Client Name: HUNTINGDON - SALT LAKE CITY, UT

Project No.: 87-927
Laboratory No.: 150825
Sample Name: F-2/041994
Sample Date: 04/19/94
Collected by: CHUCK WEMPLE
Time Sampled: 1531
Sample Type: WATER

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS	**24.44 meq/l**				
Alkalinity Bicarbonate as HCO3	553 mg/l	-	1400	05/03/94	DD
Alkalinity Carbonate as CO3	11 mg/l	-	1400	05/03/94	DD
Alkalinity Total as CaCO3	472 mg/l	0.84	1400	05/03/94	DD
Chloride as Cl	56 mg/l	1.41	1530	05/17/94	DD
Sulfate as SO4	644 mg/l	2.29	1430	05/09/94	DD
CATIONS	**25.54 meq/l**				
Calcium as Ca	97 mg/l	0.39	1030	05/11/94	BH
Hardness as CaCO3	712 mg/l	-		05/11/94	
Magnesium as Mg	114 mg/l	0.31	1030	05/11/94	BH
Potassium as K	7 mg/l	0.18	1000	05/09/94	AH
Sodium as Na	274 mg/l	0.81	1000	05/11/94	AH
INORGANICS					
Electrical Conductivity	2280 umhos/cm	7	1300	04/27/94	HB
Oil & Grease	<1 mg/l	0.9	1630	05/02/94	CC
Settleable Solids	<0.1 ml/l	0.1	1600	04/21/94	DD
Total Dissolved Solids	1430 mg/l	11.7	1400	04/26/94	HB
Total Suspended Solids	7 mg/l	3.5	1400	04/26/94	HB
METALS					
Aluminum as Al (Dissolved	*<1.0 mg/l	0.023	1330	05/04/94	BH
Arsenic as As (Dissolved)	<0.002 mg/l	0.0014	1400	05/02/94	AH
Boron as B (Dissolved)	* <1 mg/l	0.045	1030	05/05/94	BH
Cadmium as Cd (Dissolved)	<0.001 mg/l	0.0002	1400	04/29/94	BH
Copper as Cu (Dissolved)	<0.2 mg/l	0.005	1330	05/04/94	BH
Iron as Fe (Dissolved)	*<0.5 mg/l	0.008	1030	05/06/94	BH
Iron as Fe (Total)	0.30 mg/l	0.008	1400	05/06/94	BH
Lead as Pb (Dissolved)	<0.002 mg/l	0.012	1400	04/28/94	AH
Manganese as Mn (Dissolved)	*<0.2 mg/l	0.003	1330	05/04/94	BH
Manganese as Mn (Total)	0.10 mg/l	0.003	1515	05/06/94	BH
Molybdenum as Mo (Dissolved)	*<0.5 mg/l	0.023	1330	05/04/94	BH
Selenium as Se (Dissolved	<0.002 mg/l	0.0011	1400	05/04/94	AH
Zinc as Zn (Dissolved)	*<0.2 mg/l	0.008	1330	05/04/94	BH
NUTRIENTS					
Ammonia Nitrogen as N	<0.05 mg/l	0.034	1600	04/25/94	CC
Nitrate + Nitrite as N	0.75 mg/l	0.05	1430	04/22/94	DD
Phosphorous Total	0.02 mg/l	0.002	1400	04/26/94	CC

* Higher detection level due to interference.

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 150822
Sample Name: CRS/041994
Sample Date: 04/19/94
Collected by: CHUCK WEMPLE
Time Sampled: 1415
Sample Type: WATER

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS**	73.58 meq/l				
Alkalinity Bicarbonate as HCO3	553 mg/l	-	1400	05/03/94	CC
Alkalinity Carbonate as CO3	0 mg/l	-	1400	05/03/94	CC
Alkalinity Total as CaCO3	453 mg/l	0.84	1400	05/03/94	CC
Chloride as Cl	101 mg/l	1.41	1530	04/27/94	CC
Sulfate as SO4	2960 mg/l	2.29	1400	05/23/94	DD
CATIONS**	80.38 meq/l				
Calcium as Ca	558 mg/l	0.39	1000	05/11/94	BH
Hardness as CaCO3	2890 mg/l	-	1000	05/11/94	BH
Magnesium as Mg	350 mg/l	0.31	1030	05/04/94	BH
Potassium as K	52 mg/l	0.18	1000	05/09/94	BH
Sodium as Na	515 mg/l	0.81	1000	04/25/94	AH
INORGANICS					
Electrical Conductivity	5550 umhos/cm	7	1300	04/27/94	HB
Oil & Grease	4 mg/l	0.9	1630	05/02/94	CC
Settleable Solids	<0.1 ml/l	0.1	1600	04/21/94	DD
Total Dissolved Solids	4890 mg/l	11.7	1400	04/26/94	HB
Total Suspended Solids	34 mg/l	3.5	1400	04/26/94	HB
METALS					
Aluminum as Al (Dissolved	*<1.0 mg/l	0.023	1330	05/04/94	BH
Arsenic as As (Dissolved)	<0.002 mg/l	0.0014	1400	05/02/94	AH
Boron as B (Dissolved)	*<1 mg/l	0.045	1030	05/05/94	BH
Cadmium as Cd (Dissolved)	<0.001 mg/l	0.0002	1400	04/29/94	AH
Copper as Cu (Dissolved)	*<0.2 mg/l	0.005	1330	05/04/94	BH
Iron as Fe (Dissolved)	4.63 mg/l	0.008	1030	05/06/94	BH
Iron as Fe (Total)	11.0 mg/l	0.008	1400	05/06/94	BH
Lead as Pb (Dissolved)	<0.002 mg/l	0.0012	1400	04/28/94	AH
Manganese as Mn (Dissolved)	1.90 mg/l	0.003	1330	05/04/94	BH
Manganese as Mn (Total)	1.65 mg/l	0.003	1515	05/06/94	BH
Molybdenum as Mo (Dissolved)	*<0.5 mg/l	0.023	1330	05/04/94	BH
Selenium as Se (Dissolved	<0.002 mg/l	0.0011	1400	05/04/94	AH
Zinc as Zn (Dissolved)	*<0.2 mg/l	0.008	1330	05/04/94	BH
NUTRIENTS					
Ammonia Nitrogen as N	1.42 mg/l	0.034	1600	04/25/94	CC
Nitrate + Nitrite as N	<0.05 mg/l	0.05	1330	04/22/94	DD
Phosphorous Total	0.27 mg/l	0.002	1400	04/26/94	CC

* Higher detection level due to interference.
** The cation-anion analysis does not meet our quality assurance requirements. However, the values reported herein were verified by duplicate analysis. This indicates there are other unmeasured cations or anions present in the sample.

Client Name: HUNTINGDON - SALT LAKE CITY, UT

Project No.: 87-927
Laboratory No.: 150823
Sample Name: CRB/041994
Sample Date: 04/19/94
Collected by: CHUCK WEMPLE
Time Sampled: 1430
Sample Type: WATER

PARAMETER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS**	64.86 meq/l				
Alkalinity Bicarbonate as HCO3	380 mg/l	-	1400	05/03/94	DD
Alkalinity Carbonate as CO3	0 mg/l	-	1400	05/03/94	DD
Alkalinity Total as CaCO3	311 mg/l	0.84	1400	05/03/94	DD
Chloride as Cl	134 mg/l	1.41	1530	04/27/94	DD
Sulfate as SO4	2630 mg/l	2.29	1400	05/23/94	DD
CATIONS**	70.68 meq/l				
Calcium as Ca	494 mg/l	0.39	1000	05/11/94	BH
Hardness as CaCO3	2666 mg/l	-	1000	05/11/94	BH
Magnesium as Mg	309 mg/l	0.31	1030	05/11/94	BH
Potassium as K	41 mg/l	0.18	1000	05/09/94	BH
Sodium as Na	450 mg/l	0.81	1000	04/25/94	AH
INORGANICS					
Electrical Conductivity	4960 umhos/cm	7	1300	04/27/94	HB
Oil & Grease	2 mg/l	0.9	1630	05/02/94	CC
Settleable Solids	<0.1 ml/l	0.1	1600	04/21/94	DD
Total Dissolved Solids	4620 mg/l	11.7	1400	04/26/94	HB
Total Suspended Solids	10 mg/l	3.5	1400	04/26/94	HB
METALS					
Aluminum as Al (Dissolved	*<1.0 mg/l	0.023	1330	05/04/94	BH
Arsenic as As (Dissolved)	<0.002 mg/l	0.0014	1400	05/02/94	AH
Boron as B (Dissolved)	* <1 mg/l	0.045	1030	05/05/94	BH
Cadmium as Cd (Dissolved)	<0.001 mg/l	0.0002	1400	04/29/94	AH
Copper as Cu (Dissolved)	*<0.2 mg/l	0.005	1330	05/04/94	BH
Iron as Fe (Dissolved)	*<0.5 mg/l	0.008	1030	05/06/94	BH
Iron as Fe (Total)	0.10 mg/l	0.008	1400	05/06/94	BH
Lead as Pb (Dissolved)	<0.002 mg/l	0.0012	1400	04/28/94	AH
Manganese as Mn (Dissolved)	0.20 mg/l	0.003	1330	05/04/94	BH
Manganese as Mn (Total)	<0.10 mg/l	0.003	1515	05/06/94	BH
Molybdenum as Mo (Dissolved)	* <0.5 mg/l	0.023	1330	05/04/94	BH
Selenium as Se (Dissolved	<0.002 mg/l	0.0011	1400	05/04/94	AH
Zinc as Zn (Dissolved)	* <0.2 mg/l	0.008	1330	05/04/94	BH
NUTRIENTS					
Ammonia Nitrogen as N	<0.05 mg/l	0.034	1600	04/25/94	CC
Nitrate + Nitrite as N	0.73 mg/l	0.05	1330	04/22/94	DD
Phosphorous Total	0.02 mg/l	0.002	1400	04/26/94	CC

* Higher detection level due to interference.

** The cation-anion analysis does not meet our quality assurance requirements. However, the values reported herein were verified by duplicate analysis. This indicates there are other unmeasured cations or anions present in the sample.

CHAIN OF CUSTODY RECORD

Huntingdon
Consulting Engineers Environmental Scientists

☒ Chen-Northern, Inc., Division
☐ Thomas-Hartig & Associates, Inc., Division
☐ Schaefer Dixon Associates, Inc., Division
☐ Herzog Associates, Inc., Division

SCA DOGM
Project or Site Name

5-137.4-91
Project Number

Chuck Wample
Sampler Name (Printed)

Chuck Wample
Contact or Report to

SLC, UT
Contact Address or Location

Chuck Wample
Sampler Signature

DATE COLLECTED	TIME COLLECTED	SAMPLE LOCATION OR DESCRIPTION	COMP OR GRAB	SAMPLE MATRIX	NO. OF CONTAINERS	ANALYSIS REQUIRED: See Attached	NOTES	LAB NUMBER
4/19/94	1415	CRS/041994	Grab	Water	6		Metals Filtered; metals unfiltered	150822
4/19/94	1430	CRB/041994	Grab	Water	6		↓	23
4/19/94	1330	KE-1/041994	Grab	Water	6		↓	24
4/19/94	1531	F-2/041994	Grab	Water	6		↓	25

Relinquished by:	Date	Time	Received by:
Chuck Wample	04/20/94	1415	Carrier airborne
~~Relinquished by:~~	Date 4/21/94	Time 0970	Received by: L Cleveland
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:

Remarks:
Metals filter
Rec'd
pH 3 — added HNO_3 in lab to
pH <2 ~~in~~ in lab
SLC Cooler temp 9°C
L22 Cooler temp 11°C

Huntingdon
(Formerly Chen-Northern, Inc.)
600 South 25th Street
P O Box 30615
Billings, MT 59107
(406) 248-9161
FAX (406) 248-9282

TECHNICAL REPORT

REPORT TO: ATTN: GREG McDONALD
HUNTINGDON ENGINEERING &
ENVIRONMENTAL, INC.
1127 WEST 2320 SOUTH, SUITE B
SALT LAKE CITY UT 84119

DATE: July 20, 1994
JOB NUMBER: 87-927
SHEET: 1 of 6
INVOICE NO.: 025606

REPORT OF: Water Analysis - SCA DOGM (5-137.4-91)

SAMPLE IDENTIFICATION:

On June 24, 1994, these water samples (our laboratory numbers 152659 through 152663) were received in our laboratory for analysis. Tests were conducted in accordance with the U.S. Environmental Protection Agency Manual EPA 600/4-79-029 *"Methods for Chemical Analysis of Water and Wastes."*

The condition of the samples upon receipt at the laboratory is noted on the attached sample receipt checklist.

The test results are shown on the following pages.

A < sign indicates the value reported was the practical quantitation limit for this sample using the method described. Concentrations of analyte, if present, below this were not quantifiable.

Reviewed by David Connell

Attachment: Sample Receipt Checklist

mc

As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of our clients and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval. Samples will be disposed of after testing is completed unless other arrangements are agreed to in writing.

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 152659
Sample Name: ICE-1/062394
Sample Date: 06/23/94
Collected by: GREG McDONALD
Time Sampled: 1000
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	541 mg/l		1500	06/29/94	HB
Alkalinity Carbonate as CO3	310.1	11 mg/l		1500	06/29/94	HB
Alkalinity Total as CaCO3	310.1	463 mg/l	0.43	1500	06/29/94	HB
Chloride as Cl	325.2	62 mg/l	0.72	0930	07/07/94	CC
Sulfate as SO4	375.2	782 mg/l	1.75	1400	07/13/94	CC
CATIONS						
Calcium as Ca	200.7	96 mg/l	0.10	1500	06/29/94	BH
Hardness as CaCO3	200.7	759 mg/l		1500	06/29/94	BH
Magnesium as Mg	200.7	126 mg/l	0.10	1500	06/29/94	BH
Potassium as K	258.1	11 mg/l	0.18	0930	07/01/94	BH
Sodium as Na	200.7	288 mg/l	0.81	1500	06/29/94	BH
INORGANICS						
Electrical Conductivity	120.1	2220 umhos/cm	7.3	1400	07/11/94	HB
Oil & Grease	413.1	<1 mg/l	0.946	1300	06/30/94	CC
Settleable Solids	160.5	<0.1 ml/l	0.1	1420	06/24/94	CC
Total Dissolved Solids	160.1	1590 mg/l	6.3	1500	06/28/94	HB
Total Suspended Solids	160.2	<4 mg/l	4	1500	06/27/94	HB
METALS						
Aluminum as Al (Dissolved)	200.7	<0.1 mg/l	0.02	1000	07/11/94	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1500	07/05/94	AAH
Boron as B (Dissolved)	200.7	0.2 mg/l	0.02	1500	07/08/94	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.00009	1500	06/29/94	AH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1000	07/11/94	BH
Iron as Fe (Dissolved)	200.7	<0.05 mg/l	0.006	1115	07/08/94	BH
Iron as Fe (Total)	200.7	0.07 mg/l	0.006	1545	06/30/94	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1100	07/15/94	AH
Manganese as Mn (Dissolved)	200.7	<0.02 mg/l	0.001	1115	07/08/94	BH
Manganese as Mn (Total)	200.7	<0.02 mg/l	0.001	1545	06/30/94	BH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1430	07/08/94	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.001	1500	07/08/94	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1115	07/08/94	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	<0.05 mg/l	0.015	1130	07/08/94	DD
Nitrite as N	353.2	<0.05 mg/l	0.005	1710	06/24/94	CC
Phosphorous Total	365.1	0.03 mg/l	0.003	1430	06/30/94	DD
Nitrate as N	353.2	0.48 mg/l	0.004	1200	06/24/94	DD

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 152660
Sample Name: F-2/062394
Sample Date: 06/23/94
Collected by: GREG McDONALD
Time Sampled: 1030
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	593 mg/l		1500	06/29/94	HB
Alkalinity Carbonate as CO3	310.1	11 mg/l		1500	06/29/94	HB
Alkalinity Total as CaCO3	310.1	505 mg/l	0.43	1500	06/29/94	HB
Chloride as Cl	325.2	56 mg/l	0.72	0930	07/07/94	CC
Sulfate as SO4	375.2	700 mg/l	1.75	1400	06/28/94	CC
CATIONS						
Calcium as Ca	200.7	108 mg/l	0.10	1500	06/29/94	BH
Hardness as CaCO3	200.7	738 mg/l		1030	07/14/94	BH
Magnesium as Mg	200.7	114 mg/l	0.10	1030	07/14/94	BH
Potassium as K	258.1	9 mg/l	0.18	0930	07/01/94	BH
Sodium as Na	200.7	273 mg/l	0.81	1500	06/29/94	BH
INORGANICS						
Electrical Conductivity	120.1	2280 umhos/cm	7.3	1400	07/11/94	HB
Oil & Grease	413.1	<1 mg/l	0.946	1300	06/30/94	CC
Settleable Solids	160.5	<0.1 ml/l	0.1	1420	06/24/94	CC
Total Dissolved Solids	160.1	1500 mg/l	6.3	1500	06/28/94	HB
Total Suspended Solids	160.2	<5 mg/l	4	1500	06/27/94	HB
METALS						
Aluminum as Al (Dissolved)	200.7	<0.1 mg/l	0.02	1000	07/11/94	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1500	07/05/94	AH
Boron as B (Dissolved)	200.7	0.2 mg/l	0.02	1500	07/08/94	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.00009	1500	06/29/94	AAH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1000	07/11/94	BH
Iron as Fe (Dissolved)	200.7	<0.05 mg/l	0.006	1115	07/08/94	BH
Iron as Fe (Total)	200.7	0.54 mg/l	0.001	1545	06/30/94	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1100	07/15/94	AAH
Manganese as Mn (Dissolved)	200.7	<0.02 mg/l	0.001	1115	07/08/94	BH
Manganese as Mn (Total)	200.7	<0.02 mg/l	0.001	1545	06/30/94	BH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1430	07/08/94	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.001	1500	07/08/94	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1115	07/08/94	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	<0.05 mg/l	0.015	1130	07/08/94	DD
Nitrite as N	353.2	<0.05 mg/l	0.005	1710	06/24/94	CC
Phosphorous Total	365.1	0.02 mg/l	0.003	1430	06/30/94	CC
Nitrate as N	353.2	0.94 mg/l	0.004	1200	06/24/94	DD

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 152661
Sample Name: CRS/062394
Sample Date: 06/23/94
Collected by: GREG McDONALD
Time Sampled: 1110
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS *						
Alkalinity Bicarbonate as HCO3	310.1	559 mg/l		1500	06/29/94	HB
Alkalinity Carbonate as CO3	310.1	0 mg/l		1500	06/29/94	HB
Alkalinity Total as CaCO3	310.1	458 mg/l	0.43	1500	06/29/94	HB
Chloride as Cl	325.2	105 mg/l	0.72	0930	07/07/94	CC
Sulfate as SO4	375.2	3080 mg/l	1.75	1300	06/29/94	CC
CATIONS *						
Calcium as Ca	200.7	597 mg/l	0.10	1500	06/29/94	BH
Hardness as CaCO3	200.7	2980 mg/l		1500	06/29/94	BH
Magnesium as Mg	200.7	363 mg/l	0.10	1500	06/29/94	BH
Potassium as K	258.1	57 mg/l	0.18	0930	07/01/94	BH
Sodium as Na	200.7	501 mg/l	0.81	1500	06/29/94	BH
INORGANICS						
Electrical Conductivity	120.1	5280 umhos/cm	7.3	1400	07/11/94	HB
Oil & Grease	413.1	<1 mg/l	0.946	1300	06/30/94	CC
Settleable Solids	160.5	<0.1 ml/l	0.1	1420	06/24/94	CC
Total Dissolved Solids	160.1	4910 mg/l	6.3	1500	06/28/94	HB
Total Suspended Solids	160.2	14 mg/l	4	1500	06/27/94	HB
METALS						
Aluminum as Al (Dissolved)	200.7	0.2 mg/l	0.02	1000	07/11/94	BH
Arsenic as As (Dissolved)	206.3	0.002 mg/l	0.002	1500	07/05/94	AAH
Boron as B (Dissolved)	200.7	0.6 mg/l	0.02	1500	07/08/94	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.00009	1500	06/29/94	AAH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1000	07/11/94	BH
Iron as Fe (Dissolved)	0.006	9.5 mg/l	0.006	1115	07/08/94	BH
Iron as Fe (Total)	200.7	10.4 mg/l	0.001	1545	06/30/94	BH
Lead as Pb (Dissolved)	0.001	<0.002 mg/l	0.001	1100	07/15/94	AAH
Manganese as Mn (Dissolved)	0.001	1.08 mg/l	0.001	1130	07/11/94	BH
Manganese as Mn (Total)	0.001	1.56 mg/l	0.001	1415	07/13/94	BH
Molybdenum as Mo (Dissolved)	0.009	<0.05 mg/l	0.009	1430	07/08/94	BH
Selenium as Se (Dissolved)	0.001	<0.002 mg/l	0.001	1500	07/08/94	AAH
Zinc as Zn (Dissolved)	0.002	<0.02 mg/l	0.002	1115	07/08/94	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	1.26 mg/l	0.015	1130	07/08/94	DD
Nitrite as N	353.2	<0.05 mg/l	0.005	1710	06/24/94	CC
Phosphorous Total	365.1	0.17 mg/l	0.003	1730	07/14/94	CC
Nitrate as N	353.2	0.37 mg/l	0.004	1200	06/24/94	DD

* The cation-anion analysis does not meet our quality assurance requirements. However, the values reported herein were verified by duplicate analysis. This indicates there are other unmeasured cations or anions present in the sample.

