



Uranerz Energy Corporation
(an Energy Fuels Company)
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July 24, 2018

Department of Environmental Quality – Land Quality Division
District III Supervisor (via email)
2100 West 5th Street
Sheridan, WY 82801

Attn: Document Control Desk
Director (via electronic submission)
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attn: Deputy Director (via email)
Division of Decommissioning, Uranium Recovery and Waste Programs
U.S. Nuclear Regulatory Commission
11545 Rockville Pike, Mail Stop T-8F5
Rockville, MD 20852-2738

Re: Uranerz Energy Corporation Nichols Ranch ISR Project, WDEQ-LQD Permit to Mine No. 778 and NRC SUA-1597 Quarterly Report

Dear Mr. Rogaczewski and Mr. Dapas,

Pursuant to the Permit to Mine No. 778 and SUA-1597 License Condition 11.1, quarterly reporting is required. A comparison of quarterly reporting requirements between Wyoming Department of Environmental Quality – Land Quality Division (WDEQ-LQD) permit and the NRC License SUA-1597 shows similar reporting requirements. Uranerz has therefore combined the WDEQ-LQD quarterly report with the NRC License SUA-1597 quarterly report. It is worth noting that the report format more closely follows the WDEQ-LQD Chapter 11 Section 15 requirement list.

If you have any questions regarding the provided information, please contact me at 307-232-6680 or by email at bbonifas@energyfuels.com.

Sincerely,

Bernard Bonifas
Mine Manager
Uranerz Energy Corporation (an Energy Fuels company)
BB/bv

Attachments
2nd Quarter 2018 Report



Uranerz Energy Corporation
(an Energy Fuels Company)
1701 East "E" Street
Casper, WY 82605
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cc: BJ Kristiansen, Assistant Supervisor, District III, WDEQ-LQD (via email)
Ron Linton, Project Manager, NRC
Bernadette Baca, Health Physicist, NRC



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2nd Quarter 2018 Report

Nichols Ranch ISR Project

WDEQ-LQD Permit to Mine No. 778

And

NRC License SUA-1597



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1.0 Introduction

Uranerz Energy Corporation (Uranerz) received its Wyoming Department of Environmental Quality – Land Quality Division (WDEQ-LQD) Permit to Mine No. 778 on December 29, 2010. The permit was amended to add the Jane Dough Unit, approved March 3, 2017. On July 19, 2011 Source Material License SUA-1597 was issued to Uranerz by the Nuclear Regulatory Commission (NRC). The license was amended to add the Jane Dough Unit, approved March 22, 2017. Quarterly reports are required by WDEQ-LQD Non-Coal Rules and Regulations Chapter 11, Section 15 and NRC License SUA-1597 Condition 11.1.

The following highlights Uranerz activities during the quarter:

Nichols Ranch and Jane Dough Units

- Production continues in Production Area #1 (PA#1) in Header Houses 1 through 8.
- Production continues in Production Area #2 (PA#2) in Header House 9.
- Revegetation and SWPPP implementation and maintenance throughout the Nichols Ranch Unit with emphasis on Production Area #2.
- No activities took place at the Jane Dough Unit during the quarter.

Hank Unit

- No activities took place at the Hank Unit during the quarter.

2.0 Monitoring

2.1 Injection Fluid Characteristics

A typical lixiviant solution is provided in Table 3c of the WDEQ-LQD Mine Plan with representative concentration ranges that could be found in the lixiviant. If changes to the ranges occur, Uranerz committed to updating the table during completion of the annual report. Additionally, WDEQ-LQD Chapter 11, Section 14(a)(ii)(A) Non Coal Rules and Regulations requires that the nature of the injection fluids be monitored at least monthly to yield representative data on the characteristics of the fluid. WDEQ-LQD Chapter 11, Section 15(b)(i) requires that the analysis of the injection fluid is reported in the Quarterly Reports.

Table 1, below, depicts the injection fluid composition for April, May and June 2018 based on a grab sample collected each month and submitted to a third-party laboratory for analysis. A comparison of the monthly composition results to values in Table 3c of the Mine Plan show that all analytical results were within or below the values presented in Table 3c.



