

Appendix 7-6

**Seep/Spring
Inventory Data**

CHEMTECH

28 EAST 1500 NORTH
OREM, UTAH 84057
(801) 226-8822

CERTIFICATE OF ANALYSIS

SAMPLE IDENTIFICATION

CLIENT: JBR Consultants
2556 East Oak Creek Circle
Sandy, UT 84092

LAB NO.: U009230

DATE SAMPLED: 11-6-85

TIME SAMPLED: 1500

SAMPLED BY: Martz

LOCATION: RB-21 H-1

COMMENTS: metals - dissolved

PARAMETER

LEVEL

Chloride as Cl, mg/l	12.6
Chromium as Cr (Hex.), mg/l	<.005
Chromium as Cr (Total), mg/l	<.005
Conductivity, umhos/cm	866
Copper as Cu, mg/l	0.020
Fluoride as F, mg/l	0.17
Hardness as CaCO ₃ , mg/l	399
Hydroxide as OH, mg/l	0
Iron as Fe (Dissolved), mg/l	0.248
Iron as Fe (Total), mg/l	--
Lead as Pb, mg/l	0.022
Magnesium as Mg, mg/l	48.2
Manganese as Mn, mg/l	0.020
Mercury as Hg, mg/l	0.000
Nickel as Ni, mg/l	0.006
Nitrate as NO ₃ -N, mg/l	0.27
Nitrite as NO ₂ -N, mg/l	<.005
Phosphate as PO ₄ -P, mg/l	0.041
Potassium as K, mg/l	1.92
Selenium as Se, mg/l	<.005
Silica as SiO ₂ (Dissolved), mg/l	10.4
Silver as Ag, mg/l	<.005
Sodium as Na, mg/l	89.8
Sulfate as SO ₄ , mg/l	115
Total Dissolved Solids, mg/l	581
Turbidity, NTU	--
Zinc as Zn, mg/l	0.10
pH Units	7.69

PARAMETER	LEVEL
Alkalinity as CaCO ₃ , mg/l	365
Ammonia as NH ₃ -N, mg/l	0.15
Arsenic as As, mg/l	0.012
Barium as Ba, mg/l	0.060
Bicarbonate as HCO ₃ , mg/l	445
Boron as B, mg/l	0.59
Cadmium as Cd, mg/l	<.005
Calcium as Ca, mg/l	27.5
Carbonate as CO ₃ , mg/l	0
Sulfide as S, mg/l	<.05
Molybdenum as Mo, mg/l	<.005


CHEMTECH

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28 EAST 1500 NORTH
OREM, UTAH 84057
(801) 226-8822

CERTIFICATE OF ANALYSIS

SAMPLE IDENTIFICATION

CLIENT: JBR Consultants
2556 East Oak Creek Circle
Sandy, UT 84092

LAB NO.: U009231

DATE SAMPLED: 11-8-85

TIME SAMPLED: 1130

SAMPLED BY: Martz

LOCATION: RB-26 H-6

COMMENTS: metals - dissolved

PARAMETER

LEVEL

Chloride as Cl, mg/l 27.1

Chromium as Cr (Hex.), mg/l <.005

Chromium as Cr (Total), mg/l <.005

Conductivity, umhos/cm 1300

Copper as Cu, mg/l 0.010

Fluoride as F, mg/l 0.38

Hardness as CaCO₃, mg/l 401

Hydroxide as OH, mg/l 0

Iron as Fe (Dissolved), mg/l 0.023

Iron as Fe (Total), mg/l --

Lead as Pb, mg/l 0.024

Magnesium as Mg, mg/l 68.8

Manganese as Mn, mg/l <.005

Mercury as Hg, mg/l 0.0003

Nickel as Ni, mg/l <.005

Nitrate as NO₃-N, mg/l 0.48

Nitrite as NO₂-N, mg/l <.005

Phosphate as PO₄-P, mg/l 0.016

Potassium as K, mg/l 1.84

Selenium as Se, mg/l 0.004

Silica as SiO₂ (Dissolved), mg/l 10.71

Silver as Ag, mg/l <.005

Sodium as Na, mg/l 161

Sulfate as SO₄, mg/l 251

Total Dissolved Solids, mg/l 892

Turbidity, NTU --

Zinc as Zn, mg/l 0.06

pH Units 7.87

PARAMETER	LEVEL
Alkalinity as CaCO ₃ , mg/l	375
Ammonia as NH ₃ -N, mg/l	0.15
Arsenic as As, mg/l	0.010
Barium as Ba, mg/l	0.050
Bicarbonate as HCO ₃ , mg/l	457
Boron as B, mg/l	1.07
Cadmium as Cd, mg/l	<.005
Calcium as Ca, mg/l	32.5
Carbonate as CO ₃ , mg/l	0
Sulfide as S, mg/l	<.05
Molybdenum as Mo, mg/l	0.016


CHEMTECH

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28 EAST 1500 NORTH
OREM, UTAH 84057
(801) 226-8822

CERTIFICATE OF ANALYSIS

SAMPLE IDENTIFICATION

CLIENT: JBR Consultants
2556 East Oak Creek Circle
Sandy, UT 84092

LAB NO.: 0009220

DATE SAMPLED: 11-8-85

TIME SAMPLED: 1015

SAMPLED BY: Martz

LOCATION: EWL-25 H-18

COMMENTS: metals - dissolved

PARAMETER

LEVEL

Chloride as Cl, mg/l	25.2
Chromium as Cr (Hex.), mg/l	<.005
Chromium as Cr (Total), mg/l	<.005
Conductivity, umhos/cm	1010
Copper as Cu, mg/l	0.030
Fluoride as F, mg/l	0.24
Hardness as CaCO ₃ , mg/l	343
Hydroxide as OH, mg/l	0
Iron as Fe (Dissolved), mg/l	0.040
Iron as Fe (Total), mg/l	--
Lead as Pb, mg/l	0.024
Magnesium as Mg, mg/l	52.8
Manganese as Mn, mg/l	<.005
Mercury as Hg, mg/l	0.001
Nickel as Ni, mg/l	<.005
Nitrate as NO ₃ -N, mg/l	0.11
Nitrite as NO ₂ -N, mg/l	<.005
Phosphate as PO ₄ -P, mg/l	0.025
Potassium as K, mg/l	1.64
Selenium as Se, mg/l	<.002
Silica as SiO ₂ (Dissolved), mg/l	10.76
Silver as Ag, mg/l	<.005
Sodium as Na, mg/l	123
Sulfate as SO ₄ , mg/l	107
Total Dissolved Solids, mg/l	641
Turbidity, NTU	--
Zinc as Zn, mg/l	0.10
pH Units	7.58

PARAMETER

LEVEL

Alkalinity as CaCO ₃ , mg/l	377
Ammonia as NH ₃ -N, mg/l	0.12
Arsenic as As, mg/l	0.012
Barium as Ba, mg/l	0.120
Bicarbonate as HCO ₃ , mg/l	460
Boron as B, mg/l	0.37
Cadmium as Cd, mg/l	<.005
Calcium as Ca, mg/l	29.6
Carbonate as CO ₃ , mg/l	0
Sulfide as S, mg/l	<.05
Molybdenum as Mo, mg/l	<.005


CHEMTECH

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28 EAST 1500 NORTH
OREM, UTAH 84057
(801) 226-8822

CERTIFICATE OF ANALYSIS

SAMPLE IDENTIFICATION

CLIENT: JBR Consultants
2556 East Oak Creek Circle
Sandy, UT 84092
LAB NO.: U009221
DATE SAMPLED: 11-8-85
TIME SAMPLED: 0945
SAMPLED BY: Martz
LOCATION: EWL-26 H-21
COMMENTS: metals - dissolved

PARAMETER

LEVEL

Chloride as Cl, mg/l 21.0
Chromium as Cr (Hex.), mg/l <.005
Chromium as Cr (Total), mg/l <.005
Conductivity, umhos/cm 525
Copper as Cu, mg/l 0.013
Fluoride as F, mg/l 0.10
Hardness as CaCO₃, mg/l 152
Hydroxide as OH, mg/l 0
Iron as Fe (Dissolved), mg/l 0.105
Iron as Fe (Total), mg/l --
Lead as Pb, mg/l 0.011
Magnesium as Mg, mg/l 20.4
Manganese as Mn, mg/l 0.008
Mercury as Hg, mg/l 0.000
Nickel as Ni, mg/l <.005
Nitrate as NO₃-N, mg/l 0.29
Nitrite as NO₂-N, mg/l <.005
Phosphate as PO₄-P, mg/l 0.025
Potassium as K, mg/l 0.67
Selenium as Se, mg/l 0.004
Silica as SiO₂ (Dissolved), mg/l 10.90
Silver as Ag, mg/l <.005
Sodium as Na, mg/l 72.1
Sulfate as SO₄, mg/l 77.2
Total Dissolved Solids, mg/l 347
Turbidity, NTU --
Zinc as Zn, mg/l 0.09
pH Units 7.86

PARAMETER

LEVEL

Alkalinity as CaCO₃, mg/l 152
Ammonia as NH₃-N, mg/l 0.15
Arsenic as As, mg/l 0.011
Barium as Ba, mg/l 0.220
Bicarbonate as HCO₃, mg/l 186
Boron as B, mg/l 0.22
Cadmium as Cd, mg/l <.005
Calcium as Ca, mg/l 13.4
Carbonate as CO₃, mg/l 0
Sulfide as S, mg/l <.05
Molybdenum as Mo, mg/l <.005


CHEMTECH

LOS ANGELES DEPARTMENT OF WATER AND POWER
SOUTH LEASE PROPERTY
SEEP AND SPRING DATA
OCTOBER 1995

SEEP/ SPRING Number	PH (units)	COND. (umhos/cm) @ 25 deg C	FLOW RATE (gpm)	TEMP (deg C)	COMMENTS
1	8.35	430	2	8	
1A			DRY		
1B			WET		
2	7.50	500	2	7	
3	8.31	590	<0.5	9	
3A			DRY		
3B	8.35	500	2	9	
3C	8.24	460	0.5	11	
3D	8.35	501	0.5	9	
4			DRY		
5			DRY		
6	8.20	610	<0.5	9	
7	8.23	485	0.5	9	
8	8.33	550	0.25	9	
8A	8.42	585	0.5	12	
8B					NOT FOUND
9	8.37	610	1	8	
9R	8.37	580	<0.5	9	
10	7.58	810	1	9	
10A	7.69	880	1	9	NEW SPRING-AUGUST 1995
11	7.97	1105	1	11	TOTAL FLOW AT ROAD
12			SEEP		
12A	8.08	510	<0.25	7	
12B	6.20	1005	<0.25	5	
12C			SEEP		
12D			DRY		
12E	7.97	1650	<0.5	10	
13	8.03	1005	2	11	
13A	8.02	1210	1	9	
13B	8.05	1180	2	8	
13Z					NOT FOUND
14	7.99	1480	8	10	
14A			WET		
15			DRY		
15A			WET		
15B			DRY		
15C			DRY		
16 (16Z)	8.27	600	2	6	WATER TANK
16A			DRY		
16B	9.07	720	3	7	
16C			SEEP		
17			SEEP		NO SAMPLE
17A					NOT FOUND
17B	LOCATION ABANDONED 10/26/94				
18			SEEP		
19A			WET		
19B	7.65	650	2	8	
19C					Re-emergence of 19B
20			DRY		
22	8.25	720	0.5	12	

CHAIN-OF-CUSTODY FORM

Sampling Company: <u>ERDFEA FISH</u>	Sampling Personnel: <u>VOS/LD</u>
Project Name: <u>SOON LAKE</u>	Project Number:
Analytical Laboratory: <u>CHEM TECH</u>	Date of Shipment/Delivery: <u>10/19/95</u>
Method of Shipment/Delivery: <u>HAND</u>	Airbill Number:

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
<u>10</u>	<u>10/17/95</u>	<u>17:20</u>	<u>WATER</u>	<u>4</u>	<u>ATTACHED ANALYSIS</u>
<u>16</u>	<u>10/17/95</u>	<u>12:50</u>	<u></u>	<u>4</u>	<u>LIST</u>
<u>1</u>	<u>10/17/95</u>	<u>17:05</u>	<u>{</u>	<u>4</u>	<u>}</u>
<u>14</u>	<u>10/17/95</u>	<u>9:55</u>	<u>}</u>	<u>4</u>	<u>{</u>
<u>9</u>	<u>10/17/95</u>	<u>15:05</u>	<u>}</u>	<u>4</u>	<u>}</u>

Relinquished by: <u>Walter J. Bailey</u>	Date: <u>10/17/95</u>	Time: <u>9:40</u>	Received by: <u>J. C. [Signature]</u>	Date: <u>10/19/95</u>	Time: <u>9:40</u>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4813
Lab #: 95-U035455
Project: SOUTH LEASE
Sample Desc: 1
Date Sampled: 10/17/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO ₃ , mg/L	418	1	10/23/95 10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	< 1	1	10/23/95 10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95 12:40	SM 4500G/F	DI
Chloride, mg/L	10	1	11/ 4/95 10:00	EPA 325.3	TM
Fluoride, mg/L	< 0.2	0.2	10/31/95 11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	352	10	10/25/95 9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	< 0.0002	0.0002	11/ 2/95 9:05	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	0.08	0.02	10/28/95 14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.010	0.005	10/20/95 9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	0.02	0.01	10/25/95 15:00	SM 4500-P	KA
Sulfate, mg/L	100	10	11/ 2/95 11:30	EPA 375.4	TM
Sulfide, mg/L	< 0.1	0.1	10/23/95 17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	482	10	10/23/95 15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	< 0.02	0.02	10/30/95 15:00	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95 15:00	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.06	0.02	10/30/95 15:00	EPA 200.7	LH
Boron (T), as B, mg/L	< 0.1	0.1	10/30/95 15:00	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95 15:00	EPA 200.7	LH
Calcium (T), as Ca, mg/L	55.8	0.2	10/30/95 15:00	EPA 200.7	LH
Chromium(T), as Cr, mg/L	< 0.005	0.005	10/30/95 15:00	EPA 200.7	LH
Copper (T), as Cu, mg/L	< 0.01	0.01	10/30/95 15:00	EPA 200.7	LH
Iron (T), as Fe, mg/L	< 0.04	0.04	10/30/95 15:00	EPA 200.7	LH
Lead (T), as Pb, mg/L	< 0.01	0.01	10/30/95 15:00	EPA 200.7	LH

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4813
Lab #: 95-U035455
Project: SOUTH LEASE
Sample Desc: 1
Date Sampled: 10/17/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (T), as Mg, mg/L	50.5	0.1	10/30/95 15:00	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.01	0.01	10/30/95 15:00	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	< 0.01	0.01	10/30/95 15:00	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.01	0.01	10/30/95 15:00	EPA 200.7	LH
Potassium (T), as K, mg/L	0.9	0.1	10/30/95 15:00	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95 15:00	EPA 200.7	LH
Sodium (T), as Na, mg/L	45.7	0.2	10/30/95 15:00	EPA 200.7	LH
Zinc (T), as Zn, mg/L	< 0.02	0.02	10/30/95 15:00	EPA 200.7	LH

NOTE: Nitrite was run past holding time due to late arrival and size of project.

Approved By: _____



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4813
Lab #: 95-U035457
Project: SOUTH LEASE
Sample Desc: 9
Date Sampled: 10/17/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO ₃ , mg/L	497	1	10/23/95 10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	< 1	1	10/23/95 10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95 12:40	SM 4500G/F	DI
Chloride, mg/L	10	1	11/ 4/95 10:00	EPA 325.3	TM
Fluoride, mg/L	< 0.2	0.2	10/31/95 11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	374	10	10/25/95 9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	0.0002	0.0002	11/ 6/95 11:45	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	< 0.02	0.02	10/28/95 14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.009	0.005	10/20/95 9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	0.02	0.01	10/25/95 15:00	SM 4500-P	KA
Sulfate, mg/L	97	10	11/ 2/95 11:30	EPA 375.4	TM
Sulfide, mg/L	< 0.1	0.1	10/23/95 17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	548	10	10/23/95 15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	0.08	0.02	10/30/95 15:08	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95 15:08	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.09	0.02	10/30/95 15:08	EPA 200.7	LH
Boron (T), as B, mg/L	< 0.1	0.1	10/30/95 15:08	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95 15:08	EPA 200.7	LH
Calcium (T), as Ca, mg/L	57.8	0.2	10/30/95 15:08	EPA 200.7	LH
Chromium(T), as Cr, mg/L	< 0.005	0.005	10/30/95 15:08	EPA 200.7	LH
Copper (T), as Cu, mg/L	< 0.01	0.01	10/30/95 15:08	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.09	0.04	10/30/95 15:08	EPA 200.7	LH
Lead (T), as Pb, mg/L	< 0.01	0.01	10/30/95 15:08	EPA 200.7	LH

Approved By:



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4813
Lab #: 95-U035457
Project: SOUTH LEASE
Sample Desc: 9
Date Sampled: 10/17/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE		METHOD	ANALYST
			ANALYZED			
INORGANIC PARAMETERS						
Magnesium (T), as Mg, mg/L	52.5	0.1	10/30/95	15:08	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.01	0.01	10/30/95	15:08	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	0.01	0.01	10/30/95	15:08	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.01	0.01	10/30/95	15:08	EPA 200.7	LH
Potassium (T), as K, mg/L	0.7	0.1	10/30/95	15:08	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95	15:08	EPA 200.7	LH
Sodium (T), as Na, mg/L	64.0	0.2	10/30/95	15:08	EPA 200.7	LH
Zinc (T), as Zn, mg/L	< 0.02	0.02	10/30/95	15:08	EPA 200.7	LH

NOTE: Nitrite was run past holding time due to late arrival and size of project.

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4813
Lab #: 95-U035453
Project: SOUTH LEASE
Sample Desc: 10
Date Sampled: 10/16/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO ₃ , mg/L	482	1	10/23/95 10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	< 1	1	10/23/95 10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95 12:40	SM 4500G/F	DI
Chloride, mg/L	13	1	11/ 4/95 10:00	EPA 325.3	TM
Fluoride, mg/L	< 0.2	0.2	10/31/95 11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	427	10	10/25/95 9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	< 0.0002	0.0002	11/ 2/95 9:05	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	0.04	0.02	10/28/95 14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.009	0.005	10/20/95 9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	0.07	0.01	10/25/95 15:00	SM 4500-P	KA
Sulfate, mg/L	173	10	11/ 2/95 11:30	EPA 375.4	TM
Sulfide, mg/L	< 0.21	0.21	10/23/95 17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	626	10	10/23/95 15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	0.34	0.02	10/30/95 14:56	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95 14:56	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.04	0.04	10/30/95 14:56	EPA 200.7	LH
Boron (T), as B, mg/L	< 0.1	0.1	10/30/95 14:56	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95 14:56	EPA 200.7	LH
Calcium (T), as Ca, mg/L	68.3	0.2	10/30/95 14:56	EPA 200.7	LH
Chromium(T), as Cr, mg/L	0.006	0.005	10/30/95 14:56	EPA 200.7	LH
Copper (T), as Cu, mg/L	< 0.01	0.01	10/30/95 14:56	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.64	0.04	10/30/95 14:56	EPA 200.7	LH
Lead (T), as Pb, mg/L	0.010	0.01	10/30/95 14:56	EPA 200.7	LH

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4813
Lab #: 95-U035453
Project: SOUTH LEASE
Sample Desc: 10
Date Sampled: 10/16/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (T), as Mg, mg/L	56.0	0.1	10/30/95 14:56	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.02	0.01	10/30/95 14:56	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	0.01	0.01	10/30/95 14:56	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.01	0.01	10/30/95 14:56	EPA 200.7	LH
Potassium (T), as K, mg/L	0.7	0.1	10/30/95 14:56	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95 14:56	EPA 200.7	LH
Sodium (T), as Na, mg/L	57.4	0.2	10/30/95 14:56	EPA 200.7	LH
Zinc (T), as Zn, mg/L	< 0.02	0.02	10/30/95 14:56	EPA 200.7	LH

NOTE: Nitrite was submitted past holding time.

Approved By: 



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4813
Lab #: 95-U035456
Project: SOUTH LEASE
Sample Desc: 14
Date Sampled: 10/17/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE		METHOD	ANALYST
			ANALYZED			
INORGANIC PARAMETERS						
Bicarbonate as HCO ₃ , mg/L	563	1	10/23/95	10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	< 1	1	10/23/95	10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95	12:40	SM 4500G/F	DI
Chloride, mg/L	40	1	11/ 4/95	10:00	EPA 325.3	TM
Fluoride, mg/L	0.2	0.2	10/31/95	11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	591	10	10/25/95	9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	0.0003	0.0002	11/ 6/95	11:45	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	< 0.02	0.02	10/28/95	14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.008	0.005	10/20/95	9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	0.06	0.01	10/25/95	15:00	SM 4500-P	KA
Sulfate, mg/L	663	20	11/ 2/95	11:30	EPA 375.4	TM
Sulfide, mg/L	< 0.1	0.1	10/23/95	17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	1,420	10	10/23/95	15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	0.05	0.02	10/30/95	15:02	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95	15:02	EPA 200.7	LH
Barium (T), as Ba, mg/L	< 0.02	0.02	10/30/95	15:02	EPA 200.7	LH
Boron (T), as B, mg/L	0.2	0.1	10/30/95	15:02	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95	15:02	EPA 200.7	LH
Calcium (T), as Ca, mg/L	59.3	0.2	10/30/95	15:02	EPA 200.7	LH
Chromium(T), as Cr, mg/L	< 0.005	0.005	10/30/95	15:02	EPA 200.7	LH
Copper (T), as Cu, mg/L	< 0.01	0.01	10/30/95	15:02	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.07	0.04	10/30/95	15:02	EPA 200.7	LH
Lead (T), as Pb, mg/L	< 0.01	0.01	10/30/95	15:02	EPA 200.7	LH

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4813
Lab #: 95-U035456
Project: SOUTH LEASE
Sample Desc: 14
Date Sampled: 10/17/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE		METHOD	ANALYST
			ANALYZED			
INORGANIC PARAMETERS						
Magnesium (T), as Mg, mg/L	102	0.1	10/30/95	15:02	EPA 200.7	LH
Manganese (T), as Mn, mg/L	< 0.01	0.01	10/30/95	15:02	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	0.02	0.01	10/30/95	15:02	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.01	0.01	10/30/95	15:02	EPA 200.7	LH
Potassium (T), as K, mg/L	1.1	0.1	10/30/95	15:02	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95	15:02	EPA 200.7	LH
Sodium (T), as Na, mg/L	271	0.2	10/30/95	15:02	EPA 200.7	LH
Zinc (T), as Zn, mg/L	< 0.02	0.02	10/30/95	15:02	EPA 200.7	LH

NOTE: Nitrite was run past holding time due to late arrival and size of project.

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4813
Lab #: 95-U035454
Project: SOUTH LEASE
Sample Desc: 16
Date Sampled: 10/17/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO ₃ , mg/L	500	1	10/23/95 10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	< 1	1	10/23/95 10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95 12:40	SM 4500G/F	DI
Chloride, mg/L	18	1	11/ 4/95 10:00	EPA 325.3	TM
Fluoride, mg/L	< 0.2	0.2	10/31/95 11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	334	10	10/25/95 9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	< 0.0002	0.0002	11/ 2/95 9:05	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	< 0.02	0.02	10/28/95 14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.008	0.005	10/20/95 9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	0.02	0.01	10/25/95 15:00	SM 4500-P	KA
Sulfate, mg/L	134	10	11/ 2/95 11:30	EPA 375.4	TM
Sulfide, mg/L	< 0.1	0.1	10/23/95 17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	592	10	10/23/95 15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	< 0.02	0.02	10/30/95 14:58	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95 14:58	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.05	0.02	10/30/95 14:58	EPA 200.7	LH
Boron (T), as B, mg/L	< 0.1	0.1	10/30/95 14:58	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95 14:58	EPA 200.7	LH
Calcium (T), as Ca, mg/L	51.9	0.2	10/30/95 14:58	EPA 200.7	LH
Chromium(T), as Cr, mg/L	< 0.005	0.005	10/30/95 14:58	EPA 200.7	LH
Copper (T), as Cu, mg/L	< 0.01	0.01	10/30/95 14:58	EPA 200.7	LH
Iron (T), as Fe, mg/L	< 0.04	0.04	10/30/95 14:58	EPA 200.7	LH
Lead (T), as Pb, mg/L	< 0.01	0.01	10/30/95 14:58	EPA 200.7	LH

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4813
Lab #: 95-U035454
Project: SOUTH LEASE
Sample Desc: 16
Date Sampled: 10/17/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE		METHOD	ANALYST
			ANALYZED			
INORGANIC PARAMETERS						
Magnesium (T), as Mg, mg/L	58.1	0.1	10/30/95	14:58	EPA 200.7	LH
Manganese (T), as Mn, mg/L	< 0.01	0.01	10/30/95	14:58	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	0.02	0.01	10/30/95	14:58	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.01	0.01	10/30/95	14:58	EPA 200.7	LH
Potassium (T), as K, mg/L	0.5	0.1	10/30/95	14:58	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95	14:58	EPA 200.7	LH
Sodium (T), as Na, mg/L	113	0.2	10/30/95	14:58	EPA 200.7	LH
Zinc (T), as Zn, mg/L	< 0.02	0.02	10/30/95	14:58	EPA 200.7	LH

NOTE: Nitrite was run past holding time due to late arrival and size of project.

