND	mg/kg	0.050	0.0096	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,2-Dichlorobenzene	ND	ND	mg/kg	0.050	0.0091	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,3-Dichlorobenzene	ND	ND	mg/kg	0.050	0.012	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,4-Dichlorobenzene	ND	ND	mg/kg	0.050	0.013	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,1-Dichloroethane	ND	ND	mg/kg	0.050	0.012	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,2-Dichloroethane	ND	ND	mg/kg	0.050	0.0099	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,1-Dichloroethene	ND	ND	mg/kg	0.050	0.017	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
trans-1,2-Dichloroethene	ND	ND	mg/kg	0.050	0.015	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,2-Dichloropropane	ND	ND	mg/kg	0.050	0.0079	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
cis-1,3-Dichloropropene	ND	ND	mg/kg	0.050	0.0085	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
trans-1,3-Dichloropropene	ND	ND	mg/kg	0.050	0.011	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Ethylbenzene	ND	ND	mg/kg	0.050	0.013	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Methylene chloride	ND	ND	mg/kg	0.10	0.024	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Volatile Organic Analysis (EPA Method 8240)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Methyl t-butyl ether	ND	ND	mg/kg	0.050	0.012	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,1,2,2-Tetrachloroethane	ND	ND	mg/kg	0.050	0.011	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Tetrachloroethene	ND	ND	mg/kg	0.050	0.013	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10,V11
Toluene	ND	ND	mg/kg	0.050	0.012	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,1,1-Trichloroethane	ND	ND	mg/kg	0.050	0.012	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,1,2-Trichloroethane	ND	ND	mg/kg	0.050	0.012	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Trichloroethene	ND	ND	mg/kg	0.050	0.013	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Trichlorofluoromethane	ND	ND	mg/kg	0.050	0.017	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND	mg/kg	0.050	0.018	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Vinyl chloride	ND	ND	mg/kg	0.050	0.021	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
Total Xylenes	ND	ND	mg/kg	0.10	0.037	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
p- & m-Xylenes	ND	ND	mg/kg	0.050	0.025	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
o-Xylene	ND	ND	mg/kg	0.050	0.013	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778	ND	A10
1,2-Dichloroethane-d4 (Surrogate)	119	119	%	70 - 121	(LCL - UCL)	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778		
Toluene-d8 (Surrogate)	84.2	84.2	%	81 - 117	(LCL - UCL)	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778		
4-Bromofluorobenzene (Surrogate)	81.2	81.2	%	74 - 121	(LCL - UCL)	EPA-8240	09/07/07	09/07/07 17:08	LHS	MS-V2	10	BQH1778		

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Acenaphthene	ND	ND	mg/kg	3.0	2.0	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Acenaphthylene	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Aldrin	ND	ND	mg/kg	3.0	1.7	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Aniline	ND	ND	mg/kg	6.1	0.70	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Anthracene	ND	ND	mg/kg	3.0	2.0	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Benzidine	ND	ND	mg/kg	91	45	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Benzo[a]anthracene	ND	ND	mg/kg	3.0	1.7	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Benzo[b]fluoranthene	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Benzo[k]fluoranthene	ND	ND	mg/kg	3.0	1.9	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Benzo[a]pyrene	ND	ND	mg/kg	3.0	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Benzo[g,h,i]perylene	ND	ND	mg/kg	3.0	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10,V11
Benzoic acid	ND	ND	mg/kg	15	1.1	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Benzyl alcohol	ND	ND	mg/kg	3.0	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Benzyl butyl phthalate	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
alpha-BHC	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
beta-BHC	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
delta-BHC	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
gamma-BHC (Lindane)	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
bis(2-Chloroethoxy)methane	ND	ND	mg/kg	3.0	1.5	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
bis(2-Chloroethyl) ether	ND	ND	mg/kg	3.0	1.5	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
bis(2-Chloroisopropyl)ether	ND	ND	mg/kg	3.0	1.5	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
bis(2-Ethylhexyl)phthalate	51	43	mg/kg	6.1	2.1	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
4-Bromophenyl phenyl ether	ND	ND	mg/kg	3.0	2.0	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
4-Chloroaniline	ND	ND	mg/kg	3.0	1.1	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2-Chloronaphthalene	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
4-Chlorophenyl phenyl ether	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Chrysene	ND	ND	mg/kg	3.0	1.9	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
4,4'-DDD	ND	ND	mg/kg	3.0	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
4,4'-DDE	ND	ND	mg/kg	3.0	1.7	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
4,4'-DDT	ND	ND	mg/kg	3.0	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Dibenzo[a,h]anthracene	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Dibenzofuran	ND	ND	mg/kg	3.0	1.9	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
1,2-Dichlorobenzene	ND	ND	mg/kg	3.0	1.3	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
1,3-Dichlorobenzene	ND	ND	mg/kg	3.0	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
1,4-Dichlorobenzene	ND	ND	mg/kg	3.0	1.5	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
3,3-Dichlorobenzidine	ND	ND	mg/kg	6.1	1.3	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Dieldrin	ND	ND	mg/kg	3.0	0.67	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Diethyl phthalate	ND	ND	mg/kg	3.0	2.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Dimethyl phthalate	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Di-n-butyl phthalate	ND	ND	mg/kg	3.0	0.27	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2,4-Dinitrotoluene	ND	ND	mg/kg	3.0	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2,6-Dinitrotoluene	ND	ND	mg/kg	3.0	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Di-n-octyl phthalate	ND	ND	mg/kg	3.0	2.5	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
1,2-Diphenylhydrazine	ND	ND	mg/kg	3.0	0.27	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Endosulfan I	ND	ND	mg/kg	6.1	1.5	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Endosulfan II	ND	ND	mg/kg	6.1	1.5	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Endosulfan sulfate	ND	ND	mg/kg	3.0	1.7	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Endrin	ND	ND	mg/kg	6.1	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Endrin aldehyde	ND	ND	mg/kg	15	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Fluoranthene	ND	ND	mg/kg	3.0	2.0	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Fluorene	ND	ND	mg/kg	3.0	1.3	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Heptachlor	ND	ND	mg/kg	3.0	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Heptachlor epoxide	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10,V11
Hexachlorobenzene	ND	ND	mg/kg	3.0	1.9	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Hexachlorobutadiene	ND	ND	mg/kg	3.0	1.5	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Hexachlorocyclopentadiene	ND	ND	mg/kg	3.0	1.0	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Hexachloroethane	ND	ND	mg/kg	3.0	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Indeno[1,2,3-cd]pyrene	ND	ND	mg/kg	3.0	2.3	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Isophorone	ND	ND	mg/kg	3.0	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2-Methylnaphthalene	ND	ND	mg/kg	3.0	1.7	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Naphthalene	ND	ND	mg/kg	3.0	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2-Naphthylamine	ND	ND	mg/kg	91	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10,C02
2-Nitroaniline	ND	ND	mg/kg	3.0	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
3-Nitroaniline	ND	ND	mg/kg	3.0	1.5	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
4-Nitroaniline	ND	ND	mg/kg	6.1	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Nitrobenzene	ND	ND	mg/kg	3.0	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
N-Nitrosodimethylamine	ND	ND	mg/kg	3.0	1.2	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
N-Nitrosodi-N-propylamine	ND	ND	mg/kg	3.0	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
N-Nitrosodiphenylamine	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Phenanthrene	ND	ND	mg/kg	3.0	2.1	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Pyrene	ND	ND	mg/kg	3.0	1.8	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
1,2,4-Trichlorobenzene	ND	ND	mg/kg	3.0	1.5	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
4-Chloro-3-methylphenol	ND	ND	mg/kg	6.1	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2-Chlorophenol	ND	ND	mg/kg	3.0	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2,4-Dichlorophenol	ND	ND	mg/kg	3.0	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2,4-Dimethylphenol	ND	ND	mg/kg	3.0	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
4,6-Dinitro-2-methylphenol	ND	ND	mg/kg	15	0.85	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2,4-Dinitrophenol	ND	ND	mg/kg	15	6.7	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2-Methylphenol	ND	ND	mg/kg	3.0	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
3- & 4-Methylphenol	ND	ND	mg/kg	6.1	3.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2-Nitrophenol	ND	ND	mg/kg	3.0	1.4	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
4-Nitrophenol	ND	ND	mg/kg	6.1	1.6	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Pentachlorophenol	ND	ND	mg/kg	6.1	1.9	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
Phenol	ND	ND	mg/kg	3.0	1.7	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2,4,5-Trichlorophenol	ND	ND	mg/kg	6.1	1.9	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2,4,6-Trichlorophenol	ND	ND	mg/kg	6.1	2.2	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409	ND	A10
2-Fluorophenol (Surrogate)	35.4	35.4	%	46 - 132	(LCL - UCL)	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409		A10,S09
Phenol-d5 (Surrogate)	-39.0	-39.0	%	45 - 134	(LCL - UCL)	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409		A10,S09

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID: 0710353-01 | **Client Sample Name:** Morro Bay WWTP Biosolids, 9/5/2007 2:00:00PM

Constituent	Dry Basis Result	As Recvd Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Nitrobenzene-d5 (Surrogate)	38.7	38.7	%	52 - 133	(LCL - UCL)	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409		A10,S09
2-Fluorobiphenyl (Surrogate)	45.9	45.9	%	47 - 132	(LCL - UCL)	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409		A10,S09
2,4,6-Tribromophenol (Surrogate)	45.0	45.0	%	54 - 146	(LCL - UCL)	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409		A10,S09
p-Terphenyl-d14 (Surrogate)	53.5	53.5	%	34 - 158	(LCL - UCL)	EPA-8270C	09/07/07	09/11/07 16:12	SKC	MS-B1	30.303	BQI0409		A10

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

BC LABORATORIES, INC.

