



February 27, 2006

LICENSE SUA-1341  
DOCKET NO. 40-8502

U. S. Nuclear Regulatory Commission  
Mr. Gary Janosko  
Chief Fuel Cycle Facilities Branch,  
Mail Stop T-8A33  
Two White Flint North  
11545 Rockville Pike  
Rockville, MD 20852

**RE: Submittal of the 2005 Annual Effluent and Monitoring Report**

Dear Mr. Janosko:

Pursuant to License Sections 12.1 And 12.6, a copy is enclosed of COGEMA Mining Inc.'s *2005 Annual Effluent and Monitoring Report*. Note that the report also serves as the *Semi-Annual Monitoring Report* to the Wyoming Department of Environmental Quality for the second half of 2005.

Please contact me if you have any questions regarding this report.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry Arbogast".

Larry Arbogast  
Radiation Safety Officer

cc: Stephen Cohen - NRC, Headquarters  
Jack Whitten - NRC, Region IV  
Don McKenzie - WDEQ, Sheridan WY.  
Donna Wichers - COGEMA

J:\JMV\WP\2004REPT\DEQ\04\_EFFLUUCOV\_LTR\NRC\_COV.WPD



February 27, 2006

**PERMIT TO MINE NO. 478**

Mr. Don McKenzie, District III Supervisor  
Department of Environmental Quality  
Land Quality Division  
1866 S. Sheridan Ave.  
Sheridan, Wyoming 82801

**Subject: Submittal of the Semi-Annual Monitoring Report (Second Half of 2005)**

Dear Mr. McKenzie:

Pursuant to Section 5.10.1.1 of the 1996 License Renewal Application, two copies are enclosed of COGEMA Mining Inc.'s *Semi-Annual Monitoring Report*, for the second half of 2005. This report also serves as the *2005 Annual Effluent and Monitoring Report* to the United States Nuclear Regulatory Commission.

Please contact me if you have any questions regarding this report.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry Arbogast".

Larry Arbogast  
Radiation Safety Officer

cc: Gary Janosko - NRC Headquarters  
Stephen Cohen - NRC, Headquarters  
Branch Chief - NRC, Region IV  
Donna Wickers - COGEMA

J:\JMV\WPI\2004REPT\DEQ\04\_EFFLU\COV\_LTR\DEQ\_COV.WPD



**COGEMA Mining, Inc.**

**IRIGARAY and CHRISTENSEN RANCH PROJECTS**

**2005 ANNUAL EFFLUENT AND MONITORING REPORT  
January 1 through December 31, 2005  
NRC Source Material License No. SUA-1341  
Docket No. 40-8502**

**And**

**SEMI-ANNUAL MONITORING REPORT  
July 1 through December 31, 2005  
WDEQ Permit To Mine No. 478**

**February 2006**



**COGEMA Mining, Inc.**

**IRIGARAY and CHRISTENSEN RANCH PROJECTS**

**2004 ANNUAL EFFLUENT AND MONITORING REPORT**

**January 1 through December 31, 2005**

**NRC Source Material License No. SUA-1341**

**Docket No. 40-8502**

**And**

**SEMI-ANNUAL MONITORING REPORT**

**July 1 through December 31, 2005**

**WDEQ Permit To Mine No. 478**

**February 2006**

# **Cogema Mining Inc. Irigaray and Christensen Ranch Projects**

## **2005 ANNUAL EFFLUENT AND MONITORING REPORT (NRC) and SEMI-ANNUAL MONITORING REPORT (WDEQ)**

### **1.0 INTRODUCTION**

In accordance with Sections 12.1 and 12.6 of the Nuclear Regulatory Commission (NRC) Source License No. SUA-1341, COGEMA Mining Inc. (COGEMA) hereby submits the 2005 Annual Effluent and Monitoring Report. This document summarizes the required operational and environmental monitoring conducted at the Irigaray (IR) and Christensen Ranch (CR) projects from January 1 through December 31, 2005.

The analytical data from the monitor wells for the period of July 1 through December 31, 2005 included in this document is also a requirement by the Wyoming Department of Environmental Quality (WDEQ), Permit to Mine No. 478. However, for the sake of continuity, the entire year's data is provided.

### **2.0 OPERATIONAL SUMMARIES**

#### **2.1 Irigaray (IR) Project**

##### **2.1.1 Groundwater Restoration**

A report was submitted to the WDEQ on July 26, 2004 to request restoration approval of all nine Production Units (PU) at the IR project. By letter dated November 1, 2005, the Land Quality Division of WDEQ approved the restoration of Production Units 1 through 9. In summary, the state agreed that the groundwater had been returned to its pre-mining class of use, and that the groundwater conditions do not significantly differ from the background water quality. Permission was given to begin plugging and abandoning wells. COGEMA is waiting for NRC concurrence on the restoration and well abandonment.

##### **2.1.2 Operational Activities**

Decommissioning activities at Irigaray during 2005 included the following:

- Wellfield surface facilities: surface wellfield piping and electrical lines have been removed in Production Units 1 - 5. Removal of buried piping in Units 6 through 9 is in progress.
- One hundred thirty two (132) regional and extraneous monitor wells were plugged and abandoned by the approved WDEQ method.
- All internal equipment was removed from the wellfield restoration building (see map Appendix 5).
- Equipment within the older portion (un-used) of the Irigaray plant was removed, decontaminated or sent to Shirley Basin for disposal.
- Equipment storage areas were cleaned, with much of the materials disposed of at the Shirley Basin tailings facility.

Other activities included:

- The Iigaray yellowcake dryer was in operation from January 5, 2005 through February 27, 2005, to dry remaining uranium from the Christensen groundwater restoration operations. The dryer was then shut down to clean out all tanks and associated piping within the Iigaray plant. The dryer was restarted on March 28, 2005 and operated until April 2, 2005, to dry all yellowcake derived from cleaning out the tanks and pipes. A total of 138,467 pounds were dried.
- The wellfields and plant area were sprayed for weed control during July and August 2005, using a formulated mixture of Amine, Tordon and Marker Dye (recommended by Johnson/Campbell County Weed & Pest Control). Approximately 15 gallons of product was applied to 15 acres of surface. The primary plants targeted by this effort included Canadian Thistle, Scotch Thistle, Cocklebur, Milk Vetch and Tamarack bush.

When no work is ongoing at the IR site, the facilities are secured with door locks and locking gates at all outer perimeter access points. The Christensen staff conducts security checks daily. A General Location Map showing the layout of the IR project site is provided in Appendix 5 of this report.

## 2.2 Christensen Ranch Project

Mining activities ceased at CR in June 2000. Only groundwater restoration, project decommissioning and related activities have since been conducted.

### 2.2.1 Groundwater Restoration

Groundwater restoration continued at Christensen in the last wellfield to be restored, Mine Unit 6, through the end of May 2005. At this time all restoration activity was ceased and the stabilization monitoring period commenced. Stabilization monitoring also continued in three other mine units during 2005. A summary of these wellfields is provided below.

- Mine Unit 2  
Restoration in MU2 was completed in March 2004. The restoration stabilization phase began in April 2004, with the final round of stabilization phase sampling completed in January 2005.
- Mine Unit 3  
Restoration was completed in all modules of MU 3 on September 30, 2004 and the unit entered the stabilization monitoring phase on October 1, 2004. The final round of stabilization phase sampling was completed in July 2005.
- Mine Unit 4  
Restoration was completed in MU4 in March 2003. The unit entered its restoration stabilization phase in early April 2004. The final round of stabilization sampling was completed in January 2005.
- Mine Unit 6  
Reverse osmosis treatment was completed In April 2005. H<sub>2</sub>S injection commenced shortly thereafter for treatment of selenium hot spots, and continued through May 30, 2005 at which time all operations were ceased. The stabilization phase sampling was started in June 2005 and will finish in March 2006.

A total of 3,103.9 pounds of uranium as U<sub>3</sub>O<sub>8</sub> were captured from the groundwater restoration operations at the CR project during 2005. This is well below the annual limit of 50,000 pounds as

per Section 10.5 of the NRC license.

### 2.2.2 Operational Activities

- As with IR, weed control at CR was completed during July and August 2005. Approximately 30 acres of wellfield and plant surface were sprayed with the mixture recommended by the Johnson/Campbell County Weed & Pest Control Office. A total of 17 gallons of product was utilized in this activity.
- Sampling of monitor wells in Mine Units 2 through 6 continued, as discussed in Section 3 of this report.

A General Location Map showing the layout of the CR project site is provided in Appendix 5 of this report.

## 3.0 OPERATIONAL MONITORING

### 3.1 Groundwater Volumes Injected and Recovered

Groundwater restoration volumes injected and recovered from the wellfields at CR are given in Table 1 of Appendix 1. The average restoration flow rates are also provided in this table. The gallons were recorded by totalizing flow meters on the recovery and injection trunk lines.

### 3.2 Injection Manifold Pressures

Injection manifold pressures at the CR project are limited to 140 psi during wellfield operations and 168 psi during maintenance tasks, as per License Section 11.1. Section 11.1 requires that the injection manifold pressures be recorded daily. COGEMA uses continuous chart recorders on the injection manifolds, which record pressure 24 hours per day. The results are tabulated in graphical format and retained as permanent record at the CR offices. During 2005 no incidents of pressure exceedance occurred at any of the CR wellfields.

### 3.3 Waste Water Control

#### 3.3.1 Evaporation Ponds

Weekly inspections are conducted on all active evaporation ponds at the IR site, and the four evaporation ponds and one permeate pond at CR. During 2005, no freeboard limits were exceeded.

On March 16, 2005 a pond leak was detected in CR Pond 4 during the routine weekly inspections. A report was filed on March 17, 2005 to WDEQ and NRC on this matter. In summary, the northwest leak detection tube was found to have seven (7) vertical inches of water. The pond water level was lowered and subsequently small punctures were discovered along the west bank of Pond 4. The small holes were repaired. However, water was still present in the leak detection system, and water evacuation continued. After a majority of the water was evacuated from the pond, the sediment build up on the liner was washed off, and a separation of the liner was found and repaired. No leakage has been detected in Pond 4 since the repair was made. The final corrective action for the pond was detailed in a report to the WDEQ and NRC dated July 8, 2005.

Sampling of all operative ponds is conducted on a quarterly basis and the sample analysis data are provided in Table 2 of Appendix 1.

#### 3.3.2 Disposal Wells

Two Class I injection wells are located at CR and are licensed under the WDEQ Underground

Injection Control Permit Number UIC 00-340. During 2005 a total of 6,517,633 gallons of restoration brine was injected into disposal well Cogema DW No. 1, and 10,543,219 gallons were injected into disposal well Christensen No. 18-3. Quarterly reports were submitted to the WDEQ containing required water quality, quantity and well pressure data. No limits were exceeded at either well during 2005.

As required by UIC Permit 00-340 section I, paragraph 4, "*COGEMA shall shut one of the wells covered by this permit in annually for a period of time long enough to observe a valid pressure falloff curve. Each year, a well which was not tested in the previous year shall be tested, until all wells are tested in sequence.*" To comply with this regulation, COGEMA Christensen DW No. 1 was tested on August 30th and 31st, 2005. Petrotek Engineering of Littleton, Colorado performed the required MIT and analysis of the falloff data. The results indicate that Christensen DW No. 1 "continues to be suitable for use as a Class I injector".

### **3.4 Well Integrity Testing**

Well integrity testing (MIT) results are reported to the WDEQ by phone quarterly and in a written report semi-annually. No (MIT) testing was done during 2005.

### **3.5 Chemical Inventory**

A small amount of hydrochloric acid is held at both the IR and CR sites during 2005. The acid is used for decontamination purposes. Other on site chemicals include liquid propane gas for heating, diesel fuel and gasoline fuel. Hydrogen sulfide gas was used during the month of May, but all gas was consumed and the storage trailer has been returned to the owner.

## **4.0 ENVIRONMENTAL MONITORING**

The environmental monitoring locations are given on the Environmental Monitoring Station Locations Map in Appendix 5. The layouts of each site, including the locations of monitor/trend wells, ponds, surface discharge points and disposal wells are given in the General Location Map, also located in Appendix 5.

### **4.1 Groundwater Monitoring**

Groundwater quality at both projects is monitored by sampling 327 monitor and/or trend wells surrounding and/or within the wellfields. Sampling frequency varies for these wells. Monitor wells on excursion status are sampled weekly. Monitor wells not on excursion and trend wells are sampled monthly until restoration is complete. These wells are then sampled quarterly during the post-restoration and stabilization phase and thereafter if required. Sample analysis results along with water level elevations for 2005 are provided in Appendix 2. Seven monitor wells surrounding the 5I7 and USMT sites at IR are sampled annually and reported in the WDEQ Annual Report - August of each calendar year.

#### **4.1.1 Wells on Excursion Status**

One well continued on excursion status during 2005. The well is Christensen well 5MW66, located adjacent to Mine Unit 5. On July 21, 2004 this well exceeded all three of its upper control limits (UCL) during its routine quarterly sampling (MU 5 has been restored and stabilization monitoring completed). To avoid reactivation of wells within this unit, COGEMA requested, and was granted, special sampling and evaluation parameters until the excursion could be fully evaluated. Essentially, COGEMA's plan for the well is to continue monitoring 5MW66 on a quarterly basis until the MU 5 restoration package is submitted to and approved by the WDEQ. Updates of the well will

be submitted to the WDEQ and NRC quarterly. The final status of 5MW66 would then be addressed in the agency approval of the restoration for MU 5.

The following Table provides the sampling data during the 2005 monitoring period:

5MW-66 Christensen Ranch

Date	Chloride mg/l UCL 22.7	Conductivity umhos/cm UCL 1004	Alkalinity mg/l UCL 134.3	pH	$\text{U}_3\text{O}_8$	Water Level Elevation
1/11/05	31.1	1175	227	8.0	< 0.4	4577.4
4/18/05	33.5	1209	243.5	7.7	< 0.4	4583.1
7/20/05	35.4	1162	244.5	7.9	< 0.4	4588.6
10/4/05	29.8	1098	150.7	7.7	< 0.4	4595.8

**4.1.2 Regional Ranch Wells**

Annual groundwater samples were collected from one ranch well near the CR project and one ranch well near IR. The samples were analyzed for Uranium along with Thorium-230, Radium-226, Lead-210 and Polonium-210. The resulting data are given in Table 3 of Appendix 1. All radionuclides were at very low or non-detectable (ND) concentrations, as is typical. No negative trends in the data were noted.

**4.2 Surface Water Monitoring**

Willow Creek is the only source of surface water present within and adjacent to the permit boundaries of both IR and CR projects. Willow Creek is an intermittent stream and is sampled annually in the spring, when flow is typically available. Three sample locations are designated at both project sites; upstream, downstream and within the permit boundary. The Powder River is also sampled annually at the Brubaker Ranch, which is approximately 4.5 miles downstream from its confluence with Willow Creek. Analysis data for both chemical and radionuclide parameters are provided in Table 4 of Appendix 1. All radionuclides were low or ND, and no exceedances of NRC 10 CFR 20, Appendix B effluent limits occurred. No negative trends in this data were noted.

**4.3 Surface Discharge Monitoring**

A surface discharge outfall was available during the report period at the Christensen Ranch for disposal of treated groundwater generated by restoration activities. The outfalls are licensed by the U.S. Environmental Protection Agency (EPA) under National Pollutant Discharge Elimination System (NPDES) permits issued by the WDEQ. However, no water was discharged at the CR site (Permit No. WY0033642, discharge 002) during this report period. Therefore, no data set is included for the current report period. NPDES Permit WY0028801 (discharge 001) for the Irigaray site was allowed to expire on October 31, 2004 as COGEMA had no necessity for continuation of this permit.

**4.4 Spill and Leak Reports**

There were no reportable spills during 2005.

**4.5 Air Monitoring**

#### 4.5.1 Radon

Environmental monitoring of radon was eliminated beginning in 2002, as per the NRC approved Decommissioning Plan.

The radon release estimate for 2005 is calculated below for restoration operations. This estimate is based upon the release rates given in the Calculation of Annual Radon Emissions tables of the 1996 License Renewal Application. Table 7.3(A)-3, Christensen Ranch, lists a restoration release rate of 258 Curies/year at a flow of 500 gpm (0.516 Curies per gpm, per year, or 0.043 Curies per gpm per month). Therefore, at 598 gpm average recovery rate for the five months of restoration operations during 2005, the radon release estimate is:  $598 \times 0.043 \times 5 = 128.6$  Total Curies of Radon.

#### 4.5.2 Dryer Stack Emissions

The yellowcake dryer operated from January 05, 2005 until February 27, 2005 and from March 28, 2005 to April 2, 2005, with a total of 138,468.65 pounds of uranium (as U308) dried. Western Environmental, Inc. conducted a stack emissions test on January 12, 2005. A copy of the report is included in Appendix 3. The total particulates were reported at 0.054 pounds per hour, which is 18% of the permit limit if 0.30. All radionuclide concentrations were within their normal historic ranges, as shown in Table 5 of Appendix 1.

#### 4.5.3 Airborne Radionuclides

During dryer operations, continuous airborne radionuclide sampling is required at the five specified environmental air sampling locations at the IR project. Sampling was conducted from January 5, 2005 to April 6, 2005. Air filters were changed weekly, then composited for analysis of U, Th-230, Ra-226 and Pb-210. The sample analysis data are given in Table 6 of Appendix 1. All radionuclides were < 0.1 % of the 10 CFR 20, Appendix B, effluent limits.

#### 4.6 Gamma Radiation Monitoring

Environmental monitoring of gamma radiation was eliminated beginning in 2002, as per the NRC approved Decommissioning Plan.

### **5.0 OTHER INFORMATION REQUIRED BY SECTION 12.6 - NRC LICENSE**

#### 5.1 ALARA Audit

The 2005 As Low As Reasonably Achievable (ALARA) audit was completed on February 6, 2006 by Tom Hardgrove, the RSO for Pathfinder Mines Corporation. His audit and report are given in Appendix 4. No increasing dose trends or other concerns were noted.

#### 5.2 Land Use Survey

The primary use of surrounding lands at both IR and CR projects continues to be rural sheep and cattle ranching. The livestock graze these lands, but are fenced-out of areas such as the evaporation ponds, plant sites and wellfields.

The secondary use of surrounding lands continues to be petroleum production from wells dispersed throughout the region. The closest oil well at the CR project is located approximately one third of a mile west of the CR plant. The closest oil well at the IR site is located approximately one half mile east of the PU 9 wellfield. To our knowledge, no new oil wells have been drilled in close proximity to either project during 2005.

Over the past several years (2001 - 2005) some additional interest has developed in the immediate area of the CR project for the development of coal bed methane (CBM) gas. Several CBM wells were drilled within a half-mile of CR MU 5 & 6 during 2002. At present these wells are capped and awaiting additional evaluation and pipeline installation before development continues. No CBM wells were drilled in close proximity to either project during 2005.

The nearest residence to the IR site is 4 miles to the north (the Brubaker ranch) and the nearest residence to CR is the John Christensen ranch located 3 miles southeast of the CR plant site. Both are ranch housing with a population of 5 or less. No new residences have been added within 5 miles of either site since the regional demography was evaluated in Section 2.3.1 of the 1996 License Renewal Application.

### 5.3 2005 Site Inspections

#### 5.3.1

On April 18, 2005 Wyoming State Mine Inspections were conducted at both the IR and CR sites by Mr. Tom McDonald, Deputy Inspector of Mines. No violations of state mine regulations were cited and only one "*corrective action*" was requested during the April 18th inspection. This was a request that all compressed cylinders shall be closed when left unattended. This item was immediately abated.

### 5.4 SERP Summary

COGEMA's Safety and Environmental Review Panel (SERP) (NRC License Section 9.4 (C)) were not called upon for any reviews during 2005.

## **APPENDIX 1**

### **Tables 1 through 6**

TABLE 1

COGEMA Mining, Inc. -- Irigaray and Christensen Ranch Projects  
2005 Semi-Annual Report

Christensen Ranch Project  
Groundwater Restoration Volumes (Mine Unit 6)

Year 2005 Month	Gallons Injected in thousands	Gallons Recovered in thousands	Average Recovery Flow Rate (gpm)
January	21,565	26,150	748
February	21,335	23,431	581
March	20,972	24,650	611
April	19,665	24,252	602
May	11,569	19,052	449
June	0	0	0
July	0	0	0
August	0	0	0
September	0	0	0
October	0	0	0
November	0	0	0
December	0	0	0
	95,106 Total	117,535 Total	

:JMV\wp\2004rpt\04\_EFFLU\TABLES\gwvol.xls

TABLE 2 (Page 1 of 4)

## COGEMA Mining, Inc. -- Irigaray and Christensen Ranch Projects

## 2005 Annual Effluent Report

Sample Type: Waste Ponds (quarterly)

NOTE: IR PONDS A,C,D,E,&amp; RA

Sample Date: March 2005

ARE EMPTY &amp; IN DECOMISS.

NOTE: ND=NON DETECTABLE

Pond ID #	IR-A	IR-B	IR-C	IR-D
Sulfate (mg/l)		11,100		
Chloride (mg/l)		139,000		
NH4 as N (mg/l)		0.26		
NO3 & NO2 as N (mg/l)		0.6		
TDS (mg/l)		220,000		
Conductivity		167,000		
pH		8.5		
Zinc (mg/l)		ND		
Uranium (mg/l)		541		
Radium 226 (pCi/l)		517		

Pond ID #	IR-E	IR-RA	IR-RB	CR-P1 <sub>perm.</sub>
Sulfate (mg/l)			17,600	109.0
Chloride (mg/l)			29,400	15.0
NH4 as N (mg/l)			0.2	0.30
NO3 & NO2 as N (mg/l)			0.32	N/D
TDS (mg/l)			85,000	480
Conductivity			80,100	732
pH			9	8.5
Zinc (mg/l)			0.01	ND
Uranium (mg/l)			251	0.0154
Radium 226 (pCi/l)			54.8	2.01

Pond ID #	CR-1	CR-2	CR-3	CR-4
Sulfate (mg/l)	739	11,200	11,600	21,000
Chloride (mg/l)	540	56,900	44,700	156,000
NH4 as N (mg/l)	0.3	0.05	0.8	0.7
NO3 & NO2 as N (mg/l)	N/D	0.05	0.06	0.33
TDS (mg/l)	2,860	111,000	91,800	223,000
Conductivity	4,050	112,000	96,000	172,000
pH	8.9	8.4	8.6	8.1
Zinc (mg/l)	ND	ND	ND	ND
Uranium (mg/l)	7	159	44.7	240
Radium 226 (pCi/l)	51.4	291	67.6	259

TABLE 2 (Page 2 of 4)

## COGEMA Mining, Inc. -- Irigaray and Christensen Ranch Projects

## 2005 Annual Effluent Report

Sample Type: Waste Ponds (quarterly)

NOTE: IR PONDS A,C,D,E,&amp; RA

Sample Date: June, 2005

ARE EMPTY &amp; IN DECOMISS.

NOTE. ND = NON DETECTABLE

Pond ID #	IR-A	IR-B	IR-C	IR-D
Sulfate (mg/l)		23,500		
Chloride (mg/l)		140,000		
NH4 as N (mg/l)		3.03		
NO3 & NO2 as N (mg/l)		0.2		
TDS (mg/l)		272,000		
Conductivity		223,000		
pH		8.5		
Zinc (mg/l)		nd		
Uranium (mg/l)		539		
Radium 226 (pCi/l)		312		

Pond ID #	IR-E	IR-RA	IR-RB	CR-P1 <sub>perm.</sub>
Sulfate (mg/l)			24,700	79
Chloride (mg/l)			23,800	8.0
NH4 as N (mg/l)			0.76	0.13
NO3 & NO2 as N (mg/l)			ND	ND
TDS (mg/l)			78,000	338
Conductivity			88,600	354
pH			9.2	9.09
Zinc (mg/l)			0.04	ND
Uranium (mg/l)			186	0.0056
Radium 226 (pCi/l)			18.3	0.2

Pond ID #	CR-1	CR-2	CR-3	CR-4
Sulfate (mg/l)	678	6,150	13,100	16,100
Chloride (mg/l)	598	19,600	59,000	89,300
NH4 as N (mg/l)	0.21	0.3	0.63	2.47
NO3 & NO2 as N (mg/l)	ND	ND	ND	0.3
TDS (mg/l)	2,750	43,900	103,000	157,000
Conductivity	4,150	61,700	130,000	180,000
pH	9.9	8.6	8.6	8.3
Zinc (mg/l)	ND	ND	ND	ND
Uranium (mg/l)	4.37	51.7	86.4	169
Radium 226 (pCi/l)	193	154	83.6	84.8

TABLE 2 (Page 3 of 4)

## COGEMA Mining, Inc. -- Irigaray and Christensen Ranch Projects

## 2005 Annual Effluent Report

Sample Type: Waste Ponds (quarterly)

NOTE: IR PONDS A,C,D,E,&amp; RA

Sample Date: September, 2005

ARE EMPTY &amp; IN DECOMISS.

NOTE: ND= NON DETECTABLE

Pond ID #	IR-A	IR-B	IR-C	IR-D
Sulfate (mg/l)		26,200		
Chloride (mg/l)		188,000		
NH4 as N (mg/l)		1.7		
NO3 & NO2 as N (mg/l)		1.37		
TDS (mg/l)		177,000		
Conductivity		>200000		
pH		8.1		
Zinc (mg/l)		ND		
Uranium (mg/l)		995		
Radium 226 (pCi/l)		594		

Pond ID #	IR-E	IR-RA	IR-RB	CR-P1 <sub>pern</sub>
Sulfate (mg/l)			27,500	72
Chloride (mg/l)			45,900	8
NH4 as N (mg/l)			1	0.2
NO3 & NO2 as N (mg/l)			0.22	0.07
TDS (mg/l)			118,000	290
Conductivity			120,000	486
pH			9	9.6
Zinc (mg/l)			ND	ND
Uranium (mg/l)			445	0.025
Radium 226 (pCi/l)			56.2	0.25

Pond ID #	CR-1	CR-2	CR-3	CR-4
Sulfate (mg/l)	1,100	6,160	21,200	33,400
Chloride (mg/l)	657	24,700	88,300	200,000
NH4 as N (mg/l)	0.2	1.7	0.5	2.1
NO3 & NO2 as N (mg/l)	ND	0.15	0.22	0.62
TDS (mg/l)	4,160	90,500	173,000	337,000
Conductivity	5,270	113,000	167,000	>200000
pH	10.1	8.6	8.6	8.1
Zinc (mg/l)	ND	ND	ND	ND
Uranium (mg/l)	6.06	59	64.3	353
Radium 226 (pCi/l)	265	104.4	65.2	124.1

TABLE 2 (Page 4 of 4)

## COGEMA Mining, Inc. -- Irigaray and Christensen Ranch Projects

## 2005 Annual Effluent Report

Sample Type: Waste Ponds (quarterly)

NOTE: IR PONDS A,C,D,E,&amp; RA

Sample Date: November, 2005

ARE EMPTY &amp; IN DECOMISS.

