Revised 1-1-84 13P

Epic No. TC TM Nut Rad. Bact. BOD Spec.

Date Rec'd.: 5-H2O #136

Received By:

UTAH STATE DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH
WATER ANALYSES

Sample No. 84841928

Stored No. 702

Water Syst. No. Source No. 703 704

Date Collected 714 (yr. mo. dy.)

Time Collected 715 (24-hour clock)

Water Rights No. 707

Exact Description of sampling Point 646

Supply Owned by 712

Sample Type 710

Sample Collected by 713

SEND REPORT TO: Phone 533-4145

715 JIM SHAMON
648 150 WEST NORTH TEMPLE
717 SLC UTAH 84110 (zip code)

Sample Source 719: 01 Spring, 02 Well, 03 Stream, 04 Lake, 06 Dist. syst., 07 Effluent, 08 Storm sewer, 14 Other, 15 Tunnel, 18 Artesian well, 19 Swimming pool

County 611: 01 Beaver, 02 Box Elder, 03 Cache, 04 Carbon, 05 Daggett, 06 Davis, 07 Duchesne, 08 Emery, 09 Garfield, 10 Grand, 11 Iron, 12 Juab, 13 Kane, 14 Millard, 15 Morgan, 16 Piute, 17 Rich, 18 Salt Lake, 19 San Juan, 20 Sanpete, 21 Sevier, 22 Summit, 23 Tooele, 24 Uintah, 25 Utah, 26 Wasatch, 27 Washington, 28 Wayne, 29 Weber

Current use 708

Proposed use 705: 1. Culinary 2. Agriculture 3. Industrial 4. Other

Cost Code 770

RECEIVED JUL 25 1984 Utah State Div. of Health

1 FIELD TESTS

Temperature	792	CO_2, mg/l	572
D.O., mg/l	793	Depth, m	609
Sp. Cond. µmhos/cm	653	Cl Resid., mg/l	753
pH	651	Flow, MGD	652
Sp. Gravity	608	Flow, GPM	604
Transparency, m	649	Flow, cfs	659

2 WASTEWATER ANALYSIS

Temperature(°C) 650 | pH 782 | BACT. LAB. No.

	mg/l			mg/l		
B.O.D.$_5$	794	T.O.C.	671	M.P.N. Total Coliforms/100ml	658
Tot. Sus. Solids	787	C.O.D.	777	M.P.N. Fecal Coliforms/100ml	657
NO_2+NO_3.N	602	Cyanide	775	Fecal Strep C/100ml.	656
T.K.N.	778	Phenolics	783	M.F. Total Coliforms/100ml.	654
Oil & Grease	780	Sulfide	672	M.F. Fecal Coliforms/100ml.	655
				Plate Count-Org./ml.	599

3 CHEMICAL ANALYSIS

Filtered | Unfiltered | pH, units 7.4

me/l	CATIONS	mg/l	ug/l (ppb)	
	Ammonia as N			722
	Arsenic			723
	Barium			724
	Boron			725
	Cadmium			727
1.88	Calcium	38.		728
	Chromium			729
	Chromium, Hex. as Cr		< 5	730
	Copper			732
	Iron, dissolved			733
	Lead			734
.60	Magnesium	7.		737
	Manganese			738
	Nickel			740
.05	Potassium	2.		742
	Selenium			743
	Silver			744
.69	Sodium	16.		745
	Zinc			749
3.22	TOTAL CATIONS			

Sp. Cond. µmhos/cm.	295	762
TDS @ 180°C	262	786

me/l	ANIONS	mg/l	
	Bicarbonate	174.	768
	Carbon Dioxide	1.1	759
	Carbonate	0	760
.20	Chloride	7.	763
7.92	CO_3 Solids	88	
	Fluoride	0.14	765
	Hydroxide	0000	767
	Nitrate as N	0.14	605
	Nitrite as N	< 0.01	606
	Phosphorus, Ortho as P	.12	607
	Silica, dissolved as SiO_2	29.	750
0.17	Sulfate	8.	772
3.29	TOTAL ANIONS		
	GRAND TOTAL		

Tot. Phosphorus		785
Total Alk. as $CaCO_3$	146.	752
T. Hdns. as $CaCO_3$	154.	754
Surfactant as MBAS		773
Turbidity, as NTU	53	757
Sp. Gravity		608

TOTAL METALS ANALYSIS

5 CATIONS — mg/l — ~~ug/l (ppb)~~ ppb

Aluminum	0.2	800
Arsenic	.0010	660
Barium	.14	661
Beryllium	< .01	801
Cadmium	< .01	662
Chromium	< .02	663
Cobalt	< .1	804
Copper	< .01	664
Gold		700
Iron	.20	765
Lead	< .10	665
Manganese	< .01	666
Mercury	< .0001	739
Molybdenum	< .1	802
Nickel	.1	667
Selenium	< .0005	668
Silver	< .01	669
Uranium		601
Vanadium	< .3	803
Zinc	.010	670

6 RADIOLOGICS

	pc/l-g			pc/l-g	
Alpha, gross		621	^{89}Sr		633
Beta, gross		623	^{131}I		635
Tritium, ^3H		625	^{134}Cs		637
^{226}Radium		627	^{137}Cs		639
^{228}Radium		629			
^{90}Sr		631			

Analyses Approved By: RSJ Date: 840629

INTERPRETATION OF ANALYSES:
Remarks:

37971 7444

Based on State Standards, this sample was:

	Satisfactory	Conditional	Unsatisfactory
B.O.D.$_5$			
Tot. Sus. Solids			
M.P.N. Total Coliform.			
M.P.N. Fecal Coliform.			