Marine Research
3140 Telegraph Road
Suite A
Ventura, CA 93003

Attached are the Asbestos results analyzed by EMSL Analytical.

BC Lab #	EMSL #	Client Description	Date/Time Sampled
07-10353-1	090705081	MBWWTP Biosolids	9-5-07 1400

EMSL Analytical, Inc
2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577
Phone: (510) 895-3675 Fax: (510) 895-3680 Email: milpitaslab@emsl.com

Attn: **Tina Green**
BC Laboratories, Inc.
4100 Atlas Court
Bakersfield, CA 93308

Fax: (661) 327-1918 Phone: (661) 327-4911
Project: 0710353

Customer ID: BCLA50
Customer PO: 0710353
Received: 09/07/07 9:00 AM
EMSL Order: 090705081

EMSL Proj:
Analysis Date: 9/17/2007
Report Date: 9/17/2007

PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB 435 Prep (Milling) Level A for 0.25% Target Analytical Sensitivity

			Non-Asbestos		Asbestos
Sample	Location	Appearance	% Fibrous	% Non-Fibrous	% Type
0710353-01 *090705081-0001*				100.00% Non-fibrous (other)	None Detected

Analyst(s)

Nonette Patron (1)

Baojia Ke, Laboratory Manager
or other approved signatory

THIS IS THE LAST PAGE OF THE REPORT.

QA/QC REPORTS & CHAINS OF CUSTODY

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Mercury	BQI0293	Duplicate	0710259-01	0.017619	0.017024		mg/kg	3.4		20		J
		Matrix Spike	0710259-01	0.017619	0.54643	0.59524	mg/kg		88.8		85 - 115	
		Matrix Spike Duplicate	0710259-01	0.017619	0.53512	0.59524	mg/kg	2.2	86.9	20	85 - 115	
Antimony	BQI0319	Duplicate	0710380-06	0.39109	0.91089		mg/kg	79.8		20		J,A02
		Matrix Spike	0710380-06	0.39109	32.990	99.010	mg/kg		32.9		16 - 119	
		Matrix Spike Duplicate	0710380-06	0.39109	35.351	99.010	mg/kg	7.0	35.3	20	16 - 119	
Arsenic	BQI0319	Duplicate	0710380-06	5.8416	5.0050		mg/kg	15.4		20		
		Matrix Spike	0710380-06	5.8416	10.550	4.9505	mg/kg		95.1		75 - 125	
		Matrix Spike Duplicate	0710380-06	5.8416	10.233	4.9505	mg/kg	7.0	88.7	20	75 - 125	
Barium	BQI0319	Duplicate	0710380-06	85.990	88.465		mg/kg	2.8		20		
		Matrix Spike	0710380-06	85.990	189.41	99.010	mg/kg		104		75 - 125	
		Matrix Spike Duplicate	0710380-06	85.990	182.87	99.010	mg/kg	6.1	97.8	20	75 - 125	
Beryllium	BQI0319	Duplicate	0710380-06	0.46040	0.45545		mg/kg	1.1		20		J
		Matrix Spike	0710380-06	0.46040	10.317	9.9010	mg/kg		99.6		75 - 125	
		Matrix Spike Duplicate	0710380-06	0.46040	10.332	9.9010	mg/kg	0.1	99.7	20	75 - 125	
Cadmium	BQI0319	Duplicate	0710380-06	ND	ND		mg/kg			20		
		Matrix Spike	0710380-06	ND	9.8366	9.9010	mg/kg		99.3		75 - 125	
		Matrix Spike Duplicate	0710380-06	ND	9.8762	9.9010	mg/kg	0.4	99.7	20	75 - 125	
Chromium	BQI0319	Duplicate	0710380-06	27.931	27.891		mg/kg	0.1		20		
		Matrix Spike	0710380-06	27.931	123.22	99.010	mg/kg		96.2		75 - 125	
		Matrix Spike Duplicate	0710380-06	27.931	122.92	99.010	mg/kg	0.3	95.9	20	75 - 125	
Cobalt	BQI0319	Duplicate	0710380-06	9.7376	8.2475		mg/kg	16.6		20		
		Matrix Spike	0710380-06	9.7376	105.89	99.010	mg/kg		97.1		75 - 125	
		Matrix Spike Duplicate	0710380-06	9.7376	105.50	99.010	mg/kg	0.4	96.7	20	75 - 125	
Copper	BQI0319	Duplicate	0710380-06	20.832	20.728		mg/kg	0.5		20		
		Matrix Spike	0710380-06	20.832	121.29	99.010	mg/kg		101		75 - 125	
		Matrix Spike Duplicate	0710380-06	20.832	121.78	99.010	mg/kg	1.0	102	20	75 - 125	

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Lead	BQI0319	Duplicate	0710380-06	7.9851	7.4505		mg/kg	6.9		20		
		Matrix Spike	0710380-06	7.9851	101.29	99.010	mg/kg		94.2		75 - 125	
		Matrix Spike Duplicate	0710380-06	7.9851	101.78	99.010	mg/kg	0.5	94.7	20	75 - 125	
Molybdenum	BQI0319	Duplicate	0710380-06	0.52970	0.37129		mg/kg	35.2		20		J,A02
		Matrix Spike	0710380-06	0.52970	87.228	99.010	mg/kg		87.6		75 - 125	
		Matrix Spike Duplicate	0710380-06	0.52970	87.970	99.010	mg/kg	0.8	88.3	20	75 - 125	
Nickel	BQI0319	Duplicate	0710380-06	25.144	23.406		mg/kg	7.2		20		
		Matrix Spike	0710380-06	25.144	114.75	99.010	mg/kg		90.5		75 - 125	
		Matrix Spike Duplicate	0710380-06	25.144	113.81	99.010	mg/kg	1.0	89.6	20	75 - 125	
Selenium	BQI0319	Duplicate	0710380-06	ND	0.43564		mg/kg			20		J
		Matrix Spike	0710380-06	ND	4.8762	4.9505	mg/kg		98.5		75 - 125	
		Matrix Spike Duplicate	0710380-06	ND	4.9059	4.9505	mg/kg	0.6	99.1	20	75 - 125	
Silver	BQI0319	Duplicate	0710380-06	ND	ND		mg/kg			20		
		Matrix Spike	0710380-06	ND	10.074	9.9010	mg/kg		102		75 - 125	
		Matrix Spike Duplicate	0710380-06	ND	10.020	9.9010	mg/kg	1.0	101	20	75 - 125	
Thallium	BQI0319	Duplicate	0710380-06	ND	ND		mg/kg			20		
		Matrix Spike	0710380-06	ND	95.644	99.010	mg/kg		96.6		75 - 125	
		Matrix Spike Duplicate	0710380-06	ND	96.386	99.010	mg/kg	0.7	97.3	20	75 - 125	
Vanadium	BQI0319	Duplicate	0710380-06	41.495	41.634		mg/kg	0.3		20		
		Matrix Spike	0710380-06	41.495	143.91	99.010	mg/kg		103		75 - 125	
		Matrix Spike Duplicate	0710380-06	41.495	144.31	99.010	mg/kg	1.0	104	20	75 - 125	
Zinc	BQI0319	Duplicate	0710380-06	57.030	56.238		mg/kg	1.4		20		
		Matrix Spike	0710380-06	57.030	149.50	99.010	mg/kg		93.4		75 - 125	
		Matrix Spike Duplicate	0710380-06	57.030	151.24	99.010	mg/kg	1.9	95.2	20	75 - 125	
Boron	BQI0319	Duplicate	0710380-06	4.7277	5.0891		mg/kg	7.4		20		
		Matrix Spike	0710380-06	4.7277	96.980	99.010	mg/kg		93.2		75 - 125	
		Matrix Spike Duplicate	0710380-06	4.7277	97.277	99.010	mg/kg	0.3	93.5	20	75 - 125	