NOTE: ND=NON DETECTABLE

Pond ID #	IR-A	IR-B	IR-C	IR-D
Sulfate (mg/l)		17,800		
Chloride (mg/l)		181,000		
NH4 as N (mg/l)		5.8		
NO3 & NO2 as N (mg/l)		0.3		
TDS (mg/l)		272,000		
Conductivity		242,000		
pH		8.5		
Zinc (mg/l)		0.18		
Uranium (mg/l)		510		
Radium 226 (pCi/l)		429		

Pond ID #	IR-E	IR-RA	IR-RB	CR-P1 perm.
Sulfate (mg/l)			30,400	85
Chloride (mg/l)			35,100	9
NH4 as N (mg/l)			1.23	0.32
NO3 & NO2 as N (mg/l)			N/D	N/D
TDS (mg/l)			100,000	525
Conductivity			117,000	511
pH			9.3	8.96
Zinc (mg/l)			0.17	N/D
Uranium (mg/l)			495	0.0084
Radium 226 (pCi/l)			50.4	N/D

Pond ID #	CR-1	CR-2	CR-3	CR-4
Sulfate (mg/l)	996	15,000	15,600	14,500
Chloride (mg/l)	643	45,200	86,200	137,000
NH4 as N (mg/l)	1.05	2.52	1.38	3.09
NO3 & NO2 as N (mg/l)	N/D	N/D	N/D	0.2
TDS (mg/l)	3,770	94,300	154,000	228,000
Conductivity	5,700	127,000	184,000	235,000
pH	9.5	8.9	8.9	8.5
Zinc (mg/l)	N/D	0.06	0.07	0.13
Uranium (mg/l)	6.94	119	103	175
Radium 226 (pCi/l)	161	61.5	46	122

Table 3

## COGEMA Mining, Inc. - Irigaray and Christensen Ranch Projects

## 2005 Annual Effluent Report

Sample Type: Regional Groundwater (Ranch Wells) - Annual Samples

## Sample Location: Christensen Ranch House #3

Radionuclide	July 11, 2005 (uCi/ml)
Uranium	1.0 E-8
Thorium-230	ND
Radium-226	1.8 E-09
Lead-210	ND
Polonium-210	ND

## Sample Location: Christensen Middle Artesian

Radionuclide	July 11, 2005 (uCi/ml)
Uranium	
Thorium-230	Not Available
Radium-226	Pump Down
Lead-210	
Polonium-210	

## Sample Location: Christensen Ellendale #4

Radionuclide	July 11, 2005 (uCi/ml)
Uranium	
Thorium-230	Not Available
Radium-226	Pump Down
Lead-210	
Polonium-210	

## Sample Location: Christensen Del Gulch Lower #13

Radionuclide	July 11, 2005 (uCi/ml)
Uranium	
Thorium-230	Not Available
Radium-226	Pump Down
Lead-210	
Polonium-210	

## Sample Location: Christensen Willow Corral #32

Radionuclide	July 11, 2005 (uCi/ml)
Uranium	
Thorium-230	Not Available
Radium-226	Pump Down
Lead-210	
Polonium-210	

## Sample Location: Christensen First Artesian Well #1

Radionuclide	July 11, 2005 (uCi/ml)
Uranium	
Thorium-230	Not Available
Radium-226	Pump Down
Lead-210	
Polonium-210	

## Sample Location: Irigaray Willow # 2

Radionuclide	July 11, 2005 (uCi/ml)
Uranium	ND
Thorium-230	ND
Radium-226	ND
Lead-210	4.8E-09
Polonium-210	ND

LLD  
(uCi/ml)

2.0 E-9 Uranium  
 0.2 E-9 Thorium-230  
 0.2 E-9 Radium-226  
 2.7 E-9 Lead-210  
 2.7 E-9 Polonium-210

ND = NON DETECTABLE

TABLE 4 (Page 1 of 2)

COGEMA Mining, Inc. Irigaray and Christensen Ranch Projects

2005 Semi-Annual Report

Sample Type: Surface Water, Annual Samples, July 11, 2005

Sample Location: Irigaray Project

Note: ND = Non Detectable

<u>Radionuclide</u>	Willow Creek IR-9 Downstream ( <u>uCi/ml</u> )	Willow Creek IR-14 Upstream ( <u>uCi/ml</u> )	Willow Creek IR-17 Mine Site ( <u>uCi/ml</u> )	Powder River IR-5 Ranch Site ( <u>uCi/ml</u> )	LLD ( <u>uCi/ml</u> )	10 CFR 20 Appendix B Effluent Limit ( <u>uCi/ml</u> )
Uranium)	No Sample	No Sample	1.44 E-13	8.6 E-8	0.2 E-9	3.0 E-07
Thorium-230			ND	ND	0.2 E-9	1.0 E-07
Radium-226			ND	7.0 E-7	0.2 E-9	6.0 E-08
Lead-210			4.8	ND	2.7 E-9	1.0 E-08
Polonium-210			ND	ND	2.7 E-9	4.0 E-08

Chemical Parameters

Total Alkalinity mg/L	211	237	1.0	N/A
Chloride mg/L	40.0	532	1.0	N/A
TDS mg/L	3680	2910	10	N/A
Specific Conductivity umhos/cm	4120	4170	1.0	N/A
Sulfate mg/L	2050	1090	6	N/A
pH s.u.	7.94	8.26	0.01	N/A
Arsenic mg/L	0.005	0.001	0.001	N/A
Selenium mg/L	0.001	0.003	0.001	N/A

Estimated Flow Rate:

None      None      Low      Low

Low = &lt;5 cfs

Medium = 5 - 50 cfs

High = &gt; 50 cfs

TABLE 4 (Page 2 of 2)

COGEMA Mining, Inc. Irigaray and Christensen Ranch Projects

2005 Semi-Annual Report

Sample Type: Surface Water, Annual Samples, July 11, 2005

Sample Location: Christensen Ranch Project

Note: ND = Non Detectable

<u>Radionuclide</u>	Willow Creek GS-01 Downstream (uCi/ml)	Willow Creek CG-05 Upstream (uCi/ml)	Willow Creek GS-03 Mine Site (uCi/ml)	LLD (uCi/ml)	10 CFR 20 Appendix B Effluent Limit (uCi/ml)
Uranium	No Sample	4.0 E-12	No Sample	0.2 E-9	3.0 E-07
Thorium-230		ND		0.2 E-9	1.0 E-07
Radium-226		0.8		0.2 E-9	6.0 E-08
Lead-210		58		2.7 E-9	1.0 E-08
Polonium-210		ND		2.7 E-9	4.0 E-08
<u>Chemical Parameters</u>					
Total Alkalinity mg/L		253		1.0	N/A
Chloride mg/L		9.0		1.0	N/A
TDS mg/L		2450		10	N/A
Specific Conductivity umhos/cm		2880		1.0	N/A
Sulfate mg/L		1320		30	N/A
pH s.u.		7.75		0.01	N/A
Arsenic mg/L		0.01		0.002	N/A
Selenium mg/L		ND		0.005	N/A

Estimated Flow Rate:

Low = &lt;5 cfs

Medium = 5 - 50 cfs

High = &gt; 50 cfs

None                  Low                  None

TABLE

## Irigaray Dryer and Packaging Circuit

Survey month and year	Total Particulates lbs/hour (% limit)	U3O8 Emissions lbs / hour	Unat. Concentration uCi / ml	Th-230 Concentration uCi / ml	Ra-226 Concentration uCi / ml	Pb-210 Concentration uCi / ml
December 1994	0.074 (25%)	0.0047	3.06 E-10	6.7 E-13	7.75 E-13	2.33 E-12
March 1995	0.149 (50%)	0.0106	7.53 E-10	3.9 E-12	3.86 E-12	3.93 E-12
September 1995	0.167 (52%)	0.005	3.37 E-10	1.5 E-12	9.17 E-13	8.7 E-13
March 1996	0.056 (19%)	0.0041	2.92 E-10	1.13 E-12	1.51 E-13	1.13 E-12
September 1996	0.029 (10%)	0.0035	2.04 E-10	1.68 E-13	1.52 E-12	1.10 E-12
May 1997	0.057 (19%)	0.007	4.28 E-10	1.34 E-12	6.71 E-13	1.73 E-12
October 1997	0.065 (22%)	0.0123	6.80 E-10	1.88 E-12	1.86 E-12	4.23 E-13
May 1998	0.084 (28%)	0.0118	6.18 E-10	2.50 E-12	9.12 E-13	* NA
October 1998	0.035 (12%)	0.0063	3.08 E-10	1.21 E-12	1.54 E-12	2.94 E-11
June 1999	0.070 (23%)	0.0163	9.33 E-10	6.70 E-13	9.46 E-14	7.82 E-11
December 1999	0.014 (5%)	0.0107	6.67 E-10	9.01 E-14	1.53 E-13	2.73 E-12
May 2000	0.052 (17%)	0.0073	5.73 E-10	3.30 E-12	3.10 E-13	3.76 E-11
November 2001	0.071 (24%)	0.0082	6.36 E-10	< 1.42 E-12	< 6.51 E-13	< 4.35 E-13
JANUARY 2005	0.054 (18%)	0.0033	2.46 E-10	1.19 E-13	6.92 E-14	2.91 E-12
	Permit Limit 0.30					

## COMMENTS:

Note that the dryer was put back into operation in November 1994.

\* Pb-210 was not determined in May 98, because the sample was destroyed by the lab before the analysis was completed.

TABLE 6

COGEMA Mining, Inc Irigaray & Christensen Projects

## Annual Effluent Report, 2005

Sample Type: Environmental Airborne Radionuclides (weekly composite)

### Sample Location: Irigaray Project

First Quarter 2005 (January - March)	*Uranium uCi/ml	Th-230 uCi/ml	Ra-226 uCi/ml	Pb-210 uCi/ml
IR-1 (Downwind of Restricted Area) % of Pt, App. B, Effluent Limit	3.49 E-15 < 0.1 %	< 1.00 E-16	8.43 E-16	1.05 E-14
IR-3 (Upwind of Restricted Area) % of Pt, App. B, Effluent Limit	5.83 E-15 < 0.1 %	< 1.00 E-16	6.68 E-16	7.25 E-15
IR-5 (Brubaker Ranch - nearest residence) % of Pt, App. B, Effluent Limit	5.55 E-16 < 0.1 %	< 1.00 E-16	< 1.00 E-16	1.45 E-14
IR-6 (Background) % of Pt, App. B, Effluent Limit	1.61 E-15 < 0.1 %	< 1.00 E-16	< 1.00 E-16	8.04 E-15
IR-13 (Employee House Trailer) % of Pt. 20, App. B, Effluent Limit	2.17 E-15 < 0.1 %	< 1.00 E-16	< 1.00 E-16	8.90 E-15

Analyses performed by Energy Laboratories, Inc. (ELI), Casper, Wyoming

\* The activity for uranium is a mathematical calculation based on a chemical analysis, therefore, no precision estimate (error) is given.

Energy Lab LLC's

Uranium = 1.0 E-16

$$\text{Th-230} = 1.0 \times 10^{-16}$$

$$\text{Ra-226} = 1.0 \times 10^{-16}$$

$$\text{Pb-210} \equiv 2.0 \times 10^{-15}$$

## **10 CFR Pt. 20, App. B, Effluent Limits ( $\mu\text{Ci}/\text{ml}$ )**

Uranium = 1.95<sup>E-12</sup> (50%D & 50% W)

$$\text{Th-230} = \quad 3.0 \times 10^{-14} \quad (\text{Y})$$

$$\text{Ra-226} = 9.0 \times 10^{-13} \text{ (W/m²)}$$

$$\text{Pb-210} = 6.0 \times 10^{-13}$$

TABLE 6

COGEMA Mining, Inc Irigaray & Christensen Projects

## **Annual Effluent Report, 2005**

Sample Type: Environmental Airborne Radionuclides (weekly composite)

### Sample Location: Irigaray Project

Second Quarter 2005 (April - June)	*Uranium uCi/ml	Th-230 uCi/ml	Ra-226 uCi/ml	Pb-210 uCi/ml
IR-1 (Downwind of Restricted Area) % of Pt, App. B, Effluent Limit	2.54 E-15  < 0.1 %	4.86 E-16	4.86 E-16	2.40 E-15
IR-3 (Upwind of Restricted Area) % of Pt, App. B, Effluent Limit	5.96 E-15  < 0.1 %	4.86 E-16	4.86 E-16	2.39 E-15
IR-5 (Brubaker Ranch - nearest residence) % of Pt, App. B, Effluent Limit	4.86 E-16  < 0.1 %	4.86 E-16	4.86 E-16	2.39 E-14
IR-6 (Background) % of Pt, App. B, Effluent Limit	7.62 E-15  < 0.1 %	< 4.76 E-16	< 4.76 E-16	2.38 E-15
IR-13 (Employee House Trailer) % of Pt. 20, App. B, Effluent Limit	2.40 E-15  < 0.1 %	< 4.79 E-16	< 4.79 E-16	<2.40 E-15

Analyses performed by Energy Laboratories, Inc. (ELI), Casper, Wyoming

\* The activity for uranium is a mathematical calculation based on a chemical analysis, therefore, no precision estimate (error) is given.

## Energy Lab LLD's

Uranium = 1.0<sup>E-16</sup>

$$\text{Th-230} = 1.0 \times 10^{-16}$$

Ra-226 = 1.0 E-16

Rb-210 = 3.0 E-15

**10 CFR Pt. 20, App.B, Effluent Limits ( $\mu\text{Ci}/\text{m}^3$ )**

Uranium = 1.95<sup>E-12</sup> (50%D & 50%W)

$$\text{Tb-230} = 3.0 \times 10^{-14}$$

$$\text{Ra-226} = 9.0 \times 10^{-13}$$

$$Rb\ 210 = 6.0 \times 10^{-13}$$

## **APPENDIX 2**

### **Monitor & Trend Well Sampling Date**

**COGEMA Mining, Inc.**  
**Christensen Ranch Project**

**Monitor and Trend Wells Index**

**Monitor Wells**

**Deep Sand**

Well No.	Location	Page No.		Well No.	Location	Page No.
MW-12D	Mine Unit 5	145		5DM1A	Mine Unit 5	156
MW45D	Mine Unit 3	145		5DM2	Mine Unit 5	156
MW47D	Mine Unit 3	146		5DM3	Mine Unit 5	157
MW49D	Mine Unit 3	146		5DM4	Mine Unit 5	157
MW51D	Mine Unit 3	147		5DM5	Mine Unit 5	158
MW53D	Mine Unit 3	147		5DM7	Mine Unit 5	158
MW55D	Mine Unit 3	148		WCOW-37D	Mine Unit 5	159
MW57D	Mine Unit 3	148		6DM1	Mine Unit 6	159
MW65D	Mine Unit 3	149		6DM2	Mine Unit 6	160
MW67D	Mine Unit 2	149		6DM3-2	Mine Unit 6	160
MW69D	Mine Unit 2	150		6DM4-2	Mine Unit 6	161
MW71D	Mine Unit 2	150		6DM5	Mine Unit 6	161
MW91D	Mine Unit 2	151		6DM6	Mine Unit 6	162
MW93D	Mine Unit 2	151		6DM7	Mine Unit 6	162
MW95D	Mine Unit 2	152		6DM8	Mine Unit 6	163
MW97D	Mine Unit 2	152		6DM9	Mine Unit 6	163
MW99D	Mine Unit 2	153		6DM10	Mine Unit 6	164
MW113D	Mine Unit 2	153		6DM11	Mine Unit 6	164
4DM-1	Mint Unit 4	154		6DM12	Mine Unit 6	165
4DM-4	Mint Unit 4	154		6DM13	Mine Unit 6	165
4DM-8	Mint Unit 4	155		6DM14	Mine Unit 6	166
4DRM-07	Mint Unit 4	155				

**Trend Wells**

**Perimeter Ore Zone**

Well No.	Location	Page No.		Well No.	Location	Page No.
MW78T	Mine Unit 2	167		6TW2	Mine Unit 6	169
MW87T	Mine Unit 2	167		6TW3	Mine Unit 6	169
5TW-1	Mine Unit 5	168		6TW4	Mine Unit 6	170
6TW-1	Mine Unit 6	168		6TW5	Mine Unit 6	170

**Deep Sand**

Well No.	Location	Page No.		Well No.	Location	Page No.
5DM8T	Mine Unit 5	171		6DT1	Mine Unit 6	172
5DM9T	Mine Unit 5	171				

**COGEMA Mining, Inc.**  
**Irigaray Project**

**Monitor and Trend Well Index**

**Monitor Wells**

Perimeter Ore Zone					
Well No.	Location	Page No.	Well No.	Location	Page No.
M2	Mine Unit 2	1	M27	Mine Unit 7	6
M4	Mine Unit 2	1	M28	Mine Unit 8	7
M7	Mine Unit 1	2	M29	Mine Unit 8	7
M10	Mine Unit 4	2	M30	Mine Unit 9	8
M17	Mine Unit 1	3	M31	Mine Unit 9	8
M18	Mine Unit 1	3	M32	Mine Unit 9	9
M19	Mine Unit 3	4	M33	Mine Unit 9	9
M23	Mine Unit 5	4	T31	Mine Unit 1	10
M24	Mine Unit 6	5	RS27	Mine Unit 5	10
M25	Mine Unit 6	5	16-151	Mine Unit 9	11
M26	Mine Unit 7	6			
Shallow Sand					
SSM2	Mine Unit 1	12	SSM19	Mine Unit 8	17
SSM3	Mine Unit 2	12	SSM34	Mine Unit 9	18
SSM4	Mine Unit 2	13	SSM35	Mine Unit 9	18
SSM5	Mine Unit 3	13	SSM36	Mine Unit 9	19
SSM6	Mine Unit 4	14	SSM37	Mine Unit 7	19
SSM7	Mine Unit 5	14	SSM38	Mine Unit 7	20
SSM8	Mine Unit 5	15	SSM39	Mine Unit 7	20
SSM9	Mine Unit 6	15	SSM40	Mine Unit 8	21
SSM10	Mine Unit 6	16	SSM41	Mine Unit 4	21
SSM11	Mine Unit 6	16	SSM42	Mine Unit 3	22
SSM18	Mine Unit 8	17	SSM43	Mine Unit 1	22
Deep Sand					
DM1	Mine Unit 1	23	DM14	Mine Unit 8	27
DM2	Mine Unit 1	23	DM15	Mine Unit 9	28
DM3	Mine Unit 2	24	DM16	Mine Unit 9	28
DM4	Mine Unit 4	24	DM17	Mine Unit 5	29
DM5	Mine Unit 2	25	DM18	Mine Unit 4	29
DM9	Mine Unit 5	25	DM19	Mine Unit 3	30
DM10	Mine Unit 6	26	DM20	Mine Unit 3	30
DM11	Mine Unit 7	26	DM21	Mine Unit 7	31
DM13	Mine Unit 8	27	DM22	Mine Unit 6	31

**COGEMA Mining, Inc.  
Irigaray Project**

**Monitor and Trend Well Index**

**Monitor Wells**

5I7 and USMT Sites					
Well No.	Location	Page No.	Well No.	Location	Page No.
M-219	USMT Site	32	M-1	5I7 Site	33
M-220	USMT Site	32	NM-3	5I7 Site	34
M-221	USMT Site	33	M-4	5I7 Site	34
			SM-1	5I7 Site	35

IRIGARAY PROJECT Trend Wells					
Well No.	Location	Page No.	Well No.	Location	Page No.
RS19	Mine Unit 3	36	SM 1	Mine Unit 1	37
RS 34	Mine Unit 2	36	SM 2	Mine Unit 1	38
RS 39	Mine Unit 3	37	SM 7	Mine Unit 2	38

**COGEMA Mining, Inc.**  
**Christensen Ranch Project**

**Monitor and Trend Wells Index**

**Monitor Wells**

**Perimeter Ore Zone**

Well No.	Location	Page No.		Well No.	Location	Page No.
MW17-2	Mine Unit 3	39		MW87	Mine Unit 2	60
MW18	Mine Unit 3	39		MW88	Mine Unit 2	60
MW19	Mine Unit 3	40		MW89	Mine Unit 2	61
MW20	Mine Unit 3	40		MW90	Mine Unit 2	61
MW23	Mine Unit 3	41		MW101	Mine Unit 2	62
MW24	Mine Unit 3	41		MW102	Mine Unit 2	62
MW25	Mine Unit 3	42		MW103	Mine Unit 2	63
MW26	Mine Unit 3	42		MW104	Mine Unit 2	63
MW27	Mine Unit 3	43		MW105	Mine Unit 2	64
MW28	Mine Unit 3	43		MW106	Mine Unit 2	64
MW29	Mine Unit 3	44		MW107	Mine Unit 2	65
MW30	Mine Unit 3	44		MW108	Mine Unit 2	65
MW31	Mine Unit 3	45		MW109	Mine Unit 2	66
MW32	Mine Unit 3	45		MW110	Mine Unit 2	66
MW35	Mine Unit 3	46		MW111	Mine Unit 2	67
MW36	Mine Unit 3	46		MW114	Mine Unit 3	67
MW37	Mine Unit 3	47		MW115	Mine Unit 3	68
MW38	Mine Unit 3	47		MW116	Mine Unit 3	68
MW39	Mine Unit 3	48		4MW-1	Mine Unit 4	69
MW40	Mine Unit 3	48		4MW-2	Mine Unit 4	69
MW41	Mine Unit 3	49		4MW-3	Mine Unit 4	70
MW42	Mine Unit 3	49		4MW-4	Mine Unit 4	70
MW43	Mine Unit 3	50		4MW-5	Mine Unit 4	71
MW44	Mine Unit 3	50		4MW-6	Mine Unit 4	71
MW45	Mine Unit 3	51		4MW-7	Mine Unit 4	72
MW62	Mine Unit 3	51		4MW-8	Mine Unit 4	72
MW63	Mine Unit 3	52		4MW-9	Mine Unit 4	73
MW64	Mine Unit 3	52		4MW-10	Mine Unit 4	73
MW73	Mine Unit 2	53		4MW-11	Mine Unit 4	74
MW74	Mine Unit 2	53		4MW-12	Mine Unit 4	74
MW75	Mine Unit 2	54		4MW-13	Mine Unit 4	75
MW76	Mine Unit 2	54		4MW-14	Mine Unit 4	75
MW77	Mine Unit 2	55		4MW-15	Mine Unit 4	76
MW78	Mine Unit 2	55		4MW-16	Mine Unit 4	76
MW79	Mine Unit 2	56		4MW-17	Mine Unit 4	77
MW80	Mine Unit 2	56		4MW-18	Mine Unit 4	77
MW81	Mine Unit 2	57		4MW-19	Mine Unit 4	78
MW82	Mine Unit 2	57		4MW-20	Mine Unit 4	78
MW83	Mine Unit 2	58		4MW-21	Mine Unit 4	79
MW84	Mine Unit 2	58		4MW-22	Mine Unit 4	79
MW85	Mine Unit 2	59		4MW-23	Mine Unit 4	80
MW86	Mine Unit 2	59		4MW-24	Mine Unit 4	80

**COGEMA Mining, Inc.**  
**Christensen Ranch Project**

**Monitor and Trend Wells Index**

**Monitor Wells**

**Perimeter Ore Zone (cont.)**

Well No.	Location	Page No.	Well No.	Location	Page No.
4MW-25	Mine Unit 4	81	5MW57	Mine Unit 5	102
5MW1	Mine Unit 5	81	5MW58	Mine Unit 5	102
5MW2	Mine Unit 5	82	5MW59	Mine Unit 5	103
5MW3	Mine Unit 5	82	5MW60	Mine Unit 5	103
5MW4	Mine Unit 5	83	5MW61	Mine Unit 5	104
5MW5	Mine Unit 5	83	5MW62	Mine Unit 5	104
5MW6	Mine Unit 5	84	5MW63	Mine Unit 5	105
5MW7	Mine Unit 5	84	5MW64	Mine Unit 5	105
5MW8	Mine Unit 5	85	5MW65	Mine Unit 5	106
5MW10	Mine Unit 5	85	5MW66	Mine Unit 5	106
5MW12	Mine Unit 5	86	5MW67	Mine Unit 5	107
5MW14	Mine Unit 5	86	5MW69	Mine Unit 5	107
5MW16	Mine Unit 5	87	6MW17-2	Mine Unit 6	108
5MW18	Mine Unit 5	87	6MW19	Mine Unit 6	108
5MW20	Mine Unit 5	88	6MW21	Mine Unit 6	109
5MW30A	Mine Unit 5	88	6MW23	Mine Unit 6	109
5MW31	Mine Unit 5	89	6MW25	Mine Unit 6	110
5MW32A	Mine Unit 5	89	6MW27	Mine Unit 6	110
5MW33	Mine Unit 5	90	6MW29	Mine Unit 6	111
5MW34	Mine Unit 5	90	6MW31	Mine Unit 6	111
5MW35A	Mine Unit 5	91	6MW33	Mine Unit 6	112
5MW36	Mine Unit 5	91	6MW34	Mine Unit 6	112
5MW37	Mine Unit 5	92	6MW35	Mine Unit 6	113
5MW38	Mine Unit 5	92	6MW36	Mine Unit 6	113
5MW39A	Mine Unit 5	93	6MW37	Mine Unit 6	114
5MW40	Mine Unit 5	93	6MW38	Mine Unit 6	114
5MW41A	Mine Unit 5	94	6MW39	Mine Unit 6	115
5MW42	Mine Unit 5	94	6MW40	Mine Unit 6	115
5MW43	Mine Unit 5	95	6MW41	Mine Unit 6	116
5MW44	Mine Unit 5	95	6MW42	Mine Unit 6	116
5MW45	Mine Unit 5	96	6MW43	Mine Unit 6	117
5MW46	Mine Unit 5	96	6MW44	Mine Unit 6	117
5MW47B	Mine Unit 5	97	6MW45	Mine Unit 6	118
5MW48	Mine Unit 5	97	6MW46	Mine Unit 6	118
5MW49	Mine Unit 5	98	6MW47	Mine Unit 6	119
5MW50	Mine Unit 5	98	6MW48-3	Mine Unit 6	119
5MW51	Mine Unit 5	99	6MW49	Mine Unit 6	120
5MW52	Mine Unit 5	99	6MW50	Mine Unit 6	120
5MW53	Mine Unit 5	100	6MW51	Mine Unit 6	121
5MW54	Mine Unit 5	100	6MW52	Mine Unit 6	121
5MW55	Mine Unit 5	101	6MW53	Mine Unit 6	122
5MW56	Mine Unit 5	101	6MW54	Mine Unit 6	122

**COGEMA Mining, Inc.**  
**Christensen Ranch Project**

**Monitor and Trend Wells Index**

**Monitor Wells**

Shallow Sand						
Well No.	Location	Page No.		Well No.	Location	Page No.
MW-11S	Mine Unit 5	123		4SRM-07	Mine Unit 4	134
MW46S	Mine Unit 3	123		5SM1	Mine Unit 5	134
MW48S	Mine Unit 3	124		5SM2	Mine Unit 5	135
MW50S	Mine Unit 3	124		5SM3	Mine Unit 5	135
MW52S	Mine Unit 3	125		5SM5	Mine Unit 5	136
MW54S	Mine Unit 3	125		5SM6	Mine Unit 5	136
MW56S	Mine Unit 3	126		5SM7	Mine Unit 5	137
MW58S	Mine Unit 3	126		WCOW-04	Mine Unit 5	137
MW66S-2	Mine Unit 3	127		6SM1	Mine Unit6	138
MW68S	Mine Unit 2	127		6SM2	Mine Unit6	138
MW70S	Mine Unit 2	128		6SM3	Mine Unit6	139
MW72S	Mine Unit 2	128		6SM4	Mine Unit6	139
MW92S	Mine Unit 2	129		6SM5	Mine Unit6	140
MW94S	Mine Unit 2	129		6SM6	Mine Unit6	140
MW96S	Mine Unit 2	130		6SM7	Mine Unit6	141
MW98S	Mine Unit 2	130		6SM8	Mine Unit6	141
MW100S	Mine Unit 2	131		6SM9	Mine Unit6	142
MW112S	Mine Unit 2	131		6SM10	Mine Unit6	142
MW117S	Mine Unit 2	132		6SM11	Mine Unit6	143
4SM-1	Mine Unit 4	132		6SM12	Mine Unit6	143
4SM-4	Mine Unit 4	133		6SM13	Mine Unit6	144
4SM-8	Mine Unit 4	133		6SM14	Mine Unit6	144

# **IRIGARAY PROJECT**

## **Perimeter Ore Zone Monitor Wells**

Mine Unit 2  
Well I.D. M2

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	18	685	131.1			

Date

29 MAR 2005	15.4	788	*	85.1	8.6	4297.3
06 JUN 2005	14.7	776	*	89.4	8.6	4298.7
20 SEP 2005	14.2	777	*	92.0	8.2	4299.1
29 NOV 2005	15.0	770	*	86.4	8.7	4298.4

\* Values Exceed Upper Control Limit

M2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. M4

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	18.1	671	100.4			

Date

23 MAR 2005	10.6	994	*	76.8	8.4	4310.2
06 JUN 2005	10.1	993	*	77.9	8.6	4311.0
20 SEP 2005	10.0	989	*	81.6	8.2	4310.9
29 NOV 2005	10.9	993	*	78.1	8.5	4310.2

\* Values Exceed Upper Control Limit

M4

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 1  
Well I.D. M7

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	17.5	679	109.8			

Date

23 MAR 2005	12.2	1539	*	82.8	8.0	4309.8
06 JUN 2005	11.5	1492	*	83.8	8.0	4310.4
21 SEP 2005	10.9	1490	*	87.8	8.0	4310.5
29 NOV 2005	11.5	1492	*	79.8	8.1	4310.0

\* Values Exceed Upper Control Limit

M7

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. M10

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	17.5	701	132.3			

Date

29 MAR 2005	11.5	607	88.8	8.7	4302.4
06 JUN 2005	12.2	611	95.0	8.5	4302.4
20 SEP 2005	11.3	609	97.3	8.4	4303.4
29 NOV 2005	11.9	614	89.6	8.8	4303.0

\* Values Exceed Upper Control Limit

M10

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 1  
Well I.D. M17

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	17.1	724	112.9			

Date

23 MAR 2005	9.9	652	93.3	8.5	4323.1
06 JUN 2005	9.7	650	88.7	8.5	4323.7
21 SEP 2005	9.1	655	89.1	8.5	4305.2
29 NOV 2005	10.1	658	82.4	8.6	4321.5

\* Values Exceed Upper Control Limit

M17

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 1  
Well I.D. M18

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	17	719	111.7			

Date

23 MAR 2005	10.6	884	*	80.0	8.4	4310.3
06 JUN 2005	10.1	862	*	83.0	8.4	4311.0
21 SEP 2005	9.7	832	*	86.7	8.3	4310.2
30 NOV 2005	10.5	808	*	82.5	8.5	4311.0

\* Values Exceed Upper Control Limit

M18

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. M19

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	17	651	116.7			

Date

23 MAR 2005	11.2	643	87.2	8.7	4311.2
06 JUN 2005	10.4	630	88.6	8.4	4310.8
20 SEP 2005	10.1	635	88.3	8.4	4311.9
29 NOV 2005	10.8	641	84.6	8.7	4311.7

\* Values Exceed Upper Control Limit

M19

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. M23

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	17	614	106.6			

Date

23 MAR 2005	10.5	554	100.5	8.8	4314.9
06 JUN 2005	9.7	562	96.3	8.7	4313.8
20 SEP 2005	9.7	559	100.8	8.6	4315.5
29 NOV 2005	11.5	567	100.9	8.7	4314.7

\* Values Exceed Upper Control Limit

M23

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. M24

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	14.5	632	119.4			

Date

23 MAR 2005	8.8	496	105.2	8.8	4316.3
06 JUN 2005	8.9	496	112.2	8.6	4313.3
21 SEP 2005	8.2	498	112.4	8.7	4316.5
29 NOV 2005	9.0	503	107.4	8.8	4316.5

\* Values Exceed Upper Control Limit

M24

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. M25

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	15.5	692	111.9			

Date

29 MAR 2005	10.6	600	87.1	8.6	4307.7
06 JUN 2005	10.4	599	92.6	8.3	4307.6
20 SEP 2005	10.2	600	95.9	8.3	4308.8
29 NOV 2005	10.9	610	90.8	8.7	4307.7

\* Values Exceed Upper Control Limit

M25

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 7  
Well I.D. M26

**IRIGARAY RANCH**  
**PERIMETER ORE ZONE MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	14.6	596	113.9			

Date

23 MAR 2005	9.8	539	96.5	8.7	4314.7
06 JUN 2005	9.4	540	98.7	8.4	4314.8
21 SEP 2005	9.0	543	102.1	8.7	4314.4
29 NOV 2005	9.5	544	95.6	8.8	4316.4

\* Values Exceed Upper Control Limit

M26

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 7  
Well I.D. M27

**IRIGARAY RANCH**  
**PERIMETER ORE ZONE MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	15.2	625	105.8			

Date

29 MAR 2005	11.0	601	93.1	8.6	4310.5
07 JUN 2005	10.7	598	97.8	8.6	4309.5
20 SEP 2005	10.5	603	96.9	8.2	4311.3
30 NOV 2005	11.2	610	91.6	8.5	4312.0

\* Values Exceed Upper Control Limit

M27

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 8  
Well I.D. M28

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	15.5	715	110.9			

Date

29 MAR 2005	11.1	622	88.2	8.7	4319.6
06 JUN 2005	10.4	619	89.8	8.4	4319.2
21 SEP 2005	10.1	624	93.5	8.6	4320.0
29 NOV 2005	11.4	632	92.9	8.7	4319.8

\* Values Exceed Upper Control Limit

M28

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 8  
Well I.D. M29

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	16.1	702	109.8			

Date

29 MAR 2005	10.9	608	93.8	8.7	4317.5
06 JUN 2005	10.7	608	93.8	8.3	4317.3
20 SEP 2005	10.5	611	96.0	8.3	4317.1
29 NOV 2005	11.2	617	90.9	8.7	4315.4

\* Values Exceed Upper Control Limit

M29

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 9  
Well I.D. M30

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	15.2	704	105.5			

Date

16 MAR 2005	10.8	620	96.2	8.8	4322.9
06 JUN 2005	10.4	619	91.2	8.4	4322.5
21 SEP 2005	10.1	623	94.4	8.6	4323.9
29 NOV 2005	10.9	629	88.7	8.7	4320.7

\* Values Exceed Upper Control Limit

M30

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 9  
Well I.D. M31

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	15.6	690	107.2			

Date

23 MAR 2005	11.8	621	96.9	8.6	4319.1
06 JUN 2005	11.4	621	100.4	8.3	4318.5
20 SEP 2005	11.2	623	103.8	8.5	4320.1
30 NOV 2005	11.7	626	95.2	8.6	4319.5