Approved By: _____

{generic.rpt}

LOS ANGELES DEPARTMENT OF WATER AND POWER
SOUTH LEASE PROPERTY
SEEP AND SPRING DATA
AUGUST 1995

SEEP/ SPRING Number	PH (units)	COND. (umhos/cm) @ 25 deg C	FLOW RATE (gpm)	TEMP (deg C)	COMMENTS
1	8.20	670	1.5	14	
1A			DRY		
1B			WET		
2			DRY		
3	8.23	934	1	17	
3A			DRY		
3B	7.96	638	1.25	10	
3C	8.07	623	2	19	
3D	7.74	631	0.5	12	
4	8.00	856	0.25	11	
5			SEEP		
6					NOT FOUND
7	7.78	983	0.5	9	
8	7.98	676	0.25	13	
8A	8.11	688	0.5	23	
8B					NOT FOUND
9	8.01	780	0.5	14	
9R	8.19	793	1	17	
10	7.80	802	3	9.5	
10A	7.92	758	1.5	10.5	NEW SPRING--AUGUST 1995
11	8.05	1151	3	15	TOTAL FLOW AT ROAD
12			SEEP		
12A	8.20	1124	<0.25	19	
12B	8.57	1126	<0.25	31	
12C	8.66	1102	SEEP	25	
12D	8.23	1213	<0.25	14	
12E			WET		
13			WET		
13A			DRY		
13B			WET		
13Z	7.78	819	0.25	16	
14	8.53	1127	1	24	
14A			WET		
15			DRY		
15A			WET		
15B			DRY		
15C			WET		
16 (16Z)	7.97	818	0.75	14	WATER TANK
16A			DRY		Flow mixed w/ upgradient spring
16B			DRY		Flow mixed w/ upgradient spring
16C			DRY		
17			SEEP	18	NO SAMPLE
17A			SEEP		
17B	LOCATION ABANDONED 10/26/94				LOCATION ABANDONED
18	8.26	692	1	20	
19A	8.19	749	SEEP	18	
19B	8.17	678	0.25	13	
19C					Re-emergence of 19B
20			WET		
22			DRY		

CHAIN-OF-CUSTODY FORM

#125/MP/MP/PQ
 Temp = 11.2

31444

Sampling Company: <u>Earth Fax</u>	Sampling Personnel: <u>LCD/COH</u>
Project Name: <u>SLB seep & Spring/Horse Canyon</u>	Project Number: <u>UC 391.02</u>
Analytical Laboratory: <u>Chemtech</u>	Date of Shipment/Delivery: <u>8-11-95</u>
Method of Shipment/Delivery: <u>Hand</u>	Airbill Number: <u>—</u>

31444
 31445
 31446
 31447
 31448
 31449

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
<u>1</u>	<u>8-10-95</u>	<u>1500</u>	<u>Water</u>	<u>4</u>	
<u>9</u>	<u>8-10-95</u>	<u>1346</u>	<u>Water</u>	<u>4</u>	
<u>H-18</u>	<u>8-10-95</u>	<u>1015</u>	<u>Water</u>	<u>5</u>	
<u>10</u>	<u>8-9-95</u>	<u>1200</u>	<u>Water</u>	<u>4</u>	
<u>16</u>	<u>8-9-95</u>	<u>1134</u>	<u>Water</u>	<u>4</u>	
<u>14</u>	<u>8-9-95</u>	<u>1458</u>	<u>Water</u>	<u>4</u>	

Relinquished by: <u>Chris Hansen</u>	Date: <u>8-11-95</u>	Time: <u>1103</u>	Received by: <u>Laurie Shelby</u>	Date: <u>8-11</u>	Time: <u>11:00</u>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:



DATE: 9-06-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031444
PROJECT: SLB Seep & Spring/Horse Canyon: #1
DATE SAMPLED: 8-10-95
DATE SUBMITTED: 8-11-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	433	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-21-95 SM17 4500B
Chloride as Cl, mg/l	12	8-15-95 EPA 325.3
Fluoride as F, mg/l	<.2	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	365	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-17-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	0.090	8-22-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0086	8-11-95 EPA 354.1
Sulfate as SO ₄ , mg/l	103	8-14-95 SM 4500
Sulfide as S, mg/l	<.1	8-17-95 EPA 376.1
TDS, mg/l	516	8-15-95 EPA 160.1
Aluminum as Al, mg/l	0.884	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.091	8-14-95 EPA 200.7
Boron as B, mg/l	0.12	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.005	8-14-95 EPA 200.7
Calcium as Ca, mg/l	59.9	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.005	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7

Approved By: *Paul W. Jensen*



DATE: 9-06-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031444
PROJECT: SLB Seep & Spring/Horse Canyon: #1
DATE SAMPLED: 8-10-95
DATE SUBMITTED: 8-11-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe, mg/l	1.34	8-14-95 EPA 200.7
Lead as Pb, mg/l	0.020	8-14-95 EPA 200.7
Magnesium as Mg, mg/l	50.9	8-14-95 EPA 200.7
Manganese as Mn, mg/l	0.087	8-14-95 EPA 200.7
Molybdenum as Mo, mg/l	<.01	8-14-95 EPA 200.7
Nickel as Ni, mg/l	<.01	8-14-95 EPA 200.7
Phosphorus as P, mg/l	0.078	8-23-95 SM 4500E
Potassium as K, mg/l	1.13	8-14-95 EPA 200.7
Selenium as Se, mg/l	<.04	8-14-95 EPA 200.7
Sodium as Na, mg/l	46.9	8-14-95 EPA 200.7
Zinc as Zn, mg/l	0.012	8-14-95 EPA 200.7

Approved By: _____



DATE: 9-06-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031445

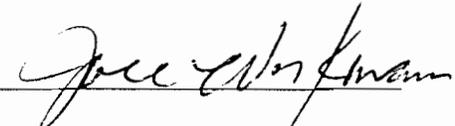
PROJECT: SLB Seep & Spring/Horse Canyon: #9

DATE SAMPLED: 8-10-95

DATE SUBMITTED: 8-11-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	535	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-21-95 SM17 4500B
Chloride as Cl, mg/l	11	8-15-95 EPA 325.3
Fluoride as F, mg/l	<.2	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	411	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-17-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	0.030	8-22-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0071	8-11-95 EPA 354.1
Sulfate as SO ₄ , mg/l	110	8-14-95 SM 4500
Sulfide as S, mg/l	<.1	8-17-95 EPA 376.1
TDS, mg/l	659	8-15-95 EPA 160.1
Aluminum as Al, mg/l	0.335	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.104	8-14-95 EPA 200.7
Boron as B, mg/l	0.078	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.005	8-14-95 EPA 200.7
Calcium as Ca, mg/l	64.1	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.005	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7

Approved By: 



DATE: 9-06-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031445

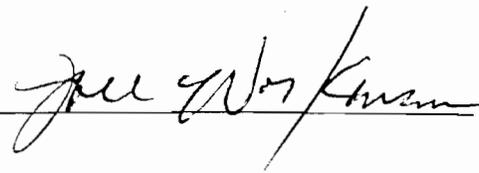
PROJECT: SLB Seep & Spring/Horse Canyon: #9

DATE SAMPLED: 8-10-95

DATE SUBMITTED: 8-11-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.465	8-14-95 EPA 200.7
Lead as Pb, mg/l	0.026	8-14-95 EPA 200.7
Magnesium as Mg, mg/l	56.9	8-14-95 EPA 200.7
Manganese as Mn, mg/l	0.032	8-14-95 EPA 200.7
Molybdenum as Mo, mg/l	<.01	8-14-95 EPA 200.7
Nickel as Ni, mg/l	0.013	8-14-95 EPA 200.7
Phosphorus as P, mg/l	0.024	8-23-95 SM 4500E
Potassium as K, mg/l	0.59	8-14-95 EPA 200.7
Selenium as Se, mg/l	<.04	8-14-95 EPA 200.7
Sodium as Na, mg/l	69.5	8-14-95 EPA 200.7
Zinc as Zn, mg/l	0.023	8-14-95 EPA 200.7

Approved By: 



DATE: 9-06-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031446

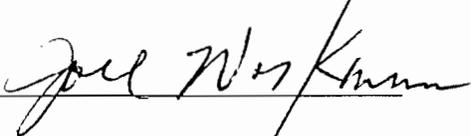
PROJECT: SLB Seep & Spring/Horse Canyon: H-18

DATE SAMPLED: 8-10-95

DATE SUBMITTED: 8-11-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	625	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-21-95 SM17 4500B
Chloride as Cl, mg/l	25	8-15-95 EPA 325.3
Fluoride as F, mg/l	0.25	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	425	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-17-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	<.01	8-22-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0069	8-11-95 EPA 354.1
Sulfate as SO ₄ , mg/l	303	8-14-95 SM 4500
Sulfide as S, mg/l	<.1	8-17-95 EPA 376.1
TDS, mg/l	874	8-15-95 EPA 160.1
Aluminum as Al, mg/l	0.040	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.104	8-14-95 EPA 200.7
Boron as B, mg/l	0.33	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.005	8-14-95 EPA 200.7
Calcium as Ca, mg/l	60.7	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.005	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7

Approved By: 



DATE: 9-06-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031446
PROJECT: SLB Seep & Spring/Horse Canyon: H-18
DATE SAMPLED: 8-10-95
DATE SUBMITTED: 8-11-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.095	8-14-95 EPA 200.7
Lead as Pb, mg/l	0.022	8-14-95 EPA 200.7
Magnesium as Mg, mg/l	65.8	8-14-95 EPA 200.7
Manganese as Mn, mg/l	0.041	8-14-95 EPA 200.7
Molybdenum as Mo, mg/l	<.01	8-14-95 EPA 200.7
Nickel as Ni, mg/l	<.01	8-14-95 EPA 200.7
Phosphorus as P, mg/l	<.02	8-23-95 SM 4500E
Potassium as K, mg/l	3.81	8-14-95 EPA 200.7
Selenium as Se, mg/l	<.04	8-14-95 EPA 200.7
Sodium as Na, mg/l	179	8-14-95 EPA 200.7
Zinc as Zn, mg/l	0.012	8-14-95 EPA 200.7

Approved By: _____



DATE: 9-06-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031447

PROJECT: SLB Seep & Spring/Horse Canyon: 10

DATE SAMPLED: 8-10-95

DATE SUBMITTED: 8-11-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	472	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-21-95 SM17 4500B
Chloride as Cl, mg/l	11	8-15-95 EPA 325.3
Fluoride as F, mg/l	<.2	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	440	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-17-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	0.052	8-22-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0056	8-11-95 EPA 354.1
Sulfate as SO ₄ , mg/l	184	8-14-95 SM 4500
Sulfide as S, mg/l	<.1	8-17-95 EPA 376.1
TDS, mg/l	634	8-15-95 EPA 160.1
Aluminum as Al, mg/l	0.030	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.038	8-14-95 EPA 200.7
Boron as B, mg/l	0.061	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.005	8-14-95 EPA 200.7
Calcium as Ca, mg/l	71.8	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.005	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7

Approved By: Joel W. Kram



DATE: 9-06-95

TO: EarthFax Engineering
 7324 So. 1300 E. STE 100
 Midvale, Utah 84047

SAMPLE ID: Lab #U031447

PROJECT: SLB Seep & Spring/Horse Canyon: 10

DATE SAMPLED: 8-10-95

DATE SUBMITTED: 8-11-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.039	8-14-95 EPA 200.7
Lead as Pb, mg/l	<.02	8-14-95 EPA 200.7
Magnesium as Mg, mg/l	58.0	8-14-95 EPA 200.7
Manganese as Mn, mg/l	<.01	8-14-95 EPA 200.7
Molybdenum as Mo, mg/l	<.01	8-14-95 EPA 200.7
Nickel as Ni, mg/l	<.01	8-14-95 EPA 200.7
Phosphorus as P, mg/l	<.02	8-23-95 SM 4500E
Potassium as K, mg/l	0.84	8-14-95 EPA 200.7
Selenium as Se, mg/l	<.04	8-14-95 EPA 200.7
Sodium as Na, mg/l	60.2	8-14-95 EPA 200.7
Zinc as Zn, mg/l	<.01	8-14-95 EPA 200.7

Approved By: _____



DATE: 9-06-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031448

PROJECT: SLB Seep & Spring/Horse Canyon: #16

DATE SAMPLED: 8-10-95

DATE SUBMITTED: 8-11-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	530	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-21-95 SM17 4500B
Chloride as Cl, mg/l	17	8-15-95 EPA 325.3
Fluoride as F, mg/l	<.2	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	350	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-17-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	0.014	8-22-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0056	8-11-95 EPA 354.1
Sulfate as SO ₄ , mg/l	134	8-14-95 SM 4500
Sulfide as S, mg/l	0.15	8-17-95 EPA 376.1
TDS, mg/l	627	8-15-95 EPA 160.1
Aluminum as Al, mg/l	0.018	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.059	8-14-95 EPA 200.7
Boron as B, mg/l	0.12	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.005	8-14-95 EPA 200.7
Calcium as Ca, mg/l	49.4	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.005	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7

Approved By: 



DATE: 9-06-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031448

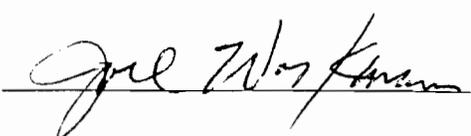
PROJECT: SLB Seep & Spring/Horse Canyon: #16

DATE SAMPLED: 8-10-95

DATE SUBMITTED: 8-11-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.115	8-14-95 EPA 200.7
Lead as Pb, mg/l	0.024	8-14-95 EPA 200.7
Magnesium as Mg, mg/l	54.1	8-14-95 EPA 200.7
Manganese as Mn, mg/l	<.01	8-14-95 EPA 200.7
Molybdenum as Mo, mg/l	<.01	8-14-95 EPA 200.7
Nickel as Ni, mg/l	<.01	8-14-95 EPA 200.7
Phosphorus as P, mg/l	<.02	8-23-95 SM 4500E
Potassium as K, mg/l	0.58	8-14-95 EPA 200.7
Selenium as Se, mg/l	<.04	8-14-95 EPA 200.7
Sodium as Na, mg/l	105	8-14-95 EPA 200.7
Zinc as Zn, mg/l	0.028	8-14-95 EPA 200.7

Approved By: 



DATE: 9-06-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031449

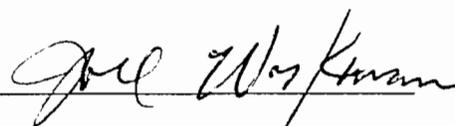
PROJECT: SLB Seep & Spring/Horse Canyon: #14

DATE SAMPLED: 8-10-95

DATE SUBMITTED: 8-11-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	593	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-21-95 SM17 4500B
Chloride as Cl, mg/l	44	8-15-95 EPA 325.3
Fluoride as F, mg/l	0.23	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	556	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-17-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	<.01	8-22-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0078	8-11-95 EPA 354.1
Sulfate as SO ₄ , mg/l	700	8-14-95 SM 4500
Sulfide as S, mg/l	0.25	8-17-95 EPA 376.1
TDS, mg/l	1,500	8-15-95 EPA 160.1
Aluminum as Al, mg/l	0.134	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.091	8-14-95 EPA 200.7
Boron as B, mg/l	0.23	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.005	8-14-95 EPA 200.7
Calcium as Ca, mg/l	57.8	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.01	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7

Approved By: 

LOS ANGELES DEPARTMENT OF WATER AND POWER
SOUTH LEASE PROPERTY
SEEP AND SPRING DATA
MAY 1995

SEEP/ SPRING Number	PH (units)	COND. (umhos/cm) @ 25 deg C	FLOW RATE (gpm)	TEMP (deg C)	COMMENTS
1	8.02	790	17	7	
1A	8.00	790	0.5	7	
1B					could not find
2	7.80	760	0.5	7	
3	8.00	710	2	8	
3A	7.88	590	5	8	
3B	7.61	510	10	8	
3C	8.28	560	SEEP	8	
3D	8.10	390	5	8	
4	7.68	830	3	7	
5	8.05	950	3	7	
6					not found
7			SEEP		
8	7.79	400	3	7	
8A	8.06	160	7	8	
8B					not found
9	8.21	650	20	8	
9R	7.86	590	1	8	
10	8.24	760	5	13	
11	8.11	1330	SEEP	12	
12	7.63	1710	<0.25	11	
12A	7.54	1550	4	8.5	
12B	8.05	1080	1.5	9	
12C	8.29	1090	<0.5	8.5	
12D	7.67	3800	SEEP	13	
12E	7.97	1950	<0.25	8	
13	8.17	1050	2	15	
13A			DRY		
13B	8.37	1020	3	15	
13Z	7.57	940	0.1	15	
14	8.11	1600	1	15	
14A			DRY		
15			WET		
15A	8.23	560	0.25	12	
15B			DRY		
15C			DRY		
16 (16Z)	8.19	610	1	12	WATER TANK
16A					Flow mixed w/ upgradient spring f
16B					Flow mixed w/ upgradient spring f
16C	7.53	560	0.2	13	
16Z					See 16
17	8.31	750	<0.25	9	
17A			WET		
17B	LOCATION ABANDONED 10/26/94				LOCATION ABANDONED
18	8.27	620	0.5	9	
19A	7.83	580	0.5	7	
19B	7.81	530	10	8	
19C					Re-emergence of 19B
20			SEEP		
22			WET		

EarthFax Engineering, Inc.
 7324 So. Union Park Avenue
 Suite 100
 Midvale, UT 84047
 (801) 561-1555

CHAIN-OF-CUSTODY FORM

SEE ATTACHMENT FOR
 ANALYTICAL SUITE

Sampling Company: <i>EARTH FAX</i>	Sampling Personnel: <i>JDG, CDH, GHP</i>
Project Name: <i>IPA SEEP & SPRINGS MAY 95</i>	Project Number: <i>UC-39402</i>
Analytical Laboratory: <i>CHEMECH</i>	Date of Shipment/Delivery: <i>MAY 25, 95</i>
Method of Shipment/Delivery: <i>HAND</i>	Airbill Number: <i>—</i>

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
H-14	5-24-95	0900	H ₂ O	4	
H-4	5-24-95	0900	H ₂ O	4	
H-11	5-24-95	1000	H ₂ O	5	EXTRA H ₂ S FOR QC, IF NEEDED
H-13	5-24-95	1030	H ₂ O	4	
H-18	5 ²⁴ 23 -95	1000	H ₂ O	4	
#9	5-23-95	1430	H ₂ O	4	
H-2	5-23-95	1630	H ₂ O	4	
#1	5-23-95	1400	H ₂ O	4	

Relinquished by: <i>[Signature]</i>	Date: <i>5-25-95</i>	Time: <i>1015</i>	Received by: <i>[Signature]</i>	Date: <i>5-25</i>	Time: <i>1015</i>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

CHAIN-OF-CUSTODY FORM

[SEE ATTACHMENT
 FOR ANALYTICAL SUITE]

Sampling Company: <i>EARTH FAX</i>	Sampling Personnel: <i>CDH, JDG, GHP</i>
Project Name: <i>DPA SEEP & SPRING MAY 95</i>	Project Number: <i>UC-391-02</i>
Analytical Laboratory: <i>CHEMTECH</i>	Date of Shipment/Delivery: <i>MAY 25, 95</i>
Method of Shipment/Delivery: <i>HAND</i>	Airbill Number: <i>—</i>

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
<i>SPRING 16</i>	<i>5-23-95</i>	<i>1600</i>	<i>H₂O</i>	<i>4</i>	
<i>SPRING 14</i>	<i>5-23-95</i>	<i>1645</i>	<i>H₂O</i>	<i>4</i>	
<i>SPRING 10</i>	<i>5-23-95</i>	<i>1645</i>	<i>H₂O</i>	<i>4</i>	
<i>HCSW-1</i>	<i>5-23-95</i>	<i>1600</i>	<i>H₂O</i>	<i>4</i>	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
<i>J.D. Gan</i>	<i>5-25-95</i>	<i>1015</i>	<i>Janni Shelby</i>	<i>5-25</i>	<i>1015</i>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027270

PROJECT: IPA Seep & Spring May 95: #1

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	850	6-01-95 EPA 160.1
Hardness as CaCO ₃ , mg/l	373	6-01-95 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	527	6-06-95 SM 2320B
Carbonate as CO ₃ , mg/l	9	6-06-95 SM 2320B
Chloride as Cl, mg/l	26.4	5-31-95 EPA 325.3
Fluoride as F, mg/l	0.24	6-06-95 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	5-25/6-5 SM 4500G
Nitrate as NO ₃ -N, mg/l	0.061	5-30-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.011	5-25-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	5-25-95 SM 4500E
Phosphorus as P (T), mg/l	<.02	5-25-95 SM 4500E
Sulfate as SO ₄ , mg/l	297	5-29-95 SM 4500C/D
Sulfide as S, mg/l	<.1	5-30-95 EPA 376.1
Aluminum as Al, mg/l	<.1	5-30-95 EPA 200.7
Arsenic as As, mg/l	<.04	5-30-95 EPA 200.7
Barium as Ba, mg/l	0.053	5-30-95 EPA 200.7
Boron as B, mg/l	0.202	5-30-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	5-30-95 EPA 200.7
Calcium as Ca, mg/l	51.6	5-30-95 EPA 200.7

Approved By: _____



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027270
PROJECT: IPA Seep & Spring May 95: #1
DATE SAMPLED: 5-24-95
DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Chromium as Cr, mg/l	<.01	5-30-95 EPA 200.7
Copper as Cu, mg/l	<.01	5-30-95 EPA 200.7
Iron as Fe, mg/l	0.100	5-30-95 EPA 200.7
Lead as Pb, mg/l	<.02	5-30-95 EPA 200.7
Magnesium as Mg, mg/l	63.8	5-30-95 EPA 200.7
Manganese as Mn, mg/l	0.013	5-30-95 EPA 200.7
Mercury as Hg, mg/l	<.0002	5-31-95 EPA 245.1
Molybdenum as Mo, mg/l	<.04	5-30-95 EPA 200.7
Nickel as Ni, mg/l	<.01	5-30-95 EPA 200.7
Potassium as K, mg/l	3.70	5-30-95 EPA 200.7
Selenium as Se, mg/l	<.04	5-30-95 EPA 200.7
Sodium as Na, mg/l	169	5-30-95 EPA 200.7
Zinc as Zn, mg/l	0.012	5-30-95 EPA 200.7

Approved By: _____



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027268

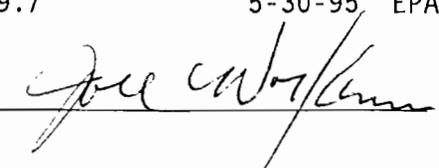
PROJECT: IPA Seep & Spring May 95: #9

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	534	6-01-95 EPA 160.1
Hardness as CaCO ₃ , mg/l	328	6-01-95 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	463	6-06-95 SM 2320B
Carbonate as CO ₃ , mg/l	7	6-06-95 SM 2320B
Chloride as Cl, mg/l	11.2	5-31-95 EPA 325.3
Fluoride as F, mg/l	0.16	6-06-95 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	5-25/6-5 SM 4500G
Nitrate as NO ₃ -N, mg/l	<.02	5-30-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	5-25-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	5-25-95 SM 4500E
Phosphorus as P (T), mg/l	<.02	5-25-95 SM 4500E
Sulfate as SO ₄ , mg/l	101	5-29-95 SM 4500C/D
Sulfide as S, mg/l	0.11	5-30-95 EPA 376.1
Aluminum as Al, mg/l	<.1	5-30-95 EPA 200.7
Arsenic as As, mg/l	<.04	5-30-95 EPA 200.7
Barium as Ba, mg/l	0.103	5-30-95 EPA 200.7
Boron as B, mg/l	0.097	5-30-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	5-30-95 EPA 200.7
Calcium as Ca, mg/l	59.7	5-30-95 EPA 200.7

Approved By: 



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027268

PROJECT: IPA Seep & Spring May 95: #9

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Chromium as Cr, mg/l	<.01	5-30-95 EPA 200.7
Copper as Cu, mg/l	<.01	5-30-95 EPA 200.7
Iron as Fe, mg/l	0.067	5-30-95 EPA 200.7
Lead as Pb, mg/l	<.02	5-30-95 EPA 200.7
Magnesium as Mg, mg/l	52.4	5-30-95 EPA 200.7
Manganese as Mn, mg/l	0.052	5-30-95 EPA 200.7
Mercury as Hg, mg/l	<.0002	5-31-95 EPA 245.1
Molybdenum as Mo, mg/l	<.04	5-30-95 EPA 200.7
Nickel as Ni, mg/l	<.01	5-30-95 EPA 200.7
Potassium as K, mg/l	<.1	5-30-95 EPA 200.7
Selenium as Se, mg/l	<.04	5-30-95 EPA 200.7
Sodium as Na, mg/l	68.2	5-30-95 EPA 200.7
Zinc as Zn, mg/l	<.01	5-30-95 EPA 200.7

Approved By: _____



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027273

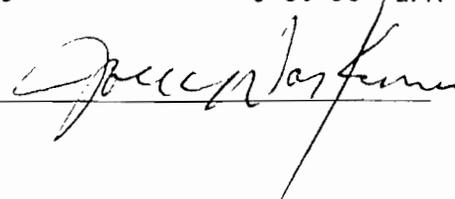
PROJECT: IPA Seep & Spring May 95: Spring 10

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	603	6-01-95 EPA 160.1
Hardness as CaCO ₃ , mg/l	407	6-01-95 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	446	6-06-95 SM 2320B
Carbonate as CO ₃ , mg/l	6	6-06-95 SM 2320B
Chloride as Cl, mg/l	12.2	5-31-95 EPA 325.3
Fluoride as F, mg/l	0.15	6-06-95 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	5-25/6-5 SM 4500G
Nitrate as NO ₃ -N, mg/l	0.048	5-30-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	5-25-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	5-25-95 SM 4500E
Phosphorus as P (T), mg/l	<.02	5-25-95 SM 4500E
Sulfate as SO ₄ , mg/l	171	5-29-95 SM 4500C/D
Sulfide as S, mg/l	<.1	5-30-95 EPA 376.1
Aluminum as Al, mg/l	<.1	5-30-95 EPA 200.7
Arsenic as As, mg/l	<.04	5-30-95 EPA 200.7
Barium as Ba, mg/l	0.055	5-30-95 EPA 200.7
Boron as B, mg/l	<.05	5-30-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	5-30-95 EPA 200.7
Calcium as Ca, mg/l	69	5-30-95 EPA 200.7

Approved By: 



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027273

PROJECT: IPA Seep & Spring May 95: Spring 10

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Chromium as Cr, mg/l	<.01	5-30-95 EPA 200.7
Copper as Cu, mg/l	<.01	5-30-95 EPA 200.7
Iron as Fe, mg/l	<.01	5-30-95 EPA 200.7
Lead as Pb, mg/l	<.02	5-30-95 EPA 200.7
Magnesium as Mg, mg/l	58	5-30-95 EPA 200.7
Manganese as Mn, mg/l	<.01	5-30-95 EPA 200.7
Mercury as Hg, mg/l	<.0002	5-31-95 EPA 245.1
Molybdenum as Mo, mg/l	<.04	5-30-95 EPA 200.7
Nickel as Ni, mg/l	<.01	5-30-95 EPA 200.7
Potassium as K, mg/l	0.91	5-30-95 EPA 200.7
Selenium as Se, mg/l	<.04	5-30-95 EPA 200.7
Sodium as Na, mg/l	61	5-30-95 EPA 200.7
Zinc as Zn, mg/l	<.01	5-30-95 EPA 200.7

Approved By: _____



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027272

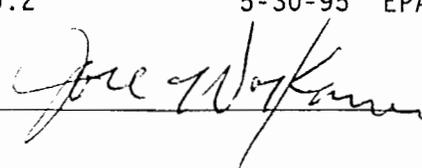
PROJECT: IPA Seep & Spring May 95: Spring 14

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	1,340	6-01-95 EPA 160.1
Hardness as CaCO ₃ , mg/l	570	6-01-95 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	541	6-06-95 SM 2320B
Carbonate as CO ₃ , mg/l	7	6-06-95 SM 2320B
Chloride as Cl, mg/l	43.6	5-31-95 EPA 325.3
Fluoride as F, mg/l	0.23	6-06-95 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	5-25/6-5 SM 4500G
Nitrate as NO ₃ -N, mg/l	0.047	5-30-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	5-25-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	5-25-95 SM 4500E
Phosphorus as P (T), mg/l	<.02	5-25-95 SM 4500E
Sulfate as SO ₄ , mg/l	690	5-29-95 SM 4500C/D
Sulfide as S, mg/l	<.1	5-30-95 EPA 376.1
Aluminum as Al, mg/l	<.1	5-30-95 EPA 200.7
Arsenic as As, mg/l	<.04	5-30-95 EPA 200.7
Barium as Ba, mg/l	0.015	5-30-95 EPA 200.7
Boron as B, mg/l	0.242	5-30-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	5-30-95 EPA 200.7
Calcium as Ca, mg/l	60.2	5-30-95 EPA 200.7

Approved By: 



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027271

PROJECT: IPA Seep & Spring May 95: Spring 16

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	584	6-01-95 EPA 160.1
Hardness as CaCO ₃ , mg/l	304	6-01-95 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	457	6-06-95 SM 2320B
Carbonate as CO ₃ , mg/l	8	6-06-95 SM 2320B
Chloride as Cl, mg/l	19.3	5-31-95 EPA 325.3
Fluoride as F, mg/l	0.17	6-06-95 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	5-25/6-5 SM 4500G
Nitrate as NO ₃ -N, mg/l	0.029	5-30-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	5-25-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	5-25-95 SM 4500E
Phosphorus as P (T), mg/l	<.02	5-25-95 SM 4500E
Sulfate as SO ₄ , mg/l	137	5-29-95 SM 4500C/D
Sulfide as S, mg/l	<.1	5-30-95 EPA 376.1
Aluminum as Al, mg/l	<.1	5-30-95 EPA 200.7
Arsenic as As, mg/l	<.04	5-30-95 EPA 200.7
Barium as Ba, mg/l	0.048	5-30-95 EPA 200.7
Boron as B, mg/l	0.087	5-30-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	5-30-95 EPA 200.7
Calcium as Ca, mg/l	43.1	5-30-95 EPA 200.7

Approved By: *Joe Workman*



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027271

PROJECT: IPA Seep & Spring May 95: Spring 16

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Chromium as Cr, mg/l	<.01	5-30-95 EPA 200.7
Copper as Cu, mg/l	<.01	5-30-95 EPA 200.7
Iron as Fe, mg/l	0.161	5-30-95 EPA 200.7
Lead as Pb, mg/l	<.02	5-30-95 EPA 200.7
Magnesium as Mg, mg/l	50.2	5-30-95 EPA 200.7
Manganese as Mn, mg/l	<.01	5-30-95 EPA 200.7
Mercury as Hg, mg/l	<.0002	5-31-95 EPA 245.1
Molybdenum as Mo, mg/l	<.04	5-30-95 EPA 200.7
Nickel as Ni, mg/l	<.01	5-30-95 EPA 200.7
Potassium as K, mg/l	0.360	5-30-95 EPA 200.7
Selenium as Se, mg/l	<.04	5-30-95 EPA 200.7
Sodium as Na, mg/l	105	5-30-95 EPA 200.7
Zinc as Zn, mg/l	0.022	5-30-95 EPA 200.7

Approved By:

LOS ANGELES DEPARTMENT OF WATER AND POWER
SOUTH LEASE PROPERTY
SEEP AND SPRING DATA
OCTOBER 1994

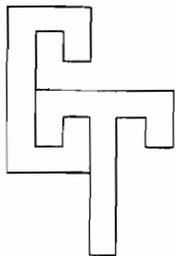
SEEP/ SPRING Number	PH (units)	COND. (umhos/cm) @ 25 deg C	FLOW RATE (gpm)	TEMP (deg C)	COMMENTS
1			DRY		
1A			SEEP	8	
1B			DRY		
2			SEEP	10	
3			SEEP	9	
3A			DRY		
3B			DRY		
3C			SEEP	9	
3D			SEEP	9	
4			1	6	Snow covers most of the area
5			SEEP		Snow covers most of the area
6			SEEP		Snow covers most of the area
7			3	6	Snow melt
8	8.14	688	1.5	7	Snow melt included
8A			1	6	Snow melt included
8B			NA		
9	8.21	712	SEEP	9	
9R			NA		
10	8.27	813	3.5	12	Some snow melt
11			WET		
12	7.87	1660	SEEP	8	Standing water
12A	8.35	1330	0.5	7	
12B	8.19	1170	1	8	Snow melt and water from 12C
12C	8.50	1540	1	8.5	
12D	8.50	1980	<0.25	10	
12E			SEEP		
13	8.16	1180	1	10	Flows approx. 100'
13A			DRY		
13B			SEEP		No flow but damp
13Z			SEEP		No flow but damp
14	8.41	1620	2	9	
14A			SEEP		No flow but damp
15			DRY		
15A	8.63	885	<1	9	Large rock in creek channel
15B			SEEP		
15C			DRY		
16A			DRY		
16B			DRY		
16C			DRY		
16Z	7.90	882	2	7	
17	8.12	1130	<0.5	9	
17A			WET		
17B	LOCATION ABANDONED 10/26/94				LOCATION ABANDONED
18	7.96	870	<0.5	9	
19A			SEEP		
19B	7.88	890	1	7	
19C			-		Re-emergence of 19B
20	8.39	963	2	9	Some snowmelt contribution
22			DRY		