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 152662
Sample Name: CRB-062394
Sample Date: 06/23/94
Collected by: GREG McDONALD
Time Sampled: 1130
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	398 mg/l			07/08/94	HB
Alkalinity Carbonate as CO3	310.1	0 mg/l			07/08/94	HB
Alkalinity Total as CaCO3	310.1	326 mg/l	0.43	1300	07/08/94	HB
Chloride as Cl	325.2	166 mg/l	0.72	0930	07/07/94	CC
Sulfate as SO4	375.2	2820 mg/l	1.75	1300	06/29/94	CC
CATIONS						
Calcium as Ca	200.7	480 mg/l	0.10	1030	07/14/94	BH
Hardness as CaCO3	200.7	2470 mg/l		1030	07/14/94	BH
Magnesium as Mg	200.7	310 mg/l	0.10	1030	07/14/94	BH
Potassium as K	258.1	48 mg/l	0.18	0930	07/01/94	BH
Sodium as Na	200.7	475 mg/l	0.81	1030	07/14/94	BH
INORGANICS						
Electrical Conductivity	120.1	5160 umhos/cm	7.3	1400	07/11/94	HB
Oil & Grease	413.1	<1 mg/l	0.946	1300	06/30/94	CC
Settleable Solids	160.5	<0.1 ml/l	0.1	1530	06/24/94	CC
Total Dissolved Solids	160.1	4490 mg/l	6.3	1500	06/28/94	HB
Total Suspended Solids	160.2	<5 mg/l	4	1500	06/27/94	HB
METALS						
Aluminum as Al (Dissolved)	200.7	<0.1 mg/l	0.02	1000	07/11/94	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1500	07/05/94	AAH
Boron as B (Dissolved)	200.7	0.6 mg/l	0.02	1500	07/08/94	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.00009	1500	06/29/94	AAH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1000	07/11/94	BH
Iron as Fe (Dissolved)	200.7	<0.25 * mg/l	0.006	1115	07/08/94	BH
Iron as Fe (Total)	200.7	<0.15 * mg/l	0.008	1545	06/30/94	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1100	07/15/94	AAH
Manganese as Mn (Dissolved)	200.7	<0.10 * mg/l	0.001	1115	07/08/94	BH
Manganese as Mn (Total)	200.7	<0.06 * mg/l	0.001	1545	06/30/94	BH
Molybdenum as Mo (Dissolved)	200.7	0.07 mg/l	0.009	1430	07/08/94	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.001	1500	07/08/94	AAH
Zinc as Zn (Dissolved)	200.7	0.03 mg/l	0.002	1115	07/08/94	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	<0.05 mg/l	0.015	1130	07/08/94	DD
Nitrite as N	353.2	<0.05 mg/l	0.005	1710	06/24/94	CC
Phosphorous Total	365.1	0.04 mg/l	0.003	1430	06/30/94	DD
Nitrate as N	353.2	0.44 mg/l	0.004	1200	06/24/94	DD

* Higher detection limit reported due to interferences present in the sample.

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 152663
Sample Name: WELL-1/062394
Sample Date: 06/23/94
Collected by: GREG McDONALD
Time Sampled: 1210
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	593 mg/l		1500	06/29/94	HB
Alkalinity Carbonate as CO3	310.1	0 mg/l		1500	06/29/94	HB
Alkalinity Total as CaCO3	310.1	486 mg/l	0.43	1500	06/29/94	HB
Chloride as Cl	325.2	33 mg/l	0.72	0930	07/07/94	CC
Sulfate as SO4	375.2	479 mg/l	1.75	1400	07/13/94	CC
CATIONS						
Calcium as Ca	200.7	78 mg/l	0.10	1030	07/14/94	BH
Hardness as CaCO3	200.7	515 mg/l		1030	07/14/94	BH
Magnesium as Mg	200.7	78 mg/l	0.10	1030	07/14/94	BH
Potassium as K	258.1	7 mg/l	0.18	0930	07/01/94	BH
Sodium as Na	200.7	234 mg/l	0.81	1030	07/14/94	BH
INORGANICS						
Electrical Conductivity	120.1	1830 umhos/cm	7.3	1400	07/11/94	HB
Oil & Grease	413.1	2 mg/l	0.946	1300	06/30/94	CC
Settleable Solids	160.5	<0.1 ml/l	0.1	1530	06/24/94	CC
Total Dissolved Solids	160.1	1180 mg/l	6.3	1500	06/28/94	HB
Total Suspended Solids	160.2	<5 mg/l	4	1500	06/27/94	HB
METALS						
Aluminum as Al (Dissolved)	200.7	<0.1 mg/l	0.02	1000	07/11/94	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1500	07/05/94	AAH
Boron as B (Dissolved)	200.7	0.1 mg/l	0.02	1500	07/08/94	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.00009	1500	06/29/94	AAH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1000	07/11/94	BH
Iron as Fe (Dissolved)	200.7	<0.05 mg/l	0.006	1115	07/08/94	BH
Iron as Fe (Total)	200.7	0.10 mg/l	0.001	1545	06/30/94	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1100	07/15/94	AAH
Manganese as Mn (Dissolved)	200.7	<0.02 mg/l	0.001	1115	07/08/94	BH
Manganese as Mn (Total)	200.7	<0.02 mg/l	0.001	1545	06/30/94	BH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1430	07/08/94	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.001	1500	07/08/94	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1115	07/08/94	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	<0.05 mg/l	0.015	1130	07/08/94	DD
Nitrite as N	352.2	<0.05 mg/l	0.005	1710	06/24/94	CC
Phosphorous Total	365.1	<0.02 mg/l	0.003	1530	06/30/94	DD
Nitrate as N	353.2	0.85 mg/l	0.004	1200	06/24/94	DD

CHAIN OF CUSTODY RECORD

Huntingdon
Consulting Engineers Environmental Scientists

- ☑ Chen-Northern, Inc., Division
- ☐ Thomas-Hartig & Associates, Inc., Division
- ☐ Schaefer Dixon Associates, Inc., Division
- ☐ Herzog Associates, Inc., Division

Project or Site Name: SCA DOGM

Project Number: 15-137.4-91

Sampler Name (Printed): Greg McDonald

Contact or Report to: Rich Girard / G.M.

Contact Address or Location: 1127 W. 2320 S. SLC UT

Sampler Signature:

DATE COLLECTED	TIME COLLECTED	SAMPLE LOCATION OR DESCRIPTION	COMP OR GRAB	SAMPLE MATRIX	NO. OF CONTAINERS	ANALYSIS REQUIRED: See Attached List	NOTES	LAB NUMBER
6/23/94	1000	ICE-1/062394	Grab	Water	6			152659
6/23/94	1030	F-2/062394	Grab	Water	6			60
6/23/94	1110	CRS/062394	Grab	Water	6			61
6/23/94	1130	CRB/062394	Grab	Water	6			62
6/23/94	1210	WELL-1/062394	Grab	Water	6			63
								~~64~~
								~~65~~

Relinquished by:	Date	Time	Received by:
	6/23/94	1530	Carrier Fed Ex
	6/24/94	0930	

Remarks:
Attn: Dave Connin
*Please Note Nitrite Parm. (i.e. holding time)

Cooler temp 9°C

Huntingdon
(Formerly Chen-Northern, Inc.)
600 South 25th Street
P O Box 30615
Billings, MT 59107
(406) 248-9161
FAX (406) 248-9282

TECHNICAL REPORT

REPORT TO: ATTN: RICH GIRAUD
HUNTINGDON ENGINEERING &
ENVIRONMENTAL, INC.
1127 WEST 2320 SOUTH, SUITE B
SALT LAKE CITY UT 84119

DATE: October 21, 1994
JOB NUMBER: 87-927
SHEET: 1 of 6
INVOICE NO.: 027251

REPORT OF: Water Analysis - Sunnyside/DOGM 5-137.3-91

SAMPLE IDENTIFICATION:

On September 28, 1994, these water samples (laboratory numbers 155249 through 155253) were received in our laboratory for analysis. Tests were conducted in accordance with the U.S. Environmental Protection Agency Manual EPA 600/4-79-020 *"Methods for Chemical Analysis of Water and Wastes."*

The condition of the samples upon receipt at the laboratory is noted on the attached sample receipt checklist.

The test results are shown on the following pages.

A < sign indicates the value reported was the practical quantitation limit for this sample using the method described. Concentrations of analyte, if present, below this were not quantifiable.

Reviewed by David Comrie

Attachments: Sample Receipt Checklist

rmr

As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of our clients and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval. Samples will be disposed of after testing is completed unless other arrangements are agreed to in writing.

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 155249
Sample Name: ICE-1
Sample Date: 09/27/94
Collected by: RICHARD E. GIRAUD
Time Sampled: NONE GIVEN
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	509 mg/l	-	1400	10/03/94	HB
Alkalinity Carbonate as CO3	310.1	17 mg/l	-	1400	10/03/94	HB
Alkalinity Total as CaCO3	310.1	446 mg/l	0.43	1400	10/03/94	HB
Chloride as Cl	325.3	67 mg/l	0.37	1400	10/12/94	HB
Sulfate as SO4	375.2	742 mg/l	1.75	1130	09/30/94	CC
CATIONS						
Calcium as Ca	200.7	60 mg/l	0.10	1030	10/14/94	BH
Hardness as CaCO3	2340B	618 mg/l	-	1030	10/14/94	BH
Magnesium as Mg	200.7	114 mg/l	0.10	1030	10/14/94	BH
Potassium as K	258.1	6 mg/l	0.18	1300	10/07/94	AAH
Sodium as Na	200.7	320 mg/l	0.81	1030	10/14/94	BH
INORGANICS						
Electrical Conductivity	120.1	2350 umhos/cm	7.3	1400	10/05/94	HB
Oil & Grease	413.1	<1 mg/l	0.9	0730	10/10/94	CC
Settleable Solids	160.5	<0.1 ml/l	-	1440	09/28/94	TK
Total Dissolved Solids	160.1	1580 mg/l	6.3	0930	10/05/94	TK
Total Suspended Solids	160.2	7 mg/l	5.4	1000	10/03/94	TK
METALS						
Aluminum as Al (Dissolved)	200.7	0.3 mg/l	0.02	1100	10/03/94	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1300	10/06/94	AAH
Boron as B (Dissolved)	200.7	0.2 mg/l	0.02	1510	10/07/94	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.0009	1100	10/10/94	BH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1100	10/03/94	BH
Iron as Fe (Dissolved)	200.7	<0.05 mg/l	0.006	1430	10/07/94	BH
Iron as Fe (Total)	200.7	0.16 mg/l	0.006	0950	10/11/94	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1400	10/11/94	AAH
Manganese as Mn (Dissolved)	200.7	<0.02 mg/l	0.001	1430	10/07/94	BH
Manganese as Mn (Total)	200.7	<0.02 mg/l	0.001	0950	10/11/94	BH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1430	10/07/94	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.001	1500	10/05/94	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1430	10/07/94	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	0.11 mg/l	0.015	1700	10/13/94	DD
Nitrite as N	354.2	<0.05 mg/l	0.005	1600	09/28/94	CC
Phosphorous Total	365.1	0.02 mg/l	0.003	1330	10/12/94	CC
Nitrate as N	353.2	0.05 mg/l	0.004	1730	09/28/94	CC

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 155252
Sample Name: F-2
Sample Date: 09/27/94
Collected by: RICHARD E. GIRAUD
Time Sampled: NONE GIVEN
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	601 mg/l	-	1400	10/03/94	HB
Alkalinity Carbonate as CO3	310.1	6 mg/l	-	1400	10/03/94	HB
Alkalinity Total as CaCO3	310.1	502 mg/l	0.43	1400	10/03/94	HB
Chloride as Cl	325.3	60 mg/l	0.37	1400	10/12/94	HB
Sulfate as SO4	375.2	690 mg/l	1.75	1130	09/30/94	CC
CATIONS						
Calcium as Ca	200.7	96 mg/l	0.10	1130	10/05/94	BH
Hardness as CaCO3	2340B	697 mg/l	-	1130	10/05/94	BH
Magnesium as Mg	200.7	111 mg/l	0.10	1130	10/05/94	BH
Potassium as K	258.1	6 mg/l	0.18	1300	10/07/94	AAH
Sodium as Na	200.7	256 mg/l	0.81	1030	10/14/94	BH
INORGANICS						
Electrical Conductivity	120.1	2260 umhos/cm	7.3	1400	10/05/94	HB
Oil & Grease	413.1	<1 mg/l	0.9	1000	10/11/94	CC
Settleable Solids	160.5	<0.1 ml/l	-	1556	09/28/94	TK
Total Dissolved Solids	160.1	1540 mg/l	6.3	0930	10/05/94	TK
Total Suspended Solids	160.2	8 mg/l	5.4	1000	10/03/94	TK
METALS						
Aluminum as Al (Dissolved)	200.7	0.2 mg/l	0.02	1100	10/03/94	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1300	10/06/94	AAH
Boron as B (Dissolved)	200.7	0.2 mg/l	0.02	1510	10/07/94	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.0009	1100	10/10/94	BH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1100	10/03/94	BH
Iron as Fe (Dissolved)	200.7	<0.05 mg/l	0.006	1430	10/07/94	BH
Iron as Fe (Total)	200.7	0.54 mg/l	0.006	0950	10/11/94	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1400	10/11/94	AAH
Manganese as Mn (Dissolved)	200.7	<0.02 mg/l	0.001	1430	10/07/94	BH
Manganese as Mn (Total)	200.7	0.04 mg/l	0.001	0950	10/11/94	BH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1430	10/07/94	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.002	1500	10/05/94	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1430	10/07/94	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	<0.05 mg/l	0.015	1700	10/14/94	DD
Nitrite as N	354.2	<0.05 mg/l	0.005	1600	09/28/94	CC
Phosphorous Total	365.1	<0.02 mg/l	0.003	1330	10/12/94	CC
Nitrate as N	353.2	0.48 mg/l	0.004	1730	09/28/94	CC

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 155250
Sample Name: CRS
Collected by: RICHARD E. GIRAUD
Time Sampled: NONE GIVEN
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	608 mg/l	-	1400	10/14/94	HB
Alkalinity Carbonate as CO3	310.1	0 mg/l	-	1400	10/14/94	HB
Alkalinity Total as CaCO3	310.1	498 mg/l	0.43	1400	10/14/94	HB
Chloride as Cl	325.3	106 mg/l	0.37	1400	10/12/94	HB
Sulfate as SO4	375.2	2930 mg/l	1.75	1130	09/30/94	CC
CATIONS						
Calcium as Ca	200.7	546 mg/l	0.10	0900	10/20/94	BH
Hardness as CaCO3	23408	2630 mg/l	-	0900	10/20/94	BH
Magnesium as Mg	200.7	309 mg/l	0.10	0900	10/20/94	BH
Potassium as K	258.1	39 mg/l	0.18	1300	10/07/94	BH
Sodium as Na	200.7	471 mg/l	0.81	1030	10/14/94	BH
INORGANICS						
Electrical Conductivity	120.1	5520 umhos/cm	7.3	1400	10/05/94	HB
Oil & Grease	413.1	<1 mg/l	0.9	1000	10/11/94	CC
Settleable Solids	160.5	<0.1 ml/l	-	1440	09/28/94	TK
Total Dissolved Solids	160.1	5410 mg/l	6.3	0930	10/05/94	TK
Total Suspended Solids	160.2	25 mg/l	5.4	1000	10/03/94	TK
METALS						
Aluminum as Al (Dissolved)	200.7	0.1 mg/l	0.02	1100	10/03/94	BH
Arsenic as As (Dissolved)	206.3	0.002 mg/l	0.002	1300	10/06/94	AAH
Boron as B (Dissolved)	200.7	1.0 mg/l	0.02	1510	10/07/94	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.0009	1100	10/10/94	BH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1100	10/03/94	BH
Iron as Fe (Dissolved)	200.7	8.40 mg/l	0.006	1000	12/30/94	BH
Iron as Fe (Total)	200.7	9.57 mg/l	0.006	1000	12/30/94	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1400	10/11/94	AAH
Manganese as Mn (Dissolved)	200.7	0.64 mg/l	0.001	1430	10/07/94	BH
Manganese as Mn (Total)	200.7	0.69 mg/l	0.001	0950	10/11/94	BH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1430	10/07/94	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.002	1500	10/05/94	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1430	10/07/94	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	1.33 mg/l	0.015	1700	10/13/94	DD
Nitrite as N	354.2	<0.05 mg/l	0.005	1600	09/28/94	CC
Phosphorous Total	365.1	0.15 mg/l	0.003	0945	10/13/94	CC
Nitrate as N	353.2	0.22 mg/l	0.004	1730	09/28/94	CC

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 155251
Sample Name: CR8
Sample Date: 09/27/94
Collected by: RICHARD E. GIRAUD
Time Sampled: NONE GIVEN
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	405 mg/l	-	1400	10/03/94	HB
Alkalinity Carbonate as CO3	310.1	0 mg/l	-	1400	10/03/94	HB
Alkalinity Total as CaCO3	310.1	332 mg/l	0.43	1400	10/03/94	HB
Chloride as Cl	325.3	213 mg/l	0.37	1400	10/12/94	HB
Sulfate as SO4	375.2	2780 mg/l	1.75	1130	09/30/94	CC
CATIONS						
Calcium as Ca	200.7	486 mg/l	0.10	1130	10/20/94	BH
Hardness as CaCO3	2340B	2460 mg/l	-	1130	10/20/94	BH
Magnesium as Mg	200.7	303 mg/l	0.10	1130	10/20/94	BH
Potassium as K	258.1	32 mg/l	0.18	1300	10/07/94	AAH
Sodium as Na	200.7	450 mg/l	0.61	1030	10/14/94	BH
INORGANICS						
Electrical Conductivity	120.1	5460 umhos/cm	7.3	1400	10/05/94	HB
Oil & Grease	413.1	<1 mg/l	0.9	1000	10/11/94	CC
Settleable Solids	160.5	<0.1 ml/l	-	1440	09/28/94	TK
Total Dissolved Solids	160.1	5230 mg/l	6.3	0930	10/05/94	TK
Total Suspended Solids	160.2	<5 mg/l	5.4	1000	10/03/94	TK
METALS						
Aluminum as Al (Dissolved)	200.7	0.3 mg/l	0.02	1100	10/03/94	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1300	10/06/94	AAH
Boron as B (Dissolved)	200.7	0.8 mg/l	0.02	1510	10/07/94	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.0009	1100	10/10/94	BH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1100	10/03/94	BH
Iron as Fe (Dissolved)	200.7	<0.25 mg/l	0.006	1000	12/30/94	BH
Iron as Fe (Total)	200.7	<0.25 mg/l	0.006	1000	12/30/94	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1400	10/11/94	AAH
Manganese as Mn (Dissolved)	200.7	*<0.10 mg/l	0.001	1430	10/07/94	BH
Manganese as Mn (Total)	200.7	*<0.06 mg/l	0.001	0950	10/11/94	BH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1430	10/07/94	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.002	1500	10/05/94	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1430	10/07/94	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	<0.05 mg/l	0.015	1700	10/13/94	DD
Nitrite as N	354.2	<0.05 mg/l	0.005	1600	09/28/94	CC
Phosphorous Total	365.1	0.02 mg/l	0.003	1330	10/12/94	CC
Nitrate as N	353.2	0.39 mg/l	0.004	1730	09/28/94	CC

* Higher detection level due to interferences.