\* Values Exceed Upper Control Limit

M31

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 9  
Well I.D. M32

**IRIGARAY RANCH**  
**PERIMETER ORE ZONE MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	16.1	707	107.4			

Date

16 MAR 2005	11.7	619	98.9	8.7	4325.4
07 JUN 2005	10.6	616	98.5	8.6	4325.6
21 SEP 2005	10.1	622	95.5	8.5	4325.4
29 NOV 2005	11.0	628	90.8	8.6	4326.1

\* Values Exceed Upper Control Limit

M32

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 9  
Well I.D. M33

**IRIGARAY RANCH**  
**PERIMETER ORE ZONE MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	15.9	686	112			

Date

23 MAR 2005	10.9	307	91.1	8.5	4319.1
07 JUN 2005	10.2	606	97.4	8.6	4319.0
20 SEP 2005	10.6	610	97.9	8.4	4319.0
29 NOV 2005	10.9	617	91.1	8.6	4320.5

\* Values Exceed Upper Control Limit

M33

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 1  
Well I.D. T31

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu\text{ mho/cm}$	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	21.8	779	106.1			

Date

29 MAR 2005	22.4	*	730	81.5	8.5	4296.0
07 JUN 2005	21.6		743	84.4	8.4	4296.0
21 SEP 2005	22.2	*	771	83.7	8.4	4296.7
29 NOV 2005	25.5	*	790	81.3	8.6	4296.0
30 NOV 2005	26.0	*	779	82.8	8.4	4296.0
30 NOV 2005	25.6	*	779	82.0	8.4	4296.0

\* Values Exceed Upper Control Limit

T31

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. RS27

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu\text{ mho/cm}$	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	16.9	646	101.2			

Date

29 MAR 2005	10.9	619	94.3	8.4	4307.1
06 JUN 2005	10.4	610	90.4	8.4	4308.0
20 SEP 2005	10.2	609	94.0	8.3	4308.4
29 NOV 2005	10.8	611	89.1	8.6	4307.7

\* Values Exceed Upper Control Limit

RS27

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 9  
Well I.D. 16-151

IRIGARAY RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	16	702	110.2			

Date

23 MAR 2005	10.8	590	94.2	8.6	4320.7
06 JUN 2005	11.0	592	93.0	8.6	4323.8
21 SEP 2005	10.5	612	96.5	8.6	4323.6
29 NOV 2005	11.3	587	90.2	8.7	4324.2

\* Values Exceed Upper Control Limit

16-151

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

## **IRIGARAY PROJECT**

### **Interior Shallow Sand Monitor Wells**

Mine Unit 1  
Well I.D. SSM2

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20.3	2075	128.4			

Date

29 MAR 2005	22.6	*	1917	79.3	7.7	4309.0
31 MAY 2005	23.3	*	1962	110.9	7.8	4309.9
13 SEP 2005	21.0	*	1913	125.5	8.0	4309.9
29 NOV 2005	23.4	*	1985	132.7	7.8	4311.7
30 NOV 2005	23.1	*	1954	117.3	7.7	4311.7
30 NOV 2005	23.0	*	1953	115.4	7.8	4311.7

\* Values Exceed Upper Control Limit

SSM2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. SSM3

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	38.5	1451	219.1			

Date

23 MAR 2005	69.6	*	1940	79	7.9	4311.7
31 MAY 2005	60.1	*	1858	128.3	7.8	4309.0
13 SEP 2005	62.7	*	1882	151.9	7.6	4311.8
29 NOV 2005	65.3	*	1953	152.8	7.8	4311.1

\* Values Exceed Upper Control Limit

SSM3

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. SSM4

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	23.5	883	275.5			

Date

23 MAR 2005	16.1	710	237.4	8.5	4302.8
31 MAY 2005	16.5	707	234.5	8.4	4302.0
13 SEP 2005	15.2	707	264.6	8.2	4303.0
30 NOV 2005	16.7	695	243.5	8.4	4302.1

\* Values Exceed Upper Control Limit

SSM4

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. SSM5

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	21.5	825	254.9			

Date

23 MAR 2005	14.9	698	203.1	8.1	4312.7
31 MAY 2005	15.0	676	203.3	8.2	4314.0
13 SEP 2005	14.1	683	220.4	8.4	4312.7
29 NOV 2005	15.0	708	217.0	8.0	4312.1

\* Values Exceed Upper Control Limit

SSM5

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. SSM6

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	16.3	2445	122.2			

Date

23 MAR 2005	11.6	2022	92.3	7.8	4312.1
31 MAY 2005	11.5	2015	92.7	7.6	4313.2
13 SEP 2005	10.8	1977	97.3	7.6	4312.0
29 NOV 2005	11.4	2032	96.3	7.7	4312.6

\* Values Exceed Upper Control Limit

SSM6

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. SSM7

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	17.1	2604	119.4			

Date

29 MAR 2005	13.1	2269	111.7	7.6	4312.4
31 MAY 2005	13.2	2250	97.5	7.6	4313.4
21 SEP 2005	12.2	2241	106.1	7.7	4312.7
30 NOV 2005	13.1	2227	96.7	7.9	4311.8

\* Values Exceed Upper Control Limit

SSM7

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. SSM8

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	16.6	2389	112.2			

Date

29 MAR 2005	23.2	*	2386	116.5	*	7.6	4312.3
31 MAR 2005	22.1	*	2335	111.0		7.4	4312.3
31 MAR 2005	23.3	*	2330	111.0		7.4	4312.3
31 MAY 2005	23.0	*	2385	112.0		7.6	4312.9
21 SEP 2005	21.6	*	2361	112.0		7.8	4312.4
30 NOV 2005	23.4	*	2362	110.6		7.9	4311.5

\* Values Exceed Upper Control Limit

SSM8

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. SSM9

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	15	2008	117.8			

Date

29 MAR 2005	9.0	1502	97.1	7.7	4318.6
31 MAY 2005	9.4	1480	90.8	7.6	4313.8
13 SEP 2005	8.6	1469	94.7	7.6	4315.0
29 NOV 2005	8.9	1499	94.9	7.8	4314.4

\* Values Exceed Upper Control Limit

SSM9

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. SSM10

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	15.5	1955	177.4			

Date

29 MAR 2005	10.0	1526	103.6	7.7	4314.2
31 MAY 2005	10.2	1513	96.3	7.7	4314.8
13 SEP 2005	9.4	1489	102.2	7.7	4314.4
29 NOV 2005	10.1	1528	103.3	7.8	4314.1

\* Values Exceed Upper Control Limit

SSM10

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. SSM11

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	16.2	2784	122.9			

Date

29 MAR 2005	13.3	2449	84.5	7.5	4316.0
31 MAY 2005	15.3	2404	87.5	7.6	4315.8
13 SEP 2005	13.9	2384	90.2	7.4	4316.5
29 NOV 2005	15.7	2450	93.2	7.7	4315.5

\* Values Exceed Upper Control Limit

SSM11

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 8  
Well I.D. SSM18

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	14.7	1849	119.4			

Date

29 MAR 2005	18.6	*	2065	*	147.8	*	7.6	4315.0
31 MAY 2005	17.5	*	2013	*	149.0	*	7.5	4316.1
13 SEP 2005	16.2	*	1811		141.9	*	7.5	4315.8
30 NOV 2005	17.9	*	1947	*	137.9	*	7.8	4317.2

\* Values Exceed Upper Control Limit

SSM18

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 8  
Well I.D. SSM19

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.7	1636	114.1			

Date

29 MAR 2005	8.5	1499	82.8	7.9	4315.7
31 MAY 2005	9.1	1481	81.2	8.0	4316.8
20 SEP 2005	8.7	1448	84.5	7.8	4317.0
30 NOV 2005	8.8	1487	79.9	8.2	4316.6

\* Values Exceed Upper Control Limit

SSM19

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 9  
Well I.D. SSM34

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.2	1698	110.4			

Date

29 MAR 2005	9.0	1229	87.4	7.8	4315.5
31 MAY 2005	9.5	1215	86.0	7.8	4315.1
20 SEP 2005	8.9	1215	89.3	7.7	4315.4
30 NOV 2005	9.3	1217	84.4	8.1	4318.5

\* Values Exceed Upper Control Limit

SSM34

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 9  
Well I.D. SSM35

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	14.4	1688	132.7			

Date

29 MAR 2005	10.2	1293	108.8	7.9	4316.0
31 MAY 2005	10.4	1255	101.6	7.7	4315.9
21 SEP 2005	9.3	1279	107.7	8.2	4315.8
30 NOV 2005	10.2	1263	103.3	8.3	4315.7

\* Values Exceed Upper Control Limit

SSM35

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 9  
Well I.D. SSM36

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.7	1565	119.6			

Date

29 MAR 2005	8.7	1276	104.5	7.9	4317.6
31 MAY 2005	8.8	1268	97.4	8.0	4319.0
21 SEP 2005	8.0	1271	105.1	8.2	4317.6
30 NOV 2005	8.9	1270	100.4	8.2	4316.4

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

SSM36

Mine Unit 7  
Well I.D. SSM37

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	14.3	1813	120			

Date

29 MAR 2005	9.8	1466	109.0	7.7	4311.8
31 MAY 2005	10.0	1450	101.0	7.8	4312.0
13 SEP 2005	9.1	1407	111.5	7.8	4311.7
29 NOV 2005	9.5	1440	105.2	8.0	4311.5

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

SSM37

Mine Unit 7  
Well I.D. SSM38

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	16.2	2800	118.8			

Date

29 MAR 2005	10.8	2019	103.0	8.0	4314.0
31 MAY 2005	11.5	2158	99.7	7.6	4314.0
21 SEP 2005	10.2	2116	102.3	7.6	4314.0
29 NOV 2005	10.6	2140	98.3	7.7	4319.6

\* Values Exceed Upper Control Limit

SSM38

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 7  
Well I.D. SSM39

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	14.5	2071	104.4			

Date

29 MAR 2005	12.0	1833	106.3	*	7.6	4312.4
31 MAY 2005	11.5	1803	102.0	*	7.8	4312.5
13 SEP 2005	11.5	1778	106.9	*	7.7	4312.7
29 NOV 2005	11.3	1801	101.9	*	7.8	4313.5

\* Values Exceed Upper Control Limit

SSM39

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 8  
Well I.D. SSM40

**IRIGARAY RANCH**  
**INTERIOR SHALLOW SAND MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	1672	109.2			

Date

29 MAR 2005	13.3	1681	*	111.2	*	7.8	4317.4
31 MAY 2005	10.7	1494		103.2		7.9	4316.9
21 SEP 2005	10.2	1383		104.7		8.0	4317.3
29 NOV 2005	13.2	1704	*	109.1		7.8	4317.1

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

SSM40

Mine Unit 4  
Well I.D. SSM41

**IRIGARAY RANCH**  
**INTERIOR SHALLOW SAND MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	24.9	2566	126.8			

Date

23 MAR 2005	33.8	*	2454	128.5	*	7.6	4336.4
31 MAY 2005	31.6	*	2437	134.7	*	7.6	4336.4
13 SEP 2005	30.5	*	2285	140.0	*	7.6	4312.7
29 NOV 2005	30.7	*	2441	137.1	*	7.6	4311.9

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

SSM41

Mine Unit 3  
Well I.D. SSM42

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	23.3	1571	213.2			

Date

23 MAR 2005	19.6	1094	158.8	8.2	4304.1
31 MAY 2005	22.8	1088	154.2	8.1	4305.1
13 SEP 2005	24.1	1204	165.1	8.1	4304.1
30 NOV 2005	19.4	1092	158.8	8.3	4303.5

\* Values Exceed Upper Control Limit

SSM42

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 1  
Well I.D. SSM43

IRIGARAY RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	25.6	1456	170.4			

Date

23 MAR 2005	33.7	1374	116.1	8.2	4311.0
31 MAY 2005	30.8	1326	114.7	7.9	4310.7
13 SEP 2005	31.0	1350	121.6	7.9	4310.8
29 NOV 2005	33.3	1415	125.3	8.0	4310.1

\* Values Exceed Upper Control Limit

SSM43

Negative U3O8 Grades Indicate Less Than Detection Limit.

## **IRIGARAY PROJECT**

### **Interior Deep Sand Monitor Wells**

Mine Unit 1  
Well I.D. DM1

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	16.2	609	207.4			

Date

23 MAR 2005	9.1	474	115.9	8.7	4313.5
31 MAY 2005	8.4	476	121.5	8.7	4313.4
13 SEP 2005	12.1	467	123.3	9.1	4313.8
29 NOV 2005	9.4	481	115.4	8.8	4313.8

\* Values Exceed Upper Control Limit

DM1

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 1  
Well I.D. DM2

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	15.1	757	187.1			

Date

23 MAR 2005	7.9	600	179.5	8.4	4305.0
31 MAY 2005	8.0	598	188.8	8.3	4305.7
13 SEP 2005	8.1	600	187.9	8.5	4306.1
29 NOV 2005	8.7	607	184.0	8.4	4306.4

\* Values Exceed Upper Control Limit

DM2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. DM3

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	15.8	677	240.9			

Date

23 MAR 2005	12.3	542	144.3	8.4	4310.1
31 MAY 2005	11.0	539	147.7	8.4	4310.5
13 SEP 2005	10.7	523	138.6	8.6	4310.7
30 NOV 2005	12.0	521	140.7	8.5	4310.0

\* Values Exceed Upper Control Limit

DM3

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. DM4

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	14.4	603	117.6			

Date

23 MAR 2005	9.3	515	94.3	8.8	4308.8
31 MAY 2005	8.7	516	100.2	8.7	4313.3
13 SEP 2005	8.9	525	99.9	8.8	4312.9
29 NOV 2005	10.1	523	98.4	8.9	4313.5

\* Values Exceed Upper Control Limit

DM4

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. DM5

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	15.7	675	206			

Date

23 MAR 2005	8.7	618	189.9	7.9	4301.7
31 MAY 2005	7.7	613	193.6	8.1	4302.9
13 SEP 2005	8.1	605	200.1	8.0	4303.0
29 NOV 2005	8.9	623	190.6	8.1	4300.5

\* Values Exceed Upper Control Limit

DM5

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. DM9

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	16.3	647	132.7			

Date

29 MAR 2005	9.5	525	99.0	8.8	4312.8
31 MAY 2005	8.8	519	98.2	8.6	4315.5
21 SEP 2005	8.9	523	98.7	8.7	4315.0
30 NOV 2005	9.8	518	94.5	8.8	4315.7

\* Values Exceed Upper Control Limit

DM9

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. DM10

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	16.4	606	107.5			

Date

29 MAR 2005	14.5	630	*	125.0	*	8.4	4318.2
31 MAY 2005	14.2	636	*	121.1	*	8.2	4318.4
13 SEP 2005	14.1	630	*	135.9	*	8.1	4318.8
29 NOV 2005	13.9	635	*	121.9	*	8.4	4308.6

\* Values Exceed Upper Control Limit

DM10

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 7  
Well I.D. DM11

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	15	607	104.7			

Date

29 MAR 2005	10.6	592	99.3	8.6	4313.9
31 MAY 2005	9.8	545	103.8	8.5	4316.5
13 SEP 2005	9.9	536	101.7	8.6	4317.1
29 NOV 2005	10.7	552	100.3	8.7	4316.6

\* Values Exceed Upper Control Limit

DM11

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 8  
Well I.D. DM13

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	15.1	624	113.5			

Date

29 MAR 2005	9.7	535	103.4	8.6	4320.0
31 MAY 2005	9.1	542	99.0	8.5	4320.7
13 SEP 2005	9.5	525	105.6	8.5	4320.0
30 NOV 2005	10.3	538	97.1	8.7	4316.2

\* Values Exceed Upper Control Limit

DM13

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 8  
Well I.D. DM14

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	15.5	619	109.5			

Date

29 MAR 2005	10.3	561	99.6	8.8	4317.3
31 MAY 2005	9.5	558	98.5	8.7	4317.3
20 SEP 2005	9.8	560	97.3	8.7	4318.1
30 NOV 2005	10.5	556	94.2	8.9	4318.1

\* Values Exceed Upper Control Limit

DM14

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 9  
Well I.D. DM15

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	15.1	618	110.6			

Date

29 MAR 2005	10.4	560	100.6	8.7	4322.8
31 MAY 2005	9.3	558	100.2	8.6	4322.9
20 SEP 2005	9.8	559	105.3	8.6	4323.0
30 NOV 2005	10.9	558	94.9	8.8	4324.0

\* Values Exceed Upper Control Limit

DM15

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 9  
Well I.D. DM16

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	15.7	646	111			

Date

29 MAR 2005	10.5	565	95.1	8.8	4320.5
31 MAY 2005	9.7	560	93.9	8.7	4320.5
20 SEP 2005	10.0	566	94.4	8.9	4323.0
30 NOV 2005	10.6	563	88.7	8.8	4324.6

\* Values Exceed Upper Control Limit

DM16

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. DM17

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	15	618	108.2			

Date

29 MAR 2005	9.3	523	117.4	*	8.8	4313.6
31 MAY 2005	8.7	526	111.3	*	8.5	4312.0
20 SEP 2005	8.9	533	118.9	*	8.5	4314.5
29 NOV 2005	9.3	545	110.4	*	8.8	4314.4

\* Values Exceed Upper Control Limit

DM17

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. DM18

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	14.5	598	105.6			

Date

29 MAR 2005	9.6	522	95.4	8.6	4309.0
31 MAY 2005	8.9	525	97.7	8.5	4310.7
13 SEP 2005	9.4	518	100.7	8.6	4311.7
29 NOV 2005	9.9	530	92.1	8.7	4312.4

\* Values Exceed Upper Control Limit

DM18

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. DM19

**IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	31.7	1207	245.3			

Date

29 MAR 2005	9.9	508	125.4	8.4	4306.7
31 MAY 2005	9.3	515	130.0	7.8	4311.6
13 SEP 2005	9.5	506	129.9	8.4	4310.6
30 NOV 2005	10.1	515	120.8	8.4	4289.7

\* Values Exceed Upper Control Limit

DM19

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. DM20

**IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	17.5	609	135.6			

Date

23 MAR 2005	9.2	511	96.1	8.6	4313.4
31 MAY 2005	8.6	512	100.3	8.4	4314.7
13 SEP 2005	8.7	509	99.6	8.7	4314.2
29 NOV 2005	9.9	521	97.9	8.8	4314.1

\* Values Exceed Upper Control Limit

DM20

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 7  
Well I.D. DM21

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	15.6	628	126.7			

Date

29 MAR 2005	10.3	552	95.7	8.7	4320.1
31 MAY 2005	10.0	551	99.3	8.5	4320.1
13 SEP 2005	10.0	542	95.5	8.6	4320.5
29 NOV 2005	11.0	559	91.3	8.8	4318.7

\* Values Exceed Upper Control Limit

DM21

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. DM22

IRIGARAY RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	15.1	654	117			

Date

29 MAR 2005	9.9	540	98.2	8.6	4317.9
31 MAY 2005	9.2	534	96.9	8.4	4318.1
13 SEP 2005	9.6	535	96.6	8.6	4318.7
29 NOV 2005	10.3	544	93.0	8.7	4318.1

\* Values Exceed Upper Control Limit

DM22

Negative U3O8 Grades Indicate Less Than Detection Limit.

# **IRIGARAY PROJECT**

## **5I7 and USMT Sites**

**USMT Site  
Well I.D. M-219**

**IRIGARAY RANCH  
MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	$\mu\text{mho}/\text{cm}$	mg/l as CaCO <sub>3</sub>		mg/l	msl

**Date**

23-Jun-2005            8.8            653            82.7

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

**USMT Site  
Well I.D. M-220**

**IRIGARAY RANCH  
MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	$\mu\text{mho}/\text{cm}$	mg/l as CaCO <sub>3</sub>		mg/l	msl

**Date**

23-Jun-2005            14.2            873            104.7

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

**USMT Site  
Well I.D. M-221**

**IRIGARAY RANCH  
MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	μmho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl

**Date**

23-Jun-2005            9.1            625            90.2

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

**SI7 Site  
Well I.D. M-1**

**IRIGARAY RANCH  
MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	μmho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl

**Date**

23Jun-2005            36.4            721            143.1

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

**5I7 Site  
Well I.D. NM-3**

**IRIGARAY RANCH  
MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	μmho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl

**Date**

23-Jun-2005            8.4            637            82.5

**5I7 Site  
Well I.D. M-4**

**IRIGARAY RANCH  
MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	μmho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl

**Date**

23-Jun-2005            21.0            946            111.0

**SI7 Site  
Well I.D. SM-1**

**IRIGARAY RANCH  
MONITOR WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	µmho/cm	mg/l as CaCO <sub>3</sub>	mg/l	msl	

**Date**

23-Jun-2005            20.3            817            267.5

## **IRIGARAY PROJECT**

### **Interior Coal Zone Trend Wells**

**MINE UNIT 3**  
**Well I.D. RS19**

**IRIGARAY RANCH**  
**TREND WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	μmho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl

**Date**

29-Mar-2005	38.3	8.4	4305.5
31-May-2005	35.7	8.4	4305.5
13-Sept-2005	36.8	8.5	4306.4
30-Nov-2005	39.8	8.6	4304.8

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

**MINE UNIT 2**  
**Well I.D. RS34**

**IRIGARAY RANCH**  
**TREND WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	μmho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl

**DATE**

22-Mar-2005	28.9	8.4	4306.5
31-May-2005	27.9	8.5	4302.7
13-Sept-2005	27.0	8.0	4304.8
30-Nov-2005	28.3	8.2	4304.2

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

**MINE UNIT 3  
Well I.D. RS39**

**IRIGARAY RANCH  
TREND WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	µmho/cm	mg/l as CaCO <sub>3</sub>	mg/l	msl	

**DATE**

23-Mar-2005	57.7	8.1	4306.5
31-May-2005	58.5	8.0	4306.5
13-Sept-2005	43.4	7.8	4308.3
29-Nov-2005	44.7	7.9	4307.7

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

**MINE UNIT 1  
Well I.D. SMI**

**IRIGARAY RANCH  
TREND WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	µmho/cm	mg/l as CaCO <sub>3</sub>	mg/l	msl	

**DATE**

23-Mar-2005	38.4	8.0	4306.1
31-May-2005	35.9	8.0	4306.5
13-Sept-2005	37.0	8.1	4307.7
29-Nov-2005	40.0	8.2	4306.2

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

**MINE UNIT 1**  
**Well I.D. SM2**

**IRIGARAY RANCH**  
**TREND WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	μmho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl

**DATE**

29-Mar-2005	19.8	8.3	4306.4
31-May-2005	17.9	8.2	4306.4
13-Sept-2005	18.4	8.2	4307.5
29-Nov-2005	19.5	8.3	4308.9

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

**MINE UNIT 2**  
**Well I.D. SM7**

**IRIGARAY RANCH**  
**TREND WELL**

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	Mg/l	μmho/cm	mg/l as CaCO <sub>3</sub>		mg/l	rnsl

**DATE**

23-Mar-2005	62.1	8.6	4303.1
31-May-2005	54.6	8.3	4303.1
13-Sept-2005	54.4	8.3	4304.6
29-Nov-2005	55.7	8.5	4305.7

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

**CHRISTENSEN RANCH PROJECT**  
**Perimeter Ore Zone Monitor Wells**

Mine Unit 3  
Well I.D. MW17-2

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	9.4	667	84.4	8.7	4529.2
05 APR 2005	9.8	670	93.9	8.6	4535.2
12 JUL 2005	11.4	678	94.5	8.5	4539.9
25 OCT 2005	9.7	658	95.9	8.8	4545.6

\* Values Exceed Upper Control Limit

MW17-2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW18

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

03 JAN 2005	9.5	670	94.0	8.5	4528.3
05 APR 2005	9.5	666	93.3	8.5	4534.3
11 JUL 2005	9.4	666	93.0	8.4	4538.0
25 OCT 2005	9.7	657	94.6	8.6	4544.3

\* Values Exceed Upper Control Limit

MW18

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW19

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

06 JAN 2005	9.2	675	88.3	8.3	4529.4
05 APR 2005	9.6	665	96.1	8.1	4533.3
12 JUL 2005	10.4	667	108.6	8.5	4533.4
31 OCT 2005	11.3	684	94.2	8.5	4543.8

\* Values Exceed Upper Control Limit

MW19

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW20

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

03 JAN 2005	9.1	671	89.3	8.4	4525.9
05 APR 2005	9.4	668	99.2	8.3	4532.6
11 JUL 2005	9.3	670	99.0	8.6	4536.3
25 OCT 2005	9.5	660	98.6	8.5	4542.4

\* Values Exceed Upper Control Limit

MW20

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW23

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

03 JAN 2005	9.5	659	94.5	8.5	4523.3
05 APR 2005	9.9	650	90.0	8.3	4529.0
11 JUL 2005	9.7	650	91.0	8.8	4532.6
26 OCT 2005	10.6	647	92.5	8.7	4538.2

\* Values Exceed Upper Control Limit

MW23

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW24

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

03 JAN 2005	9.6	658	83.0	8.5	4522.0
05 APR 2005	9.9	654	92.4	8.4	4522.0
11 JUL 2005	9.8	661	92.6	8.8	4531.8
26 OCT 2005	10.7	652	97.0	8.7	4537.7

\* Values Exceed Upper Control Limit

MW24

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW25

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

03 JAN 2005	9.4	661	89.4	8.5	4524.5
05 APR 2005	9.6	657	93.7	8.3	4527.6
11 JUL 2005	9.5	661	92.7	8.8	4532.6
26 OCT 2005	9.8	653	95.2	8.7	4538.8

\* Values Exceed Upper Control Limit

MW25

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW26

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

03 JAN 2005	9.8	660	84.1	8.5	4525.2
05 APR 2005	9.9	655	91.9	8.3	4529.8
11 JUL 2005	9.8	658	92.4	8.8	4533.4
27 OCT 2005	10.6	646	97.0	8.7	4540.0

\* Values Exceed Upper Control Limit

MW26

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW27

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

03 JAN 2005	11.0	663	93.0	8.4	4525.2
05 APR 2005	11.5	658	93.9	8.3	4531.4
11 JUL 2005	11.3	663	93.0	8.7	4536.5
27 OCT 2005	12.0	643	95.7	8.6	4542.4

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW27

Mine Unit 3  
Well I.D. MW28

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

06 JAN 2005	9.8	715	87.0	8.4	4527.2
05 APR 2005	10.6	704	99.1	8.3	4533.9
11 JUL 2005	10.3	725	100.1	8.7	4539.7
25 OCT 2005	10.8	708	99.8	8.5	4546.3

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW28

Mine Unit 3  
Well I.D. MW29

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

06 JAN 2005	9.5	669	94.0	8.4	4528.4
05 APR 2005	9.8	655	96.1	8.3	4535.0
11 JUL 2005	9.7	662	95.6	8.7	4541.1
25 OCT 2005	10.0	654	97.7	8.5	4548.1

\* Values Exceed Upper Control Limit

MW29

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW30

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

06 JAN 2005	9.2	677	89.4	8.4	4530.1
05 APR 2005	9.6	663	98.9	8.3	4536.9
11 JUL 2005	9.5	668	98.0	8.7	4542.9
25 OCT 2005	9.9	661	100.4	8.5	4550.0

\* Values Exceed Upper Control Limit

MW30

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW31

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

06 JAN 2005	9.2	678	92.0	8.4	4533.0
05 APR 2005	9.6	664	97.5	8.3	4539.7
11 JUL 2005	9.6	674	96.4	8.7	4545.4
25 OCT 2005	9.7	665	100.2	8.5	4552.4

\* Values Exceed Upper Control Limit

MW31

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW32

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	9.3	670	91.9	8.4	4532.8
05 APR 2005	9.1	672	98.0	8.3	4539.8
12 JUL 2005	9.1	672	104.5	8.4	4546.2
25 OCT 2005	9.4	663	100.4	8.6	4553.2

\* Values Exceed Upper Control Limit

MW32

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW35

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	15.5	*	726	114.1	8.3	4530.4
05 APR 2005	16.7	*	741	125.7	8.2	4538.7
12 JUL 2005	15.2	*	739	122.0	8.4	4543.1
25 OCT 2005	14.6	*	720	120.7	8.5	4550.0

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW35

Mine Unit 3  
Well I.D. MW36

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	9.1	670	88.6	8.3	4537.5
11 APR 2005	9.5	663	98.2	8.1	4515.0
12 JUL 2005	9.3	672	101.9	8.4	4547.7
25 OCT 2005	9.0	663	96.5	8.4	4554.8

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW36

Mine Unit 3  
Well I.D. MW37

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	10.1	678	99.5	8.4	4530.7
05 APR 2005	10.4	678	99.8	8.2	4537.1
12 JUL 2005	10.3	677	103.0	8.3	4541.0
25 OCT 2005	10.6	668	101.8	8.5	4547.7

\* Values Exceed Upper Control Limit

MW37

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW38

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

03 JAN 2005	9.1	669	88.3	8.5	4529.8
11 APR 2005	9.4	666	97.1	8.2	4536.1
11 JUL 2005	9.3	666	98.2	8.2	4541.6
27 OCT 2005	9.5	653	97.3	8.7	4546.9

\* Values Exceed Upper Control Limit

MW38

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW39

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

03 JAN 2005	9.8	669	91.0	8.6	4530.0
11 APR 2005	9.8	665	95.6	8.6	4525.2
11 JUL 2005	9.8	667	97.7	8.4	4541.7
27 OCT 2005	10.0	653	99.9	8.8	4547.8

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW39

Mine Unit 3  
Well I.D. MW40

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

06 JAN 2005	9.5	674	86.8	8.6	4529.8
11 APR 2005	9.8	667	100.3	8.3	4536.4
11 JUL 2005	9.8	668	100.0	8.4	4517.5
25 OCT 2005	9.5	664	98.5	8.6	4548.5

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW40

Mine Unit 3  
Well I.D. MW41

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	9.0	677	93.7	8.4	4534.1
05 APR 2005	9.1	678	105.5	8.3	4541.1
12 JUL 2005	9.5	677	111.1	8.5	4547.8
25 OCT 2005	9.3	668	104.8	8.5	4554.9

\* Values Exceed Upper Control Limit

MW41

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW42

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	9.0	668	95.0	8.5	4536.3
05 APR 2005	9.1	670	98.6	8.4	4543.4
11 JUL 2005	9.2	666	97.4	8.8	4549.7
25 OCT 2005	9.4	656	97.7	8.7	4556.7

\* Values Exceed Upper Control Limit

MW42

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW43

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

27 JAN 2005	8.6	659	86.3	8.5	4538.3
05 APR 2005	9.2	668	99.1	8.3	4525.4
11 JUL 2005	9.1	663	99.0	8.8	4551.6
25 OCT 2005	9.3	661	100.0	8.6	4558.5

\* Values Exceed Upper Control Limit

MW43

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW44

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	9.1	670	91.4	8.3	4529.4
05 APR 2005	9.3	669	94.4	8.1	4535.9
12 JUL 2005	9.0	665	97.3	8.4	4541.4
25 OCT 2005	9.6	659	96.1	8.4	4546.8