Table 1: Injection Fluid Composition				
Parameter	Value Range	April 2018	May 2018	June 2018
Calcium (mg/L)	20-500	245	326	262
Chloride (mg/L)	200-5000	95	90	97
Carbonate as CO ₃ (mg/L)	1-2500	ND	ND	ND
Bicarbonate as HCO ₃ (mg/L)	400-5000	1120	1140	1160
Potassium (mg/L)	15-300	13	18	14
Magnesium (mg/L)	3-100	28	37	27
Manganese (mg/L)	0.01-50	0.55	0.74	0.60
Sodium (mg/L)	400-6000	710	927	699
Sulfate (mg/L)	400-5000	1150	1170	1200
TDS @ 180 (mg/L)	1500-12000	2600	2360	2940
U ₃ O ₈ (mg/L)	0.01-500	0.17	0.69	.56
V ₂ O ₅ (mg/L)	0.01-100	0.40	0.50	0.30

2.2 Injection Pressure and Flow Volumes (Class III Wells)

According to WDEQ-LQD Chapter 11 Section 14(a)(ii)(B) the injection pressure and either flow rate or volume is to be monitored at least weekly. Chapter 11, Section 14(a)(ii)(C) allows monitoring to be performed at the header house manifold. Uranerz monitors injection pressure and flow rate by header house. At this time, operations are occurring in PA#1, Header Houses 1 through 8 and PA#2 Header House 9.

Table 2, below, is a tabulation of the weekly maximum injection pressures for the header houses in PA#1 and PA#2. The Uranerz system continuously records injection pressure via electronic instrumentation at the header houses. Per the NRC Source Material License SUA-1597, License Condition 11.1(C), the readings are kept on site and are available for inspection upon request. The maximum pressure for Nichols Ranch is 150 psi. As shown in Table 2, the 150 psi maximum injection pressure was not exceeded during the quarter.



Table 2: Weekly Maximum Injection Pressure

Week Ending	Header House 1	Header House 2	Header House 3	Header House 4	Header House 5	Header House 6	Header House 7	Header House 8	Header House 9
April 08, 2018	123	47	127	116	111	127	100	110	109
April 15, 2018	132	60	128	122	110	131	111	117	120
April 22, 2018	128	48	127	102	107	132	99	113	114
April 29, 2018	132	62	139	119	113	130	105	120	125
May 06, 2018	126	50	130	108	110	130	100	114	114
May 13, 2018	138	58	138	111	103	131	103	115	125
May 20, 2018	131	48	132	112	99	128	99	112	118
May 27, 2018	128	68	134	117	102	130	125	116	123
June 03, 2018	125	57	130	113	95	128	102	112	125
June 10, 2018	130	71	133	99	109	131	109	122	127
June 17, 2018	124	50	125	99	98	128	101	108	110
June 24, 2018	133	55	128	107	124	129	115	122	101
July 01, 2018	131	59	131	107	109	133	129	119	108

* Value exceeds maximum injection pressure

Flow rates are also continuously recorded via electronic instrumentation at the header houses. Table 3, below, is a tabulation of the recovery (aka production) and injection flow volumes for the quarter in PA#1 and PA#2.

Table 3: Wellfield Weekly Flow Volumes

Week Ending	Recovery (gallons)	Injection (gallons)
April 08, 2018	22,295,150	22,149,000
April 15, 2018	22,563,600	22,415,550
April 22, 2018	22,540,050	22,403,650
April 29, 2018	21,249,650	21,116,070
May 06, 2018	22,619,608	22,472,067
May 13, 2018	22,517,292	22,369,534
May 20, 2018	22,917,650	22,769,500
May 27, 2018	22,258,650	22,127,200
June 03, 2018	22,442,600	22,293,200
June 10, 2018	21,823,450	21,681,350
June 17, 2018	22,339,600	22,189,700
June 24, 2018	17,707,800	17,589,600
July 01, 2018	21,525,850	21,393,000
Totals	284,800,950	282,969,420



2.3 Monitor Well Sampling Results

Monitor well sampling is performed during operations to detect and correct conditions leading to a potential excursion. Monitor well sampling and analysis is performed according to the WDEQ-LQD Mine Plan, Section 3.14.7.8.10 and the NRC License Condition 11.5. The monitor wells in producing wellfields are sampled twice a month, not less than 10 days between each sampling event, for water levels and the Upper Control Limit (UCL) parameters: chloride, conductivity, and alkalinity. All perimeter (ring), overlying and underlying monitor wells were sampled as required.

2.3.1 Production Area #1

Monitor well sampling in PA#1 continued during the quarter. Sampling results for each well in PA#1 are enclosed in Appendix A. Monitor ring wells (MRN) located around the perimeter of PA#1 show fluctuations in water levels as would be expected in an active production area. These fluctuations are attributed to the balancing of water flow throughout the production area in order to maintain the required inward hydraulic gradient according to NRC License 1597 Condition 10.9 and the WDEQ-LQD Mine Plan Section 3.4.