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 155253
Sample Name: DRAGERRTON WELL
Sample Date: 09/27/94
Collected by: RICHARD E. GIRAUD
Time Sampled: NONE GIVEN
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	463 mg/l	-	1400	10/03/94	HB
Alkalinity Carbonate as CO3	310.1	0 mg/l	-	1400	10/03/94	HB
Alkalinity Total as CaCO3	310.1	379 mg/l	0.43	1400	10/03/94	HB
Chloride as Cl	325.3	30 mg/l	0.37	1400	10/12/94	HB
Sulfate as SO4	375.2	412 mg/l	1.75	1130	09/30/94	CC
CATIONS						
Calcium as Ca	200.7	81 mg/l	0.10	1130	10/05/94	BH
Hardness as CaCO3	2340B	511 mg/l	-	1130	10/05/94	BH
Magnesium as Mg	200.7	75 mg/l	0.10	1130	10/05/94	BH
Potassium as K	258.1	4 mg/l	0.18	1300	10/07/94	AAH
Sodium as Na	200.7	144 mg/l	0.81	1030	10/14/94	BH
INORGANICS						
Electrical Conductivity	120.1	1520 umhos/c	7.3	1400	10/05/94	HB
Oil & Grease	413.1	<1 mg/l	0.9	1000	10/11/94	CC
Settleable Solids	160.5	<0.1 ml/l	-	1556	09/28/94	TK
Total Dissolved Solids	160.1	981 mg/l	6.3	0930	10/05/94	TK
Total Suspended Solids	160.2	<5 mg/l	5.4	1000	10/03/94	TK
METALS						
Aluminum as Al (Dissolved)	200.7	0.2 mg/l	0.02	1100	10/03/94	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1300	10/06/94	AAH
Boron as B (Dissolved)	200.7	0.2 mg/l	0.02	1510	10/07/94	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.0009	1100	10/10/94	BH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1100	10/03/94	BH
Iron as Fe (Dissolved)	200.7	<0.05 mg/l	0.006	1430	10/07/94	BH
Iron as Fe (Total)	200.7	0.10 mg/l	0.006	0950	10/11/94	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1400	10/11/94	AAH
Manganese as Mn (Dissolved)	200.7	<0.02 mg/l	0.001	1430	10/07/94	BH
Manganese as Mn (Total)	200.7	0.03 mg/l	0.001	0950	10/11/94	BH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1430	10/07/94	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.002	1500	10/05/94	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1430	10/07/94	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	<0.05 mg/l	0.015	1700	10/14/94	DD
Nitrite as N	354.2	<0.05 mg/l	0.005	1600	09/28/94	CC
Phosphorous Total	365.1	<0.02 mg/l	0.003	1330	10/12/94	CC
Nitrate as N	353.2	0.80 mg/l	0.004	1730	09/28/94	CC

CHAIN OF CUSTODY RECORD

Huntingdon
Consulting Engineers Environmental Scientists

☑ Chen-Northern, Inc., Division
☐ Thomas-Hartig & Associates, Inc., Division
☐ Schaefer Dixon Associates, Inc., Division
☐ Herzog Associates, Inc., Division

Sunnyside / DOGM
Project or Site Name

5-137.3 - 91
Project Number

Richard F. Ciraud
Sampler Name (Printed)

Rich Ciraud
Contact or Report to

1127 W 2320 S, Suite B Sc. UT 84119
Contact Address or Location

Richard F. Ciraud
Sampler Signature

DATE COLLECTED	TIME COLLECTED	SAMPLE LOCATION OR DESCRIPTION	COMP OR GRAB	SAMPLE MATRIX	NO. OF CONTAINERS	ANALYSIS REQUIRED	NOTES	LAB NUMBER
9/27/94		Ice-1	grab	H_2O	6	see		155249
9/27/94		CRS	"	"	6	attached		50
9/27/94		CRB	"	"	6	sheet		51
9/27/94		F-2	"	"	6			52
9/27/94		Drasculich well	"	"	6			53

No sheet attached
Dup 152603 per D.C.

Relinquished by:	Date	Time	Received by:
Richard F. Ciraud	9-27-94	1540	Carrier / FedEx
Relinquished by:	Date	Time	Received by:
	9/28/94	0938	H Cleveland
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:

Remarks: please note Nutrients 48 hr holding time

Green Cooler temp 12°C
Red Cooler temp 15°C

Huntingdon
(Formerly Chen-Northern, Inc.)
600 South 25th Street
P O Box 30615
Billings, MT 59107
(406) 248-9161
FAX (406) 248-9282

TECHNICAL REPORT

REPORT TO: ATTN: RICH GIRAUD
HUNTINGDON ENGINEERING &
ENVIRONMENTAL, INC.
1127 WEST 2320 SOUTH, SUITE B
SALT LAKE CITY UT 84119

DATE: January 20, 1995
JOB NUMBER: 87-927
SHEET: 1 of 5
INVOICE NO.: 003084

REPORT OF: Water Analysis - Sunnyside DOGM 5-137.3-91

SAMPLE IDENTIFICATION:

On December 20, 1994, these water samples (laboratory numbers 158101 through 158105) were received in our laboratory for analysis. Tests were conducted in accordance with the U.S. Environmental Protection Agency Manual EPA 600/4-79-020 *"Methods for Chemical Analysis of Water and Wastes."*

The condition of the samples upon receipt at the laboratory is noted on the attached sample receipt checklist.

The test results are shown on the following pages.

A < sign indicates the value reported was the practical quantitation limit for this sample using the method described. Concentrations of analyte, if present, below this were not quantifiable.

Reviewed by David Conrill

Attachment: Sample Receipt Checklist

rmr

As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of our clients and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval. Samples will be

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 158102
Sample Name: F-2/121994
Sample Date: 12/19/94
Collected by: RICHARD E. GIRAUD
Time Sampled: NONE GIVEN
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS						
Alkalinity Bicarbonate as HCO3	310.1	492 mg/l	-	1300	01/11/95	DD
Alkalinity Carbonate as CO3	310.1	0 mg/l	-	1300	01/11/95	DD
Alkalinity Total as CaCO3	310.1	403 mg/l	0.4	1300	01/11/95	DD
Chloride as Cl	325.2	23 mg/l	0.7	1400	01/09/95	CC
Sulfate as SO4	375.2	290 mg/l	2	1500	12/30/94	DD
CATIONS						
Calcium as Ca	200.7	72 mg/l	0.1	1030	01/10/95	BH
Hardness as CaCO3	2340B	452 mg/l	-	1030	01/10/95	BH
Magnesium as Mg	200.7	66 mg/l	0.1	1030	01/10/95	BH
Potassium as K	258.1	3 mg/l	0.2	1430	12/29/94	AAH
Sodium as Na	200.7	141 mg/l	0.8	1030	01/10/95	BH
INORGANICS						
Electrical Conductivity	120.1	1300 umhos/cm	7	1500	12/29/94	HB
Oil & Grease	413.1	<1 mg/l	1	1400	01/04/95	DD
Settleable Solids	160.5	<0.1 ml/l	0.1	--	12/21/94	DD
Total Dissolved Solids	160.1	894 mg/l	6	1700	12/22/94	CC
Total Suspended Solids	160.2	3 mg/l	2	1530	12/22/94	CC
METALS						
Aluminum as Al (Dissolved)	200.7	<0.1 mg/l	0.02	1515	01/03/95	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1600	01/04/95	AAH
Boron as B (Dissolved)	200.7	0.1 mg/l	0.02	1345	01/03/95	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.00009	1800	01/10/95	AAH
Copper as Cu (Dissolved)	200.7	<0.02 mg/l	0.004	1515	01/03/95	BH
Iron as Fe (Dissolved)	200.7	0.08 mg/l	0.006	1345	01/03/95	BH
Iron as Fe (Total)	200.7	0.10 mg/l	0.006	1420	01/10/95	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1400	01/06/95	AAH
Manganese as Mn (Dissolved)	200.7	<0.02 mg/l	0.001	1345	01/03/95	AAH
Manganese as Mn (Total)	200.7	<0.02 mg/l	0.001	1420	01/10/95	BH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1600	01/03/95	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.001	1500	01/03/95	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1345	01/03/95	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	<0.05 mg/l	0.02	1300	12/28/94	CC
Nitrite as N	353.2	<0.05 mg/l	0.005	1000	12/21/94	DD
Phosphorous Total	365.1	<0.02 mg/l	0.003	1630	01/10/95	CC
Nitrate as N	353.2	0.66 mg/l	0.004	1200	12/27/94	BH

Client Name: HUNTINGDON - SALT LAKE CITY, UT
Project No.: 87-927
Laboratory No.: 158105
Sample Name: CRB/121994
Sample Date: 12/19/94
Collected by: RICHARD E. GIRAUD
Time Sampled: NONE GIVEN
Sample Type: WATER

PARAMETER	METHOD NUMBER	MEASURED VALUE	METHOD DETECTION LIMIT	TIME OF ANALYSIS	DATE OF ANALYSIS	ANALYST
ANIONS*						
Alkalinity Bicarbonate as HCO3	310.1	440 mg/l	-	1330	12/22/94	BH
Alkalinity Carbonate as CO3	310.1	0 mg/l	-	1330	12/22/94	BH
Alkalinity Total as CaCO3	310.1	361 mg/l	0.4	1330	12/22/94	BH
Chloride as Cl	325.3	197 mg/l	0.7	--	01/13/95	DD
Sulfate as SO4	375.2	2800 mg/l	2	1500	12/30/94	DD
CATIONS*						
Calcium as Ca	200.7	570 mg/l	0.1	1130	01/12/95	BH
Hardness as CaCO3	2340B	2780 mg/l	-	1130	01/12/95	BH
Magnesium as Mg	200.7	330 mg/l	0.1	1030	01/10/95	BH
Potassium as K	258.1	31 mg/l	0.2	1430	12/29/94	AAH
Sodium as Na	200.7	507 mg/l	0.8	1030	01/10/95	BH
INORGANICS						
Electrical Conductivity	120.1	5190 umhos/cm	7	1500	12/29/94	HB
Oil & Grease	413.1	<1 mg/l	1	1400	01/04/95	DD
Settleable Solids	160.5	<0.1 ml/l	0.1	-	12/21/94	DD
Total Dissolved Solids	160.1	5070 mg/l	6	1700	12/22/94	CC
Total Suspended Solids	160.2	<1 mg/l	2	1530	12/22/94	CC
METALS						
Aluminum as Al (Dissolved)	200.7	0.3 mg/l	0.02	1515	01/03/95	BH
Arsenic as As (Dissolved)	206.3	<0.002 mg/l	0.002	1600	01/04/95	AAH
Boron as B (Dissolved)	200.7	0.9 mg/l	0.02	1345	01/03/95	BH
Cadmium as Cd (Dissolved)	213.2	<0.001 mg/l	0.00009	1800	01/10/95	AAH
Copper as Cu (Dissolved)	200.7	<0.06 mg/l	0.004	1515	01/03/95	BH
Iron as Fe (Dissolved)	200.7	<0.15 mg/l	0.006	1345	01/03/95	BH
Iron as Fe (Total)	200.7	0.18 mg/l	0.006	1420	01/10/95	BH
Lead as Pb (Dissolved)	239.2	<0.002 mg/l	0.001	1400	01/06/95	AAH
Manganese as Mn (Dissolved)	200.7	0.12 mg/l	0.001	1345	01/03/95	BH
Manganese as Mn (Total)	200.7	0.15 mg/l	0.001	1420	01/10/95	AAH
Molybdenum as Mo (Dissolved)	200.7	<0.05 mg/l	0.009	1600	01/03/95	BH
Selenium as Se (Dissolved)	270.3	<0.002 mg/l	0.001	1500	01/03/95	AAH
Zinc as Zn (Dissolved)	200.7	<0.02 mg/l	0.002	1345	01/03/95	BH
NUTRIENTS						
Ammonia Nitrogen as N	350.1	0.07 mg/l	0.02	1300	12/28/94	CC
Nitrite as N	353.2	<0.05 mg/l	0.005	1000	12/21/94	DD
Phosphorous Total	365.1	<0.02 mg/l	0.003	1630	01/10/95	CC
Nitrate as N	353.2	0.70 mg/l	0.004	1200	12/27/94	BH

* The cation-anion analysis does not meet our quality assurance requirements. However, the values reported herein were verified by duplicate analysis. This indicates there are other unmeasured cations or anions present in the sample.

Huntingdon

receipt.lst

SAMPLE RECEIPT CHECKLIST

Client Name: H-SLC

Project: Sunnyside DGEM

Laboratory number(s): 158[illegible]-05

Checklist completed by: BH 12/20/94 (Initials / Date)

Date/Time Received: 12/20/94 1355 (Date / Time)

Received by: [illegible]

Carrier name: UPS

Logged in by: _____ (Initials / Date)

Sample Type: water

		YES	NO
1.	Shipping container in good condition?	X	
2.	Custody seals present on shipping container?	X	
3.	Condition: Intact X Broken ____		
4.	Chain of custody present?	X	
5.	Chain of custody signed when relinquished and received?	X	
6.	Chain of custody agrees with sample labels?		X
7.	Custody seals on sample bottles?		X
8.	Condition: Intact ____ Broken ____		
9.	Samples in proper container/bottle?	X	
10.	Samples intact?	X	
11.	Sufficient sample volume for indicated test?	X	
12.	VOA vials have zero headspace?	N/A	
13.	Trip Blank received?	N/A	
14.	Ice/Frozen Blue Ice present in shipping container? (circle one)	X	
15.	Container temperature 1. 5.5°C 2. ____ 3. ____		

		YES	NO
16.	All samples rec'd within holding time?	X	
	Preservation		
17.	pH check performed by: BH		
18.	Metals bottle(s) pH <2?	X	
19.	Nutrient bottle(s) pH <2?	X	
20.	Cyanide bottle(s) pH >12?	N/A	
21.	Sulfide bottle(s) pH >9?		
22.	Oil & grease bottle(s) pH <2?		
23.	TOC bottle(s) pH <2?	N/A	
24.	DRO/418.1 bottle(s) pH <2?		
25.	Phenolics bottle(s) pH <2?		
26.	Volatiles (VOA) pH <2? (VOA pH checked by analyst)		
27.	Client contacted?		
28.	Person contacted ____		
29.	Date contacted ____		
30.	Contacted by ____		
31.	Regarding? ____		

Any NO response must be detailed in the comments section below. If items are not applicable, they should be marked NA.

COMMENTS: #6 Metals sample for CRB/12/19/94 was not labeled, there are 6 bottles to each set instead of 5, dissolved metals not marked as filtered, dissolved in 500ml bottles instead of 1000ml, total metals in 1000ml bottles, not 500ml.

ATTACHMENT B

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: ICE-1 DOGM

Runoff Basin / Spring / Other: STREAM

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	gpm Flow ~~(cfs)~~	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (°C)	pH	SC (umhos)	DO ~~Meter No.~~	Collection Point	Sample Taken (yes/no)
6/30/93	1335	GM CW	Sunny Hot	yes		185	~~VE~~ CC		29	8.08	2200	7.4	Marked	yes
7/27	1517	GM	Sunny Hot	yes		200	~~VE~~ CC		23	8.17	2300	6.2	"	NO
8/26/93	1103	GM	—	yes		120	CC		16	7.18	2200	7.2	"	NO
9/2/93	1700	GM CW	Slt	yes		150	CC	-	20	8.23	2150	5.4	"	~~NO~~ yes
10/27	0830	MH	Warm	yes		150	V.S		3.3	8.50	1200	6.0	"	NO
11/16	1310	MH	Cold	yes		150	V.S		5.0	8.48	1800	5.6	"	~~NO~~
12/9	1555	GM	Cold	yes	clear	300	V.S		4.8	8.49	2471	10.3	"	NO
1/13/94	1438	GM	Cold Clear	yes	Clear ICE-2 duplicate	~200	V.S		5.1	8.29	2220	6.4	"	yes
2/28	1336	GM	Cool, P.C.	yes	light brown/silty	150	V.S		8.9	8.16	1450	7.3	"	NO
3/31/94	12:39	CW/TMM	WARM, SUNNY	yes	"	90	DF		12.9	7.90	1800	6.0	"	NO
4/19/94	1315	CW/GM	" "	yes	"	100	DF		17.2	8.23	2860	6.4	"	~~yes~~
5/31/94	1055	RG	cool, rain	yes	clear	300	CC		13.1	8.28	2257	9.9	"	NO
6/23	0928	GM	Sunny Hot	yes	clear	127	DF		21.9	8.74	2120	6.5	"	yes
7/21/94	0935	GM	Sunny Hot	yes	clear	90	DF		21.2	8.34	2150	7.1	"	NO
8/22/94	1450	GM	Sunny Hot	yes	clear	50	DF		25.7	8.71	2170	6.3	"	NO
9/29/94	1226	RBG	sunny, cool	yes	clear	4.0	~~DF~~ RG CC		18.2	8.50	2340.9	15.4	"	yes
10/19/94	1302	RBG/GM	cloudy cool	yes		120	CC		9.9	8.59	2491.3	8.8	"	yes
11/21/94	1217	RBG/REG	overcast, cool	yes		20	CC		1.1	8.84	2165	15.5	"	no

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

DOGM Permit Boundary Water Quality Monitoring Plan

Huntingdon Engineering & Environmental

Monitoring Location: ICE-1

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow Meas. Method	Flow (gpm)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12-19-94	1154	RBG/REG	Clear	yes	CC	6.0	3.0	8.08	2392.5	15.4	yes	

Flow Measurement Methods: W= Weir, VE= Visual Estimate, CC= Calibrated Container, DF= Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: F-2 (Whit. Sp) DOGM

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	gpm Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (~~F~~C)	pH	SC (umhos)	DO ~~Meter~~ ~~No.~~	Collection Point	Sample Taken (yes/no)
4/30/93	1515	GMCW	Sunny/Hot	yes	Clear water	100	CC		25	8.4	2300	7.8	Marked Point	yes
7/27	1456	GM	Sunny/Hot	yes	"	~90	V.E		23	8.02	1900	5.9	"	yes
8/24/93	1058	GM	Overcast	yes	"	100	CC		15	7.18	2150	6.2	"	NO
9/2/93	1757	GMCW	SW	yes	"	100	CC		17	7.54	2100	6.4	"	yes
10/27	0730	MH	Windy	yes	"	100	CC		1.5	8.3	1200	7.0		NO
11/16	1310	MH	Cold	yes	"	100	CC		5.3	8.49	1300	6.20	"	NO
12/9	1530	GM	Cold	yes	Grey from TSS(004)	150	CC		6.0	7.62	1800	12.7	"	NO
1/13/94	1535	GM	Cold Clear	yes	Clear	~90	CC		5.6	8.51	1824	6.2	"	yes
2/28	1320	GM	RC Cool	yes	Clear Water	35	CC		7.7	7.62	2180	6.9	"	NO
3/31/94	12:54	CW/TMM	Warm, Sunny	YU		25.5	CC		13.6	8.01	1500	6.4	"	NO
4/19	1525	OM/GM	" "	yes	Clear	36	CC		15.5	8.40	1800	8.6	"	yes
5/31/94	1247	RG	cool, rain	yes	clear	85	CC		12.5	8.16	1650	9.9	"	NO
6/23/94	1030	GM	Sunny/Hot	yes	clear	60	CC		18.7	8.49	2130	7.0	"	yes
7/21/94	0900	GM	Sunny Hot	yes	clear	43	CC		18.9	7.98	3401	7.9	"	NO
8/22/94	1213	GM	Sunny Hot	yes	clear lower flow	23	CC		22.4	7.85	3120	8.5	"	NO
9/29/94	1428	RBG	sunny cool	yes	clear	7.0	CC		19.5	8.26	2218.2	14.9	"	yes
10/19/94	1325	RBG/GM	cloudy cool	yes	clear	30.0	CC		10.5	8.35	2340.3	8.6	"	yes
11/21/94	1129	RBG/REG	overcast, cool	yes	clear	24.0	CC		3.4	8.63	2200	13.9	"	NO

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

DOGM Permit Boundary Water Quality Monitoring Plan

Huntingdon Engineering & Environmental

Monitoring Location: F-2 Whitmore Springs

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow Meas. Method	Flow (gpm)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12/19/94	1141	RBG/REG	clear	yes	CC	26.0	3.5	8.20	2310	15.6	yes	

Flow Measurement Methods: W=Weir, VE=Visual Estimate, CC=Calibrated Container, DF=Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: CRS (source) DOGM

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters Temp (F/C)	pH	SC (umhos)	DO ~~Meter No.~~	Collection Point	Sample Taken (yes/no)
6/30/93	1335	GM CW	Sunny/Hot	yes	Much Rust, Warm.	~30	Vis		32	6.77	4600	6.2	Flagged Point	yes
7/27	1620	GM	Sunny/Hot	yes	" "	~30	Vis		28	7.25	3200	2.4	"	NO
8/26/93	1158	GM	overcast	yes	" "	~40	VIS		25	6.81	2800	3.4	"	NO
9/2/93	1555	CW GM	Sun	yes	"	~40	Vis		28	7.12	4600	1.9	"	yes
10/26	1320	MH	windy	yes	"	40	Vis		23	6.98	4700	3.5	"	NO
11/16	1405	MH	Cold	yes	"	50	Vis		23.2	6.86	4850	2.1	"	NO
12/9	1612	GM	Cold	yes	Warmer low flow	~30	Vis		23.2	6.93	4306	1.9	"	NO
1/14/94	1011	GM	Clear Cold	yes		~100	V.S		21.2	7.08	4748	2.4	"	yes
2/28	1356	GM	PC, Cool	yes		100	V.S		36.5	6.74	4470	0.9	"	NO
3/31/94	1157	CW/GM	Warm, Sunny	Yes	"	?	—		23.7	6.51	5400	1.4	"	NO
4/19	1356	CW/GM	" "	yes	Weir in place	10	W		26.9	6.83	4550	3.2	Weir	yes
5/31/94	1147	RG	cool, rain	yes	rust, warm, weir in place	8.5	W		23.6	6.64	4650	1.9	weir	NO
6/23/94	1049	GM	Sunny/Hot	yes		8.5	W		37.2	6.88	5140	1.5	"	yes
7/21/94	1004	GM	Sunny/Hot	yes		8.5	W		26.9	6.96	5480	1.3	"	NO
8/22/94	1545	GM	Sunny Hot	yes	Clear low flow Much Veg.	7.1	W		27.5	7.01	5130	1.2	"	NO
9/29/94	1318	RBG	Sunny Cool	yes	Clean	8.5	W		26.2	6.68	5450	1.2	"	yes
10/19/94	1344	RBG/GM	Cloudy, cool	yes	lots of vegetation	8.5	W		21.1	6.86	5565.4	2.3	"	yes
11/21/94	1145	RBG/REG	overcast, cool	yes	vegetation	4.7	weir		18.9	7.11	5088	5.3		no

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

DOGM Permit Boundary Water Quality Monitoring Plan

Huntingdon Engineering & Environmental

Monitoring Location: CRS - Source

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow Meas. Method	Flow (gpm)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12-19-94	1244	RBG/REG	clear	yes	weir	4.7	20.4	6.77	4986.7	3.5	yes	vegetation

Flow Measurement Methods W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: CRB (boundary) DOGM