By ENVIRONMENTAL HEALTH

J. Oman 17-July-84

Surface H_2O - down gradient #140

Rev. 3/82 Hu84140

Field No.

☒ TC ☒ TM ☐ Nut
☐ PC ☐ PM ☐ BOD

☐ Pest. ☐ Rad. ☐ Bact. ☒ Spec.

S. H_2O down

Date Recd.: 8/20

Received By:

UTAH STATE DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH
WATER ANALYSES

RECEIVED AUG 20 1984

Sample No. 484841932 701

Storet No. 702

Water Syst. No. Source No. 703 704

Date Collected 840809 (yr. mo. dy.) 714

Time Collected 1040 (24-hour Clock) 810

Water Rights No. 707

Exact Description of sampling Point: David Hoskins - off site water North of R & R Road Richmond Utah 646

Supply Owned by 712

Sample Type 710

Sample Collected by: Jim Hudson, D. Williams 713

SEND REPORT TO: Phone 533-4145
Jim Salmon 715
150 West North Temple 648
SLC Utah 84110 717
zip code

Sample Source 714: 14 — 01 Spring, 02 Well, 03 Stream, 04 Lake, 06 Dist. syst., 07 Effluent, 08 Storm sewer, 14 Other, 15 Tunnel, 18 Artesian well, 19 Swimming pool

County: 23 — 00 Statewide, 01 Beaver, 02 Box Elder, 03 Cache, 04 Carbon, 05 Daggett, 06 Davis, 07 Duchesne, 08 Emery, 09 Garfield, 10 Grand, 11 Iron, 12 Juab, 13 Kane, 14 Millard, 15 Morgan, 16 Piute, 17 Rich, 18 Salt Lake, 19 San Juan, 20 Sanpete, 21 Sevier, 22 Summit, 23 Tooele, 24 Uintah, 25 Utah, 26 Wasatch, 27 Washington, 28 Wayne, 29 Weber

Current use ☐ 708
Proposed use 4 709
1. Culinary
2. Agriculture
3. Industrial
4. Other

Cost Code 365 770

1 FIELD TESTS

Temperature (°C)	792	CO_2, mg/l	572
D.O., mg/l	793	Depth, m	609
Sp. Cond. µmhos	653	Cl Resid., mg/l	753
pH	651	Flow, MGD	652
Sp. Gravity	608	Flow, GPM	604
Transparency, m	649	Flow, cfs	659

2 WASTEWATER ANALYSIS

Temperature (°C) 650 | pH 782 | BACT. LAB. No.

	mg/l		mg/l		
B.O.D.$_5$	794	T.O.C.	671	M.P.N. Total Coliforms/100ml	658
Tot. Sus. Solids	787	C.O.D.	777	M.P.N. Fecal Coliforms/100ml	657
NO_2+NO_3,N	602	Cyanide	775	Fecal Strep C/100ml.	656
T.K.N.	778	Phenolics	783	M.F. Total Coliforms/100ml.	654
Oil & Grease	780	Sulfide	672	M.F. Fecal Coliforms/100ml.	655
				Plate Count-Org./ml.	599

3 Filtered / Unfiltered

me/l	CATIONS	mg/l	ug/l (ppb)	
	Ammonia as N			722
	Arsenic			723
	Barium			724
	Boron			725
	Cadmium			727
11.4	Calcium	228		728
	Chromium			729
	Chromium, Hex. as Cr		<5	730
	Copper			732
	Iron, dissolved			733
	Lead			734
4.60	Magnesium	56		737
	Manganese			738
	Nickel			740
.05	Potassium	2		742
	Selenium			743
	Silver			744
15.6	Sodium	36		745
	Zinc			749
17.6	TOTAL CATIONS			

	Sp. Cond. µmhos/cm.	1400	762
	TDS @ 180°C	1246	786

4 CHEMICAL ANALYSIS

pH, units 7.7

me/l	ANIONS	mg/l	
	Bicarbonate	286	758
	Carbon Dioxide	9	759
	Carbonate	0	760
.90	Chloride	32	763
4.69	CO_3 Solids	141	
	Fluoride	0.34	765
	Hydroxide	0	767
	Nitrate as N	0.06	605
	Nitrite as N	<0.01	606
	Phosphorus, Ortho as P	0.01	607
	Silica, dissolved as SiO_2	33	750
12.16	Sulfate	584	772
17.7	TOTAL ANIONS		
	GRAND TOTAL		