The overlying monitor well MON-11 continued to show high conductivity values during the quarter. Uranerz believes this to be a naturally occurring anomaly and continues to closely observe the conductivity levels through routine monitoring of the well.

MON-12 has shown a slight upward trend in conductivity since 2014 with conductivity values exceeding the UCL for the first time in the 3rd quarter, 2017, as previously reported. Because chloride and total alkalinity values show no corresponding trend, Uranerz believes this to be a naturally occurring anomaly similar to MON-11. Conductivity values for this quarter are below the UCL. Uranerz continues to closely observe the conductivity levels through routine monitoring of the well.

2.3.2 Production Area #2

Monitor well sampling of PA#2, Header House 9, continued during the quarter as illustrated in Figure 3-19 of the Mine Plan (LQD Change No. 20). Phase 1 monitor ring wells (MRN) located around the operational area of PA#2 show fluctuations in water levels as would be expected in an active production area. These fluctuations are attributed to the balancing of water flow throughout the production area in order to maintain the required inward hydraulic gradient according to NRC License 1597 Condition 10.9 and the WDEQ-LQD Mine Plan Section 3.4. Sampling results for each well currently monitored in PA#2 are enclosed in Appendix B.



2.3.3 Excursion Status

Based on the monitor well water quality reports and analysis, there were no excursions to report during the report period.

3.0 Mechanical Integrity Testing

No wells were tested for mechanical integrity during the report period.

4.0 Defective Wells, Well Repair and Plugging

No wells were repaired or plugged during the report period.

5.0 Certification

Certification is required by WDEQ-LQD Non-Coal Rules and Regulations Chapter 11, Section 2(g). I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.

Bernard Bonifas
Mine Manager
Uranerz Energy Corporation (an Energy Fuels Company)

Appendix A



Appendix A

Production Area 1 Well ID MON-01		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS		Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface
Upper Control Limits	21	733	145		

Date

04/10/2018	7	547	115	8.4	4,641.6
04/24/2018	7	547	115	8.5	4,640.5
05/09/2018	7	544	115	8.5	4,641.7
05/29/2018	6	540	110	8.5	4,641.7
06/12/2018	7	540	116	8.5	4,641.3
06/26/2018	7	536	117	8.4	4,641.3

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-02		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS		Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface
Upper Control Limits	21	733	145		

Date

04/10/2018	7	547	115	8.5	4,645.0
04/25/2018	7	547	113	8.4	4,644.8
05/10/2018	7	547	115	8.5	4,645.2
05/30/2018	7	541	110	8.5	4,645.4
06/12/2018	6	541	115	8.5	4,645.0
06/27/2018	7	540	115	8.4	4,645.1

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-03		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	733	145			

Date

04/10/2018	7	548	115	8.4	4,649.1
04/25/2018	7	549	114	8.5	4,648.6
05/10/2018	7	547	114	8.5	4,648.9
05/30/2018	6	542	103	8.5	4,649.1
06/13/2018	6	543	114	8.5	4,648.7
06/27/2018	7	544	116	8.4	4,649.0

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-04		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	733	145			

Date

04/10/2018	7	527	114	8.6	4,652.9
04/24/2018	7	529	115	8.7	4,652.5
05/10/2018	7	532	113	8.7	4,652.9
05/29/2018	6	523	107	8.7	4,653.1
06/13/2018	6	524	113	8.7	4,652.8
06/27/2018	7	521	114	8.6	4,652.9

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-05		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	733	145			

Date

04/10/2018	7	572	113	8.8	4,654.3
04/24/2018	7	570	113	8.9	4,653.9
05/10/2018	7	569	112	8.8	4,654.2
05/31/2018	7	569	112	8.9	4,654.3
06/13/2018	7	565	114	8.8	4,654.2
06/27/2018	7	563	114	8.7	4,654.2

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-06		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	733	145			

Date

04/12/2018	7	568	115	8.6	4,655.8
04/25/2018	7	566	114	8.6	4,655.6
05/10/2018	7	565	114	8.6	4,655.8
05/31/2018	7	565	114	8.6	4,655.8
06/13/2018	6	560	115	8.6	4,655.7
06/28/2018	7	558	115	8.5	4,655.5

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-07		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS		Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface
Upper Control Limits	21	733	145		

Date

04/12/2018	7	572	112	8.5	4,653.3
04/25/2018	7	571	113	8.7	4,653.3
05/10/2018	7	568	113	8.6	4,653.6
05/29/2018	6	561	111	8.6	4,653.7
06/14/2018	7	560	115	8.6	4,657.1
06/27/2018	7	559	114	8.5	4,653.8