\* Values Exceed Upper Control Limit

MW44

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW45

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	9.1	671	87.5	8.4	4529.4
05 APR 2005	9.3	681	95.6	8.3	4538.7
12 JUL 2005	8.7	674	94.4	8.5	4543.0
25 OCT 2005	9.5	662	98.8	8.5	4549.8

\* Values Exceed Upper Control Limit

MW45

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW62

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	8.8	667	89.0	8.8	4536.0
05 APR 2005	9.5	662	91.5	8.7	4542.7
12 JUL 2005	8.7	667	89.9	8.4	4547.9
25 OCT 2005	9.5	662	93.1	8.8	4553.7

\* Values Exceed Upper Control Limit

MW62

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW63

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	8.8	662	89.3	8.7	4538.0
05 APR 2005	9.0	656	88.7	8.6	4544.5
12 JUL 2005	8.8	660	91.7	8.5	4550.3
25 OCT 2005	9.3	659	93.3	8.8	4556.1

\* Values Exceed Upper Control Limit

MW63

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW64

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

05 JAN 2005	9.1	677	95.8	8.4	4539.8
05 APR 2005	9.5	667	104.8	8.0	4547.0
12 JUL 2005	8.6	670	99.4	8.4	4552.9
25 OCT 2005	9.1	665	101.2	8.5	4558.7

\* Values Exceed Upper Control Limit

MW64

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW73

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

07 MAR 2005	9.5	667	97.3	8.8	4531.9
21 JUN 2005	9.5	672	96.3	8.7	4524.0
12 SEP 2005	9.8	671	92.3	8.4	4547.5
13 DEC 2005	9.6	664	95.5	8.8	4554.3

\* Values Exceed Upper Control Limit

MW73

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW74

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

07 MAR 2005	9.5	664	98.0	9.0	4532.1
21 JUN 2005	9.4	669	96.8	8.9	4538.4
12 SEP 2005	9.9	653	94.8	8.6	4547.4
13 DEC 2005	9.3	665	94.9	8.9	4554.7

\* Values Exceed Upper Control Limit

MW74

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW75

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

07 MAR 2005	9.3	673	95.7	8.6	4530.5
21 JUN 2005	9.1	677	94.3	8.6	4537.4
12 SEP 2005	9.5	677	90.9	8.6	4546.2
13 DEC 2005	9.3	672	95.3	8.6	4553.6

\* Values Exceed Upper Control Limit

MW75

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW76

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

08 MAR 2005	8.7	729	95.8	8.6	4530.1
21 JUN 2005	8.8	730	98.7	8.5	4537.0
12 SEP 2005	9.7	732	95.2	8.3	4546.4
13 DEC 2005	8.3	724	93.3	8.5	4554.0

\* Values Exceed Upper Control Limit

MW76

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW77

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

07 MAR 2005	8.7	735	97.3	8.2	4529.4
21 JUN 2005	8.4	743	93.3	8.3	4536.3
12 SEP 2005	8.7	723	92.0	8.0	4545.3
13 DEC 2005	8.4	735	93.5	8.0	4553.2

\* Values Exceed Upper Control Limit

MW77

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW78

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

07 MAR 2005	9.4	692	98.3	8.3	4526.8
21 JUN 2005	9.3	695	93.7	8.1	4512.0
12 SEP 2005	8.7	680	91.3	8.1	4542.0
13 DEC 2005	8.9	699	94.8	8.4	4549.3

\* Values Exceed Upper Control Limit

MW78

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW79

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

07 MAR 2005	8.7	719	96.2	8.3	4525.9
21 JUN 2005	8.5	721	91.7	8.0	4532.1
12 SEP 2005	10.1	722	95.2	8.2	4540.1
13 DEC 2005	8.4	718	94.6	8.4	4547.1

\* Values Exceed Upper Control Limit

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

MW79

Mine Unit 2  
Well I.D. MW80

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

07 MAR 2005	9.8	686	93.7	8.3	4523.3
21 JUN 2005	9.4	686	97.8	8.1	4529.7
12 SEP 2005	8.9	667	92.3	8.1	4537.6
21 DEC 2005	9.1	679	97.1	8.3	4544.2

\* Values Exceed Upper Control Limit

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

MW80

Mine Unit 2  
Well I.D. MW81

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

08 MAR 2005	9.2	669	93.1	8.5	4524.4
21 JUN 2005	9.4	672	90.2	8.1	4529.1
12 SEP 2005	10.1	654	96.7	8.1	4536.4
13 DEC 2005	9.5	669	94.4	8.5	4543.2

\* Values Exceed Upper Control Limit

MW81

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW82

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

07 MAR 2005	9.8	653	91.0	8.4	4520.8
21 JUN 2005	10.4	663	93.0	8.4	4526.3
13 SEP 2005	10.0	648	88.4	8.1	4532.3
13 DEC 2005	10.6	640	92.2	7.9	4537.6

\* Values Exceed Upper Control Limit

MW82

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW83

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

07 MAR 2005	9.1	662	92.4	8.2	4520.9
21 JUN 2005	10.0	673	94.0	8.4	4527.2
12 SEP 2005	9.5	663	90.1	8.2	4533.2
13 DEC 2005	10.0	657	92.3	8.7	4538.5

\* Values Exceed Upper Control Limit

MW83

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW84

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

08 MAR 2005	9.7	665	98.1	8.4	4511.0
21 JUN 2005	10.0	671	95.4	8.3	4511.0
13 SEP 2005	10.4	658	93.6	8.0	4533.4
13 DEC 2005	10.0	660	89.7	8.3	4538.7

\* Values Exceed Upper Control Limit

MW84

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW85

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

08 MAR 2005	9.8	657	96.5	8.5	4520.7
21 JUN 2005	9.9	662	93.2	7.7	4516.0
13 SEP 2005	10.2	654	91.2	8.1	4533.6
13 DEC 2005	9.9	656	93.5	8.3	4538.8

\* Values Exceed Upper Control Limit

MW85

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW86

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

08 MAR 2005	9.8	663	97.9	8.3	4522.8
21 JUN 2005	10.5	659	98.0	7.8	4529.3
13 SEP 2005	10.3	663	94.6	8.0	4535.1
13 DEC 2005	9.9	659	90.2	8.5	4540.4

\* Values Exceed Upper Control Limit

MW86

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW87

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

08 MAR 2005	9.7	664	93.0	8.3	4525.1
21 JUN 2005	10.8	663	101.8	7.9	4531.2
13 SEP 2005	10.3	664	97.4	8.0	4537.3
13 DEC 2005	9.9	661	97.9	8.2	4542.8

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW87

Mine Unit 2  
Well I.D. MW88

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

08 MAR 2005	9.0	665	94.5	8.3	4526.1
21 JUN 2005	9.7	664	95.1	7.9	4533.3
13 SEP 2005	9.6	665	93.4	8.1	4539.8
13 DEC 2005	9.7	662	96.3	8.3	4545.6

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW88

Mine Unit 2  
Well I.D. MW89

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

08 MAR 2005	12.3	702	111.5	8.4	4528.8
21 JUN 2005	12.4	701	108.7	8.0	4535.1
13 SEP 2005	12.3	704	108.3	8.1	4542.1
13 DEC 2005	12.3	707	114.0	8.3	4548.0

\* Values Exceed Upper Control Limit

MW89

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW90

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.6	823	121.3			

Date

08 MAR 2005	9.4	675	91.6	8.4	4522.0
21 JUN 2005	9.5	691	94.1	8.3	4527.5
12 SEP 2005	10.2	679	91.6	8.1	4534.7
13 DEC 2005	9.3	675	93.7	8.3	4541.4

\* Values Exceed Upper Control Limit

MW90

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW101

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.6	778	124.6			

Date

08 MAR 2005	9.7	669	90.0	8.5	4520.7
21 JUN 2005	9.5	669	88.8	8.0	4527.2
12 SEP 2005	9.7	663	89.7	8.1	4534.0
13 DEC 2005	9.8	661	89.6	8.3	4540.5

\* Values Exceed Upper Control Limit

MW101

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW102

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.6	778	124.6			

Date

08 MAR 2005	9.7	661	89.9	8.4	4518.9
21 JUN 2005	10.3	664	94.0	8.0	4524.6
12 SEP 2005	10.5	661	94.2	8.3	4531.1
13 DEC 2005	10.2	658	91.7	8.0	4537.2

\* Values Exceed Upper Control Limit

MW102

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW103

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.6	778	124.6			

Date

08 MAR 2005	9.5	661	92.3	8.6	4519.6
21 JUN 2005	9.7	674	92.1	8.6	4519.6
12 SEP 2005	9.9	667	89.0	8.4	4531.6
13 DEC 2005	10.3	670	95.1	7.7	4537.6

\* Values Exceed Upper Control Limit

MW103

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW104

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.6	778	124.6			

Date

08 MAR 2005	9.5	680	93.4	8.5	4516.7
21 JUN 2005	9.3	693	89.8	8.4	4522.7
12 SEP 2005	10.1	687	92.0	8.4	4528.5
13 DEC 2005	9.0	681	86.9	7.8	4534.2

\* Values Exceed Upper Control Limit

MW104

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW105

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	11.6	778	124.6			

Date

08 MAR 2005	9.4	672	93.4	8.5	4515.8
21 JUN 2005	9.8	693	92.2	8.3	4521.7
13 SEP 2005	9.5	671	88.8	8.1	4526.9
13 DEC 2005	9.9	675	93.1	8.5	4532.3

\* Values Exceed Upper Control Limit

MW105

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW106

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	11.6	778	124.6			

Date

08 MAR 2005	9.7	661	91.9	8.5	4517.8
21 JUN 2005	9.8	670	90.4	8.3	4521.3
13 SEP 2005	9.9	662	87.8	8.2	4526.4
13 DEC 2005	9.9	661	89.0	8.6	4531.7

\* Values Exceed Upper Control Limit

MW106

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW107

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	11.6	778	124.6			

Date

08 MAR 2005	9.8	657	91.5	8.5	4517.7
21 JUN 2005	10.0	665	91.1	8.3	4522.7
13 SEP 2005	10.0	654	87.1	8.1	4527.7
13 DEC 2005	10.1	652	87.7	8.6	4532.9

\* Values Exceed Upper Control Limit

MW107

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW108

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	11.6	778	124.6			

Date

08 MAR 2005	10.2	660	93.4	8.4	4516.5
21 JUN 2005	10.1	673	90.8	8.4	4522.1
13 SEP 2005	10.3	664	89.4	8.2	4527.2
13 DEC 2005	10.0	655	89.2	8.2	4532.3

\* Values Exceed Upper Control Limit

MW108

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW109

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.6	778	124.6			

Date

08 MAR 2005	10.2	713	88.8	8.2	4516.6
21 JUN 2005	10.5	754	83.7	8.2	4522.3
13 SEP 2005	10.6	755	82.0	8.1	4527.2
13 DEC 2005	10.5	738	83.4	8.0	4532.4

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW109

Mine Unit 2  
Well I.D. MW110

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.6	778	124.6			

Date

08 MAR 2005	10.2	653	92.4	8.4	4518.3
21 JUN 2005	10.2	661	91.4	8.3	4524.1
13 SEP 2005	10.3	652	86.0	8.3	4529.2
13 DEC 2005	11.2	646	86.2	8.0	4534.3

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW110

Mine Unit 2  
Well I.D. MW111

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.6	778	124.6			

Date

08 MAR 2005	9.8	657	93.8	8.4	4513.6
21 JUN 2005	9.8	668	92.4	8.3	4513.6
13 SEP 2005	10.1	648	88.9	8.1	4530.5
14 DEC 2005	9.9	653	94.3	7.3	4535.2

\* Values Exceed Upper Control Limit

MW111

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW114

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

04 JAN 2005	9.6	674	96.0	8.8	4525.7
05 APR 2005	9.9	670	96.1	8.6	4529.5
11 JUL 2005	9.9	671	97.2	9.0	4536.1
25 OCT 2005	10.1	660	96.6	8.7	4541.1

\* Values Exceed Upper Control Limit

MW114

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW115

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

06 JAN 2005	9.3	678	90.0	8.5	4526.3
05 APR 2005	9.2	668	98.2	8.4	4529.5
11 JUL 2005	9.3	672	99.0	8.9	4532.8
25 OCT 2005	9.6	663	100.4	8.6	4538.5

\* Values Exceed Upper Control Limit

MW115

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW116

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.4	777	129.7			

Date

03 JAN 2005	9.4	663	96.0	8.6	4506.1
05 APR 2005	9.4	662	96.6	8.5	4508.1
11 JUL 2005	9.4	670	98.4	8.9	4532.9
26 OCT 2005	9.8	663	101.6	8.8	4538.3

\* Values Exceed Upper Control Limit

MW116

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-1

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	15.1	*	678	100.9	8.4	4544.6
21 JUN 2005	11.6	*	678	97.2	8.7	4550.1
21 SEP 2005	16.0	*	677	92.1	8.1	4548.0
20 DEC 2005	26.8	*	698	97.6	8.4	4562.4

\* Values Exceed Upper Control Limit

4MW-1

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-2

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	9.4	667	96.2	8.4	4545.9
21 JUN 2005	8.4	666	100.5	8.6	4551.6
21 SEP 2005	9.2	663	93.7	8.2	4554.3
20 DEC 2005	9.2	655	99.5	8.4	4565.6

\* Values Exceed Upper Control Limit

4MW-2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-3

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	12.7	*	675	97.5	8.5	4544.8
21 JUN 2005	15.1	*	679	98.7	8.6	4550.1
21 SEP 2005	13.0	*	672	90.1	8.2	4549.2
20 DEC 2005	11.0		655	89.4	8.5	4552.4

\* Values Exceed Upper Control Limit

4MW-3

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-4

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	9.0	676	103.1	8.3	4548.6
21 JUN 2005	8.6	677	105.7	8.5	4554.2
21 SEP 2005	9.2	673	97.9	8.1	4557.7
20 DEC 2005	8.9	666	101.0	8.3	4568.3

\* Values Exceed Upper Control Limit

4MW-4

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-5

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	9.6	671	99.8	8.4	4546.0
21 JUN 2005	9.0	672	99.6	8.6	4551.7
21 SEP 2005	9.7	668	94.5	8.2	4551.6
20 DEC 2005	9.7	661	99.1	8.4	4563.9

\* Values Exceed Upper Control Limit

4MW-5

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-6

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	8.9	670	100.7	8.5	4551.2
21 JUN 2005	8.4	668	101.5	8.6	4556.9
21 SEP 2005	8.9	668	94.2	8.1	4561.3
20 DEC 2005	8.7	661	97.9	8.4	4570.5

\* Values Exceed Upper Control Limit

4MW-6

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-7

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	9.5	652	92.5	8.8	4547.9
21 JUN 2005	8.6	659	91.7	8.9	4553.5
21 SEP 2005	9.2	656	84.0	8.4	4555.6
20 DEC 2005	8.9	641	82.3	8.7	4559.3

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

4MW-7

Mine Unit 4  
Well I.D. 4MW-8

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	9.2	673	103.7	8.4	4551.7
21 JUN 2005	8.4	668	102.7	8.6	4556.9
21 SEP 2005	9.2	644	97.0	8.2	4561.1
20 DEC 2005	9.0	666	99.7	8.3	4570.2

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

4MW-8

Mine Unit 4  
Well I.D. 4MW-9

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	9.0	666	98.3	8.2	4549.3
21 JUN 2005	8.4	667	99.0	8.5	4554.3
21 SEP 2005	9.2	665	93.9	8.0	4557.2
20 DEC 2005	8.7	658	94.2	8.3	4566.3

\* Values Exceed Upper Control Limit

4MW-9

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-10

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	9.5	676	103.6	8.4	4552.4
21 JUN 2005	8.4	670	100.4	8.6	4558.1
21 SEP 2005	9.1	671	93.2	8.1	4562.2
20 DEC 2005	9.3	664	98.5	8.3	4572.3

\* Values Exceed Upper Control Limit

4MW-10

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-11

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	9.5	668	96.4	8.3	4551.6
21 JUN 2005	8.7	664	93.7	8.5	4556.5
21 SEP 2005	9.5	659	88.4	7.9	4559.3
20 DEC 2005	9.6	654	89.8	8.3	4568.0

\* Values Exceed Upper Control Limit

4MW-11

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-12

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	9.1	661	95.3	8.6	4549.6
22 JUN 2005	8.3	663	91.8	8.8	4559.3
21 SEP 2005	9.5	669	96.2	8.4	4564.0
20 DEC 2005	10.5	667	102.0	8.4	4572.9

\* Values Exceed Upper Control Limit

4MW-12

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-13

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

14 MAR 2005	9.4	668	96.6	8.2	4552.9
21 JUN 2005	8.9	670	97.3	8.4	4558.2
21 SEP 2005	10.2	668	97.8	8.1	4561.6
20 DEC 2005	9.3	660	94.6	8.3	4569.3

\* Values Exceed Upper Control Limit

4MW-13

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-14

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	10.0	667	100.0	8.5	4556.9
21 JUN 2005	8.4	667	106.0	8.5	4561.7
21 SEP 2005	9.6	669	103.3	8.0	4565.9
20 DEC 2005	9.7	663	105.0	8.2	4574.4

\* Values Exceed Upper Control Limit

4MW-14

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-15

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	9.4	670	101.0	8.5	4553.6
21 JUN 2005	9.0	676	100.8	8.5	4558.3
21 SEP 2005	9.7	666	92.7	8.1	4561.3
20 DEC 2005	9.6	666	97.3	8.2	4569.4

\* Values Exceed Upper Control Limit

4MW-15

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-16

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	10.2	671	103.5	8.6	4558.6
21 JUN 2005	8.4	668	107.2	8.5	4563.1
21 SEP 2005	9.2	671	99.7	8.0	4567.1
20 DEC 2005	8.3	660	101.0	8.3	4575.6

\* Values Exceed Upper Control Limit

4MW-16

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-17

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	10.2	667	99.5	8.6	4555.6
21 JUN 2005	8.7	671	98.5	8.5	4560.2
21 SEP 2005	9.3	670	92.0	8.2	4563.4
20 DEC 2005	8.9	665	94.9	8.4	4571.4

\* Values Exceed Upper Control Limit

4MW-17

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-18

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	9.9	675	99.7	8.5	4558.1
21 JUN 2005	8.6	674	101.4	8.5	4563.7
21 SEP 2005	9.4	678	96.7	8.1	4565.4
20 DEC 2005	9.1	669	99.2	8.3	4575.5

\* Values Exceed Upper Control Limit

4MW-18

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-19

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	9.4	670	104.2	8.5	4555.5
21 JUN 2005	8.9	673	99.8	8.4	4560.3
21 SEP 2005	9.3	672	92.6	8.0	4563.1
20 DEC 2005	9.3	663	98.1	8.2	4571.3

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

4MW-19

Mine Unit 4  
Well I.D. 4MW-20

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	10.0	675	99.7	8.4	4560.9
21 JUN 2005	8.1	675	104.3	8.5	4565.5
21 SEP 2005	8.8	677	98.7	8.1	4569.3
20 DEC 2005	8.6	669	102.0	8.3	4577.8

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

4MW-20

Mine Unit 4  
Well I.D. 4MW-21

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	9.5	665	101.7	8.5	4555.6
21 JUN 2005	9.0	669	97.5	8.4	4561.1
21 SEP 2005	9.5	667	91.6	8.0	4564.3
20 DEC 2005	9.3	660	95.8	8.2	4571.9

\* Values Exceed Upper Control Limit

4MW-21

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-22

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	9.8	676	101.5	8.4	4562.0
21 JUN 2005	8.4	673	102.7	8.5	4565.9
21 SEP 2005	9.0	675	95.3	8.1	4569.4
20 DEC 2005	8.9	669	101.0	8.3	4577.2

\* Values Exceed Upper Control Limit

4MW-22

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-23

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	9.8	673	101.1	8.5	4558.0
21 JUN 2005	8.8	675	99.1	8.4	4562.8
21 SEP 2005	9.5	673	95.1	8.0	4565.9
20 DEC 2005	9.5	666	101.0	8.1	4573.3

\* Values Exceed Upper Control Limit

4MW-23

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-24

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	9.8	673	101.1	8.4	4561.3
21 JUN 2005	8.4	670	99.3	8.5	4565.4
21 SEP 2005	9.2	672	94.1	8.0	4569.0
20 DEC 2005	8.9	666	96.5	8.2	4577.0

\* Values Exceed Upper Control Limit

4MW-24

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4MW-25

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	11.1	825	116.9			

Date

15 MAR 2005	7.3	677	93.1	8.1	4559.8
21 JUN 2005	8.6	675	102.2	8.4	4564.3
21 SEP 2005	9.3	676	94.1	8.0	4567.8
20 DEC 2005	9.1	671	98.8	8.2	4574.7

\* Values Exceed Upper Control Limit

4MW-25

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW1

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	8.0	787	95.3	8.2	4578.9
18 APR 2005	8.6	768	96.6	8.0	4584.9
20 JUL 2005	8.7	776	97.5	8.1	4592.2
03 OCT 2005	8.6	737	104.5	7.9	4600.0

\* Values Exceed Upper Control Limit

5MW1

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW2

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	9.0	909	94.8	8.1	4576.3
18 APR 2005	9.1	883	98.5	8.0	4582.0
20 JUL 2005	9.1	859	99.6	8.1	4587.7
04 OCT 2005	9.3	898	95.8	7.9	4595.0

\* Values Exceed Upper Control Limit

5MW2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW3

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	7.7	764	93.4	8.1	4577.6
18 APR 2005	8.2	750	101.9	8.1	4584.8
20 JUL 2005	8.3	760	103.9	8.3	4590.8
03 OCT 2005	7.9	751	100.8	8.0	4599.9

\* Values Exceed Upper Control Limit

5MW3

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW4

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	8.9	1125	*	104.6	8.1	4577.1
18 APR 2005	9.4	1093	*	113.4	8.0	4583.0
20 JUL 2005	9.5	1047	*	115.4	8.2	4589.1
04 OCT 2005	9.7	988		109.3	7.9	4597.2

\* Values Exceed Upper Control Limit

5MW4

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW5

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	7.3	810	91.7	8.2	4575.1
18 APR 2005	7.5	791	96.1	8.0	4580.0
20 JUL 2005	7.7	919	98.1	8.3	4611.2
03 OCT 2005	6.2	911	90.8	8.0	4597.9

\* Values Exceed Upper Control Limit

5MW5

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW6

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	11.5	981	99.6	8.2	4576.7
18 APR 2005	12.4	972	107.8	8.0	4583.2
20 JUL 2005	11.9	952	110.3	8.1	4589.0
04 OCT 2005	9.1	905	105.6	7.9	4597.2

\* Values Exceed Upper Control Limit

5MW6

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW7

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	7.2	827	87.0	8.3	4572.4
18 APR 2005	7.8	821	95.5	8.1	4578.8
20 JUL 2005	8.0	892	97.2	8.2	4588.4
03 OCT 2005	6.6	894	88.6	8.1	4596.1

\* Values Exceed Upper Control Limit

5MW7

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW8

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	23	1423	122.5			

Date

11 JAN 2005	20.5	1074	191.7	*	8.0	4575.4
18 APR 2005	20.6	1054	179.1	*	8.1	4581.8
20 JUL 2005	21.4	1059	180.3	*	8.2	4588.2
04 OCT 2005	21.3	1089	178.3	*	7.7	4596.6

\* Values Exceed Upper Control Limit

5MW8

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW10

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	11.2	815	137.7	*	8.2	4575.0
27 APR 2005	12.1	807	143.7	*	8.2	4582.7
20 JUL 2005	13.1	832	145.6	*	8.2	4588.3
04 OCT 2005	9.8	769	121.8		7.9	4596.8

\* Values Exceed Upper Control Limit

5MW10

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW12

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.8	1725	145.4			

Date

11 JAN 2005	8.7	944	129.0	8.0	4570.2
18 APR 2005	8.8	935	126.1	8.1	4577.0
20 JUL 2005	8.8	885	125.4	8.2	4583.9
04 OCT 2005	8.9	873	119.4	7.7	4592.4

\* Values Exceed Upper Control Limit

5MW12

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW14

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	9.0	688	113.1	8.4	4568.8
18 APR 2005	8.8	677	109.5	8.1	4576.1
20 JUL 2005	8.8	691	136.4	8.2	4583.4
04 OCT 2005	9.0	689	104.0	8.0	4592.0

\* Values Exceed Upper Control Limit

5MW14

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW16

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	7.9	758	98.1	8.3	4568.0
18 APR 2005	8.4	736	104.2	8.0	4574.9
20 JUL 2005	8.6	785	108.4	8.2	4582.8
04 OCT 2005	8.0	776	108.3	7.9	4591.6

\* Values Exceed Upper Control Limit

5MW16

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW18

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	7.4	853	90.9	8.2	4565.6
18 APR 2005	7.4	840	94.1	8.0	4573.1
20 JUL 2005	7.5	905	96.2	8.2	4580.9
04 OCT 2005	6.9	903	87.1	7.9	4589.8

\* Values Exceed Upper Control Limit

5MW18

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW20

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	7.1	868	89.1	8.3	4569.3
18 APR 2005	7.5	855	94.3	8.0	4566.8
20 JUL 2005	7.6	921	96.6	8.2	4585.7
03 OCT 2005	6.5	904	90.3	8.2	4593.6

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5MW20

Mine Unit 5  
Well I.D. 5MW30A

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.2	664	99.6	8.6	4572.0
18 APR 2005	8.3	670	100.3	8.4	4577.4
18 JUL 2005	8.4	660	101.1	8.5	4580.5
03 OCT 2005	7.6	664	102.5	8.4	4586.0

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5MW30A

Mine Unit 5  
Well I.D. 5MW31

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.3	653	100.2	8.5	4574.4
18 APR 2005	8.7	659	104.1	8.3	4577.8
18 JUL 2005	8.7	664	106.3	8.5	4580.5
03 OCT 2005	7.5	663	99.0	8.3	4586.2

\* Values Exceed Upper Control Limit

5MW31

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW32A

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	7.9	672	102.3	8.6	4570.5
18 APR 2005	8.2	666	105.8	8.4	4575.8
18 JUL 2005	8.3	665	104.4	8.5	4579.7
03 OCT 2005	8.2	670	107.2	8.3	4585.5

\* Values Exceed Upper Control Limit

5MW32A

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW33

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.2	672	99.3	8.4	4575.2
18 APR 2005	8.6	669	103.8	8.2	4579.3
18 JUL 2005	8.5	668	102.8	8.3	4581.9
03 OCT 2005	8.2	665	103.3	8.2	4587.5

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5MW33

Mine Unit 5  
Well I.D. 5MW34

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.0	675	103.6	8.4	4570.2
18 APR 2005	8.3	670	106.8	8.3	4577.1
18 JUL 2005	8.4	668	104.8	8.4	4580.5
03 OCT 2005	7.9	669	105.5	8.2	4586.0

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5MW34

Mine Unit 5  
Well I.D. 5MW35A

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.2	668	99.4	8.6	4575.1
18 APR 2005	8.7	669	103.2	8.2	4580.5
18 JUL 2005	8.8	667	102.2	8.3	4583.2
03 OCT 2005	8.0	662	101.9	8.3	4588.7

\* Values Exceed Upper Control Limit

5MW35A

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW36

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.0	677	104.9	8.5	4571.1
18 APR 2005	8.4	673	110.6	8.4	4578.5
18 JUL 2005	8.6	668	110.0	8.5	4581.3
03 OCT 2005	7.8	671	106.9	8.2	4587.3

\* Values Exceed Upper Control Limit

5MW36

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW37

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.2	635	107.6	8.7	4577.0
18 APR 2005	8.9	634	113.4	8.5	4586.3
18 JUL 2005	9.0	645	115.4	8.5	4584.8
03 OCT 2005	7.9	658	106.9	8.3	4589.9

\* Values Exceed Upper Control Limit

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

5MW37

Mine Unit 5  
Well I.D. 5MW38

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.0	683	106.3	8.4	4572.6
18 APR 2005	8.2	681	109.4	8.2	4578.8
18 JUL 2005	8.3	678	109.0	8.3	4582.6
03 OCT 2005	7.9	680	112.8	8.1	4588.2

\* Values Exceed Upper Control Limit

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

5MW38

Mine Unit 5  
Well I.D. 5MW39A

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	7.9	710	104.0	8.5	4583.6
18 APR 2005	8.3	700	109.5	8.2	4583.6
18 JUL 2005	8.5	695	110.2	8.3	4586.5
04 OCT 2005	8.1	680	104.1	8.0	4591.6

\* Values Exceed Upper Control Limit

5MW39A

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW40

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.7	670	107.0	8.5	4572.6
18 APR 2005	9.0	665	110.3	8.2	4579.5
18 JUL 2005	9.1	665	112.3	8.3	4582.7
03 OCT 2005	8.7	665	110.3	8.2	4587.9

\* Values Exceed Upper Control Limit

5MW40

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW41A

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.2	675	109.7	8.4	4582.9
27 APR 2005	8.4	667	105.6	8.4	4586.2
18 JUL 2005	8.5	672	106.7	8.5	4588.4
04 OCT 2005	8.5	654	103.7	7.9	4593.7

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5MW41A

Mine Unit 5  
Well I.D. 5MW42

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.1	682	106.3	8.4	4574.7
18 APR 2005	8.5	678	110.7	8.3	4581.0
18 JUL 2005	8.7	675	110.0	8.4	4584.3
03 OCT 2005	8.4	674	112.2	8.1	4590.3

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5MW42

Mine Unit 5  
Well I.D. 5MW43

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	7.9	681	111.2	8.8	4582.8
18 APR 2005	8.2	681	109.1	8.8	4583.3
18 JUL 2005	8.5	679	107.3	8.7	4589.7
04 OCT 2005	8.0	656	104.0	8.2	4595.0

\* Values Exceed Upper Control Limit

5MW43

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW44

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.4	670	102.8	8.5	4575.8
18 APR 2005	9.0	667	111.7	8.7	4580.7
20 JUL 2005	9.2	665	113.5	8.8	4585.1
03 OCT 2005	8.6	670	106.1	8.3	4591.1

\* Values Exceed Upper Control Limit

5MW44

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW45

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.1	682	110.4	8.4	4581.9
18 APR 2005	8.1	680	112.2	8.1	4588.4
18 JUL 2005	8.2	680	113.3	8.3	4591.4
04 OCT 2005	8.0	661	107.3	8.0	4596.7

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5MW45

Mine Unit 5  
Well I.D. 5MW46

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.4	683	111.0	8.4	4578.0
18 APR 2005	8.3	676	112.4	8.2	4579.2
18 JUL 2005	8.4	679	114.4	8.4	4584.1
04 OCT 2005	8.4	661	106.7	8.1	4593.5

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5MW46

Mine Unit 5  
Well I.D. 5MW47B

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.0	689	109.2	8.4	4588.2
18 APR 2005	8.2	683	113.9	8.1	4592.1
18 JUL 2005	8.0	684	110.7	8.4	4594.3
04 OCT 2005	8.1	663	107.5	8.0	4600.1