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (~~F~~) C	pH	SC (umhos)	DO ~~Meter~~ ~~No.~~	Collection Point	Sample Taken (yes/no)
7/30/93	1355	GM CW	Sunny Hot	yes	Much less FE on of cooler	~30	Vis		26	7.60	4200	8.1	Standard Point	yes
7/27	1620	GM	Sunny Hot	yes	" "	~30	Vis		21	7.87	4600	5.0	"	NO
8/26/93	1159	GM	Overcast	yes	" "	~60	VIS.		18.5	6.50	2450	5.4	"	NO
9/2	1643	GM CW	SW	yes	~	~40	Vis		20	7.42	4150	4.9	"	NO
10/26	1400	MH	Windy	yes	"	40	Vis		8.3	7.50	3400	6.0	"	NO
11/16	1430	MH	Cold	yes	" "	40?	Vis		7.9	7.10	3300	5.5	"	NO
12/9	1627	GM	Cold	yes	Clear water	40?	Vis		5.9	7.94	3900	8.4	"	NO
1/14/94	1103	GM	Clear Cold	yes	Clear	200est	Vis		5.0	8.17	3100	6.0	"	yes
2/28	1407	GM	PC, Cool	yes	Less flow	120	Vis		15.6	7.9	4370	6.8	"	NO
3/31/94	1227	CW/TMM	Warm, Sunny	Yes		—	—		14.6	7.61	3500	6.5	"	NO
4/19	1430	CW/GM	" "	yes	Weir in place	38	W		19.3	7.96	4890	7.4	Weir	yes
5/31/94	1227	RC	cool, rain	yes	clear, flow is spread out	~~240~~	~~VE~~ W		14.1	7.73	4599	9.0	"	NO
6/20/94	1130	GM	Sunny Hot	yes	clear	40	W		20.9	7.99	4950	7.2	"	yes
7/21/94	1009	GM	Sunny Hot	yes	clear	40	W		20.4	7.82	5200	6.8	"	NO
8/22/94	1556	GM	Sunny Hot	yes	clear	36	W		24.2	7.50	5130	7.3	"	NO
9/27/94	1347	RB6	Sunny cool	yes		40	W		21.8	7.86	5179.7	7.8	"	yes
10/19/94	1405	RB6/GM	Cloudy cool	yes		48	W		13.0	8.06	5320	7.8	"	yes
11/21/94	1157	RB6/REG	Overcast cool	yes		40.0	Weir		6.1	8.44	5093	13.9	"	no

Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

DOGM Permit Boundary Water Quality Monitoring Plan

Huntingdon Engineering & Environmental

Monitoring Location: CRB - Boundary

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow Meas. Method	Flow (gpm)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12/19/94	1300	RB6/RE6	clear	yes	weir	40.0	6.6	7.92	5214	14.9	yes	

Flow Measurement Methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: WELL (E. Carbon Municipal well) DOGM

Runoff Basin / Spring / Other: Well

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters Temp (F)C	pH	SC (umhos)	DO ~~Meter~~ No.	Collection Point	Sample Taken (yes/no)
6/3/93	1130	GM CW	Sunny Hot	~~yes~~ N.	Clear water	50 gpm	CC		16	7.8	1800	7.2	Hose	yes
7/27	1700	GM	Sunny Hot	yes	" "	50 gpm	V.E		17	8.18	3100	5.8	Hose	NO
8/26/93	1036	GM	overcast	yes	" "	50 gpm	CC		12	6.77	920	4.9	"	NO
9/2/93	1486	GM CW	SW	yes	" "	46	CC		15	7.10	1450	5.2	"	yes
10/27	0915	MH	Windy	yes	" "	50	CC		7	8.00	1300	4.5	—	NO
11/16	1250	MH	Cold	yes	" "	50	CC		10.0	7.27	1300	4.6	—	NO
12/9	1514	GM	Cold	NO	Pipe from well to stand pipe is Frozen.								—	NO
1/14/94	1357	GM	Cold Clear	NO	Pipe is still Frozen.								—	NO
2/28	1240	GM	PC, Cold	NO	"								—	NO
3/31/94	13:05	CW/TMM	Warm, Sunny	NO	OUT OF COMMISSION; UNIMPLANTED Due to MAINTENANCE								—	NO
4/19	1541	CW/GM	" "	NO	" "		"							NO
5/31/94	1330	RG	cool, rainy	NO	the well is out of operation, the pump is pulled									NO
6/27/94	1205	GM	Sunny Hot	yes		~50			17.2	7.63	1710	7.2	Pump House	yes
7/21/94	1039	GM	Sunny Hot	yes		~50			15.0	8.37	~~1800~~ 1790	8.8	"	NO
8/22/94	1224	GM	Sunny Hot	yes	Well is spraying inside tank	N/A			18.3	7.97	1225	7.9	"	NO
9/27/94	1133	RBG	sunny cool	no	well turned on & off after samp.	NA			14.7	7.65	(corr) 1510.7	9.4	"	yes
10/19/94	1436	RBG / GM	cloudy, cool	no	wells not in use;	NA			12.2	8.41	644.0	7.8		yes
11/21/94	1111	RBG / REG	overcast, cool	no	well not in use.	NA			7.1	8.10	1215	10.9		no

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

DOGM Permit Boundary Water Quality Monitoring Plan

Huntingdon Engineering & Environmental

Monitoring Location: Well - E. Carbon Municipal Well

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow Meas. Method	Flow (gpm)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12/19/94	1118	BBG/REG	clear	no		NA	8.3	7.26	1428.3	8.6	yes	

Flow Measurement Methods: W= Weir, VE= Visual Estimate, CC= Calibrated Container, DF= Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah
Groundwater Discharge Permit Number UGW070002
Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 004 (cont.) UPDES

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow ~~(cfs)~~ gpm	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (~~F~~ C)	pH	SC (umhos)	DO Meter No.	Collection Point	Sample Taken (yes/no)
6/29/93	0853	GM/MH	Sunny, Hot	NO	No Discharge, Slurry water is by passing decanting process / into 3rd basin.									
7/12/93	1337	CW GM	SH	NO	Some water in Basin, lower than 0/ns									NO
7/27/93	1024	GM	S, H	NO	1'-2' of water in basin									"
8/12/93	1350	MH	S, H	NO										"
8/20	1400	MH	SW	NO	Dry									"
9/2/93	1125	CW, GM	S, Warm	NO	No Discharge									"
9/30	1800	RG	S, Windy	Yes		49	Flume		12	8.09	2900		below flume	yes
10/13	1135	MH	cd/Windy	Yes	Black high TSS	97.4	"		10.4	8.28	1300		"	
10/26	1140	MH	Cool/Windy	Yes					7.9	8.44	1250	6.5		
11/16	1200	MH	Cold	yes	Much Fines (TSS)	97.35	Flume		4.2	8.9	1250	6.1	"	yes
11/30	1312	GM CW	Cold	yes	Black V. High TSS	107.6	Flume		4.9	8.78	1050	-	-	yes
12/9	1036	GM	Cold Overcast	yes	Black V. High TSS high Flow	148.1	Flume		3.4	8.24	2023	7.4	"	yes
12/23	1040	GM	Cold Overcast	yes	Clear V. Low Flow	4.3	Flume		3.0	8.57	2676	—	"	yes
1/13/94	1345	GM	Clear Cold	~~NO~~	NO DISCHARGE	—	—							NO
1/24/94	1348	MH	Clear Cold	NO	No Discharge	0	—	—	—	—		—	—	NO
2/24/94	1124	GM	Sunny Cool	NO	No Discharge	—								NO
3/28	1450	GM	PC, Cool	NO	No Discharge	—								no
						—								

* Basin water level measurements are taken from permanent reference point at basin location.
Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 004 (CONT) UPDES

(Runoff Basin) Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (°C)	pH	SC (umhos)	DO ~~Meter~~ No.	Collection Point	Sample Taken (yes/no)
3/31/94	0941	CW/TMM	Warm, Sunny	No	OUTFALL IS DRY									NO
4/19/94	1604	GM/CW	" "	NO	Basin is nearly Empty (<1' implies)									NO
4/29/94	1133	~~GM~~ CW	rain + mun	NO	Outfall is dry									NO
5/10/94	1115	CW	overcast, cool	No	Basin is dry									No
5/31/94	1425	RG	rain	NO	Basin is dry									No
6/8/94	1428	RG	Clear Warm	NO	Basin is Dry									NO
6/23/94	1250	GM	Sunny Hot	NO	Basin is Dry									NO
7/1/94	1607	RG	Clear Hot	NO	Dry: Installed Measuring Staff									No
7/20/94	1611	GM	Sunny Hot	NO	Dry									NO
8/9/94	1420	RG	Warm PC	NO	Some Puddles									NO
8/23/94	1239	GM	Sunny Hot	NO	Dry									NO
9/29/94	0920	RB6	cloudy, cool	NO	Dry (outfall) Basin - puddles									No
10/19/94	1502	RB6/[illegible]	cloudy/cool	NO	outfall dry; Basin - .05" H_2O									NO
11/01/94	1544	RB6	cloudy, cool	NO	outfall-dry, Basin - <1' H_2O									NO
11/21/94	1044	RB6/RE6	overcast, cool	NO	basin - frozen H_2O; no H_2O level									NO
12/2/94	1220	RB6	clear/cool	NO	basin - dry, snow on floor									NO
12/19/94	1031	RB6/RE6	clear	NO	basin - NO H_2O level, snow									NO

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 007 UPDES

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (°C)	pH	SC (umhos)	DO Meter No.	SC corrected ~~Collection Point~~	Sample Taken (yes/no)
11/5/92	1150	CM	Clear, Cold	yes	Murky, stormwater	<1	VE	≈2'	2	8.78	700	8.6	1230	
4/22	1621	CM	Warm Partly Cl.	NO	Basin is Dry									
5/7/93	1157	CM	" "	NO	Basin is Dry									
6/22	1434	CM/MH	Sunny Hot	NO	Basin is Dry									
7/12/93	1353	CW CM	S, H	NO	Basin is Dry									
7/27/93	1527	CM	S, H	NO	Basin is Dry									
8/12/93	1406	MH	S, H	NO	Basin is Dry									
8/20/93	1430	MH	S, W	NO	Basin is Dry									
9/2/93	1504	CW, CM	SW	NO	Basin is Dry									
9/30	1703	CW, RG	S, W	NO	Basin is Dry									
10/13	1040	MH	Cloudy	NO	Basin contains ~1-2" L.L									
10/26	1251	MH	Windy	NO	6" of water									
11/16	1345	MH	Cold	NO	1.5" of Snow in Basin									
11/30	1440	CM CW	Cold	NO	Damp spots in Basin									
12/9	1142	CM	Cold	NO	Snow in Basin									
12/23	1153	CM	Cold	NO	2" Snow in basin									
1/14/94	1001	CM	Cold Clear	NO	Snow in Basin									
1/31/94	1500	MH	Cold Clear	No	Basin is Dry									

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah
Groundwater Discharge Permit Number UGW070002
Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 007 RAIL CUT POND UPDES

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (°C)	pH	SC (umhos)	DO Meter No.	Collection Point	Sample Taken (yes/no)
2/24/94	1146	GM	Sunny Cool	NO	Basin is Damp									NO
2/28	1417	GM	PC, Cool	NO	Basin is Damp									NO
3/16/94	1144	GM	PC, WARM	NO	BASIN IS DRY									NO
3/31/94	11:30	CW/TMM	WARM, SUNNY	NO	NO WATER IN BASIN									NO
4/19	1507	CW/GM	" "	NO	Dry Basin									NO
4/29	1213	CW	rain + sun	NO	Some rain water present in basin									NO
5/17/94	1044	CW	overcast/cool	NO	Basin is dry									NO
5/31/94	1203	RG	rain	NO	Basin is dry									NO
6/8/94	1557	RG	Clear Warm	NO	Basin is Dry									NO
6/23/94	1046	GM	Sunny Hot	NO	Basin is Dry									NO
7/11/94	1811	RG	Clear Hot	NO	Dry									NO
7/21/94	1022	GM	Sunny Hot	NO	Dry									NO
8/9/94	1705	RG	Warm, PC	NO	~10" of water									NO
8/22/94	1532	GM	Sunny Hot	NO	Muddy, No standing water.									NO
9/29/94	0820	RBG	cloudy, cool	NO	basin is dry									NO
10/19/94	1337	RBG/GM	cloudy, cool	NO	Discharge pt. damp; basin shallow H2O									NO
11/01/94	1620	RBG	cloudy, cool	NO	Discharge pt. dry basin - puddles									NO
11/21/94	1137	RBG/REG	overcast, cool	NO	basin muddy floor									NO

* Basin water level measurements are taken from permanent reference point at basin location.
Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 008 Old Coarse Refuse Pond UPDES

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (F)	pH	SC (umhos)	Meter No.	Collection Point	Sample Taken (yes/no)
4/29	1636	GM	PC	NO	Basin is Dry									
5/7	1215	GM	PC warm	NO	Basin is Dry									
6/29	1404	GM/MH	Sunny Hot	NO	Basin is Dry									
7/12/93	1400	CW GM	S, H	NO	Basin is Dry									
7/27	1034	GM	S, H	NO	Basin is Dry.									
8/12/93	1413	MH	S, H	NO	Basin is Dry									
8/20	1410	MH	Warm	NO	Basin is Dry									
9/2/93	1346	CW, GM	Warm	NO	Basin is Dry Installed Mole Post									
9/30	1402	CW RG	Windy Warm	NO	Basin is Dry									
10/13	1120	MH	Warm	NO	6" of Water									
10/26	1100	MH	Windy	NO	Basin is Dry									
11/16	1145	MH	Cold	NO	1" of snow in Basin									
11/30	1520	GM CW	Cold	NO	"									
12/9	1133	GM	Cold	NO	Snow in Basin									
12/23	1123	GM	Cold	NO	2" of snow in Basin									
1/14/94	0940	GM	Cold Clear	NO	Snow in Basin									
1/31/94	1400	MH	Cold Clear	NO	Trace of Snow in Basin									
2/24/94	1135	GM	Sunny Cool	NO	Basin is Damp.									

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

UPDES Permit Number UT0024759

Huntingdon Engineering & Environmental

OUTFALL NUMBER: 007 - Rail Cut Pond

Runoff Basin

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow (gpm)	Water Level (feet)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12-2-94	1320	RBG	clear, cool	NO	—	—	—	—	—	—	NO	Basin - dry
12-19-94	1240	RBG/REG	clear	NO	—	—	—	—	—	—	NO	Snow in basin & discharge pt

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 008 Old Coarse Refuse Pond UPDES

(Runoff Basin) / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (°C)	pH	SC (umhos)	DO Meter No.	Collection Point	Sample Taken (yes/no)
2/28/94	1445	GM	PC Cool	NO	Basin is Damp.									NO
3/16/94	1137	GM	PC, WARM.	NO	BASIN IS. Dry									NO
3/21/94	11:02	CW/TMM	Warm, SUNNY	NO	POND NO WATER									NO
4/19	1559	CW/GM	" "	NO	Dry Basin									NO
4/29	1246	CW	rain/muddy	No	rain water in Basin									No
5/17/94	1109	CW	overcast/cool	No	Basin is dry									No
5/31/94	1412	RG	rain	No	Basin is dry									No
6/8/94	1449	RG	Clear Warm	NO	Basin is Dry									NO
6/23/94	1257	GM	Sunny Hot	NO	Basin is Dry									NO
7/11/94	1547	RG	Clear Hot	NO	Dry									NO
7/21/94	1620	GM	Sunny Hot	NO	Dry									NO
8/9/94	1456	RG	Warm, PC	NO	2' of Water at standpipe									NO
8/23	1243	GM	Sunny Hot	NO	Dry (Sl. Muddy)									
9/29/94	0935	RBG	cloudy, cool	NO	outfall-dry basin-dry w/mud									NO
10/19/94	1516	RBG/GM	cloudy, cool	NO	outfall-dry basin-½-2" H_2O									NO
11/01/94	1531	RBG	cloudy, cool	NO	basin-muddy w/puddles									NO
11/21/94	1054	RBG/REG	overcast, cool	NO	basin-frozen puddles									NO
12/2/94	1230	RBG	clear, cool	NO	basin-frozen puddles									NO

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

UPDES Permit Number UT0024759

Huntingdon Engineering & Environmental

OUTFALL NUMBER: 008 Old Coarse Refuse Pond Runoff Basin

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow (gpm)	Water Level (feet)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12/19/91	1056	RDG/REG	clear	NO	—	—	—	—	—	—	NO	Basin: No H_2O; snow on floor

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 009 Pasture Pond UPDES

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters Temp (F)	pH	SC (umhos)	Meter No.	Collection Point	Sample Taken (yes/no)
4/29	1606	GM	Cloudy	NO	Basin is Dry									
5/7	1120	GM	PC.	NO	Basin is Dry									
6/29	1358	GM MH	Sunny/Hot	NO	Basin is Dry; has been expanded/deepened.									
7/12/93	1340	GM CW	Sit	NO	Basin is Dry									
7/27/93	1020	GM	Sit	NO	Basin is Dry									
8/12/93	1355	GM	Sit	NO	Basin is Dry									
8/20	1357	MH	S W	NO	Basin has 6" of black water									
9/7	1305	CW GM	S W	NO	Basin is Dry Installed Post									
9/30	1355	CW RG	Warm	NO	Basin is Dry									
10/13	1110	MH	Warm	NO	2" Water level Black Film.									
10/26	1215	MH	Warm	NO	2' Water level									
11/16	1230	MH	Cold	NO	2" Water level Black water									
11/30	1307	GM CW	Cold	NO	Snowmelt & Ice present									
12/9	1117	GM	Cold	NO	No water / Ice in basin									
12/23	1105	GM	Cold	NO	6" of ice in basin									
1/14/94	0933	GM	Cold Clear	NO	Dry									
1/31/94	1410	MH	Clear/Cold	NO	Dry									
2/24	1121	GM	Sunny Cool	NO	Basin is Damp.									

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate; CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 009 Pasture Pond UPDES

(Runoff Basin) Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (°C)	pH	SC (umhos)	DO ~~Meter~~ No.	Collection Point	Sample Taken (yes/no)
2/28/94	1440	GM	PC Cool	NO	Basin is Damp.									NO
3/16/94	1129	GM	PC WARM	NO	BASIN IS MOIST									NO
3/31/94	10:53	CW/GM	Warm, Sunny	NO.	POND DRY									NO
4/19/94	1553	CW/GM	" "	NO	Dry Pond.									NO
4/29/94	1237	CW	rain & mud	No	Some water in basin									NO
5/17/94	1105	CW	overcast/cool	No	Basin is dry									No
5/31/94	1350	RG	rain	No	6" of water in basin									No
6/8/94	1422	RG	Warm Clear	NO	1' of water in Basin									No
6/23/94	1252	GM	Sunny Hot	NO	6" of water in basin									NO
7/11/94	1527	RG	Clear Hot	NO	Dry									NO
7/20/94	1608	GM	Sunny Hot	NO	Dry									NO
8/9/94	1517	RG	Warm PC	NO	1-2' of water in Basin									NO
8/23	1236	GM	Sunny Hot	NO	1-2' of water in Basin.									NO
9/29/94	0912	RBG	cloudy, cool	NO	basin contains shallow H_2O									NO
10/19/94	1452	RB6/GM	Cloudy, cool	NO	outfall - dry basin - shallow H_2O									NO
11/01/94	1558	RB6	cloudy, cool	NO	basin - >1' H_2O									NO
11/21/94	1043	RB6/REG	overcast, cool	NO	basin ≈ 6" H_2O, ice									NO
12-2-94	1248	RB6	clear, cool	NO	basin - puddles & coal sediment									NO

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

UPDES Permit Number UT0024759

Huntingdon Engineering & Environmental

OUTFALL NUMBER: 009 Pasture Pond Runoff Basin

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow (gpm)	Water Level (feet)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12/19/94	1033	RB6/RE6	clear	NO	–	–	–	–	–	–	NO	6" frozen H_2O some snow in basin

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 012 Coarse Refuse Toe UPDES

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters Temp (F)	pH	SC (umhos)	Meter No.	Collection Point	Sample Taken (yes/no)
4/29	1624	GM	PC	NO	Basin is Dry									
5/9	1159	GM	PC	NO	Basin is Dry									
6/29	1435	GM/MH	Sunny/Hot	NO	Basin is Dry									
7/12/93	1350	CW/GM	Sun	NO	Basin is Dry									
7/27/93	1529	GM	Sun	NO	Basin is Dry									
8/12/93	1404	MH	Sun	NO	Basin is Dry									
8/20	1450	MH	Warm	NO	Basin is Dry									
9/2	1515	CW/GM	Warm	NO	Basin is Dry									
9/30	1709	CW RG	Warm	NO	Basin is Dry									
10/13	1035	MH	Warm	NO	2' water level									
10/26	1300	MH	Windy	NO	2' WL									
11/16	1350	MH	Cold	NO	2' WL No ice layer									
11/30	1443	GM CW	Cold	NO	Water/Ice 5 6" below discharge									
12/9	1140	GM	Cold	NO	ICE/water 2" in basin									
12/23	1156	GM	Cold	NO	2" of Snow in Basin									
1/14/94	1008	GM	Cold Clear	NO	6" of Ice									
1/31/94	1570	MH	Cold/Clear	NO	6" of Ice									
2/24	1141	GM	Sunny Cool	NO	1' of Ice/water in Basin									