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Chemical Analysis

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Solids	BQI0347	Duplicate	0710380-06	78.700	78.200		%	0.6		20		
Total Kjeldahl Nitrogen	BQI0366	Duplicate	0710353-01	30462	28464		mg/kg	6.8		20		A01
		Matrix Spike	0710353-01	30462	30886	400.00	mg/kg		106		80 - 120	A01
		Matrix Spike Duplicate	0710353-01	30462	31765	400.00	mg/kg	102	326	20	80 - 120	A01,A03,Q02
Total Phosphate	BQI0368	Duplicate	0710353-01	85516	77385		mg/kg	10.0		20		A01
		Matrix Spike	0710353-01	85516	84137	613.20	mg/kg		-225		80 - 120	A01,A03
		Matrix Spike Duplicate	0710353-01	85516	84596	613.20	mg/kg	40.0	-150	20	80 - 120	A01,A03,Q02
pH	BQI0533	Duplicate	0710037-01	13.001	13.006		pH Units	0.0		20		pH1:1
Nitrate as NO3	BQI0646	Duplicate	0710353-01	196.55	200.09		mg/kg	1.8		20		A01
		Matrix Spike	0710353-01	196.55	2447.7	2235.8	mg/kg		101		80 - 120	A01
		Matrix Spike Duplicate	0710353-01	196.55	2385.1	2235.8	mg/kg	3.1	97.9	20	80 - 120	A01
Total Cyanide	BQI0708	Duplicate	0710353-01RE1	2.0602	2.4733		mg/kg	18.2		20		
		Matrix Spike	0710353-01RE1	2.0602	9.3482	10.000	mg/kg		72.9		80 - 120	Q03
		Matrix Spike Duplicate	0710353-01RE1	2.0602	10.514	10.000	mg/kg	14.7	84.5	20	80 - 120	
Ammonia as N	BQI0942	Duplicate	0710353-01	5460.3	5527.6		mg/kg	1.2		20		A01
		Matrix Spike	0710353-01	5460.3	6065.0	199.80	mg/kg		303		80 - 120	A01,A03
		Matrix Spike Duplicate	0710353-01	5460.3	5460.3	199.80	mg/kg	200	0	20	80 - 120	A01,A03

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 11:01

WET Test (STLC)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Copper	BQI0601	Duplicate	0710422-01	0.036000	0.049000		mg/L	30.6		20		J,A02
		Matrix Spike	0710422-01	0.036000	4.9240	5.0000	mg/L		97.8		75 - 125	
		Matrix Spike Duplicate	0710422-01	0.036000	4.8640	5.0000	mg/L	1.2	96.6	20	75 - 125	

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 11:01

Modified WET Test (STLC)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Hexavalent Chromium	BQI0672	Duplicate	0710422-03	ND	ND		mg/L			20		
		Matrix Spike	0710422-03	ND	5.1925	5.2632	mg/L		98.7		85 - 115	
		Matrix Spike Duplicate	0710422-03	ND	5.1893	5.2632	mg/L	0.1	98.6	20	85 - 115	
Total Dissolved Solids @ 180 C	BQI0877	Duplicate	0710422-03	2970.0	2990.0		mg/L	0.7		20		

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

EPA Method 1664

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Oil and Grease	BQI0711	Duplicate	0710422-01	28105	27225		mg/kg	3.2		30		A09
		Matrix Spike	0708364-94	ND	767.00	823.00	mg/kg		93.2		56 - 111	
		Matrix Spike Duplicate	0708364-94	ND	698.00	823.00	mg/kg	9.4	84.8	30	56 - 111	

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Organochlorine Pesticides and PCB's (EPA Method 8080)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Aldrin	BQI0436	Matrix Spike	0710353-01	ND	ND	0.025253	mg/kg				48 - 139	A10
		Matrix Spike Duplicate	0710353-01	ND	ND	0.025510	mg/kg			30	48 - 139	A10
gamma-BHC (Lindane)	BQI0436	Matrix Spike	0710353-01	ND	ND	0.025253	mg/kg				43 - 113	A10,V11
		Matrix Spike Duplicate	0710353-01	ND	ND	0.025510	mg/kg			30	43 - 113	A10,V11
4,4'-DDT	BQI0436	Matrix Spike	0710353-01	ND	ND	0.025253	mg/kg				44 - 124	A10,V11
		Matrix Spike Duplicate	0710353-01	ND	ND	0.025510	mg/kg			30	44 - 124	A10,V11
Dieldrin	BQI0436	Matrix Spike	0710353-01	ND	ND	0.025253	mg/kg				50 - 135	A10
		Matrix Spike Duplicate	0710353-01	ND	ND	0.025510	mg/kg			30	50 - 135	A10
Endrin	BQI0436	Matrix Spike	0710353-01	ND	ND	0.025253	mg/kg				47 - 143	A10
		Matrix Spike Duplicate	0710353-01	ND	ND	0.025510	mg/kg			30	47 - 143	A10
Heptachlor	BQI0436	Matrix Spike	0710353-01	ND	ND	0.025253	mg/kg				59 - 133	A10,V11
		Matrix Spike Duplicate	0710353-01	ND	ND	0.025510	mg/kg			30	59 - 133	A10,V11
TCMX (Surrogate)	BQI0436	Matrix Spike	0710353-01	ND	0	0.030303	mg/kg		0		70 - 120	A18
		Matrix Spike Duplicate	0710353-01	ND	0	0.030612	mg/kg		0		70 - 120	A18
Dibutyl chlorendate (Surrogate)	BQI0436	Matrix Spike	0710353-01	ND	0	0.075758	mg/kg		0		79 - 136	A18
		Matrix Spike Duplicate	0710353-01	ND	0	0.076531	mg/kg		0		79 - 136	A18

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Organo-Phosphorus Pesticide Analysis (EPA Method 8140)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Bolstar	BQI0437	Matrix Spike	0710353-01	ND	0.20051	0.10204	mg/kg		197		27 - 134	Q03
		Matrix Spike Duplicate	0710353-01	ND	0.31616	0.10101	mg/kg	45.5	313	30	27 - 134	Q02,Q03
Chlorpyrifos	BQI0437	Matrix Spike	0710353-01	ND	0.16276	0.10204	mg/kg		160		44 - 132	Q03
		Matrix Spike Duplicate	0710353-01	ND	0.11212	0.10101	mg/kg	36.2	111	29	44 - 132	Q02
Diazinon	BQI0437	Matrix Spike	0710353-01	ND	1.0526	0.10204	mg/kg		1030		42 - 111	Q03,V11
		Matrix Spike Duplicate	0710353-01	ND	0.69697	0.10101	mg/kg	39.5	690	30	42 - 111	Q02,Q03,V11
Methyl parathion	BQI0437	Matrix Spike	0710353-01	ND	0.091327	0.10204	mg/kg		89.5		49 - 125	
		Matrix Spike Duplicate	0710353-01	ND	0.028788	0.10101	mg/kg	103	28.5	29	49 - 125	J,Q02,Q03
Mevinphos	BQI0437	Matrix Spike	0710353-01	ND	0.085714	0.10204	mg/kg		84.0		7 - 133	
		Matrix Spike Duplicate	0710353-01	ND	0.080303	0.10101	mg/kg	5.5	79.5	30	7 - 133	
Ronnel (Fenchlorphos)	BQI0437	Matrix Spike	0710353-01	ND	0.10102	0.10204	mg/kg		99.0		45 - 119	
		Matrix Spike Duplicate	0710353-01	ND	0.059596	0.10101	mg/kg	50.6	59.0	25	45 - 119	Q02
Stirophos (Tetrachlorvinphos)	BQI0437	Matrix Spike	0710353-01	ND	0.31429	0.10204	mg/kg		308		60 - 132	Q03
		Matrix Spike Duplicate	0710353-01	ND	0.053535	0.10101	mg/kg	141	53.0	22	60 - 132	Q02,Q03
Triphenylphosphate (Surrogate)	BQI0437	Matrix Spike	0710353-01	ND	0.95867	0.25510	mg/kg		376		60 - 129	Q03,S09
		Matrix Spike Duplicate	0710353-01	ND	0.77424	0.25253	mg/kg		307		60 - 129	Q03,S09

