81-019

Rev. 7/80

Field No. _____

☐ TC ☐ TM ☐ Nut ☐ Pest. ☐ Rad. ☐ Elect. ☐ Spec.
☐ PC ☐ PM ☐ BOD

Date Recd.: JAN 14 1981

Received By: RDG

# UTAH STATE DEPARTMENT OF HEALTH
## ENVIRONMENTAL HEALTH
## WATER ANALYSES

Sample No. 816061 (701)

Storet No. (702)

Water Syst. No. (703) Source No. (704)

Date Collected: 8 1 0 1 0 7 (705) yr. mo. dy.

Time Collected: 0 9 3 6 (706) 24-hour clock

Water Rights No. (707)

Exact Description of sampling Point: OLIETO URANIUM MINE WATER DISCHARGE (CHUM MINE) (646)

Supply Owned by: JOEY JERRY STOCKS (712) Sample Type: 04 (710)

Sample Collected by: DWAYNE HEDERS (DOEM) (713)

SEND REPORT TO: Phone 533 5771

UTAH DIVISION OIL GAS & MINING (715)
1594 W. NORTH TEMPLE (648)
SALT LAKE, UTAH 84116 (717) zip code

Sample Source (719): 07
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): 19
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): 4
1. Culinary
2. Agriculture
3. Industrial
4. Other

### 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 | | | |

### 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 |
| | 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 |

### 5 TOTAL METALS ANALYSIS

| CATIONS | mg/l | ug/l (ppb) | |
|---|---|---|---|
| Aluminum | | | 800 |
| Arsenic | | | 660 |
| Barium | | | 661 |
| Beryllium | | | 801 |
| Cadmium | | | 662 |
| Chromium | | | 663 |
| Cobalt | | | 804 |
| Copper | | | 664 |
| Gold | | | 700 |
| Iron | | | 755 |
| Lead | | | 665 |
| Manganese | | | 666 |
| Mercury | | | 739 |
| Molybdenum | | | 802 |
| Nickel | | | 667 |
| Selenium | | | 668 |
| Silver | | | 669 |
| Uranium | | | 601 |
| Vanadium | | | 803 |
| Zinc | | | 670 |

### 6

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

### 7 RADIOLOGICS

L dis 11/12

| | pCi/l | | pCi/l | |
|---|---|---|---|---|
| ✓ Alpha, gross | 1669 | 621 | $^{89}Sr$ | 633 |
| ✓ Beta, gross | 9160 | 623 | $^{131}I$ | 635 |
| ✓ Tritium, $^3H$ | | 625 | $^{134}Cs$ | 637 |
| ✓ $^{226}$Radium | 445 | 627 | $^{137}Cs$ | 639 |
| $^{228}$Radium | | 629 | | |
| $^{90}Sr$ | | 631 | Uran | 14 mg/l |

INTERPRETATION OF ANALYSES:

Remarks: State Health Standards: (Maximums)
Alpha – 15 pCi/l
Beta – 50 pCi/l (?)
Radium – 5 pCi/l
Uranium – 4 mg/l

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. | | | |

Analyses Approved By: [signature] Date: 6 FEB 81

By: _____ ENVIRONMENTAL HEALTH

TDS > 100 mg/l

Please File: Oljeto (Sym Company) Mine A/037/029
81-019

Rev. 7/80

Field No. _____

☐ TC ☐ TM ☐ Nut
☐ PC ☐ PM ☐ BOD

☐ Pest. ☒ Rad. ☐ Elect. ☐ Spec.

Date Recd.: FEB 14 1981

Received By: RDG

# UTAH STATE DEPARTMENT OF HEALTH
## ENVIRONMENTAL HEALTH
## WATER ANALYSES

Sample No. 816061 (701)

Storet No. _____ (702)

Water Syst. No. (703) Source No. (704)

Date Collected: 8 1 0 1 0 7 (714) (yr. mo. dy.)

Time Collected: 0 9 3 6 (610) 24-hour clock

Water Rights No. _____ (707)

Exact Description of sampling Point: OLJETO URANIUM MINE WATER DISCHARGE (CHUM MINE) (646)

Supply Owned by: JOE & JERRY STOCKS (712)

Sample Type: 0 4 (710)

Sample Collected by: DeWAYNE HEEFERS (DOEM) (713)

SEND REPORT TO: Phone 5 3 3 5 7 7 1

UTAH DIVISION OIL GAS & MINING (715)
1588 W. NORTH TEMPLE (648)
SALT LAKE, UTAH 8 4 1 1 6 (717) zip code

Sample Source (719): 07
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County (611): 19
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): 4

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

### 1 FIELD TESTS

| | | | |
|---|---|---|---|
| Temperature (°C) | 792 | $CO_2$, mg/l | 572 |
| D.O., mg/l | 793 | Depth, m | 609 |
| Sp. Cond. µ mhos | 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 |
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| 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 |
| | 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) | |
|---|---|---|---|
| Aluminum | | | 800 |
| Arsenic | | | 660 |
| Barium | | | 661 |
| Beryllium | | | 801 |
| Cadmium | | | 662 |
| Chromium | | | 663 |
| Cobalt | | | 804 |
| Copper | | | 664 |
| Gold | | | 700 |
| Iron | | | 755 |
| Lead | | | 665 |
| Manganese | | | 666 |
| Mercury | | | 739 |
| Molybdenum | | | 802 |
| Nickel | | | 667 |
| Selenium | | | 668 |
| Silver | | | 669 |
| Uranium | | | 601 |
| Vanadium | | | 803 |
| Zinc | | | 670 |

### 6

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

### 7 RADIOLOGICS

| | pc/l-g | | | pc/l-g | |
|---|---|---|---|---|---|
| ✓ Alpha, gross | 1169 | 621 | $^{89}Sr$ | 7 | 633 |
| ✓ Beta, gross | 9160 | 623 | $^{131}I$ | | 635 |
| ✓ Tritium, $^3H$ | | 625 | $^{134}Cs$ | | 637 |
| ✓ $^{226}$Radium | 445 | 627 | $^{137}Cs$ | | 639 |
| $^{228}$Radium | | 629 | | | |
| $^{90}Sr$ | | 631 | 11 | 14 mg/l | |

**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. | | | |

Analyses Approved By: J. Mecham Date: 6 FEB 81 By: _____ ENVIRONMENTAL HEALTH

TSS ~100 mg/l