	Tot. Phosphorus		785
	Total Alk. as $CaCO_3$	235	752
	T. Hdns. as $CaCO_3$	800	754
	Surfactant as MBAS		773
	Turbidity, as NTU	25	757
	Sp. Gravity		608

TOTAL METALS ANALYSIS

DOM

5 CATIONS

	mg/l	~~ug/l (ppb)~~	
	Aluminum		800
	Arsenic	.0022	660
	Barium	<.05	661
	Beryllium	<.01	801
	Cadmium	.01	662
	Chromium	<.1	663
	Cobalt	<.1	804
	Copper		664
	Gold		700
	Iron		755
	Lead	<.1	665
	Manganese		666
	Mercury	<.0002	739
	Molybdenum	<.2	803
	Nickel	<.1	667
	Selenium	.0005	668
	Silver	.010	669
	Uranium		601
	Vanadium		803
	Zinc	.17	670

6 RADIOLOGICS

	pc/l		pc/l	
Alpha, gross		621	^{89}Sr	633
Beta, gross		623	^{131}I	635
Tritium, ^3H		625	^{134}Cs	637
^{226}Radium		627	^{137}Cs	639
^{228}Radium		629		
^{90}Sr		631		

Analyses Approved By: REJ Date: 840629

INTERPRETATION OF ANALYSES:
Remarks:

Based on State Standards, this sample was:

	Satisfactory	Conditional	Unsatisfactory
B.O.D.$_5$			
Tot. Sus. Solids			
M.P.N. Total Coliform.			
M.P.N. Fecal Coliform.			

By ENVIRONMENTAL HEALTH

07-Aug-84 J. Oman

Field No. 135

Nut / BOD / Rad. / Bact. / Spec.

Date Recd.: 6-4-84 Received By: G. H2O

UTAH STATE DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH
WATER ANALYSES #135

Sample No. 84841927

District No. | Water Syst. No. | Source No.

Date Collected: 6 4 84 (yr. mo. dy.) | Time Collected: 0 9 3 0 (24-hour clock) | Water Rights No.

Exact Description of sampling Point: UP-gradient HO at Spring South of Clark Ranch Alt-road

Supply Owned by | Sample Type

Sample Collected by: D Hansen D Verhoek

SEND REPORT TO: Phone 530 4143
Jim Salmon
150 West North Temple
SLC Utah 84110
zip code

Sample Source: 14 — 01 Spring, 02 Well, 03 Stream, 04 Lake, 06 Dist. syst., 07 Effluent, 08 Storm sewer, 09 Tunnel, 10 Aeration, 19 Swimming pool, 14 Other

County: 22 — 01 Beaver, 02 Box Elder, 03 Cache, 04 Carbon, 05 Daggett, 06 Davis, 07 Duchesne, 08 Emery, 09 Garfield, 10 Grand, 11 Iron, 12 Juab, 13 Kane, 14 Millard, 15 Morgan, 16 Piute, 17 Rich, 18 Salt Lake, 19 San Juan, 20 Sanpete, 21 Sevier, 22 Summit, 23 Tooele, 24 Uintah, 25 Utah, 26 Wasatch, 27 Washington, 28 Wayne, 29 Weber

Current use: 4 — 1. Culinary, 2. Agriculture, 3. Industrial, 4. Other

Proposed use:

Cost Code: 365

JUL 25 1984 Utah State Div. Of Environmental Health

FIELD TESTS

Temperature (°C)	17.1	CO_2, mg/l	
D.O., mg/l		Depth, m	
Sp. Cond. µmhos		Cl Resid., mg/l	
pH		Flow, MGD	
Sp. Gravity		Flow, GPM	
Transparency, m		Flow, cfs	

2 WASTEWATER ANALYSIS

Temperature (°C) | pH | BACT. LAB. No.

	mg/l		mg/l		
B.O.D.$_5$		T.O.C.		M.P.N. Total Coliforms/100ml	
Tot. Sus. Solids		C.O.D.		M.P.N. Fecal Coliforms/100ml	
NO_2+NO_3,N		Cyanide		Fecal Strep C/100ml.	
T.K.N.		Phenolics		M.F. Total Coliforms/100ml.	
Oil & Grease		Sulfide		M.F. Fecal Coliforms/100ml.	
				Plate Count-Org./ml.	