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Volatile Organic Analysis (EPA Method 8240)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Benzene	BQH1778	Matrix Spike	0708364-68	ND	0.11086	0.12500	mg/kg		88.7		70 - 130	
		Matrix Spike Duplicate	0708364-68	ND	0.11426	0.12500	mg/kg	3.0	91.4	20	70 - 130	
Bromodichloromethane	BQH1778	Matrix Spike	0708364-68	ND	0.14998	0.12500	mg/kg		120		70 - 130	
		Matrix Spike Duplicate	0708364-68	ND	0.15170	0.12500	mg/kg	0.8	121	20	70 - 130	
Chlorobenzene	BQH1778	Matrix Spike	0708364-68	ND	0.12882	0.12500	mg/kg		103		70 - 130	
		Matrix Spike Duplicate	0708364-68	ND	0.13035	0.12500	mg/kg	1.0	104	20	70 - 130	
Chloroethane	BQH1778	Matrix Spike	0708364-68	ND	0.11442	0.12500	mg/kg		91.5		70 - 130	
		Matrix Spike Duplicate	0708364-68	ND	0.12008	0.12500	mg/kg	4.9	96.1	20	70 - 130	
1,4-Dichlorobenzene	BQH1778	Matrix Spike	0708364-68	ND	0.12984	0.12500	mg/kg		104		70 - 130	
		Matrix Spike Duplicate	0708364-68	ND	0.13001	0.12500	mg/kg	0	104	20	70 - 130	
1,1-Dichloroethane	BQH1778	Matrix Spike	0708364-68	ND	0.12788	0.12500	mg/kg		102		70 - 130	
		Matrix Spike Duplicate	0708364-68	ND	0.13247	0.12500	mg/kg	3.8	106	20	70 - 130	
1,1-Dichloroethene	BQH1778	Matrix Spike	0708364-68	ND	0.13791	0.12500	mg/kg		110		70 - 130	
		Matrix Spike Duplicate	0708364-68	ND	0.14118	0.12500	mg/kg	2.7	113	20	70 - 130	
Toluene	BQH1778	Matrix Spike	0708364-68	ND	0.13995	0.12500	mg/kg		112		70 - 130	
		Matrix Spike Duplicate	0708364-68	ND	0.13586	0.12500	mg/kg	2.7	109	20	70 - 130	
Trichloroethene	BQH1778	Matrix Spike	0708364-68	ND	0.13864	0.12500	mg/kg		111		70 - 130	
		Matrix Spike Duplicate	0708364-68	ND	0.13697	0.12500	mg/kg	0.9	110	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BQH1778	Matrix Spike	0708364-68	ND	0.052260	0.050000	mg/kg		105		70 - 121	
		Matrix Spike Duplicate	0708364-68	ND	0.052850	0.050000	mg/kg		106		70 - 121	
Toluene-d8 (Surrogate)	BQH1778	Matrix Spike	0708364-68	ND	0.051910	0.050000	mg/kg		104		81 - 117	
		Matrix Spike Duplicate	0708364-68	ND	0.051550	0.050000	mg/kg		103		81 - 117	
4-Bromofluorobenzene (Surrogate)	BQH1778	Matrix Spike	0708364-68	ND	0.052460	0.050000	mg/kg		105		74 - 121	
		Matrix Spike Duplicate	0708364-68	ND	0.051780	0.050000	mg/kg		104		74 - 121	

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Acenaphthene	BQI0409	Matrix Spike	0710353-01	ND	4.1144	8.2474	mg/kg		49.9		52 - 138	A10,Q03
		Matrix Spike Duplicate	0710353-01	ND	4.3143	8.1633	mg/kg	5.6	52.8	19	52 - 138	A10
1,4-Dichlorobenzene	BQI0409	Matrix Spike	0710353-01	ND	3.0876	8.2474	mg/kg		37.4		48 - 124	J,A10,Q03
		Matrix Spike Duplicate	0710353-01	ND	3.1918	8.1633	mg/kg	4.4	39.1	23	48 - 124	A10,Q03
2,4-Dinitrotoluene	BQI0409	Matrix Spike	0710353-01	ND	2.7402	8.2474	mg/kg		33.2		35 - 137	J,A10,Q03
		Matrix Spike Duplicate	0710353-01	ND	2.4837	8.1633	mg/kg	8.8	30.4	17	35 - 137	J,A10,Q03
Hexachlorobenzene	BQI0409	Matrix Spike	0710353-01	ND	3.4062	8.2474	mg/kg		41.3		61 - 135	A10,Q03
		Matrix Spike Duplicate	0710353-01	ND	3.5908	8.1633	mg/kg	6.3	44.0	18	61 - 135	A10,Q03
Hexachlorobutadiene	BQI0409	Matrix Spike	0710353-01	ND	3.1227	8.2474	mg/kg		37.9		26 - 133	A10
		Matrix Spike Duplicate	0710353-01	ND	3.2459	8.1633	mg/kg	4.9	39.8	24	26 - 133	A10
Hexachloroethane	BQI0409	Matrix Spike	0710353-01	ND	ND	8.2474	mg/kg				39 - 127	A10,Q03
		Matrix Spike Duplicate	0710353-01	ND	ND	8.1633	mg/kg			20	39 - 127	A10,Q03
Nitrobenzene	BQI0409	Matrix Spike	0710353-01	ND	3.2866	8.2474	mg/kg		39.9		32 - 135	A10
		Matrix Spike Duplicate	0710353-01	ND	3.3837	8.1633	mg/kg	3.9	41.5	23	32 - 135	A10
N-Nitrosodi-N-propylamine	BQI0409	Matrix Spike	0710353-01	ND	3.2412	8.2474	mg/kg		39.3		45 - 105	A10,Q03
		Matrix Spike Duplicate	0710353-01	ND	3.2531	8.1633	mg/kg	1.5	39.9	21	45 - 105	A10,Q03
Pyrene	BQI0409	Matrix Spike	0710353-01	ND	4.9031	8.2474	mg/kg		59.5		35 - 184	A10
		Matrix Spike Duplicate	0710353-01	ND	5.3102	8.1633	mg/kg	8.8	65.0	21	35 - 184	A10
1,2,4-Trichlorobenzene	BQI0409	Matrix Spike	0710353-01	ND	3.5000	8.2474	mg/kg		42.4		45 - 124	A10,Q03
		Matrix Spike Duplicate	0710353-01	ND	3.5908	8.1633	mg/kg	3.7	44.0	21	45 - 124	A10,Q03
4-Chloro-3-methylphenol	BQI0409	Matrix Spike	0710353-01	ND	3.6443	8.2474	mg/kg		44.2		41 - 146	J,A10
		Matrix Spike Duplicate	0710353-01	ND	3.8173	8.1633	mg/kg	5.7	46.8	18	41 - 146	J,A10
2-Chlorophenol	BQI0409	Matrix Spike	0710353-01	ND	3.0247	8.2474	mg/kg		36.7		53 - 109	J,A10,Q03
		Matrix Spike Duplicate	0710353-01	ND	3.0969	8.1633	mg/kg	3.2	37.9	17	53 - 109	J,A10,Q03
2-Methylphenol	BQI0409	Matrix Spike	0710353-01	ND	ND	8.2474	mg/kg				56 - 116	A10,Q03
		Matrix Spike Duplicate	0710353-01	ND	ND	8.1633	mg/kg			18	56 - 116	A10,Q03