\* Values Exceed Upper Control Limit

5MW47B

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW48

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	15.6	654	165.5	*	8.2	4579.4
18 APR 2005	17.9	665	155.7	*	8.1	4584.3
18 JUL 2005	18.4	661	157.9	*	8.3	4587.7
04 OCT 2005	19.1	655	156.4	*	8.0	4594.2

\* Values Exceed Upper Control Limit

5MW48

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW49

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	7.7	686	105.4	8.3	4587.3
18 APR 2005	8.1	684	112.4	8.0	4591.9
18 JUL 2005	8.3	685	113.2	8.2	4594.4
04 OCT 2005	8.0	663	108.6	8.0	4600.2

\* Values Exceed Upper Control Limit

5MW49

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW50

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.6	676	105.3	8.4	4577.9
18 APR 2005	8.8	672	111.1	8.0	4579.3
20 JUL 2005	8.9	683	113.1	8.4	4586.6
04 OCT 2005	8.8	661	106.2	8.2	4593.3

\* Values Exceed Upper Control Limit

5MW50

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW51

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	7.9	686	108.1	8.3	4593.7
18 APR 2005	8.2	684	111.3	8.0	4596.8
20 JUL 2005	8.4	683	115.0	8.2	4596.6
03 OCT 2005	8.2	681	111.2	8.0	4602.4

\* Values Exceed Upper Control Limit

5MW51

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW52

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.9	693	111.4	8.3	4579.2
18 APR 2005	9.0	690	116.7	8.0	4585.3
20 JUL 2005	9.2	694	117.4	8.3	4588.6
04 OCT 2005	8.8	671	108.7	8.0	4595.5

\* Values Exceed Upper Control Limit

5MW52

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW53

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004.	134.3			

Date

10 JAN 2005	8.4	690	108.6	8.3	4589.0
18 APR 2005	8.4	687	114.0	8.1	4593.4
20 JUL 2005	8.6	686	116.3	8.2	4596.1
03 OCT 2005	8.0	683	107.7	7.9	4602.6

\* Values Exceed Upper Control Limit

5MW53

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW54

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	12.4	759	133.4	8.2	4580.0
18 APR 2005	13.3	757	148.7 *	8.0	4585.3
20 JUL 2005	13.5	767	149.5 *	8.2	4589.3
04 OCT 2005	12.3	756	133.5	8.0	4596.2

\* Values Exceed Upper Control Limit

5MW54

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW55

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

31 JAN 2005	10.0	691	112.7	8.3	4586.2
18 APR 2005	8.4	687	110.3	8.1	4591.1
20 JUL 2005	8.6	686	112.4	8.2	4594.2
03 OCT 2005	8.7	683	112.3	7.9	4603.0

\* Values Exceed Upper Control Limit

5MW55

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW56

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	11.0	726	120.5	8.3	4578.6
18 APR 2005	10.9	719	122.0	8.1	4584.1
20 JUL 2005	11.2	724	125.0	8.2	4588.4
04 OCT 2005	10.5	708	116.1	7.9	4594.2

\* Values Exceed Upper Control Limit

5MW56

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW57

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.6	693	111.2	8.3	4586.0
18 APR 2005	8.5	691	112.2	8.0	4590.3
20 JUL 2005	8.3	692	115.3	8.3	4593.6
03 OCT 2005	8.4	688	108.1	7.9	4601.7

\* Values Exceed Upper Control Limit

5MW57

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW58

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	7.9	705	107.5	8.1	4579.1
18 APR 2005	8.7	691	111.6	8.2	4583.7
20 JUL 2005	8.9	689	112.6	8.3	4588.1
04 OCT 2005	8.9	690	108.6	8.1	4594.4

\* Values Exceed Upper Control Limit

5MW58

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW59

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.4	690	107.5	8.4	4582.5
18 APR 2005	8.8	688	113.0	8.0	4587.7
20 JUL 2005	8.9	686	116.0	8.1	4591.2
03 OCT 2005	8.6	684	109.0	8.0	4598.5

\* Values Exceed Upper Control Limit

5MW59

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW60

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	23.7	779	191.3			

Date

11 JAN 2005	10.9	512	235.5	*	8.3	4577.8
18 APR 2005	11.3	518	240.0	*	8.3	4583.6
20 JUL 2005	11.5	656	242.3	*	8.4	4588.0
04 OCT 2005	9.7	791	170.0		8.0	4594.7

\* Values Exceed Upper Control Limit

5MW60

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW61

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

10 JAN 2005	8.2	693	107.5	8.2	4583.6
18 APR 2005	8.8	689	113.0	8.0	4588.7
20 JUL 2005	8.9	688	113.4	8.1	4592.7
03 OCT 2005	8.8	688	109.3	7.8	4600.2

\* Values Exceed Upper Control Limit

5MW61

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW62

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	9.2	702	127.0	8.3	4576.1
18 APR 2005	9.9	719	122.0	8.0	4583.3
20 JUL 2005	9.9	723	125.0	8.1	4587.2
04 OCT 2005	10.3	744	121.3	8.0	4593.9

\* Values Exceed Upper Control Limit

5MW62

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW63

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	8.8	683	106.9	8.3	4582.0
18 APR 2005	10.0	673	113.1	8.0	4587.8
20 JUL 2005	10.3	679	115.6	8.2	4591.8
03 OCT 2005	10.2	682	110.0	7.8	4599.4

\* Values Exceed Upper Control Limit

5MW63

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW64

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	8.5	750	107.4	8.4	4576.7
18 APR 2005	9.0	735	111.2	8.1	4583.6
20 JUL 2005	9.1	731	113.2	8.2	4587.8
04 OCT 2005	9.0	734	107.7	8.0	4594.7

\* Values Exceed Upper Control Limit

5MW64

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW65

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	24.9	734	128.1			

Date

11 JAN 2005	8.9	699	105.3	8.1	4581.6
18 APR 2005	9.8	686	111.0	8.1	4588.2
20 JUL 2005	10.1	693	110.0	8.2	4592.1
03 OCT 2005	9.6	694	106.1	7.9	4599.8

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5MW65

Mine Unit 5  
Well I.D. 5MW66

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	31.1	*	1175	*	227.0	*	8.0	4577.4
18 APR 2005	33.5	*	1209	*	243.5	*	7.7	4583.1
20 JUL 2005	35.4	*	1162	*	244.5	*	7.9	4588.6
04 OCT 2005	29.8	*	1098	*	150.7	*	7.7	4595.8

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5MW66

Mine Unit 5  
Well I.D. 5MW67

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	8.2	739	98.5	8.2	4576.3
20 APR 2005	8.2	730	104.0	8.2	4587.8
20 JUL 2005	8.2	722	105.0	8.2	4592.3
03 OCT 2005	7.9	780	95.9	7.9	4600.3

\* Values Exceed Upper Control Limit

5MW67

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5MW69

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.7	1004	134.3			

Date

11 JAN 2005	8.1	779	96.4	8.4	4579.9
20 APR 2005	8.1	781	99.9	8.6	4586.4
20 JUL 2005	8.2	791	101.1	8.5	4591.8
03 OCT 2005	8.3	806	97.0	8.0	4600.1

\* Values Exceed Upper Control Limit

5MW69

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW17-2

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

18 JAN 2005	5.0	1293	66.9	7.7	4495.8
07 FEB 2005	6.8	1297	66.9	8.1	4503.4
21 MAR 2005	5.2	1303	72.7	7.8	4502.8
27 APR 2005	5.2	1274	68.2	7.8	4494.1
31 MAY 2005	4.7	1281	70.4	8.2	4494.4
23 AUG 2005	4.7	1296	63.8	8.2	4543.6
23 NOV 2005	5.4	1282	66.7	7.9	4555.7

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

6MW17-2

Mine Unit 6  
Well I.D. 6MW19

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

18 JAN 2005	5.0	1308	69.6	7.8	4539.3
07 FEB 2005	6.6	1310	69.1	8.2	4547.4
21 MAR 2005	5.1	1311	72.6	7.6	4544.8
27 APR 2005	5.2	1301	72.3	7.7	4540.9
31 MAY 2005	4.6	1310	72.5	8.1	4548.4
23 AUG 2005	5.0	1295	66.8	8.2	4589.0
22 NOV 2005	5.0	1290	69.4	8.1	4600.9

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

6MW19

Mine Unit 6  
Well I.D. 6MW21

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date						
18 JAN 2005	5.5	1286	70.9	7.8		4531.5
07 FEB 2005	6.8	1286	71.0	8.2		4543.1
21 MAR 2005	5.2	1283	74.0	7.7		4539.8
27 APR 2005	5.2	1263	78.0	7.7		4534.6
23 MAY 2005	4.7	1268	76.7	8.1		4547.9
23 AUG 2005	5.5	1212	71.3	8.2		4586.9
22 NOV 2005	5.7	1192	75.3	8.2		4599.2

\* Values Exceed Upper Control Limit

6MW21

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW23

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date						
18 JAN 2005	5.5	1231	66.3	8.1		4537.8
07 FEB 2005	6.9	1250	69.5	8.1		4542.8
21 MAR 2005	5.3	1231	69.2	8.2		4540.8
27 APR 2005	5.6	1210	70.3	7.9		4541.2
23 MAY 2005	5.0	1230	70.9	8.3		4537.3
23 AUG 2005	5.1	1248	65.1	8.2		4585.3
22 NOV 2005	5.5	1236	68.5	8.4		4597.5

\* Values Exceed Upper Control Limit

6MW23

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW25

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	5.5	1261	69.6	8.2	4533.4
16 FEB 2005	5.4	1250	73.2	8.1	4542.0
23 MAR 2005	5.2	1259	73.2	8.0	4540.4
27 APR 2005	5.3	1252	73.6	7.8	4543.5
23 MAY 2005	5.0	1254	74.5	8.2	4532.1
23 AUG 2005	6.1	1246	69.4	8.3	4584.6
21 NOV 2005	5.8	1264	70.7	8.2	4595.5

\* Values Exceed Upper Control Limit

6MW25

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW27

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	6.8	1124	104.7	*	8.1	4525.4
16 FEB 2005	7.2	1139	113.5	*	7.9	4536.8
23 MAR 2005	6.7	1145	110.4	*	8.0	4534.6
27 APR 2005	6.4	1148	101.5	*	7.7	4534.2
23 MAY 2005	5.9	1168	95.4	*	8.2	4534.4
23 AUG 2005	6.5	1211	79.9		8.3	4583.7
21 NOV 2005	6.1	1227	83.4		8.2	4595.2

\* Values Exceed Upper Control Limit

6MW27

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW29

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

27 JAN 2005	8.4	1239	66.0	8.7	4523.2
16 FEB 2005	5.7	1206	65.9	8.4	4530.1
23 MAR 2005	5.6	1215	74.0	8.6	4526.4
27 APR 2005	6.0	1199	71.4	8.8	4518.1
31 MAY 2005	5.1	1202	73.2	8.5	4540.7
23 AUG 2005	5.8	1221	64.5	8.4	4581.9
21 NOV 2005	5.8	1228	67.5	8.7	4593.0

\* Values Exceed Upper Control Limit

6MW29

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW31

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

17 JAN 2005	9.5	1346	95.3	*	8.1	4511.4
07 FEB 2005	10.4	1375	99.4	*	7.8	4513.5
23 MAR 2005	11.2	1395	111.6	*	7.7	4514.5
27 APR 2005	9.9	1318	95.5	*	7.6	4514.5
23 MAY 2005	5.9	1293	94.6	*	8.1	4511.1
23 AUG 2005	6.3	1289	77.6	*	8.2	4580.1
16 NOV 2005	7.5	1301	95.4	*	8.2	4592.6

\* Values Exceed Upper Control Limit

6MW31

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW33

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	5.5	1281	69.1	8.0	4489.1
07 FEB 2005	6.8	1279	66.9	8.1	4505.2
22 MAR 2005	5.1	1280	72.7	7.9	4507.8
27 APR 2005	5.2	1276	74.6	7.9	4505.6
23 MAY 2005	4.7	1270	74.8	8.1	4545.2
22 AUG 2005	5.7	1265	71.7	8.3	4569.0
22 NOV 2005	5.2	1268	71.1	8.1	4588.3

\* Values Exceed Upper Control Limit

6MW33

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW34

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

18 JAN 2005	4.8	1346	64.0	7.8	4542.7
07 FEB 2005	6.4	1348	62.4	8.2	4550.6
21 MAR 2005	4.8	1340	66.6	7.6	4550.8
27 APR 2005	4.9	1325	68.5	7.8	4545.8
31 MAY 2005	4.6	1327	69.1	8.0	4547.8
23 AUG 2005	4.9	1338	62.3	8.2	4591.6
23 NOV 2005	5.1	1318	65.2	8.1	4603.4

\* Values Exceed Upper Control Limit

6MW34

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW35

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	5.4	1280	70.8	7.9	4496.6
07 FEB 2005	6.7	1278	68.5	8.2	4502.5
22 MAR 2005	5.1	1277	74.4	7.7	4499.1
27 APR 2005	5.1	1277	76.1	7.9	4507.2
23 MAY 2005	5.0	1271	79.5	8.0	4547.7
22 AUG 2005	5.1	1265	69.6	8.3	4575.9
22 NOV 2005	5.0	1266	70.0	7.9	4586.3

\* Values Exceed Upper Control Limit

6MW35

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW36

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	6.2	1217	69.6	8.0	4538.4
16 FEB 2005	6.0	1211	73.1	7.6	4547.8
22 MAR 2005	6.1	1213	74.6	7.9	4547.2
27 APR 2005	6.0	1196	74.5	7.8	4546.7
23 MAY 2005	5.7	1210	74.6	8.0	4538.3
23 AUG 2005	5.8	1209	67.9	8.1	4590.8
23 NOV 2005	6.2	1182	70.7	8.1	4602.4

\* Values Exceed Upper Control Limit

6MW36

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW37

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

17 JAN 2005	5.8	1234	66.4	8.3	4496.7
07 FEB 2005	7.7	1236	63.3	8.1	4506.0
22 MAR 2005	5.7	1235	68.6	8.1	4507.2
27 APR 2005	5.7	1236	69.6	7.8	4508.3
23 MAY 2005	5.5	1230	72.1	8.2	4548.1
22 AUG 2005	5.6	1254	69.7	8.2	4573.7
22 NOV 2005	5.3	1260	70.4	8.0	4584.5

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

6MW37

Mine Unit 6  
Well I.D. 6MW38

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	5.3	1327	67.1	8.0	4536.3
16 FEB 2005	4.9	1326	72.1	7.8	4543.7
21 MAR 2005	4.9	1323	72.2	7.9	4541.3
27 APR 2005	5.2	1304	66.2	7.8	4543.6
31 MAY 2005	4.7	1317	73.9	8.0	4542.4
23 AUG 2005	5.1	1326	64.7	8.3	4589.1
23 NOV 2005	5.1	1310	69.5	8.1	4600.1

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

6MW38

Mine Unit 6  
Well I.D. 6MW39

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

17 JAN 2005	5.5	1248	62.4	8.3	4507.4
07 FEB 2005	7.3	1250	59.8	8.0	4516.9
21 MAR 2005	5.2	1252	66.4	7.9	4518.7
27 APR 2005	5.6	1249	64.2	8.3	4511.8
23 MAY 2005	4.8	1246	65.7	8.2	4546.6
22 AUG 2005	5.5	1232	61.0	8.2	4568.7
14 NOV 2005	5.4	1231	63.8	8.5	4581.0

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

6MW39

Mine Unit 6  
Well I.D. 6MW40

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	5.3	1333	63.7	8.1	4531.9
16 FEB 2005	5.2	1323	68.7	7.7	4538.5
21 MAR 2005	5.1	1332	66.8	7.8	4537.7
27 APR 2005	5.0	1324	65.6	7.9	4541.8
23 MAY 2005	4.6	1333	68.4	8.1	4555.8
23 AUG 2005	5.0	1333	61.1	8.2	4586.2
30 NOV 2005	5.2	1311	67.3	8.2	4599.0

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

6MW40

Mine Unit 6  
Well I.D. 6MW41

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	5.8	1276	76.5	8.0	4508.5
07 FEB 2005	6.8	1271	71.0	8.1	4515.9
21 MAR 2005	5.7	1277	80.0	7.7	4521.2
27 APR 2005	5.8	1260	80.8	7.9	4505.5
23 MAY 2005	5.2	1268	79.3	8.1	4547.9
22 AUG 2005	5.5	1269	74.9	8.2	4567.4
14 NOV 2005	5.8	1264	79.1	8.2	4579.5

\* Values Exceed Upper Control Limit

6MW41

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW42

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	5.3	1331	64.3	8.0	4528.3
22 FEB 2005	5.2	1319	70.4	8.0	4537.3
22 MAR 2005	5.1	1333	68.3	7.8	4538.4
27 APR 2005	5.0	1330	66.4	7.9	4541.8
23 MAY 2005	4.7	1347	68.9	8.0	4559.4
23 AUG 2005	5.0	1328	62.9	8.2	4584.2
22 NOV 2005	5.0	1327	65.8	8.1	4595.9

\* Values Exceed Upper Control Limit

6MW42

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW43

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	5.5	1281	70.8	8.0	4508.1
07 FEB 2005	6.5	1278	68.6	8.2	4512.0
22 MAR 2005	5.2	1274	74.3	7.8	4511.6
27 APR 2005	5.1	1271	73.0	8.0	4501.6
31 MAY 2005	5.0	1285	79.2	8.2	4547.2
22 AUG 2005	5.0	1265	70.8	8.2	4566.3
16 NOV 2005	5.4	1249	74.5	8.1	4578.4

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

6MW43

Mine Unit 6  
Well I.D. 6MW44

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

18 JAN 2005	5.1	1317	62.5	8.2	4521.3
07 FEB 2005	6.8	1336	62.6	8.2	4525.9
22 MAR 2005	5.3	1307	66.8	7.8	4530.6
27 APR 2005	5.6	1267	58.9	7.8	4533.5
31 MAY 2005	4.7	1334	72.5	8.2	4541.5
23 AUG 2005	5.0	1333	64.8	8.3	4583.1
16 NOV 2005	5.4	1311	66.6	8.2	4595.9

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

6MW44

Mine Unit 6  
Well I.D. 6MW45

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

17 JAN 2005	5.5	1278	69.4	8.0	4509.9
16 FEB 2005	5.1	1275	74.1	7.5	4525.3
22 MAR 2005	5.1	1280	72.5	7.6	4521.6
27 APR 2005	5.4	1263	69.9	7.8	4499.5
23 MAY 2005	5.0	1275	74.1	7.9	4546.4
22 AUG 2005	5.3	1269	69.5	8.1	4564.4
14 NOV 2005	5.4	1262	71.7	7.9	4576.8

\* Values Exceed Upper Control Limit

6MW45

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW46

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20.6	2427	89.2			

Date

18 JAN 2005	6.1	1380	74.5	7.9	4515.3
09 FEB 2005	7.7	1363	74.6	7.5	4525.5
22 MAR 2005	6.3	1367	79.0	7.7	4525.2
27 APR 2005	6.4	1341	75.6	7.6	4533.5
31 MAY 2005	5.6	1322	70.7	8.2	4550.4
23 AUG 2005	5.6	1346	69.6	8.3	4581.5
16 NOV 2005	6.5	1371	83.9	8.3	4594.0

\* Values Exceed Upper Control Limit

6MW46

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW47

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

17 JAN 2005	5.8	1254	72.4	8.1	4508.3
16 FEB 2005	5.3	1269	74.7	7.7	4531.0
22 MAR 2005	5.4	1279	76.7	7.8	4523.9
27 APR 2005	5.4	1265	71.7	8.1	4499.5
31 MAY 2005	4.8	1265	73.1	8.0	4545.9
22 AUG 2005	5.1	1258	68.4	8.1	4564.9
16 NOV 2005	5.4	1260	72.5	8.2	4584.9

\* Values Exceed Upper Control Limit

6MW47

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW48-3

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	5.5	1321	64.3	8.0	4512.3
15 FEB 2005	5.2	1319	68.4	7.9	4525.5
22 MAR 2005	5.3	1329	68.7	7.7	4520.3
27 APR 2005	5.7	1305	68.2	7.8	4534.2
31 MAY 2005	5.0	1310	68.7	8.0	4548.4
23 AUG 2005	5.1	1319	61.6	8.3	4581.5
16 NOV 2005	5.5	1317	66.4	8.4	4592.9

\* Values Exceed Upper Control Limit

6MW48-3

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW49

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

17 JAN 2005	5.6	1275	69.4	7.9	4507.8
09 FEB 2005	6.7	1279	71.5	7.8	4531.1
22 MAR 2005	5.7	1276	76.1	7.5	4521.0
27 APR 2005	5.3	1269	70.7	7.8	4497.6
31 MAY 2005	5.1	1272	74.8	7.8	4546.5
22 AUG 2005	5.3	1264	68.4	8.1	4566.3
16 NOV 2005	5.8	1259	75.5	8.0	4578.6

\* Values Exceed Upper Control Limit

6MW49

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW50

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

17 JAN 2005	5.5	1315	65.3	8.1	4504.1
09 FEB 2005	6.4	1321	68.3	7.7	4514.5
22 MAR 2005	5.3	1317	70.5	7.7	4514.0
27 APR 2005	5.3	1316	70.5	8.0	4526.8
31 MAY 2005	4.7	1319	68.3	8.0	4536.8
23 AUG 2005	5.0	1313	64.7	8.2	4578.3
16 NOV 2005	5.4	1307	67.9	8.1	4590.7

\* Values Exceed Upper Control Limit

6MW50

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW51

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

17 JAN 2005	5.6	1274	69.2	8.1	4510.1
09 FEB 2005	6.7	1276	71.9	7.8	4528.3
22 MAR 2005	5.4	1280	73.2	7.8	4521.1
27 APR 2005	5.7	1268	73.0	7.9	4505.4
31 MAY 2005	5.1	1272	75.1	8.0	4545.2
22 AUG 2005	5.5	1260	68.7	8.2	4565.2
16 NOV 2005	5.6	1261	70.7	8.1	4577.9

\* Values Exceed Upper Control Limit

6MW51

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW52

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

17 JAN 2005	5.9	1233	71.0	8.1	4511.5
09 FEB 2005	7.1	1237	75.5	7.6	4520.8
22 MAR 2005	5.7	1234	74.8	7.9	4520.8
27 APR 2005	5.8	1229	74.0	8.1	4529.3
31 MAY 2005	5.3	1233	74.8	8.1	4537.0
23 AUG 2005	5.9	1232	70.0	8.2	4573.2
16 NOV 2005	5.8	1240	70.6	8.3	4584.6

\* Values Exceed Upper Control Limit

6MW52

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW53

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	6.1	1201	67.2	8.5	4517.8
09 FEB 2005	7.1	1199	71.7	7.8	4531.3
22 MAR 2005	6.2	1201	76.3	8.1	4528.7
27 APR 2005	6.0	1193	70.0	8.5	4521.6
31 MAY 2005	5.6	1196	71.3	8.3	4539.8
22 AUG 2005	6.3	1195	69.6	8.1	4563.8
16 NOV 2005	6.2	1188	69.3	8.6	4576.5

\* Values Exceed Upper Control Limit

6MW53

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6MW54

CHRISTENSEN RANCH  
PERIMETER ORE ZONE MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	20	1576	95.2			

Date

20 JAN 2005	5.8	1254	68.3	8.1	4513.2
09 FEB 2005	7.0	1249	71.6	7.9	4522.7
22 MAR 2005	5.7	1243	71.4	8.0	4521.4
27 APR 2005	5.7	1246	69.0	8.0	4528.2
31 MAY 2005	5.5	1246	74.6	8.3	4540.4
22 AUG 2005	5.4	1252	68.0	8.2	4571.1
16 NOV 2005	5.8	1247	69.0	8.2	4582.4

\* Values Exceed Upper Control Limit

6MW54

Negative U3O8 Grades Indicate Less Than Detection Limit.

**CHRISTENSEN RANCH PROJECT**

**Interior Shallow Sand Monitor Wells**

Mine Unit 5  
Well I.D. MW-11S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.1	2922	316.6			

Date

11 JAN 2005	6.5	1286	94.6	8.0	4638.1
25 APR 2005	7.2	1310	102.7	7.7	4637.8
20 JUL 2005	7.3	1317	104.8	8.3	4640.5
04 OCT 2005	6.3	1291	97.2	7.9	4641.1

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW-11S

Mine Unit 3  
Well I.D. MW46S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.5	1087	184.4			

Date

03 JAN 2005	10.2	1536	"	128.7	8.0	4550.5
05 APR 2005	10.6	1440	"	144.7	7.5	4551.0
11 JUL 2005	10.5	1417	"	145.5	7.6	4552.0
27 OCT 2005	9.9	1399	"	141.6	8.1	4552.2

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW46S

Mine Unit 3  
Well I.D. MW48S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.2	1775	268.3			

Date

03 JAN 2005	9.3	1811	*	125.5	7.9	4552.7
28 APR 2005	9.6	1850	*	122.4	7.4	4553.1
11 JUL 2005	9.6	1828	*	122.4	7.5	4554.2
27 OCT 2005	9.5	1795	*	127.9	7.9	4554.5

\* Values Exceed Upper Control Limit

MW48S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW50S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.2	1775	268.3			

Date

03 JAN 2005	8.7	1338	150.2	8.0	4554.6
11 APR 2005	8.9	1305	151.6	7.6	4553.9
12 JUL 2005	8.6	1285	152.8	7.8	4555.9
27 OCT 2005	9.2	1278	155.6	8.0	4556.2

\* Values Exceed Upper Control Limit

MW50S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW52S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.2	1775	268.3			

Date

03 JAN 2005	7.4	1405	96.7	8.1	4547.0
05 APR 2005	7.5	1378	96.3	7.7	4547.5
12 JUL 2005	7.1	1374	90.1	8.0	4547.2
26 OCT 2005	7.4	1373	94.0	8.1	4548.0

\* Values Exceed Upper Control Limit

MW52S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW54S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.2	1775	268.3			

Date

04 JAN 2005	7.3	1481	116.3	8.0	4557.8
11 APR 2005	7.5	1479	121.0	7.6	4558.1
12 JUL 2005	6.5	1473	111.7	8.2	4559.1
27 OCT 2005	7.4	1458	123.9	8.1	4559.0

\* Values Exceed Upper Control Limit

MW54S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW56S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.5	1087	184.4			

Date

04 JAN 2005	6.0	931	131.6	8.4	4555.9
11 APR 2005	6.5	943	140.2	8.0	4555.4
11 JUL 2005	6.7	921	141.0	8.4	4555.9
26 OCT 2005	18.0	934	233.8	8.3	4557.4
27 OCT 2005	9.5	905	166.8	7.9	4557.4
27 OCT 2005	9.4	905	166.4	7.9	4557.4

\* Values Exceed Upper Control Limit

MW56S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW58S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.5	1087	184.4			

Date

04 JAN 2005	6.9	952	103.1	8.6	4565.1
11 APR 2005	7.2	944	110.8	8.0	4566.3
11 JUL 2005	7.3	942	111.0	8.8	4564.7
26 OCT 2005	7.6	953	119.5	8.5	4566.0

\* Values Exceed Upper Control Limit

MW58S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW66S-2

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.2	1775	268.3			

Date

04 JAN 2005	6.9	1456	109.5	8.1	4571.0
11 APR 2005	7.2	1477	115.5	7.6	4571.3
11 JUL 2005	7.3	1367	116.5	7.7	4676.9
26 OCT 2005	7.5	1395	120.5	8.3	4572.5

\* Values Exceed Upper Control Limit

MW66S-2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW68S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	23.5	3560	304			

Date

07 MAR 2005	16.9	2324	227.3	7.4	4574.1
21 JUN 2005	15.7	2351	215.3	7.4	4575.2
12 SEP 2005	16.9	2288	218.2	7.3	4575.3
14 DEC 2005	17.8	2317	246.0	7.2	4575.2

\* Values Exceed Upper Control Limit

MW68S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW70S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	63.4	21365	5861.3			

Date

07 MAR 2005	10.9	1802	22.1	8.3	4559.0
21 JUN 2005	11.4	1691	25.9	7.9	4560.0
12 SEP 2005	11.9	1705	21.2	8.3	4560.4
14 DEC 2005	11.3	1780	19.5	8.5	4561.1

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW70S

Mine Unit 2  
Well I.D. MW72S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	63.4	21365	5861.3			

Date

07 MAR 2005	12.0	2148	150.5	7.8	4564.9
21 JUN 2005	11.9	2123	154.1	7.6	4565.8
12 SEP 2005	12.4	2113	153.6	7.4	4566.5
14 DEC 2005	12.1	2139	159.0	7.8	4566.7

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW72S

Mine Unit 2  
Well I.D. MW92S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	23.5	3560	304			

Date

08 MAR 2005	11.7	2296	144.5	7.4	4571.1
21 JUN 2005	11.7	2308	139.4	7.3	4572.2
12 SEP 2005	12.1	2263	137.7	7.3	4572.2
14 DEC 2005	11.8	2302	145.0	7.4	4572.3

\* Values Exceed Upper Control Limit

MW92S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW94S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	23.5	3560	304			

Date

08 MAR 2005	14.0	2517	183.4	7.3	4550.7
21 JUN 2005	14.0	2556	187.0	7.3	4552.2
13 SEP 2005	14.1	2499	182.0	7.4	4552.3
14 DEC 2005	13.9	2524	187.0	7.4	4552.1

\* Values Exceed Upper Control Limit

MW94S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW96S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	23.5	3560	304			

Date

08 MAR 2005	11.5	2586	227.5	7.4	4567.2
21 JUN 2005	11.4	2598	223.5	7.3	4568.8
13 SEP 2005	11.7	2525	222.6	7.4	4568.7
14 DEC 2005	11.6	2599	224.0	7.3	4568.0

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW96S

Mine Unit 2  
Well I.D. MW98S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	63.4	21365	5861.3			

Date

08 MAR 2005	13.0	2513	163.6	7.4	4557.5
21 JUN 2005	13.1	2570	162.4	7.4	4558.8
13 SEP 2005	13.2	2499	166.8	7.4	4558.8
13 DEC 2005	13.4	2538	164.2	7.7	4558.4

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW98S

Mine Unit 2  
Well I.D. MW100S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	23.5	3560	304			

Date

08 MAR 2005	12.5	2399	150.5	7.5	4555.0
21 JUN 2005	12.9	2525	168.4	7.4	4556.2
13 SEP 2005	13.4	2395	153.5	7.5	4556.1
13 DEC 2005	13.1	2494	153.9	7.8	4555.7

\* Values Exceed Upper Control Limit

MW100S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW112S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	63.4	21365	5861.3			

Date

08 MAR 2005	13.8	3200	530.8	11.4	4552.9
21 JUN 2005	13.7	3290	541.2	11.2	4553.7
13 SEP 2005	13.2	3734	613.6	11.3	4554.3
14 DEC 2005	16.3	4030	696.5	11.2	4558.3