3 Filtered / Unfiltered

me/l	CATIONS	mg/l	ug/l (ppb)
	Ammonia as N		
	Arsenic		
	Barium		
	Boron		
	Cadmium		
2.40	Calcium	48	
	Chromium		
	Chromium, Hex. as Cr		<5
	Copper		
	Iron, dissolved		
	Lead		
.80	Magnesium	10	
	Manganese		
	Nickel		
.03	Potassium	1	
	Selenium		
	Silver		
1.13	Sodium	26	
	Zinc		
4.36	TOTAL CATIONS		

Sp. Cond. µmhos/cm. 410
TDS @ 180°C 280

4 CHEMICAL ANALYSIS

pH, units 7.5

me/l	ANIONS	mg/l
	Bicarbonate	196
	Carbon Dioxide	15
	Carbonate	0
.59	Chloride	21
3.12	CO_3 Solids	93
	Fluoride	0.16
	Hydroxide	0000
.21	Nitrate as N	2.93
	Nitrite as N	<0.01
	Phosphorus, Ortho as P	.04
	Silica, dissolved as SiO_2	33
0.35	Sulfate	17
4.27	TOTAL ANIONS	
	GRAND TOTAL	

Tot. Phosphorus	
Total Alk. as $CaCO_3$	156
T. Hdns. as $CaCO_3$	160
Surfactant as MBAS	
Turbidity, as NTU	0.3
Sp. Gravity	

TOTAL METALS ANALYSIS ppm

5 CATIONS	mg/l	ug/l (ppb)
Aluminum	<.1	
Arsenic	.001	
Barium	<.05	
Beryllium	<.01	
Cadmium	<.01	
Chromium	<.02	
Cobalt	<.1	
Copper	<.01	
Gold		
Iron	<.03	
Lead	<.1	
Manganese	<.01	
Mercury	<.0001	
Molybdenum	<.1	
Nickel	<.1	
Selenium	<.005	
Silver	<.01	
Uranium		
Vanadium	<.3	
Zinc	.005	

6 RADIOLOGICS

	pc/l-g		pc/l-g
Alpha, gross		^{89}Sr	
Beta, gross		^{131}I	
Tritium, ^3H		^{134}Cs	
^{226}Radium		^{137}Cs	
^{228}Radium			
^{90}Sr			

Analyses Approved By: RSH Date: 840626

INTERPRETATION OF ANALYSES:
Remarks:

Based on State Standards, this sample was:

	Satisfactory	Questionable	Unsatisfactory
B.O.D.$_5$			
Tot. Sus. Solids			
M.P.N. Total Coliform.			
M.P.N. Fecal Coliform.			

By ENVIRONMENTAL HEALTH

J. Oman 17-July-84

HW84144

Original #144 GW Dam

Rev. 3/82

Field No.

☒ TC ☒ TM ☐ Nut
☐ PC ☐ PM ☐ BOD

☐ Pest. ☐ Rad. ☐ Bact. ☐ Spec.

Date Recd.: 6-4-84

Received By:

UTAH STATE DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH
WATER ANALYSES

Sample No. 484841936

Storet No. 703

Water Syst. No. Source No. 704

Date Collected 840402 (yr. mo. dy.) 710

Time Collected 1130 (24-hour clock) 810

Water Rights No. 707

Exact Description of sampling Point: Toe of Richardson Flat tailings dam-ground water seep

Supply Owned by 712

Sample Type 710

Sample Collected by: T Heldon 713

SEND REPORT TO: Phone 533-4145

Tim Sellman-Bur Soil Hazz
150 W North Temple 648
SLC Utah 717
zip code

Sample Source 719: 14 — 01 Spring, 02 Well, 03 Stream, 04 Lake, 06 Dist. syst., 07 Effluent, 08 Storm sewer, 14 Other, 15 Tunnel, 18 Artesian well, 19 Swimming pool

County 702: 22 — 01 Beaver, 02 Box Elder, 03 Cache, 04 Carbon, 05 Daggett, 06 Davis, 07 Duchesne, 08 Emery, 09 Garfield, 10 Grand, 11 Iron, 12 Juab, 13 Kane, 14 Millard, 15 Morgan, 16 Piute, 17 Rich, 18 Salt Lake, 19 San Juan, 20 Sanpete, 21 Sevier, 22 Summit, 23 Tooele, 24 Uintah, 25 Utah, 26 Wasatch, 27 Washington, 28 Wayne, 29 Weber

Carrying use 708

Proposed use 709

1. Culinary
2. Agriculture
3. Industrial
4. Other

Cost Code 365 770

1 FIELD TESTS

Temperature (°C)	792	CO_2, mg/l	572
D.O., mg/l	793	Depth, m	609
Sp. Cond. µmhos	653	Cl Resid., mg/l	753
pH	651	Flow, MGD	652
Sp. Gravity	608	Flow, GPM	604
Transparency, m	649	Flow, cfs	659

2 WASTEWATER ANALYSIS

Temperature (°C) 650 pH 782 BACT. LAB. No.