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
3- & 4-Methylphenol	BQI0409	Matrix Spike	0710353-01	ND	8.1969	8.2474	mg/kg		99.4		40 - 105	A10
		Matrix Spike Duplicate	0710353-01	ND	8.1796	8.1633	mg/kg	0.6	100	16	40 - 105	A10
4-Nitrophenol	BQI0409	Matrix Spike	0710353-01	ND	6.4546	8.2474	mg/kg		78.3		25 - 163	A10
		Matrix Spike Duplicate	0710353-01	ND	6.2857	8.1633	mg/kg	1.7	77.0	23	25 - 163	A10
Pentachlorophenol	BQI0409	Matrix Spike	0710353-01	ND	2.4515	8.2474	mg/kg		29.7		34 - 142	J,A10,Q03
		Matrix Spike Duplicate	0710353-01	ND	2.5571	8.1633	mg/kg	5.2	31.3	15	34 - 142	J,A10,Q03
Phenol	BQI0409	Matrix Spike	0710353-01	ND	ND	8.2474	mg/kg				40 - 118	A10,Q03
		Matrix Spike Duplicate	0710353-01	ND	ND	8.1633	mg/kg			19	40 - 118	A10,Q03
2,4,6-Trichlorophenol	BQI0409	Matrix Spike	0710353-01	ND	3.4763	8.2474	mg/kg		42.2		42 - 132	J,A10
		Matrix Spike Duplicate	0710353-01	ND	3.6306	8.1633	mg/kg	5.3	44.5	17	42 - 132	J,A10
2-Fluorophenol (Surrogate)	BQI0409	Matrix Spike	0710353-01	ND	3.1381	8.2474	mg/kg		38.0		46 - 132	A10,S09
		Matrix Spike Duplicate	0710353-01	ND	2.9827	8.1633	mg/kg		36.5		46 - 132	A10,S09
Phenol-d5 (Surrogate)	BQI0409	Matrix Spike	0710353-01	ND	-2.7814	8.2474	mg/kg		-33.7		45 - 134	A10,S09
		Matrix Spike Duplicate	0710353-01	ND	-2.7408	8.1633	mg/kg		-33.6		45 - 134	A10,S09
Nitrobenzene-d5 (Surrogate)	BQI0409	Matrix Spike	0710353-01	ND	3.2969	8.2474	mg/kg		40.0		52 - 133	A10,S09
		Matrix Spike Duplicate	0710353-01	ND	3.1878	8.1633	mg/kg		39.1		52 - 133	A10,S09
2-Fluorobiphenyl (Surrogate)	BQI0409	Matrix Spike	0710353-01	ND	4.0134	8.2474	mg/kg		48.7		47 - 132	A10,S09
		Matrix Spike Duplicate	0710353-01	ND	3.9469	8.1633	mg/kg		48.3		47 - 132	A10,S09
2,4,6-Tribromophenol (Surrogate)	BQI0409	Matrix Spike	0710353-01	ND	3.6928	8.2474	mg/kg		44.8		54 - 146	A10,S09
		Matrix Spike Duplicate	0710353-01	ND	3.7296	8.1633	mg/kg		45.7		54 - 146	A10,S09
p-Terphenyl-d14 (Surrogate)	BQI0409	Matrix Spike	0710353-01	ND	2.3412	4.1237	mg/kg		56.8		34 - 158	A10
		Matrix Spike Duplicate	0710353-01	ND	2.4429	4.0816	mg/kg		59.9		34 - 158	A10

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Total Concentrations (TTLC)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Mercury	BQI0293	BQI0293-BS1	LCS	1.2205	1.5000	0.16	mg/kg	81.4		75 - 125		
Antimony	BQI0319	BQI0319-BS1	LCS	100.00	100.00	5.0	mg/kg	100		75 - 125		
Arsenic	BQI0319	BQI0319-BS1	LCS	4.9950	5.0000	1.0	mg/kg	99.9		75 - 125		
Barium	BQI0319	BQI0319-BS1	LCS	101.10	100.00	0.50	mg/kg	101		75 - 125		
Beryllium	BQI0319	BQI0319-BS1	LCS	10.390	10.000	0.50	mg/kg	104		75 - 125		
Cadmium	BQI0319	BQI0319-BS1	LCS	10.750	10.000	0.50	mg/kg	108		75 - 125		
Chromium	BQI0319	BQI0319-BS1	LCS	100.35	100.00	0.50	mg/kg	100		75 - 125		
Cobalt	BQI0319	BQI0319-BS1	LCS	107.20	100.00	2.5	mg/kg	107		75 - 125		
Copper	BQI0319	BQI0319-BS1	LCS	98.050	100.00	1.0	mg/kg	98.0		75 - 125		
Lead	BQI0319	BQI0319-BS1	LCS	102.10	100.00	2.5	mg/kg	102		75 - 125		
Molybdenum	BQI0319	BQI0319-BS1	LCS	104.60	100.00	2.5	mg/kg	105		75 - 125		
Nickel	BQI0319	BQI0319-BS1	LCS	102.05	100.00	0.50	mg/kg	102		75 - 125		
Selenium	BQI0319	BQI0319-BS1	LCS	4.9100	5.0000	1.0	mg/kg	98.2		75 - 125		
Silver	BQI0319	BQI0319-BS1	LCS	9.7800	10.000	0.50	mg/kg	97.8		75 - 125		
Thallium	BQI0319	BQI0319-BS1	LCS	102.15	100.00	5.0	mg/kg	102		75 - 125		
Vanadium	BQI0319	BQI0319-BS1	LCS	101.50	100.00	0.50	mg/kg	102		75 - 125		
Zinc	BQI0319	BQI0319-BS1	LCS	105.00	100.00	2.5	mg/kg	105		75 - 125		
Boron	BQI0319	BQI0319-BS1	LCS	98.350	100.00	5.0	mg/kg	98.4		75 - 125		

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Chemical Analysis

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Total Kjeldahl Nitrogen	BQI0366	BQI0366-BS1	LCS	400.36	400.00	40	mg/kg	100		85 - 115		
Total Phosphate	BQI0368	BQI0368-BS1	LCS	640.47	613.20	30	mg/kg	104		85 - 115		
pH	BQI0533	BQI0533-BS1	LCS	7.0290	7.0000	0.05	pH Units	100		95 - 105		
Nitrate as NO3	BQI0646	BQI0646-BS1	LCS	22.289	22.134	0.44	mg/kg	101		90 - 110		
Total Cyanide	BQI0708	BQI0708-BS1	LCS	12.288	13.600	0.50	mg/kg	90.4		80 - 120		
Ammonia as N	BQI0942	BQI0942-BS1	LCS	82.234	80.000	5.0	mg/kg	103		80 - 120		

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 11:01

WET Test (STLC)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Copper	BQI0601	BQI0601-BS2	LCS	5.0820	5.0000	0.10	mg/L	102		85 - 115		

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 11:01

Modified WET Test (STLC)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Hexavalent Chromium	BQI0672	BQI0672-BS1	LCS	4.9685	5.0000	0.20	mg/L	99.4		85 - 115		
Total Dissolved Solids @ 180 C	BQI0877	BQI0877-BS1	LCS	550.00	586.00	50	mg/L	93.9		90 - 110		

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

EPA Method 1664

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Oil and Grease	BQI0711	BQI0711-BS1	LCS	742.00	823.00	50	mg/kg	90.2		59 - 117		

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Organochlorine Pesticides and PCB's (EPA Method 8080)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Aldrin	BQI0436	BQI0436-BS1	LCS	0.0089576	0.0083333	0.00050	mg/kg	107		61 - 122		
gamma-BHC (Lindane)	BQI0436	BQI0436-BS1	LCS	0.0073797	0.0083333	0.00050	mg/kg	88.6		37 - 117		V11
4,4'-DDT	BQI0436	BQI0436-BS1	LCS	0.0076834	0.0083333	0.00050	mg/kg	92.2		58 - 116		
Dieldrin	BQI0436	BQI0436-BS1	LCS	0.0090584	0.0083333	0.00050	mg/kg	109		61 - 126		
Endrin	BQI0436	BQI0436-BS1	LCS	0.0091284	0.0083333	0.00050	mg/kg	110		62 - 128		
Heptachlor	BQI0436	BQI0436-BS1	LCS	0.0099207	0.0083333	0.00050	mg/kg	119		58 - 134		V11
TCMX (Surrogate)	BQI0436	BQI0436-BS1	LCS	0.010806	0.010000		mg/kg	108		70 - 120		
Dibutyl chlorendate (Surrogate)	BQI0436	BQI0436-BS1	LCS	0.037160	0.025000		mg/kg	149		79 - 136		S09

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Organo-Phosphorus Pesticide Analysis (EPA Method 8140)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Bolstar	BQI0437	BQI0437-BS1	LCS	0.023459	0.034247	0.010	mg/kg	68.5		31 - 135		
Chlorpyrifos	BQI0437	BQI0437-BS1	LCS	0.030479	0.034247	0.010	mg/kg	89.0		48 - 132		
Diazinon	BQI0437	BQI0437-BS1	LCS	0.014384	0.034247	0.010	mg/kg	42.0		24 - 118		
Methyl parathion	BQI0437	BQI0437-BS1	LCS	0.029281	0.034247	0.010	mg/kg	85.5		52 - 128		
Mevinphos	BQI0437	BQI0437-BS1	LCS	0.025171	0.034247	0.010	mg/kg	73.5		11 - 115		
Ronnel (Fenchlorphos)	BQI0437	BQI0437-BS1	LCS	0.028767	0.034247	0.010	mg/kg	84.0		50 - 120		
Stirophos (Tetrachlorvinphos)	BQI0437	BQI0437-BS1	LCS	0.035274	0.034247	0.010	mg/kg	103		52 - 139		
Triphenylphosphate (Surrogate)	BQI0437	BQI0437-BS1	LCS	0.097774	0.085616		mg/kg	114		60 - 129		