\* Values Exceed Upper Control Limit

MW112S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW117S

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.6	768	144.5			

Date

08 MAR 2005	7.9	733	131.0	8.0	4530.9
21 JUN 2005	8.0	734	137.1	8.2	4532.8
13 SEP 2005	8.6	735	133.9	8.0	4533.4
14 DEC 2005	7.8	746	136.0	8.1	4533.6

\* Values Exceed Upper Control Limit

MW117S

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4SM-1

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	8.8	1570	142.7			

Date

15 MAR 2005	6.7	1192	93.9	7.9	4607.3
21 JUN 2005	6.7	1252	92.4	8.1	4608.7
21 SEP 2005	6.8	1197	87.1	7.7	4607.9
20 DEC 2005	6.7	1219	91.5	7.8	4609.4

\* Values Exceed Upper Control Limit

4SM-1

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4SM-4

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	8.8	1570	142.7			

Date

15 MAR 2005	6.6	1069	104.3	7.6	4594.3
21 JUN 2005	6.2	1059	101.4	7.9	4595.9
21 SEP 2005	6.5	1068	93.2	7.5	4595.0
20 DEC 2005	6.4	1057	99.0	7.5	4596.5

\* Values Exceed Upper Control Limit

4SM-4

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4SM-8

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	8.8	1570	142.7			

Date

15 MAR 2005	6.7	855	125.7	7.8	4590.5
21 JUN 2005	6.1	830	116.3	8.0	4592.2
21 SEP 2005	6.5	848	110.9	7.7	4591.2
20 DEC 2005	6.4	844	117.0	7.8	4592.9

\* Values Exceed Upper Control Limit

4SM-8

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4SRM-07

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	19.4	1175	447.1			

Date

15 MAR 2005	9.2	507	258.2	7.9	4578.2
21 JUN 2005	8.6	510	253.7	8.1	4579.5
21 SEP 2005	9.2	513	236.5	7.8	4577.3
20 DEC 2005	9.1	502	255.0	7.7	4580.2

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

4SRM-07

Mine Unit 5  
Well I.D. 5SM1

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.1	2922	316.6			

Date

11 JAN 2005	7.5	1218	90.3	7.9	4627.1
25 APR 2005	8.0	1199	91.5	7.9	4628.0
20 JUL 2005	8.0	1198	92.4	8.0	4628.8
04 OCT 2005	11.3	1194	99.9	7.2	4629.0

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5SM1

Mine Unit 5  
Well I.D. 5SM2

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.1	2922	316.6			

Date

11 JAN 2005	6.9	1183	97.5	8.0	4672.1
25 APR 2005	7.1	1173	103.6	7.7	4673.8
20 JUL 2005	7.3	1175	104.5	7.9	4675.0
04 OCT 2005	6.9	1165	112.9	8.0	4675.0

\* Values Exceed Upper Control Limit

5SM2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5SM3

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.1	2922	316.6			

Date

11 JAN 2005	6.9	1413	82.4	8.3	4671.8
27 APR 2005	7.2	1390	87.0	8.5	4672.9
20 JUL 2005	7.3	1418	89.0	8.4	4674.3
04 OCT 2005	6.4	1413	83.7	8.1	4674.4

\* Values Exceed Upper Control Limit

5SM3

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5SMS

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.1	2922	316.6			

Date

11 JAN 2005	6.0	1309	99.7	7.8	4678.0
25 APR 2005	6.5	1309	108.8	7.5	4682.9
20 JUL 2005	6.7	1304	108.6	8.0	4582.0
04 OCT 2005	6.2	1278	102.1	7.6	4681.4

\* Values Exceed Upper Control Limit

5SMS

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5SM6

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.1	2922	316.6			

Date

11 JAN 2005	9.1	611	171.0	8.4	4667.2
27 APR 2005	9.7	607	168.2	8.6	4667.8
20 JUL 2005	9.9	609	170.2	8.5	4668.8
04 OCT 2005	10.3	594	176.5	8.1	4669.1

\* Values Exceed Upper Control Limit

5SM6

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5SM7

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.1	2922	316.6			

Date

11 JAN 2005	15.3	1093	248.9	8.1	4660.7
27 APR 2005	16.2	1155	233.3	7.8	4662.2
20 JUL 2005	15.9	1038	235.3	8.2	4663.3
03 OCT 2005	18.8	1014	221.5	7.6	4663.5

\* Values Exceed Upper Control Limit

5SM7

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. WCOW-04

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.1	2922	316.6			

Date

11 JAN 2005	6.8	1533	103.0	8.0	4638.1
25 APR 2005	6.8	1323	108.1	7.9	4636.0
20 JUL 2005	6.9	1338	109.0	8.4	4641.6
04 OCT 2005	7.5	1342	115.1	7.7	4642.2

\* Values Exceed Upper Control Limit

WCOW-04

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM1

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22	1966	289.1			

Date

17 JAN 2005	6.8	1051	104.6	8.4	4701.8
15 FEB 2005	6.8	1068	112.8	8.3	4701.4
22 MAR 2005	6.8	1070	111.9	8.2	4700.9
27 APR 2005	6.6	1040	115.9	8.4	4701.5
23 MAY 2005	6.9	1116	114.2	8.2	4722.3
22 AUG 2005	6.8	930	99.2	8.1	4701.0
14 NOV 2005	6.8	968	109.1	8.3	4701.5

\* Values Exceed Upper Control Limit

6SM1

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM2

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	24.2	3574	238.2			

Date

17 JAN 2005	8.0	1925	78.8	7.8	4705.0
09 FEB 2005	9.6	1931	83.2	7.1	4705.2
22 MAR 2005	8.0	1945	84.4	7.6	4705.4
27 APR 2005	8.0	1909	85.8	7.4	4706.6
31 MAY 2005	7.5	1935	85.2	7.8	4704.9
23 AUG 2005	8.1	1914	79.1	8.1	4705.9
14 NOV 2005	8.1	1898	82.9	7.9	4706.3

\* Values Exceed Upper Control Limit

6SM2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM3

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	24.2	3574	238.2			

Date

17 JAN 2005	8.4	2040	63.7	7.7	4715.5
09 FEB 2005	9.5	2058	65.3	7.1	4716.5
22 MAR 2005	8.3	2097	67.7	7.4	4716.6
27 APR 2005	8.5	2054	69.1	7.4	4717.6
31 MAY 2005	8.0	2074	66.5	7.6	4716.6
23 AUG 2005	8.6	2006	58.8	8.0	4717.1
14 NOV 2005	8.6	2018	65.8	7.8	4716.9

\* Values Exceed Upper Control Limit

6SM3

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM4

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	24.2	3574	238.2			

Date

17 JAN 2005	6.8	1692	65.8	8.0	4715.8
16 FEB 2005	7.1	1611	42.4	7.6	4716.8
22 MAR 2005	6.7	1714	63.6	7.7	4717.2
27 APR 2005	7.0	1700	54.5	7.7	4717.2
31 MAY 2005	6.1	1449	50.0	7.4	4716.8
23 AUG 2005	7.2	1644	33.8	8.0	4717.5
14 NOV 2005	7.5	1436	22.9	8.7	4717.3

\* Values Exceed Upper Control Limit

6SM4

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM5

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22	1966	289.1			

Date

17 JAN 2005	7.7	1613	89.7	8.0	4706.8
09 FEB 2005	9.3	1619	92.6	7.2	4706.8
22 MAR 2005	7.9	1623	94.7	7.8	4706.7
27 APR 2005	8.3	1571	93.5	7.4	4706.4
31 MAY 2005	6.8	1506	87.1	7.8	4706.4
23 AUG 2005	8.2	1570	92.1	8.0	4707.0
21 NOV 2005	8.2	1580	92.6	7.9	4707.4

\* Values Exceed Upper Control Limit

6SM5

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM6

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22	1966	289.1			

Date

17 JAN 2005	11.6	499	245.1	8.3	4688.2
09 FEB 2005	13.1	499	255.1	7.5	4689.8
22 MAR 2005	11.7	499	251.4	8.1	4690.0
27 APR 2005	11.9	493	251.2	8.0	4690.3
31 MAY 2005	10.8	494	247.8	8.2	4689.4
23 AUG 2005	11.7	510	237.0	8.0	4691.9
16 NOV 2005	12.2	505	249.1	7.8	4692.9

\* Values Exceed Upper Control Limit

6SM6

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM7

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	25.6	889	330			

Date

17 JAN 2005	11.2	491	236.8	8.4	4689.1
16 FEB 2005	12.0	495	256.1	8.2	4707.4
22 MAR 2005	11.4	494	251.8	8.2	4690.4
27 APR 2005	11.6	489	248.8	8.3	4690.1
31 MAY 2005	10.6	483	243.9	7.9	4689.1
23 AUG 2005	11.8	486	228.9	8.0	4691.5
16 NOV 2005	11.8	478	239.4	8.1	4692.6

\* Values Exceed Upper Control Limit

6SM7

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM8

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	24.2	3574	238.2			

Date

17 JAN 2005	10.0	2187	51.5	7.8	4729.3
09 FEB 2005	11.6	2217	52.1	7.5	4731.5
22 MAR 2005	10.5	2214	55.5	7.1	4732.4
27 APR 2005	10.3	2179	53.7	7.0	4730.2
31 MAY 2005	9.5	2195	52.9	7.4	4730.1
23 AUG 2005	10.4	2142	50.6	8.3	4730.6
21 NOV 2005	10.2	2207	52.2	7.7	4730.4

\* Values Exceed Upper Control Limit

6SM8

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM9

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	24.2	3574	238.2			

Date

17 JAN 2005	9.0	2043	19.1	8.1	4729.9
15 FEB 2005	7.9	2010	23.8	7.3	4731.1
22 MAR 2005	9.4	2062	20.4	7.9	4731.1
27 APR 2005	9.4	2026	16.8	8.0	4730.5
31 MAY 2005	9.0	1815	27.5	7.4	4731.0
23 AUG 2005	9.7	1896	19.0	8.7	4731.1
21 NOV 2005	9.9	1888	20.2	9.2	4731.2

\* Values Exceed Upper Control Limit

6SM9

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM10

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	25.6	889	330			

Date

17 JAN 2005	10.7	750	237.7	8.1	4678.0
15 FEB 2005	10.4	745	243.5	8.2	4678.4
23 MAR 2005	10.7	741	244.6	8.2	4679.7
27 APR 2005	10.9	754	244.8	8.2	4679.4
31 MAY 2005	9.8	752	250.8	8.0	4678.3
23 AUG 2005	11.4	685	238.1	8.0	4680.3
22 NOV 2005	11.1	681	243.6	8.3	4681.0

\* Values Exceed Upper Control Limit

6SM10

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM11

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	24.2	3574	238.2			

Date

20 JAN 2005	13.6	2571	81.0	8.3	4729.0
16 FEB 2005	13.2	2560	79.4	7.7	4730.1
22 MAR 2005	13.2	2602	80.2	7.7	4730.2
27 APR 2005	13.4	2531	71.9	8.0	4730.0
31 MAY 2005	12.1	2551	71.1	7.8	4730.0
23 AUG 2005	13.6	2499	57.9	8.1	4730.3
21 NOV 2005	13.3	2542	69.5	8.2	4730.0

\* Values Exceed Upper Control Limit

6SM11

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM12

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	24.2	3574	238.2	8.5		

Date

17 JAN 2005	12.4	2690	98.8	7.8	4727.2
15 FEB 2005	12.0	2699	101.5	7.5	4730.0
22 MAR 2005	12.4	2714	102.9	7.4	4729.5
27 APR 2005	12.5	2654	102.3	7.4	4729.7
31 MAY 2005	11.3	2638	100.3	7.5	4729.7
23 AUG 2005	13.3	2613	93.0	8.1	4730.4
21 NOV 2005	13.3	2693	98.8	7.7	4730.4

\* Values Exceed Upper Control Limit

6SM12

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM13

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	24.2	3574	238.2			

Date

17 JAN 2005	12.1	2230	70.5	7.8	4729.0
15 FEB 2005	12.0	2240	74.6	7.5	4729.8
22 MAR 2005	12.3	2247	75.0	7.3	4730.4
27 APR 2005	12.3	2232	72.1	7.7	4730.7
31 MAY 2005	11.5	2250	75.7	7.6	4730.3
23 AUG 2005	13.3	2267	74.9	8.1	4730.6
21 NOV 2005	12.6	2294	73.3	7.7	4730.6

\* Values Exceed Upper Control Limit

6SM13

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6SM14

CHRISTENSEN RANCH  
INTERIOR SHALLOW SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22	1966	289.1			

Date

17 JAN 2005	7.7	1154	125.6	8.1	4700.5
15 FEB 2005	7.8	1145	131.0	8.2	4704.2
23 MAR 2005	7.7	1147	132.4	8.4	4701.5
27 APR 2005	7.9	1145	130.0	7.9	4703.0
31 MAY 2005	7.0	1147	131.4	7.8	4703.1
23 AUG 2005	8.0	1106	124.8	8.0	4704.4
23 NOV 2005	7.7	1105	125.7	8.4	4704.6

\* Values Exceed Upper Control Limit

6SM14

Negative U3O8 Grades Indicate Less Than Detection Limit.

**CHRISTENSEN RANCH PROJECT**  
**Interior Deep Sand Monitor Wells**

Mine Unit 5  
Well I.D. MW-12D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.8	1017	420.9			

Date

11 JAN 2005	10.3	592	156.9	8.3	4591.5
25 APR 2005	10.2	587	158.5	8.2	4592.8
20 JUL 2005	10.4	553	159.8	8.5	4591.5
27 OCT 2005	11.9	528	169.4	8.5	4593.4

\* Values Exceed Upper Control Limit

MW-12D

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW45D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.7	753	153.3			

Date

03 JAN 2005	9.2	603	122.6	8.6	4527.9
05 APR 2005	9.8	586	137.6	8.2	4529.6
11 JUL 2005	9.9	595	137.0	8.2	4531.0
27 OCT 2005	9.7	584	139.7	8.7	4529.9

\* Values Exceed Upper Control Limit

MW45D

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW47D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.7	753	153.5			

Date

03 JAN 2005	8.9	582	133.5	8.7	4529.8
28 APR 2005	9.3	578	140.0	8.6	4531.6
11 JUL 2005	9.4	581	140.0	8.6	4533.4
27 OCT 2005	9.3	574	144.3	8.8	4532.4

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW47D

Mine Unit 3  
Well I.D. MW49D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.7	753	153.3			

Date

03 JAN 2005	8.7	551	149.5	8.7	4531.8
11 APR 2005	9.4	560	159.6 *	8.4	4533.3
11 JUL 2005	9.3	571	158.6 *	8.5	4535.3
27 OCT 2005	9.2	585	146.8	8.7	4534.2

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW49D

Mine Unit 3  
Well I.D. MW51D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.7	753	153.3			

Date

03 JAN 2005	9.9	623	111.6	8.7	4526.7
05 APR 2005	10.7	599	137.0	8.6	4527.8
12 JUL 2005	9.6	606	140.3	8.3	4527.9
31 OCT 2005	10.1	625	120.8	8.8	4527.5

\* Values Exceed Upper Control Limit

MW51D

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW53D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.7	753	153.3			

Date

04 JAN 2005	9.7	648	94.7	8.6	4534.6
11 APR 2005	9.9	647	103.8	8.3	4535.8
11 JUL 2005	9.9	643	104.0	8.4	4537.7
27 OCT 2005	10.3	637	106.8	8.7	4536.5

\* Values Exceed Upper Control Limit

MW53D

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 3  
Well I.D. MW55D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.7	753	153.3			

Date

04 JAN 2005	8.7	559	140.0	*	8.8	4534.0
11 APR 2005	9.1	532	163.3	*	8.6	4535.2
11 JUL 2005	9.2	523	160.3	*	9.0	4534.9
26 OCT 2005	10.4	534	159.8	*	8.9	4536.3

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW55D

Mine Unit 3  
Well I.D. MW57D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.7	753	153.3			

Date

04 JAN 2005	10.1	640	101.1	*	8.6	4538.8
28 APR 2005	12.0	636	103.7	*	8.4	4547.7
11 JUL 2005	11.7	634	102.9	*	8.9	4539.2
26 OCT 2005	12.0	631	108.2	*	8.7	4540.6

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW57D

Mine Unit 3  
Well I.D. MW65D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.7	753	153.3			

Date

04 JAN 2005	7.0	486	172.3	*	9.1	4543.7
11 APR 2005	7.2	465	169.5	*	8.8	4544.5
11 JUL 2005	7.1	456	165.5	*	8.8	4546.6
26 OCT 2005	7.0	458	181.5	*	9.2	4547.1

\* Values Exceed Upper Control Limit

MW65D

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW67D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	12.9	789	134			

Date

07 MAR 2005	9.3	563	169.4	*	8.8	4523.0
21 JUN 2005	9.6	576	180.6	*	8.7	4526.0
12 SEP 2005	9.3	565	163.7	*	8.6	4525.0
14 DEC 2005	9.2	573	172.0	*	8.7	4528.2

\* Values Exceed Upper Control Limit

MW67D

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW69D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	12.9	789	134			

Date

07 MAR 2005	9.4	617	135.7	*	8.8	4524.4
21 JUN 2005	10.4	626	134.2	*	8.8	4527.2
12 SEP 2005	9.9	600	135.8	*	8.5	4525.5
14 DEC 2005	9.5	605	134.0		8.7	4529.5

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW69D

Mine Unit 2  
Well I.D. MW71D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	12.9	789	134			

Date

07 MAR 2005	9.3	630	130.0		8.8	4526.2
21 JUN 2005	10.2	636	134.2	*	8.8	4526.2
12 SEP 2005	18.2	623	140.5	*	7.9	4527.0
13 SEP 2005	11.6	623	121.3		8.5	4527.0
13 SEP 2005	11.0	621	120.0		8.5	4527.0
14 DEC 2005	9.2	622	125.0		8.7	4531.9

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW71D

Mine Unit 2  
Well I.D. MW91D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	12.9	789	134			

Date

08 MAR 2005	8.8	525	185.0	*	8.5	4522.8
21 JUN 2005	9.5	521	190.4	*	8.4	4525.5
12 SEP 2005	9.0	510	186.4	*	8.3	4524.8
14 DEC 2005	8.8	514	196.0	*	8.5	4527.7

\* Values Exceed Upper Control Limit

MW91D

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW93D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	12.9	789	134			

Date

08 MAR 2005	9.8	653	105.4	8.4	4521.5
21 JUN 2005	9.8	657	107.1	8.3	4524.3
13 SEP 2005	10.0	640	103.7	8.3	4523.4
14 DEC 2005	10.2	645	111.0	8.5	4525.5

\* Values Exceed Upper Control Limit

MW93D

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW95D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	12.9	789	134			

Date

08 MAR 2005	9.7	648	111.8	8.3	4521.6
21 JUN 2005	9.5	653	111.1	8.2	4524.5
13 SEP 2005	9.8	644	107.2	8.3	4524.2
14 DEC 2005	9.8	660	112.0	8.4	4526.1

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW95D

Mine Unit 2  
Well I.D. MW97D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	13.8	723	143.3			

Date

08 MAR 2005	10.5	606	116.4	8.4	4521.1
21 JUN 2005	10.5	617	122.9	8.2	4523.6
13 SEP 2005	10.6	606	123.2	8.3	4523.2
13 DEC 2005	10.2	605	121.0	8.5	4525.1

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

MW97D

Mine Unit 2  
Well I.D. MW99D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.8	723	143.3			

Date

08 MAR 2005	10.3	489	211.9	*	8.7	4518.1
21 JUN 2005	10.8	504	221.4	*	8.5	4520.4
13 SEP 2005	10.2	500	198.1	*	8.4	4521.1
13 DEC 2005	10.6	534	170.6	*	8.7	4521.9

\* Values Exceed Upper Control Limit

MW99D

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW113D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	13.8	723	143.3			

Date

08 MAR 2005	11.1	482	220.0	*	8.8	4518.5
21 JUN 2005	11.2	487	228.6	*	8.7	4520.9
13 SEP 2005	11.1	482	218.3	*	8.6	4521.5
14 DEC 2005	10.9	489	226.0	*	8.7	4522.2

\* Values Exceed Upper Control Limit

MW113D

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4DM-1

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	14.1	712	189.2			

Date

15 MAR 2005	8.8	566	125.8	8.7	4561.2
21 JUN 2005	8.1	565	123.9	8.6	4563.0
21 SEP 2005	8.8	562	114.8	8.3	4562.6
20 DEC 2005	8.7	558	123.0	8.4	4564.5

\* Values Exceed Upper Control Limit

4DM-1

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4DM-4

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	14.1	712	189.2			

Date

15 MAR 2005	9.4	514	146.5	8.7	4551.4
21 JUN 2005	7.9	515	150.6	8.7	4553.9
21 SEP 2005	8.2	514	132.6	8.4	4553.8
20 DEC 2005	8.0	.508	138.0	8.5	4556.6

\* Values Exceed Upper Control Limit

4DM-4

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4DM-8

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	14.1	712	189.2			

Date

15 MAR 2005	9.3	511	141.0	8.6	4546.0
21 JUN 2005	8.0	513	151.3	8.6	4548.5
21 SEP 2005	8.2	511	136.8	8.3	4548.3
20 DEC 2005	8.2	507	146.0	8.4	4551.9

\* Values Exceed Upper Control Limit

4DM-8

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 4  
Well I.D. 4DRM-07

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	14.1	712	189.2			

Date

15 MAR 2005	9.5	528	123.5	8.5	4556.0
21 JUN 2005	7.7	530	134.7	8.5	4548.5
21 SEP 2005	8.0	526	123.0	8.3	4557.7
20 DEC 2005	8.4	523	132.0	8.4	4560.4

\* Values Exceed Upper Control Limit

4DRM-07

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5DM1A

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.8	1017	420.9			

Date

10 JAN 2005	5.6	408	194.1	8.8	4595.4
25 APR 2005	5.3	403	198.7	8.8	4597.4
20 JUL 2005	5.4	402	199.8	8.8	4597.6
04 OCT 2005	5.0	401	196.7	8.7	4598.4

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5DM1A

Mine Unit 5  
Well I.D. 5DM2

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.8	1017	420.9			

Date

10 JAN 2005	10.1	624	110.7	8.9	4590.2
25 APR 2005	10.9	611	119.0	9.0	4591.2
20 JUL 2005	10.7	619	120.4	9.1	4591.1
04 OCT 2005	10.2	615	119.0	8.9	4592.9

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

5DM2

Mine Unit 5  
Well I.D. 5DM3

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.8	1017	420.9			

Date

10 JAN 2005	9.2	544	138.1	8.6	4593.6
27 APR 2005	9.3	535	137.5	8.8	4590.7
20 JUL 2005	9.4	534	138.3	8.9	4595.2
04 OCT 2005	8.4	525	153.5	8.6	4596.3

\* Values Exceed Upper Control Limit

5DM3

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5DM4

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.8	1017	420.9			

Date

10 JAN 2005	5.6	427	211.8	8.7	4594.8
25 APR 2005	5.7	420	216.5	8.7	4595.9
18 JUL 2005	5.8	422	217.5	8.7	4596.8
04 OCT 2005	5.2	419	218.3	8.6	4597.6

\* Values Exceed Upper Control Limit

5DM4

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5DM5

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.8	1017	420.9			

Date

10 JAN 2005	5.9	448	225.0	8.6	4592.0
25 APR 2005	6.1	442	239.3	8.5	4593.4
20 JUL 2005	6.2	433	242.5	8.4	4593.8
04 OCT 2005	6.2	435	241.5	8.5	

\* Values Exceed Upper Control Limit

5DM5

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5DM7

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.8	1017	420.9			

Date

10 JAN 2005	7.8	532	238.2	8.4	4589.8
27 APR 2005	8.5	522	239.4	8.5	4590.9
20 JUL 2005	8.6	537	240.6	8.5	4593.4
04 OCT 2005	6.9	520	246.3	8.4	4594.8

\* Values Exceed Upper Control Limit

5DM7

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. WCOW-37D

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.8	1017	420.9			

Date

11 JAN 2005	8.8	458	240.5	8.4	4585.0
27 APR 2005	9.0	459	238.5	8.6	4591.0
20 JUL 2005	8.9	460	225.5	8.5	4590.0
03 OCT 2005	8.8	461	229.0	8.4	4593.7

\* Values Exceed Upper Control Limit

WCOW-37D

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6DM1

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	21.9	1682	129.4			

Date

17 JAN 2005	8.7	786	91.1	8.0	4521.3
07 FEB 2005	10.1	798	83.5	8.2	4527.1
21 MAR 2005	8.3	794	93.3	8.1	4529.0
27 APR 2005	8.4	797	96.6	7.9	4528.0
23 MAY 2005	7.8	793	94.7	8.1	4531.7
22 AUG 2005	8.7	793	89.1	8.2	4561.4
14 NOV 2005	9.0	785	97.6	8.2	4574.9

\* Values Exceed Upper Control Limit

6DM1

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6DM2

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	21.9	1682	129.4			

Date

17 JAN 2005	6.6	1117	65.0	8.8	4518.9
07 FEB 2005	7.7	1123	63.3	8.0	4526.9
21 MAR 2005	6.4	1119	67.9	8.8	4528.2
27 APR 2005	6.6	1122	71.9	8.6	4527.5
23 MAY 2005	6.2	1117	69.9	8.8	4532.7
23 AUG 2005	6.5	1114	59.7	8.3	4564.8
14 NOV 2005	7.6	1108	65.4	9.0	4575.9

\* Values Exceed Upper Control Limit

6DM2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6DM3-2

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	21.9	1682	129.4			

Date

17 JAN 2005	6.6	1106	73.4	7.7	4517.9
07 FEB 2005	9.5	1109	70.8	7.9	4526.2
21 MAR 2005	6.4	1106	77.5	7.6	4527.4
27 APR 2005	6.6	1104	79.1	7.5	4526.9
23 MAY 2005	6.2	1101	78.0	7.8	4534.7
23 AUG 2005	6.4	1096	72.3	8.1	4566.4
14 NOV 2005	6.6	1102	77.0	7.8	4577.7

\* Values Exceed Upper Control Limit

6DM3-2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6DM4-2

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	21.9	1682	129.4			

Date

17 JAN 2005	7.1	1058	82.4	8.4	4517.5
16 FEB 2005	6.7	1069	80.9	8.1	4541.9
21 MAR 2005	6.7	1097	80.9	8.2	4527.0
27 APR 2005	6.9	1092	83.4	8.0	4527.5
23 MAY 2005	6.6	1088	82.2	8.3	4533.6
23 AUG 2005	6.5	1104	70.5	8.1	4567.0
14 NOV 2005	6.7	1100	74.7	8.3	4578.4

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

6DM4-2

Mine Unit 6  
Well I.D. 6DM5

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	21.9	1682	129.4			

Date

17 JAN 2005	6.5	1148	70.2	7.6	4516.1
07 FEB 2005	8.8	1161	72.8	7.9	4522.9
22 MAR 2005	6.3	1160	77.9	7.9	4524.5
27 APR 2005	6.8	1134	75.4	7.9	4526.8
23 MAY 2005	6.2	1153	76.6	7.6	4533.3
23 AUG 2005	6.7	1153	72.8	8.2	4569.2
21 NOV 2005	6.5	1149	77.1	7.5	4580.5

\* Values Exceed Upper Control Limit

Negative U3O8 Grades Indicate Less Than Detection Limit.