CHAIN-OF-CUSTODY FORM

Sampling Company: <u>EMTECH</u>	Sampling Personnel: <u>CDH T-LC-JDG</u>
Project Name: <u>ITD SEE PEEPING ALLOW</u>	Project Number: <u>UC-371.02</u>
Analytical Laboratory: <u>EMTECH</u>	Date of Shipment/Delivery: <u>10-28-94</u>
Method of Shipment/Delivery: <u>HAND</u>	Airbill Number: <u>---</u>

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
16-7-12-6	10-27-94	1730	WATER	4	SEE ATTACHED for ANALYSIS
16-8-6-1	10-27-94	1745		4	
16-8-8-10	10-28-94	1015		4	
16-8-8-5	10-28-94	1000		4	
CK-1	10-28-94	1030		5	
CK-2	10-28-94	0950		5	
RF-1	10-27-94	1740		5	
RF-2	10-27-94	1745		5	

Relinquished by: <u>[Signature]</u>	Date: <u>10/29/94</u>	Time: <u>1710</u>	Received by: <u>[Signature]</u>	Date: <u>10-29-94</u>	Time: <u>5:10</u>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-16-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

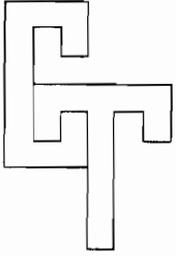
SAMPLE ID: Lab #U017435
PROJECT: IPA Seep & Spring Fall 94': 14
DATE SAMPLED: 10-26-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	1,420	11-01-94 EPA 160.2
Hardness as CaCO ₃ , mg/l	570	11-11-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	11-07-94 SM2320B
Bicarbonate as HCO ₃ , mg/l	571	11-07-94 SM2320B
Chloride as Cl, mg/l	45	11-09-94 EPA 325.3
Fluoride as F, mg/l	0.24	11-04-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	11-08-94 SM4500
Nitrate as NO ₃ -N, mg/l	<.4	10-31-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	10-28-94 EPA 354.1
Phosphate as PO ₄ -P, mg/l	0.033	11-14-94 SM4500
Sulfate as SO ₄ , mg/l	678	11-05/07 EPA 375.4/SM4500
Sulfide as S, mg/l	<.1	10-31-94 EPA 376.1
Aluminum as Al, mg/l	0.105	11-02-94 EPA 200.7
Arsenic as As, mg/l	<.04	11-02-94 EPA 200.7
Barium as Ba, mg/l	0.018	11-02-94 EPA 200.7
Boron as B, mg/l	0.212	11-02-94 EPA 200.7
Cadmium as Cd, mg/l	<.005	11-02-94 EPA 200.7
Calcium as Ca, mg/l	58.6	11-02-94 EPA 200.7
Chromium as Cr, mg/l	<.005	11-02-94 EPA 200.7
Copper as Cu, mg/l	<.005	11-02-94 EPA 200.7
Iron as Fe, mg/l	0.102	11-02-94 EPA 200.7

Approved By: _____

Joel Washburn



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-16-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U017435
PROJECT: IPA Seep & Spring Fall 94': 14
DATE SAMPLED: 10-26-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Lead as Pb, mg/l	<.005	11-02-94 EPA 200.7
Magnesium as Mg, mg/l	99.3	11-02-94 EPA 200.7
Manganese as Mn, mg/l	<.01	11-02-94 EPA 200.7
Mercury as Hg, mg/l	<.0002	11-02-94 EPA 245.1
Molybdenum as Mo, mg/l	0.013	11-02-94 EPA 200.7
Nickel as Ni, mg/l	0.0069	11-02-94 EPA 200.7
Potassium as K, mg/l	1.34	11-02-94 EPA 200.7
Selenium as Se, mg/l	<.04	11-02-94 EPA 200.7
Sodium as Na, mg/l	268	11-02-94 EPA 200.7
Zinc as Zn, mg/l	0.054	11-02-94 EPA 200.7

NOTE: Sample temp. when submitted was 10.1°C on ice.

Approved By: _____

Joel Workman

LOS ANGELES DEPARTMENT OF WATER AND POWER
SOUTH LEASE PROPERTY
SEEP AND SPRING DATA
AUGUST 1994

SEEP/ SPRING Number	PH (units)	COND. (umhos/cm) @ 25 deg C	FLOW RATE (gpm)	TEMP (deg C)	COMMENTS
1	7.77	780	<0.5	16	
1A			SEEP		
1B			DRY		
2			DRY		
3			DRY		
3A			DRY		
3B			DRY		
3C			DRY		
4			DRY		
5			DRY		
6			SEEP		
7			SEEP		
8	7.74	915	<0.5	18	
8A			DRY		
8B			DRY		
9	8.15	925	<0.5	18	
9R			DRY		
10	7.76	849	1	12	
11			WET		
12A	7.88	3130	SEEP	15	
12B	7.64	1300	<0.12	9	
12C			WET		
12D			DRY		
12E			SEEP	10	
13			MOIST		
13A			DRY		
13B			MOIST		
13Z			MOIST		
14	8.28	2020	<0.5	23	
14A			DRY		
15			DRY		
15A			MOIST		
15B			DRY		
15C			DRY		
16A			DRY		
16B			DRY		
16C			DRY		
16Z	7.97	1000	<0.5	18	
17			DAMP		
17A			DRY		
17B			DRY		
18			WET		
19A			DRY		
19B			DRY		
19C			DRY		
20			SEEP		
22			MOIST		

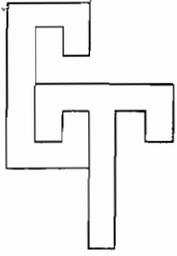
EARTHFAX ENGINEERING INC.
7324 SOUTH 1300 EAST
Midvale, Utah 84047

CHAIN-OF-CUSTODY FORM

Sampling Company: EarthFAX Engineering Inc.	Sampling Personnel: JRP, JDG, CDH
Project Name: IPA Seep & Spring	Project Number: UC-391-02
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 8-05-94
Method of Shipment/Delivery: In person	Airbill Number: NA

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
HC-11	8-4-94	1200	WATER	4	
SPRING-9	8-3-94	1600	WATER	4	
SPRING-13	8-3-94	1700	WATER	4	
SPRING-1	8-3-94	1800	WATER	4	
SPRING-14	8-3-94	1730	WATER	4	
H-4	8-4-94	900	WATER	4	
HSW-1	8-4-94	1000	WATER	4	
H-2	8-4-94	1100	WATER	4	
SPRING-10	8-3-94	1630	WATER	4	

Relinquished by: <i>[Signature]</i>	Date: Aug 5/94	Time: 3:00pm	Received by: <i>[Signature]</i>	Date: 8-5-94	Time: 3:00
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

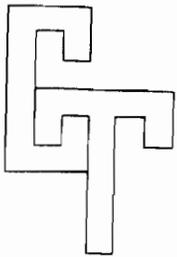
SAMPLE ID: Lab #U012591
PROJECT: IPA Seep & Spring: Spring 1
DATE SAMPLED: 8-03-94
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	505	8-08-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	453	8-12-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	8-09-94 SM 2320B
Bicarbonate as HCO ₃ , mg/l	466	8-09-94 SM 2320B
Chloride as Cl, mg/l	12	8-08-94 EPA 325.3
Fluoride as F, mg/l	<.2	8-09-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	8-19-94 SM4500
Nitrate as NO ₃ -N, mg/l	0.053	8-08-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	*0.0090	8-06-94 EPA 354.1
Phosphorus as P (T), mg/l	0.368	8-10-94 SM4500
Sulfate as SO ₄ , mg/l	112	8-15-94 SM4500
Sulfide as S, mg/l	<.1	8-08-94 EPA 376.1
Aluminum as Al (T), mg/l	2.14	8-09-94 EPA 200.7
Arsenic as As (T), mg/l	<.04	8-09-94 EPA 200.7
Barium as Ba (T), mg/l	0.210	8-09-94 EPA 200.7
Boron as B (T), mg/l	0.084	8-09-94 EPA 200.7
Cadmium as Cd (T), mg/l	<.01	8-09-94 EPA 200.7
Calcium as Ca (T), mg/l	92.8	8-10-94 EPA 200.7
Chromium as Cr (T), mg/l	<.01	8-09-94 EPA 200.7
Copper as Cu (T), mg/l	<.01	8-09-94 EPA 200.7

*Run past holding time.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U012591

PROJECT: IPA Seep & Spring: Spring 1

DATE SAMPLED: 8-03-94

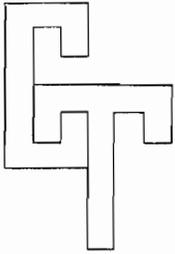
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe (T), mg/l	4.89	8-09-94 EPA 200.7
Lead as Pb (T), mg/l	<.02	8-09-94 EPA 200.7
Magnesium as Mg (T), mg/l	56.6	8-10-94 EPA 200.7
Manganese as Mn (T), mg/l	1.29	8-09-94 EPA 200.7
Mercury as Hg (T), mg/l	<.0002	8-09-94 EPA 245.1
Molybdenum as Mo (T), mg/l	<.04	8-09-94 EPA 200.7
Nickel as Ni (T), mg/l	<.01	8-09-94 EPA 200.7
Potassium as K (T), mg/l	2.36	8-10-94 EPA 200.7
Selenium as Se (T), mg/l	<.04	8-09-94 EPA 200.7
Sodium as Na (T), mg/l	53.5	8-10-94 EPA 200.7
Zinc as Zn (T), mg/l	0.028	8-09-94 EPA 200.7

NOTE: Sample temp. when submitted was 15.2°C on ice.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U012589

PROJECT: IPA Seep & Spring: Spring 9

DATE SAMPLED: 8-03-94

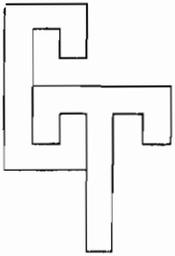
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	621	8-08-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	405	8-12-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	8-09-94 SM 2320B
Bicarbonate as HCO ₃ , mg/l	561	8-09-94 SM 2320B
Chloride as Cl, mg/l	12.5	8-08-94 EPA 325.3
Fluoride as F, mg/l	<.2	8-09-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	8-19-94 SM4500
Nitrate as NO ₃ -N, mg/l	<.02	8-08-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	*0.0090	8-06-94 EPA 354.1
Phosphorus as P (T), mg/l	0.038	8-10-94 SM4500
Sulfate as SO ₄ , mg/l	101	8-15-94 SM4500
Sulfide as S, mg/l	0.38	8-08-94 EPA 376.1
Aluminum as Al (T), mg/l	0.058	8-09-94 EPA 200.7
Arsenic as As (T), mg/l	<.04	8-09-94 EPA 200.7
Barium as Ba (T), mg/l	0.124	8-09-94 EPA 200.7
Boron as B (T), mg/l	0.061	8-09-94 EPA 200.7
Cadmium as Cd (T), mg/l	<.01	8-09-94 EPA 200.7
Calcium as Ca (T), mg/l	69.8	8-10-94 EPA 200.7
Chromium as Cr (T), mg/l	<.01	8-09-94 EPA 200.7
Copper as Cu (T), mg/l	<.01	8-09-94 EPA 200.7

*Run past holding time.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

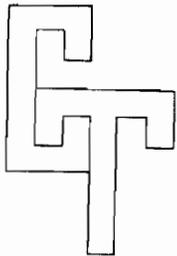
SAMPLE ID: Lab #U012589
PROJECT: IPA Seep & Spring: Spring 9
DATE SAMPLED: 8-03-94
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe (T), mg/l	0.056	8-09-94 EPA 200.7
Lead as Pb (T), mg/l	<.02	8-09-94 EPA 200.7
Magnesium as Mg (T), mg/l	61.1	8-10-94 EPA 200.7
Manganese as Mn (T), mg/l	0.153	8-09-94 EPA 200.7
Mercury as Hg (T), mg/l	<.0002	8-09-94 EPA 245.1
Molybdenum as Mo (T), mg/l	<.04	8-09-94 EPA 200.7
Nickel as Ni (T), mg/l	<.01	8-09-94 EPA 200.7
Potassium as K (T), mg/l	1.88	8-10-94 EPA 200.7
Selenium as Se (T), mg/l	<.04	8-09-94 EPA 200.7
Sodium as Na (T), mg/l	74.9	8-10-94 EPA 200.7
Zinc as Zn (T), mg/l	0.145	8-09-94 EPA 200.7

NOTE: Sample temp. when submitted was 15.2°C on ice.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U012596

PROJECT: IPA Seep & Spring: Spring 10

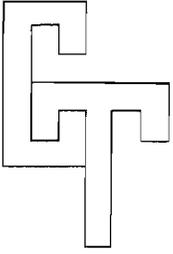
DATE SAMPLED: 8-04-94

DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	637	8-08-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	425	8-12-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	8-09-94 SM 2320B
Bicarbonate as HCO ₃ , mg/l	466	8-09-94 SM 2320B
Chloride as Cl, mg/l	11	8-08-94 EPA 325.3
Fluoride as F, mg/l	<.2	8-09-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	8-19-94 SM4500
Nitrate as NO ₃ -N, mg/l	0.030	8-08-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	8-06-94 EPA 354.1
Phosphorus as P (T), mg/l	0.041	8-10-94 SM4500
Sulfate as SO ₄ , mg/l	194	8-15-94 SM4500
Sulfide as S, mg/l	<.1	8-08-94 EPA 376.1
Aluminum as Al (T), mg/l	0.496	8-09-94 EPA 200.7
Arsenic as As (T), mg/l	<.04	8-09-94 EPA 200.7
Barium as Ba (T), mg/l	0.037	8-09-94 EPA 200.7
Boron as B (T), mg/l	0.038	8-09-94 EPA 200.7
Cadmium as Cd (T), mg/l	<.01	8-09-94 EPA 200.7
Calcium as Ca (T), mg/l	78.9	8-10-94 EPA 200.7
Chromium as Cr (T), mg/l	<.01	8-09-94 EPA 200.7
Copper as Cu (T), mg/l	<.01	8-09-94 EPA 200.7

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U012596

PROJECT: IPA Seep & Spring: Spring 10

DATE SAMPLED: 8-04-94

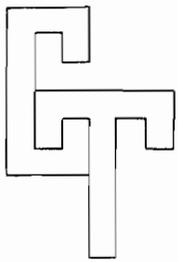
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe (T), mg/l	0.561	8-09-94 EPA 200.7
Lead as Pb (T), mg/l	<.02	8-09-94 EPA 200.7
Magnesium as Mg (T), mg/l	65.4	8-10-94 EPA 200.7
Manganese as Mn (T), mg/l	0.073	8-09-94 EPA 200.7
Mercury as Hg (T), mg/l	<.0002	8-09-94 EPA 245.1
Molybdenum as Mo (T), mg/l	<.04	8-09-94 EPA 200.7
Nickel as Ni (T), mg/l	<.01	8-09-94 EPA 200.7
Potassium as K (T), mg/l	1.13	8-10-94 EPA 200.7
Selenium as Se (T), mg/l	<.04	8-09-94 EPA 200.7
Sodium as Na (T), mg/l	63.5	8-10-94 EPA 200.7
Zinc as Zn (T), mg/l	<.01	8-09-94 EPA 200.7

NOTE: Sample temp. when submitted was 15.2°C on ice.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U012592

PROJECT: IPA Seep & Spring: Spring 14

DATE SAMPLED: 8-03-94

DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	1,460	8-08-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	553	8-12-94 EPA 130.2
Carbonate as CO ₃ , mg/l	5	8-09-94 SM 2320B
Bicarbonate as HCO ₃ , mg/l	552	8-09-94 SM 2320B
Chloride as Cl, mg/l	43	8-08-94 EPA 325.3
Fluoride as F, mg/l	0.26	8-09-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	8-19-94 SM4500
Nitrate as NO ₃ -N, mg/l	<.02	8-08-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	*0.0063	8-06-94 EPA 354.1
Phosphorus as P (T), mg/l	<.02	8-10-94 SM4500
Sulfate as SO ₄ , mg/l	681	8-15-94 SM4500
Sulfide as S, mg/l	<.1	8-08-94 EPA 376.1
Aluminum as Al (T), mg/l	0.086	8-09-94 EPA 200.7
Arsenic as As (T), mg/l	<.04	8-09-94 EPA 200.7
Barium as Ba (T), mg/l	0.017	8-09-94 EPA 200.7
Boron as B (T), mg/l	0.191	8-09-94 EPA 200.7
Cadmium as Cd (T), mg/l	<.01	8-09-94 EPA 200.7
Calcium as Ca (T), mg/l	60.3	8-10-94 EPA 200.7
Chromium as Cr (T), mg/l	<.01	8-09-94 EPA 200.7
Copper as Cu (T), mg/l	<.01	8-09-94 EPA 200.7

*Run past holding time.

Approved By: _____

INTERMOUNTAIN POWER AGENCY SEEP AND SPRING SURVEY

May 11-12, 1994

SEEP/SPRING NUMBER	pH (units)	COND. (umhos/cm)	FLOW RATE (gpm)	TEMP. (c)	USE/REMARKS
1	7.61	657	.5	10	claystone, wildlife
1A	6.76	701	.25	6	sandstone, wildlife
1B			seep		
3	7.88	722	< .25	13	sandstone, wildlife
3A	7.35	632	.5	8	sandstone, wildlife
3B	7.40	613	.25	10	shale, wildlife
4			1	6	
4A	7.40	658			
5	7.40	753	.25	6	
5A					
6			seep		
6A					
7	7.50	654	.25	7	
7A					
8	7.74	7.49	< .25	7	
8A					
8B					
9	7.95	806	.5	12	sandstone, trough
10	7.79	922	.25	7	
11	8.16	1074	2	12	
12A	7.78	2040	.25	8	sandstone
12B	8.02	1785	.25	9	sandstone, shale
12C	8.15	1721	.5	9	limey shale

INTERMOUNTAIN POWER AGENCY SEEP AND SPRING SURVEY

May 11-12, 1994

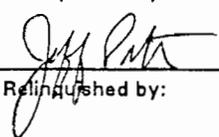
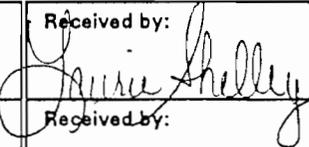
SEEP/SPRING NUMBER	pH (units)	COND. (umhos/cm)	FLOW RATE (gpm)	TEMP. (c)	USE/REMARKS
12D			seep		shale, limestone
13	8.01	1320	1	12	
13A					
13B	8.33	1270	2	12	
13Z			seep		
14	7.77	1730	.25	12.5	tank
14A			dry		
15			dry		
15A	7.75	849	.25	8	sandstone, silt
15B			dry		limey sandstone, silt
15C			seep		sandstone, limestone
16	7.94	909	.25	10.5	
16A	7.94	901	.25	14	
16B			dry		
16C			dry		shale
17	8.06	1110	< .25	10	shale, limey sandstone
17A			seep		shale, sandstone ledge
18	8.22	835	.5	15	shale, sandstone ledge
18A					shale, limey sandstone
19A	7.87	825	.25	10	shale, limestone, wildlife
19B	7.89	840	.5	8	limey sandstone, wildlife
19C	7.96	777	.5	10	shale, sandstone ledge
20			seep		
22	8.02	1004	< .25	11	

EARTHFAX ENGINEERING INC.
7324 SOUTH 1300 EAST
Midvale, Utah 84047

CHAIN-OF-CUSTODY FORM

Sampling Company: EarthFax Engineering Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seep & Spring Survey	Project Number: UC-284-07
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94
Method of Shipment/Delivery: In person	Airbill Number: NA

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
HC-2	5-12-94	1240	H2O	4	
HC-9	5-12-94	1000	H2O	4	
HC-11	5-12-94	1355	H2O	4	
HC-13	5-12-94	1440	H2O	4	
HC-18	5-12-94	1116	H2O	4	
HCSW-1	5-12-94	1300	H2O	4	
1	5-12-94	0800	H2O	4	
9	5-12-94	1000	H2O	4	
10 SLB	5-12-94	0730	H2O	4	
14	5-12-94	1030	H2O	4	
16A	5-12-94	1830	H2O	4	

Relinquished by: 	Date: 5-13-94	Time: 15:00	Received by: 	Date: 5-13	Time: 1500
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seep & Spring Survey	Project Number: UC-284-07
Field Sample Number: 1	Laboratory Sample Number:
Date Sampled: 5-12-94	Time Sampled: 0800
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
PLASTIC QUART	2		SEE ATTACHED SHEET
PLASTIC PINT	2		

Special Requirements:

EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFAX Engineering, Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seep & Spring Survey	Project Number: UC-284-07
Field Sample Number: 9	Laboratory Sample Number:
Date Sampled: 5-12-94	Time Sampled: 1000
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
PLASTIC QUART	2		SEE ATTACHED SHEET
PLASTIC PINT	2		

Special Requirements:

EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seep & Spring Survey	Project Number: UC-284-07
Field Sample Number: 10 SLB	Laboratory Sample Number:
Date Sampled: 5-12-94	Time Sampled: 0730
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
PLASTIC QUART	2		SEE ATTACHED SHEET
PLASTIC PINT	2		

Special Requirements:

EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seep & Spring Survey	Project Number: UC-284-07
Field Sample Number: 14	Laboratory Sample Number:
Date Sampled: 5-12-94	Time Sampled: 1030
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
PLASTIC QUART	2		SEE ATTACHED SHEET
PLASTIC PINT	2		

Special Requirements:

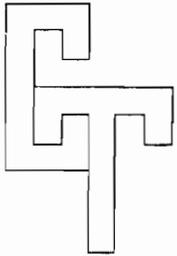
EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFAX Engineering, Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seep & Spring Survey	Project Number: UC-284-07
Field Sample Number: 16A	Laboratory Sample Number:
Date Sampled: 5-12-94	Time Sampled: 1830
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
PLASTIC QUART	2		SEE ATTACHED SHEET
PLASTIC PINT	2		

Special Requirements:



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 6-02-94

TO: Earthfax Engineering
7324 S. 1300 E. STE 100
Midvale, Utah 84047

PROJECT: IPA Seep & Spring Survey

DATE SAMPLED: 5-12-94

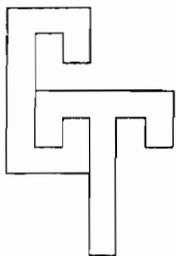
DATE SUBMITTED: 5-13-94

CERTIFICATE OF ANALYSIS

SAMPLE ID: LAB #:	1 <u>U007206</u>	9 <u>U007207</u>	10 SLB <u>U007208</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
<u>PARAMETER</u>				
Carbonate as CO ₃ , mg/l	17	20	12	5-20-94 SM17 2320B
Bicarbonate as HCO ₃ , mg/l	307	394	333	5-20-94 SM17 2320B
Chloride as Cl, mg/l	11	11	13	5-19-94 EPA 325.3
Fluoride as F, mg/l	<.5	0.16	0.15	5-20-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.2	<.2	<.2	6-01-94 SM17 4500
Nitrate as NO ₃ -N, mg/l	0.044	0.023	0.038	5-17-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0107	0.0077	0.0066	5-13-94 EPA 354.1
Phosphorus as P, mg/l	0.166	<.02	0.054	5-31-94 SM17 4500P
Sulfate as SO ₄ , mg/l	67	98	209	5-18-94 SM17 4500
Sulfide as S, mg/l	<.1	0.21	<.1	5-18-94 EPA 376.1
Aluminum as Al, mg/l	1.11	0.026	1.67	5-19-94 EPA 200.7
Arsenic as As, mg/l	<.04	<.04	<.04	5-19-94 EPA 200.7
Barium as Ba, mg/l	0.110	0.117	0.069	5-19-94 EPA 200.7
Boron as B, mg/l	0.082	0.053	0.062	5-19-94 EPA 200.7
Cadmium as Cd, mg/l	<.01	<.01	<.01	5-19-94 EPA 200.7
Calcium as Ca, mg/l	48.1	58.5	77.1	5-16-94 EPA 200.7
Chromium as Cr, mg/l	<.01	<.01	<.01	5-19-94 EPA 200.7

NOTE: Sample temp. when submitted was 6.7°C on ice.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 6-02-94

TO: Earthfax Engineering
7324 S. 1300 E. STE 100
Midvale, Utah 84047

PROJECT: IPA Seep & Spring Survey

DATE SAMPLED: 5-12-94

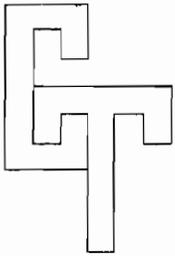
DATE SUBMITTED: 5-13-94

CERTIFICATE OF ANALYSIS

SAMPLE ID: LAB #:	1 <u>U007206</u>	9 <u>U007207</u>	10 SLB <u>U007208</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
<u>PARAMETER</u>				
Copper as Cu, mg/l	<.01	<.01	<.01	5-19-94 EPA 200.7
Iron as Fe, mg/l	1.15	0.248	2.30	5-19-94 EPA 200.7
Lead as Pb, mg/l	0.046	0.043	0.046	5-19-94 EPA 200.7
Magnesium as Mg, mg/l	42.0	52.2	68.8	5-16-94 EPA 200.7
Manganese as Mn, mg/l	0.021	0.011	0.067	5-19-94 EPA 200.7
Mercury as Hg, mg/l	<.0002	<.0002	<.0002	5-17-94 EPA 245.1
Molybdenum as Mo, mg/l	<.04	<.04	<.04	5-19-94 EPA 200.7
Nickel as Ni, mg/l	<.01	<.01	<.01	5-19-94 EPA 200.7
Potassium as K, mg/l	0.79	0.85	1.2	5-16-94 EPA 200.7
Selenium as Se, mg/l	<.04	<.04	<.04	5-19-94 EPA 200.7
Sodium as Na, mg/l	47.7	70.8	70.4	5-16-94 EPA 200.7
Zinc as Zn, mg/l	0.036	<.01	0.028	5-19-94 EPA 200.7
TDS, mg/l	418	542	671	5-16-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	351	354	480	5-16-94 EPA 130.2

NOTE: Sample temp. when submitted was 6.7°C on ice.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 6-02-94

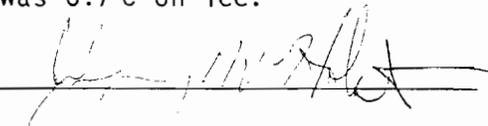
TO: Earthfax Engineering
7324 S. 1300 E. STE 100
Midvale, Utah 84047

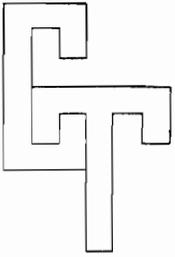
PROJECT: IPA Seep & Spring Survey
DATE SAMPLED: 5-12-94
DATE SUBMITTED: 5-13-94

CERTIFICATE OF ANALYSIS

SAMPLE ID: LAB #:	14 <u>U007209</u>	16A <u>U007210</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
<u>PARAMETER</u>			
Carbonate as CO ₃ , mg/l	41	24	5-20-94 SM17 2320B
Bicarbonate as HCO ₃ , mg/l	477	372	5-20-94 SM17 2320B
Chloride as Cl, mg/l	42	17	5-19-94 EPA 325.3
Fluoride as F, mg/l	0.21	<.3	5-20-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.2	<.2	6-01-94 SM17 4500
Nitrate as NO ₃ -N, mg/l	<.02	0.037	5-17-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0050	0.0088	5-13-94 EPA 354.1
Phosphorus as P, mg/l	<.02	0.277	5-31-94 SM17 4500P
Sulfate as SO ₄ , mg/l	688	133	5-18-94 SM17 4500
Sulfide as S, mg/l	<.1	<.1	5-18-94 EPA 376.1
Aluminum as Al, mg/l	<.01	3.16	5-19-94 EPA 200.7
Arsenic as As, mg/l	<.04	<.04	5-19-94 EPA 200.7
Barium as Ba, mg/l	0.012	0.103	5-19-94 EPA 200.7
Boron as B, mg/l	0.226	0.073	5-19-94 EPA 200.7
Cadmium as Cd, mg/l	<.01	<.01	5-19-94 EPA 200.7
Calcium as Ca, mg/l	60.3	56.3	5-16-94 EPA 200.7
Chromium as Cr, mg/l	<.01	<.01	5-19-94 EPA 200.7

NOTE: Sample temp. when submitted was 6.7°C on ice.