	mg/l		mg/l		
B.O.D.$_5$	794	T.O.C.	671	M.P.N. Total Coliforms/100ml	658
Tot. Sus. Solids	787	C.O.D.	777	M.P.N. Fecal Coliforms/100ml	657
NO_2+NO_3,N.	602	Cyanide	775	Fecal Strep C/100ml.	656
T.K.N.	778	Phenolics	783	M.F. Total Coliforms/100ml.	654
Oil & Grease	780	Sulfide	672	M.F. Fecal Coliforms/100ml.	655
				Plate Count-Org./ml.	599

3 Filtered / Unfiltered

me/l	CATIONS	mg/l	ug/l (ppb)	
	Ammonia as N			722
	Arsenic			723
	Barium			724
	Boron			725
	Cadmium			727
30.6	Calcium	612		728
	Chromium			729
	Chromium, Hex. as Cr		<5	730
	Copper			732
	Iron, dissolved			733
	Lead			734
9.40	Magnesium	114		737
	Manganese			738
	Nickel			740
.33	Potassium	13		742
	Selenium			743
	Silver			744
2.08	Sodium	48		745
	Zinc			749
43.	TOTAL CATIONS			

Sp. Cond. µmhos/cm.	2890 762
TDS @ 180°C	3098 786

4 CHEMICAL ANALYSIS

pH, units 7.7

me/l	ANIONS	mg/l	
	Bicarbonate	322	768
	Carbon Dioxide	10	759
	Carbonate	0	760
.90	Chloride	32	763
5.28	CO_3 Solids	158	
	Fluoride	0.48	765
	Hydroxide	0.00	767
	Nitrate as N	0.03	605
	Nitrite as N	<0.01	606
	Phosphorus, Ortho as P	0.01	607
	Silica, dissolved as SiO_2	19.	750
38.80	Sulfate	1863	772
45.	TOTAL ANIONS		
	GRAND TOTAL		

Tot. Phosphorus	785
Total Alk. as $CaCO_3$	264 752
T. Hdns. as $CaCO_3$	2010 754
Surfactant as MBAS	773
Turbidity, as NTU	10 757
Sp. Gravity	608

TOTAL METALS ANALYSIS DOM

5 CATIONS

	mg/l	~~ug/l (ppb)~~	
Aluminum			800
Arsenic	.0480		660
Barium	<.05		661
Beryllium	<.01		801
Cadmium	.031		662
Chromium	<.1		663
Cobalt	<.1		804
Copper			664
Gold			700
Iron			766
Lead	<.1		665
Manganese			666
Mercury	<.0001		739
Molybdenum	<.2		802
Nickel	<.1		667
Selenium	.0015		668
Silver	.012		669
Uranium			601
Vanadium			803
Zinc	.77		670

6 RADIOLOGICS

	pc/l-s		pc/l-s	
Alpha, gross		621	^{89}Sr	633
Beta, gross		623	^{131}I	635
Tritium, ^3H		625	^{134}Cs	637
^{226}Radium		627	^{137}Cs	639
^{228}Radium		629		
^{90}Sr		631		

Analyses Approved By: RSH Date: 840629

INTERPRETATION OF ANALYSES:
Remarks:

By ENVIRONMENTAL HEALTH

Based on State Standards, this sample was:

	Satisfactory	Conditional	Unsatisfactory
B.O.D.$_5$			
Tot. Sus. Solids			
M.P.N. Total Coliform.			
M.P.N. Fecal Coliform.			

07-Aug-84 L. Oman

Rev. 3/82 137

Field No.

TC TM Nut
PC PM BOD

Pest. Rad. Bact. Spec.

BKs soil #121

Date Recd.:

Received By:

UTAH STATE DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH
WATER ANALYSES

Sample No. 46041925 701

Storet No. 702

Water Syst. No. Source No. 703 704

Date Collected 705 (Yr. Mo. Dy.)

Time Collected 706 (24-hour clock)

Water Rights No. 707

Exact Description of sampling Point 646
Backfill to South West of
Clark Ranch - upgradient
soil

Supply Owned by 712

Sample Type 710

Sample Collected by 713
D Herbica

SEND REPORT TO: Phone
715 Jim Salmon - Bur Sol Haz
648 150 W North Temple
717 SLC Utah
zip code

Sample Source 719: 14
01 Spring, 02 Well, 03 Stream, 04 Lake, 06 Dist. syst., 07 Effluent, 08 Storm sewer, 14 Other, 15 Tunnel, 18 Artesian well, 19 Swimming pool

County 611: 22
01 Beaver, 02 Box Elder, 03 Cache, 04 Carbon, 05 Daggett, 06 Davis, 07 Duchesne, 08 Emery, 09 Garfield, 10 Grand, 11 Iron, 12 Juab, 13 Kane, 14 Millard, 15 Morgan, 16 Piute, 17 Rich, 18 Salt Lake, 19 San Juan, 20 Sanpete, 21 Sevier, 22 Summit, 23 Tooele, 24 Uintah, 25 Utah, 26 Wasatch, 27 Washington, 28 Wayne, 29 Weber

Current use 708: 4
Proposed use 709:
1. Culinary
2. Agriculture
3. Industrial
4. Other