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah
Groundwater Discharge Permit Number UGW070002
Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 012 Coarse Refuse Toe UPDES

(Runoff Basin) Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (°C)	pH	SC (umhos)	DO ~~Meter~~ No.	Collection Point	Sample Taken (yes/no)
2/28	1414	GM	PC Cool	NO	1'-2' of Water in Basin									NO
3/16/94	1147	GM	PC WARM	NO	1' water IN BASIN									NO
3/31/94	11:35	CW/TMM	warm, Sunny	NO	WATER IN BASIN									NO
4/19/94	1447	CW/GM	" "	NO	6" of water in Basin									NO
4/29/94	1218	CW	rain + hail	NO	rain water present in basin									NO
5/17/94	1047	CW	overcast/cool	NO	water in basin, no discharge									NO
5/31/94	1155	RG	rain	NO	4" of water in basin									NO
6/8/94	1550	RG	Warm Clear	NO	6" of water in basin									NO
6/23/94	1048	GM	Sunny Hot	NO	6" of Water in basin									NO
7/11/94	1740	RG	Clear Hot	NO	Dry									NO
7/21/94	1020	GM	Sunny Hot	NO	Dry									NO
8/9/94	1647	RG	Warm, PC	NO	1' of Water									NO
8/22/94	1535	GM	Sunny Hot	NO	1' of water in Basin									NO
9/29/94	0835	RBG	cloudy, cool	NO	Basin has ≈ 1' of water									NO
10/9/94	1400	RBG/GM	cloudy, cool	NO	outfall - dry basin - 2-3" H_2O									NO
11/01/94	1625	RBG	cloudy, cool	NO	outfall - dry basin ≈ 1-2' H_2O									NO
11/21/94	1156	RBG/REG	overcast, cool	NO	basin - frozen H_2O									NO
12/2/94	1525	RBG	clear, cool	NO	basin - frozen H_2O									NO

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

UPDES Permit Number UT0024759

Huntingdon Engineering & Environmental

OUTFALL NUMBER: 012 Coarse Refuse Toe

Runoff Basin

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow (gpm)	Water Level (feet)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12-19-94	1267	RBB/REG	clear	NO	–	–	–	–	–	–	NO	basin - H_2O frozen >6"

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 014 Coal Pile Sed. Pond UPDES

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (F)	pH	SC (umhos)	Meter No.	Collection Point	Sample Taken (yes/no)
4/29	1602	GM	PC	NO	1' below top of overflow									
5/1	1053	GM	PC	NO	1' " " "									
6/29	1355	GM MH	Sunny Hot	NO	" " " "									
7/17/03	1330	GM CW	S, Ht	NO	Low water Level.									
7/22/03	1018	GM	S, Ht	NO	Damp seds in Basin									
8/12/03	1342	GM	MH	NO	Dry Basin									
8/20	1355	MH	SH	NO	Basin is Dry									
9/2	1243	MH GM	WM	NO	Basin is Dry Installed Marker Post.									
9/30	1248	CW RG	Warm	NO	Basin is Dry Much Coal Fines in Basin									
10/3	1105	MH	Warm	NO	1' from Discharge Black water Coal Fines.									
10/26	1225	MH	Windy	NO	" " "									
11/6	1240	MH	Cold	NO	1.5' from DP.									
11/20	1257	GM CW	Cold	NO	Ice/snowmelt at discharge point through extend pipe.									
12/9	1115	GM	Cold	NO	Ice 1' below overspill									
12/23	1102	GM	Cold	NO	Ice 1' below overspill									
1/14/04	0930	GM	Cold Clear	NO	Ice 1' below overspill									
1/31/04	1430	MH	Cold Clear	NO	No Ice. Film sheen present 2' below spill pipe									
2/24	1117	GM	Sunny Cold	NO	Water/Ice 1.5' below top									

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah

Groundwater Discharge Permit Number UGW070002

Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 014 Coal/Fly Sed Pond UPDES

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (°C)	pH	SC (umhos)	DO Meter No.	Collection Point	Sample Taken (yes/no)
2/28	1438	GM	PC, Cool	NO	1' below overspill									NO
3/16/94	1126	GM	PC WARM	NO	2" below overspill pipe									NO
5/31/94	10:56	CW/TMM	Warm, Sunny	NO	WATER IN POND									NO
7/19/94	1548	CW/GM	" "	NO	Water 2' below overflow pipe									NO
4/25/94	1151	CW	rain hail	NO	water within 2' of discharge pipe									NO
5/17/94	1059	CW	overcast/cool	NO	pond is nearly full									NO
5/31/94	1345	RG	rain	NO	6" of water in basin									NO
6/8/94	1415	RG	Warm Clear	NO	6" of water in basin									NO
6/23/94	1242	GM	Sunny Hot	NO	6" of water in basin									NO
7/1/94	1525	RG	Clear Hot	NO	3" of water in basin									NO
7/20/94	1606	GM	Sunny Hot	NO	Dry Basin									NO
7/9/94	1512	RG	Warm PC	NO	≈ 1' of water									NO
7/23/94	1234	GM	Sunny Hot	NO	2" of water in places									NO
9/29/94	0907	RBG	cloudy, cool	NO	≈ 1' of water in basin									NO
10/19/94	1450	RBG/GM	cloudy, cool	NO	outfall - puddles basin - 6" H_2O									NO
11/01/94	1555	RBG	cloudy, cool	NO	discharge pt. - clump basin - 1' H_2O									NO
11/21/94	1045	RBG/REG	overcast, cool	NO	point being dug out									NO
12/2/94	1245	RBG	clear, cool	NO	basin - enlarged & dry									NO

* Basin water level measurements are taken from permanent reference point at basin location.

Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

UPDES Permit Number UT0024759

Huntingdon Engineering & Environmental

OUTFALL NUMBER: 014 Coal Pile Sed. Pond

Runoff Basin

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow (gpm)	Water Level (feet)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12-19-94	1030	RBG/REG	clear	NO	—	—	—	—	—	—	NO	outfall ditch - some snow

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah
Groundwater Discharge Permit Number UGW070002
Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 016 Borrow Area Pond. UPDES

Runoff Basin / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters Temp (F)	pH	SC (umhos)	Meter No.	Collection Point	Sample Taken (yes/no)
4/29	1608	GM	Overcast	NO	Basin is Dry									
5/7	1129	GM	PC	NO	Basin is Dry.									
6/29	1400	GM MH	Sunny Warm	NO	Basin is Dry.									
7/12/93	1356	GM CW	S H	NO	Basin is Dry									
7/27/93	1034	GM	S H	NO	Basin is Dry									
8/12/93	1410	MH	S H	NO	Basin is Dry									
8/20	1420	MH	S H	NO	Basin is Dry									
9/2	1317	CW GM	S W	NO	Basin is Dry									
9/30	1410	CW RG	W	NO	Basin is Dry									
10/13	1130	MH	W	NO	Basin is Dry									
10/26	1105	MH	windy	NO	Basin is Dry									
11/16	1145	MH	Cold	NO	1" of snow									
11/30	1528	GM CW	Cold	NO	"									
12/9	1130	GM	Cold	NO	Snow in basin									
12/13	1118	GM	Cold	NO	2" of snow in basin									
1/13/94	0936	GM	Cold Clear	NO	Snow in basin									
1/31/94	1355	MH	Cold Clear	NO	1" of Snow in Basin									
2/24	1133	GM	Sunny Cool	NO	Little Snow in basin									

* Basin water level measurements are taken from permanent reference point at basin location.
Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

Carbon County, Utah
Groundwater Discharge Permit Number UGW070002
Surface Water and Discharge Basin Compliance Sampling

HUNTINGDON Chen – Northern

MONITORING LOCATION NUMBER: 016 Borrow Area Pond. UPDES

(Runoff Basin) / Spring / Other:

Sampling Parameters:

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Observations (color, sheen, odor, etc.)	Flow (cfs)	Flow Meas. Method	Basin Water Level (feet)	Field Parameters: Temp (°C)	pH	SC (umhos)	DO ~~Meter~~ No.	Collection Point	Sample Taken (yes/no)
2/28	1443	GM	PC, Cool	NO	Basin is Dry.									
3/6/94	1136	GM	PC, warm	NO	Basin is Dry									NO
3/31/94	1100	CW/GMM	Warm, Sunny	NO	NO WATER IN Pond									NO
4/19/94	1556	CW/GMM	" "	NO	Dry Basin									NO
4/29/94	1240	CW	rain + hail	NO	Minor water puddles in basin									NO
5/17/94	1108	CW	overcast/cool	NO	Basin is Dry									NO
5/31/94	1357	RG	rain	NO	Basin is Dry									NO
6/8/94	1442	RG	Warm Clear	NO	Basin is Dry									NO
6/27/94	1259	GM	Sunny Hot	NO	Basin is Dry									NO
7/11/94	1538	RG	Clear Hot	NO	Dry									NO
7/20/94	1617	GM	Sunny, Hot	NO	Dry									NO
8/9/94	1445	RG	Warm PC	NO	3" of water									NO
8/23	1241	GM	Sunny/Hot.	NO	Dry									NO
9/29/94	0930	RBG	cloudy, cool	NO	Basin is dry									NO
10/19/94	1510	RBG/GM	cloudy, cool	NO	Basin - dry									NO
11/01/94	1538	RBG	cloudy, cool	NO	Basin dry									NO
11/21/94	1050	RBG/REG	overcast, cool	NO	basin dry snow on bottom									NO
12-2-94	1228	RBG	clear, cool	NO	basin - dry, snow on floor									NO

* Basin water level measurements are taken from permanent reference point at basin location.
Flow measurement methods: W = Weir, VE = Visual Estimate, CC = Calibrated Container, DF = Debris Flow Rate Estimate

SUNNYSIDE COGENERATION ASSOCIATES FACILITY

UPDES Permit Number UT0024759

Huntingdon Engineering & Environmental

OUTFALL NUMBER: 016 Borrow Area Pond

Date	Time	Personnel	Weather	Discharge Present (yes/no)	Field Parameters: Flow (gpm)	Water Level (feet)	Temp (C)	pH (su)	SC (um)	DO (mg/L)	Sample Taken (yes/no)	Remarks (color, sheen, odor, etc.)
12-19-94	1050	RBG/REG	clear	NO	—	—	—	—	—	—	NO	basin - 3" of snow

ATTACHMENT C

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRS
Matrix: Waste Water

MSAI Sample: 19193
MSAI Group: 4713
Date Reported: 06/06/94

Discard Date: 07/06/94
Date Submitted: 05/20/94
Date Sampled: 05/19/94
Collected by: JC
Purchase Order:
Project No.: Q041994A

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.01	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	482	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	7.21	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	312	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	1.32	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	33.1	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	492	mg/l	5.0
8259	Mercury by Cold Vapor AA Method: EPA 245.1	ND	mg/l	0.0005

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 19193
MSAI Group: 4713

Sample ID: CRS

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	456	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	24	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,170	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,640	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	0.9	mg/l	0.5
0235	Biochemical Oxygen Demand, Total Method: EPA 405.1	< 6	mg/l	2
0242	Cyanide, Total Method: EPA 335.2	ND	mg/l	0.005
0434	Phenolics w/ww Method: EPA 420.1	ND	mg/l	0.01
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	51	mg/l	5
1125	Sulfate, Turbidimetric Method: EPA 375.4	2,960	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRC
Matrix: Waste Water

MSAI Sample: 19194
MSAI Group: 4713
Date Reported: 06/06/94

Discard Date: 07/06/94
Date Submitted: 05/20/94
Date Sampled: 05/19/94
Collected by: JC
Purchase Order:
Project No.: Q041994A

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.01	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	447	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	2.49	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	312	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	0.56	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	33.9	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	503	mg/l	5.0
8259	Mercury by Cold Vapor AA Method: EPA 245.1	ND	mg/l	0.0005

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 19194
MSAI Group: 4713

Sample ID: CRC

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	382	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	11	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,110	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,620	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0235	Biochemical Oxygen Demand, Total Method: EPA 405.1	< 6	mg/l	2
0242	Cyanide, Total Method: EPA 335.2	ND	mg/l	0.005
0434	Phenolics w/ww Method: EPA 420.1	ND	mg/l	0.01
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	21	mg/l	5
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,080	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRB
Matrix: Waste Water

MSAI Sample: 19195
MSAI Group: 4713
Date Reported: 06/06/94

Discard Date: 07/06/94
Date Submitted: 05/20/94
Date Sampled: 05/19/94
Collected by: JC
Purchase Order:
Project No.: Q041994A

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	0.75	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	430	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	0.12	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	281	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	ND	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	25.3	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	437	mg/l	5.0
8259	Mercury by Cold Vapor AA Method: EPA 245.1	ND	mg/l	0.0005

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 19195
MSAI Group: 4713

Sample ID: CRB

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	302	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	4,360	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,400	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0235	Biochemical Oxygen Demand, Total Method: EPA 405.1	< 6	mg/l	2
0242	Cyanide, Total Method: EPA 335.2	ND	mg/l	0.005
0434	Phenolics w/ww Method: EPA 420.1	ND	mg/l	0.01
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	7	mg/l	5
1125	Sulfate, Turbidimetric Method: EPA 375.4	2,800	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRS Dissolved
Matrix: Waste Water

MSAI Sample: 19196
MSAI Group: 4713
Date Reported: 06/06/94

Discard Date: 07/06/94
Date Submitted: 05/20/94
Date Sampled: 05/19/94
Collected by: JC
Purchase Order:
Project No.: Q041994A

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum Dissolved by ICP w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.99	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	469	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	301	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.27	mg/l	0.02
0259F	Mercury by Cold Vapor, Dissolved Method: SW-846 245.1	ND	mg/l	0.0005
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	32.6	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	469	mg/l	5

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 19196
MSAI Group: 4713

Sample ID: CRS Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRC Dissolved
Matrix: Waste Water

MSAI Sample: 19197
MSAI Group: 4713
Date Reported: 06/06/94

Discard Date: 07/06/94
Date Submitted: 05/20/94
Date Sampled: 05/19/94
Collected by: JC
Purchase Order:
Project No.: Q041994A

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum Dissolved by ICP w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.00	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	451	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	0.12	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	311	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	0.52	mg/l	0.02
0259F	Mercury by Cold Vapor, Dissolved Method: SW-846 245.1	ND	mg/l	0.0005
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	32.3	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	490	mg/l	5

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 19197
MSAI Group: 4713

Sample ID: CRC Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRB Dissolved
Matrix: Waste Water

MSAI Sample: 19198
MSAI Group: 4713
Date Reported: 06/06/94

Discard Date: 07/06/94
Date Submitted: 05/20/94
Date Sampled: 05/19/94
Collected by: JC
Purchase Order:
Project No.: Q041994A

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum Dissolved by ICP w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.74	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	429	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	277	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0259F	Mercury by Cold Vapor, Dissolved Method: SW-846 245.1	ND	mg/l	0.0005
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	24.8	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	439	mg/l	5

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 19198
MSAI Group: 4713

Sample ID: CRB Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

№ 2793

Mountain States Analytical

Sample Chain of Custody

Client Name: ~~SUNNYSIDE~~ E.W.P. ENG. P.O. #

Phone #: 801-261-0090 Fax #: 266-1671

Project Name/#: SUNNYSIDE COGENERATION

Sampler: Jim Combs

Analysis Required: COARSE REFUSE SEEP MONITORING

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total of Containers	Rush?	Remarks	Temp. of Samples Upon Receipt
CRS	5/19/94	1612		✓		✓		7			
CRC	5/19/94	1626		✓		✓		7			
CRB	5/19/94	1645		✓		✓		7			

Name of Shipper	Airbill No.	Date	Time

Received By (Lab)	Date	Time	Seals Intact?

Sample relinquished by:	Date	Time	Sample received by:	Date	Time
Jim Combs	5/19/94	1715	S. Scott Carlson	5/19/94	1715
S. Scott Carlson	5/20/94	0800	Jennifer Fox	5/20/94	0800

Turnaround Time Requested (please circle): Normal Rush

(Rush TAT is subject to MSAI approval and surcharge)

Report Results By: (Date)

Rush results requested by (please circle): Phone Fax

Report Results to:

Type of Disposal:

Authorized for Disposal by:

Date/Time of Disposal:

Disposed of by:

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

White Copy - Original Retain by Lab Yellow Copy - Return to Customer Pink Copy - Retain by Sampler

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRS
Matrix: Waste Water

MSAI Sample: 20189
MSAI Group: 4982
Date Reported: 06/27/94

Discard Date: 07/27/94
Date Submitted: 06/16/94
Date Sampled: 06/16/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.14	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	525	mg/l	5.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	7.17	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	347	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	1.57	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	40.3	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	473	mg/l	5.0
8259	Mercury by Cold Vapor AA Method: EPA 245.1	ND	mg/l	0.0005

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 20189
MSAI Group: 4982

Sample ID: CRS

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	466	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	21	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,580	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,860	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	1.3	mg/l	0.5
0235	Biochemical Oxygen Demand, Total Method: EPA 405.1	ND	mg/l	6
0242	Cyanide, Total Method: EPA 335.2	ND	mg/l	0.005
0434	Phenolics w/ww Method: EPA 420.1	ND	mg/l	0.01
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	43	mg/l	1
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,130	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRC
Matrix: Waste Water

MSAI Sample: 20190
MSAI Group: 4982
Date Reported: 06/27/94

Discard Date: 07/27/94
Date Submitted: 06/16/94
Date Sampled: 06/16/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.06	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	479	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	2.03	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	333	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	0.56	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	37.1	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	498	mg/l	1.0
8259	Mercury by Cold Vapor AA Method: EPA 245.1	ND	mg/l	0.0005

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 20190
MSAI Group: 4982

Sample ID: CRC

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	390	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	8	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,500	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,800	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0235	Biochemical Oxygen Demand, Total Method: EPA 405.1	ND	mg/l	6
0242	Cyanide, Total Method: EPA 335.2	ND	mg/l	0.005
0434	Phenolics w/ww Method: EPA 420.1	ND	mg/l	0.01
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	13	mg/l	1
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,160	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRB
Matrix: Waste Water

MSAI Sample: 20191
MSAI Group: 4982
Date Reported: 06/27/94

Discard Date: 07/27/94
Date Submitted: 06/16/94
Date Sampled: 06/16/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	0.91	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	478	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	ND	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	321	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	ND	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	30.9	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	486	mg/l	1.0
8259	Mercury by Cold Vapor AA Method: EPA 245.1	ND	mg/l	0.0005

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 20191
MSAI Group: 4982

Sample ID: CRB

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	302	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,170	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,530	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0235	Biochemical Oxygen Demand, Total Method: EPA 405.1	ND	mg/l	6
0242	Cyanide, Total Method: EPA 335.2	ND	mg/l	0.005
0434	Phenolics w/ww Method: EPA 420.1	ND	mg/l	0.01
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	3	mg/l	1
1125	Sulfate, Turbidimetric Method: EPA 375.4	2,790	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRS Dissolved
Matrix: Waste Water

MSAI Sample: 20192
MSAI Group: 4982
Date Reported: 06/27/94

Discard Date: 07/27/94
Date Submitted: 06/16/94
Date Sampled: 06/16/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.16	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	518	mg/L	5.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	0.15	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	344	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.52	mg/l	0.02
0259F	Mercury by Cold Vapor, Dissolved Method: SW-846 245.1	ND	mg/l	0.0005
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	40.4	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	475	mg/l	5

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 20192
MSAI Group: 4982

Sample ID: CRS Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRC Dissolved
Matrix: Waste Water

MSAI Sample: 20193
MSAI Group: 4982
Date Reported: 06/27/94

Discard Date: 07/27/94
Date Submitted: 06/16/94
Date Sampled: 06/16/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.05	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	465	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	0.14	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	327	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	0.54	mg/l	0.02
0259F	Mercury by Cold Vapor, Dissolved Method: SW-846 245.1	ND	mg/l	0.0005
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	36.7	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	490	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 20193
MSAI Group: 4982

Sample ID: CRC Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside Cogeneration

Sample ID: CRB Dissolved
Matrix: Waste Water

MSAI Sample: 20194
MSAI Group: 4982
Date Reported: 06/27/94

Discard Date: 07/27/94
Date Submitted: 06/16/94
Date Sampled: 06/16/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.91	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	469	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	315	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0259F	Mercury by Cold Vapor, Dissolved Method: SW-846 245.1	ND	mg/l	0.0005
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	30.2	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	477	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 20194
MSAI Group: 4982

Sample ID: CRB Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

№ 3102

Mountain States Analytical

Sample Chain of Custody

Client Name: E.W.P. ENGINEERING P.O. #

Phone #: 266-0090 Fax #: 266-1671

Project Name/#: SUNNYSIDE COGENERATION

Sampler: Jim Comas

Analysis Required: COARSE REFUSE SEEP MONITORING

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total of Containers	Rush?	Remarks	Temp. of Samples Upon Receipt
CRS	6/16/94	1610		✓		✓		7			
CRC	6/16/94	1630		✓		✓		7			
CRB	6/16/94	1645		✓		✓		7			

Name of Shipper	Airbill No.	Date	Time

Received By (Lab)	Date	Time	Seals Intact?