Approved By: 



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 6-02-94

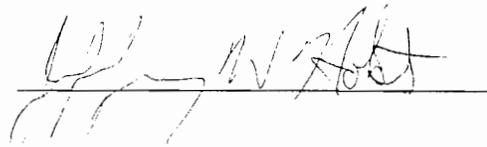
TO: Earthfax Engineering
7324 S. 1300 E. STE 100
Midvale, Utah 84047

PROJECT: IPA Seep & Spring Survey
DATE SAMPLED: 5-12-94
DATE SUBMITTED: 5-13-94

CERTIFICATE OF ANALYSIS

SAMPLE ID: LAB #:	14 <u>U007209</u>	16A <u>U007210</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
<u>PARAMETER</u>			
Copper as Cu, mg/l	<.01	<.01	5-19-94 EPA 200.7
Iron as Fe, mg/l	0.174	3.81	5-19-94 EPA 200.7
Lead as Pb, mg/l	0.040	0.037	5-19-94 EPA 200.7
Magnesium as Mg, mg/l	105	53.6	5-16-94 EPA 200.7
Manganese as Mn, mg/l	<.01	0.101	5-19-94 EPA 200.7
Mercury as Hg, mg/l	<.0002	<.0002	5-17-94 EPA 245.1
Molybdenum as Mo, mg/l	<.04	<.04	5-19-94 EPA 200.7
Nickel as Ni, mg/l	<.01	<.01	5-19-94 EPA 200.7
Potassium as K, mg/l	1.6	0.67	5-16-94 EPA 200.7
Selenium as Se, mg/l	<.04	<.04	5-19-94 EPA 200.7
Sodium as Na, mg/l	302	106	5-16-94 EPA 200.7
Zinc as Zn, mg/l	0.031	0.023	5-19-94 EPA 200.7
TDS, mg/l	1,483	586	5-16-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	576	351	5-16-94 EPA 130.2

NOTE: Sample temp. when submitted was 6.7°C on ice.

Approved By: 

INTERMOUNTAIN POWER AGENCY SEEP AND SPRING SURVEY

October 13, 1993

SEEP/SPRING NUMBER	pH (units)	COND. (umhos/cm)	FLOW RATE (gpm)	TEMP. (c)	USE/REMARKS
1	8.11	659	<.25	8	claystone, wildlife
1A			Dry		sandstone, wildlife
1B			Dry		
3	8.19	855	<.25	8	sandstone, wildlife
3A	7.87	743	.5	11	sandstone, wildlife
3B	7.80	750	.25	10	shale, wildlife
4			Dry		
4A	8.07	786	.5	8	
5			Dry		
5A			Dry		
6	7.55	894	.25	7	
6A			Dry		
7	8.36	1040	<.25	7	
7A	7.67	784	.5	9	
8	7.74	789	.5	8	
8A	7.78	764	.25	9	
8B	7.88	895	<.25	10	
9	8.20	885	1	6	sandstone, trough
10	7.63	855	<.25	10	
11	8.15	1180	2	12	
12A	8.07	1138	.25	9	sandstone
12B	8.38	1148	<.25	11	sandstone, shale
12C	8.27	1161	.5	10	limey shale

INTERMOUNTAIN POWER AGENCY SEEP AND SPRING SURVEY

October 13, 1993

SEEP/SPRING NUMBER	pH (units)	COND. (umhos/cm)	FLOW RATE (gpm)	TEMP. (c)	USE/REMARKS
12D	8.24	1174	.5	11	shale, limestone
13	8.01	1151	.25	10	
13A			Dry		
13B	8.57	1162	<.25	11	
13Z	8.14	1253	<.25	13	
14	7.89	1183	<.25	11	tank
14A			Dry		
15			Dry		
15A	8.22	1025	.5	8	sandstone, silt
15B			Seep		limey sandstone, silt
15C			Seep		sandstone, limestone
16	8.07	945	.5	8	
16A	8.29	925	.25	8	
16B			Dry		
16C			Dry		shale
17	8.18	1409	<.25	10	shale, limey sandstone
17A			Dry		shale, sandstone ledge
18			Dry		shale, sandstone ledge
18A	8.47	873	<.25	10	shale, limey sandstone
19A	7.86	1104	.25	9	shale, limestone, wildlife
19B	7.62	879	<.25	6	limey sandstone, wildlife
19C	7.93	782	.25	7	shale, sandstone ledge
20			Dry		
22	8.37	1078	.25	10	

CHAIN-OF-CUSTODY FORM

Sampling Company: <u>HERREY</u>	Sampling Personnel: <u>KEG</u>
Project Name: <u>LA POWER SUP & SPRING</u>	Project Number: <u>MC 28402</u>
Analytical Laboratory: <u>Chemlock</u>	Date of Shipment/Delivery: <u>10-15-92</u>
Method of Shipment/Delivery: <u>hand</u>	Airbill Number: <u> </u>

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
S-1	10- 12 ¹³ CDH 93	1200	Water	4	SEE ATTACHED SHEETS
S-9	10- 12 ¹³ CDH 93	1205	Water	4	For requested analyses
S-10	10- 12 ¹³ CDH 93	1206	Water	4	
S-14	10- 12 ¹³ CDH 93	1230	Water	4	
S-16	10- 12 ¹³ CDH 93	1300	Water	4	

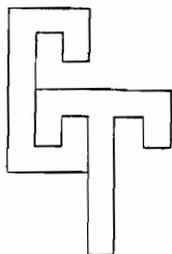
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Relinquished by: <u> </u>	Date: <u> </u>	Time: <u> </u>	Received by: <u> </u>	Date: <u> </u>	Time: <u> </u>
Relinquished by: <u> </u>	Date: <u> </u>	Time: <u> </u>	Received by: <u> </u>	Date: <u> </u>	Time: <u> </u>
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Relinquished by: <u> </u>	Date: <u> </u>	Time: <u> </u>	Received by: <u> </u>	Date: <u> </u>	Time: <u> </u>

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: <i>EarthTAX</i>	Sampling Personnel: <i>ABG</i>
Project Name: <i>LA Course Sewer Project</i>	Project Number: <i>MC 284.02</i>
Field Sample Number: <i>S-14</i>	Laboratory Sample Number:
Date Sampled: <i>10-13-93</i>	Time Sampled: <i>1230</i>
Analytical Laboratory: <i>Chemcheck</i>	Date of Shipment/Delivery: <i>10-15-93</i>

Bottle Type	Number of Bottles	Preservative(s)	Analyses Requested
<i>Plastic</i>	<i>4</i>		<i>See Attached Sheets</i>

Special Requirements:



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-12-93

TO: Earthfax Engineering
7324 S. Union Park Ave. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U100854, LA Power Seep & Spring, S-1

DATE SAMPLED: 10-13-93

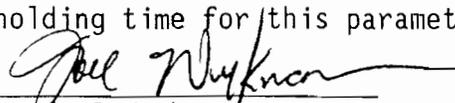
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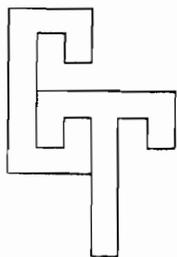
CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	394	10-20-93 EPA 160.1
Hardness as CaCO ₃ , mg/l	281	10-22/10-25 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	372	10-27-93 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	10-27-93 SM17 2320B
Chloride as Cl, mg/l	18.5	11-04-93 EPA 325.3
Sulfate as SO ₄ , mg/l	59.3	11-03-93 EPA 375.4
Sulfide as S, mg/l	<.5	10-19-93 EPA 376.1
Phosphate as PO ₄ , mg/l	0.205	10-19-93 SM17 4500E
NO ₃ -N + NO ₂ -N, mg/l	<.02	10-21-93 EPA 353.1
*Nitrite as NO ₂ -N, mg/l	<.01	10-19-93 EPA 354.1
Ammonia as NH ₃ -N, mg/l	<.2	10-27-93 SM17 4500G
Fluoride as F, mg/l	0.19	10-24-93 EPA 340.2
Aluminum as Al, mg/l	0.133	10-21-93 EPA 200.7
Arsenic as As, mg/l	<.04	10-21-93 EPA 200.7
Barium as Ba, mg/l	0.10	10-21-93 EPA 200.7
Boron as B, mg/l	0.082	10-21-93 EPA 200.7
Cadmium as Cd, mg/l	<.01	10-21-93 EPA 200.7
Calcium as Ca, mg/l	43.3	10-22-93 EPA 200.7
Chromium as Cr, mg/l	<.01	10-21-93 EPA 200.7
Copper as Cu, mg/l	<.01	10-21-93 EPA 200.7

NOTE: Sample temp. when submitted was 9.1°C on ice.

* = Sample was submitted past holding time for this parameter.


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-12-93

TO: Earthfax Engineering
7324 S. Union Park Ave. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U100854, LA Power Seep & Spring, S-1

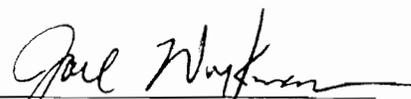
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DATE SUBMITTED: 10-15-93

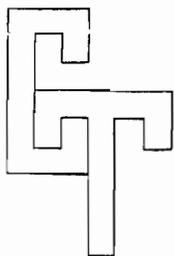
CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.125	10-21-93 EPA 200.7
Lead as Pb, mg/l	<.02	10-21-93 EPA 200.7
Magnesium as Mg, mg/l	37.6	10-22-93 EPA 200.7
Manganese as Mn, mg/l	0.015	10-21-93 EPA 200.7
Mercury as Hg, mg/l	<.0002	10-20-93 EPA 245.1
Molybdenum as Mo, mg/l	<.04	10-21-93 EPA 200.7
Nickel as Ni, mg/l	<.01	10-21-93 EPA 200.7
Potassium as K, mg/l	0.736	10-22-93 EPA 200.7
Selenium as Se, mg/l	<.04	10-21-93 EPA 200.7
Sodium as Na, mg/l	41.3	10-21-93 EPA 200.7
Zinc as Zn, mg/l	<.01	10-22-93 EPA 200.7

NOTE: Sample temp. when submitted was 9.1°C on ice.



Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-12-93

TO: Earthfax Engineering
7324 S. Union Park Ave. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U100855, LA Power Seep & Spring, S-9

DATE SAMPLED: 10-13-93

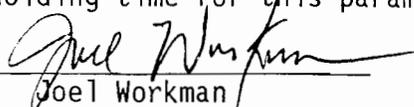
DATE SUBMITTED: 10-15-93

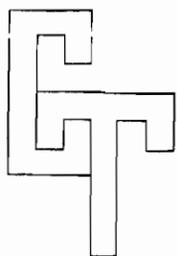
CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	568	10-20-93 EPA 160.1
Hardness as CaCO ₃ , mg/l	381	10-22/10-25 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	501	10-27-93 SM17 2320B
Carbonate as CO ₃ , mg/l	1.2	10-27-93 SM17 2320B
Chloride as Cl, mg/l	13.9	11-04-93 EPA 325.3
Sulfate as SO ₄ , mg/l	99.6	11-03-93 EPA 375.4
Sulfide as S, mg/l	<.5	10-19-93 EPA 376.1
Phosphate as PO ₄ , mg/l	0.014	10-19-93 SM17 4500E
NO ₃ -N + NO ₂ -N, mg/l	<.02	10-21-93 EPA 353.1
*Nitrite as NO ₂ -N, mg/l	<.01	10-19-93 EPA 354.1
Ammonia as NH ₃ -N, mg/l	<.2	10-27-93 SM17 4500G
Fluoride as F, mg/l	0.18	10-24-93 EPA 340.2
Aluminum as Al, mg/l	<.1	10-21-93 EPA 200.7
Arsenic as As, mg/l	<.04	10-21-93 EPA 200.7
Barium as Ba, mg/l	0.114	10-21-93 EPA 200.7
Boron as B, mg/l	0.028	10-21-93 EPA 200.7
Cadmium as Cd, mg/l	<.01	10-21-93 EPA 200.7
Calcium as Ca, mg/l	60.2	10-22-93 EPA 200.7
Chromium as Cr, mg/l	<.01	10-21-93 EPA 200.7
Copper as Cu, mg/l	<.01	10-21-93 EPA 200.7

NOTE: Sample temp. when submitted was 9.1°C on ice.

* = Sample was submitted past holding time for this parameter.


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-12-93

TO: Earthfax Engineering
7324 S. Union Park Ave. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U100855, LA Power Seep & Spring, S-9

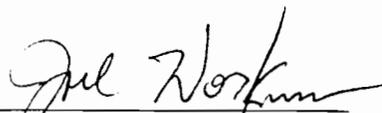
DATE SAMPLED: 10-13-93

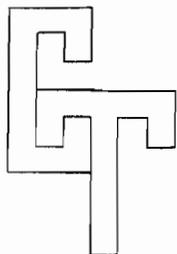
DATE SUBMITTED: 10-15-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.064	10-21-93 EPA 200.7
Lead as Pb, mg/l	<.02	10-21-93 EPA 200.7
Magnesium as Mg, mg/l	52.9	10-22-93 EPA 200.7
Manganese as Mn, mg/l	0.022	10-21-93 EPA 200.7
Mercury as Hg, mg/l	<.0002	10-20-93 EPA 245.1
Molybdenum as Mo, mg/l	<.04	10-21-93 EPA 200.7
Nickel as Ni, mg/l	<.01	10-21-93 EPA 200.7
Potassium as K, mg/l	1.12	10-22-93 EPA 200.7
Selenium as Se, mg/l	<.04	10-21-93 EPA 200.7
Sodium as Na, mg/l	68.5	10-21-93 EPA 200.7
Zinc as Zn, mg/l	<.01	10-22-93 EPA 200.7

NOTE: Sample temp. when submitted was 9.1°C on ice.


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-12-93

TO: Earthfax Engineering
7324 S. Union Park Ave. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U100856, LA Power Seep & Spring, S-10

DATE SAMPLED: 10-13-93

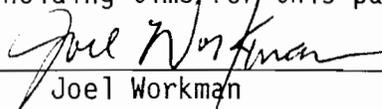
DATE SUBMITTED: 10-15-93

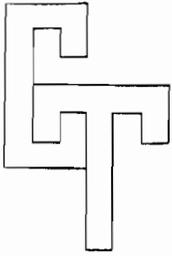
CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	630	10-20-93 EPA 160.1
Hardness as CaCO ₃ , mg/l	455	10-22/10-25 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	500	10-27-93 SM17 2320B
Carbonate as CO ₃ , mg/l	<1.0	10-27-93 SM17 2320B
Chloride as Cl, mg/l	11.8	11-04-93 EPA 325.3
Sulfate as SO ₄ , mg/l	184	11-03-93 EPA 375.4
Sulfide as S, mg/l	<.5	10-19-93 EPA 376.1
Phosphate as PO ₄ , mg/l	0.060	10-19-93 SM17 4500E
NO ₃ -N + NO ₂ -N, mg/l	0.132	10-21-93 EPA 353.1
*Nitrite as NO ₂ -N, mg/l	<.01	10-19-93 EPA 354.1
Ammonia as NH ₃ -N, mg/l	<.2	10-27-93 SM17 4500G
Fluoride as F, mg/l	0.16	10-24-93 EPA 340.2
Aluminum as Al, mg/l	0.793	10-21-93 EPA 200.7
Arsenic as As, mg/l	<.04	10-21-93 EPA 200.7
Barium as Ba, mg/l	0.040	10-21-93 EPA 200.7
Boron as B, mg/l	0.085	10-21-93 EPA 200.7
Cadmium as Cd, mg/l	<.01	10-21-93 EPA 200.7
Calcium as Ca, mg/l	76.7	10-22-93 EPA 200.7
Chromium as Cr, mg/l	<.01	10-21-93 EPA 200.7
Copper as Cu, mg/l	<.01	10-21-93 EPA 200.7

NOTE: Sample temp. when submitted was 9.1°C on ice.

* = Sample was submitted past holding time for this parameter.


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-12-93

TO: Earthfax Engineering
7324 S. Union Park Ave. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U100856, LA Power Seep & Spring, S-10

DATE SAMPLED: 10-13-93

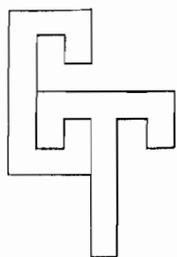
DATE SUBMITTED: 10-15-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.775	10-21-93 EPA 200.7
Lead as Pb, mg/l	<.02	10-21-93 EPA 200.7
Magnesium as Mg, mg/l	58.6	10-22-93 EPA 200.7
Manganese as Mn, mg/l	0.077	10-21-93 EPA 200.7
Mercury as Hg, mg/l	<.0002	10-20-93 EPA 245.1
Molybdenum as Mo, mg/l	<.04	10-21-93 EPA 200.7
Nickel as Ni, mg/l	<.01	10-21-93 EPA 200.7
Potassium as K, mg/l	1.20	10-22-93 EPA 200.7
Selenium as Se, mg/l	<.04	10-21-93 EPA 200.7
Sodium as Na, mg/l	60.9	10-21-93 EPA 200.7
Zinc as Zn, mg/l	<.01	10-22-93 EPA 200.7

NOTE: Sample temp. when submitted was 9.1°C on ice.


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-12-93

TO: Earthfax Engineering
7324 S. Union Park Ave. STE 100
Midvale, Utah 84047

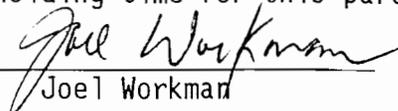
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DATE SAMPLED: 10-13-93
DATE SUBMITTED: 10-15-93

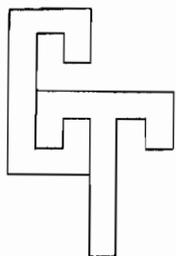
CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	1,500	10-20-93 EPA 160.1
Hardness as CaCO ₃ , mg/l	599	10-22/10-25 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	555	10-27-93 SM17 2320B
Carbonate as CO ₃ , mg/l	<1.0	10-27-93 SM17 2320B
Chloride as Cl, mg/l	63.2	11-04-93 EPA 325.3
Sulfate as SO ₄ , mg/l	679	11-03-93 EPA 375.4
Sulfide as S, mg/l	<.5	10-19-93 EPA 376.1
Phosphate as PO ₄ , mg/l	0.011	10-19-93 SM17 4500E
NO ₃ -N + NO ₂ -N, mg/l	<.02	10-21-93 EPA 353.1
*Nitrite as NO ₂ -N, mg/l	<.01	10-19-93 EPA 354.1
Ammonia as NH ₃ -N, mg/l	<.2	10-27-93 SM17 4500G
Fluoride as F, mg/l	0.26	10-24-93 EPA 340.2
Aluminum as Al, mg/l	<.1	10-21-93 EPA 200.7
Arsenic as As, mg/l	<.04	10-21-93 EPA 200.7
Barium as Ba, mg/l	0.017	10-21-93 EPA 200.7
Boron as B, mg/l	0.233	10-21-93 EPA 200.7
Cadmium as Cd, mg/l	<.01	10-21-93 EPA 200.7
Calcium as Ca, mg/l	60.4	10-22-93 EPA 200.7
Chromium as Cr, mg/l	<.01	10-21-93 EPA 200.7
Copper as Cu, mg/l	<.01	10-21-93 EPA 200.7

NOTE: Sample temp. when submitted was 9.1°C on ice.

* = Sample was submitted past holding time for this parameter.


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-12-93

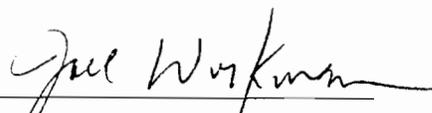
TO: Earthfax Engineering
7324 S. Union Park Ave. STE 100
Midvale, Utah 84047

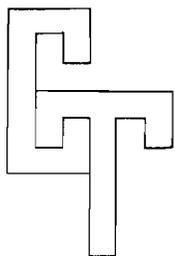
SAMPLE ID: Lab #U100857, LA Power Seep & Spring, S-14
DATE SAMPLED: 10-13-93
DATE SUBMITTED: 10-15-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.032	10-21-93 EPA 200.7
Lead as Pb, mg/l	<.02	10-21-93 EPA 200.7
Magnesium as Mg, mg/l	98.3	10-22-93 EPA 200.7
Manganese as Mn, mg/l	<.01	10-21-93 EPA 200.7
Mercury as Hg, mg/l	<.0002	10-20-93 EPA 245.1
Molybdenum as Mo, mg/l	<.04	10-21-93 EPA 200.7
Nickel as Ni, mg/l	<.01	10-21-93 EPA 200.7
Potassium as K, mg/l	1.89	10-22-93 EPA 200.7
Selenium as Se, mg/l	<.04	10-21-93 EPA 200.7
Sodium as Na, mg/l	270	10-21-93 EPA 200.7
Zinc as Zn, mg/l	<.01	10-22-93 EPA 200.7

NOTE: Sample temp. when submitted was 9.1°C on ice.


Joe Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-12-93

TO: Earthfax Engineering
7324 S. Union Park Ave. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U100858, LA Power Seep & Spring, S-16

DATE SAMPLED: 10-13-93

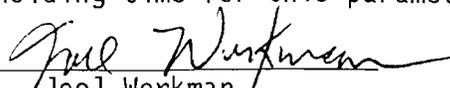
DATE SUBMITTED: 10-15-93

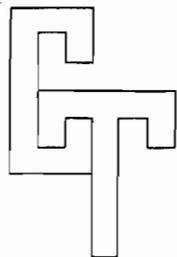
CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	654	10-20-93 EPA 160.1
Hardness as CaCO ₃ , mg/l	356	10-22/10-25 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	498	10-27-93 SM17 2320B
Carbonate as CO ₃ , mg/l	<1.0	10-27-93 SM17 2320B
Chloride as Cl, mg/l	19.0	11-04-93 EPA 325.3
Sulfate as SO ₄ , mg/l	150	11-03-93 EPA 375.4
Sulfide as S, mg/l	<.5	10-19-93 EPA 376.1
Phosphate as PO ₄ , mg/l	0.034	10-19-93 SM17 4500E
NO ₃ -N + NO ₂ -N, mg/l	<.02	10-21-93 EPA 353.1
*Nitrite as NO ₂ -N, mg/l	<.01	10-19-93 EPA 354.1
Ammonia as NH ₃ -N, mg/l	<.2	10-27-93 SM17 4500G
Fluoride as F, mg/l	0.16	10-24-93 EPA 340.2
Aluminum as Al, mg/l	<.1	10-21-93 EPA 200.7
Arsenic as As, mg/l	<.04	10-21-93 EPA 200.7
Barium as Ba, mg/l	0.049	10-21-93 EPA 200.7
Boron as B, mg/l	0.074	10-21-93 EPA 200.7
Cadmium as Cd, mg/l	<.01	10-21-93 EPA 200.7
Calcium as Ca, mg/l	47.3	10-22-93 EPA 200.7
Chromium as Cr, mg/l	<.01	10-21-93 EPA 200.7
Copper as Cu, mg/l	<.01	10-21-93 EPA 200.7

NOTE: Sample temp. when submitted was 9.1°C on ice.

* = Sample was submitted past holding time for this parameter.


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-12-93

TO: Earthfax Engineering
7324 S. Union Park Ave. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U100858, LA Power Seep & Spring, S-16

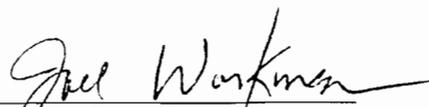
DATE SAMPLED: 10-13-93

DATE SUBMITTED: 10-15-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.060	10-21-93 EPA 200.7
Lead as Pb, mg/l	<.02	10-21-93 EPA 200.7
Magnesium as Mg, mg/l	52.2	10-22-93 EPA 200.7
Manganese as Mn, mg/l	<.01	10-21-93 EPA 200.7
Mercury as Hg, mg/l	<.0002	10-20-93 EPA 245.1
Molybdenum as Mo, mg/l	<.04	10-21-93 EPA 200.7
Nickel as Ni, mg/l	<.01	10-21-93 EPA 200.7
Potassium as K, mg/l	0.979	10-22-93 EPA 200.7
Selenium as Se, mg/l	<.04	10-21-93 EPA 200.7
Sodium as Na, mg/l	103	10-21-93 EPA 200.7
Zinc as Zn, mg/l	<.01	10-22-93 EPA 200.7

NOTE: Sample temp. when submitted was 9.1°C on ice.



Joel Workman

INTERMOUNTAIN POWER AGENCY
SOUTH LEASE PROPERTY
SEEP AND SPRING SURVEY
May 24 -26, 1993

SEEP/SPRING NUMBER	pH (units)	COND. (umhos/cm)	FLOW RATE (gpm)	TEMP. (c)	USE/REMARKS
1	7.79	962	1.5	8	claystone, wildlife
1A	7.76	1061	.5	7	sandstone, wildlife
1B			seep		
3	8.07	1000	.5	10	sandstone, wildlife
3A	7.68	1085	1	9	sandstone, wildlife
3B	8.01	1080	1.5	11	shale, wildlife
4	7.94	1190	2	8	
5	7.52	1058	1	6	
6			dry		
7	7.78	8.79	.75	8	
8 (J)	7.85	1043	<.25	20	
8A	7.97	1020	1.5	7	
9	6.45	1000	<.25	9	
9 (R)	TROUGH		2	10	sandstone, trough
10	7.90	1046	2	15	
11	8.19	3680	<.25	17	
12A	7.81	2070	.25	10	sandstone
12B	8.12	1760	.25	11	sandstone, shale
12C	8.24	1716	.5	7	limey shale
12D	7.96	4520	<.25	15	shale, limestone
13	7.88	1386	1	14	
13A	8.03	1934	<.25	14	
13B	8.06	2216	<.25	12	
13Z	7.84	1375	1	12	

INTERMOUNTAIN POWER AGENCY
SOUTH LEASE PROPERTY
SEEP AND SPRING SURVEY
May 24 -26, 1993

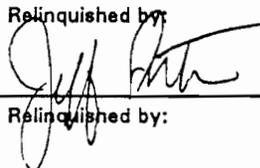
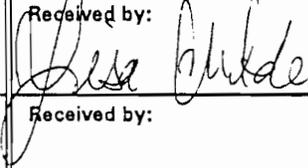
SEEP/SPRING NUMBER	pH (units)	COND. (umhos/cm)	FLOW RATE (gpm)	TEMP. (c)	USE/REMARKS
14			1	19	
14A	8.06	1500	1	15	
15	7.68	1045	<.25	10	
15A	7.86	1060	<.25	17	sandstone, silt
15B	7.92	1009	<.25	17	limey sandstone, silt
15C			seep		sandstone, limestone
16	<i>TROUGH</i>		1	10	
16A	8.08	1070	4	11	
16B	7.86	1000	.25	14	
16C			seep		shale
16Z			seep		
17	8.07	1520	<.25	17	shale, limey sandstone
17A	ns		1.5	17	shale, sandstone ledge
17B	ns		.75	16	shale, sandstone ledge
18	8.06	1300	1	17	shale, limey sandstone
19A	7.59	1124	.5	7	shale, limestone, wildlife
19B	7.61	1130	1.5	7	limestone, sandstone, wildlife
20	8.02	6000	<.25	10	shale, sandstone ledge
22			dry		

EARTHFAX ENGINEERING INC.
7324 SOUTH 1300 EAST
Midvale, Utah 84047

CHAIN-OF-CUSTODY FORM

Sampling Company: EarthFax Engineering	Sampling Personnel: RBG, JDG, JRP
Project Name: LA POWER SPRING SURVEY	Project Number: UC 284-04
Analytical Laboratory: Chemtech	Date of Shipment/Delivery:
Method of Shipment/Delivery:	Airbill Number:

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
16	5-25-93		H ₂ O	3	
14	5-25-93		H ₂ O	3	
10	5-25-93		H ₂ O	3	
9	5-25-93		H ₂ O	3	
1	5-25-93		H ₂ O	3	

Relinquished by: 	Date: 5/27/93	Time: 1405	Received by: 	Date: 5/28/93	Time: 2:00
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: RBG, JDG, JRP
Project Name: LA POWER SPRING SURVEY	Project Number: UC 284-04
Field Sample Number: 16	Laboratory Sample Number:
Date Sampled: 5-25-93	Time Sampled:
Analytical Laboratory: Chemtech	Date of Shipment/Delivery:

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
plastic	3	ICE	attached

Special Requirements:

EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: RBG, JDG, JRP
Project Name: LA POWER SPRING SURVEY	Project Number: UC 284-04
Field Sample Number: 1	Laboratory Sample Number:
Date Sampled: 5-25-93	Time Sampled:
Analytical Laboratory: Chemtech	Date of Shipment/Delivery:

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
plastic	3	ICE	attached

Special Requirements:

EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: RBG, JDG, JRP
Project Name: LA POWER SPRING SURVEY	Project Number: UC 284-04
Field Sample Number: 9	Laboratory Sample Number:
Date Sampled: 5-25-93	Time Sampled:
Analytical Laboratory: Chemtech	Date of Shipment/Delivery:

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
plastic	3	ICE	attached

Special Requirements:

EARTHFAX ENGINEERING, INC.
7324 South 1300 East
Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: RBG, JDG, JRP
Project Name: LA POWER SPRING SURVEY	Project Number: UC 284-04
Field Sample Number: 10	Laboratory Sample Number: 10
Date Sampled: 5-25-93	Time Sampled:
Analytical Laboratory: Chemtech	Date of Shipment/Delivery:

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
Plastic	3	ICE	Attached

Special Requirements:

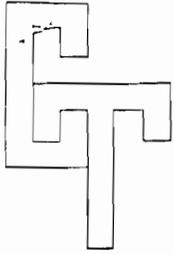
EARTHFAX ENGINEERING, INC.
7324 South 1300 East
Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: RBG, JDG, JRP
Project Name: LA POWER SPRING SURVEY	Project Number: UC 284-04
Field Sample Number: 14	Laboratory Sample Number:
Date Sampled: 5-25-93	Time Sampled:
Analytical Laboratory: Chemtech	Date of Shipment/Delivery:

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
Plastic	3	ICE	Attached

Special Requirements:



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 7-01-93

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

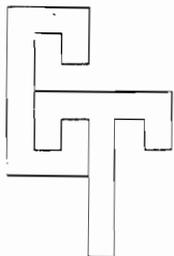
SAMPLE ID: Lab #U096139 - LA Power-Spring Survey, #16 @ 10:00, 6-04-93

DATE SUBMITTED: 6-05-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
TDS, mg/l	638	6-10-93 EPA 160.1
Hardness as CaCO ₃ , mg/l	310	6-17-93 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	473	6-16-93 SM17 2320B
Carbonate as CO ₃ , mg/l	10.5	6-16-93 SM17 2320B
Chloride as Cl, mg/l	19.0	6-07-93 EPA 325.3
Sulfate as SO ₄ , mg/l	137	6-11-93 SM17 4500
Sulfide as S, mg/l	0.32	6-08-93 EPA 376.1
Phosphate as PO ₄ -P, mg/l	<.01	6-14-93 SM17 4500
Nitrate as NO ₃ -N, mg/l	<.02	6-28-93 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	6-05-93 EPA 354.1
Ammonia as NH ₃ -N, mg/l	<1	6-11-93 SM17 4500
Fluoride as F, mg/l	0.19	6-10-93 EPA 340.2
Aluminum as Al, mg/l	0.064	6-09-93 EPA 200.7
Arsenic as As, mg/l	<.04	6-09-93 EPA 200.7
Barium as Ba, mg/l	0.079	6-09-93 EPA 200.7
Boron as B, mg/l	0.093	6-09-93 EPA 200.7
Cadmium as Cd, mg/l	<.01	6-09-93 EPA 200.7
Calcium as Ca, mg/l	37.6	6-10-93 EPA 200.7
Chromium as Cr, mg/l	<.01	6-09-93 EPA 200.7
Copper as Cu, mg/l	<.01	6-09-93 EPA 200.7


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 7-01-93

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U096138 - LA Power-Spring Survey, #14 @ 10:45, 6-04-93

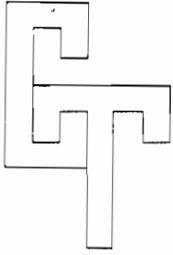
DATE SUBMITTED: 6-05-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE</u>	<u>ANALYZED/METHOD</u>
TDS, mg/l	1,614	6-10-93	EPA 160.1
Hardness as CaCO ₃ , mg/l	647	6-17-93	EPA 130.2
Bicarbonate as HCO ₃ , mg/l	568	6-16-93	SM17 2320B
Carbonate as CO ₃ , mg/l	9.4	6-16-93	SM17 2320B
Chloride as Cl, mg/l	45.6	6-07-93	EPA 325.3
Sulfate as SO ₄ , mg/l	756	6-11-93	SM17 4500
Sulfide as S, mg/l	<.1	6-08-93	EPA 376.1
Phosphate as PO ₄ -P, mg/l	<.01	6-14-93	SM17 4500
Nitrate as NO ₃ -N, mg/l	<.02	6-28-93	EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	6-05-93	EPA 354.1
Ammonia as NH ₃ -N, mg/l	<1	6-11-93	SM17 4500
Fluoride as F, mg/l	0.26	6-10-93	EPA 340.2
Aluminum as Al, mg/l	0.037	6-09-93	EPA 200.7
Arsenic as As, mg/l	<.04	6-09-93	EPA 200.7
Barium as Ba, mg/l	0.022	6-09-93	EPA 200.7
Boron as B, mg/l	0.213	6-09-93	EPA 200.7
Cadmium as Cd, mg/l	<.01	6-09-93	EPA 200.7
Calcium as Ca, mg/l	60.2	6-10-93	EPA 200.7
Chromium as Cr, mg/l	<.01	6-09-93	EPA 200.7
Copper as Cu, mg/l	<.01	6-09-93	EPA 200.7



Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 7-01-93

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

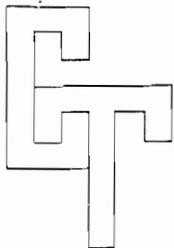
SAMPLE ID: Lab #U096138 - LA Power-Spring Survey, #14 @ 10:45, 6-04-93

DATE SUBMITTED: 6-05-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.070	6-09-93 EPA 200.7
Lead as Pb, mg/l	<.02	6-09-93 EPA 200.7
Magnesium as Mg, mg/l	104	6-10-93 EPA 200.7
Manganese as Mn, mg/l	<.01	6-09-93 EPA 200.7
Mercury as Hg, mg/l	<.0002	6-09-93 EPA 245.1
Molybdenum as Mo, mg/l	<.01	6-09-93 EPA 200.7
Nickel as Ni, mg/l	<.01	6-09-93 EPA 200.7
Potassium as K, mg/l	1.4	6-10-93 EPA 200.7
Selenium as Se, mg/l	<.04	6-09-93 EPA 200.7
Sodium as Na, mg/l	276	6-10-93 EPA 200.7
Zinc as Zn, mg/l	<.01	6-09-93 EPA 200.7


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 7-01-93

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

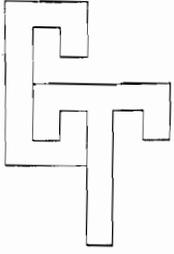
SAMPLE ID: Lab #U096137 - LA Power-Spring Survey, #10 @ 10:00, 6-04-93

DATE SUBMITTED: 6-05-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
TDS, mg/l	694	6-10-93 EPA 160.1
Hardness as CaCO ₃ , mg/l	471	6-17-93 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	481	6-16-93 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	6-16-93 SM17 2320B
Chloride as Cl, mg/l	11.5	6-07-93 EPA 325.3
Sulfate as SO ₄ , mg/l	202	6-11-93 SM17 4500
Sulfide as S, mg/l	<.1	6-08-93 EPA 376.1
Phosphate as PO ₄ -P, mg/l	0.034	6-14-93 SM17 4500
Nitrate as NO ₃ -N, mg/l	0.033	6-28-93 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	6-05-93 EPA 354.1
Ammonia as NH ₃ -N, mg/l	<1	6-11-93 SM17 4500
Fluoride as F, mg/l	0.18	6-10-93 EPA 340.2
Aluminum as Al, mg/l	0.051	6-09-93 EPA 200.7
Arsenic as As, mg/l	<.04	6-09-93 EPA 200.7
Barium as Ba, mg/l	0.069	6-09-93 EPA 200.7
Boron as B, mg/l	0.038	6-09-93 EPA 200.7
Cadmium as Cd, mg/l	<.01	6-09-93 EPA 200.7
Calcium as Ca, mg/l	68.9	6-10-93 EPA 200.7
Chromium as Cr, mg/l	<.01	6-09-93 EPA 200.7
Copper as Cu, mg/l	<.01	6-09-93 EPA 200.7


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 7-01-93

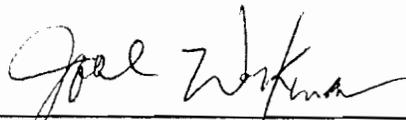
TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

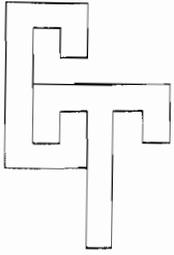
SAMPLE ID: Lab #U096137 - LA Power-Spring Survey, #10 @ 10:00, 6-04-93

DATE SUBMITTED: 6-05-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.080	6-09-93 EPA 200.7
Lead as Pb, mg/l	<.02	6-09-93 EPA 200.7
Magnesium as Mg, mg/l	64.4	6-10-93 EPA 200.7
Manganese as Mn, mg/l	0.056	6-09-93 EPA 200.7
Mercury as Hg, mg/l	<.0002	6-09-93 EPA 245.1
Molybdenum as Mo, mg/l	<.01	6-09-93 EPA 200.7
Nickel as Ni, mg/l	<.01	6-09-93 EPA 200.7
Potassium as K, mg/l	1.5	6-10-93 EPA 200.7
Selenium as Se, mg/l	<.04	6-09-93 EPA 200.7
Sodium as Na, mg/l	63.4	6-10-93 EPA 200.7
Zinc as Zn, mg/l	<.01	6-09-93 EPA 200.7


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 7-01-93

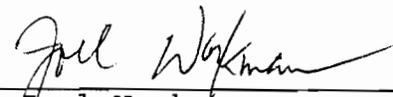
TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U096136 - LA Power-Spring Survey, #9 @ 10:00, 6-04-93

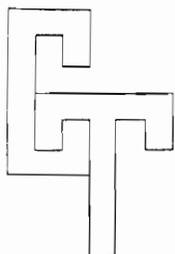
DATE SUBMITTED: 6-05-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE</u>	<u>ANALYZED/METHOD</u>
TDS, mg/l	589	6-10-93	EPA 160.1
Hardness as CaCO ₃ , mg/l	376	6-17-93	EPA 130.2
Bicarbonate as HCO ₃ , mg/l	495	6-16-93	SM17 2320B
Carbonate as CO ₃ , mg/l	2.3	6-16-93	SM17 2320B
Chloride as Cl, mg/l	12.1	6-07-93	EPA 325.3
Sulfate as SO ₄ , mg/l	119	6-11-93	SM17 4500
Sulfide as S, mg/l	0.18	6-08-93	EPA 376.1
Phosphate as PO ₄ -P, mg/l	<.01	6-14-93	SM17 4500
Nitrate as NO ₃ -N, mg/l	<.02	6-28-93	EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	6-05-93	EPA 354.1
Ammonia as NH ₃ -N, mg/l	<1	6-11-93	SM17 4500
Fluoride as F, mg/l	0.18	6-10-93	EPA 340.2
Aluminum as Al, mg/l	0.041	6-09-93	EPA 200.7
Arsenic as As, mg/l	<.04	6-09-93	EPA 200.7
Barium as Ba, mg/l	0.114	6-09-93	EPA 200.7
Boron as B, mg/l	0.052	6-09-93	EPA 200.7
Cadmium as Cd, mg/l	<.01	6-09-93	EPA 200.7
Calcium as Ca, mg/l	55.5	6-10-93	EPA 200.7
Chromium as Cr, mg/l	<.01	6-09-93	EPA 200.7
Copper as Cu, mg/l	<.01	6-09-93	EPA 200.7



Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 7-01-93

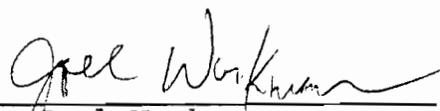
TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U096136 - LA Power-Spring Survey, #9 @ 10:00, 6-04-93

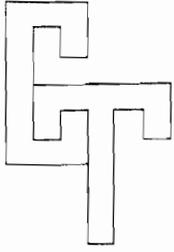
DATE SUBMITTED: 6-05-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.058	6-09-93 EPA 200.7
Lead as Pb, mg/l	<.02	6-09-93 EPA 200.7
Magnesium as Mg, mg/l	51.8	6-10-93 EPA 200.7
Manganese as Mn, mg/l	0.040	6-09-93 EPA 200.7
Mercury as Hg, mg/l	<.0002	6-09-93 EPA 245.1
Molybdenum as Mo, mg/l	<.01	6-09-93 EPA 200.7
Nickel as Ni, mg/l	<.01	6-09-93 EPA 200.7
Potassium as K, mg/l	0.80	6-10-93 EPA 200.7
Selenium as Se, mg/l	<.04	6-09-93 EPA 200.7
Sodium as Na, mg/l	72.3	6-10-93 EPA 200.7
Zinc as Zn, mg/l	<.01	6-09-93 EPA 200.7



Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 7-01-93

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

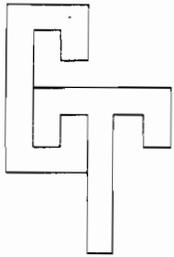
SAMPLE ID: Lab #U096135 - LA Power-Spring Survey, #1 @ 10:00, 6-04-93

DATE SUBMITTED: 6-05-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
TDS, mg/l	435	6-10-93 EPA 160.1
Hardness as CaCO ₃ , mg/l	279	6-17-93 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	475	6-16-93 SM17 2320B
Carbonate as CO ₃ , mg/l	1.2	6-16-93 SM17 2320B
Chloride as Cl, mg/l	7.3	6-07-93 EPA 325.3
Sulfate as SO ₄ , mg/l	61.7	6-11-93 SM17 4500
Sulfide as S, mg/l	0.21	6-08-93 EPA 376.1
Phosphate as PO ₄ -P, mg/l	<.01	6-14-93 SM17 4500
Nitrate as NO ₃ -N, mg/l	0.036	6-28-93 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	6-05-93 EPA 354.1
Ammonia as NH ₃ -N, mg/l	<1	6-11-93 SM17 4500
Fluoride as F, mg/l	0.16	6-10-93 EPA 340.2
Aluminum as Al, mg/l	0.060	6-09-93 EPA 200.7
Arsenic as As, mg/l	<.04	6-09-93 EPA 200.7
Barium as Ba, mg/l	0.103	6-09-93 EPA 200.7
Boron as B, mg/l	0.063	6-09-93 EPA 200.7
Cadmium as Cd, mg/l	<.01	6-09-93 EPA 200.7
Calcium as Ca, mg/l	41.7	6-10-93 EPA 200.7
Chromium as Cr, mg/l	<.01	6-09-93 EPA 200.7
Copper as Cu, mg/l	<.01	6-09-93 EPA 200.7


Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 7-01-93

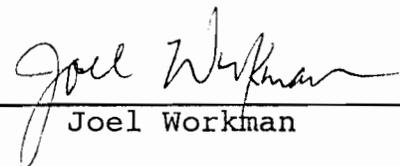
TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U096135 - LA Power-Spring Survey, #1 @ 10:00, 6-04-93

DATE SUBMITTED: 6-05-93

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
Iron as Fe, mg/l	0.080	6-09-93 EPA 200.7
Lead as Pb, mg/l	<.02	6-09-93 EPA 200.7
Magnesium as Mg, mg/l	37.5	6-10-93 EPA 200.7
Manganese as Mn, mg/l	<.01	6-09-93 EPA 200.7
Mercury as Hg, mg/l	<.0002	6-09-93 EPA 245.1
Molybdenum as Mo, mg/l	<.01	6-09-93 EPA 200.7
Nickel as Ni, mg/l	<.01	6-09-93 EPA 200.7
Potassium as K, mg/l	0.47	6-10-93 EPA 200.7
Selenium as Se, mg/l	<.04	6-09-93 EPA 200.7
Sodium as Na, mg/l	41.3	6-10-93 EPA 200.7
Zinc as Zn, mg/l	<.01	6-09-93 EPA 200.7


Joel Workman

LOS ANGELES DEPARTMENT OF WATER AND POWER
 HORSE CANYON MINE
 SEEP AND SPRING DATA
 OCTOBER 1995

SEEP/SPRING Number	PH (units)	CONDUCTIVITY (umhos/cm @ 25 deg C)	FLOW (gpm)	TEMP (deg C)	COMMENTS
HC-2	8.99	1001	15	7	
HC-4	8.29	1005	1	8	
HC-11	7.61	1000	5	7	
HC-13	7.69	1700	2	10	
HC-18	8.24	1400	2	11	
HC-14	8.07	1680	5	8	New Location Spring 95
SURFACE WATER					
Number					
HCSW-1	7.51	990	15	9	
HCSW-2			DRY		
HCSW-3			DRY		

CHAIN-OF-CUSTODY FORM

Sampling Company: <u>FARIN FAC Eng</u>	Sampling Personnel: <u>WJL/ED</u>
Project Name: <u>HORSE CANYON</u>	Project Number:
Analytical Laboratory: <u>Chem-tech</u>	Date of Shipment/Delivery: <u>10/17/95</u>
Method of Shipment/Delivery: <u>HAND</u>	Airbill Number:

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
H-2	10/18/95	6:20	WATER	4	ATTACHED
H-14	10/18/95	4:15	}	4	ANALYSIS
H-13	10/18/95	5:30		LIST	
H-4	10/18/95	3:40			
H-11	10/18/95	4:50			
H-18	10/17/95	6:17			
HCSW-1	10/18	6:10	WATER	5	ATTACHED LIST + OIL & GREASE

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
<u>Vicki D. Bailey</u>	<u>10/19/95</u>	<u>9:40</u>	<u>J. C. ...</u>	<u>10/19/95</u>	<u>9:40</u>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035464
Project: HORSE CANYON
Sample Desc: HCSW-1
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO ₃ , mg/L	520	1	10/23/95 10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	18	1	10/23/95 10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95 12:40	SM 4500G/F	DI
Chloride, mg/L	17	1	11/ 4/95 10:00	EPA 325.3	TM
Fluoride, mg/L	< 0.2	0.2	10/31/95 11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	409	10	10/25/95 9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	< 0.0002	0.0002	11/ 2/95 9:05	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	0.02	0.02	10/28/95 14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.014	0.005	10/20/95 9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	0.06	0.01	10/25/95 15:00	SM 4500-P	KA
Sulfate, mg/L	278	20	11/ 2/95 11:30	EPA 375.4	TM
Sulfide, mg/L	0.23	0.1	10/23/95 17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	836	10	10/23/95 15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	0.44	0.02	10/30/95 15:29	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95 15:29	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.10	0.02	10/30/95 15:29	EPA 200.7	LH
Boron (T), as B, mg/L	0.1	0.1	10/30/95 15:29	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95 15:29	EPA 200.7	LH
Calcium (T), as Ca, mg/L	40.9	0.2	10/30/95 15:29	EPA 200.7	LH
Chromium(T), as Cr, mg/L	< 0.005	0.005	10/30/95 15:29	EPA 200.7	LH
Copper (T), as Cu, mg/L	< 0.01	0.01	10/30/95 15:29	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.59	0.04	10/30/95 15:29	EPA 200.7	LH
Lead (T), as Pb, mg/L	< 0.01	0.01	10/30/95 15:29	EPA 200.7	LH

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035464
Project: HORSE CANYON
Sample Desc: HCSW-1
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE		METHOD	ANALYST
			ANALYZED			
INORGANIC PARAMETERS						
Magnesium (T), as Mg, mg/L	63.9	0.1	10/30/95	15:29	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.02	0.01	10/30/95	15:29	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	< 0.01	0.01	10/30/95	15:29	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.01	0.01	10/30/95	15:29	EPA 200.7	LH
Potassium (T), as K, mg/L	2.2	0.1	10/30/95	15:29	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95	15:29	EPA 200.7	LH
Sodium (T), as Na, mg/L	146	0.2	10/30/95	15:29	EPA 200.7	LH
Zinc (T), as Zn, mg/L	< 0.02	0.02	10/30/95	15:29	EPA 200.7	LH
Oil & Grease, mg/L	< 5	5	10/27/95	14:10	EPA 413.1	RH

NOTE: Nitrite was run past holding time due to late arrival and size of project.

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035458
Project: HORSE CANYON
Sample Desc: H-2
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO ₃ , mg/L	536	1	10/23/95 10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	14	1	10/23/95 10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95 12:40	SM 4500G/F	DI
Chloride, mg/L	18	1	11/ 4/95 10:00	EPA 325.3	TM
Fluoride, mg/L	< 0.2	0.2	10/31/95 11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	416	10	10/25/95 9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	0.0003	0.0002	11/ 6/95 11:45	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	0.09	0.02	10/28/95 14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.009	0.005	10/20/95 9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	0.05	0.01	10/25/95 15:00	SM 4500-P	KA
Sulfate, mg/L	276	10	11/ 2/95 11:30	EPA 375.4	TM
Sulfide, mg/L	< 0.1	0.1	10/23/95 17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	824	10	10/23/95 15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	0.16	0.02	10/30/95 15:10	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95 15:10	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.10	0.02	10/30/95 15:10	EPA 200.7	LH
Boron (T), as B, mg/L	0.1	0.1	10/30/95 15:10	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95 15:10	EPA 200.7	LH
Calcium (T), as Ca, mg/L	48.7	0.2	10/30/95 15:10	EPA 200.7	LH
Chromium(T), as Cr, mg/L	< 0.005	0.005	10/30/95 15:10	EPA 200.7	LH
Copper (T), as Cu, mg/L	< 0.01	0.01	10/30/95 15:10	EPA 200.7	LH
Iron (T), as Fe, mg/L	0.16	0.04	10/30/95 15:10	EPA 200.7	LH
Lead (T), as Pb, mg/L	< 0.01	0.01	10/30/95 15:10	EPA 200.7	LH

Approved By: 

{generic.rpt}

801 262 7299 PHONE
801 262 7378 FAX

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035458
Project: HORSE CANYON
Sample Desc: H-2
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (T), as Mg, mg/L	68.6	0.1	10/30/95 15:10	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.01	0.01	10/30/95 15:10	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	0.02	0.01	10/30/95 15:10	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.01	0.01	10/30/95 15:10	EPA 200.7	LH
Potassium (T), as K, mg/L	2.1	0.1	10/30/95 15:10	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95 15:10	EPA 200.7	LH
Sodium (T), as Na, mg/L	156	0.2	10/30/95 15:10	EPA 200.7	LH
Zinc (T), as Zn, mg/L	< 0.02	0.02	10/30/95 15:10	EPA 200.7	LH

NOTE: Nitrite was run past holding time due to late arrival and size of project.

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035461
Project: HORSE CANYON
Sample Desc: H-4
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO ₃ , mg/L	593	1	10/23/95 10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	5	1	10/23/95 10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95 12:40	SM 4500G/F	DI
Chloride, mg/L	12	1	11/ 4/95 10:00	EPA 325.3	TM
Fluoride, mg/L	< 0.2	0.2	10/31/95 11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	497	10	10/25/95 9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	0.0004	0.0002	11/ 6/95 11:45	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	0.03	0.02	10/28/95 14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.009	0.005	10/20/95 9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	0.03	0.01	10/25/95 15:00	SM 4500-P	KA
Sulfate, mg/L	232	20	11/ 2/95 11:30	EPA 375.4	TM
Sulfide, mg/L	< 0.1	0.1	10/23/95 17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	826	10	10/23/95 15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	< 0.02	0.02	10/30/95 15:23	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95 15:23	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.10	0.02	10/30/95 15:23	EPA 200.7	LH
Boron (T), as B, mg/L	< 0.1	0.1	10/30/95 15:23	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95 15:23	EPA 200.7	LH
Calcium (T), as Ca, mg/L	52.5	0.2	10/30/95 15:23	EPA 200.7	LH
Chromium(T), as Cr, mg/L	< 0.005	0.005	10/30/95 15:23	EPA 200.7	LH
Copper (T), as Cu, mg/L	< 0.01	0.01	10/30/95 15:23	EPA 200.7	LH
Iron (T), as Fe, mg/L	< 0.04	0.04	10/30/95 15:23	EPA 200.7	LH
Lead (T), as Pb, mg/L	0.010	0.01	10/30/95 15:23	EPA 200.7	LH

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035461
Project: HORSE CANYON
Sample Desc: H-4
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE		METHOD	ANALYST
			ANALYZED			
INORGANIC PARAMETERS						
Magnesium (T), as Mg, mg/L	66.9	0.1	10/30/95	15:23	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.01	0.01	10/30/95	15:23	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	0.03	0.01	10/30/95	15:23	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.01	0.01	10/30/95	15:23	EPA 200.7	LH
Potassium (T), as K, mg/L	1.9	0.1	10/30/95	15:23	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95	15:23	EPA 200.7	LH
Sodium (T), as Na, mg/L	86.0	0.2	10/30/95	15:23	EPA 200.7	LH
Zinc (T), as Zn, mg/L	< 0.02	0.02	10/30/95	15:23	EPA 200.7	LH

NOTE: Nitrite was run past holding time due to late arrival and size of project.

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035462
Project: HORSE CANYON
Sample Desc: H-11
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE		METHOD	ANALYST
			ANALYZED			
INORGANIC PARAMETERS						
Bicarbonate as HCO ₃ , mg/L	586	1	10/23/95	10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	< 1	1	10/23/95	10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95	12:40	SM 4500G/F	DI
Chloride, mg/L	13	1	11/ 4/95	10:00	EPA 325.3	TM
Fluoride, mg/L	< 0.2	0.2	10/31/95	11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	555	10	10/25/95	9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	< 0.0002	0.0002	11/ 2/95	9:05	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	0.10	0.02	10/28/95	14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.009	0.005	10/20/95	9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	0.17	0.01	10/25/95	15:00	SM 4500-P	KA
Sulfate, mg/L	228	20	11/ 2/95	11:30	EPA 375.4	TM
Sulfide, mg/L	< 0.1	0.1	10/23/95	17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	786	10	10/23/95	15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	2.16	0.02	10/30/95	15:25	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95	15:25	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.10	0.02	10/30/95	15:25	EPA 200.7	LH
Boron (T), as B, mg/L	0.1	0.1	10/30/95	15:25	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95	15:25	EPA 200.7	LH
Calcium (T), as Ca, mg/L	67.7	0.2	10/30/95	15:25	EPA 200.7	LH
Chromium(T), as Cr, mg/L	0.006	0.005	10/30/95	15:25	EPA 200.7	LH
Copper (T), as Cu, mg/L	0.01	0.01	10/30/95	15:25	EPA 200.7	LH
Iron (T), as Fe, mg/L	2.73	0.04	10/30/95	15:25	EPA 200.7	LH
Lead (T), as Pb, mg/L	< 0.01	0.01	10/30/95	15:25	EPA 200.7	LH

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035462
Project: HORSE CANYON
Sample Desc: H-11
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE		METHOD	ANALYST
			ANALYZED			
INORGANIC PARAMETERS						
Magnesium (T), as Mg, mg/L	69.4	0.1	10/30/95	15:25	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.14	0.01	10/30/95	15:25	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	< 0.01	0.01	10/30/95	15:25	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.01	0.01	10/30/95	15:25	EPA 200.7	LH
Potassium (T), as K, mg/L	2.1	0.1	10/30/95	15:25	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95	15:25	EPA 200.7	LH
Sodium (T), as Na, mg/L	87.8	0.2	10/30/95	15:25	EPA 200.7	LH
Zinc (T), as Zn, mg/L	0.02	0.02	10/30/95	15:25	EPA 200.7	LH

NOTE: Nitrite was run past holding time due to late arrival and size of project.

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035460
Project: HORSE CANYON
Sample Desc: H-13
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO ₃ , mg/L	671	1	10/23/95 10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	< 1	1	10/23/95 10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95 12:40	SM 4500G/F	DI
Chloride, mg/L	21	1	11/ 4/95 10:00	EPA 325.3	TM
Fluoride, mg/L	< 0.2	0.2	10/31/95 11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	998	30	10/25/95 9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	< 0.0002	0.0002	11/ 2/95 9:05	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	< 0.02	0.02	10/28/95 14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.009	0.005	10/20/95 9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	1.84	0.05	10/25/95 15:00	SM 4500-P	KA
Sulfate, mg/L	595	30	11/ 2/95 11:30	EPA 375.4	TM
Sulfide, mg/L	< 0.1	0.1	10/23/95 17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	1,350	10	10/23/95 15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	15.0	0.02	10/30/95 15:14	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95 15:14	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.30	0.02	10/30/95 15:14	EPA 200.7	LH
Boron (T), as B, mg/L	0.2	0.1	10/30/95 15:14	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95 15:14	EPA 200.7	LH
Calcium (T), as Ca, mg/L	139	0.2	10/30/95 15:14	EPA 200.7	LH
Chromium(T), as Cr, mg/L	0.022	0.005	10/30/95 15:14	EPA 200.7	LH
Copper (T), as Cu, mg/L	0.04	0.01	10/30/95 15:14	EPA 200.7	LH
Iron (T), as Fe, mg/L	20.7	0.04	10/30/95 15:14	EPA 200.7	LH
Lead (T), as Pb, mg/L	0.020	0.01	10/30/95 15:14	EPA 200.7	LH

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035460
Project: HORSE CANYON
Sample Desc: H-13
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE		METHOD	ANALYST
			ANALYZED			
INORGANIC PARAMETERS						
Magnesium (T), as Mg, mg/L	136	0.1	10/30/95	15:14	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.76	0.01	10/30/95	15:14	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	< 0.01	0.01	10/30/95	15:14	EPA 200.7	LH
Nickel (T), as Ni, mg/L	0.03	0.01	10/30/95	15:14	EPA 200.7	LH
Potassium (T), as K, mg/L	6.5	0.1	10/30/95	15:14	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95	15:14	EPA 200.7	LH
Sodium (T), as Na, mg/L	208	0.2	10/30/95	15:14	EPA 200.7	LH
Zinc (T), as Zn, mg/L	0.08	0.02	10/30/95	15:14	EPA 200.7	LH

NOTE: Nitrite was run past holding time due to late arrival and size of project.