Cost Code 365 770

1 FIELD TESTS

Temperature (°C)	792	CO_2, mg/l	572
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Sp. Cond. µmhos	653	Cl Resid., mg/l	753
pH	651	Flow, MGD	652
Sp. Gravity	608	Flow, GPM	604
Transparency, m	649	Flow, cfs	659

2 WASTEWATER ANALYSIS

Temperature (°C) 660 | pH 782 | BACT. LAB. No.

	mg/l		mg/l		
B.O.D.$_5$	794	T.O.C.	671	M.P.N. Total Coliforms/100ml	658
Tot. Sus. Solids	787	C.O.D.	777	M.P.N. Fecal Coliforms/100ml	657
NO_2+NO_3,N	602	Cyanide	775	Fecal Strep C/100ml.	656
T.K.N.	778	Phenolics	783	M.F. Total Coliforms/100ml.	654
Oil & Grease	780	Sulfide	672	M.F. Fecal Coliforms/100ml.	655
				Plate Count-Org./ml.	599

3 Filtered | Unfiltered

me/l	CATIONS	mg/l	ug/l (ppb)	
	Ammonia as N			722
	Arsenic			723
	Barium			724
	Boron			725
	Cadmium			727
	Calcium			728
	Chromium			729
	Chromium, Hex. as Cr			730
	Copper			732
	Iron, dissolved			733
	Lead			734
	Magnesium			737
	Manganese			738
	Nickel			740
	Potassium			742
	Selenium			743
	Silver			744
	Sodium			745
	Zinc			749
	TOTAL CATIONS			

4 CHEMICAL ANALYSIS

pH, units

me/l	ANIONS	mg/l	
	Bicarbonate		758
	Carbon Dioxide		759
	Carbonate		760
	Chloride		763
	CO_3 Solids		
	Fluoride		765
	Hydroxide		767
	Nitrate as N		605
	Nitrite as N		606
	Phosphorus, Ortho as P		607
	Silica, dissolved as SiO_2		750
	Sulfate		772
	pH 1:1	6.6	
	%Solids	80.0	
	TOTAL ANIONS		
	GRAND TOTAL		
	Tot. Phosphorus		785
	Total Alk. as $CaCO_3$		752
	T. Hdns. as $CaCO_3$		754
	Surfactant as MBAS		773
	Turbidity, as NTU		757
	Sp. Gravity		608

TOTAL METALS ANALYSIS

5 CATIONS mg/l ~~ug/l (ppb)~~ ppm

Aluminum		800
Arsenic	14.	660
Barium	217.	661
Beryllium	1.2	801
Cadmium	.9	662
Chromium	24	663
Cobalt	8.8	802
Copper		664
Gold		700
Iron		755
Lead	529	665
Manganese		666
Mercury	.19	739
Molybdenum	2.4	802
Nickel	236	667
Selenium	2.0	668
Silver	1.3	669
Uranium		601
Vanadium		803
Zinc	132	670

dry wt basis

Sp. Cond. µmhos/cm.		762
TDS @ 180°C		786

6 RADIOLOGICS

	pc/l-g		pc/l-g	
Alpha, gross		621	^{89}Sr	633
Beta, gross		623	^{131}I	635
Tritium, ^3H		625	^{134}Cs	637
^{226}Radium		627	^{137}Cs	639
^{228}Radium		629		
^{90}Sr		631		

Analyses Approved By: Date:

INTERPRETATION OF ANALYSES:
Remarks:

RECEIVED
SEP 6 1984
Utah State Div. O:
Environmental Hea

By ENVIRONMENTAL HEALTH

Based on State Standards, this sample was:

	Satisfactory	Conditional	Unsatisfactory
B.O.D.$_5$			
Tot. Sus. Solids			
M.P.N. Total Coliform.			
M.P.N. Fecal Coliform.			

30-Aug-84 J. Oman

Rev. 3-82

Field No.

☐ TC ☐ TM ☐ Nut
☐ PC ☐ PM ☐ BOD

☐ Pest.
☐ Rad.
☐ Bact.
☐ Spec.

Date Recd.: Office Soil

Received By:

UTAH STATE DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH
WATER ANALYSES

#935

Sample No. 841535

Store No. 702

Water Syst. No. Source No. 703 704

Date Collected 8 Apr 84 705

Time Collected 1120 (24-hour clock) 706

Water Rights No. 707

Exact Description of sampling Point
Richardson Flat N side of Firing Range off side (air leak) Dugway 16 mile Off Highway 646

Supply Owned by 712

Sample Type 710

Sample Collected by
J. Meribica 713

SEND REPORT TO: Phone 533 4145
Jim Salmon - Bur Soil & Haz 715
150 W North Temple 648
SLC Utah 717
zip code

Sample Source 719: 14
01 Spring, 02 Well, 03 Stream, 04 Lake, 06 Dist. syst., 07 Effluent, 08 Storm sewer, 14 Other, 15 Tunnel, 18 Artesian well, 19 Swimming pool