Sample relinquished by:	Date	Time	Sample received by:	Date	Time
Jim Comas	6/17/94	0930	[illegible]	06/17/94	0930

Turnaround Time Requested (please circle): Normal Rush

(Rush TAT is subject to MSAI approval and surcharge)

Report Results By: (Date)

Rush results requested by (please circle): Phone Fax

Report Results to:

Type of Disposal:

Authorized for Disposal by:

Date/Time of Disposal:

Disposed of by:

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

White Copy - Original Retain by Lab Yellow Copy - Return to Customer Pink Copy - Retain by Sampler

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunny side

Sample ID: CRS
Matrix: Waste Water

MSAI Sample: 22104
MSAI Group: 5410
Date Reported: 08/03/94

Discard Date: 09/02/94
Date Submitted: 07/22/94
Date Sampled: 07/21/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.05	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	492	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	6.73	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	315	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	1.46	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	34.8	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	441	mg/l	1.0
8259	Mercury by Cold Vapor AA Method: EPA 245.1	ND	mg/l	0.0005

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 22104
MSAI Group: 5410

Sample ID: CRS

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	480	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	22	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,280	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,900	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	1.2	mg/l	0.5
0235	Biochemical Oxygen Demand, Total Method: EPA 405.1	< 6	mg/l	2
0242	Cyanide, Total Method: EPA 335.2	ND	mg/l	0.005
0434	Phenolics w/ww Method: EPA 420.1	ND	mg/l	0.01
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	52	mg/l	
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,210	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Mark W. Bostrom
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunny side

Sample ID: CRC
Matrix: Waste Water

MSAI Sample: 22105
MSAI Group: 5410
Date Reported: 08/03/94

Discard Date: 09/02/94
Date Submitted: 07/22/94
Date Sampled: 07/21/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.04	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	441	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	3.99	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	308	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	0.68	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	33.7	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	428	mg/l	1.0
8259	Mercury by Cold Vapor AA Method: EPA 245.1	ND	mg/l	0.0005

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 22105
MSAI Group: 5410

Sample ID: CRC

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	394	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	28	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,550	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,840	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0235	Biochemical Oxygen Demand, Total Method: EPA 405.1	< 6	mg/l	2
0242	Cyanide, Total Method: EPA 335.2	ND	mg/l	0.005
0434	Phenolics w/ww Method: EPA 420.1	ND	mg/l	0.01
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	25	mg/l	
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,430	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Mark W. Bostrom
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunny side

Sample ID: CRB
Matrix: Waste Water

MSAI Sample: 22106
MSAI Group: 5410
Date Reported: 08/03/94

Discard Date: 09/02/94
Date Submitted: 07/22/94
Date Sampled: 07/21/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	0.90	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	452	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	ND	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	303	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	ND	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	28.0	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	440	mg/l	1.0
8259	Mercury by Cold Vapor AA Method: EPA 245.1	ND	mg/l	0.0005

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 22106
MSAI Group: 5410

Sample ID: CRB

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	306	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,190	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,610	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0235	Biochemical Oxygen Demand, Total Method: EPA 405.1	< 2	mg/l	2
0242	Cyanide, Total Method: EPA 335.2	ND	mg/l	0.005
0434	Phenolics w/ww Method: EPA 420.1	ND	mg/l	0.01
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	8	mg/l	
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,140	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Mark Bostrom

Mark W. Bostrom
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunny side

Sample ID: CRS dissolved
Matrix: Waste Water

MSAI Sample: 22107
MSAI Group: 5410
Date Reported: 08/03/94

Discard Date: 09/02/94
Date Submitted: 07/22/94
Date Sampled: 07/21/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.12	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	515	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	0.31	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	334	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.49	mg/l	0.02
0259F	Mercury by Cold Vapor, Dissolved Method: SW-846 245.1	ND	mg/l	0.0005
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	37.4	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	477	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 22107
MSAI Group: 5410

Sample ID: CRS dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Mark W. Bostrom
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunny side

Sample ID: CRC dissolved
Matrix: Waste Water

MSAI Sample: 22108
MSAI Group: 5410
Date Reported: 08/03/94

Discard Date: 09/02/94
Date Submitted: 07/22/94
Date Sampled: 07/21/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.10	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	466	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	0.23	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	330	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	0.62	mg/l	0.02
0259F	Mercury by Cold Vapor, Dissolved Method: SW-846 245.1	ND	mg/l	0.0005
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	36.8	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	468	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 22108
MSAI Group: 5410

Sample ID: CRC dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Mark W. Bostrom
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunny side

Sample ID: CRB dissolved
Matrix: Waste Water

MSAI Sample: 22109
MSAI Group: 5410
Date Reported: 08/03/94

Discard Date: 09/02/94
Date Submitted: 07/22/94
Date Sampled: 07/21/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.86	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	431	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	0.13	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	288	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0259F	Mercury by Cold Vapor, Dissolved Method: SW-846 245.1	ND	mg/l	0.0005
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	26.7	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	415	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 22109
MSAI Group: 5410

Sample ID: CRB dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Mark W. Bostrom
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Mountain States Analytical

№ 3263

Sample Chain of Custody

Client Name: EW.P. ENGINEERING P.O. #

Phone #: 1-801-261-0090 Fax #: 1-801-266-1671

Project Name/#: SUNNYSIDE

Sampler: J.C.

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total of Containers	Analysis Required: COARSE REFUSE SEEP								Rush?	Remarks	Temp. of Samples Upon Receipt
CRS	7/21/94	1630		✓		✓		7											
CRC	7/21/94	1700		✓		✓		7											
CRB	7/21/94	1730		✓		✓		7											
dissolved CRS								1			dissolved metals								
↓ CRC								↓											
↓ CRB								↓											

Name of Shipper	Airbill No.	Date	Time

Received By (Lab)	Date	Time	Seals Intact?

Sample relinquished by:	Date	Time	Sample received by:	Date	Time
[illegible]	7/22/94	1235	Erik Haugen	07-22-94	1235

Turnaround Time Requested (please circle): Normal Rush

(Rush TAT is subject to MSAI approval and surcharge)

Report Results By: (Date)

Rush results requested by (please circle): Phone Fax

Report Results to:

Type of Disposal:

Authorized for Disposal by:

Date/Time of Disposal:

Disposed of by:

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

White Copy - Original Retain by Lab Yellow Copy - Return to Customer Pink Copy - Retain by Sampler

0161 - 11 [illegible]

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRS
Matrix: Waste Water

MSAI Sample: 23532
MSAI Group: 5810
Date Reported: 09/09/94

Discard Date: 10/09/94
Date Submitted: 08/29/94
Date Sampled: 08/25/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.03	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	473	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	7.07	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	301	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	1.35	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	33.9	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	421	mg/l	1.0
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1 Bicarbonate	480	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 23532
MSAI Group: 5810

Sample ID: CRS

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	18	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,190	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	3,000	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	1.2	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	60.4	mg/l	1.0
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,310	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

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Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRC
Matrix: Waste Water

MSAI Sample: 23533
MSAI Group: 5810
Date Reported: 09/09/94

Discard Date: 10/09/94
Date Submitted: 08/29/94
Date Sampled: 08/25/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.10	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	485	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	3.47	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	341	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	0.87	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	36.7	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	474	mg/l	1.0
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1 Bicarbonate	388	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 23533
MSAI Group: 5810

Sample ID: CRC

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	17	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,330	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,850	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	36.2	mg/l	1.0
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,330	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB
Matrix: Waste Water

MSAI Sample: 23534
MSAI Group: 5810
Date Reported: 09/09/94

Discard Date: 10/09/94
Date Submitted: 08/29/94
Date Sampled: 08/25/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	0.91	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	464	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	ND	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	313	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	ND	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	28.9	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	448	mg/l	1.0
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1 Bicarbonate	314	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 23534
MSAI Group: 5810

Sample ID: CRB

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,120	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,730	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	20.0	mg/l	1.0
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,560	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

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Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRS Dissolved
Matrix: Waste Water

MSAI Sample: 23535
MSAI Group: 5810
Date Reported: 09/09/94

Discard Date: 10/09/94
Date Submitted: 08/29/94
Date Sampled: 08/25/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.06	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	474	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	0.55	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	304	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.33	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	34.5	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	435	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 23535
MSAI Group: 5810

Sample ID: CRS Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRC Dissolved
Matrix: Waste Water

MSAI Sample: 23536
MSAI Group: 5810
Date Reported: 09/09/94

Discard Date: 10/09/94
Date Submitted: 08/29/94
Date Sampled: 08/25/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.13	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	487	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	0.29	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	344	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	0.56	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	37.6	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	487	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 23536
MSAI Group: 5810

Sample ID: CRC Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB Dissolved
Matrix: Waste Water

MSAI Sample: 23537
MSAI Group: 5810
Date Reported: 09/09/94

Discard Date: 10/09/94
Date Submitted: 08/29/94
Date Sampled: 08/25/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.95	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	483	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	327	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	30.2	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	465	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 23537
MSAI Group: 5810

Sample ID: CRB Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Mountain States Analytical

№ 3375

Sample Chain of Custody

Client Name: E.W.P. ENGINEERING P.O. #
Phone #: 261-0090 Fax #:
Project Name/#: SUNNYSIDE
Sampler: Jim Combs

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total of Containers	Water Quality	Total Metals	Diss. Metals	Ammonia					Rush?	Remarks	Temp. of Samples Upon Receipt
CRS	8-25-94	1805	✓			✓			X	X	X	X							
CRC	8-25-94	1830	✓			✓			X	X	X	X							
CRB	8-25-94	1845	✓			✓			X	X	X	X							

Name of Shipper	Airbill No.	Date	Time
J.C. / E.W.P.		8-29-94	1007

Received By (Lab)	Date	Time	Seals Intact?
[illegible]	08/29/94	1007	n/a

Sample relinquished by:	Date	Time	Sample received by:	Date	Time

Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to MSAI approval and surcharge)
Report Results By: (Date)
Rush results requested by (please circle): Phone Fax
Report Results to:

Type of Disposal:
Authorized for Disposal by:
Date/Time of Disposal:
Disposed of by:

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

White Copy - Original Retain by Lab Yellow Copy - Return to Customer Pink Copy - Retain by Sampler

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRS - Source
Matrix: Waste Water

MSAI Sample: 24548
MSAI Group: 6059
Date Reported: 10/05/94

Discard Date: 11/04/94
Date Submitted: 09/22/94
Date Sampled: 09/20/94
Collected by: JAM
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.01	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	471	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	8.78	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	297	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	1.43	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	35.7	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	437	mg/l	5
0201	Alkalinity as $CaCO_3$ (pH 4.5) Method: EPA 310.1 Bicarbonate	470	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 24548
MSAI Group: 6059

Sample ID: CRS - Source

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	67	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,490	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,650	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	1.7	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	72	mg/l	
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,260	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRC - Culvert
Matrix: Waste Water

MSAI Sample: 24549
MSAI Group: 6059
Date Reported: 10/05/94

Discard Date: 11/04/94
Date Submitted: 09/22/94
Date Sampled: 09/20/94
Collected by: JAM
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.04	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	445	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	15.6	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	309	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	1.41	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	36.5	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	441	mg/l	5
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1 Bicarbonate	386	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 24549
MSAI Group: 6059

Sample ID: CRC - Culvert

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	14	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,680	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,950	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	22	mg/l	
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,820	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB - Boundary
Matrix: Waste Water

MSAI Sample: 24550
MSAI Group: 6059
Date Reported: 10/05/94

Discard Date: 11/04/94
Date Submitted: 09/22/94
Date Sampled: 09/20/94
Collected by: JAM
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	0.82	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	441	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	ND	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	295	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	0.07	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	28.2	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	426	mg/l	5
0201	Alkalinity as $CaCO_3$ (pH 4.5) Method: EPA 310.1 Bicarbonate	322	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 24550
MSAI Group: 6059

Sample ID: CRB - Boundary

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,240	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,550	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	12	mg/l	
1125	Sulfate, Turbidimetric Method: EPA 375.4	3,070	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRS - Source ~~Dissolved~~ TOTAL
Matrix: Waste Water

MSAI Sample: 24551
MSAI Group: 6059
Date Reported: 10/05/94

Discard Date: 11/04/94
Date Submitted: 09/22/94
Date Sampled: 09/20/94
Collected by:
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.03	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	476	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	8.84	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	303	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.45	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	36.3	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	440	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 24551
MSAI Group: 6059

Sample ID: CRS - Source ~~Dissolved~~

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRC - Culvert ~~Dissolved~~ TOTAL
Matrix: Waste Water

MSAI Sample: 24552
MSAI Group: 6059
Date Reported: 10/05/94

Discard Date: 11/04/94
Date Submitted: 09/22/94
Date Sampled: 09/20/94
Collected by:
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.08	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	453	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	3.90	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	320	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.13	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	38.2	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	461	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 24552
MSAI Group: 6059

Sample ID: CRC - Culvert ~~Dissolved~~

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB - Boundary ~~Dissolved~~ TOTAL
Matrix: Waste Water

MSAI Sample: 24553
MSAI Group: 6059
Date Reported: 10/05/94

Discard Date: 11/04/94
Date Submitted: 09/22/94
Date Sampled: 09/20/94
Collected by:
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved, w/ww Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.79	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	432	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	287	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	0.07	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	27.0	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	406	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 24553
MSAI Group: 6059

Sample ID: CRB - Boundary ~~Dissolved~~ TOTAL

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Mountain States Analytical

№ 3787

Sample Chain of Custody

Client Name: EWP Engineering P.O. #
Phone #: 801-261-0090 Fax #: 801-266-1671
Project Name/#: Sunnyside - EC 450593
Sampler: John A. Martin

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total of Containers	Analysis Required	Rush?	Remarks	Temp. of Samples Upon Receipt
CRS - Source	9/20/94	1435				X		4				7.0°C
CRC - Culvert	9/20/94	1530				X		4				
CRB - Boundary	9/20/94	1630				X		4				

Analysis Rec'd As per previous sampling events

Name of Shipper	Airbill No.	Date	Time
UPS	3173455585	9/21/94	1400

Received By (Lab)	Date	Time	Seals Intact?
[illegible]	09/22/94	1415	yes

Sample relinquished by:	Date	Time	Sample received by:	Date	Time
John A Martin	9/21/94	1030			

Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to MSAI approval and surcharge)

Report Results By: (Date)

Rush results requested by (please circle): Phone Fax

Report Results to: Scott Carlson
EWP Engineering 1121 E. 3900 South C-100
Salt Lake City, UT 84124

Type of Disposal: Authorized for Disposal by:

Date/Time of Disposal: Disposed of by:

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

White Copy - Original Retain by Lab Yellow Copy - Return to Customer Pink Copy - Retain by Sampler

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRS-Dissolved
Matrix: Waste Water

MSAI Sample: 25448
MSAI Group: 6260
Date Reported: 10/25/94

Discard Date: 11/24/94
Date Submitted: 10/13/94
Date Sampled: 10/12/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved 6010A Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.13	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	503	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	318	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.47	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	37.5	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	466	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 25448
MSAI Group: 6260

Sample ID: CRS-Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

MEMBER ACIL

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRC-Dissolved
Matrix: Waste Water

MSAI Sample: 25449
MSAI Group: 6260
Date Reported: 10/25/94

Discard Date: 11/24/94
Date Submitted: 10/13/94
Date Sampled: 10/12/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved 6010A Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.14	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	483	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	338	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.30	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	39.2	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	491	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 25449
MSAI Group: 6260

Sample ID: CRC-Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

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Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB-Dissolved
Matrix: Waste Water

MSAI Sample: 25450
MSAI Group: 6260
Date Reported: 10/25/94

Discard Date: 11/24/94
Date Submitted: 10/13/94
Date Sampled: 10/12/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved 6010A Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.86	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	470	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	313	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	0.19	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	29.2	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	453	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 25450
MSAI Group: 6260

Sample ID: CRB-Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

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Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRS
Matrix: Waste Water

MSAI Sample: 25451
MSAI Group: 6260
Date Reported: 10/25/94

Discard Date: 11/24/94
Date Submitted: 10/13/94
Date Sampled: 10/12/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
7254	Iron by ICP Method: SW-846 6010A	8.99	mg/l	0.10
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	21	mg/l	4

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Rolf E. Larsen
Project Manager

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRC
Matrix: Waste Water

MSAI Sample: 25452
MSAI Group: 6260
Date Reported: 10/25/94

Discard Date: 11/24/94
Date Submitted: 10/13/94
Date Sampled: 10/12/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
7254	Iron by ICP Method: SW-846 6010A	3.50	mg/l	0.10
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	9	mg/l	4

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Rolf E. Larsen
Project Manager

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB
Matrix: Waste Water

MSAI Sample: 25453
MSAI Group: 6260
Date Reported: 10/25/94

Discard Date: 11/24/94
Date Submitted: 10/13/94
Date Sampled: 10/12/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
7254	Iron by ICP Method: SW-846 6010A	0.14	mg/l	0.10
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Pamela K. Olsen for
Rolf E. Larsen
Project Manager

Mountain States Analytical

№ 4007

Sample Chain of Custody

REL

Client Name: E.W.P. ENGINEERING P.O. #

Phone #: 801-261-0090 Fax #: 1-801-266-1671

Project Name/#: SUNNYSIDE EC 45 05 93

Sampler: J. Comas

*CONTACT SCOTT CARLSON @ E.W.P. OFFICE

Analysis Required: COARSE REFUSE SEEP

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total of Containers	Rush?	Remarks	Temp. of Samples Upon Receipt
CRS	10-12-94	1600	✓			✓		3			
CRC	10-12-94	1630	✓			✓		3			
CRB	10-12-94	1650	✓			✓		3			

Name of Shipper	Airbill No.	Date	Time

Received By (Lab)	Date	Time	Seals Intact?
Mark Bestin	10/13/94	15:08	OK!

Sample relinquished by:	Date	Time	Sample received by:	Date	Time
J. Comas	10-13-94	1508			

Turnaround Time Requested (please circle): Normal Rush

(Rush TAT is subject to MSAI approval and surcharge)

Report Results By: (Date)

Rush results requested by (please circle): Phone Fax

Report Results to:

Type of Disposal:

Authorized for Disposal by:

Date/Time of Disposal:

Disposed of by:

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

White - Original Retained Lab Yellow Copy Return Home Pink Copy Retain Sampler

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRS
Matrix: Waste Water

MSAI Sample: 26143
MSAI Group: 6408
Date Reported: 11/09/94

Discard Date: 12/09/94
Date Submitted: 10/28/94
Date Sampled: 10/27/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.10	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	500	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	8.73	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	316	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	1.45	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	37.0	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	455	mg/l	10
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1 Bicarbonate	486	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 26143
MSAI Group: 6408

Sample ID: CRS

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	20	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,450	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,850	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	1.7	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	59	mg/l	
1125	Sulfate, Turbidimetric Method: EPA 375.4	4,220	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

MEMBER ACIL

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRC
Matrix: Waste Water

MSAI Sample: 26144
MSAI Group: 6408
Date Reported: 11/09/94

Discard Date: 12/09/94
Date Submitted: 10/28/94
Date Sampled: 10/27/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.08	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	493	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	4.48	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	344	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	1.14	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	36.6	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	486	mg/l	10
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1 Bicarbonate	424	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 26144
MSAI Group: 6408

Sample ID: CRC

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	29	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,520	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,860	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	31	mg/l	
1125	Sulfate, Turbidimetric Method: EPA 375.4	2,650	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

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Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB
Matrix: Waste Water

MSAI Sample: 26145
MSAI Group: 6408
Date Reported: 11/09/94

Discard Date: 12/09/94
Date Submitted: 10/28/94
Date Sampled: 10/27/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	0.85	mg/l	0.10
7243	Aluminum by ICP Method: SW-846 6010A	ND	mg/l	0.20
7250	Calcium by ICP Method: SW-846 6010A	454	mg/l	1.0
7253	Copper by ICP Method: SW-846 6010A	ND	mg/l	0.02
7254	Iron by ICP Method: SW-846 6010A	0.12	mg/l	0.10
7257	Magnesium by ICP Method: SW-846 6010A	303	mg/l	1.0
7258	Manganese by ICP Method: SW-846 6010A	0.21	mg/l	0.02
7261	Nickel by ICP Method: SW-846 6010A	ND	mg/l	0.040
7262	Potassium by ICP Method: SW-846 6010A	27.8	mg/l	1.0
7267	Sodium by ICP Method: SW-846 6010A	428	mg/l	10
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1 Bicarbonate	348	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 26145
MSAI Group: 6408

Sample ID: CRB

Test	Analysis	Results as Received	Units	Limit of Quantitation
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,190	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,740	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	2	mg/l	
1125	Sulfate, Turbidimetric Method: EPA 375.4	2,590	mg/l	2

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

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Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRS Dissolved
Matrix: Waste Water

MSAI Sample: 26146
MSAI Group: 6408
Date Reported: 11/09/94

Discard Date: 12/09/94
Date Submitted: 10/28/94
Date Sampled: 10/27/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.96	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	432	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	0.18	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	274	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.26	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	32.0	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	395	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 26146
MSAI Group: 6408

Sample ID: CRS Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

MEMBER ACIL

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRC Dissolved
Matrix: Waste Water

MSAI Sample: 26148
MSAI Group: 6408
Date Reported: 11/09/94

Discard Date: 12/09/94
Date Submitted: 10/28/94
Date Sampled: 10/27/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.13	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	473	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	340	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.32	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	38.1	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	485	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 26148
MSAI Group: 6408

Sample ID: CRC Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

MEMBER ACIL

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: Sunnyside

Sample ID: CRB Dissolved
Matrix: Waste Water

MSAI Sample: 26149
MSAI Group: 6408
Date Reported: 11/09/94

Discard Date: 12/09/94
Date Submitted: 10/28/94
Date Sampled: 10/27/94
Collected by: JC
Purchase Order:
Project No.: EC450593