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-08		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS		Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface
Upper Control Limits	21	733	145		

Date

04/11/2018	7	573	114	8.4	4,659.3
04/25/2018	7	572	114	8.4	4,659.1
05/14/2018	7	556	114	8.4	4,659.4
05/31/2018	6	572	113	8.4	4,659.5
06/14/2018	6	564	114	8.5	4,659.8
06/27/2018	7	561	117	8.4	4,659.4

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-09		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	733	145			

Date

04/11/2018	7	570	116	8.4	4,660.7
04/26/2018	7	569	116	8.4	4,660.3
05/14/2018	7	549	117	8.5	4,660.5
05/31/2018	6	568	115	8.5	4,660.8
06/14/2018	7	561	116	8.4	4,660.7
06/28/2018	7	562	117	8.3	4,661.0

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-10		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS		Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface
Upper Control Limits	21	733	145		

Date

04/11/2018	7	581	112	8.4	4,662.9
04/26/2018	7	581	112	8.4	4,663.1
05/14/2018	7	561	113	8.5	4,662.7
05/31/2018	7	580	110	8.4	4,663.0
06/14/2018	7	571	112	8.4	4,663.0
06/28/2018	7	576	113	8.3	4,663.0

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-11		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS		Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface
Upper Control Limits	21	733	145		

Date

04/11/2018	6	*886	103	8.2	4,664.0
04/26/2018	6	*884	102	8.2	4,663.5
05/14/2018	6	*849	103	8.3	4,664.1
05/31/2018	6	*884	101	8.2	4,664.3
06/14/2018	6	*855	103	8.2	4,664.4
06/28/2018	6	*850	105	8.2	4,664.4

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-12		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	733	145			

Date

04/11/2018	6	704	108	8.3	4,664.5
04/26/2018	7	695	110	8.2	4,664.3
05/14/2018	7	667	108	8.4	4,664.5
05/31/2018	6	701	110	8.3	4,664.7
06/14/2018	7	696	109	8.3	4,664.8
06/28/2018	7	698	109	8.2	4,664.8

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MON-13		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	733	145			

Date

04/12/2018	7	602	113	8.2	4,664.9
04/26/2018	7	602	112	8.3	4,664.3
05/14/2018	7	578	113	8.4	4,664.9
05/31/2018	6	599	112	8.4	4,665.2
06/14/2018	7	592	113	8.3	4,665.2
06/28/2018	7	593	114	8.3	4,665.4

*Value Exceeds Upper Control Limit

Production Area 1		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-01		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/02/2018	7	531	116	8.6	4,608.2
04/16/2018	7	554	116	8.6	4,604.6
05/01/2018	6	549	118	8.6	4,603.0
05/15/2018	7	530	116	8.7	4,605.6
06/04/2018	7	545	117	8.5	4,607.7
06/18/2018	7	546	118	8.6	4,606.5

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-02-2		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/02/2018	7	548	116	8.5	4,601.0
04/16/2018	7	570	114	8.5	4,596.6
05/01/2018	7	566	117	8.5	4,596.1
05/15/2018	7	547	116	8.6	4,596.6
06/04/2018	7	560	114	8.5	4,597.2
06/18/2018	7	560	116	8.6	4,596.8

*Value Exceeds Upper Control Limit

Production Area 1		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-03-2		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/02/2018	7	549	111	8.6	4,596.8
04/16/2018	8	575	112	8.6	4,591.3
05/01/2018	7	572	115	8.6	4,592.2
05/15/2018	7	554	114	8.6	4,590.3
06/04/2018	7	560	110	8.6	4,589.7
06/18/2018	8	563	113	8.6	4,590.4

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-04		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/03/2018	7	549	112	8.7	4,602.6
04/16/2018	7	575	113	8.6	4,594.0
05/01/2018	7	571	114	8.6	4,599.9
05/15/2018	7	550	113	8.7	4,590.6
06/04/2018	7	557	109	8.6	4,588.9
06/18/2018	7	563	112	8.8	4,591.2

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-05		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/03/2018	8	546	107	8.7	4,605.4
04/16/2018	8	574	109	8.7	4,600.2
05/01/2018	8	571	112	8.6	4,607.9
05/15/2018	7	545	108	8.7	4,593.8
06/04/2018	8	564	108	8.7	4,593.4
06/18/2018	8	559	110	8.8	4,596.6