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Volatile Organic Analysis (EPA Method 8240)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Benzene	BQH1778	BQH1778-BS1	LCS	0.10780	0.12500	0.0050	mg/kg	86.2		70 - 130		
Bromodichloromethane	BQH1778	BQH1778-BS1	LCS	0.13543	0.12500	0.0050	mg/kg	108		70 - 130		
Chlorobenzene	BQH1778	BQH1778-BS1	LCS	0.13470	0.12500	0.0050	mg/kg	108		70 - 130		
Chloroethane	BQH1778	BQH1778-BS1	LCS	0.10512	0.12500	0.0050	mg/kg	84.1		70 - 130		
1,4-Dichlorobenzene	BQH1778	BQH1778-BS1	LCS	0.13538	0.12500	0.0050	mg/kg	108		70 - 130		
1,1-Dichloroethane	BQH1778	BQH1778-BS1	LCS	0.11581	0.12500	0.0050	mg/kg	92.6		70 - 130		
1,1-Dichloroethene	BQH1778	BQH1778-BS1	LCS	0.12230	0.12500	0.0050	mg/kg	97.8		70 - 130		
Toluene	BQH1778	BQH1778-BS1	LCS	0.13189	0.12500	0.0050	mg/kg	106		70 - 130		
Trichloroethene	BQH1778	BQH1778-BS1	LCS	0.13002	0.12500	0.0050	mg/kg	104		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BQH1778	BQH1778-BS1	LCS	0.049990	0.050000		mg/kg	100		70 - 121		
Toluene-d8 (Surrogate)	BQH1778	BQH1778-BS1	LCS	0.050160	0.050000		mg/kg	100		81 - 117		
4-Bromofluorobenzene (Surrogate)	BQH1778	BQH1778-BS1	LCS	0.055880	0.050000		mg/kg	112		74 - 121		

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Acenaphthene	BQI0409	BQI0409-BS1	LCS	2.1091	2.6936	0.10	mg/kg	78.3		50 - 141		
1,4-Dichlorobenzene	BQI0409	BQI0409-BS1	LCS	1.9020	2.6936	0.10	mg/kg	70.6		49 - 128		
2,4-Dinitrotoluene	BQI0409	BQI0409-BS1	LCS	2.1113	2.6936	0.10	mg/kg	78.4		46 - 120		
Hexachlorobenzene	BQI0409	BQI0409-BS1	LCS	2.0103	2.6936	0.10	mg/kg	74.6		62 - 138		
Hexachlorobutadiene	BQI0409	BQI0409-BS1	LCS	1.7308	2.6936	0.10	mg/kg	64.3		28 - 137		
Hexachloroethane	BQI0409	BQI0409-BS1	LCS	1.9056	2.6936	0.10	mg/kg	70.7		37 - 132		
Nitrobenzene	BQI0409	BQI0409-BS1	LCS	1.9462	2.6936	0.10	mg/kg	72.3		32 - 138		
N-Nitrosodi-N-propylamine	BQI0409	BQI0409-BS1	LCS	1.8983	2.6936	0.10	mg/kg	70.5		40 - 111		
Pyrene	BQI0409	BQI0409-BS1	LCS	2.3935	2.6936	0.10	mg/kg	88.9		34 - 189		
1,2,4-Trichlorobenzene	BQI0409	BQI0409-BS1	LCS	1.8598	2.6936	0.10	mg/kg	69.0		45 - 127		
4-Chloro-3-methylphenol	BQI0409	BQI0409-BS1	LCS	1.9274	2.6936	0.20	mg/kg	71.6		40 - 150		
2-Chlorophenol	BQI0409	BQI0409-BS1	LCS	1.8529	2.6936	0.10	mg/kg	68.8		51 - 113		
2-Methylphenol	BQI0409	BQI0409-BS1	LCS	2.3403	2.6936	0.10	mg/kg	86.9		52 - 122		
3- & 4-Methylphenol	BQI0409	BQI0409-BS1	LCS	3.5640	2.6936	0.20	mg/kg	132		40 - 105		L21
4-Nitrophenol	BQI0409	BQI0409-BS1	LCS	1.9822	2.6936	0.20	mg/kg	73.6		26 - 159		
Pentachlorophenol	BQI0409	BQI0409-BS1	LCS	2.2028	2.6936	0.20	mg/kg	81.8		32 - 148		
Phenol	BQI0409	BQI0409-BS1	LCS	2.2582	2.6936	0.10	mg/kg	83.8		37 - 122		
2,4,6-Trichlorophenol	BQI0409	BQI0409-BS1	LCS	1.9303	2.6936	0.20	mg/kg	71.7		38 - 137		
2-Fluorophenol (Surrogate)	BQI0409	BQI0409-BS1	LCS	2.1092	2.6936		mg/kg	78.3		46 - 132		
Phenol-d5 (Surrogate)	BQI0409	BQI0409-BS1	LCS	2.6925	2.6936		mg/kg	100		45 - 134		
Nitrobenzene-d5 (Surrogate)	BQI0409	BQI0409-BS1	LCS	2.2615	2.6936		mg/kg	84.0		52 - 133		
2-Fluorobiphenyl (Surrogate)	BQI0409	BQI0409-BS1	LCS	2.0018	2.6936		mg/kg	74.3		47 - 132		
2,4,6-Tribromophenol (Surrogate)	BQI0409	BQI0409-BS1	LCS	2.1510	2.6936		mg/kg	79.9		54 - 146		

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
p-Terphenyl-d14 (Surrogate)	BQI0409	BQI0409-BS1	LCS	1.2635	1.3468		mg/kg	93.8		34 - 158		

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Total Concentrations (TTLC)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Mercury	BQI0293	BQI0293-BLK1	ND	mg/kg	0.16	0.014	
Antimony	BQI0319	BQI0319-BLK1	ND	mg/kg	5.0	0.30	
Arsenic	BQI0319	BQI0319-BLK1	ND	mg/kg	1.0	0.44	
Barium	BQI0319	BQI0319-BLK1	ND	mg/kg	0.50	0.056	
Beryllium	BQI0319	BQI0319-BLK1	ND	mg/kg	0.50	0.039	
Cadmium	BQI0319	BQI0319-BLK1	ND	mg/kg	0.50	0.23	
Chromium	BQI0319	BQI0319-BLK1	ND	mg/kg	0.50	0.084	
Cobalt	BQI0319	BQI0319-BLK1	ND	mg/kg	2.5	0.083	
Copper	BQI0319	BQI0319-BLK1	ND	mg/kg	1.0	0.084	
Lead	BQI0319	BQI0319-BLK1	ND	mg/kg	2.5	0.18	
Molybdenum	BQI0319	BQI0319-BLK1	ND	mg/kg	2.5	0.11	
Nickel	BQI0319	BQI0319-BLK1	ND	mg/kg	0.50	0.072	
Selenium	BQI0319	BQI0319-BLK1	ND	mg/kg	1.0	0.40	
Silver	BQI0319	BQI0319-BLK1	ND	mg/kg	0.50	0.059	
Thallium	BQI0319	BQI0319-BLK1	ND	mg/kg	5.0	0.83	
Vanadium	BQI0319	BQI0319-BLK1	ND	mg/kg	0.50	0.096	
Zinc	BQI0319	BQI0319-BLK1	ND	mg/kg	2.5	0.41	
Boron	BQI0319	BQI0319-BLK1	ND	mg/kg	5.0	0.82	

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Chemical Analysis

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Moisture	BQI0282	BQI0282-BLK1	ND	%	0.05	0.05	
Total Kjeldahl Nitrogen	BQI0366	BQI0366-BLK1	ND	mg/kg	40	20	
Total Phosphate	BQI0368	BQI0368-BLK1	ND	mg/kg	30	12	
Nitrate as NO3	BQI0646	BQI0646-BLK1	ND	mg/kg	4.4	0.48	
Total Cyanide	BQI0708	BQI0708-BLK1	ND	mg/kg	0.50	0.25	
Ammonia as N	BQI0942	BQI0942-BLK1	ND	mg/kg	5.0	2.0	

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 11:01

WET Test (STLC)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Copper	BQI0601	BQI0601-BLK2	0.080000	mg/L	0.50	0.046	J