Test	Analysis	Results as Received	Units	Limit of Quantitation
0243D	Aluminum by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.2
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.88	mg/l	0.10
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	469	mg/L	1.0
0253F	Copper by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.02
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	316	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	0.22	mg/l	0.02
0261F	Nickel by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.04
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	29.0	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	448	mg/l	1

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 26149
MSAI Group: 6408

Sample ID: CRB Dissolved

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

MEMBER ACIL

Mountain States Analytical

№ 4155

Sample Chain of Custody

Client Name: E.W.P. ENGINEERING P.O. #

Phone #: 261-0090 Fax #:

Project Name/#: SUNNYSIDE EC45 0593

Sampler: J. Comas

CONTACT AT E.W.P. OFFICE - SCOTT CARLSON

Analysis Required: COARSE REFUSE SEEP

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total of Containers	Rush?	Remarks	Temp. of Samples Upon Receipt
CRS	10-27-94	1430	✓			✓		4			
CRC	10-27-94	1445	✓			✓		4			
CRB	10-27-94	1530	✓			✓		4			

Name of Shipper	Airbill No.	Date	Time

Received By (Lab)	Date	Time	Seals Intact?
[signature]	10/28/94	1535	n/a

Sample relinquished by:	Date	Time	Sample received by:	Date	Time
J. Comas	10-28-94	1535			

Turnaround Time Requested (please circle): Normal Rush

(Rush TAT is subject to MSAI approval and surcharge)

Report Results By: (Date)

Rush results requested by (please circle): Phone Fax

Report Results to:

Type of Disposal:

Authorized for Disposal by:

Date/Time of Disposal:

Disposed of by:

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

White Copy - Original Retain by Lab Yellow Copy - Return to Customer Pink Copy - Retain by Sampler

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: EC 45 05 93

Sample ID: CRS
Matrix: Waste Water

MSAI Sample: 27424
MSAI Group: 6692
Date Reported: 12/09/94

Discard Date: 01/08/95
Date Submitted: 11/23/94
Date Sampled: 11/22/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.1	mg/l	0.3
7254	Iron by ICP Method: SW-846 6010A	7.19	mg/l	0.10
7258	Manganese by ICP Method: SW-846 6010A	1.46	mg/l	0.02
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	460	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	16	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,430	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,730	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	1.5	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	101	mg/l	1.0
1125	Sulfate, Turbidimetric Method: EPA 375.4	629	mg/l	2

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 27424
MSAI Group: 6692

Sample ID: CRS

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

MEMBER ACIL

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: EC 45 05 93

Sample ID: CRC
Matrix: Waste Water

MSAI Sample: 27425
MSAI Group: 6692
Date Reported: 12/09/94

Discard Date: 01/08/95
Date Submitted: 11/23/94
Date Sampled: 11/22/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	1.1	mg/l	0.3
7254	Iron by ICP Method: SW-846 6010A	7.49	mg/l	0.10
7258	Manganese by ICP Method: SW-846 6010A	1.24	mg/l	0.02
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	420	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	18	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,660	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,710	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	0.6	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	49.4	mg/l	1.0
1125	Sulfate, Turbidimetric Method: EPA 375.4	652	mg/l	2

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 27425
MSAI Group: 6692

Sample ID: CRC

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

MEMBER ACIL

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: EC 45 05 93

Sample ID: CRB
Matrix: Waste Water

MSAI Sample: 27426
MSAI Group: 6692
Date Reported: 12/09/94

Discard Date: 01/08/95
Date Submitted: 11/23/94
Date Sampled: 11/22/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248A	Boron by ICP Method: SW-846 6010A	0.8	mg/l	0.3
7254	Iron by ICP Method: SW-846 6010A	ND	mg/l	0.10
7258	Manganese by ICP Method: SW-846 6010A	0.24	mg/l	0.02
0201	Alkalinity as CaCO3 (pH 4.5) Method: EPA 310.1			
	Bicarbonate	342	mg/l	1
	Carbonate	ND	mg/l	1
	Hydroxide	ND	mg/l	1
0206	Solids, Total Suspended (TSS) Method: EPA 160.2	ND	mg/l	4
0212	Solids, Total Dissolved Method: EPA 160.1	5,200	mg/l	10
0216	Hardness as CaCO3 - Titrimetric Method: EPA 130.2	2,560	mg/l	5
0221	Nitrogen, Ammonia by distillation Method: EPA 350.2	ND	mg/l	0.5
0475	Acidity (to pH 3.7 and 8.3) Method: EPA 305.1	12.2	mg/l	1.0
1125	Sulfate, Turbidimetric Method: EPA 375.4	643	mg/l	2

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering

MSAI Sample: 27426
MSAI Group: 6692

Sample ID: CRB

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

MEMBER ACIL

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: EC 45 05 93

Sample ID: CRS Dissolved
Matrix: Waste Water

MSAI Sample: 27427
MSAI Group: 6692
Date Reported: 12/09/94

Discard Date: 01/08/95
Date Submitted: 11/23/94
Date Sampled: 11/22/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.2	mg/l	0.3
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	542	mg/L	1.0
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	1.36	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	345	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.60	mg/l	0.02
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	40.3	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	526	mg/l	5

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: EC 45 05 93

Sample ID: CRC Dissolved
Matrix: Waste Water

MSAI Sample: 27428
MSAI Group: 6692
Date Reported: 12/09/94

Discard Date: 01/08/95
Date Submitted: 11/23/94
Date Sampled: 11/22/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	1.1	mg/l	0.3
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	486	mg/L	1.0
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	0.59	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	349	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	1.34	mg/l	0.02
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	36.5	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	527	mg/l	5

Respectfully Submitted,
Reviewed and Approved by:

RELarsen

Rolf E. Larsen
Project Manager

1645 West 2200 South, Salt Lake City, Utah 84119 (801)973-0050 1-800-973-MSAI FAX (801)973-6278

MEMBER ACIL

Analytical Report

Mountain States Analytical
The Quality Solution

Eckhoff, Watson & Preator Engineering
1121 East 3900 South
Suite C100
Salt Lake City, UT 84124

Attn: Mr. Scott Carlson
Project: EC 45 05 93

Sample ID: CRB Dissolved
Matrix: Waste Water

MSAI Sample: 27429
MSAI Group: 6692
Date Reported: 12/09/94

Discard Date: 01/08/95
Date Submitted: 11/23/94
Date Sampled: 11/22/94
Collected by: JC
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0248D	Boron by ICP, Dissolved Method: SW-846 6010A	0.8	mg/l	0.3
0250D	Calcium by ICP, Dissolved Method: SW-846 6010A	476	mg/L	1.0
0254F	Iron by ICP, Dissolved Method: SW-846 6010A	ND	mg/l	0.10
0257D	Magnesium by ICP, Dissolved Method: SW-846 6010A	311	mg/L	1.0
0258F	Manganese by ICP, Dissolved Method: SW-846 6010A	0.25	mg/l	0.02
0262D	Potassium by ICP, Dissolved Method: SW-846 6010A	27.2	mg/L	1.0
0267F	Sodium by ICP, Dissolved Method: SW-846 6010A	475	mg/l	5

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

Mountain States Analytical

№ 4239

Sample Chain of Custody

Client Name: E.W.P. ENGINEERING P.O. #

Phone #: 801-261-0090 Fax #:

Project Name/#: EC 45 05 93

Sampler: Jim Comas

Analysis Required: COARSE REFUSE SEEP

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total of Containers	Rush?	Remarks	Temp. of Samples Upon Receipt
CRS	11/22/94	1445	✓			✓		4			
CRC	11/22/94	1500	✓			✓		4			
CRB	11/22/94	1530	✓			✓		4			

Name of Shipper	Airbill No.	Date	Time

Received By (Lab)	Date	Time	Seals Intact?

Sample relinquished by:	Date	Time	Sample received by:	Date	Time
[illegible]	11/23/94	1700	[illegible]	11/23/94	1700

Turnaround Time Requested (please circle): Normal Rush

(Rush TAT is subject to MSAI approval and surcharge)

Report Results By: (Date)

Rush results requested by (please circle): Phone Fax

Report Results to:

Type of Disposal:

Authorized for Disposal by:

Date/Time of Disposal:

Disposed of by:

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Whit[redacted] - Or[redacted] Retai[redacted]ab [redacted] Cop[redacted]urn t[redacted]omer [redacted]k Cop[redacted]tain b[redacted]pler

ATTACHMENT D

SUNNYSIDE COGENERATION ASSOCIATES

Carbon County, UT

EWP ENGINEERING

Salt Lake City, UT

COARSE REFUSE SEEP MONITORING

V-NOTCH WEIR AT SOURCE (CRS)

Date	Time	Personel	Weather	Flow (feet)	Flow (gpm)	Temp C	pH	SC mS (~~umhos~~)	DO (mg/l)
5/19/94	1600	J.C.	PTLY CLDY 65°	0.14	8.5	25.5	6.8	5.5	4.2
5/27/94	1315	J.C.	PTLY CLDY 70°	0.16	12.0	25.8	6.6	5.6	3.6
6/8/94	1050	J.C.	CLEAR 60°	0.14	8.5	24.4	6.6	5.5	4.0
6/16/94	1338	J.C.	CLEAR 75°	0.13	7.1	26.97	6.6	5.48	3.8
6/23/94	1615	J.C.	CLEAR 80°	0.13	7.1	27.92	6.6	5.5	2.6
6/30/94	0855	J.C.	CLEAR 70°	0.13	7.1	24.32	6.7	5.5	1.1
7/8/94	1115	J.C	CLEAR 78°	0.13	7.1	25.61	6.8	5.5	1.2
7/14/94	1250	J.C	CLEAR 85°	0.13	7.1	26.01	6.6	5.5	1.9
7/21/94	1415	J.C.	CLEAR 90°	0.13	7.1	26.6	6.8	5.5	1.5
7/28/94	0945	J.C.	CLEAR 80°	0.13	7.1	25.27	6.9	5.56	1.0
8/4/94	1005	J.C.	CLEAR 80°	0.14	8.5	25.52	6.9	5.5	1.1
8/11/94	1035	J.C.	CLEAR 80°	0.13	7.1	25.18	6.9	5.5	1.4
8/19/94	1005	J.C.	CLOUDY 70°	0.13	7.1	24.6	6.9	5.5	2.0
8/26/94	0915	J.C.	CLEAR 75°	0.13	7.1	23.9	6.9	5.5	1.5
8/31/94	1630	J.C.	CLEAR 80°	0.12	5.8	25.6	6.9	5.5	1.2
9/9/94	1035	J.C.	CLEAR 70°	0.12	5.8	24.9	7.0	5.5	1.5
9/16/94	1030	J.C.	CLEAR 70°	0.12	5.8	23.3	7.2	5.5	1.6
9/20/94	1435	J.Martin	Cloudy/rain 65	0.14	8.5	23.74	7.12	5.48	1.57
9/28/94	1010	J.C.	CLOUDY/RAIN 65°	0.13	7.1	24.3	7.2	5.5	1.4
10/6/94	1240	J.C.	PTLY CLDY 55°	0.14	8.5	22.8	7.2	5.5	1.4
10/13/94	1030	J.C	CLEAR 50°	0.13	7.1	22.7	7.3	5.5	1.6
10/21/94	1300	J.C.	CLEAR 50°	0.13	7.1	23.1	7.3	5.5	1.5
10/28/94	1020	J.C.	CLEAR 50°	0.11	4.7	22.1	7.4	5.0	1.6
11/4/94	1000	J.C	CLDY 45°	0.11	4.7	22.3	7.3	5.4	1.5
11/9/94	1445	J.C	CLEAR 50°	0.11	4.7	22.4	7.4	5.5	1.6
11/17/94	1430	J.C.	CLDY 40°	0.11	4.7	22.4	7.4	5.4	1.8

SUNNYSIDE COGENERATION ASSOCIATES

Carbon County, UT

EWP ENGINEERING

Salt Lake City, UT

COARSE REFUSE SEEP MONITORING

V-NOTCH WEIR AT SOURCE (CRS)

Date	Time	Personel	Weather	Flow (feet)	Flow (gpm)	Temp C	pH	SC (umhos)	DO (mg/l)
11/22/94	1445	J.C.	CLEAR 32°	0.11	4.7	18.10	7.5	5.5	2.3
12/9/94	1400	J.C.	CLEAR 25°	0.08	2.1	17.9	7.7	5.5	2.7

SUNNYSIDE COGENERATION ASSOCIATES

Carbon County, UT

EWP ENGINEERING

Salt Lake City, UT

COARSE REFUSE SEEP MONITORING

V-NOTCH WEIR AT SOURCE (CRS)

Date	Time	Personel	Weather	Flow (feet)	Flow (gpm)	Temp C	pH	SC (umhos)	DO (mg/l)
11/22/94	1445	J.C.	CLEAR 32°±	0.11	4.7	18.10	7.5	5.5	2.3
12/9/94	1400	J.C.	CLEAR 25°±	0.08	2.1	17.9	7.7	5.5	2.7
12/15/94	1315	J.C.	PTLY CLDY 25°±	0.09	2.8	17.3	7.7	3.0	2.8
12/22/94	1400	J.C.	PTLY CLDY 35°±	0.09	2.8	18.1	7.6	5.5	2.8
1/6/95	1020	J.C.	CLEAR 25°±	0.08	2.1	17.3	7.8	5.4	2.7
1/12/95	1245	J.C	PTLY CLDY 30°±	0.08	2.1	17.5	7.8	5.5	2.6
1-21-95	1420	J.C.	CLOUDY 35°±	.08	2.1	17.6	7.8	5.4	2.0
1-27-95	1400	J.C	CLDY 32°±	.08	2.1	17.3	7.8	5.5	2.4
2-1-95	1300	J.C.	CLEA 40°±	.08	2.1	18.1	7.8	2.6	2.0

SUNNYSIDE COGENERATION ASSOCIATES

Carbon County, UT

EWP ENGINEERING

Salt Lake City, UT

COARSE REFUSE SEEP MONITORING

V-NOTCH WEIR @ CULVERT (CRC)

Date	Time	Personel	Weather	Flow (feet)	Flow (gpm)	Temp C	pH	SC mS ~~(umhos)~~	DO (mg/l)
5/19/94	1630	J.C.	PTLY CLDY 65°	.23	29	15.92	7.60	5.62	6.15
5/27/94	1330	J.C.	PTLY CLDY 70°	.25	36	17.79	7.2	5.6	6.04
6/8/94	1100	J.C	CLEAR 60°	.26	40	16.97	7.3	5.6	7.00
6/16/94	1323	J.C	CLEAR 75°	.23	29	19.06	7.3	5.62	6.33
6/23/94	1630	J.C.	CLEAR 80°	.23	29	20.37	7.3	5.6	5.5
6/30/94	0910	J.C	CLEAR 70°	.24	32	18.10	7.3	5.66	5.6
7/8/94	1125	J.C.	CLEAR 78°	.24	32	18.8	7.4	5.67	5.7
7/14/94	1300	J.C	CLEAR 85°	.24	32	20.3	7.4	5.68	5.7
7/21/94	1445	J.C	CLEAR 90°	.23	29	21.2	7.5	5.7	5.0
7/29/94	1000	J.C	CLEAR 80°	.24	32	19.8	7.5	5.7	5.3
8/4/94	1020	J.C.	CLEAR 80°	.24	32	20.6	7.5	5.8	5.2
8/11/94	1050	J.C	CLEAR 80°	.24	32	19.7	7.6	5.7	5.1
8/19/94	1020	J.C.	CLOUDY 70°	.24	32	19.4	7.6	5.7	5.8
8/26/94	0930	J.C.	CLEAR 75°	.24	32	19.5	7.6	5.7	5.3
8/31/94	1645	J.C	CLEAR 80°	.24	32	20.7	7.6	5.8	5.2
* 9/9/94	1050	J.C.	CLEAR 70°	.28	48	20.1	7.5	5.2	4.9
* 9/16/94	1045	J.C.	CLEAR 70°	.28	48	18.0	7.8	5.6	6.0
* 9/2d/94	1530	J.Martin	Cloudy/Rain 65°	.27	57	17.80	7.98	5.51	6.10
9/29/94	1030	J.C.	CLOUDY/RAIN 65°	.24	32	18.7	7.8	5.7	5.3
10/6/94	1300	J.C.	PTLY CLDY 55°	.24	32	16.7	7.9	5.7	5.5
10/13/94	1045	J.C.	CLEAR 50°	.24	32	17.8	7.9	5.7	5.4
10/21/94	1320	J.C.	CLEAR 50°	.24	32	14.9	8.3	5.7	7.0
10/28/94	1035	J.C.	CLEAR 50°	.23	29	15.2	7.9	5.7	5.8
11/4/95	1015	J.C.	CLDY 45°	.23	29	14.7	7.9	5.7	5.9
11/9/95	1500	J.C.	CLEAR 50°	.23	29	14.4	7.9	5.7	5.8
11/17/94	1445	J.C.	CLDY 40°	.22	26	14.0	7.9	5.6	5.9

* NOTE: AREA IN FRONT OF WEIR HAS BEEN FILLED IN WITH SEDIMENT RESULTING FROM STORM THAT TOOK PLACE ON 9-2-94 1" OF RAIN IN ONE HOUR WAS RECORDED AT SUNNYSIDE WEATHER STA. FLOW IS NOT ACCURATE AT TIME OF MONITORING. POOL NEEDS TO BE CLEANED OUT IN FRONT OF WIER. J.C. 9-9-94

SUNNYSIDE COGENERATION ASSOCIATES

Carbon County, UT

EWP ENGINEERING

Salt Lake City, UT

COARSE REFUSE SEEP MONITORING

V-NOTCH WEIR @ CULVERT (CRC)

Date	Time	Personel	Weather	Flow (feet)	Flow (gpm)	Temp C	pH	SC (umhos)	DO (mg/l)
11/22/94	1500	J.C.	CLEAR 32°	.21	23	11.0	8.04	5.1	6.5
12/9/94	1420	J.C.	CLEAIR 25°	.20	21	11.3	8.1	5.6	5.4

SUNNYSIDE COGENERATION ASSOCIATES

Carbon County, UT

EWP ENGINEERING

Salt Lake City, UT

COARSE REFUSE SEEP MONITORING

V-NOTCH WEIR @ CULVERT (CRC)

Date	Time	Personel	Weather	Flow (feet)	Flow (gpm)	Temp C	pH	SC (umhos)	DO (mg/l)
11/22/94	1500	J.C.	CLEAR 32°±	.21	23	11.0	8.04	5.1	6.5
12/6/94	1420	J.C.	CLEAR 25°±	.20	21	11.3	8.1	5.6	5.4
12/15/94	1330	J.C	PTLY CLDY 25°±	.22	26	12.2	8.1	5.5	4.9
12/22/94	1430	J.C.	PTLY CLDY 35°±	.20	21	13.4	8.0	4.5	5.6
1/6/95	1040	J.C.	CLEAR 25°±	.20	21	11.2	8.0	5.6	5.6
1/12/95	1230	J.C	PTLY CLDY 36°±	.20	21	11.1	8.1	5.4	5.0
1-20-95	1445	J.C.	CLOUDY 35°±	.20	21	11.3	8.2	5.5	4.5
1-27-95	1415	J.C	CLDY 32°±	.22	26	11.2	8.1	5.5	4.4
2-1-95	1315	JC	CLEAR 40°±	.24	32	11.7	8.3	4.8	4.4

Tampella Services ID:1-801-888-2538 FEB 01'95 18:34 No.014 P.03

SUNNYSIDE COGENERATION ASSOCIATES

Carbon County, UT

EWP ENGINEERING

Salt Lake City, UT

COARSE REFUSE SEEP MONITORING

V-NOTCH WEIR @ BOUNDARY (CRB)

Date	Time	Personel	Weather	Flow (feet)	Flow (gpm)	Temp C	pH	SC (mS ~~umhos~~)	DO (mg/l)
5/19/94	1650	J.C	PTLY CLDY 65°	.28	48	15.55	8.1	5.18	7.64
5/27/94	1400	J.C.	PTLY CLDY 70°	.29	52	16.77	7.8	5.07	6.87
6/8/94	1120	J.C.	CLEAR 60°	.28	48	15.50	7.8	5.30	8.0
6/16/94	1307	J.C.	CLEAR 75°	.26	40	19.62	7.8	5.28	7.61
6/23/94	1645	J.C.	CLEAR 80°	.25	36	22.75	7.8	5.29	6.4
6/30/94	0930	J.C.	CLEAR 70°	.26	40	15.90	7.9	5.4	7.3
7/8/94	1140	J.C.	CLEAR 78°	.26	40	17.6	8.06	5.4	7.4
7/14/94	1320	J.C.	CLEAR 85°	.24	32	19.75	7.98	5.4	7.02
7/21/94	1520	J.C.	CLEAR 90°	.22	26	22.6	7.9	5.4	~~7.4~~ 8.6
7/29/94	1020	J.C.	CLEAR 80°	.28	48	17.5	8.1	5.5	7.3
8/4/94	1040	J.C.	CLEAR 80°	.25	36	18.3	8.2	5.5	6.6
8/11/94	1110	J.C.	CLEAR 80°	.28	48	18.5	8.2	5.6	6.8
8/19/94	1035	J.C.	CLOUDY 70°	.25	36	17.2	8.2	5.6	6.9
8/26/94	0945	J.C.	CLEAR 75°	.23	29	16.1	8.2	5.6	6.9
8/31/94	1700	J.C.	CLEAR 80°	.22	26	20.3	8.2	5.6	7.4
9/9/94	1115	J.C	CLEAR 75°	.28	48	17.6	8.3	5.5	7.2
9/16/94	1100	J.C	CLEAR 70°	.26	40	14.2	8.4	5.5	7.8
9/20/94	1630	J. Martin	Pt. Cldy 65°	.26	40	15.95	8.34	5.47	7.60
9/29/94	1045	J.C.	CLOUDY/RAIN 65°	.26	40	15.00	8.4	5.5	7.5
10/6/94	1315	J.C.	PTLY CLDY 55°	.26	40	12.7	8.5	5.5	8.5
10/13/94	1110	J.C.	CLEAR 50°	.25	36	13.0	8.5	5.5	7.7
10/21/94	1340	J.C.	CLEAR 50°	.26	40	12.6	8.6	5.4	8.3
10/28/94	1050	J.C.	CLEAR 50°	.26	40	9.9	8.6	5.5	8.4
11/4/94	1030	J.C	CLDY 45°	.26	40	9.1	8.5	5.4	8.1
11/9/94	1515	J.C	CLEAR 50°	.26	40	9.0	8.7	5.5	8.6
11/17/94	1500	J.C	CLDY 40°	.24	32	9.1	8.6	5.6	8.1