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-06		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/03/2018	7	561	108	8.7	4,608.8
04/16/2018	8	587	109	8.7	4,608.9
05/02/2018	7	578	112	8.6	4,619.3
05/15/2018	7	561	107	8.6	4,601.3
06/05/2018	7	581	112	8.7	4,599.0
06/18/2018	8	578	110	8.6	4,603.0

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-07		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/03/2018	8	564	106	8.6	4,621.4
04/16/2018	8	588	103	8.6	4,617.3
05/02/2018	8	577	105	8.6	4,628.0
05/16/2018	8	584	102	8.6	4,608.6
06/05/2018	7	584	106	8.6	4,607.6
06/19/2018	8	571	104	8.6	4,606.8

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-08		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/03/2018	8	572	108	8.7	4,611.6
04/16/2018	8	592	108	8.7	4,608.0
05/02/2018	7	581	106	8.6	4,613.1
05/16/2018	8	588	105	8.7	4,603.2
06/05/2018	7	585	107	8.7	4,603.0
06/19/2018	8	573	109	8.7	4,605.8

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-09		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/03/2018	7	566	114	8.6	4,610.0
04/17/2018	7	590	114	8.6	4,612.4
05/02/2018	7	581	116	8.5	4,616.2
05/16/2018	7	589	113	8.6	4,609.9
06/05/2018	7	584	115	8.6	4,610.0
06/19/2018	7	572	117	8.6	4,613.2

*Value Exceeds Upper Control Limit

Production Area 1		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-10		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/04/2018	8	556	107	8.5	4,620.0
04/17/2018	8	583	108	8.6	4,626.2
05/02/2018	8	574	109	8.6	4,627.4
05/16/2018	7	581	104	8.5	4,621.9
06/05/2018	8	579	110	8.6	4,621.2
06/19/2018	8	567	109	8.6	4,624.3

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-11		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/04/2018	8	561	110	8.6	4,625.4
04/17/2018	7	591	108	8.6	4,630.5
05/02/2018	7	577	111	8.5	4,632.7
05/16/2018	7	590	107	8.5	4,630.2
06/05/2018	7	583	110	8.6	4,629.8
06/19/2018	7	569	111	8.6	4,630.7

*Value Exceeds Upper Control Limit

Production Area 1		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-12		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/04/2018	7	561	118	8.5	4,632.7
04/17/2018	7	589	117	8.5	4,635.7
05/02/2018	7	576	117	8.5	4,638.1
05/16/2018	7	586	112	8.5	4,639.6
06/05/2018	7	583	114	8.5	4,636.3
06/19/2018	7	571	115	8.5	4,638.1

*Value Exceeds Upper Control Limit

Production Area 1		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-13		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/04/2018	7	567	118	8.5	4,646.4
04/17/2018	7	591	116	8.5	4,644.2
05/03/2018	7	581	115	8.5	4,641.3
05/16/2018	7	588	115	8.5	4,645.7
06/06/2018	6	579	113	8.5	4,639.9
06/19/2018	7	571	115	8.6	4,645.6

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-14		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/05/2018	7	561	117	8.5	4,650.7
04/17/2018	7	595	118	8.5	4,646.6
05/03/2018	6	583	120	8.6	4,644.0
05/17/2018	7	593	117	8.6	4,650.4
06/06/2018	6	582	118	8.5	4,641.8
06/19/2018	7	574	119	8.6	4,646.6

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-15		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/05/2018	7	557	121	8.4	4,661.5
04/17/2018	7	584	122	8.4	4,649.0
05/03/2018	6	573	120	8.5	4,647.8
05/17/2018	6	583	120	8.5	4,656.8
06/06/2018	6	571	121	8.5	4,645.8
06/20/2018	7	578	122	8.4	4,648.0

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-16		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/05/2018	6	547	122	8.4	4,665.1
04/17/2018	7	574	122	8.4	4,657.1
05/03/2018	6	562	123	8.4	4,654.0
05/17/2018	6	571	120	8.4	4,663.7
06/06/2018	6	562	122	8.4	4,654.5
06/20/2018	6	569	124	8.4	4,653.5

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-17		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/05/2018	7	532	123	8.3	4,662.5
04/18/2018	7	557	122	8.4	4,655.7
05/03/2018	7	548	122	8.5	4,652.1
05/17/2018	7	556	121	8.4	4,660.7
06/06/2018	6	545	122	8.4	4,654.7
06/20/2018	7	552	124	8.4	4,653.2