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035459
Project: HORSE CANYON
Sample Desc: H-14
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO ₃ , mg/L	684	1	10/23/95 10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	< 1	1	10/23/95 10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95 12:40	SM 4500G/F	DI
Chloride, mg/L	22	1	11/ 4/95 10:00	EPA 325.3	TM
Fluoride, mg/L	0.2	0.2	10/31/95 11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	761	10	10/25/95 9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	< 0.0002	0.0002	11/ 2/95 9:05	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	< 0.02	0.02	10/28/95 14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.010	0.005	10/20/95 9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	0.04	0.01	10/25/95 15:00	SM 4500-P	KA
Sulfate, mg/L	617	30	11/ 2/95 11:30	EPA 375.4	TM
Sulfide, mg/L	< 0.1	0.1	10/23/95 17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	1,440	10	10/23/95 15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	2.03	0.02	10/30/95 15:12	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95 15:12	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.07	0.02	10/30/95 15:12	EPA 200.7	LH
Boron (T), as B, mg/L	0.2	0.1	10/30/95 15:12	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95 15:12	EPA 200.7	LH
Calcium (T), as Ca, mg/L	72.3	0.2	10/30/95 15:12	EPA 200.7	LH
Chromium(T), as Cr, mg/L	0.005	0.005	10/30/95 15:12	EPA 200.7	LH
Copper (T), as Cu, mg/L	0.01	0.01	10/30/95 15:12	EPA 200.7	LH
Iron (T), as Fe, mg/L	3.49	0.04	10/30/95 15:12	EPA 200.7	LH
Lead (T), as Pb, mg/L	< 0.01	0.01	10/30/95 15:12	EPA 200.7	LH

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035459
Project: HORSE CANYON
Sample Desc: H-14
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE		METHOD	ANALYST
			ANALYZED			
INORGANIC PARAMETERS						
Magnesium (T), as Mg, mg/L	109	0.1	10/30/95	15:12	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.24	0.01	10/30/95	15:12	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	< 0.01	0.01	10/30/95	15:12	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.01	0.01	10/30/95	15:12	EPA 200.7	LH
Potassium (T), as K, mg/L	4.1	0.1	10/30/95	15:12	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95	15:12	EPA 200.7	LH
Sodium (T), as Na, mg/L	195	0.2	10/30/95	15:12	EPA 200.7	LH
Zinc (T), as Zn, mg/L	< 0.02	0.02	10/30/95	15:12	EPA 200.7	LH

NOTE: Nitrite was run past holding time due to late arrival and size of project.

Approved By: _____

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035463
Project: HORSE CANYON
Sample Desc: H-18
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO ₃ , mg/L	640	1	10/23/95 10:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	< 1	1	10/23/95 10:00	SM 2320B	TM
Ammonia-Nitrogen, mg/L	< 0.4	0.4	10/27/95 12:40	SM 4500G/F	DI
Chloride, mg/L	23	1	11/ 4/95 10:00	EPA 325.3	TM
Fluoride, mg/L	0.2	0.2	10/31/95 11:40	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	426	10	10/25/95 9:30	EPA 130.2	TM
Mercury, as Hg, mg/L	0.0003	0.0002	11/ 6/95 11:45	EPA 245.1	TH
Nitrate, Nitrogen, mg/L	< 0.08	0.08	10/28/95 14:45	EPA 353.1	TH
Nitrite, Nitrogen, mg/L	0.011	0.005	10/20/95 9:30	EPA 354.1	KA
Phosphorus, Total, mg/L	0.02	0.01	10/25/95 15:00	SM 4500-P	KA
Sulfate, mg/L	292	20	11/ 2/95 11:30	EPA 375.4	TM
Sulfide, mg/L	0.10	0.1	10/23/95 17:00	EPA 376.1	KA
Total Dissolved Solids, mg/L	934	10	10/23/95 15:30	EPA 160.1	MA
Aluminum (T), as Al, mg/L	< 0.02	0.02	10/30/95 15:27	EPA 200.7	LH
Arsenic (T), as As, mg/L	< 0.02	0.02	10/30/95 15:27	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.09	0.02	10/30/95 15:27	EPA 200.7	LH
Boron (T), as B, mg/L	0.3	0.1	10/30/95 15:27	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.005	0.005	10/30/95 15:27	EPA 200.7	LH
Calcium (T), as Ca, mg/L	59.2	0.2	10/30/95 15:27	EPA 200.7	LH
Chromium(T), as Cr, mg/L	< 0.005	0.005	10/30/95 15:27	EPA 200.7	LH
Copper (T), as Cu, mg/L	< 0.01	0.01	10/30/95 15:27	EPA 200.7	LH
Iron (T), as Fe, mg/L	< 0.04	0.04	10/30/95 15:27	EPA 200.7	LH
Lead (T), as Pb, mg/L	< 0.01	0.01	10/30/95 15:27	EPA 200.7	LH

Approved By: 

{generic.rpt}



Date: 11/ 8/95

To: EARTH FAX ENGINEERING
7324 So. 1300 E. STE 100
Midvale, UT 84047

Group #: 4814
Lab #: 95-U035463
Project: HORSE CANYON
Sample Desc: H-18
Date Sampled: 10/18/95
Date Submitted: 10/19/95

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Magnesium (T), as Mg, mg/L	71.3	0.1	10/30/95 15:27	EPA 200.7	LH
Manganese (T), as Mn, mg/L	< 0.01	0.01	10/30/95 15:27	EPA 200.7	LH
Molybdenum (T), as Mo, mg/L	0.02	0.01	10/30/95 15:27	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.01	0.01	10/30/95 15:27	EPA 200.7	LH
Potassium (T), as K, mg/L	3.1	0.1	10/30/95 15:27	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.04	0.04	10/30/95 15:27	EPA 200.7	LH
Sodium (T), as Na, mg/L	186	0.2	10/30/95 15:27	EPA 200.7	LH
Zinc (T), as Zn, mg/L	< 0.02	0.02	10/30/95 15:27	EPA 200.7	LH

NOTE: Nitrite was run past holding time due to late arrival and size of project.

Approved By: _____

{generic.rpt}

LOS ANGELES DEPARTMENT OF WATER AND POWER
 HORSE CANYON MINE
 SEEP AND SPRING DATA
 AUGUST 1995

EEP/SPRING Number	PH (units)	CONDUCTIVITY (umhos/cm @ 25 deg C)	FLOW (gpm)	TEMP (deg C)	COMMENTS
HC-2	8.24	955	12	12	
HC-4	7.75	1022	0.16	13	
HC-11	7.98	966	1.5	12	
HC-13	8.03	1151	0.25	22	
HC-18	8.13	1051	0.5	11	
* HC-14	8.08	1400	0.25	16	New location for Spring 95
SURFACE WATER					
Number					
HCSW-1	8.44	1110	3	16	
HCSW-2			DRY		
HCSW-3			DRY		

Earthcat Engineering, Inc.
 7524 So. Union Park Avenue
 Suite 100
 Atlanta, GA 30347
 (404) 531-1535

CHAIN-OF-CUSTODY FORM

Sampling Company: <u>Earthcat</u>	Sampling Personnel: <u>W. J. ...</u>
Project Name: <u>West County Sewer Service</u>	Project Number: <u>WCSA 95</u>
Analytical Laboratory: <u>...</u>	Date of Shipment/Delivery:
Method of Shipment/Delivery: <u>Hand</u>	Airbill Number: <u>---</u>

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
<u>H-1</u>	<u>8-8-75</u>	<u>1850</u>	<u>water</u>	<u>4</u>	
<u>H-4</u>	<u>8-8-75</u>	<u>1726</u>	<u>water</u>	<u>4</u>	
<u>H-2</u>	<u>8-8-75</u>	<u>1830</u>	<u>water</u>	<u>4</u>	
<u>H-11</u>	<u>8-8-75</u>	<u>1800</u>	<u>water</u>	<u>4</u>	
<u>H-13</u>	<u>8-8-75</u>	<u>1715</u>	<u>water</u>	<u>4</u>	
<u>H-14</u>	<u>8-8-75</u>	<u>1730</u>	<u>water</u>	<u>4</u>	

Relinquished by: <u>W. J. ...</u>	Date: <u>8/17/75</u>	Time: <u>6:55</u>	Received by: <u>...</u>	Date: <u>8-17-75</u>	Time: <u>---</u>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

CHAIN-OF-CUSTODY FORM

Sampling Company: <u>EarthFax</u>	Sampling Personnel: <u>LED/CD4</u>
Project Name: <u>SLB 5000's Spring</u> ¹⁰⁰⁰	Project Number: <u>UL 291.02</u>
Analytical Laboratory: <u>Chromtech</u>	Date of Shipment/Delivery: <u>8-11-95</u>
Method of Shipment/Delivery: <u>Hand</u>	Airbill Number: <u>—</u>

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
<u>1</u>	<u>8-10-95</u>	<u>1500</u>	<u>Water</u>	<u>4</u>	
<u>9</u>	<u>8-10-95</u>	<u>1346</u>	<u>Water</u>	<u>4</u>	
<u>14-18</u>	<u>8-10-95</u>	<u>1015</u>	<u>Water</u>	<u>5</u>	
<u>10</u>	<u>8-7-95</u>	<u>1200</u>	<u>Water</u>	<u>4 4</u>	
<u>16</u>	<u>8-7-95</u>	<u>1134</u>	<u>Water</u>	<u>4</u>	
<u>14</u>	<u>8-7-95</u>	<u>1458</u>	<u>Water</u>	<u>4</u>	

Relinquished by: <u>Chad Harmon</u>	Date: <u>8-11-95</u>	Time: <u>1103</u>	Received by: <u>[Signature]</u>	Date: <u>8-11</u>	Time: <u>1115</u>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:



DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031343
PROJECT: Horse Canyon Seep & Spring: HCSW-1
DATE SAMPLED: 8-08-95
DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	592	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-17-95 SM 4500
Chloride as Cl, mg/l	19	8-15-95 EPA 325.3
Fluoride as F, mg/l	0.28	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	407	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-15-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	0.15	8-16-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0089	8-10-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	8-11-95 SM17 4500E
Phosphorus as P (T), mg/l	<.02	8-22-95 SM17 4500E
Sulfate as SO ₄ , mg/l	299	8-14-95 SM 4500
Sulfide as S, mg/l	<.1	8-17-95 EPA 376.1
TDS, mg/l	924	8-14-95 EPA 160.1
Aluminum as Al, mg/l	0.059	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.055	8-14-95 EPA 200.7
Boron as B, mg/l	0.22	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	8-14-95 EPA 200.7

Approved By: *Jill W. Korman*



DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031343
PROJECT: Horse Canyon Seep & Spring: HCSW-1
DATE SAMPLED: 8-08-95
DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Calcium as Ca, mg/l	54	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.01	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7
Iron as Fe, mg/l	0.076	8-14-95 EPA 200.7
Lead as Pb, mg/l	<.02	8-14-95 EPA 200.7
Magnesium as Mg, mg/l	66	8-14-95 EPA 200.7
Manganese as Mn, mg/l	0.016	8-14-95 EPA 200.7
Molybdenum as Mo, mg/l	<.01	8-14-95 EPA 200.7
Nickel as Ni, mg/l	<.01	8-14-95 EPA 200.7
Potassium as K, mg/l	4.3	8-14-95 EPA 200.7
Selenium as Se, mg/l	<.04	8-14-95 EPA 200.7
Sodium as Na, mg/l	170	8-14-95 EPA 200.7
Zinc as Zn, mg/l	0.076	8-14-95 EPA 200.7
Oil & Grease, mg/l	<5	8-15-95 EPA 413.1

Approved By: _____



DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031345
PROJECT: Horse Canyon Seep & Spring: H-2
DATE SAMPLED: 8-08-95
DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	561	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-17-95 SM 4500
Chloride as Cl, mg/l	17	8-15-95 EPA 325.3
Fluoride as F, mg/l	<.2	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	393	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-15-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	0.307	8-16-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0052	8-10-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	8-11-95 SM17 4500E
Phosphorus as P (T), mg/l	<.02	8-22-95 SM17 4500E
Sulfate as SO ₄ , mg/l	260	8-14-95 SM 4500
Sulfide as S, mg/l	0.17	8-17-95 EPA 376.1
TDS, mg/l	823	8-14-95 EPA 160.1
Aluminum as Al, mg/l	<.01	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.022	8-14-95 EPA 200.7
Boron as B, mg/l	0.15	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	8-14-95 EPA 200.7

Approved By: 



DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031345

PROJECT: Horse Canyon Seep & Spring: H-2

DATE SAMPLED: 8-08-95

DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Calcium as Ca, mg/l	46	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.01	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7
Iron as Fe, mg/l	0.023	8-14-95 EPA 200.7
Lead as Pb, mg/l	<.02	8-14-95 EPA 200.7
Magnesium as Mg, mg/l	65	8-14-95 EPA 200.7
Manganese as Mn, mg/l	<.01	8-14-95 EPA 200.7
Molybdenum as Mo, mg/l	<.04	8-14-95 EPA 200.7
Nickel as Ni, mg/l	<.01	8-14-95 EPA 200.7
Potassium as K, mg/l	1.4	8-14-95 EPA 200.7
Selenium as Se, mg/l	<.04	8-14-95 EPA 200.7
Sodium as Na, mg/l	150	8-14-95 EPA 200.7
Zinc as Zn, mg/l	0.058	8-14-95 EPA 200.7

Approved By: _____



DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031344

PROJECT: Horse Canyon Seep & Spring: H-4

DATE SAMPLED: 8-08-95

DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	635	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-17-95 SM 4500
Chloride as Cl, mg/l	13	8-15-95 EPA 325.3
Fluoride as F, mg/l	<.2	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	376	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-15-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	0.083	8-16-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0064	8-10-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	0.107	8-11-95 SM17 4500E
Phosphorus as P (T), mg/l	0.11	8-22-95 SM17 4500E
Sulfate as SO ₄ , mg/l	212	8-14-95 SM 4500
Sulfide as S, mg/l	<.1	8-17-95 EPA 376.1
TDS, mg/l	821	8-14-95 EPA 160.1
Aluminum as Al, mg/l	1.02	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.081	8-14-95 EPA 200.7
Boron as B, mg/l	0.14	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	8-14-95 EPA 200.7

Approved By:



DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031344

PROJECT: Horse Canyon Seep & Spring: H-4

DATE SAMPLED: 8-08-95

DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Calcium as Ca, mg/l	60	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.01	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7
Iron as Fe, mg/l	3.5	8-14-95 EPA 200.7
Lead as Pb, mg/l	<.02	8-14-95 EPA 200.7
Magnesium as Mg, mg/l	66	8-14-95 EPA 200.7
Manganese as Mn, mg/l	0.13	8-14-95 EPA 200.7
Molybdenum as Mo, mg/l	<.04	8-14-95 EPA 200.7
Nickel as Ni, mg/l	<.01	8-14-95 EPA 200.7
Potassium as K, mg/l	1.5	8-14-95 EPA 200.7
Selenium as Se, mg/l	<.04	8-14-95 EPA 200.7
Sodium as Na, mg/l	105	8-14-95 EPA 200.7
Zinc as Zn, mg/l	0.13	8-14-95 EPA 200.7

Approved By: _____



DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031346

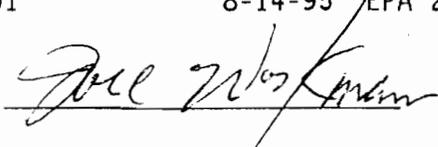
PROJECT: Horse Canyon Seep & Spring: H-11

DATE SAMPLED: 8-08-95

DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	590	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-17-95 SM 4500
Chloride as Cl, mg/l	11	8-15-95 EPA 325.3
Fluoride as F, mg/l	<.2	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	468	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-15-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	0.021	8-16-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0071	8-10-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	8-11-95 SM17 4500E
Phosphorus as P (T), mg/l	<.02	8-22-95 SM17 4500E
Sulfate as SO ₄ , mg/l	208	8-14-95 SM 4500
Sulfide as S, mg/l	<.1	8-17-95 EPA 376.1
TDS, mg/l	762	8-14-95 EPA 160.1
Aluminum as Al, mg/l	0.064	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.065	8-14-95 EPA 200.7
Boron as B, mg/l	0.10	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	8-14-95 EPA 200.7

Approved By: 



DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031346
PROJECT: Horse Canyon Seep & Spring: H-11
DATE SAMPLED: 8-08-95
DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Calcium as Ca, mg/l	66	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.01	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7
Iron as Fe, mg/l	0.11	8-14-95 EPA 200.7
Lead as Pb, mg/l	<.02	8-14-95 EPA 200.7
Magnesium as Mg, mg/l	75	8-14-95 EPA 200.7
Manganese as Mn, mg/l	0.017	8-14-95 EPA 200.7
Molybdenum as Mo, mg/l	<.04	8-14-95 EPA 200.7
Nickel as Ni, mg/l	<.01	8-14-95 EPA 200.7
Potassium as K, mg/l	2.2	8-14-95 EPA 200.7
Selenium as Se, mg/l	<.04	8-14-95 EPA 200.7
Sodium as Na, mg/l	97	8-14-95 EPA 200.7
Zinc as Zn, mg/l	0.067	8-14-95 EPA 200.7

Approved By: _____



DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031347

PROJECT: Horse Canyon Seep & Spring: H-13

DATE SAMPLED: 8-08-95

DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	611	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-17-95 SM 4500
Chloride as Cl, mg/l	23	8-15-95 EPA 325.3
Fluoride as F, mg/l	0.21	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	646	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-15-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	<.02	8-16-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.013	8-10-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	8-11-95 SM17 4500E
Phosphorus as P (T), mg/l	<.02	8-22-95 SM17 4500E
Sulfate as SO ₄ , mg/l	648	8-14-95 SM 4500
Sulfide as S, mg/l	<.1	8-17-95 EPA 376.1
TDS, mg/l	1,400	8-14-95 EPA 160.1
Aluminum as Al, mg/l	0.021	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.081	8-14-95 EPA 200.7
Boron as B, mg/l	0.22	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	8-14-95 EPA 200.7

Approved By:



DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031347

PROJECT: Horse Canyon Seep & Spring: H-13

DATE SAMPLED: 8-08-95

DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Calcium as Ca, mg/l	63	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.01	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7
Iron as Fe, mg/l	0.070	8-14-95 EPA 200.7
Lead as Pb, mg/l	<.02	8-14-95 EPA 200.7
Magnesium as Mg, mg/l	120	8-14-95 EPA 200.7
Manganese as Mn, mg/l	0.056	8-14-95 EPA 200.7
Molybdenum as Mo, mg/l	<.04	8-14-95 EPA 200.7
Nickel as Ni, mg/l	<.01	8-14-95 EPA 200.7
Potassium as K, mg/l	5.9	8-14-95 EPA 200.7
Selenium as Se, mg/l	<.04	8-14-95 EPA 200.7
Sodium as Na, mg/l	220	8-14-95 EPA 200.7
Zinc as Zn, mg/l	0.040	8-14-95 EPA 200.7

Approved By: _____



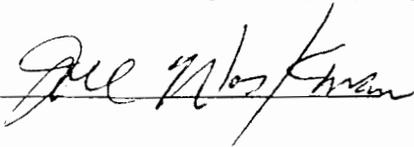
DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031348
PROJECT: Horse Canyon Seep & Spring: H-14
DATE SAMPLED: 8-08-95
DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Bicarbonate as HCO ₃ , mg/l	709	8-16-95 SM17 2320B
Carbonate as CO ₃ , mg/l	<1	8-16-95 SM17 2320B
Ammonia as NH ₃ -N, mg/l	<.4	8-17-95 SM 4500
Chloride as Cl, mg/l	24	8-15-95 EPA 325.3
Fluoride as F, mg/l	0.23	8-15-95 EPA 340.2
Hardness as CaCO ₃ , mg/l	770	8-17-95 EPA 130.2
Mercury as Hg, mg/l	<.0002	8-15-95 EPA 245.1
Nitrate as NO ₃ -N, mg/l	<.02	8-16-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	8-10-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	0.049	8-11-95 SM17 4500E
Phosphorus as P (T), mg/l	0.067	8-22-95 SM17 4500E
Sulfate as SO ₄ , mg/l	696	8-14-95 SM 4500
Sulfide as S, mg/l	<.1	8-17-95 EPA 376.1
TDS, mg/l	1,540	8-14-95 EPA 160.1
Aluminum as Al, mg/l	1.1	8-14-95 EPA 200.7
Arsenic as As, mg/l	<.04	8-14-95 EPA 200.7
Barium as Ba, mg/l	0.067	8-14-95 EPA 200.7
Boron as B, mg/l	0.21	8-14-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	8-14-95 EPA 200.7

Approved By: 



DATE: 9-12-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U031348

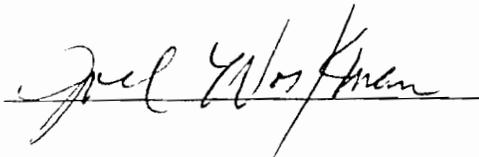
PROJECT: Horse Canyon Seep & Spring: H-14

DATE SAMPLED: 8-08-95

DATE SUBMITTED: 8-10-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Calcium as Ca, mg/l	75	8-14-95 EPA 200.7
Chromium as Cr, mg/l	<.01	8-14-95 EPA 200.7
Copper as Cu, mg/l	<.01	8-14-95 EPA 200.7
Iron as Fe, mg/l	2.8	8-14-95 EPA 200.7
Lead as Pb, mg/l	<.02	8-14-95 EPA 200.7
Magnesium as Mg, mg/l	110	8-14-95 EPA 200.7
Manganese as Mn, mg/l	0.31	8-14-95 EPA 200.7
Molybdenum as Mo, mg/l	<.04	8-14-95 EPA 200.7
Nickel as Ni, mg/l	0.011	8-14-95 EPA 200.7
Potassium as K, mg/l	4.8	8-14-95 EPA 200.7
Selenium as Se, mg/l	<.04	8-14-95 EPA 200.7
Sodium as Na, mg/l	210	8-14-95 EPA 200.7
Zinc as Zn, mg/l	0.11	8-14-95 EPA 200.7

Approved By: 

LOS ANGELES DEPARTMENT OF WATER AND POWER
 HORSE CANYON MINE
 SEEP AND SPRING DATA
 MAY 1995

EEP/SPRING Number	PH (units)	CONDUCTIVITY (umhos/cm @ 25 deg C)	FLOW (gpm)	TEMP (deg C)	COMMENTS
HC-2	8.16	790	13	9	
HC-4	7.56	680	3	13	
HC-11	7.87	700	20	8	
HC-13	7.55	1450	1	11	
HC-18	8.33	780	15	8	
* HC-14	7.54	1400	0.5	8	New location for Spring 95
SURFACE WATER					
Number					
HCSW-1	8.23	850	8	8.5	Recent Precipitation
HCSW-2			DRY		
HCSW-3			DRY		

25 Samples collected 5/23-24/95, analyzed 5-25-95

Sample	pH	Conductivity
1	8.02	790
1A	8.00	790
2	7.80	760
3	8.00	710
3A	7.88	590
3B	7.61	510
3C	8.28	560
3D	8.10	390
4	7.68	830
5	8.05	950
8	7.79	400
8A	8.06	160
9	8.21	650
9R	7.86	590
10	8.24	760
11	8.11	1330
12	7.63	1710
12A	7.54	1550
12B	8.05	1080
12C	8.29	1090
12D	7.67	3800
12E	7.97	1950
13	8.17	1050
13B	8.37	1020
13Z	7.57	940
14	8.11	1600
15A	8.23	560
16	8.19	610
16C	7.53	560
17	8.31	750
18	8.27	620
19A	7.83	580
19B	7.81	530
H-1	8.23	850
H-2	8.16	790
H-4	7.56	680
H-11	7.87	700
H-13	7.55	1450
H-14	7.54	1400
H-18	8.33	780

Cartular Engineering, Inc.
 7324 So. Union Park Avenue
 Suite 100
 Midvale, UT 84047
 (801) 561-1555

CHAIN-OF-CUSTODY FORM

SEE ATTACHMENT FOR ANALYTICAL USE

Sampling Company: <u>FOUR FIVE</u>	Sampling Personnel: <u>TDA CDH JAP</u>
Project Name: <u>INDUSTRIAL WASTE</u>	Project Number: <u>407102</u>
Analytical Laboratory: <u>CREM</u>	Date of Shipment/Delivery: <u>11A 55-95</u>
Method of Shipment/Delivery: <u>HAIR</u>	Airbill Number: <u>—</u>

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
H-14	5-24-95	0900	H ₂ O	4	
H-4	5-24-95	0900	H ₂ O	4	
H-11	5-24-95	1000	H ₂ O	5	EXTRA H ₂ O FOR GC. IN FIELD
H-13	5-24-95	1030	H ₂ O	4	
H-18	5- ²⁴ 23 -95	1000	H ₂ O	4	
#9	5-23-95	1430	H ₂ O	4	
H-2	5-23-95	1020	H ₂ O	4	
#1	5-23-95	1400	H ₂ O	4	

Relinquished by: <u>J. L. Gau</u>	Date: <u>5-25-95</u>	Time: <u>1015</u>	Received by: <u>James Franklin</u>	Date: <u>5-25</u>	Time: <u>1115</u>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Cartman Engineering, Inc.
 7324 So. Union Park Avenue
 Suite 100
 Midvale, UT 84047
 (801) 561-1955

CHAIN-OF-CUSTODY FORM

SEE ATTACHMENT
 FOR ANALYTICAL DATA

Sampling Company: <u>Cartman Engineering, Inc.</u>	Sampling Personnel: <u>John Smith</u>
Project Name: <u>Site Investigation</u>	Project Number: <u>10-377-95</u>
Analytical Laboratory: <u>Cartman Engineering, Inc.</u>	Date of Shipment/Delivery: <u>5-25-95</u>
Method of Shipment/Delivery: <u>Hand</u>	Airbill Number: <u>—</u>

Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
SPRING-10	5-23-95	10:00	H ₂ O	4	
SPRING-14	5-23-95	16:45	H ₂ O	4	
SPRING-10	5-23-95	16:45	H ₂ O	4	
WCSW-1	5-23-95	16:00	H ₂ O	4	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by: <u>J. Gan</u>	Date: <u>5-25-95</u>	Time: <u>10:15</u>	Received by: <u>John Smith</u>	Date: <u>5-25-95</u>	Time: <u>10:15</u>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027274

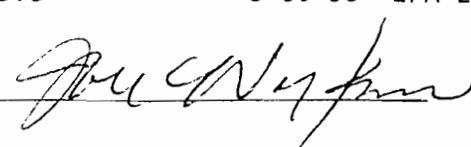
PROJECT: IPA Seep & Spring May 95: HCSW-1

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	468	6-01-95 EPA 160.1
Hardness as CaCO ₃ , mg/l	326	6-01-95 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	400	6-06-95 SM 2320B
Carbonate as CO ₃ , mg/l	6	6-06-95 SM 2320B
Chloride as Cl, mg/l	13.2	5-31-95 EPA 325.3
Fluoride as F, mg/l	0.15	6-06-95 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	5-25/6-5 SM 4500G
Nitrate as NO ₃ -N, mg/l	0.084	5-30-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	5-25-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	5-25-95 SM 4500E
Phosphorus as P (T), mg/l	<.02	5-25-95 SM 4500E
Sulfate as SO ₄ , mg/l	92.3	5-29-95 EPA 375.4
Sulfide as S, mg/l	<.1	5-30-95 EPA 376.1
Aluminum as Al, mg/l	<.1	5-30-95 EPA 200.7
Arsenic as As, mg/l	<.04	5-30-95 EPA 200.7
Barium as Ba, mg/l	0.086	5-30-95 EPA 200.7
Boron as B, mg/l	0.053	5-30-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	5-30-95 EPA 200.7
Calcium as Ca, mg/l	59.6	5-30-95 EPA 200.7

Approved By: 



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027274

PROJECT: IPA Seep & Spring May 95: HCSW-1

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Chromium as Cr, mg/l	<.01	5-30-95 EPA 200.7
Copper as Cu, mg/l	<.01	5-30-95 EPA 200.7
Iron as Fe, mg/l	0.080	5-30-95 EPA 200.7
Lead as Pb, mg/l	<.02	5-30-95 EPA 200.7
Magnesium as Mg, mg/l	51.0	5-30-95 EPA 200.7
Manganese as Mn, mg/l	0.032	5-30-95 EPA 200.7
Mercury as Hg, mg/l	<.0002	5-31-95 EPA 245.1
Molybdenum as Mo, mg/l	<.04	5-30-95 EPA 200.7
Nickel as Ni, mg/l	<.01	5-30-95 EPA 200.7
Potassium as K, mg/l	0.871	5-30-95 EPA 200.7
Selenium as Se, mg/l	<.04	5-30-95 EPA 200.7
Sodium as Na, mg/l	48.5	5-30-95 EPA 200.7
Zinc as Zn, mg/l	<.01	5-30-95 EPA 200.7