SUNNYSIDE COGENERATION ASSOCIATES

Carbon County, UT

EWP ENGINEERING

Salt Lake City, UT

COARSE REFUSE SEEP MONITORING

V-NOTCH WEIR @ BOUNDARY (CRB)

Date	Time	Personel	Weather	Flow (feet)	Flow (gpm)	Temp C	pH	SC (umhos)	DO (mg/l)
11/22/94	1545	J.C.	CLEAR 32°	.23	29	7.0	8.8	5.2	7.3
12/9/94	1445	J.C.	CLEAR 25°	.24	32	5.4	8.8	5.4	7.7

SUNNYSIDE COGENERATION ASSOCIATES

Carbon County, UT

EWP ENGINEERING

Salt Lake City, UT

COARSE REFUSE SEEP MONITORING

V-NOTCH WEIR @ BOUNDARY (CRB)

Date	Time	Personel	Weather	Flow (feet)	Flow (gpm)	Temp C	pH	SC (umhos)	DO (mg/l)
11/22/94	1545	J.C.	CLEAR 32°	.23	29	7.0	8.8	5.2	7.3
12/9/94	1445	J.C.	CLEAR 25°	.24	32	5.4	8.8	5.4	7.7
12/15/94	1345	J.C.	PTLY CLDY 25°	.26	40	5.9	8.9	5.4	7.5
12/22/94	1445	J.C.	PTLY CLDY 35°	.26	40	7.0	8.9	5.3	7.6
1/6/95	1100	J.C.	CLEAR 25°	.26 .22	40	3.7	9.1	5.3	9.0
1/12/95	1300	J.C.	PTLY CLDY 30°±	.26	40	5.2	8.9	5.4	8.0
1-21-95	1515	J.C	CLOUDY 35°±	.26	40	6.0	9.1	5.3	8.3
1-27-95	1445	J.C.	CLDY 32°±	.26	40	5.9	9.0	5.4	8.0
2-1-95	1345	J.C.	CLEAR 40°±	.26	40	5.2	9.1	5.2	7.1

APPENDIX B

Table B - 1

Climatic Record of Sunnyside City
Carbon County, Utah

MONTH	YEAR	TEMPERATURE (°F) HIGH	LOW	AVE.	PRECIPITATION (IN)	SNOWFALL (IN)
January	1994	41.1	21.3	31.2	0	0
February	1994	37.4	16.9	27.2	0.66	3
March	1994	55.5	31.5	43.5	0.13	0
April	1994	58.6	35.2	46.9	3.88	24
May	1994	71.4	44.8	58.1	0.61	0
June	1994	85.9	54.8	70.4	0.05	0
July	1994	88.5	60.1	74.3	0.26	0
August	1994	85.5	55.3	70.4	1.22	0
September	1994	75.8	47.4	61.6	2.33	0
October	1994	56.6	36.1	46.4	2.84	7
November	1994	39.1	20.8	30.0	0.74	3.5
December	1994	36.9	18.5	27.7	0.73	10.5

WS FORM E-15
(7-79)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

STATION (Climatological) Sunnyside City	(River Station, if different)	MONTH Jan.	19 94
STATE Utah	COUNTY Carbon	RIVER	
TIME (local) OF OBSERVATION RIVER	TEMP. 4 PM	PRECIPITATION 4 PM	STANDARD TIME IN USE
TYPE OF RIVER GAGE	ELEVATION OF RIVER GAGE ZERO Ft.	FLOOD STAGE Ft.	NORMAL POOL STAGE Ft.

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	24-HR AMOUNTS Rain, melted snow, etc. (ins. and hundredths)	Snow, ice pellets, hail (ins. and tenths)	At Ob. Snow, ice pellets, hail, ice on ground (ins.)	PRECIPITATION Draw a straight line (——) through hours precipitation was observed, and a waved line (~~) through hours precipitation probably occurred unobserved. A.M. NOON P.M.	WEATHER (Calendar Day) Mark 'X' for all types occurring each day. Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___ A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1	(34)	(13)																
2	(43)	(23)																
3	46	26	34															
4	44	30	33															
5	42	29	37															
6	35	14	29															
7	32	10	30															
8	(34)	(17)																
9	(39)	(20)																
10	38	18	35															
11	36	16	31															
12	39	16	35															
13	46	18	38															
14	44	21	41															
15	(41)	(24)																
16	(42)	(22)																
17	49	21	47															
18	48	24	46															
19	48	24	44															
20	49	26	45															
21	49	27	45															
22	(49)	(28)																
23	(45)	(26)																
24	46	27	45															
25	44	28	41															
26	42	24	36															
27	37	33	32															
28	41	24	35															
29	35	(18)																
30	30	18	26															
31	26	(4)	22															
SUM			SUM															
				Greatest			CHECK BAR (For wire-weight) NORMAL CK. BAR	Fog	Ice Pel.	Glaze	Thund	Hail	Dam. Winds	SUM				

READING	DATE

CONDITION OF RIVER AT GAGE

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.

OBSERVER Tom Anderson

SUPERVISING OFFICE

STATION INDEX NO.

STATION (Climatological) Sunnyside City — River Station, if different

STATE Utah — COUNTY Carbon — MONTH ~~Feb~~ — 19 94 — RIVER

TIME (local) OF OBSERVATION RIVER — TEMP. 4PM — PRECIPITATION 4PM — STANDARD TIME IN USE

TYPE OF RIVER GAGE — ELEVATION OF RIVER GAGE ZERO Ft. — FLOOD STAGE Ft. — NORMAL POOL STAGE Ft.

WS FORM B-15 17-791

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	PRECIPITATION 24-HR AMOUNTS Rain, melted snow, etc. (Inc. and hundredths)	Snow, ice pellets, hail (Inc. and tenths)	At Ob. Snow, ice pellets, hail, ice on ground (Inc.)	WEATHER (Calendar Day) Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___ A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1	28	3	25														
2	30	6	21														
3	33	9	30														
4	33	14	28														
5	(32)	(17)															
6	(32)	(12)	26														
7	36	12	35	.04													
8	38	28	35	.04													
9	39	11	37														
10	37	21	32	T													
11	34	23	26	.14	2"												
12	(33)	(7)															
13	(34)	(11)															
14	41	12	39														
15	43	17	40														
16	45	24	41														
17	41	28	35	T													
18	38	28	35	.28													
19	(35)	(20)		.02													
20	(30)	(13)		.07	1"												
21	35	19	33														
22	31	13	27	T													
23	32	5	31														
24	43	15	41														
25	53	30	52														
26	(52)	(30)															
27	(42)	(31)															
28	49	25	46	.07													
29																	
30																	
31																	
SUM	11	1	SUM	.66													
				Greatest			Fog	Ice Pel.	Glaze	Thund.	Hail	Dam. Winds	SUM				

Draw a straight line (——) through hours precipitation was observed, and a waved line (~~~) through hours precipitation probably occurred unobserved.

Mark 'X' for all types occurring each day.

CONDITION OF RIVER AT GAGE

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.
H. [illegible] ge.

CHECK BAR (For wire-weight) NORMAL CK. BAR

READING	DATE

OBSERVER Tom Anderson

SUPERVISING OFFICE

STATION INDEX NO.

[redacted]

WS FORM E-15 (7-79)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

STATION (Climatological): Sunnyside City (River Station, if different)
MONTH: Mar. 1994
STATE: Utah
COUNTY: Carbon
RIVER:
TIME (local) OF OBSERVATION: RIVER: TEMP.: 4 PM PRECIPITATION: 4 PM
STANDARD TIME IN USE:
TYPE OF RIVER GAGE:
ELEVATION OF RIVER GAGE ZERO: Ft.
FLOOD STAGE: Ft.
NORMAL POOL STAGE: Ft.

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	PRECIPITATION 24-HR AMOUNTS Rain, melted snow, etc. (ins. and hundredths)	Snow, ice pellets, hail (ins. and tenths)	Snow, ice pellets, hail, ice on ground (ins.)	At Ob.	WEATHER (Calendar Day) Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___ A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1	53	28	51															
2	51	30	55															
3	50	32	56															
4	57	34	50															
5	(58)	(38)																
6	(59)	(39)																
7	55	35	52															
8	54	34	51															
9	51	23	50															
10	50	26	49															
11	54	30	49	.06														
12	(51)	(36)																
13	(60)	(33)																
14	65	37	60															
15	65	38	62															
16	63	38	61															
17	60	46	58															
18	58	35	55															
19	(51)	(44)																
20	(53)	(30)		.02														
21	56	29	55															
22	56	35	52															
23	52	15	42															
24	43	29	41															
25	51	30	40	.05														
26	(55)	(33)																
27	(50)	(20)																
28	53	23	53															
29	53	30	47															
30	55	24	53															
31	60	31	50															
SUM			SUM	.13														
				Greatest														

Draw a straight line (——) through hours precipitation was observed, and a waved line (~~~) through hours precipitation probably occurred unobserved.

A.M. NOON P.M.

Mark 'X' for all types occurring each day.

CHECK BAR (For wire-weight) NORMAL CK. BAR

READING	DATE

CONDITION OF RIVER AT GAGE

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.
H. Pool stage.

OBSERVER: Don Anderson

SUPERVISING OFFICE:

STATION INDEX NO.: 42 8478 7

STATION (Climatological): Sunnyside City (River Station, if different)

STATE: Utah

COUNTY: Carbon

MONTH: APR. 19 94

RIVER:

TIME (local) OF OBSERVATION RIVER:

TEMP.: 4 PM

PRECIPITATION: 4 PM

STANDARD TIME IN USE:

TYPE OF RIVER GAGE:

ELEVATION OF RIVER GAGE ZERO: Ft.

FLOOD STAGE: Ft.

NORMAL POOL STAGE: Ft.

WS FORM E-15 (7-79)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	PRECIPITATION 24-HR AMOUNTS Rain, melted snow, etc. (Inc. and hundredths)	Snow, ice pellets, hail (Inc. and tenths)	At Ob. Snow, ice pellets, hail, ice on ground (Inc.)	WEATHER (Calendar Day) Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___ A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1	57	34	39	.11													
2	(62)	(30)		.02													
3	(62)	(37)															
4	49	30	48														
5	49	22	47														
6	51	28	50														
7	51	30	48	.10													
8	48	27	47														
9	(47)	(33)		.36													
10	47	33	46	.92	6 1/2												
11	51	32	51	.02													
12	56	29	56														
13	64	34	64														
14	64	40	58														
15	61	31	50														
16	(70)	(41)															
17	(73)	(47)															
18	73	49	72														
19	76	51	70														
20	76	49															
21	78	46	75														
22	76	49	74														
23	(74)	(40)															
24	(68)	(50)															
25	45	28	42	.71	6												
26	44	28	41	.80	7												
27	43	28	39	.41	4 1/2												
28	41	29	34	.37													
29	47	30	45	.04													
30	(52)	(31)		.02													
31																	
Sum			SUM	3.88													
				Greatest													

Precipitation: Draw a straight line (——) through hours precipitation was observed, and a waved line (~~~) through hours precipitation probably occurred unobserved.

Weather (Calendar Day): Mark "X" for all types occurring each day.

CHECK BAR (For wire-weight) NORMAL CK. BAR

READING	DATE

Fog	Ice Pel.	Glaze	Thund	Hail	Dam. Winds	SUM

CONDITION OF RIVER AT GAGE

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.
H. Pool stage.

OBSERVER: Tom Anderson

SUPERVISING OFFICE:

STATION INDEX NO.: 42 8478 7

[redacted] NAT[redacted]OCEA[redacted] U.S. [redacted]MEN[redacted]OMME[redacted] ATM[redacted]RIC A[redacted]TRAT[redacted]
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

STA[redacted]	CO[redacted]	[redacted]	RIVER
Utah	Carbon		

TIME (local) OF OBSERVATION	TEMP.	PRECIPITATION	STANDARD TIME IN USE
RIVER	4 Pm	4 Pm	

TYPE OF RIVER GAGE	ELEVATION OF RIVER GAGE ZERO Ft.	FLOOD STAGE Ft.	NORMAL POOL STAGE Ft.

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	PRECIPITATION 24-HR AMOUNTS Rain, melted snow, etc. (Ins. and hundredths)	Snow, ice pellets, hail (Ins. and tenths)	At Ob. Snow, ice pellets, hail, ice on ground (Ins.)	WEATHER (Calendar Day) Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___ A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1	(57)	(37)															
2	60	36	58														
3	66	39	65														
4	69	39	66														
5	73	46	71														
6	72	45	71														
7	(71)	(48)															
8	(65)	(38)															
9	69	51	54														
10	66	38	66	TR.													
11	74	42	73														
12	73	44	69														
13	69	47	68	TR.													
14	(72)	(40)															
15	(75)	(50)															
16	73	58	72														
17	72	48	60														
18	66	46	66														
19	67	43	64														
20	64	34	58														
21	(70)	(39)															
22	(71)	(45)															
23	78	51	77														
24	79	54	70														
25	78	54	76														
26	72	42	69														
27	72	45	69	.01													
28	(73)	(53)															
29	(82)	(48)															
30	85	52	80														
31	80	38	49	.60													
SUM			SUM	.61													
				Greatest													

Draw a straight line (——) through hours precipitation was observed, and a waved line (~~~) through hours precipitation probably occurred unobserved.

A.M. NOON P.M.

1 2 3 4 5 6 7 8 9 10 11 1 2 3 4 5 6 7 8 9 10 11

Mark 'X' for all types occurring each day.

CHECK BAR (For wire-weight) NORMAL CK. BAR

READING	DATE

Fog	Ice Pel.	Glaze	Thund	Hail	Dam. Winds	SUM

CONDITION OF RIVER AT GAGE

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.
H. Pool stage.

OBSERVER Tom Anderson

SUPERVISING OFFICE

STATION INDEX NO. 42 8478 7

Sunnyside City (Weather Station, if different)

STATE	COUNTY	MONTH	RIVER
Utah	Carbon	June 19.94	

TIME (local) OF OBSERVATION	TEMP.	PRECIPITATION	STANDARD TIME IN USE
	4 Pm	4 Pm	

TYPE OF RIVER GAGE	ELEVATION OF RIVER GAGE ZERO	FLOOD STAGE	NORMAL POOL STAGE
	Ft.	Ft.	Ft.

WS FORM E-15 (7-79)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	PRECIPITATION 24-HR AMOUNTS Rain, melted snow, etc. (liquid) (nearest hundredths)	Snow, ice pellets, hail (liquid) (nearest tenths)	Snow, ice pellets, hail, ice on ground (liquid)	At Ob.
1	76	43	76	.05			
2	78	52	78				
3	84	52	84				
4	(85)	(52)					
5	(83)	(55)					
6	83	54	83				
7	83	51	73				
8	73	44	70				
9	78	44	77				
10	82	49	81				
11	(88)	(57)					
12	(89)	(58)					
13	89	57	88				
14	88	49	87				
15	85	60	84				
16	83	55	82				
17	85	50	84				
18	(84)	(59)					
19	(83)	(58)		Tr.			
20	80	58	78				
21	79	56	75				
22	87	56	87				
23	89	56	88				
24	95	61	94				
25	(98)	(63)					
26	(97)	(60)					
27	96	55	88				
28	92	59	88				
29	91	62	91				
30	93	60	92				
31							
SUM				.05			
Greatest							

Draw a straight line (——) through hours precipitation was observed, and a waved line (~~~) through hours precipitation probably occurred unobserved.

A.M. NOON P.M.

1 2 3 4 5 6 7 8 9 10 11 | 1 2 3 4 5 6 7 8 9 10 11

DATE	WEATHER (Calendar Day) Mark 'X' for all types occurring each day. Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___ A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
SUM											

CHECK BAR (For wire-weight) NORMAL CK. BAR

READING	DATE

CONDITION OF RIVER AT GAGE

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.
H. Pool stage.

OBSERVER Don Anderson

SUPERVISING OFFICE

STATION INDEX NO. 42 8478 7

STA[redacted] Sunnyside City [redacted] MON[redacted] Jul. 19 94

STATE: Utah | COUNTY: Carbon | RIVER:

TIME (local) OF OBSERVATION RIVER | TEMP. 4 PM | PRECIPITATION 4 PM | STANDARD TIME IN USE

TYPE OF RIVER GAGE | ELEVATION OF RIVER GAGE ZERO Ft. | FLOOD STAGE Ft. | NORMAL POOL STAGE Ft.

FORM 17-791 E-13

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	PRECIPITATION 24-HR AMOUNTS Rain, melted snow, etc. (Inc. and hundredths)	Snow, ice pellets, hail (Inc. and tenths)	At Ob. Snow, ice pellets, hail, ice on ground (Inc.)	WEATHER (Calendar Day) Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___ A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1	93	62	89														
2	(89)	(64)															
3	(87)	(60)															
4	86	59	84														
5	87	55	83														
6	83	54	72														
7	77	44	77														
8	84	69	81														
9	(93)	(59)															
10	(93)	(63)															
11	90	62	90														
12	86	63	85														
13	91	52	89														
14	89	59	84														
15	87	60	86														
16	(87)	(63)															
17	(91)	(59)															
18	88	59	85														
19	89	56	89														
20	90	60	88														
21	89	64	89														
22	90	60	83	.21													
23	(85)	(58)															
24	(87)	(64)															
25	90	59	85	.05													
26	91	65	80														
27	93	64	84														
28	92	63	76	Tr.													
29	90	62	87	Tr													
30	(90)	(63)															
31	(87)	(60)															
SUM	2744	1864	SUM	.26													
				Greatest													

Draw a straight line (——) through hours precipitation was observed, and a waved line (~~~) through hours precipitation probably occurred unobserved.

Mark 'X' for all types occurring each day.

CHECK BAR (For wire-weight) NORMAL CK. BAR

READING	DATE

Fog	Ice Pel.	Glaze	Thund	Hail	Dam. Winds	SUM

CONDITION OF RIVER AT GAGE
88.5 60.1

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.
H. Pool stage.

OBSERVER: Tom Anderson

SUPERVISING OFFICE

STATION INDEX NO. 42 8478 7

STATION (Climatological) Sunnyside (River Station, if different) City

STATE Utah | COUNTY Carbon | RIVER | MONTH Aug | 19 94

TIME (local) OF OBSERVATION RIVER | TEMP. 4 Pm | PRECIPITATION 4 Pm | STANDARD TIME IN USE

TYPE OF RIVER GAGE | ELEVATION OF RIVER GAGE ZERO Ft. | FLOOD STAGE Ft. | NORMAL POOL STAGE Ft.

WS FORM E-15 (7-79)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	PRECIPITATION 24-HR AMOUNTS Rain, melted snow, etc. (liq. and hundredths)	Snow, ice pellets, hail (liq. and tenths)	Snow, ice pellets, hail, ice on ground (liq.)	At Ob.	WEATHER (Calendar Day) Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___ A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1	85	61	74															
2	89	55	80															
3	91	59	89															
4	93	64	92															
5	94	63	91															
6	(91)	(60)																
7	(92)	(64)																
8	85	63	82															
9	74	53	67	1.06														
10	80	53	77															
11	85	54	82															
12	82	60	81															
13	(85)	(62)																
14	(86)	(58)																
15	86	56	73	Tr.														
16	90	59	89															
17	93	60	89															
18	92	63	79															
19	80	55	80	.11														
20	(81)	(53)		TR.														
21	(82)	(53)																
22	85	56	84															
23	82	54	80															
24	94	56	82															
25	77	58	84															
26	86	56	85															
27	(86)	(60)		.05														
28	(82)	(53)																
29	80	54	75															
30	80	53	76															
31	81	48	78															
SUM	2649	1776	SUM	1.22				Fog	Ice Pel.	Glaze	Thund.	Hail	Dam. Winds	SUM				
				Greatest														

Draw a straight line (——) through hours precipitation was observed, and a waved line (~~~) through hours precipitation probably occurred unobserved.

A.M. NOON P.M.

Mark 'X' for all types occurring each day.

CONDITION OF RIVER AT GAGE
25.5 57.2

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.
H. Pool stage.

CHECK BAR (For wire-weight) NORMAL CK. BAR

READING	DATE

OBSERVER Tom Anderson

SUPERVISING OFFICE

STATION INDEX NO. 42 8478 7