County 611: 22
01 Beaver, 02 Box Elder, 03 Cache, 04 Carbon, 05 Daggett, 06 Davis, 07 Duchesne, 08 Emery, 09 Garfield, 10 Grand, 11 Iron, 12 Juab, 13 Kane, 14 Millard, 15 Morgan, 16 Piute, 17 Rich, 18 Salt Lake, 19 San Juan, 20 Sanpete, 21 Sevier, 22 Summit, 23 Tooele, 24 Uintah, 25 Utah, 26 Wasatch, 27 Washington, 28 Wayne, 29 Weber

Current use 708: 4
Proposed use 709: 7
1. Culinary
2. Agriculture
3. Industrial
4. Other

Cost Code 779: 365

1 FIELD TESTS

Temperature (°C)	792	CO_2, mg/l	572
D.O., mg/l	793	Depth, m	609
Sp. Cond. µmhos	653	Cl Resid., mg/l	753
pH	651	Flow, MGD	652
Sp. Gravity	608	Flow, GPM	604
Transparency, m	649	Flow, cfs	659

2 WASTEWATER ANALYSIS

Temperature (°C) 650 | pH 782 | BACT. LAB. No.

	mg/l			mg/l		
B.O.D.$_5$	794	T.O.C.	671	M.P.N. Total Coliforms/100ml	658
Tot. Sus. Solids	787	C.O.D.	777	M.P.N. Fecal Coliforms/100ml	657
NO_2+NO_3,N	602	Cyanide	775	Fecal Strep C/100ml.	656
T.K.N.	778	Phenolics	783	M.F. Total Coliforms/100ml.	654
Oil & Grease	780	Sulfide	672	M.F. Fecal Coliforms/100ml.	655
				Plate Count-Org./ml.	599

3 Filtered / Unfiltered

me/l	CATIONS	mg/l	ug/l (ppb)	
	Ammonia as N			722
	Arsenic			723
	Barium			724
	Boron			725
	Cadmium			727
	Calcium			728
	Chromium			729
	Chromium, Hex. as Cr			730
	Copper			732
	Iron, dissolved			733
	Lead			734
	Magnesium			737
	Manganese			738
	Nickel			740
	Potassium			742
	Selenium			743
	Silver			744
	Sodium			745
	Zinc			749
	TOTAL CATIONS			

Sp. Cond. µmhos/cm.	762
TDS @ 180°C	786

4 CHEMICAL ANALYSIS

pH, units

me/l	ANIONS	mg/l	
	Bicarbonate		758
	Carbon Dioxide		759
	Carbonate		760
	Chloride		763
	CO_3 Solids		
	Fluoride		765
	Hydroxide		767
	Nitrate as N		605
	Nitrite as N		606
	Phosphorus, Ortho as P		607
	Silica, dissolved as SiO_2		750
	Sulfate		772
	pH 1:1	5.0	
	TOTAL ANIONS		
	GRAND TOTAL		

Tot. Phosphorus		785
Total Alk. as $CaCO_3$		752
T. Hdns. as $CaCO_3$		754
Surfactant as MBAS		773
Turbidity, as NTU		757
Sp. Gravity		608

TOTAL METALS ANALYSIS ppm

5 CATIONS

CATIONS	mg/l	ug/l (ppb)	
Aluminum			800
Arsenic		< 167	660
Barium	33		661
Beryllium		< 4	801
Cadmium		447	662
Chromium		127	663
Cobalt		167	804
Copper			664
Gold			700
Iron			755
Lead		3770	665
Manganese			666
Mercury		1.24	739
Molybdenum		17	802
Nickel		135	667
Selenium		< 19	668
Silver		63.5	669
Uranium			601
Vanadium			803
Zinc		16700	670

6 RADIOLOGICS

	pc/l-g		pc/l-g	
Alpha, gross	621	^{89}Sr	633
Beta, gross	623	^{131}I	635
Tritium, ^3H	625	^{134}Cs	637
^{226}Radium	627	^{137}Cs	639
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^{90}Sr	631		

Analyses Approved By: Date:

INTERPRETATION OF ANALYSES:
Remarks:

RECEIVED
SEP 6 1984
Utah State Div. Of
Environmental Health

By ENVIRONMENTAL HEALTH

Based on State Standards, this sample was:

	Satisfactory	Conditional	Unsatisfactory
B.O.D.$_5$			
Tot. Sus. Solids			
M.P.N. Total Coliform.			
M.P.N. Fecal Coliform.			

30-Aug-84 J. Oman

Unconsolidated deposits, characteristically of glacial and/or river deposition origins, have not been proven in the study area. However, numerous wells drilled in the Snyderville Basin north of the study area have yielded low producing wells, capable of supplying domestic water for individual homes, and two moderate sources, the Hi-Ute Well (tested at 35 gpm) and the State Rest Stop Well (tested at 350 gpm). The latter two wells combined have the capacity to supply water to several subdivisions in the area. Other unconsolidated sources in the outlying areas of the study area have been noted in the Peoa area in the Kamas Valley.