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-18-1		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/05/2018	7	525	123	8.3	4,660.5
04/18/2018	7	554	121	8.4	4,649.7
05/07/2018	7	549	121	8.4	4,647.4
05/21/2018	7	538	118	8.4	4,652.9
06/06/2018	6	543	121	8.4	4,649.0
06/20/2018	7	550	121	8.4	4,648.3

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-20-1		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/04/2018	7	529	123	8.5	4,658.8
04/18/2018	7	552	120	8.6	4,646.6
05/03/2018	7	545	120	8.6	4,644.7
05/17/2018	7	552	121	8.5	4,652.6
06/06/2018	6	546	118	8.5	4,643.8
06/20/2018	7	550	119	8.5	4,648.5

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-21		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/04/2018	7	524	118	8.4	4,651.8
04/18/2018	7	547	118	8.5	4,645.1
05/03/2018	7	537	118	8.5	4,642.8
05/17/2018	7	548	116	8.5	4,649.5
06/06/2018	6	536	118	8.4	4,643.7
06/20/2018	7	544	117	8.5	4,645.5

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-22		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/04/2018	7	527	116	8.4	4,642.7
04/18/2018	7	547	115	8.6	4,640.0
05/03/2018	7	536	115	8.5	4,640.4
05/17/2018	7	545	115	8.5	4,648.0
06/06/2018	6	536	114	8.5	4,645.1
06/20/2018	7	541	116	8.6	4,641.8

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-23		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/04/2018	7	526	123	8.5	4,638.5
04/18/2018	7	548	123	8.6	4,639.4
05/03/2018	7	536	123	8.6	4,639.4
05/17/2018	6	550	120	8.5	4,645.8
06/07/2018	6	541	122	8.5	4,649.9
06/20/2018	7	547	123	8.5	4,640.8

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-24		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/05/2018	7	527	120	8.4	4,635.7
04/18/2018	7	552	120	8.6	4,638.3
05/07/2018	7	546	119	8.5	4,638.9
05/21/2018	6	534	120	8.5	4,637.6
06/07/2018	6	542	119	8.5	4,642.3
06/21/2018	7	539	119	8.4	4,640.9

*Value Exceeds Upper Control Limit

Production Area 1		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-25		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/09/2018	7	550	118	8.5	4,625.7
04/23/2018	6	551	119	8.6	4,626.9
05/07/2018	7	545	120	8.5	4,627.4
05/21/2018	6	533	117	8.5	4,627.1
06/07/2018	6	538	119	8.5	4,628.8
06/21/2018	7	535	120	8.5	4,631.9

*Value Exceeds Upper Control Limit

Production Area 1		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-26		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/09/2018	7	540	121	8.6	4,613.9
04/23/2018	6	544	120	8.6	4,613.8
05/07/2018	7	537	121	8.5	4,615.4
05/21/2018	7	525	119	8.5	4,614.4
06/07/2018	6	530	120	8.5	4,614.7
06/21/2018	7	529	121	8.5	4,615.7

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-27		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/09/2018	7	545	118	8.6	4,608.4
04/23/2018	7	546	118	8.6	4,609.7
05/07/2018	7	537	119	8.5	4,610.5
05/21/2018	7	530	118	8.5	4,607.9
06/07/2018	6	533	119	8.4	4,606.4
06/21/2018	7	531	119	8.5	4,606.0

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-28		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/09/2018	7	546	119	8.6	4,608.1
04/23/2018	6	547	118	8.6	4,610.7
05/07/2018	7	541	121	8.5	4,612.2
05/21/2018	7	528	118	8.5	4,613.6
06/07/2018	6	533	118	8.5	4,604.6
06/21/2018	7	531	119	8.5	4,603.8

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-29		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/09/2018	8	550	118	8.7	4,603.3
04/23/2018	8	551	120	8.7	4,607.8
05/08/2018	8	550	120	8.7	4,611.3
05/21/2018	9	533	118	8.5	4,613.3
06/11/2018	8	541	120	8.6	4,603.9
06/25/2018	9	549	119	8.6	4,602.0

*Value Exceeds Upper Control Limit

Production Area 1		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-33		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/09/2018	7	533	117	8.7	4,617.7
04/23/2018	7	533	116	8.7	4,611.3
05/09/2018	7	530	117	8.7	4,617.2
05/24/2018	7	525	117	8.7	4,624.0
06/12/2018	7	525	117	8.5	4,622.8
06/26/2018	7	522	118	8.6	4,623.0

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MRN-34-2		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	731	152			