6DM5

Mine Unit 6  
Well I.D. 6DM6

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	21.9	1682	129.4			

Date

27 JAN 2005	8.5	839	91.6	8.3	4523.2
16 FEB 2005	7.5	842	91.5	8.2	4533.1
23 MAR 2005	7.7	842	93.1	8.3	4533.1
27 APR 2005	7.5	841	91.0	8.2	4532.3
23 MAY 2005	7.1	840	92.4	8.3	4530.7
23 AUG 2005	7.3	829	82.7	8.1	4577.9
21 NOV 2005	7.5	846	88.5	8.4	4589.6

\* Values Exceed Upper Control Limit

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

6DM6

Mine Unit 6  
Well I.D. 6DM7

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	21.9	1682	129.4			

Date

18 JAN 2005	7.3	858	83.6	8.0	4538.8
16 FEB 2005	7.3	867	88.6	8.0	4545.8
23 MAR 2005	7.4	870	89.2	8.1	4546.3
27 APR 2005	7.4	852	88.2	7.9	4541.3
23 MAY 2005	6.8	874	89.5	8.2	4541.6
23 AUG 2005	7.2	860	80.9	7.8	4588.4
23 NOV 2005	7.8	838	86.8	8.1	4599.9

\* Values Exceed Upper Control Limit

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

6DM7

Mine Unit 6  
Well I.D. 6DM8

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	21.9	1682	129.4			

Date

17 JAN 2005	7.5	846	82.1	8.4	4528.7
07 FEB 2005	7.4	839	82.0	8.3	4529.9
23 MAR 2005	7.4	830	81.8	8.2	4538.7
27 APR 2005	7.5	813	84.1	8.1	4536.2
23 MAY 2005	7.3	845	90.5	8.3	4533.1
23 AUG 2005	7.5	845	81.7	8.0	4581.8
21 NOV 2005	7.3	861	85.7	8.4	4593.5

\* Values Exceed Upper Control Limit

6DM8

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6DM9

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	21.9	1682	129.4			

Date

20 JAN 2005	8.2	829	84.0	7.7	4526.5
07 FEB 2005	7.9	825	87.5	7.8	4529.1
22 MAR 2005	7.6	826	89.3	7.9	4536.1
27 APR 2005	7.4	815	90.0	7.7	4534.7
23 MAY 2005	7.1	836	92.2	8.2	4534.0
23 AUG 2005	7.4	825	82.6	8.1	4577.9
22 NOV 2005	8.2	816	94.2	8.1	4589.7

\* Values Exceed Upper Control Limit

6DM9

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6DM10

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	21.9	1682	129.4			

Date

17 JAN 2005	7.5	840	85.3	8.3	4526.8
07 FEB 2005	7.5	840	90.0	8.3	4533.7
23 MAR 2005	7.6	843	90.9	8.4	4535.7
27 APR 2005	7.4	827	90.1	8.2	4535.1
23 MAY 2005	7.1	822	90.2	8.2	4539.4
23 AUG 2005	7.5	838	83.7	8.0	4576.5
22 NOV 2005	7.6	835	89.4	8.5	4590.0

\* Values Exceed Upper Control Limit

6DM10

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6DM11

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	22.9	1101	385.3			

Date

20 JAN 2005	8.6	580	254.0	8.6	4537.3
16 FEB 2005	9.1	584	251.5	8.6	4544.7
21 MAR 2005	8.9	586	245.7	8.6	4540.7
27 APR 2005	8.8	581	236.8	8.2	4547.0
23 MAY 2005	8.6	582	239.1	8.4	4541.7
23 AUG 2005	9.4	578	224.8	8.1	4582.6
21 NOV 2005	9.6	572	238.4	8.3	4594.7

\* Values Exceed Upper Control Limit

6DM11

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6DM12

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.9	1101	385.3			

Date

17 JAN 2005	8.0	535	126.2	8.7	4537.7
07 FEB 2005	8.0	530	129.9	8.6	4546.5
21 MAR 2005	8.0	533	132.2	8.6	4547.5
27 APR 2005	8.6	527	138.5	8.5	4547.8
23 MAY 2005	7.3	534	140.0	8.6	4542.9
23 AUG 2005	8.1	532	113.3	8.3	4582.4
21 NOV 2005	8.1	543	119.0	8.6	4594.7

\* Values Exceed Upper Control Limit

6DM12

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6DM13

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Upper Control Limit	22.9	1101	385.3			

Date

17 JAN 2005	8.0	634	185.8	8.2	4535.6
07 FEB 2005	8.0	630	189.5	8.2	4543.2
21 MAR 2005	8.0	632	192.8	8.3	4545.5
27 APR 2005	7.8	622	192.2	8.2	4545.2
23 MAY 2005	7.3	634	192.6	8.1	4541.1
23 AUG 2005	8.1	626	193.3	8.1	4579.7
21 NOV 2005	7.8	639	183.8	8.2	4592.1

\* Values Exceed Upper Control Limit

6DM13

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6DM14

CHRISTENSEN RANCH  
INTERIOR DEEP SAND MONITOR WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Upper Control Limit	21.9	1682	129.4			

Date

17 JAN 2005	7.8	818	90.3	8.4	4522.5
07 FEB 2005	7.8	815	93.4	8.2	4531.8
23 MAR 2005	7.7	828	92.4	8.3	4531.9
27 APR 2005	7.9	805	96.0	7.9	4534.1
23 MAY 2005	7.4	827	93.5	8.2	4531.0
23 AUG 2005	7.5	820	83.5	7.9	4573.5
23 NOV 2005	7.8	815	87.9	8.4	4576.0

\* Values Exceed Upper Control Limit

6DM14

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

**CHRISTENSEN RANCH PROJECT**  
**Perimeter Ore Zone Trend Wells**

Mine Unit 2  
Well I.D. MW78T

CHRISTENSEN RANCH  
PERIMETER ORE ZONE TREND WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Action Level	13.6	823	121.3			

Date

07 MAR 2005	9.5	665	98.7	8.3	4526.1
21 JUN 2005	9.3	666	91.7	8.0	4532.7
12 SEP 2005	9.2	647	90.7	8.2	4540.7
13 DEC 2005	9.8	664	97.5	8.4	4547.5

\* Values Exceed Action Level

MW78T

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 2  
Well I.D. MW87T

CHRISTENSEN RANCH  
PERIMETER ORE ZONE TREND WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Action Level	13.6	823	121.3			

Date

08 MAR 2005	9.7	663	98.5	8.4	4525.1
21 JUN 2005	10.2	664	97.9	8.0	4531.7
13 SEP 2005	9.6	664	91.6	8.1	4538.2
13 DEC 2005	9.6	660	95.4	8.2	4543.8

\* Values Exceed Action Level

MW87T

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5TW-1

CHRISTENSEN RANCH  
PERIMETER ORE ZONE TREND WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Action Level	22.7	1004	134.3			

Date

11 JAN 2005	8.4	719	101.2	8.4	4564.7
27 APR 2005	9.0	708	100.8	8.5	4579.0
20 JUL 2005	9.1	705	99.9	8.2	4587.4
03 OCT 2005	8.6	711	97.8	8.1	4595.3

\* Values Exceed Action Level

Negative U3O8 Grades Indicate Less Than Detection Limit.

5TW-1

Mine Unit 6  
Well I.D. 6TW1

CHRISTENSEN RANCH  
PERIMETER ORE ZONE TREND WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Action Level	20	1576	95.2			

Date

17 JAN 2005	7.3	1081	58.5	8.8	4516.4
15 FEB 2005	7.5	1139	69.9	7.9	4526.1
22 MAR 2005	7.6	1164	69.0	7.9	4526.1
27 APR 2005	8.3	1170	74.2	7.3	4533.6
31 MAY 2005	7.8	1179	76.1	8.2	4524.8
23 AUG 2005	28.6 *	1698 *	571.8 *	7.0	4583.0
22 NOV 2005	24.2 *	1670 *	503.4 *	7.3	4594.8

\* Values Exceed Action Level

Negative U3O8 Grades Indicate Less Than Detection Limit.

6TW1

Mine Unit 6  
Well I.D. 6TW2

CHRISTENSEN RANCH  
PERIMETER ORE ZONE TREND WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Action Level	20	1576	95.2			

Date

17 JAN 2005	5.5	1319	66.7	8.3	4515.9
09 FEB 2005	6.8	1318	70.2	7.5	4525.6
23 MAR 2005	5.6	1312	71.1	8.0	4522.0
27 APR 2005	12.4	1386	107.5	7.7	4529.8
31 MAY 2005	13.5	1428	120.9	8.0	4530.1
23 AUG 2005	18.4	1489	137.8	7.9	4583.4
16 NOV 2005	21.6	*	153.8	8.1	4594.9

\* Values Exceed Action Level

6TW2

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6TW3

CHRISTENSEN RANCH  
PERIMETER ORE ZONE TREND WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as $\text{CaCO}_3$		mg/l	msl
Action Level	20	1576	95.2			

Date

18 JAN 2005	5.9	1309	66.2	7.8	4517.7
15 FEB 2005	5.9	1292	73.2	7.5	4527.6
23 MAR 2005	6.0	1301	70.8	8.0	4523.5
27 APR 2005	6.6	1303	69.4	7.8	4514.6
31 MAY 2005	4.8	1277	71.9	7.9	4541.1
23 AUG 2005	5.4	1265	66.9	8.1	4585.1
22 NOV 2005	5.3	1273	70.9	7.9	4590.3

\* Values Exceed Action Level

6TW3

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6TW4

CHRISTENSEN RANCH  
PERIMETER ORE ZONE TREND WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Action Level	20	1576	95.2			

Date

18 JAN 2005	16.6	1391	134.4	*	7.9	4517.5
07 FEB 2005	15.9	1349	139.0	*	8.1	4520.0
23 MAR 2005	15.2	1319	139.7	*	8.3	4524.0
27 APR 2005	19.2	1426	192.2	*	7.9	4525.5
31 MAY 2005	10.7	1189	119.8	*	7.9	4534.5
23 AUG 2005	66.2	2433	515.6	*	6.9	4583.0
16 NOV 2005	57.2	2414	436.2	*	7.0	4593.9

\* Values Exceed Action Level

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

6TW4

Mine Unit 6  
Well I.D. 6TW5

CHRISTENSEN RANCH  
PERIMETER ORE ZONE TREND WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	µ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Action Level	20	1576	95.2			

Date

18 JAN 2005	9.3	1306	107.6	*	8.0	4518.4
09 FEB 2005	13.2	1416	152.9	*	7.2	4534.3
23 MAR 2005	8.9	1270	109.0	*	8.2	4530.2
27 APR 2005	18.8	1776	312.2	*	7.3	4535.5
31 MAY 2005	7.9	1265	120.9	*	7.9	4529.9
23 AUG 2005	40.4	2325	497.2	*	7.0	4584.7
16 NOV 2005	34.6	2254	484.6	*	7.3	4595.8

\* Values Exceed Action Level

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

6TW5

## **CHRISTENSEN RANCH PROJECT**

### **Interior Deep Sand Trend Wells**

Mine Unit 5  
Well I.D. 5DM8T

CHRISTENSEN RANCH  
INTERIOR DEEP SAND TREND WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Action Level	22.8	1017	420.9			

Date

10 JAN 2005	8.8	589	123.9	8.4	4581.6
25 APR 2005	9.1	582	134.0	8.4	4584.4
20 JUL 2005	9.3	880	136.0	8.2	4588.4
04 OCT 2005	8.3	591	122.2	8.0	4592.3

\* Values Exceed Action Level

5DM8T

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 5  
Well I.D. 5DM9T

CHRISTENSEN RANCH  
INTERIOR DEEP SAND TREND WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	μ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Action Level	22.8	1017	420.9			

Date

11 JAN 2005	10.5	518	137.7	8.6	4571.7
20 APR 2005	10.1	520	136.1	8.7	4584.2
20 JUL 2005	10.3	511	140.3	8.7	4585.1
03 OCT 2005	10.1	514	112.7	8.5	4593.5

\* Values Exceed Action Level

5DM9T

Negative U3O8 Grades Indicate Less Than Detection Limit.

Mine Unit 6  
Well I.D. 6DT1

CHRISTENSEN RANCH  
INTERIOR DEEP SAND TREND WELL

Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Uranium	Piezometric Elevation
Units	mg/l	$\mu$ mho/cm	mg/l as CaCO <sub>3</sub>		mg/l	msl
Action Level	21.3	1802	121.7			

Date

20 JAN 2005	8.7	812	93.7	8.3	4517.5
07 FEB 2005	9.8	819	86.3	8.3	4524.2
22 MAR 2005	8.0	813	94.6	8.2	4517.1
27 APR 2005	8.4	814	95.0	8.0	4529.0
23 MAY 2005	8.1	814	96.9	8.2	4532.0
22 AUG 2005	8.5	815	86.8	8.1	4570.2
21 NOV 2005	8.5	826	92.3	8.3	4570.2

\* Values Exceed Action Level

6DT1

Negative U<sub>3</sub>O<sub>8</sub> Grades Indicate Less Than Detection Limit.

## **APPENDIX 3**

### **Stack Emission Test**

***Cogema Resources Company  
Yellow Cake Dryer Stack  
Test Report***

**Lynch, Wyoming**

**January 12, 2005**

**Prepared for:**

**Mr. Tom Nicholson  
Cogema Resource Company  
935 Pendell Blvd., P.O. Box 730  
Mills, Wyoming 82644  
(307) 464-1427 ext. 17(voice)**

**File Number 05-1009**



**Western  
Environmental  
Services and  
Testing, Inc.**

***Employee Owned and Operated***

**913 Foster Road  
Casper, Wyoming 82601**

**Phone: 307-234-5511  
Toll Free: 800-545-5511  
FAX: 307-234-8324  
e-mail: WEST@testair.com**

*Alan D. Roylance*  
**Alan D. Roylance  
Vice President**

*Scott Hinchey bEB*  
**Scott Hinchey  
Project Supervisor**

## TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION	1
II. SUMMARY OF RESULTS	2
III. TEST PARAMETERS	3
IV. TEST PROCEDURES	5
V. SOURCE DESCRIPTION	7
VI. CALCULATIONS	8

### List of Tables

Table 1: Source Information	1
Table 2: Test Parameters and Particulate Results	3
Table 3: Radiochemistry Results	4
Table 4: Sampling Points	5

### List of Figures

Figure 1: Method 5 Particulate Sample Train	6
---	---

### APPENDICES

- A. Field Testing Data
- B. Computer Data Entry
- C. Analytical Data
- D. Equipment Calibration
- E. Chain of Custody
- F. Resumes of Test Personnel

## I. INTRODUCTION

Cogema Resource Company (Cogema) contracted Western Environmental Services and Testing, Inc. (Western Environmental) of Casper, Wyoming to conduct compliance testing at their uranium mill near Lynch, Wyoming.

The Yellow Cake Dryer Stack was tested by EPA Methods 1, 2, 3, 4 and 5 to demonstrate compliance with Wyoming Department of Environmental Quality (WYDEQ), Air Quality Division (AQD) Permit Number OP254. Emissions of radium<sub>226</sub>, thorium<sub>230</sub>, lead<sub>210</sub>, and uranium were also determined by analyzing the particulate collected.

Messrs. Scott Hinckey and Todd Cordell of Western Environmental conducted the particulate testing on January 12, 2005. Mr. Tom Nicholson of Cogema was also present.

Within this report the term "U<sub>3</sub>O<sub>8</sub>" is used generically to describe the uranium product emitted from the dryer stack. The actual composition of the uranium portion of the product produced by Cogema is 84% metastudite (UO<sub>4</sub> 2H<sub>2</sub>O) and 16% UO<sub>3</sub>. The uranium trapped in the scrubber water, and which is emitted from the stack, is 99.5% UO<sub>3</sub>, and 0.5% U<sub>3</sub>O<sub>7</sub>. These chemical compositions have been substantiated by Cogema through x-ray defraction work conducted at the South Dakota School of Mines and Technology and Hazen Research, Inc. in Golden, Colorado.

**Table 1**  
**Yellow Cake Dryer Source Information**

Exit Height (feet above ground)	approximately 40
Stack Diameter (Inches)	16
Port and Wall Thickness (Inches)	1/4
Upstream Diameters (Distance) from Test Ports to Flow Disturbance	9.5 diameters (12 ft., 11 in.)
Downstream Diameters (Distance) from Test Ports to Flow Disturbance	15 diameters (20 ft.)
Plant Production Rate - During Test	160 lbs/hr
- Daily Rate	160 lbs/hr

## II. SUMMARY OF RESULTS

The principal conclusions are:

1. The emissions of particulate matter from the Dryer Stack were 0.054 pounds per hour (0.0026 grains per dry standard cubic foot), based on averaging the two tests using the "front-half" collections of the EPA type sampling train.
2. The two test average concentrations of Uranium-natural (U) were  $2.46 \times 10^{-10}$   $\mu\text{Ci}/\text{ml}$ , based on the "front and back-half" collections of the EPA-type sampling train.
3. The two test average emissions of  $\text{U}_3\text{O}_8$  from the Dryer Stack were 0.00334 pounds per hour, based on the "front and back-half" collections of the EPA type sampling train.
4. The two test average emissions of Radium<sub>226</sub> from the Dryer Stack were less than  $6.92 \times 10^{-14}$   $\mu\text{Ci}/\text{ml}$ , based on the "front and back-half" collections of the EPA-type sampling train.
5. The two test average emissions of Thorium<sub>230</sub> from the Dryer Stack were less than  $1.19 \times 10^{-13}$   $\mu\text{Ci}/\text{ml}$ , based on the "front and back-half" collections of the EPA-type sampling train.
6. The two test average emissions of lead (Pb<sub>210</sub>) from the Dryer Stack were less than  $2.91 \times 10^{-12}$   $\mu\text{Ci}/\text{ml}$ , based on the "front and back-half" collections of the EPA-type sampling train.
7. The allowable particulate matter emission rate is 0.30 pound per hour, as stated in Cogema Permit #OP-254. The particulate emissions averaged 18.0 percent of the allowable standard, based on the "front-half" collections of two tests.

## II. RESULTS

TABLE 2  
YELLOW CAKE DRYER

	Run Number:	1	2	Average
Start Date/Time	1/12/2005 9:45	1/12/2005 10:54		
Stop Date/Time	1/12/2005 10:47	1/12/2005 11:55		
<b>Test Parameters</b>				
P <sub>bar</sub> (Barometric Pressure, absolute)	In. Hg	25.50	25.50	25.50
Y (Dry Gas Meter Calibration Factor)	dimensionless	0.997	0.997	0.997
C <sub>p</sub> (Pitot tube Coefficient)	dimensionless	0.841	0.847	0.844
D <sub>n</sub> (Diameter of Nozzle)	Inches	0.245	0.245	0.245
θ (Total Sampling Time of Test)	Minutes	60.00	60.00	60.00
ΔH (Orifice Pressure Drop)	In. H <sub>2</sub> O	1.13	1.13	1.13
V <sub>m</sub> (Volume of Dry Gas Sampled - as measured)	ft <sup>3</sup> (dry)	38.737	40.06	39.399
T <sub>m</sub> (Gas Meter Temperature, avg.)	Degr. F	34	39	36
V <sub>lc</sub> (Condensate - impingers and silica gel)	ml or g	70.7	69.8	70.25
m <sub>n</sub> (Mass of Particulate Collected)	mg	6.45	5.35	5.90
<b>Location/Process Parameters</b>				
A <sub>s</sub> (Cross-sectional Area of Stack)	ft <sup>2</sup>	1.40	1.40	1.40
P <sub>g</sub> (Static Pressure of Stack Gas)	In. H <sub>2</sub> O	0.17	0.17	0.17
T <sub>s</sub> (Temperature of Stack Gas)	Deg. F	141	142	141.50
√Δp (Sq. root of velocity head of gas)	✓ In. H <sub>2</sub> O	0.6459	0.6447	0.65
CO <sub>2</sub> (Carbon Dioxide)	%	0.4	0.4	0.40
O <sub>2</sub> (Oxygen)	%	19.6	19.6	19.60
N <sub>2</sub> (Nitrogen)	%	80	80	80.00
<b>Calculations</b>				
V <sub>mstd</sub> (Gas Sampled, standard conditions (std))	ft <sup>3</sup>	35.31	36.17	35.74
V <sub>wstd</sub> (Water Vapor in Gas Sampled, std)	ft <sup>3</sup>	3.33	3.29	3.31
B <sub>ws</sub> (Water Vapor in Gas, Proportion by Vol.)	%	8.61	8.33	8.47
G <sub>d</sub> (Proportion of Dry Gas in stack)	%	91.39	91.67	91.53
M <sub>d</sub> (Molecular Weight of Dry Stack Gas)	lb/lb-mole	28.85	28.85	28.85
M <sub>s</sub> (Molecular Weight of Wet Stack Gas)	lb/lb-mole	27.91	27.94	27.93
P <sub>s</sub> (Pressure of Stack Gas, Absolute)	In. Hg	25.51	25.51	25.51
Iso (Percent of Isokinetic Sampling)	%	102.7	104.4	103.52
<b>Flow Results</b>				
V <sub>s</sub> (Average Stack Gas Velocity)	ft/m (fpm)	2560	2573	2567
Q <sub>std</sub> (Dry Volumetric Flow Rate, std.)	ft <sup>3</sup> /m (dscfm)	2445	2463	2454
Q <sub>a</sub> (Measured Volumetric Flow Rate, Actual)	ft <sup>3</sup> /m (cfm)	3575	3593	3584
<b>Particulate Results</b>				
C <sub>s</sub> (Particulate Concentrations - std.)	gr/dscf	0.0028	0.0023	0.0026
E <sub>p</sub> (Particulate Emission Rate)	lb/hr	0.059	0.048	0.054

**Table 2 Yellow Cake Dryer Stack (Continued)**

<b>Test Parameters</b>		Date:	Run 1	Run 2	Average
<b>V<sub>mstd</sub></b>	(dscf - std conditions)		35.31	36.17	
	(dscm - std conditions)		1.00	1.02	
<b>Q<sub>s</sub></b>	(Stack Flow Rate, dscm/hr)		4154	4185	4170
	(Stack Flow Rate, dscf/min)		2445.327	2463.239	2454.283
<b>% Operating</b>			100.00	100.00	100.00
<b>Radium 226</b>	Amount collected (pCi/sample)		< 0.07	< 0.07	
	Possible error (pCi)		0.07	0.07	
	Lowest level detected - LLD (pCi)		0.07	0.07	
	LLD concentration ( $\mu$ Ci/ml)		7.00E-14	6.84E-14	6.918E-14
	Concentration, ( $\mu$ Ci/ml)		<7.00E-14	<6.84E-14	6.92E-14
	Possible concentration error ( $\mu$ Ci)		7.00E-14	6.84E-14	6.92E-14
	Release Rate (Ci/Month) *		<2.16E-07	<2.13E-07	2.15E-07
	Release Rate Error (Ci/Month) *		2.16E-07	2.13E-07	2.15E-07
	Amount collected (pCi/sample)		0.17	< 0.07	
<b>Thorium 230</b>	Possible error (pCi)		0.17	0.07	
	Lowest level detected - LLD (pCi)		0.07	0.07	
	LLD concentration ( $\mu$ Ci/ml)		7.00E-14	6.84E-14	6.92E-14
	Concentration, ( $\mu$ Ci/ml)		1.70E-13	<6.84E-14	1.19E-13
	Possible concentration error ( $\mu$ Ci)		1.70E-13	6.84E-14	1.19E-13
	Release Rate (Ci/Month) *		5.25E-07	<2.13E-07	3.69E-07
	Release Rate Error (Ci/Month) *		5.25E-07	2.13E-07	3.69E-07
	Amount collected (pCi/sample)		< 0.34	5.61	
	Possible error (pCi)		0.34	1.93	
<b>Pb210</b>	Lowest level detected - LLD (pCi)		0.34	0.34	
	LLD concentration ( $\mu$ Ci/ml)		3.40E-13	3.32E-13	3.36E-13
	(concentration, $\mu$ Ci/ml)		<3.40E-13	5.48E-12	2.91E-12
	(possible deviation/error, $\mu$ Ci)		3.40E-13	1.88E-12	1.11E-12
	Release Rate, Ci/Month*)		<1.05E-06	1.71E-05	9.05E-06
	Release Rate Error, Ci/Month*)		1.05E-06	5.87E-06	3.46E-06
	mass collected, (pCi/sample)		356.5	378.7	
<b>Uranium Nat.</b>	Lowest level detected - LLD ( $\mu$ Ci/ml)		0.0002	0.0002	
	LLD concentration ( $\mu$ Ci/ml)		2.00E-16	1.95E-16	1.98E-16
	Concentration, ( $\mu$ Ci/ml)		2.41E-10	2.50E-10	2.46E-10
	Release Rate (Ci/Month) *		7.35E-04	7.68E-04	7.52E-04
<b>U<sub>3</sub>O<sub>8</sub></b>	lb/Hr		0.00327	0.00341	0.00334

\* Release rates are based on 100% operation for the month (31 days).

## IV. TEST PROCEDURES

A summary of the methods used to test the stack is shown below. Because standard EPA methodology was followed, only a brief description of each method is provided. Detailed US Environmental Protection Agency (EPA) methods are available in Title 40 of the Code of Federal Regulations (CFR), Part 60.

### Part 60, Appendix A

- |          |  |
|----------|--|
| Method 1 | "Sample and Velocity Traverses for Stationary Sources"           |
| Method 2 | "Determination of Stack Gas Velocity and Volumetric Flow Rate"   |
| Method 3 | "Gas Analysis for the Determination of Dry Molecular Weight"     |
| Method 4 | "Determination of Moisture Content in Stack Gas"                 |
| Method 5 | "Determination of Particulate Emissions from Stationary Sources" |

### **Sampling Point Determination (Method 1)**

EPA Method 1 was used to determine the location of sampling points. Stack sampling points shown below were based on the stack diameter and the distance from the test ports to flow disturbances. The stack was circular with two ports at 90° to each other.

**Table 4**  
**Sampling Points**

Sample Point Number	% of Diameter	Inches from Wall
Point 1	4.4	1 <sup>1</sup> / <sub>16</sub>
Point 2	14.6	2 <sup>5</sup> / <sub>16</sub>
Point 3	29.6	4 <sup>3</sup> / <sub>4</sub>
Point 4	70.4	11 <sup>1</sup> / <sub>4</sub>
Point 5	85.4	13 <sup>11</sup> / <sub>16</sub>
Point 6	95.6	15 <sup>5</sup> / <sub>16</sub>

### **Velocity and Flow Rate Determination (Method 2)**

Velocity and temperature was measured at the points determined by Method 1 during isokinetic testing. Wind tunnel calibrated Pitot tubes were used to measure velocity head. Type K thermocouples with digital pyrometers were used to measure temperature.

### **Carbon Dioxide, Oxygen, and Dry Molecular Weight Determination (Method 3)**

A portion of the gas from the sampling trains was collected in Tedlar bags. Analysis of carbon dioxide (CO<sub>2</sub>) and oxygen (O<sub>2</sub>) was performed with an Orsat Gas Analyzer. Dry molecular weight was calculated from CO<sub>2</sub> and O<sub>2</sub> concentrations.

### Moisture Content Determination (Method 4)

Water entrained in the stack gas was condensed and collected in chilled impingers in conjunction with the isokinetic sampling. The volume of gas sampled was measured with a calibrated dry gas meter. Moisture content was calculated from the gas and liquid volumes.

### Particulate Determination (Method 5)

Particulate matter was collected before and on a filter with a Method 5 train. Sixty-minute sampling runs were performed isokinetically in conjunction with Methods 1-4 on the Yellow Cake Dryer stack. Gas was withdrawn from the stack through a stainless steel nozzle and a glass lined probe before being drawn through a filter connected to the probe. Pre and posttest leak checks were performed for each run. All surfaces in contact with the sample prior to the filter were rinsed with acetone. The acetone was evaporated and then desiccated to a constant weight, along with the filter. Pitot, thermocouple, and meter calibrations are included in the appendix. A schematic of the sampling train is shown in Figure 1.

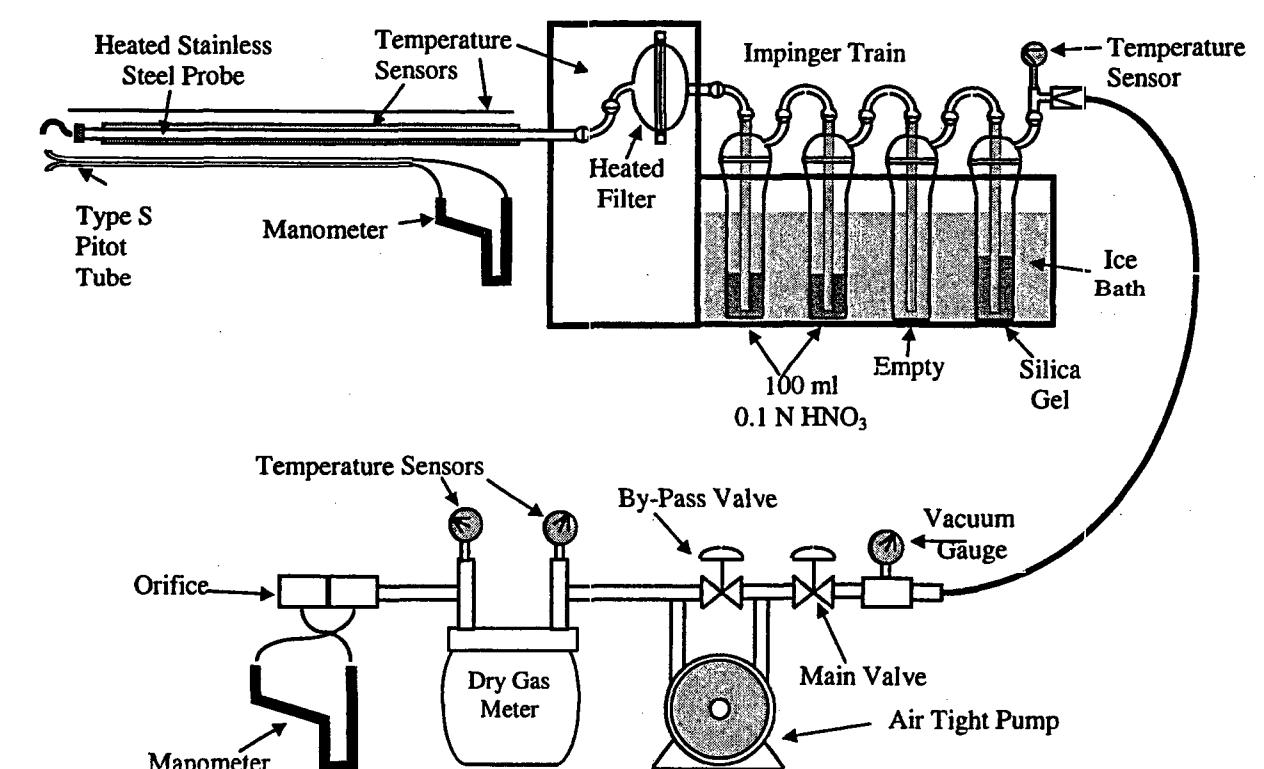


Figure 1  
Method 5 Particulate Sample Train

## V. SOURCE DESCRIPTION

In insitu uranium mining operations, uranium is extracted by leaching from an underground ore deposit. The leach solution containing soluble uranium is then pumped through ion-exchange resin, where the uranium is "loaded on the resin. The leaching solution is then reconstituted and pumped back underground."

The uranium is stripped from the resin in a concentrated form and precipitated with hydrogen peroxide in the form of uranyl peroxide. The uranyl peroxide is dried to form  $\text{UO}_4 \cdot 2\text{H}_2\text{O}$  and loaded into a 55-gallon drum for shipment.

The Wyoming Air Quality permit for the Yellow Cake Dryer is OP-254.

## VI. CALCULATIONS

The values used in the sample calculations have been taken from Run 1 on the Yellow Cake Dryer Stack. Results shown below are computer generated to eliminate rounding error and may be slightly different if calculated with a calculator.