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 11:01

Modified WET Test (STLC)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Hexavalent Chromium	BQI0672	BQI0672-BLK1	ND	mg/L	0.20	0.10	
Total Dissolved Solids @ 180 C	BQI0877	BQI0877-BLK1	ND	mg/L	6.7	6.7	

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

EPA Method 1664

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Oil and Grease	BQI0711	BQI0711-BLK1	ND	mg/kg	50	27	

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Organochlorine Pesticides and PCB's (EPA Method 8080)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Aldrin	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.00024	
alpha-BHC	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.000047	V11
beta-BHC	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.00025	
delta-BHC	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.000076	
gamma-BHC (Lindane)	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.000060	V11
Chlordane (Technical)	BQI0436	BQI0436-BLK1	ND	mg/kg	0.050	0.015	
4,4'-DDD	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.000047	
4,4'-DDE	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.000068	
4,4'-DDT	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.000055	
Dieldrin	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.000054	
Endosulfan I	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.000081	
Endosulfan II	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.00015	
Endosulfan sulfate	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.000063	
Endrin	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.000044	
Endrin aldehyde	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.000043	
Heptachlor	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.00019	V11
Heptachlor epoxide	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.00025	
Methoxychlor	BQI0436	BQI0436-BLK1	ND	mg/kg	0.00050	0.00014	
Toxaphene	BQI0436	BQI0436-BLK1	ND	mg/kg	0.050	0.0074	
PCB-1016	BQI0436	BQI0436-BLK1	ND	mg/kg	0.010	0.0027	
PCB-1221	BQI0436	BQI0436-BLK1	ND	mg/kg	0.010	0.0050	
PCB-1232	BQI0436	BQI0436-BLK1	ND	mg/kg	0.010	0.0012	
PCB-1242	BQI0436	BQI0436-BLK1	ND	mg/kg	0.010	0.0016	
PCB-1248	BQI0436	BQI0436-BLK1	ND	mg/kg	0.010	0.0012	

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Organochlorine Pesticides and PCB's (EPA Method 8080)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
PCB-1254	BQI0436	BQI0436-BLK1	ND	mg/kg	0.010	0.00078	
PCB-1260	BQI0436	BQI0436-BLK1	ND	mg/kg	0.010	0.0022	
Total PCB's (Summation)	BQI0436	BQI0436-BLK1	ND	mg/kg	0.010	0.0050	
TCMX (Surrogate)	BQI0436	BQI0436-BLK1	102	%	70 - 120 (LCL - UCL)		
Dibutyl chlorendate (Surrogate)	BQI0436	BQI0436-BLK1	146	%	79 - 136 (LCL - UCL)		S09

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Organo-Phosphorus Pesticide Analysis (EPA Method 8140)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Azinphos methyl	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0019	
Bolstar	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0014	
Chlorpyrifos	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.00080	
Coumaphos	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0022	
Demeton O/S	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0015	
Diazinon	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.00060	
Dichlorvos	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0062	
Disulfoton	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0011	
Ethoprop	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.00080	
Fensulfothion	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0054	
Fenthion	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0010	
Merphos	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0011	
Methyl parathion	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0021	
Mevinphos	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0014	
Naled	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0017	V11
Phorate	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.00060	
Ronnel (Fenchlorphos)	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0016	
Stirophos (Tetrachlorvinphos)	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0025	
Tokuthion (Prothlofos)	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0010	
Trichloronate	BQI0437	BQI0437-BLK1	ND	mg/kg	0.010	0.0011	
Triphenylphosphate (Surrogate)	BQI0437	BQI0437-BLK1	110	%	60 - 129 (LCL - UCL)		

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Volatile Organic Analysis (EPA Method 8240)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0014	
Bromodichloromethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0011	
Bromoform	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0023	
Bromomethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0019	
Carbon tetrachloride	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0018	
Chlorobenzene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0011	
Chloroethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0016	
Chloroform	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0011	
Chloromethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0017	
Dibromochloromethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.00096	
1,2-Dichlorobenzene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.00091	
1,3-Dichlorobenzene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0012	
1,4-Dichlorobenzene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0013	
1,1-Dichloroethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0012	
1,2-Dichloroethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.00099	
1,1-Dichloroethene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0017	
trans-1,2-Dichloroethene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0015	
1,2-Dichloropropane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.00079	
cis-1,3-Dichloropropene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.00085	
trans-1,3-Dichloropropene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0011	
Ethylbenzene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0013	
Methylene chloride	BQH1778	BQH1778-BLK1	ND	mg/kg	0.010	0.0024	
Methyl t-butyl ether	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0012	
1,1,2,2-Tetrachloroethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0011	

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Volatile Organic Analysis (EPA Method 8240)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Tetrachloroethene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0013	
Toluene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0012	
1,1,1-Trichloroethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0012	
1,1,2-Trichloroethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0012	
Trichloroethene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0013	
Trichlorofluoromethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0017	
1,1,2-Trichloro-1,2,2-trifluoroethane	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0018	
Vinyl chloride	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0021	
Total Xylenes	BQH1778	BQH1778-BLK1	ND	mg/kg	0.010	0.0037	
p- & m-Xylenes	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0025	
o-Xylene	BQH1778	BQH1778-BLK1	ND	mg/kg	0.0050	0.0013	
1,2-Dichloroethane-d4 (Surrogate)	BQH1778	BQH1778-BLK1	101	%	70 - 121 (LCL - UCL)		
Toluene-d8 (Surrogate)	BQH1778	BQH1778-BLK1	92.1	%	81 - 117 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BQH1778	BQH1778-BLK1	94.9	%	74 - 121 (LCL - UCL)		

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Acenaphthene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.065	
Acenaphthylene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.058	
Aldrin	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.057	
Aniline	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.023	
Anthracene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.067	
Benzidine	BQI0409	BQI0409-BLK1	ND	mg/kg	3.0	1.5	
Benzo[a]anthracene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.057	
Benzo[b]fluoranthene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.061	
Benzo[k]fluoranthene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.064	
Benzo[a]pyrene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.053	
Benzo[g,h,i]perylene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.046	
Benzoic acid	BQI0409	BQI0409-BLK1	ND	mg/kg	0.50	0.035	
Benzyl alcohol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.054	
Benzyl butyl phthalate	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.060	
alpha-BHC	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.060	
beta-BHC	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.058	
delta-BHC	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.058	
gamma-BHC (Lindane)	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.058	
bis(2-Chloroethoxy)methane	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.049	
bis(2-Chloroethyl) ether	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.049	
bis(2-Chloroisopropyl)ether	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.049	
bis(2-Ethylhexyl)phthalate	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.068	
4-Bromophenyl phenyl ether	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.067	
4-Chloroaniline	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.037	

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
2-Chloronaphthalene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.059	
4-Chlorophenyl phenyl ether	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.061	
Chrysene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.063	
4,4'-DDD	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.052	
4,4'-DDE	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.055	
4,4'-DDT	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.046	
Dibenzo[a,h]anthracene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.058	
Dibenzofuran	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.062	
1,2-Dichlorobenzene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.042	
1,3-Dichlorobenzene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.052	
1,4-Dichlorobenzene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.051	
3,3-Dichlorobenzidine	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.044	
Dieldrin	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.022	
Diethyl phthalate	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.080	
Dimethyl phthalate	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.061	
Di-n-butyl phthalate	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.0088	
2,4-Dinitrotoluene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.046	
2,6-Dinitrotoluene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.052	
Di-n-octyl phthalate	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.081	
1,2-Diphenylhydrazine	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.0090	
Endosulfan I	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.049	
Endosulfan II	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.049	
Endosulfan sulfate	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.055	
Endrin	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.047	

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Endrin aldehyde	BQI0409	BQI0409-BLK1	ND	mg/kg	0.50	0.054	
Fluoranthene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.066	
Fluorene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.044	
Heptachlor	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.046	
Heptachlor epoxide	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.060	
Hexachlorobenzene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.064	
Hexachlorobutadiene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.050	
Hexachlorocyclopentadiene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.034	
Hexachloroethane	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.046	
Indeno[1,2,3-cd]pyrene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.075	
Isophorone	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.047	
2-Methylnaphthalene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.056	
Naphthalene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.047	
2-Naphthylamine	BQI0409	BQI0409-BLK1	ND	mg/kg	3.0	0.047	
2-Nitroaniline	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.053	
3-Nitroaniline	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.050	
4-Nitroaniline	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.052	
Nitrobenzene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.046	
N-Nitrosodimethylamine	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.038	
N-Nitrosodi-N-propylamine	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.052	
N-Nitrosodiphenylamine	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.061	
Phenanthrene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.070	
Pyrene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.060	
1,2,4-Trichlorobenzene	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.050	