Date

04/09/2018	7	543	117	8.7	4,611.6
04/23/2018	7	546	117	8.8	4,608.3
05/09/2018	7	540	118	8.7	4,611.4
05/24/2018	7	533	118	8.7	4,614.5
06/11/2018	7	535	118	8.7	4,614.6
06/26/2018	7	534	118	8.6	4,615.4

*Value Exceeds Upper Control Limit

Production Area 1		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MUN-01-1		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	20	490	274			

Date

04/10/2018	5	393	198	8.6	4,623.8
04/24/2018	5	395	197	8.7	4,622.4
05/09/2018	5	398	199	8.7	4,623.9
05/29/2018	5	390	197	8.6	4,624.3
06/12/2018	5	392	199	8.7	4,623.8
06/27/2018	6	396	201	8.6	4,623.6

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MUN-02		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	20	490	274			

Date

04/10/2018	5	400	203	8.7	4,623.6
04/25/2018	5	404	201	8.8	4,622.9
05/10/2018	6	408	203	8.7	4,623.3
05/30/2018	5	399	195	8.7	4,624.1
06/12/2018	5	400	203	8.8	4,624.1
06/27/2018	6	400	203	8.6	4,623.9

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MUN-03		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	20	490	274			

Date

04/10/2018	5	392	199	8.6	4,622.5
04/25/2018	5	394	195	8.8	4,622.7
05/10/2018	6	397	197	8.7	4,622.1
05/30/2018	5	389	190	8.7	4,624.0
06/13/2018	5	393	199	8.7	4,621.9
06/27/2018	6	389	199	8.6	4,622.6

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MUN-04		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	20	490	274			

Date

04/10/2018	4	428	218	8.5	4,622.7
04/24/2018	5	430	217	8.7	4,622.6
05/10/2018	5	433	220	8.7	4,622.8
05/29/2018	4	425	220	8.6	4,623.4
06/13/2018	4	427	222	8.7	4,622.7
06/27/2018	5	427	221	8.6	4,623.0

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MUN-05-1		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	20	490	274			

Date

04/10/2018	5	388	196	8.7	4,623.4
04/24/2018	5	390	196	8.8	4,622.8
05/10/2018	5	395	195	8.7	4,623.5
05/31/2018	5	391	197	8.7	4,623.5
06/13/2018	5	388	197	8.7	4,623.4
06/27/2018	6	389	197	8.7	4,623.5

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MUN-06		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	20	490	274			

Date

04/12/2018	5	390	194	8.7	4,620.8
04/25/2018	5	391	197	8.8	4,621.6
05/10/2018	5	394	195	8.7	4,621.1
05/31/2018	5	391	193	8.7	4,621.5
06/14/2018	5	387	195	8.7	4,621.0
06/28/2018	6	395	195	8.6	4,621.2

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MUN-07		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	20	490	274			

Date

04/11/2018	5	380	177	8.8	4,623.2
04/25/2018	5	381	175	9.0	4,623.2
05/10/2018	5	386	177	8.9	4,621.7
05/29/2018	5	376	175	8.9	4,624.2
06/13/2018	5	379	179	8.8	4,621.6
06/27/2018	6	380	178	8.7	4,621.9

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MUN-08		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	20	490	274			

Date

04/11/2018	5	369	178	8.7	4,622.6
04/25/2018	5	371	179	8.9	4,622.1
05/14/2018	5	362	177	8.8	4,622.8
05/31/2018	5	372	178	8.8	4,623.1
06/14/2018	5	367	178	8.8	4,623.1
06/28/2018	6	377	179	8.7	4,622.9

*Value Exceeds Upper Control Limit

Production Area 1 Well ID MUN-09		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	20	490	274			

Date

04/11/2018	6	398	185	8.7	4,623.3
04/26/2018	6	400	184	8.8	4,622.4
05/14/2018	6	388	184	8.8	4,623.2
05/31/2018	6	399	183	8.7	4,623.8
06/14/2018	6	395	187	8.8	4,623.5
06/28/2018	6	401	186	8.6	4,623.6

*Value Exceeds Upper Control Limit

Appendix B



Appendix B

Production Area 2 Well ID MON-14		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS		Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface
Upper Control Limits	21	725	148		

Date

04/11/2018	6	534	114	8.6	4,638.4
04/24/2018	7	532	115	8.7	4,638.8
05/09/2018	7	531	117	8.6	4,638.2
05/31/2018	6	532	116	8.8	4,639.1
06/12/2018	7	526	116	8.6	4,638.6
06/26/2018	7	528	116	8.5	4,638.4

*Value Exceeds Upper Control Limit

Production Area 2		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MON-15		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	725	148			