### 1. Volume of water collected (wscf):

$$\begin{aligned} V_{w(\text{std})} &= K(V_{lc}) \\ &= 0.04707(70.7) \\ &= 3.33 \text{ wscf} \end{aligned}$$

$V_{w(\text{std})}$  = Volume ( $\text{ft}^3$ ) of water collected, standard conditions

$V_{lc}$  = Volume of liquid condensed in impingers, mg or ml  
 $K = 0.04707$  = Conversion factor ( $\text{ft}^3/\text{ml}$ )

### 2. Volume of gas metered, standard conditions (dscf)

$$\begin{aligned} V_{m(\text{std})} &= \frac{(K)(V_m)(P_{bar} + \frac{\Delta H}{13.6}) \times Y}{(460 + T_m)} \\ &= \frac{(17.647)(38.737)(25.50 + \frac{1.13}{13.6})(0.997)}{(460 + 34)} \\ &= 35.31 \text{ dscf} \end{aligned}$$

$V_{m(\text{std})}$  = Volume ( $\text{ft}^3$ ) of gas through the dry gas meter, at standard conditions

$V_m$  = Volume ( $\text{ft}^3$ ) of gas sample through the dry gas meter, ambient conditions

$P_{bar}$  = Barometric pressure (inches of Hg)

$\Delta H$  = Average pressure drop across meter orifice (in.  $H_2O$ )

$Y$  = Dry gas meter conversion factor

$T_m$  = Average dry gas meter temperature ( $^{\circ}\text{F}$ )

$K = 17.647$  = Conversion factor ( $^{\circ}\text{R}/\text{inch Hg}$ )

$13.6$  = Conversion factor (inch  $H_2O/\text{inch Hg}$ )

$460$  = Conversion constant ( $^{\circ}\text{F}$  to  $^{\circ}\text{R}$ )

### 3. Moisture content, %

$$\begin{aligned} B_{ws} &= \frac{V_{w(\text{std})}}{V_{m(\text{std})} + V_{w(\text{std})}} \times 100\% \\ &= \frac{3.33}{35.31 + 3.33} \times 100\% \\ &= 8.61 \% \end{aligned}$$

$B_{ws}$  = Percent by volume of water vapor in the gas stream

$V_{w(\text{std})}$  = Volume ( $\text{ft}^3$ ) of water collected, at standard conditions

$V_{m(\text{std})}$  = Volume ( $\text{ft}^3$ ) of gas through the dry gas meter, at standard conditions

**4. Dry Gas, %**

$$\begin{aligned} G_d &= 100 - B_{ws} \\ &= 100 - (8.61) \\ &= 91.39 \% \end{aligned}$$

*G<sub>d</sub> = Percent of dry gas by volume in the gas stream**B<sub>ws</sub> = Percent by volume of water vapor in the gas stream***5. Molecular weight of dry gas stream (lb/lb mole)**

$$\begin{aligned} M_d &= M_{CO_2} \frac{(\% CO_2)}{(100)} + M_{O_2} \frac{(\% O_2)}{(100)} + (M_{CO} \text{ or } M_{N_2}) \frac{(\% CO + \% N_2)}{(100)} \\ &= 44.0 \frac{(0.4)}{(100)} + 32.0 \frac{(19.6)}{(100)} + 28.0 \frac{(80.0)}{(100)} \\ &= 28.85 \text{ lb/lb mole} \end{aligned}$$

*M<sub>d</sub> = Dry molecular weight of sample gas (lb/lb mole)**M<sub>CO<sub>2</sub></sub> = Molecular weight of carbon dioxide (lb/lb mole)**M<sub>O<sub>2</sub></sub> = Molecular weight of oxygen (lb/lb mole)**M<sub>CO or N<sub>2</sub></sub> = Molecular weight of CO or N<sub>2</sub> (lb/lb mole)(Same)**CO<sub>2</sub> = Percent by volume of CO<sub>2</sub> in the gas stream**O<sub>2</sub> = Percent by volume of oxygen in the gas stream**CO+N<sub>2</sub> = Percent by volume of CO and N<sub>2</sub> in the gas stream**100 = Conversion from percent to decimal fraction***6. Molecular weight of sample gas (lb/lb mole)**

$$\begin{aligned} M_s &= (M_d)(G_d/100) + (M_{H_2O})(B_{ws}/100) \\ &= (28.85)(91.39/100) + (18)(8.61/100) \\ &= 27.91 \text{ lb/lb mole} \end{aligned}$$

*M<sub>s</sub> = Molecular weight of sample gas, wet (lb/lb mole)**M<sub>d</sub> = Dry molecular weight of sample gas (lb/lb mole)**G<sub>d</sub> = Percent of dry gas by volume in the gas stream**B<sub>ws</sub> = Percent by volume of water vapor in the gas stream**M<sub>H<sub>2</sub>O</sub> = Molecular weight of water (lb/lb mole)***7. Sample gas pressure (inches of Hg)**

$$\begin{aligned} P_s &= (P_{bar}) + \frac{(P_g)}{(13.6)} \\ &= (25.50) + \frac{(0.17)}{(13.6)} \\ &= 25.51 \text{ in. Hg} \end{aligned}$$

*P<sub>s</sub> = Absolute sample gas pressure (inches of Hg)**P<sub>bar</sub> = Barometric pressure (inches of Hg)**P<sub>g</sub> = Sample gas static pressure (inches of H<sub>2</sub>O)**13.6 = Conversion factor (inches H<sub>2</sub>O/inches of Hg)*

**8. Velocity of sample gas (ft/min)**

$$V_s = (K_p)(C_p)(60)\sqrt{\Delta P} \left( \sqrt{\frac{(T_s + 460)}{(M_s)(P_s)}} \right)$$

$$= (85.49)(0.841)(60)(0.6459) \sqrt{\frac{141 + 460}{(27.91)(25.51)}}$$

$$= 2,560 \text{ fpm}$$

 $C_p$  = Pitot tube constant $K_p$  = Velocity pressure coefficient (dimensionless)

60 = Conversion factor (sec/min)

 $M_s$  = Molecular weight of sample gas, wet (lb/lb mole) $P_s$  = Absolute sample gas pressure (inches of Hg) $T_s$  = Average sample gas temperature ( $^{\circ}$ F) $V_s$  = Sample gas velocity (ft/min) $\sqrt{\Delta P}$  = Avg. square roots of stack gas velocity head (in  $H_2O$ )460 = Conversion constant ( $^{\circ}$ F to  $^{\circ}$ R)**9. Total flow of sample gas (acf m)**

$$Q_a = (A_s)(V_s)$$

$$= (1.40)(2,560)$$

$$= 3,575 \text{ cfm}$$

 $Q_a$  = Volumetric flow rate at actual conditions (acf m) $A_s$  = Cross sectional area of sampling location ( $ft^2$ ) $V_s$  = Sample gas velocity (ft/min)**10. Total flow of sample gas (dscfm)**

$$Q_{std} = \frac{(Q_a)(P_s)(17.647)\left(\frac{G_d}{100}\right)}{(T_s + 460)}$$

$$= \frac{(3,575)(25.51)(17.647)\left(\frac{91.39}{100}\right)}{(141 + 460)}$$

$$= 2,445 \text{ dscf}$$

 $Q_{std}$  = Volumetric flow rate at standard conditions, dry basis (dscfm) $Q_a$  = Volumetric flow rate at actual conditions (acf m) $P_s$  = Absolute sample gas pressure (inches of Hg) $G_d$  = Percent of dry gas by volume in the gas stream $T_s$  = Average sample gas temperature ( $^{\circ}$ F)17.647 = Conversion factor ( $^{\circ}$ R/inch Hg)460 = Conversion constant ( $^{\circ}$ F to  $^{\circ}$ R)**11. Isokinetics**

$$\text{Isokinetics} = \frac{(K)(V_{mstd})(T_s + 460)}{P_s \left( \frac{V_s}{60} \right) \left( \frac{\pi D_n^2}{4(144)} \right) \Theta \left( \frac{G_d}{100} \right)}$$

$$= \frac{(0.0945)(35.31)(141 + 460)}{25.51 \left( \frac{2,560}{60} \right) \left( \frac{3.14159 \cdot 0.245^2}{4(144)} \right) 60 \left( \frac{91.39}{100} \right)}$$

$$= 102.7\%$$

 $T_s$  = Average sample gas temperature ( $^{\circ}$ F) $K = 0.09450$  = Conversion constant $V_{mstd}$  = Standard volume ( $ft^3$ ) of gas through dry gas meter $P_s$  = Absolute sample gas pressure (inches of Hg) $V_s$  = Sample gas velocity (ft/min) $D_n$  = Average diameter of nozzle (in) $\Theta$  = Total sampling time (min) $G_d$  = Percent of dry gas by volume in the gas stream

144 = conversion factor, square inches to square feet

**12. Concentration of Particulate**

$$\begin{aligned} C_s &= \frac{(K)(m_n)}{V_{m(std)}} \\ &= \frac{(15.43)(0.00645)}{35.31} \\ &= 0.0028 \text{ gr/dscf} \end{aligned}$$

**13. Particulate emissions (lbs/hr)**

$$\begin{aligned} E_{lb/hr} &= \frac{(C_s)(Q_{std})(60)}{7000} \\ &= \frac{(0.0028)(2,445)(60)}{7000} \\ &= 0.059 \text{ lb/hr} \end{aligned}$$

**14. Radium<sub>226</sub> Lower Limit of Detection (LLD) concentration ( $\mu\text{Ci}/\text{ml}$ )**

$$\begin{aligned} C_{LLD} &= \frac{(K_1)(LLD)}{V_{m(std)}(K_2)} \\ &= \frac{(1 \times 10^{-6})(0.07)}{1.00(1 \times 10^6)} \\ &= 7.00 \times 10^{-14} \mu\text{Ci}/\text{ml} \quad (\text{air}) \end{aligned}$$

Note: LLD, Actual and Possible error concentrations for Thorium<sub>230</sub>, Lead<sub>210</sub> and Uranium Natural all calculated in a similar manner.

**15. Release Rate of Lead<sub>210</sub> (Ci/month)**

$$\begin{aligned} RR_{\text{Ci/month}} &= \frac{(\text{Amt. Collected})(Q_{std})(K_1)(K_2)(K_3)}{V_{m(std)}} \\ &= \frac{(35.31)(4,154)(24)(31)(1 \times 10^{-12})}{1.00} \\ &= 1.05 \times 10^{-6} \text{ Ci/month} \end{aligned}$$

Note: Radium<sub>226</sub>, Thorin<sub>230</sub> and U Nat. calculated similarly

**16. U<sub>3</sub>O<sub>8</sub> emissions (lbs/hr)**

$$\begin{aligned} E_{lb/hr} &= \frac{(\text{amount}_{U\text{ nat. collected}})1.179(Q_{std})}{(K_1)(V_{m,std})(453.59 \times 10^6)} \\ &= \frac{(356.5)(1.179)(4,154)}{(0.67)(1.00)(453.59 \times 10^6)} \\ &= 0.00327 \text{ lb/hr} \end{aligned}$$

$C_s$  = Concentration of particulate in stack gas, gr/dscf

$m_n$  = mass of particulate collected, grams

$V_{m(std)}$  = Dry standard volume ( $\text{ft}^3$ ) of gas through meter

$K$  = 15.43 = conversion factor (grains/gram)

$E_{lb/hr}$  = Emission rate (lb/hr)

$C_s$  = Measured concentration in the gas stream (gr/dscf)

$Q_{std}$  = Volumetric flow rate at standard conditions, dry basis  
(dscfm)

60 = Conversion factor (min/hr)

7000 = Conversion factor (gr/lb)

$C_{LLD}$  = Radium<sub>226</sub> Lower Level of Detected concentration,  
 $\mu\text{Ci}/\text{ml}$  of air

$LLD$  = Radium<sub>226</sub> Lower Limit of Detection from lab\*,  
 $p\text{Ci}/\text{sample}$

$V_{m(std)}$  = Dry standard volume ( $\text{m}^3$ ) of gas through meter

$K_1$  =  $1 \times 10^{-6} \text{ m}^3/\text{ml}$  = conversion factor

$K_2$  =  $1 \times 10^6 \text{ pCi}/\mu\text{Ci}$  = conversion factor

\*Uranium Natural LLD = 3.34, based on 5 mg/sample x 0.667 pCi/mg

$RR$  = Release rate (Ci/month)

Amount collected = Radium<sub>226</sub> in the sample (pCi)

$Q_{std}$  = Dry standard volumetric flow rate (dsm<sup>3</sup>/hr)

$K_1$  = Conversion factor (24hr/day)

$K_2$  = Conversion factor ( $1 \times 10^{12} \text{ Ci}/\text{pCi}$ )

$K_3$  = Conversion factor (31 days/month)

$V_{m(std)}$  = Dry standard volume ( $\text{m}^3$ ) of gas through meter

$E_{lb/hr}$  = Emission rate (lb/hr)

Amount collected = uranium natural in the sample (pCi)

$K_1$  =  $0.67 \text{ pCi}/\mu\text{g}$  =  $U_{\text{nat}}$  radioactivity to mass conv. factor

$1.179$  = fraction of uranium nat. as U<sub>3</sub>O<sub>8</sub> (molecular wt. of U<sub>3</sub>O<sub>8</sub> / molecular wt. of 3U<sub>nat</sub>,  $842.0822/714.087$ )

$Q_{std}$  = Dry standard volumetric flow rate (dsm<sup>3</sup>/hr)

$453.6 \times 10^6$  = Conversion factor ( $\mu\text{gram}/\text{lb}$ )

## **APPENDIX 4**

### **ALARA Audit**

**Annual ALARA Audit  
of  
2005 Radiation Protection Program  
COGEMA Mining, Inc.  
Irigaray and Christensen Operations**

An audit of the COGEMA Mining, Inc. Irigaray and Christensen Operations radiation protection program to determine compliance with ALARA principles was conducted on February 9, 2006. The audit was completed in fulfillment of the requirements of Section 5.3 of the approved license application and Standard Operating Procedure No. HP-12. The audit was conducted by T. Hardgrove, Pathfinder Mines Corporation, with assistance from the Irigaray/Christensen Radiation Safety Officer. The areas audited and the overall results are summarized below.

**1.0 Employee exposure records**

Employee exposure records were reviewed. Of the total 15 employees evaluated, only four employees were assigned exposures (TEDE). Of the four that were assigned TEDEs, the maximum assigned dose was only 22 mrem, or 0.4% of the annual limit of 5 rems (identical to 2004). The other individuals were assigned doses of 14, 5, and 1 mrem. The source of the dose was 99% external (measured by dosimeters worn by operating personnel), and 1% internal from airborne uranium. No dose from radon daughters was assigned to any employees due to very low radon levels during 2005.

Overall doses have remained relatively static over the past three years, indicative of the low level of activity (no production). Attachment 1 provides a summary of the 2005 doses and a comparison of the operating personnel's doses with the previous two years. The low doses are consistent with the nature of the activities at the sites (aquifer restoration through May, 2005 at Christensen, and decommissioning at Irigaray). While there is always the potential for an internal uptake if care is not taken during decommissioning activities, appropriate precautions were utilized this past year at Irigaray to avoid problems.

The yellowcake dryer was operated during January-early April, 2005 at the Irigaray site. There was one significant uranium uptake by an operator related to the drying campaign (see discussion under bioassay).

**2.0 Bioassay results**

Bioassays are analyzed on a monthly basis for operating personnel. The results for the 2005-year showed that one employee exceeded the 15 ug/l action level. A urine sample from the individual collected on January 10, 2005, contained 44.0 ug/l U. A follow up sample taken on 1/15/05 was Non-detectable for U (<5 ug/l). The operator involved received the U uptake while performing pre-operational maintenance on the yellowcake packaging drum conveyor. He was removing stuck rollers on the conveyor for cleaning under an RWP involving use of a full face respirator. The individual wore the respirator while removing the rollers in the drum room, but he removed the respirator while disassembling each roller in the main dry pack area. While he had wetted the rollers prior to disassembly, dry material was exposed in the interior of the

rollers upon removal of the bearings. The uptake apparently occurred at that time. The RSO noted in his evaluation report of the incident that there was an unverifiable possibility that the original sample represented a case of sample contamination since the U level had dropped off to non-detectable in the follow up sample, when one might expect to see some residual U present. Considering the fact that a portion of the roller maintenance was done without respiratory protection, one has to assume that a true uptake occurred. This incident is addressed generally in the summary recommendations of this report.

Two other urine samples from individuals during the year showed evidence of uranium uptake (9.6 ug/l and 13 ug/l), both being below the action level. All other individuals' bioassay results were < 5 µg/l for the year. Blind control spiked samples were routinely submitted with other samples to the analytical lab. The bioassay program required pursuant to NRC License Condition No. 10.12 was being followed.

### 3.0 Inspections

Documented walk through inspections were made of the operating areas on a weekly basis (NRC License Condition 11.5). The inspection logs were reviewed and found to be in order. Items identified for corrective action were reviewed in the weekly staff meetings and necessary actions to correct the problems were taken. Identified items were minimal and of a minor nature. Documented daily walk through inspections of the dryer area at Irigaray were also conducted during dryer operation, as required by NRC License Condition 11.5. Operational problems were minimal.

### 4.0 Training

The individual serving as RSO during the forepart of 2005 resigned his position with the company; he was replaced with the current RSO effective June 1, 2005. The present RSO has been with the company for almost thirty years, serving for 2.5 years as a radiation safety technician and over five years as an environmental technician. His previous training in radiation safety is relevant to his position as RSO, and the NRC agreed with his qualifications in a letter to the company dated September 6, 2005. The RSO is current with his refresher training in radiation safety, and will receive additional scheduled training during 2007.

Training was also provided to employees and contractors pursuant to the company's Radiation Safety Training Plan. Task training was typically conducted by supervisors. All training was documented and filed in each employee's personnel file.

The required refresher radiation safety and general industrial safety training was provided to employees during quarterly safety meetings. The sole new employee received the required radiation and industrial safety training as described in the Radiation Safety Training Plan.

### 5.0 Safety Meetings

Safety meetings are routinely held on a quarterly basis. A review of the documentation for each meeting showed that a range of safety related topics was discussed. During 2005 the radiation safety topics included a review of the latest annual occupational doses (TEDEs),

current exposures, general adherence to the radiation safety program, and the ALARA principle. On the industrial safety side, a high emphasis was continually placed on H2S safety issues. Other training focused on electrical hazards, safe operation of equipment (the trackhoe, backhoe, loader, and fork lift), and proper use of personal safety equipment.

## 6.0 Radiological Surveys and Data

A review was made of the various radiological surveys required by NRC License Conditions 10.10, 10.11, and 11.3. A summary of the survey statistics for the year is provided in Attachment 2 to this report. A review of Attachment 2 generated the following comments:

Alpha Contamination Swipes - Contamination swipe results at Christensen were very low for the entire year. No trends were noted. Contamination swipes at Irigaray were somewhat higher than at Christensen, but still well below the action level. The highest reading for the year at Irigaray was 48.4 dpm/100cm<sup>2</sup> in the dry pack change room. No trends were evident.

Respirator Maintenance and Surveys of Respirators for Alpha Contamination – Documentation of respirator maintenance and surveys to check for alpha contamination on respirators were examined and found to be in order.

Airborne Uranium Surveys – Monthly airborne uranium levels at both Irigaray and Christensen remained low for the entire year. The maximum value recorded at Christensen was 3.6 E-12  $\mu\text{Ci}/\text{ml}$  during October. This value is 0.7% of the DAC for uranium. No trends were noted. The highest airborne uranium level recorded at Irigaray was 6.7E-12  $\mu\text{Ci}/\text{ml}$  during February. This level is 1.4% of the DAC (note that a calculated DAC value of 4.7E-10  $\mu\text{Ci}/\text{ml}$  is used, based on a mixture of 85% Class D and 15% Class W uranium). Airborne uranium from RWP work was not included in the calculation of the individual TEDEs assigned to employees for 2005 because measured concentrations during RWPs were so low.

Radon Daughter Surveys – Monthly radon daughter levels at both Irigaray and Christensen remained below action levels for the entire year. Overall, radon progeny contributed 0% to the TEDEs assigned to employees for 2005. The highest measured radon daughter level at either site was 0.03 WL. No trends in area radon daughter monitoring were noted.

Air Sampling for Uranium in the Vicinity of the Yellowcake Dryer During Drying Operations – Air sampling around the dryer was done weekly during drying operations. A total of nine weekly samples at various locations were taken. The average uranium concentration for the dryer control room was 1.91E-12  $\mu\text{Ci}/\text{ml}$  or 0.4% of the DAC.

Environmental Air Sampling During Yellowcake Dryer Operations – Continuous low volume air sampling was accomplished as required at five different locations during dryer operations. Those locations consist of upwind and downwind of the Irigaray restricted area, the nearest residence, the employee house trailer, and background. Measured radionuclide levels were all very small percentages of the 10 CFR 20 Appendix B effluent limits.

External Gamma Surveys – Gamma surveys are conducted on a quarterly basis. Should any area exceed the action level of 2 mR/hr, the area is posted as a "restricted area", and surveys are conducted monthly. Early in 2005 there were five locations at Irigaray that were so posted and subject to monthly monitoring. By May the number of posted areas had dropped to zero,

indicative of the clean out of the plant in conjunction with decommissioning. The IX cells were emptied (the resin was sold to another licensee), and some components that also tend to have elevated gamma levels were also sold to the licensee or otherwise were cleaned. By December the highest gamma reading was 1.0 mR/hr in the Plant Annex in the vicinity of the precipitation tanks, but the rest of the locations all were 0.4 mR/hr or less. At Christensen the highest gamma level was a plant RO unit during the first quarter of 2005 at 1.4 mR/hr. With the completion of aquifer restoration at Christensen and the subsequent shut down of the plant, the gamma levels declined. By the fourth quarter the highest area gamma level was 0.3 mR/hr.

External gamma radiation contributed 99% of the TEDE to employees during 2005 (Attachment 1), but the doses were quite low (maximum of 22 mrem, or 0.4% of the annual limit). The highest Deep Dose Equivalent (DDE) as measured by TLDs was 19 rnrem.

#### Radiation Work Permits (RWPs)

A total of 48 RWPs were issued during 2005. This is a significant increase over the number (12) issued in 2004. The increase reflects the amount of decommissioning work accomplished at Irigaray over the past year. There also were RWPs issued in conjunction with the startup of the dryer and the eventual clean out of all dried uranium from the dryer for shipment offsite. The highest airborne uranium exposure recorded for any of the RWPs was 0.6 DAC-hrs during work on a precipitation circuit tank. The average uranium exposure resulting from RWPs was 0.017 DAC-hrs.

#### Personnel Alpha Contamination Surveys

Personnel alpha contamination survey records indicated that personnel are routinely conducting self-monitoring prior to leaving the restricted areas at Irigaray and Christensen. Additionally, at least 25% of the total employees were spot-checked for alpha contamination by the RSO or RST on a quarterly basis. No problems were noted. Onsite vehicles were also spot checked on a quarterly basis to identify and remove any excessive alpha contamination. No vehicles exceeded the limit – the highest direct reading was 333 dpm/100 cm<sup>2</sup>.

#### Equipment Release Surveys

Surveys of equipment prior to release from the restricted areas are well documented. There were 23 shipments of byproduct material sent to Shirley Basin; all of it was generated by decommissioning activities at Irigaray,. Detailed shipment release information was reviewed and found to have no apparent problems. The number of surveys of surplus equipment or scrap metal prior to release to unrestricted use increased significantly over the previous year, reflecting the increase of decommissioning activity at the Irigaray site. Release surveys were well documented with no apparent problems. It was noted that some fiberglass tanks had been surveyed but failed to meet release limits. There was no indication on the documentation that the tanks were not released from the restricted area. It was suggested that in the future such a notation be added for clarification purposes if an item did not meet release limits.

#### 7.0 Reports of Overexposures

There were no employee overexposures during the year.

## **8.0 Review of Standard Operating Procedures**

The last annual review of SOPs was conducted by the RSO in April-May of 2005. All changes were typed and completed by May 31, 2005. The SOPs are comprehensive.

## **9.0 Instrumentation**

Calibration and/or repair records for instrumentation used for radiation surveys were reviewed. The calibration records were found to be in good order, pursuant to License Condition No. 10.13. All radiation detection instrumentation currently is calibrated by an outside vendor, Energy Laboratories, Inc. Air samplers are calibrated in-house.

## **10.0 Recommendations for Ways to Further Reduce Personnel Exposures**

The following recommendations are made to further reduce personnel exposures:

- Continue to emphasize good housekeeping practices as a means to avoid surface contamination problems.
- Continue to monitor and evaluate any decommissioning activities to assure that doses are maintained ALARA. If in doubt the issuance of an RWP for an activity is the conservative approach.
- During the issuance of an RWP take care to evaluate the entire range of actions involved in the task, and to communicate with the worker, assuring he utilizes the prescribed protective equipment for all phases of the task that may involve exposure to radionuclides.

## **11.0 Conclusions**

The radiation safety program at the Irigaray and Christensen sites is well managed and it is apparent that employee exposures are being maintained ALARA. The overall cleanliness of the Irigaray site was notable in light of the significant decommissioning activities that have been accomplished over the past year. Ample use of the RWP mechanism to control exposures during decommissioning activities is good. The diligence of the radiation safety staff, site management and the site employees to maintain an ALARA environment is commendable. Continued adherence to the ALARA principle will assure the maintenance of already low exposures.

## ATTACHMENT 1

**2005 ANNUAL OCCUPATIONAL RADIATION DOSE SUMMARY**  
 Total of internal and external doses (TEDE) NRC limit = 5,000 mrem

	<u>2005</u>	<u>2004</u>	<u>2003</u>
Employees with no assigned dose	13	17	13
Employees with 0.01 to .9 % of limit	2	7	6
Employees with 1 to 1.9 % of limit	0	0	0
Employees with 2 to 2.9 % of limit	0	0	0
Employees with 3 to 3.9 % of limit	0	0	0
Maximum assigned dose:	22.0 mrem	21.6 mrem	26 mrem
% of annual limit:	.44%	.40%	.52%

**Operator's Dose Summary**

Only wellfield and plant operators had any assigned doses during 2005

	<u>2005</u>	<u>2004</u>	<u>2003</u>
Dose range (mrem)	1.3 - 22.2	2 - 21.6	2 - 26
Average dose (mrem)	12.6	7.3	11
% of annual limit	0.2%	0.1%	0.2%

## WV 3 OPERATIONS

## EXPOSURE AND MONITORING DATA 2005

Note: N/D = Not Detectable

	Action Levels	JANUARY Maximum Values	FEBRUARY Maximum Values	MARCH Maximum Values	APRIL Maximum Values	MAY Maximum Values	JUNE Maximum Values
<u>Employee Urine</u>	15, <u>g/l</u>	.44, <u>g/l</u>	9.6, <u>g/l</u>	13, <u>g/l</u>	< 5, <u>g/l</u>	< 5, <u>g/l</u>	< 5, <u>g/l</u>
<u>Alpha Contam. Swipes</u>							
Irigaray Site Christensen Ranch	100 dpm/100cm <sup>2</sup>	12.3 dpm/100cm <sup>2</sup> 10.3 dpm/100cm <sup>2</sup>	20.0 dpm/100cm <sup>2</sup> 9.0 dpm/100cm <sup>2</sup>	32.3 dpm/100cm <sup>2</sup> 4.2 dpm/100cm <sup>2</sup>	48.4 dpm/100cm <sup>2</sup> 7.8 dpm/100cm <sup>2</sup>	5.0 dpm/100cm <sup>2</sup> 7.7 dpm/100cm <sup>2</sup>	24.6dpm/100cm <sup>2</sup> 5.0dpm/100cm <sup>2</sup>
<u>Airborne Uranium</u>							
Irigaray Site Christensen Ranch	1.18 <sup>E-10</sup> <u>uCi/ml</u> 1.25 <sup>E-10</sup> <u>uCi/ml</u>	3.8 <sup>E-12</sup> <u>uCi/ml</u> 1.4 <sup>E-12</sup> <u>uCi/ml</u>	6.7 <sup>E-12</sup> <u>uCi/ml</u> 1.3 <sup>E-12</sup> <u>uCi/ml</u>	3.2 <sup>E-12</sup> <u>uCi/ml</u> 4.3 <sup>E-12</sup> <u>uCi/ml</u>	1.95 <sup>E-12</sup> <u>uCi/ml</u> 4.77 <sup>E-12</sup> <u>uCi/ml</u>	1.2 <sup>E-12</sup> <u>uCi/ml</u> n/d <u>uCi/ml</u>	5.6E-12 <u>Ci/ml</u> 7.0E-13 <u>Ci/ml</u>
<u>Radon Daughters</u>							
Irigaray Site Christensen Ranch	0.08 Working Level	0.020 Working Level 0.009 Working Level	0.02 Working Level 0.016 Working Level	0.010 Working Level 0.013 Working Level	0.020 Working Level 0.009 Working Level	0.030 Working Level 0.030 Working Level	0.01 Working Level 0.01 Working Level
<u>External Gamma (quarterly)</u>							
Irigaray Site Christensen Ranch	> 2.0 mR/hour	3.6 mR/hour 1.4 mR/hour	3.6 mR/hour 1.4 mR/hour	3.6 mR/hour 1.4 mR/hour	1.4 mR/hour 1.4 mR/hour	1.4mR/hour 0.46 mR/hour	1.4 mR/hour 0.46 mR/hour

	Action Levels	JULY Maximum Values	AUGUST Maximum Values	SEPTEMBER Maximum Values	OCTOBER Maximum Values	NOVEMBER Maximum Values	DECEMBER Maximum Values
<u>Employee Urine</u>	15, <u>g/l</u>	<5, <u>g/l</u>	<5, <u>g/l</u>	<5, <u>g/l</u>	<5, <u>g/l</u>	<5, <u>g/l</u>	<5, <u>g/l</u>
<u>Alpha Contam. Swipes</u>							
Irigaray Site Christensen Ranch	100 dpm/100cm <sup>2</sup>	10.3dpm/100cm <sup>2</sup> 8.0dpm/100cm <sup>2</sup>	37dpm/100cm <sup>2</sup> 3.5dpm/100cm <sup>2</sup>	25dpm/100cm <sup>2</sup> 19.7dpm/100cm <sup>2</sup>	5.0dpm/100cm <sup>2</sup> 6.0dpm/100cm <sup>2</sup>	13dpm/100cm <sup>2</sup> 17dpm/100cm <sup>2</sup>	25dpm/100cm <sup>2</sup> 18dpm/100cm <sup>2</sup>
<u>Airborne Uranium</u>							
Irigaray Site Christensen Ranch	1.18 <sup>E-10</sup> <u>uCi/ml</u> 1.25 <sup>E-10</sup> <u>uCi/ml</u>	2.4E-12uCi/ml 2.2E-13uCi/ml	2.1E-12uCi/ml 2.2E-12uCi/ml	3.3E-12uCi/ml 2.6E-12uCi/ml	9.4E-13uCi/ml 3.6E-12uCi/ml	3.0E-12uCi/ml 1.6E-12uCi/ml	2.8E-12uCi/ml 1.4E-12uCi/ml
<u>Radon Daughters</u>							
Irigaray Site Christensen Ranch	0.08 Working Level	.02 Working Level .007 Working Level	.01Working Level .01Working Level	.0003Working Level .01Working Level	.01Working Level .01Working Level	.008Working Level .03Working Level	.01Working Level .01Working Level
<u>External Gamma (quarterly)</u>							
Irigaray Site Christensen Ranch	>2.0 mR/hour	1.4mR/hour 0.46mR/hour	1.4mR/hour 0.22mR/hour	0.18mR/hour 0.22mR/hour	0.18mR/hour 0.22mR/hour	0.18mR/hour 0.22mR/hour	1.0mR/hour 0.3mR/hour

J:\JV\EXCEL\RAD-FORM\EXPO-MON.xls

## **APPENDIX 5**

### **General Location & Environmental Monitoring Location Map**

**THIS PAGE IS AN  
OVERSIZED DRAWING OR  
FIGURE,  
THAT CAN BE VIEWED AT THE  
RECORD TITLED:  
“CHRISTENSEN RANCH AREA  
FACILITIES LOCATION MAP  
PERMIT TO MINE NO. 478”**

**WITHIN THIS PACKAGE... OR,  
BY SEARCHING USING THE  
DOCUMENT/REPORT**

**D-01**

**THIS PAGE IS AN  
OVERSIZED DRAWING OR  
FIGURE,  
THAT CAN BE VIEWED AT THE  
RECORD TITLED:  
“IRIGARAY PROJECT  
GENERAL LOCATION MAP  
MINE UNIT 1 THRU 9,  
PERMIT TO MINE NO. 478”**

**WITHIN THIS PACKAGE... OR,  
BY SEARCHING USING THE  
DOCUMENT/REPORT**

**D-02**

**THIS PAGE IS AN  
OVERSIZED DRAWING OR  
FIGURE,  
THAT CAN BE VIEWED AT THE  
RECORD TITLED:  
“IRIGARAY AND CHRISTENSEN  
RANCH  
ENVIRONMENTAL MONITORING  
STATION LOCATIONS,  
FIGURE NO. 5.5”**

**WITHIN THIS PACKAGE... OR,  
BY SEARCHING USING THE  
DOCUMENT/REPORT**

**D-03X**