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
4-Chloro-3-methylphenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.053	
2-Chlorophenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.052	
2,4-Dichlorophenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.054	
2,4-Dimethylphenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.047	
4,6-Dinitro-2-methylphenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.50	0.028	
2,4-Dinitrophenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.50	0.22	
2-Methylphenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.052	
3- & 4-Methylphenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.12	
2-Nitrophenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.047	
4-Nitrophenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.054	
Pentachlorophenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.062	
Phenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.10	0.057	
2,4,5-Trichlorophenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.063	
2,4,6-Trichlorophenol	BQI0409	BQI0409-BLK1	ND	mg/kg	0.20	0.071	
2-Fluorophenol (Surrogate)	BQI0409	BQI0409-BLK1	73.4	%	46 - 132 (LCL - UCL)		
Phenol-d5 (Surrogate)	BQI0409	BQI0409-BLK1	99.5	%	45 - 134 (LCL - UCL)		
Nitrobenzene-d5 (Surrogate)	BQI0409	BQI0409-BLK1	75.8	%	52 - 133 (LCL - UCL)		
2-Fluorobiphenyl (Surrogate)	BQI0409	BQI0409-BLK1	72.7	%	47 - 132 (LCL - UCL)		
2,4,6-Tribromophenol (Surrogate)	BQI0409	BQI0409-BLK1	77.3	%	54 - 146 (LCL - UCL)		
p-Terphenyl-d14 (Surrogate)	BQI0409	BQI0409-BLK1	96.4	%	34 - 158 (LCL - UCL)		

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 10:59

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A02	The difference between duplicate readings is less than the PQL.
A03	The sample concentration is more than 4 times the spike level.
A09	PQL's were raised due to high concentration of target analytes requiring sample dilution.
A10	PQL's and MDL's were raised due to matrix interference.
A18	Surrogate not reportable due to matrix interference.
C02	The relative standard deviation of the calibration curve response factors exceeds the control limit.
L21	The Laboratory Control Sample Soil (LCSS) recovery is not within laboratory established control limits.
pH1:1	pH result reported on a 1:1 dilution of sample
pH1:3	pH result reported on a 1:3 dilution of sample
Q02	Matrix spike precision is not within the control limits.
Q03	Matrix spike recovery(s) is(are) not within the control limits.
S09	The surrogate recovery on the sample for this compound was not within the control limits.
V11	The Continuing Calibration Verification (CCV) recovery is not within established control limits.

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Biosolids from MBWWTP
Project Number: [none]
Project Manager: Doug Coats

Reported: 09/28/2007 11:01

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A02	The difference between duplicate readings is less than the PQL.

4100 Atlas Court • Bakersfield, CA 93308 • (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

BC LABORATORIES, INC.

Date of Report: 09/26/2007

Doug Coats

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

RE: Biosolids from MBWWTP
BC Work Order: 0710353

Enclosed are the results of analyses for samples received by the laboratory on 09/05/2007 19:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Tina Green
Client Services Manager

Authorized Signature

CITY OF MORRO BAY WWTP
CHAIN OF CUSTODY

07-10353

Project Name: MORRO BAY WWTP BIOSOLIDS	Date: 9/5/07
Project Mngr: DR. DOUG COATS	Page 1 of 1
City of Morro Bay	Special Instruction's: PLEASE SEE ATTACHED SHEETS. SEND RESULTS TO DR. DOUG COATS
160 Atascadero Rd.	FAX# (805) 289-3935
Morro Bay, Ca. 93442	PHONE# (805) 644-1180
Phone # 805-772-6273	

Sample I.D.	Date	Time	Analysis Requested	Remark's
-1 MORRO BAY WWTP BIOSOLIDS	9/5/07	1400	SEE ATTACHED SHEETS	SEND RESULTS TO MARINE RESEARCH SPECIALISTS

CHK BY DISTRIBUTION
SUB-OUT

Relinquished/ Received By:	Date	Time	Firm/City	Signature:
DAVID WILLIAMS	9/5/07	1400	CITY OF MORRO BAY WWTP	David Will:
Jay Mun	9/5/07	1251	BCLabs	Jay Mun
Jay Mun	9/5/07	1905	BCLabs	Jay Mun
Teri Obafemi	9/5/07	1905	BCLabs	Teri Obafemi

07-10353

Analysis and Reporting for the Biosolids Sample from the Morro Bay Wastewater Treatment Plant to be collected on 5 September 2007[a]

Analysis[b]	Method
Level IIA QC	
Waste Extraction Tests on copper and lead[c] **(CCR Title 22, Article 11)**	STLC (6010)
Moisture	EPA 160.3 or BC
Total Dissolved Solids (TDS)	Modified Waste Extraction Test (STLC) EPA 160.1
CAM-17 Metals and Boron[d]:	
Antimony (Sb)	6010
Arsenic (As)	6010
Barium (Ba)	6010
Beryllium (Be)	6010
Boron (B)	6010
Cadmium (Cd)	6010
Total Chromium (Cr)	6010
Cobalt (Co)	6010
Copper (Cu)	6010
Lead (Pb)	6010
Mercury (Hg)	7471
Molybdenum (Mo)	6010
Nickel (Ni)	6010
Selenium (Se)	6010
Silver (Ag)	6010
Thallium (Tl)	6010
Vanadium (Va)	6010
Zinc (Zn)	6010
Total Kjeldahl Nitrogen (TKN)[d]	EPA 351.2
Ammonia as N[d]	EPA 350.1
Nitrate as NO_3[d]	EPA 353.2 or 300.0

[a] Please provide preliminary (pre-QC) results in BC LabNet as soon as they become available.

[b] Prior to analysis, homogenize the composite sample in the laboratory to ensure uniform distribution of multiple subsamples in sample container(s)

[c] Other metals may need to be WET tested depending on their bulk concentrations (e.g. mercury). Ms. Luke (805.289.3926) will determine the need for additional WET tests base on the preliminary bulk-chemistry analysis of metals.

[d] Sample results to be reported on an '*as received*' and '*dry basis*.'

07-10353

Analysis[b]	Method
Total Phosphate[d]	EPA 365.4
Total Cyanide[d]	EPA 9012
pH	EPA 150.1 or 9045
Oil and Grease	EPA 1664
Semi-volatile Organics	EPA 8270/625
Pesticides and PCBs	EPA 608/8080
Volatile Organics – Low Level	EPA 624/8240
Organophosphorus pesticides	EPA 8140/614
Asbestos	TEM or PLM
Hexavalent Chromium[d]	EPA 7196

BC LABORATORIES INC. **SAMPLE RECEIPT FORM** Rev. No. 10 01/21/04 Page __ Of __

Submission #: 07-10353 | Project Code: | TB Batch #

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Ice Chest ID R/W Temperature: 3.6 °C Thermometer ID: #48 Emissivity 0.95 Container QT

Date/Time 9/5/07 Analyst Init OTO

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
100ml TOTAL ORGANIC CARBON										
QT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS									✓	
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT QA/QC										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR	A,B,C,D									
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:

Sample Numbering Completed By: OTO Date/Time: 9/5/07 2100

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

BC LABORATORIES, INC.

Marine Research Specialists 3140 Telegraph Road, Suite A Suite A Ventura, CA 93003-3238	Project: Biosolids from MBWWTP Project Number: [none] Project Manager: Doug Coats	**Reported:** 09/28/2007 10:59

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
0710353-01	**COC Number:**	---	**Receive Date:**	09/05/2007 19:05
	Project Number:	---	**Sampling Date:**	09/05/2007 14:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Morro Bay WWTP Biosolids	**Sample Matrix:**	Solids
	Sampled By:	---		

SUBCONTRACT ORDER 90705081

BC Laboratories

0710353

SENDING LABORATORY:

BC Laboratories
4100 Atlas Ct
Bakersfield, CA 93308
Phone: 661-327-4911
Fax: 661-327-1918
Project Manager: Tina Green

RECEIVING LABORATORY:

EMSL $EMSLA
2235 Polvorsa Ave, Suite 230
San Leandro, CA 94577
Phone :(888) 455-3675
Fax: (510) 895-3680

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 0710353-01	**Solids**	**Sampled:09/05/07 14:00**	[redacted]	
oi600/R-93/116s Asbestos EMS	09/19/07 17:00	09/04/08 14:00		
Containers Supplied:				

Released By Date Received By Date

Released By Date Received By Date