Date

04/12/2018	7	571	116	8.7	4,633.9
04/24/2018	7	567	115	8.8	4,633.6
05/09/2018	7	563	116	8.8	4,634.2
05/31/2018	7	571	116	8.8	4,635.3
06/12/2018	6	561	115	8.8	4,635.2
06/26/2018	7	561	115	8.7	4,634.2

*Value Exceeds Upper Control Limit

Production Area 2		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MPN-16		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	681	161			

Date

04/09/2018	6	510	122	8.9	4,609.8
04/24/2018	6	528	122	8.9	4,605.2
05/08/2018	7	530	121	9.0	4,612.1
05/24/2018	6	516	120	9.0	4,614.3
06/11/2018	6	516	119	9.0	4,610.9
06/26/2018	7	522	122	8.9	4,609.9

*Value Exceeds Upper Control Limit

Production Area 2		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-35		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	681	161			

Date

04/09/2018	6	522	118	8.6	4,612.7
04/23/2018	7	523	119	8.7	4,609.1
05/09/2018	7	517	118	8.7	4,613.4
05/24/2018	7	510	118	8.8	4,620.2
06/12/2018	7	515	118	8.7	4,616.1
06/26/2018	7	517	119	8.6	4,619.0

*Value Exceeds Upper Control Limit

Production Area 2		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-36		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	681	161			

Date

04/09/2018	6	503	118	8.6	4,608.8
04/23/2018	7	505	118	8.7	4,608.1
05/09/2018	7	502	119	8.8	4,610.0
05/24/2018	6	495	119	8.8	4,617.1
06/12/2018	7	497	119	8.7	4,610.3
06/26/2018	7	499	120	8.7	4,613.4

*Value Exceeds Upper Control Limit

Production Area 2		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-37		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	681	161			

Date

04/09/2018	6	503	122	8.6	4,604.6
04/23/2018	6	506	121	8.7	4,606.1
05/08/2018	7	504	121	8.8	4,607.2
05/22/2018	6	496	122	8.7	4,611.6
06/11/2018	6	494	123	8.7	4,605.3
06/25/2018	7	502	123	8.7	4,608.1

*Value Exceeds Upper Control Limit

Production Area 2		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-38		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	681	161			

Date

04/09/2018	6	494	123	8.6	4,606.2
04/23/2018	7	502	122	8.8	4,618.4
05/08/2018	7	498	123	8.8	4,607.7
05/22/2018	6	486	121	8.7	4,610.6
06/11/2018	6	488	122	8.7	4,607.7
06/25/2018	7	493	124	8.7	4,609.8

*Value Exceeds Upper Control Limit

Production Area 2		Uranerz Energy Corporation Nichols Ranch			Quarterly Report	
Well ID MRN-58		PERIMETER, OVER AND UNDER MONITOR WELLS			2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	21	681	161			

Date

04/09/2018	7	539	119	8.6	4,610.8
04/23/2018	6	540	119	8.7	4,614.2
05/08/2018	7	541	118	8.7	4,614.9
05/24/2018	7	527	119	8.7	4,616.9
06/11/2018	7	529	118	8.6	4,611.0
06/25/2018	7	534	120	8.6	4,606.3

*Value Exceeds Upper Control Limit

Production Area 2 Well ID MUN-14		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	19	468	249			

Date

04/11/2018	5	395	197	8.7	4,631.3
04/24/2018	5	397	201	8.7	4,622.9
05/09/2018	5	402	200	8.7	4,622.1
05/31/2018	5	398	196	8.8	4,623.0
06/12/2018	5	393	200	8.7	4,623.7
06/26/2018	6	396	201	8.7	4,623.4

*Value Exceeds Upper Control Limit

Production Area 2 Well ID MUN-15		Uranerz Energy Corporation Nichols Ranch PERIMETER, OVER AND UNDER MONITOR WELLS			Quarterly Report 2nd QTR 2018	
Water Quality Parameters	Chloride	Specific Conductance	Total Alkalinity	pH	Piezometric Elevation	
Units	mg/l	u mho/cm	mg/l as CaCo3		msl @ surface	
Upper Control Limits	19	468	249			

Date

04/12/2018	5	394	196	8.8	4,619.5
04/24/2018	5	393	196	8.9	4,620.4
05/09/2018	5	398	194	9.0	4,621.0
05/31/2018	5	395	196	9.0	4,621.9
06/12/2018	5	389	196	9.0	4,622.6
06/26/2018	5	392	196	8.9	4,622.5

*Value Exceeds Upper Control Limit