Approved By: _____



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027269

PROJECT: IPA Seep & Spring May 95: H-2

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	802	6-01-95 EPA 160.1
Hardness as CaCO ₃ , mg/l	370	6-01-95 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	527	6-06-95 SM 2320B
Carbonate as CO ₃ , mg/l	4	6-06-95 SM 2320B
Chloride as Cl, mg/l	18.8	5-31-95 EPA 325.3
Fluoride as F, mg/l	0.18	6-06-95 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	5-25/6-5 SM 4500G
Nitrate as NO ₃ -N, mg/l	0.31	5-30-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	5-25-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	5-25-95 SM 4500E
Phosphorus as P (T), mg/l	<.02	5-25-95 SM 4500E
Sulfate as SO ₄ , mg/l	259	5-29-95 SM 4500C/D
Sulfide as S, mg/l	<.1	5-30-95 EPA 376.1
Aluminum as Al, mg/l	<.1	5-30-95 EPA 200.7
Arsenic as As, mg/l	<.04	5-30-95 EPA 200.7
Barium as Ba, mg/l	0.022	5-30-95 EPA 200.7
Boron as B, mg/l	0.149	5-30-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	5-30-95 EPA 200.7
Calcium as Ca, mg/l	47.5	5-30-95 EPA 200.7

Approved By: *Jill W. [Signature]*



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027269

PROJECT: IPA Seep & Spring May 95: H-2

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Chromium as Cr, mg/l	<.01	5-30-95 EPA 200.7
Copper as Cu, mg/l	<.01	5-30-95 EPA 200.7
Iron as Fe, mg/l	0.023	5-30-95 EPA 200.7
Lead as Pb, mg/l	<.02	5-30-95 EPA 200.7
Magnesium as Mg, mg/l	67.0	5-30-95 EPA 200.7
Manganese as Mn, mg/l	<.01	5-30-95 EPA 200.7
Mercury as Hg, mg/l	<.0002	5-31-95 EPA 245.1
Molybdenum as Mo, mg/l	<.04	5-30-95 EPA 200.7
Nickel as Ni, mg/l	<.01	5-30-95 EPA 200.7
Potassium as K, mg/l	1.42	5-30-95 EPA 200.7
Selenium as Se, mg/l	<.04	5-30-95 EPA 200.7
Sodium as Na, mg/l	155	5-30-95 EPA 200.7
Zinc as Zn, mg/l	0.025	5-30-95 EPA 200.7

Approved By: _____



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027265

PROJECT: IPA Seep & Spring May 95: H-11

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	655	6-01-95 EPA 160.1
Hardness as CaCO ₃ , mg/l	422	6-01-95 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	512	6-06-95 SM 2320B
Carbonate as CO ₃ , mg/l	2	6-06-95 SM 2320B
Chloride as Cl, mg/l	12.2	5-31-95 EPA 325.3
Fluoride as F, mg/l	0.13	6-06-95 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	5-25/6-5 SM 4500G
Nitrate as NO ₃ -N, mg/l	0.096	5-30-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	5-25-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	5-25-95 SM 4500E
Phosphorus as P (T), mg/l	<.02	5-25-95 SM 4500E
Sulfate as SO ₄ , mg/l	196	5-29-95 SM 4500C/D
Sulfide as S, mg/l	0.14	5-30-95 EPA 376.1
Aluminum as Al, mg/l	0.372	5-30-95 EPA 200.7
Arsenic as As, mg/l	<.04	5-30-95 EPA 200.7
Barium as Ba, mg/l	0.108	5-30-95 EPA 200.7
Boron as B, mg/l	0.102	5-30-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	5-30-95 EPA 200.7
Calcium as Ca, mg/l	62.8	5-30-95 EPA 200.7

Approved By: _____



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027265

PROJECT: IPA Seep & Spring May 95: H-11

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Chromium as Cr, mg/l	<.01	5-30-95 EPA 200.7
Copper as Cu, mg/l	<.01	5-30-95 EPA 200.7
Iron as Fe, mg/l	0.410	5-30-95 EPA 200.7
Lead as Pb, mg/l	<.02	5-30-95 EPA 200.7
Magnesium as Mg, mg/l	69.2	5-30-95 EPA 200.7
Manganese as Mn, mg/l	0.016	5-30-95 EPA 200.7
Mercury as Hg, mg/l	<.0002	5-31-95 EPA 245.1
Molybdenum as Mo, mg/l	<.04	5-30-95 EPA 200.7
Nickel as Ni, mg/l	<.01	5-30-95 EPA 200.7
Potassium as K, mg/l	2.29	5-30-95 EPA 200.7
Selenium as Se, mg/l	<.04	5-30-95 EPA 200.7
Sodium as Na, mg/l	92.1	5-30-95 EPA 200.7
Zinc as Zn, mg/l	0.012	5-30-95 EPA 200.7

Approved By: _____



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027266

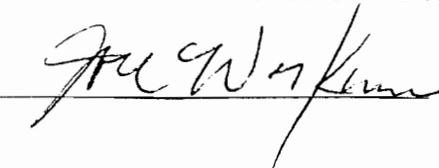
PROJECT: IPA Seep & Spring May 95: H-13

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	1,320	6-01-95 EPA 160.1
Hardness as CaCO ₃ , mg/l	637	6-01-95 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	564	6-06-95 SM 2320B
Carbonate as CO ₃ , mg/l	3	6-06-95 SM 2320B
Chloride as Cl, mg/l	22.8	5-31-95 EPA 325.3
Fluoride as F, mg/l	0.18	6-06-95 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	5-25/6-5 SM 4500G
Nitrate as NO ₃ -N, mg/l	<.02	5-30-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	5-25-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	5-25-95 SM 4500E
Phosphorus as P (T), mg/l	0.037	5-25-95 SM 4500E
Sulfate as SO ₄ , mg/l	645	5-29-95 SM 4500C/D
Sulfide as S, mg/l	<.1	5-30-95 EPA 376.1
Aluminum as Al, mg/l	0.417	5-30-95 EPA 200.7
Arsenic as As, mg/l	<.04	5-30-95 EPA 200.7
Barium as Ba, mg/l	0.056	5-30-95 EPA 200.7
Boron as B, mg/l	0.205	5-30-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	5-30-95 EPA 200.7
Calcium as Ca, mg/l	71.4	5-30-95 EPA 200.7

Approved By: 



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027266

PROJECT: IPA Seep & Spring May 95: H-13

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Chromium as Cr, mg/l	<.01	5-30-95 EPA 200.7
Copper as Cu, mg/l	<.01	5-30-95 EPA 200.7
Iron as Fe, mg/l	0.799	5-30-95 EPA 200.7
Lead as Pb, mg/l	<.02	5-30-95 EPA 200.7
Magnesium as Mg, mg/l	114	5-30-95 EPA 200.7
Manganese as Mn, mg/l	0.078	5-30-95 EPA 200.7
Mercury as Hg, mg/l	<.0002	5-31-95 EPA 245.1
Molybdenum as Mo, mg/l	<.04	5-30-95 EPA 200.7
Nickel as Ni, mg/l	<.01	5-30-95 EPA 200.7
Potassium as K, mg/l	5.77	5-30-95 EPA 200.7
Selenium as Se, mg/l	<.04	5-30-95 EPA 200.7
Sodium as Na, mg/l	213	5-30-95 EPA 200.7
Zinc as Zn, mg/l	0.034	5-30-95 EPA 200.7

Approved By: _____



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027263

PROJECT: IPA Seep & Spring May 95: H-14

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	1,430	6-01-95 EPA 160.1
Hardness as CaCO ₃ , mg/l	785	6-01-95 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	646	6-06-95 SM 2320B
Carbonate as CO ₃ , mg/l	<1	6-06-95 SM 2320B
Chloride as Cl, mg/l	25.3	5-31-95 EPA 325.3
Fluoride as F, mg/l	0.17	6-06-95 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	5-25/6-5 SM 4500G
Nitrate as NO ₃ -N, mg/l	<.02	5-30-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0062	5-25-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	5-25-95 SM 4500E
Phosphorus as P (T), mg/l	0.088	5-25-95 SM 4500E
Sulfate as SO ₄ , mg/l	669	5-29-95 SM 4500C/D
Sulfide as S, mg/l	<.1	5-30-95 EPA 376.1
Aluminum as Al, mg/l	1.35	5-30-95 EPA 200.7
Arsenic as As, mg/l	<.04	5-30-95 EPA 200.7
Barium as Ba, mg/l	0.070	5-30-95 EPA 200.7
Boron as B, mg/l	0.226	5-30-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	5-30-95 EPA 200.7
Calcium as Ca, mg/l	83.2	5-30-95 EPA 200.7

Approved By: _____



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027263

PROJECT: IPA Seep & Spring May 95: H-14

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Chromium as Cr, mg/l	<.01	5-30-95 EPA 200.7
Copper as Cu, mg/l	<.01	5-30-95 EPA 200.7
Iron as Fe, mg/l	2.88	5-30-95 EPA 200.7
Lead as Pb, mg/l	<.02	5-30-95 EPA 200.7
Magnesium as Mg, mg/l	129	5-30-95 EPA 200.7
Manganese as Mn, mg/l	0.299	5-30-95 EPA 200.7
Mercury as Hg, mg/l	<.0002	5-31-95 EPA 245.1
Molybdenum as Mo, mg/l	<.04	5-30-95 EPA 200.7
Nickel as Ni, mg/l	<.01	5-30-95 EPA 200.7
Potassium as K, mg/l	4.96	5-30-95 EPA 200.7
Selenium as Se, mg/l	<.04	5-30-95 EPA 200.7
Sodium as Na, mg/l	240	5-30-95 EPA 200.7
Zinc as Zn, mg/l	1.40	5-30-95 EPA 200.7

Approved By: _____



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027267

PROJECT: IPA Seep & Spring May 95: H-18

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	790	6-01-95 EPA 160.1
Hardness as CaCO ₃ , mg/l	336	6-01-95 EPA 130.2
Bicarbonate as HCO ₃ , mg/l	514	6-06-95 SM 2320B
Carbonate as CO ₃ , mg/l	9	6-06-95 SM 2320B
Chloride as Cl, mg/l	25.9	5-31-95 EPA 325.3
Fluoride as F, mg/l	0.25	6-06-95 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	5-25/6-5 SM 4500G
Nitrate as NO ₃ -N, mg/l	0.060	5-30-95 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	5-25-95 EPA 354.1
Ortho Phosphate as PO ₄ -P, mg/l	<.01	5-25-95 SM 4500E
Phosphorus as P (T), mg/l	0.023	5-25-95 SM 4500E
Sulfate as SO ₄ , mg/l	229	5-29-95 SM 4500C/D
Sulfide as S, mg/l	<.1	5-30-95 EPA 376.1
Aluminum as Al, mg/l	<.1	5-30-95 EPA 200.7
Arsenic as As, mg/l	<.04	5-30-95 EPA 200.7
Barium as Ba, mg/l	0.086	5-30-95 EPA 200.7
Boron as B, mg/l	0.251	5-30-95 EPA 200.7
Cadmium as Cd, mg/l	<.01	5-30-95 EPA 200.7
Calcium as Ca, mg/l	49.4	5-30-95 EPA 200.7

Approved By: *Joe Workman*



DATE: 6-16-95

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U027267

PROJECT: IPA Seep & Spring May 95: H-18

DATE SAMPLED: 5-24-95

DATE SUBMITTED: 5-25-95

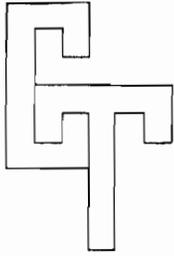
CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Chromium as Cr, mg/l	<.01	5-30-95 EPA 200.7
Copper as Cu, mg/l	<.01	5-30-95 EPA 200.7
Iron as Fe, mg/l	0.076	5-30-95 EPA 200.7
Lead as Pb, mg/l	<.02	5-30-95 EPA 200.7
Magnesium as Mg, mg/l	55.4	5-30-95 EPA 200.7
Manganese as Mn, mg/l	<.01	5-30-95 EPA 200.7
Mercury as Hg, mg/l	<.0002	5-31-95 EPA 245.1
Molybdenum as Mo, mg/l	<.04	5-30-95 EPA 200.7
Nickel as Ni, mg/l	<.01	5-30-95 EPA 200.7
Potassium as K, mg/l	2.90	5-30-95 EPA 200.7
Selenium as Se, mg/l	<.04	5-30-95 EPA 200.7
Sodium as Na, mg/l	162	5-30-95 EPA 200.7
Zinc as Zn, mg/l	<.01	5-30-95 EPA 200.7

Approved By: _____

LOS ANGELES DEPARTMENT OF WATER AND POWER
 HORSE CANYON MINE
 SEEP AND SPRING DATA
 OCTOBER ~~AUGUST~~ 1994

SEEP/SPRING Number	PH (units)	CONDUCTIVITY (umhos/cm @ 25 deg C)	FLOW (gpm)	TEMP (deg C)	COMMENTS
HC-2	8.28	1040	17	8	
HC-4	8.31	1120	0.75	5.5	Possible snowmelt
HC-9			DRY		Replace w/ HC-14
HC-11	7.95	1070	<0.25	7	
HC-13	8.71	1610	2	9	
HC-18			SEEP		not sampled, flow too low
* HC-14					New location for Spring 95
SURFACE WATER					
Number					
HCSW-1	8.04	1220	7	8	Snow melt included
HCSW-2			DRY		
HCSW-3			DRY		



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-16-94

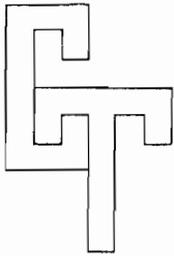
TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U017437
PROJECT: IPA Seep & Spring Fall 94': HCSW-1
DATE SAMPLED: 10-27-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	889	11-01-94 EPA 160.2
Hardness as CaCO ₃ , mg/l	405	11-11-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	11-07-94 SM2320B
Bicarbonate as HCO ₃ , mg/l	599	11-07-94 SM2320B
Chloride as Cl, mg/l	21	11-09-94 EPA 325.3
Fluoride as F, mg/l	0.25	11-04-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	11-08-94 SM4500
Nitrate as NO ₃ -N, mg/l	0.032	10-31-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	10-28-94 EPA 354.1
Phosphate as PO ₄ -P, mg/l	0.027	11-14-94 SM4500
Sulfate as SO ₄ , mg/l	295	11-05/07 EPA 375.4/SM4500
Sulfide as S, mg/l	<.1	10-31-94 EPA 376.1
Aluminum as Al, mg/l	0.384	11-02-94 EPA 200.7
Arsenic as As, mg/l	<.04	11-02-94 EPA 200.7
Barium as Ba, mg/l	0.096	11-02-94 EPA 200.7
Boron as B, mg/l	0.171	11-02-94 EPA 200.7
Cadmium as Cd, mg/l	<.005	11-02-94 EPA 200.7
Calcium as Ca, mg/l	53.8	11-02-94 EPA 200.7
Chromium as Cr, mg/l	0.012	11-02-94 EPA 200.7
Copper as Cu, mg/l	<.005	11-02-94 EPA 200.7
Iron as Fe, mg/l	0.164	11-02-94 EPA 200.7

Approved By: *Joel Wasserman*



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-16-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

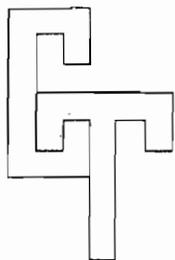
SAMPLE ID: Lab #U017437
PROJECT: IPA Seep & Spring Fall 94': HCSW-1
DATE SAMPLED: 10-27-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Lead as Pb, mg/l	<.005	11-02-94 EPA 200.7
Magnesium as Mg, mg/l	65.7	11-02-94 EPA 200.7
Manganese as Mn, mg/l	0.022	11-02-94 EPA 200.7
Mercury as Hg, mg/l	<.0002	11-02-94 EPA 245.1
Molybdenum as Mo, mg/l	<.01	11-02-94 EPA 200.7
Nickel as Ni, mg/l	0.0082	11-02-94 EPA 200.7
Potassium as K, mg/l	4.04	11-02-94 EPA 200.7
Selenium as Se, mg/l	<.04	11-02-94 EPA 200.7
Sodium as Na, mg/l	168	11-02-94 EPA 200.7
Zinc as Zn, mg/l	0.015	11-02-94 EPA 200.7

NOTE: Sample temp. when submitted was 10.1°C on ice.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-16-94

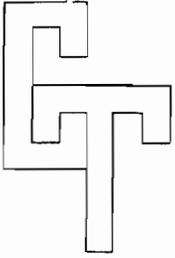
TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U017436
PROJECT: IPA Seep & Spring Fall 94': H-2
DATE SAMPLED: 10-27-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	783	11-01-94 EPA 160.2
Hardness as CaCO ₃ , mg/l	390	11-11-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	11-07-94 SM2320B
Bicarbonate as HCO ₃ , mg/l	561	11-07-94 SM2320B
Chloride as Cl, mg/l	18	11-09-94 EPA 325.3
Fluoride as F, mg/l	0.18	11-04-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	11-08-94 SM4500
Nitrate as NO ₃ -N, mg/l	0.159	10-31-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	10-28-94 EPA 354.1
Phosphate as PO ₄ -P, mg/l	<.02	11-14-94 SM4500
Sulfate as SO ₄ , mg/l	252	11-05/07 EPA 375.4/SM4500
Sulfide as S, mg/l	<.1	10-31-94 EPA 376.1
Aluminum as Al, mg/l	0.112	11-02-94 EPA 200.7
Arsenic as As, mg/l	<.04	11-02-94 EPA 200.7
Barium as Ba, mg/l	0.022	11-02-94 EPA 200.7
Boron as B, mg/l	0.148	11-02-94 EPA 200.7
Cadmium as Cd, mg/l	<.005	11-02-94 EPA 200.7
Calcium as Ca, mg/l	46.5	11-02-94 EPA 200.7
Chromium as Cr, mg/l	<.005	11-02-94 EPA 200.7
Copper as Cu, mg/l	<.005	11-02-94 EPA 200.7
Iron as Fe, mg/l	0.023	11-02-94 EPA 200.7

Approved By: Joel Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-16-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

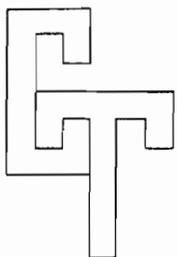
SAMPLE ID: Lab #U017436
PROJECT: IPA Seep & Spring Fall 94': H-2
DATE SAMPLED: 10-27-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Lead as Pb, mg/l	<.005	11-02-94 EPA 200.7
Magnesium as Mg, mg/l	66.4	11-02-94 EPA 200.7
Manganese as Mn, mg/l	<.01	11-02-94 EPA 200.7
Mercury as Hg, mg/l	<.0002	11-02-94 EPA 245.1
Molybdenum as Mo, mg/l	<.01	11-02-94 EPA 200.7
Nickel as Ni, mg/l	<.005	11-02-94 EPA 200.7
Potassium as K, mg/l	1.56	11-02-94 EPA 200.7
Selenium as Se, mg/l	<.04	11-02-94 EPA 200.7
Sodium as Na, mg/l	154	11-02-94 EPA 200.7
Zinc as Zn, mg/l	0.020	11-02-94 EPA 200.7

NOTE: Sample temp. when submitted was 10.1°C on ice.

Approved By: *Joel Workman*



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-16-94

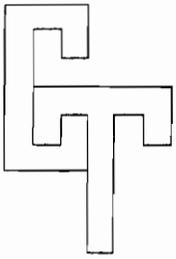
TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U017432
PROJECT: IPA Seep & Spring Fall 94': H-4
DATE SAMPLED: 10-27-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	885	11-01-94 EPA 160.2
Hardness as CaCO ₃ , mg/l	543	11-11-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	11-07-94 SM2320B
Bicarbonate as HCO ₃ , mg/l	669	11-07-94 SM2320B
Chloride as Cl, mg/l	18	11-09-94 EPA 325.3
Fluoride as F, mg/l	0.13	11-04-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	11-08-94 SM4500
Nitrate as NO ₃ -N, mg/l	<.02	10-31-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	10-28-94 EPA 354.1
Phosphate as PO ₄ -P, mg/l	0.030	11-14-94 SM4500
Sulfate as SO ₄ , mg/l	270	11-05/07 EPA 375.4/SM4500
Sulfide as S, mg/l	<.1	10-31-94 EPA 376.1
Aluminum as Al, mg/l	0.130	11-02-94 EPA 200.7
Arsenic as As, mg/l	<.04	11-02-94 EPA 200.7
Barium as Ba, mg/l	0.098	11-02-94 EPA 200.7
Boron as B, mg/l	0.115	11-02-94 EPA 200.7
Cadmium as Cd, mg/l	<.005	11-02-94 EPA 200.7
Calcium as Ca, mg/l	70.1	11-02-94 EPA 200.7
Chromium as Cr, mg/l	<.005	11-02-94 EPA 200.7
Copper as Cu, mg/l	<.005	11-02-94 EPA 200.7
Iron as Fe, mg/l	1.01	11-02-94 EPA 200.7

Approved By: Joe Workman



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-16-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

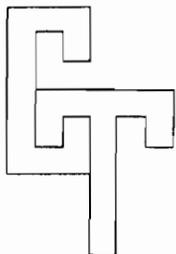
SAMPLE ID: Lab #U017432
PROJECT: IPA Seep & Spring Fall 94': H-4
DATE SAMPLED: 10-27-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Lead as Pb, mg/l	<.005	11-02-94 EPA 200.7
Magnesium as Mg, mg/l	84.4	11-02-94 EPA 200.7
Manganese as Mn, mg/l	0.099	11-02-94 EPA 200.7
Mercury as Hg, mg/l	<.0002	11-02-94 EPA 245.1
Molybdenum as Mo, mg/l	<.01	11-02-94 EPA 200.7
Nickel as Ni, mg/l	0.0061	11-02-94 EPA 200.7
Potassium as K, mg/l	1.57	11-02-94 EPA 200.7
Selenium as Se, mg/l	<.04	11-02-94 EPA 200.7
Sodium as Na, mg/l	129	11-02-94 EPA 200.7
Zinc as Zn, mg/l	0.013	11-02-94 EPA 200.7

NOTE: Sample temp. when submitted was 10.1°C on ice.

Approved By: *Joel Workman*



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
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DATE: 11-16-94

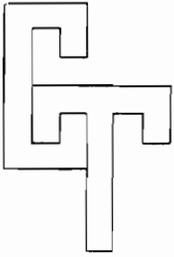
TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U017433
PROJECT: IPA Seep & Spring Fall 94': H-11
DATE SAMPLED: 10-27-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	845	11-01-94 EPA 160.2
Hardness as CaCO ₃ , mg/l	560	11-11-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	11-07-94 SM2320B
Bicarbonate as HCO ₃ , mg/l	621	11-07-94 SM2320B
Chloride as Cl, mg/l	15	11-09-94 EPA 325.3
Fluoride as F, mg/l	0.15	11-04-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	11-08-94 SM4500
Nitrate as NO ₃ -N, mg/l	<.02	10-31-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	10-28-94 EPA 354.1
Phosphate as PO ₄ -P, mg/l	0.123	11-14-94 SM4500
Sulfate as SO ₄ , mg/l	265	11-05/07 EPA 375.4/SM4500
Sulfide as S, mg/l	<.1	10-31-94 EPA 376.1
Aluminum as Al, mg/l	2.83	11-02-94 EPA 200.7
Arsenic as As, mg/l	<.04	11-02-94 EPA 200.7
Barium as Ba, mg/l	0.125	11-02-94 EPA 200.7
Boron as B, mg/l	0.106	11-02-94 EPA 200.7
Cadmium as Cd, mg/l	<.005	11-02-94 EPA 200.7
Calcium as Ca, mg/l	77.7	11-02-94 EPA 200.7
Chromium as Cr, mg/l	0.0069	11-02-94 EPA 200.7
Copper as Cu, mg/l	<.005	11-02-94 EPA 200.7
Iron as Fe, mg/l	3.52	11-02-94 EPA 200.7

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-16-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

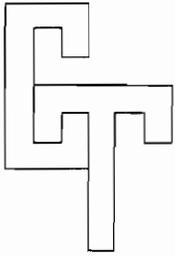
SAMPLE ID: Lab #U017433
PROJECT: IPA Seep & Spring Fall 94': H-11
DATE SAMPLED: 10-27-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Lead as Pb, mg/l	<.005	11-02-94 EPA 200.7
Magnesium as Mg, mg/l	84.3	11-02-94 EPA 200.7
Manganese as Mn, mg/l	0.169	11-02-94 EPA 200.7
Mercury as Hg, mg/l	<.0002	11-02-94 EPA 245.1
Molybdenum as Mo, mg/l	<.01	11-02-94 EPA 200.7
Nickel as Ni, mg/l	0.0071	11-02-94 EPA 200.7
Potassium as K, mg/l	3.11	11-02-94 EPA 200.7
Selenium as Se, mg/l	<.04	11-02-94 EPA 200.7
Sodium as Na, mg/l	102	11-02-94 EPA 200.7
Zinc as Zn, mg/l	0.058	11-02-94 EPA 200.7

NOTE: Sample temp. when submitted was 10.1°C on ice.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-16-94

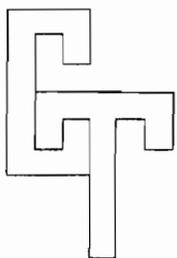
TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U017434
PROJECT: IPA Seep & Spring Fall 94': H-13
DATE SAMPLED: 10-27-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	1,400	11-01-94 EPA 160.2
Hardness as CaCO ₃ , mg/l	745	11-11-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	11-07-94 SM2320B
Bicarbonate as HCO ₃ , mg/l	607	11-07-94 SM2320B
Chloride as Cl, mg/l	25	11-09-94 EPA 325.3
Fluoride as F, mg/l	0.18	11-04-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	11-08-94 SM4500
Nitrate as NO ₃ -N, mg/l	<.08	10-31-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	10-28-94 EPA 354.1
Phosphate as PO ₄ -P, mg/l	0.074	11-14-94 SM4500
Sulfate as SO ₄ , mg/l	671	11-05/07 EPA 375.4/SM4500
Sulfide as S, mg/l	<.1	10-31-94 EPA 376.1
Aluminum as Al, mg/l	1.14	11-02-94 EPA 200.7
Arsenic as As, mg/l	<.04	11-02-94 EPA 200.7
Barium as Ba, mg/l	0.122	11-02-94 EPA 200.7
Boron as B, mg/l	0.161	11-02-94 EPA 200.7
Cadmium as Cd, mg/l	<.005	11-02-94 EPA 200.7
Calcium as Ca, mg/l	82.2	11-02-94 EPA 200.7
Chromium as Cr, mg/l	0.0054	11-02-94 EPA 200.7
Copper as Cu, mg/l	<.005	11-02-94 EPA 200.7
Iron as Fe, mg/l	2.47	11-02-94 EPA 200.7

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 11-16-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U017434
PROJECT: IPA Seep & Spring Fall 94': H-13
DATE SAMPLED: 10-27-94
DATE SUBMITTED: 10-28-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Lead as Pb, mg/l	<.005	11-02-94 EPA 200.7
Magnesium as Mg, mg/l	121	11-02-94 EPA 200.7
Manganese as Mn, mg/l	0.167	11-02-94 EPA 200.7
Mercury as Hg, mg/l	<.0002	11-02-94 EPA 245.1
Molybdenum as Mo, mg/l	<.01	11-02-94 EPA 200.7
Nickel as Ni, mg/l	0.0082	11-02-94 EPA 200.7
Potassium as K, mg/l	4.61	11-02-94 EPA 200.7
Selenium as Se, mg/l	<.04	11-02-94 EPA 200.7
Sodium as Na, mg/l	210	11-02-94 EPA 200.7
Zinc as Zn, mg/l	0.018	11-02-94 EPA 200.7

NOTE: Sample temp. when submitted was 10.1°C on ice.