Springs found in the study area show varied flows. The most significant water producing springs are the Sullivan Spring and the Theriot Spring. Other springs include the Dorrity Spring and springs located in Frog Valley, Deer Valley and Thaynes Canyon. The primary source of all springs within the study area is the consolidated deposits including the Thaynes, Nugget, Twin Creek, Park City and Weber Quartzite formations.

The extensive mining practices of the past have provided the area with significant quantities of water from the various consolidated deposits. The mining drainage Judge/Anchor Tunnel has historically been the primary water source for Park City. Its flows have been supplemented by drainage from the Alliance tunnel.

Other water sources from mining excavation include the Ontario Shafts (flows from which are conveyed via drain tunnels to the local streams), and the Spiro Tunnel, a source that has not been fully developed.

SUPPORT SERVICES

Reproduced Results of Well Driller's Report No. 6425, Dated Oct. 2, 1948

REPORT OF WELL DRILLER
STATE OF UTAH

GENERAL STATEMENT: Report of well driller is hereby made and filed with the State Engineer, in accordance with the laws of Utah. (This report shall be filed with the State Engineer within 30 days after the completion or abandonment of the well. Failure to file such report constitutes a misdemeanor.)

(1) WELL OWNER:
Name: Pacific Bridge Company
Address: Park City, Utah

(2) LOCATION OF WELL:
County: Summit
1025 N. 1115 W. NE
9 S 2 E S.L.B.&M.

(3) NATURE OF WORK (check): New Well ☒

(4) NATURE OF USE (check):

(5) TYPE OF CONSTRUCTION (check):

(6) CASING SCHEDULE:
16" 0 100 5/16
12" 0 300 4mm
10" 300 398
8" 398 446

(7) PERFORATIONS: Permanent? Yes ☒ No ☐
300 398
398 446

(8) SCREENS:

(9) CONSTRUCTION:

(10) WATER LEVELS:
20 9-22-48

LOG RECEIVED:

(11) FLOWING WELL:

(12) WELL TESTS:
Pumping Test made? Yes ☒ No ☐ If so, by whom: Peterson Bros., SLC
Yield: 280 gpm with 250 ft. drawdown after 24 hours
9-22-48

(13) WELL LOG:
Diameter of well: 8
Depth drilled: 446 ft. Depth of completed well: 446 ft.

NOTE: Place an "X" in the column of appropriate material to indicate the material of formations encountered in each depth interval. Describe Remarks column to include color, hardness, water, and other pertinent information, such as caving, etc., and other comments you consider to be important.

Depth From	Depth To	Soil	Sand	Gravel	Boulders	Clay	Shale	Limestone	Sandstone	Quartzite	Other	Remarks
0	5			x	x							sand and gravel
5	9			x								solid sand
9	35	x			x							gravel and clay
35	66	x			x							grave, and clay
66	70				x							loose gravel,some water
70	265	x			x							gravel and clay
265	275	x			x					x		quartzite clay,lime
275	300	x										clay
300	310	x			x							clay and gravel
310	315				x							loose gravel w/ water
315	360	x									x	quartzite lime, clay
360	395										x	red shale
395	415										x	red shale, some water
415	460				x						x	red shale,quartzite,gravel
460	465										x	hard lime,quartzite,shale
465	425				x						x	red shale,quartzite,shale
425	432				x						x	red shale,sulfur odor
432	445				x						x	red shale,quartzite,gravel
445	446										x	very hard bedrock

Work started: July 26, 1948 Completed: Sept. 19, 1948

(14) PUMP:

Well Driller's Statement:
This well was drilled under my supervision, and this report is true to the best of my knowledge and belief.
Name: Larry H. Dalton
Address:
(Signed)
License No. Date 19

PACIFIC BRIDGE WELL
WELL DRILLERS REPORT

FIGURE 13

Conversations Exchanged
Journal Entry
Thoughts & Ideas
Agenda Telephone Meetings
Considerations

JANUARY 1985
DAILY RECORD OF EVENTS

14
MONDAY

TAD pre inspection w. Jim Little John/Don Rosch
Monty, Joel, Kent, Scott, Eric Hinzle (of Comp. Dressel McKay)

Pre-Inspection 9:15

Jim - is to clarify RCRA/CERCLA issues
A-106 program

Kent - get tough once we decide what we want
need to decide if redwater is RCRA

Let them develop a total Strategy
* Take a part A
file a pre-insp. checklist

* have Monty pull most current part A
compare with ours

* tell Larry we may want to take photos.

11:00 @TAD - conference w Monty Barth
& Larry Fisher

Larry Fisher - "4000 persons in maintenance shops"

Joel Hebdon
Utah State Dept Health

"Preferred gives 15 Days" - Monson/Gold