Approved By: _____

LOS ANGELES DEPARTMENT OF WATER AND POWER
 HORSE CANYON MINE
 SEEP AND SPRING DATA
 AUGUST 1994

SEEP/SPRING Number	PH (units)	CONDUCTIVITY (umhos/cm @ 25 deg C)	FLOW RATE (gpm)	TEMPERATURE (deg C)
HC-2	8.23	1190	15	4
HC-4	8.40	1120	<0.1	18
HC-9			DRY	
HC-11	7.74	1244	<0.5	8.5
HC-13	7.77	1980	<0.5	15
HC-18			MOIST	
SURFACE WATER				
Number				
HCSW-1	7.77	1260	1.8	13
HCSW-2			DRY	
HCSW-3			DRY	

EARTHFAX ENGINEERING INC.
 7324 SOUTH 1300 EAST
 Midvale, Utah 84047

CHAIN-OF-CUSTODY FORM

Sampling Company: EarthFax Engineering Inc.	Sampling Personnel: JRP, JDG, CDH
Project Name: IPA Seep & Spring	Project Number: UC-391-02
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 8-05-94
Method of Shipment/Delivery: In person	Airbill Number: NA

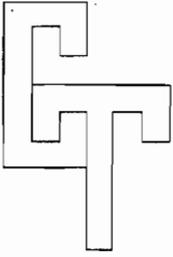
Field Sample No.	Date Sampled	Time Sampled	Sample Type	No. of Containers	Remarks
HC-11	8-4-94	1200	WATER	4	
SPRING-9	8-3-94	1600	WATER	4	
SPRING-13	8-3-94	1700	WATER	4	
SPRING-1	8-3-94	1800	WATER	4	
SPRING-14	8-3-94	1730	WATER	4	
H-4	8-4-94	900	WATER	4	
HSW-1	8-4-94	1000	WATER	4	
H-2	8-4-94	1100	WATER	4	
SPRING-10	8-3-94	1630	WATER	4	

Relinquished by: <i>[Signature]</i>	Date: Aug 5/94	Time: 3:00pm	Received by: <i>[Signature]</i>	Date: 8-5-94	Time: 3:00
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

EPA Springs

Aug 8, 1994

<u>Sample</u>	<u>PH</u>	<u>Cond</u>
14	8.28	2020
HSW-1	7.77	1260
HC-10	7.74	1244
10	7.76	849
8	7.74	915
13	7.77	1980
1	7.77	780
8-1-94 H-4	8.09	1004
8-4-94 H-4	8.40	1120
16	7.97	1000
12B	7.64	1300
CK-1 DS	7.74	1130
H-2	8.23	1190
CK-2	7.60	1290
12-D	7.88	3130
9	8.15	925



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U012594

PROJECT: IPA Seep & Spring: HSW-1

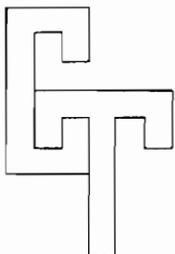
DATE SAMPLED: 8-04-94

DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	1,010	8-08-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	453	8-12-94 EPA 130.2
Carbonate as CO ₃ , mg/l	8	8-09-94 SM 2320B
Bicarbonate as HCO ₃ , mg/l	646	8-09-94 SM 2320B
Chloride as Cl, mg/l	21.5	8-08-94 EPA 325.3
Fluoride as F, mg/l	0.27	8-09-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	8-19-94 SM4500
Nitrate as NO ₃ -N, mg/l	<.02	8-08-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0052	8-06-94 EPA 354.1
Phosphorus as P (T), mg/l	0.041	8-10-94 SM4500
Sulfate as SO ₄ , mg/l	331	8-15-94 SM4500
Sulfide as S, mg/l	<.1	8-08-94 EPA 376.1
Aluminum as Al (T), mg/l	0.277	8-09-94 EPA 200.7
Arsenic as As (T), mg/l	<.04	8-09-94 EPA 200.7
Barium as Ba (T), mg/l	0.049	8-09-94 EPA 200.7
Boron as B (T), mg/l	0.171	8-09-94 EPA 200.7
Cadmium as Cd (T), mg/l	<.01	8-09-94 EPA 200.7
Calcium as Ca (T), mg/l	60.2	8-10-94 EPA 200.7
Chromium as Cr (T), mg/l	<.01	8-09-94 EPA 200.7
Copper as Cu (T), mg/l	<.01	8-09-94 EPA 200.7

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U012594

PROJECT: IPA Seep & Spring: HSW-1

DATE SAMPLED: 8-04-94

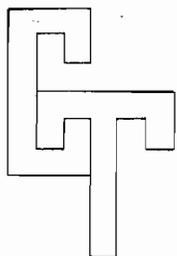
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe (T), mg/l	0.301	8-09-94 EPA 200.7
Lead as Pb (T), mg/l	<.02	8-09-94 EPA 200.7
Magnesium as Mg (T), mg/l	74.2	8-10-94 EPA 200.7
Manganese as Mn (T), mg/l	0.020	8-09-94 EPA 200.7
Mercury as Hg (T), mg/l	<.0002	8-09-94 EPA 245.1
Molybdenum as Mo (T), mg/l	<.04	8-09-94 EPA 200.7
Nickel as Ni (T), mg/l	<.01	8-09-94 EPA 200.7
Potassium as K (T), mg/l	5.23	8-10-94 EPA 200.7
Selenium as Se (T), mg/l	<.04	8-09-94 EPA 200.7
Sodium as Na (T), mg/l	197	8-10-94 EPA 200.7
Zinc as Zn (T), mg/l	<.01	8-09-94 EPA 200.7

NOTE: Sample temp. when submitted was 15.2°C on ice.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

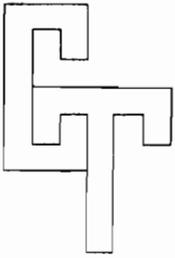
TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U012595 *HC-2*
PROJECT: IPA Seep & Spring: H-2
DATE SAMPLED: 8-04-94
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	817	8-08-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	385	8-12-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	8-09-94 SM 2320B
Bicarbonate as HCO ₃ , mg/l	559	8-09-94 SM 2320B
Chloride as Cl, mg/l	17	8-08-94 EPA 325.3
Fluoride as F, mg/l	<.2	8-09-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	8-19-94 SM4500
Nitrate as NO ₃ -N, mg/l	0.279	8-08-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	<.005	8-06-94 EPA 354.1
Phosphorus as P (T), mg/l	<.02	8-10-94 SM4500
Sulfate as SO ₄ , mg/l	253	8-15-94 SM4500
Sulfide as S, mg/l	<.1	8-08-94 EPA 376.1
Aluminum as Al (T), mg/l	<.01	8-09-94 EPA 200.7
Arsenic as As (T), mg/l	<.04	8-09-94 EPA 200.7
Barium as Ba (T), mg/l	0.020	8-09-94 EPA 200.7
Boron as B (T), mg/l	0.119	8-09-94 EPA 200.7
Cadmium as Cd (T), mg/l	<.01	8-09-94 EPA 200.7
Calcium as Ca (T), mg/l	46.8	8-10-94 EPA 200.7
Chromium as Cr (T), mg/l	<.01	8-09-94 EPA 200.7
Copper as Cu (T), mg/l	<.01	8-09-94 EPA 200.7

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

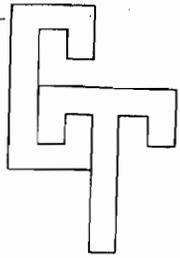
SAMPLE ID: Lab #U012595 *HC-2*
PROJECT: IPA Seep & Spring: H-2
DATE SAMPLED: 8-04-94
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe (T), mg/l	<.01	8-09-94 EPA 200.7
Lead as Pb (T), mg/l	<.02	8-09-94 EPA 200.7
Magnesium as Mg (T), mg/l	67.9	8-10-94 EPA 200.7
Manganese as Mn (T), mg/l	<.01	8-09-94 EPA 200.7
Mercury as Hg (T), mg/l	<.0002	8-09-94 EPA 245.1
Molybdenum as Mo (T), mg/l	<.04	8-09-94 EPA 200.7
Nickel as Ni (T), mg/l	<.01	8-09-94 EPA 200.7
Potassium as K (T), mg/l	1.74	8-10-94 EPA 200.7
Selenium as Se (T), mg/l	0.012	8-09-94 EPA 200.7
Sodium as Na (T), mg/l	157	8-10-94 EPA 200.7
Zinc as Zn (T), mg/l	<.01	8-09-94 EPA 200.7

NOTE: Sample temp. when submitted was 15.2°C on ice.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

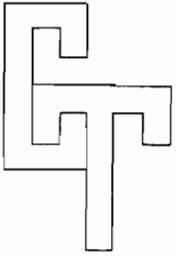
TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U012593 *HC-4*
PROJECT: IPA Seep & Spring: H-4
DATE SAMPLED: 8-04-94
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	783	8-08-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	448	8-12-94 EPA 130.2
Carbonate as CO ₃ , mg/l	2	8-09-94 SM 2320B
Bicarbonate as HCO ₃ , mg/l	593	8-09-94 SM 2320B
Chloride as Cl, mg/l	13	8-08-94 EPA 325.3
Fluoride as F, mg/l	<.2	8-09-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	8-19-94 SM4500
Nitrate as NO ₃ -N, mg/l	0.036	8-08-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0055	8-06-94 EPA 354.1
Phosphorus as P (T), mg/l	<.02	8-10-94 SM4500
Sulfate as SO ₄ , mg/l	215	8-15-94 SM4500
Sulfide as S, mg/l	0.29	8-08-94 EPA 376.1
Aluminum as Al (T), mg/l	0.048	8-09-94 EPA 200.7
Arsenic as As (T), mg/l	<.04	8-09-94 EPA 200.7
Barium as Ba (T), mg/l	0.066	8-09-94 EPA 200.7
Boron as B (T), mg/l	0.125	8-09-94 EPA 200.7
Cadmium as Cd (T), mg/l	<.01	8-09-94 EPA 200.7
Calcium as Ca (T), mg/l	62.2	8-10-94 EPA 200.7
Chromium as Cr (T), mg/l	<.01	8-09-94 EPA 200.7
Copper as Cu (T), mg/l	<.01	8-09-94 EPA 200.7

Approved By: *Joel Washburn*



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

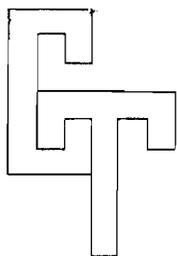
SAMPLE ID: Lab #U012593 HC-4
PROJECT: IPA Seep & Spring: H-4
DATE SAMPLED: 8-04-94
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe (T), mg/l	0.069	8-09-94 EPA 200.7
Lead as Pb (T), mg/l	<.02	8-09-94 EPA 200.7
Magnesium as Mg (T), mg/l	77.5	8-10-94 EPA 200.7
Manganese as Mn (T), mg/l	0.010	8-09-94 EPA 200.7
Mercury as Hg (T), mg/l	<.0002	8-09-94 EPA 245.1
Molybdenum as Mo (T), mg/l	<.04	8-09-94 EPA 200.7
Nickel as Ni (T), mg/l	<.01	8-09-94 EPA 200.7
Potassium as K (T), mg/l	3.15	8-10-94 EPA 200.7
Selenium as Se (T), mg/l	<.04	8-09-94 EPA 200.7
Sodium as Na (T), mg/l	123	8-10-94 EPA 200.7
Zinc as Zn (T), mg/l	<.01	8-09-94 EPA 200.7

NOTE: Sample temp. when submitted was 15.2°C on ice.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U012588 HC-11

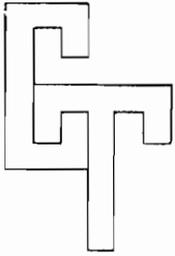
PROJECT: IPA Seep & Spring: HC-11

DATE SAMPLED: 8-04-94

DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	806	8-08-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	945	8-12-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	8-09-94 SM 2320B
Bicarbonate as HCO ₃ , mg/l	653	8-09-94 SM 2320B
Chloride as Cl, mg/l	14	8-08-94 EPA 325.3
Fluoride as F, mg/l	<.2	8-09-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	8-19-94 SM4500
Nitrate as NO ₃ -N, mg/l	<.02	8-08-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.014	8-06-94 EPA 354.1
Phosphorus as P (T), mg/l	2.11	8-10-94 SM4500
Sulfate as SO ₄ , mg/l	258	8-15-94 SM4500
Sulfide as S, mg/l	<.1	8-08-94 EPA 376.1
Aluminum as Al (T), mg/l	40.9	8-09-94 EPA 200.7
Arsenic as As (T), mg/l	<.04	8-09-94 EPA 200.7
Barium as Ba (T), mg/l	0.664	8-09-94 EPA 200.7
Boron as B (T), mg/l	0.106	8-09-94 EPA 200.7
Cadmium as Cd (T), mg/l	<.01	8-09-94 EPA 200.7
Calcium as Ca (T), mg/l	200	8-10-94 EPA 200.7
Chromium as Cr (T), mg/l	0.042	8-09-94 EPA 200.7
Copper as Cu (T), mg/l	0.057	8-09-94 EPA 200.7



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DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

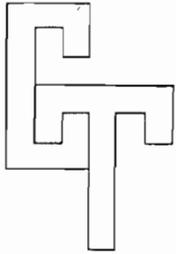
SAMPLE ID: Lab #U012588
PROJECT: IPA Seep & Spring: HC-11
DATE SAMPLED: 8-04-94
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe (T), mg/l	48.5	8-09-94 EPA 200.7
Lead as Pb (T), mg/l	0.028	8-09-94 EPA 200.7
Magnesium as Mg (T), mg/l	108	8-10-94 EPA 200.7
Manganese as Mn (T), mg/l	1.23	8-09-94 EPA 200.7
Mercury as Hg (T), mg/l	<.0002	8-09-94 EPA 245.1
Molybdenum as Mo (T), mg/l	<.04	8-09-94 EPA 200.7
Nickel as Ni (T), mg/l	0.048	8-09-94 EPA 200.7
Potassium as K (T), mg/l	4.05	8-10-94 EPA 200.7
Selenium as Se (T), mg/l	<.04	8-09-94 EPA 200.7
Sodium as Na (T), mg/l	108	8-10-94 EPA 200.7
Zinc as Zn (T), mg/l	0.132	8-09-94 EPA 200.7

NOTE: Sample temp. when submitted was 15.2°C on ice.

Approved By: _____



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

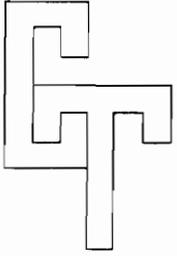
SAMPLE ID: Lab #U012590
PROJECT: IPA Seep & Spring: Spring 13 *HC-13*
DATE SAMPLED: 8-03-94
DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
TDS, mg/l	1,620	8-08-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	1,960	8-12-94 EPA 130.2
Carbonate as CO ₃ , mg/l	<1	8-09-94 SM 2320B
Bicarbonate as HCO ₃ , mg/l	626	8-09-94 SM 2320B
Chloride as Cl, mg/l	28.5	8-08-94 EPA 325.3
Fluoride as F, mg/l	0.22	8-09-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.4	8-19-94 SM4500
Nitrate as NO ₃ -N, mg/l	0.055	8-08-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	*0.0090	8-06-94 EPA 354.1
Phosphorus as P (T), mg/l	1.07	8-10-94 SM4500
Sulfate as SO ₄ , mg/l	802	8-15-94 SM4500
Sulfide as S, mg/l	<.1	8-08-94 EPA 376.1
Aluminum as Al (T), mg/l	63.3	8-09-94 EPA 200.7
Arsenic as As (T), mg/l	<.04	8-09-94 EPA 200.7
Barium as Ba (T), mg/l	0.833	8-09-94 EPA 200.7
Boron as B (T), mg/l	0.195	8-09-94 EPA 200.7
Cadmium as Cd (T), mg/l	<.01	8-09-94 EPA 200.7
Calcium as Ca (T), mg/l	450	8-10-94 EPA 200.7
Chromium as Cr (T), mg/l	0.060	8-09-94 EPA 200.7
Copper as Cu (T), mg/l	0.11	8-09-94 EPA 200.7

*Run past holding time.

Approved By: *Joe W. Kuman*



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 8-26-94

TO: EarthFax Engineering
7324 So. 1300 E. STE 100
Midvale, Utah 84047

SAMPLE ID: Lab #U012590

PROJECT: IPA Seep & Spring: Spring 13 ^{HC-13}

DATE SAMPLED: 8-03-94

DATE SUBMITTED: 8-05-94

CERTIFICATE OF ANALYSIS

<u>PARAMETER</u>	<u>DETECTED</u>	<u>DATE ANALYZED/METHOD</u>
Iron as Fe (T), mg/l	86.4	8-09-94 EPA 200.7
Lead as Pb (T), mg/l	0.063	8-09-94 EPA 200.7
Magnesium as Mg (T), mg/l	180	8-10-94 EPA 200.7
Manganese as Mn (T), mg/l	5.81	8-09-94 EPA 200.7
Mercury as Hg (T), mg/l	<.0002	8-09-94 EPA 245.1
Molybdenum as Mo (T), mg/l	<.04	8-09-94 EPA 200.7
Nickel as Ni (T), mg/l	0.101	8-09-94 EPA 200.7
Potassium as K (T), mg/l	9.37	8-10-94 EPA 200.7
Selenium as Se (T), mg/l	<.04	8-09-94 EPA 200.7
Sodium as Na (T), mg/l	223	8-10-94 EPA 200.7
Zinc as Zn (T), mg/l	0.209	8-09-94 EPA 200.7

NOTE: Sample temp. when submitted was 15.2°C on ice.

Approved By: _____

LOS ANGELES DEPARTMENT OF WATER AND POWER
 HORSE CANYON MINE
 SEEP AND SPRING DATA
 MAY 1994

SEEP/SPRING Number	PH (units)	CONDUCTIVITY (umhos/cm @ 25 deg C)	FLOW RATE (gpm)	TEMPERATURE (deg C)
HC-2	7.93	1200	9	8.5
HC-9	7.73	1700	3	9.0
HC-11	7.77	992	2	8.5
HC-13	7.86	1690	0.25	11.0
HC-18	8.14	1050	5	8.0
SURFACE WATER				
Number				
HCSW-1	7.83	1700	6	13
HCSW-2			DRY	
HCSW-3			DRY	

INTERMOUNTAIN POWER AGENCY
SOUTH LEASE PROPERTY
SEEP AND SPRING SURVEY
May 24 -26, 1993

SEEP/SPRING NUMBER	pH (units)	COND. (umhos/cm)	FLOW RATE (gpm)	TEMP. (c)	USE/REMARKS
1	7.79	962	1.5	8	claystone, wildlife
1A	7.76	1061	.5	7	sandstone, wildlife
1B			seep		
2			dry		
3	8.07	1000	.5	10	sandstone, wildlife
3A	7.68	1085	1	9	sandstone, wildlife
3B	8.01	1080	1.5	11	shale, wildlife
4	7.94	1190	2	8	
5	7.52	1058	1	6	
6			dry		
7	7.78	879	.75	8	
8	7.85	1043	< .25	20	
8A	7.97	1020	1.5	7	
9	6.45	1000	< .25	9	
9(R)			2	10	sandstone, trough
10	7.90	1046	2	15	
11	8.19	3680	< .25	17	
12A	7.81	2070	.25	10	sandstone
12B	8.12	1760	.25	11	sandstone, shale
12C	8.24	1716	.5	7	limey shale
12D	7.96	4520	< .25	15	shale, limestone
13	7.88	1386	1	14	
13A	8.03	1934	< .25	14	
13B	8.06	2216	< .25	12	
13Z	7.84	1375	1	12	

INTERMOUNTAIN POWER AGENCY
SOUTH LEASE PROPERTY
SEEP AND SPRING SURVEY
May 24 -26, 1993

SEEP/SPRING NUMBER	pH (units)	COND. (umhos/cm)	FLOW RATE (gpm)	TEMP. (c)	USE/REMARKS
14	8.24	1650	1	19	
14A	8.06	1500	1	15	
15	7.68	1045	<.25	10	
15A	7.86	1060	<.25	17	sandstone, silt
15B	7.92	1009	<.25	17	limey sandstone, silt
15C			seep		sandstone, limestone
16A	8.08	1070	4	11	
16B	7.86	1000	.25	14	
16C			seep		shale
16Z			seep		
17	8.07	1520	<.25	17	shale, limey sandstone
17A	ns		1.5	17	shale, sandstone ledge
17B	ns		.75	16	shale, sandstone ledge
18	8.06	1300	1	17	shale, limey sandstone
19A	7.59	1124	.5	7	shale, limestone, wildlife
19B	7.61	1130	1.5	7	limestone, sandstone, wildlife
20	8.02	6000	<.25	10	shale, sandstone ledge
22			dry		

ns = Not Sampled

EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seep & Spring Survey	Project Number: UC-284-07
Field Sample Number: HC-2	Laboratory Sample Number:
Date Sampled: 5-12-94	Time Sampled: 1240
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
PLASTIC QUART	2		SEE ATTACHED SHEET
PLASTIC PINT	2		

Special Requirements:

EARTHFAX ENGINEERING, INC.
7324 South 1300 East
Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seap & Spring Survey	Project Number: UC-284-07
Field Sample Number: AC-9	Laboratory Sample Number:
Date Sampled: 5-12-94	Time Sampled: 1000
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
PLASTIC QUART	2		SEE ATTACHED SHEET
PLASTIC PINT	2		

Special Requirements:

EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seep & Spring Survey	Project Number: UC-284-07
Field Sample Number: HC-11	Laboratory Sample Number:
Date Sampled: 5-12-94	Time Sampled: 1355
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
PLASTIC QUART	2		SEE ATTACHED SHEET
PLASTIC PINT	2		

Special Requirements:

EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seep & Spring Survey	Project Number: UC-284-07
Field Sample Number: <i>AC-13</i>	Laboratory Sample Number:
Date Sampled: 5-12-94	Time Sampled: <i>1440</i>
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
PLASTIC QUART	2		SEE ATTACHED SHEET
PLASTIC PINT	2		

Special Requirements:

EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seep & Spring Survey	Project Number: UC-284-07
Field Sample Number: HC-18	Laboratory Sample Number:
Date Sampled: 5-12-94	Time Sampled: 1116
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
PLASTIC QUART	2		SEE ATTACHED SHEET
PLASTIC PINT	2		

Special Requirements:

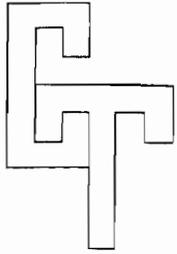
EARTHFAX ENGINEERING, INC.
 7324 South 1300 East
 Midvale, Utah 84047

WATER SAMPLE ANALYSIS REQUEST FORM

Sampling Company: EarthFax Engineering, Inc.	Sampling Personnel: JRP, CDH, RBG
Project Name: IPA Seep & Spring Survey	Project Number: UC-284-07
Field Sample Number: HCSW-1	Laboratory Sample Number:
Date Sampled: 5-12-94	Time Sampled: 1300
Analytical Laboratory: Chemtech	Date of Shipment/Delivery: 5-13-94

Container Type	Number of Bottles	Preservative(s)	Analyses Requested
PLASTIC QUART	2		SEE ATTACHED SHEET
PLASTIC PINT	2		

Special Requirements:



CHEMTECH

ANALYTICAL LABORATORY

6100 S. STRATLER
MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 6-02-94

TO: Earthfax Engineering
7324 S. 1300 E. STE 100
Midvale, Utah 84047

PROJECT: IPA Seep & Spring Survey

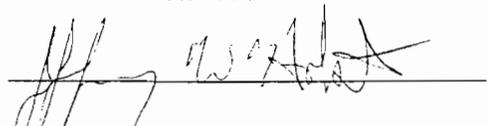
DATE SAMPLED: 5-12-94

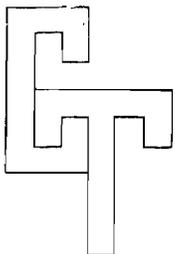
DATE SUBMITTED: 5-13-94

CERTIFICATE OF ANALYSIS

SAMPLE ID: LAB #:	HC-2 <u>U007200</u>	HC-9 <u>U007201</u>	HC-11 <u>U007202</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
<u>PARAMETER</u>				
Carbonate as CO ₃ , mg/l	42	18	25	5-20-94 SM17 2320B
Bicarbonate as HCO ₃ , mg/l	450	496	407	5-20-94 SM17 2320B
Chloride as Cl, mg/l	17	24	12	5-19-94 EPA 325.3
Fluoride as F, mg/l	0.18	<.2	<.2	5-20-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.2	<.2	<.2	6-01-94 SM17 4500
Nitrate as NO ₃ -N, mg/l	0.319	0.159	0.043	5-17-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0050	0.0058	0.0086	5-13-94 EPA 354.1
Phosphorus as P, mg/l	<.02	0.029	0.083	5-31-94 SM17 4500P
Sulfate as SO ₄ , mg/l	247	651	209	5-18-94 SM17 4500
Sulfide as S, mg/l	<.1	<.1	0.14	5-18-94 EPA 376.1
Aluminum as Al, mg/l	<.01	4.49	0.207	5-19-94 EPA 200.7
Arsenic as As, mg/l	<.04	<.04	<.04	5-19-94 EPA 200.7
Barium as Ba, mg/l	0.022	0.083	0.069	5-19-94 EPA 200.7
Boron as B, mg/l	0.147	0.180	0.099	5-19-94 EPA 200.7
Cadmium as Cd, mg/l	<.01	<.01	<.01	5-19-94 EPA 200.7
Calcium as Ca, mg/l	47.6	96.7	61.1	5-16-94 EPA 200.7
Chromium as Cr, mg/l	<.01	<.01	<.01	5-19-94 EPA 200.7

NOTE: Sample temp. when submitted was 6.7°C on ice.

Approved By: 



CHEMTECH

ANALYTICAL LABORATORY

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MURRAY, UTAH 84107
PHONE: (801) 262-7299
FAX: (801) 262-7378

DATE: 6-02-94

TO: Earthfax Engineering
7324 S. 1300 E. STE 100
Midvale, Utah 84047

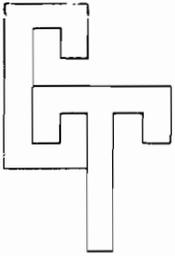
PROJECT: IPA Seep & Spring Survey
DATE SAMPLED: 5-12-94
DATE SUBMITTED: 5-13-94

CERTIFICATE OF ANALYSIS

SAMPLE ID: LAB #:	HC-13 <u>U007203</u>	HC-18 <u>U007204</u>	HCSW-1 <u>U007205</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
<u>PARAMETER</u>				
Carbonate as CO ₃ , mg/l	39	37	38	5-20-94 SM17 2320B
Bicarbonate as HCO ₃ , mg/l	436	426	408	5-20-94 SM17 2320B
Chloride as Cl, mg/l	24	22	24	5-19-94 EPA 325.3
Fluoride as F, mg/l	0.19	0.24	0.25	5-20-94 EPA 340.2
Ammonia as NH ₃ -N, mg/l	<.2	<.2	<.2	6-01-94 SM17 4500
Nitrate as NO ₃ -N, mg/l	0.134	0.042	0.072	5-17-94 EPA 353.1
Nitrite as NO ₂ -N, mg/l	0.0083	0.0058	0.0077	5-13-94 EPA 354.1
Phosphorus as P, mg/l	0.044	<.02	<.02	5-31-94 SM17 4500P
Sulfate as SO ₄ , mg/l	691	229	288	5-18-94 SM17 4500
Sulfide as S, mg/l	<.1	<.1	<.1	5-18-94 EPA 376.1
Aluminum as Al, mg/l	0.428	0.194	0.260	5-19-94 EPA 200.7
Arsenic as As, mg/l	<.04	<.04	<.04	5-19-94 EPA 200.7
Barium as Ba, mg/l	0.047	0.064	0.043	5-19-94 EPA 200.7
Boron as B, mg/l	0.193	0.235	0.186	5-19-94 EPA 200.7
Cadmium as Cd, mg/l	<.01	<.01	<.01	5-19-94 EPA 200.7
Calcium as Ca, mg/l	74.1	45.8	48.4	5-16-94 EPA 200.7
Chromium as Cr, mg/l	<.01	<.01	<.01	5-19-94 EPA 200.7

NOTE: Sample temp. when submitted was 6.7°C on ice.

Approved By: _____



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7324 S. 1300 E. STE 100
Midvale, Utah 84047

PROJECT: IPA Seep & Spring Survey

DATE SAMPLED: 5-12-94

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CERTIFICATE OF ANALYSIS

SAMPLE ID: LAB #:	HC-13 <u>U007203</u>	HC-18 <u>U007204</u>	HCSW-1 <u>U007205</u>	<u>DATE</u> <u>ANALYZED/METHOD</u>
<u>PARAMETER</u>				
Copper as Cu, mg/l	<.01	<.01	<.01	5-19-94 EPA 200.7
Iron as Fe, mg/l	0.737	0.728	0.422	5-19-94 EPA 200.7
Lead as Pb, mg/l	0.073	0.034	0.048	5-19-94 EPA 200.7
Magnesium as Mg, mg/l	120	54.5	61.6	5-16-94 EPA 200.7
Manganese as Mn, mg/l	0.015	0.017	0.016	5-19-94 EPA 200.7
Mercury as Hg, mg/l	<.0002	<.0002	<.0002	5-17-94 EPA 245.1
Molybdenum as Mo, mg/l	<.04	<.04	<.04	5-19-94 EPA 200.7
Nickel as Ni, mg/l	<.01	<.01	<.01	5-19-94 EPA 200.7
Potassium as K, mg/l	4.3	2.4	3.9	5-16-94 EPA 200.7
Selenium as Se, mg/l	<.04	<.04	<.04	5-19-94 EPA 200.7
Sodium as Na, mg/l	225	162	167	5-16-94 EPA 200.7
Zinc as Zn, mg/l	0.012	0.011	<.01	5-19-94 EPA 200.7
TDS, mg/l	1,435	777	880	5-16-94 EPA 160.1
Hardness as CaCO ₃ , mg/l	705	356	394	5-16-94 EPA 130.2

NOTE: Sample temp. when submitted was 6.7°C on ice.

Approved By: _____