



A Subsidiary of  
Union Pacific Corporation

October 18, 1982

Mr. Ross Scarano  
U.S. Nuclear Regulatory Commission  
Uranium Recovery and Licensing Branch  
Mail Stop 461-SS  
7915 Eastern Avenue  
Silver Spring, Maryland 20910

Dear Mr. Scarano:

RE: License SUA-1338 Docket No. 40-8697 (Reno Creek)  
Quarterly Report: Third Quarter, 1982

Pursuant to license condition 29, the quarterly report for Rocky Mountain Energy Company's Reno Creek project is hereby submitted. The report covers the period July 1 through September 30, 1982.

#### OPERATIONS

No mining or groundwater restoration activities were conducted during the third quarter. Pattern 1 was shut down June 3, 1982 and Pattern 2 on April 16, 1982. Activities within both patterns have been limited to routine sampling of pattern wells.

#### ENVIRONMENTAL MONITORING

##### Groundwater

Table 1 presents Pattern 1 monitor well and production well data for the third quarter. Evaluation of the data indicates no significant change in water quality occurred during the quarter.

##### Reservoir

Results of monthly reservoir grab samples are given in Table 2. Monitoring of the inspection tube on the leak detection system has shown no leaks for the quarter.

##### RADON GAS

Table 3 lists the results of radon gas values for the quarter. All values are considerably less than the 10 CFR 20 limit.

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PDR ADOCK 04008697  
C PDR

ISL Development  
P.O. Box 3719  
Casper, Wyoming 82601  
307 237-8326

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Mr. Ross Scarano  
October 28, 1982  
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#### AIR PARTICULATES

Table 4 lists radionuclide particulates for the second quarter of 1982. Twenty-four-hour samples were collected every six days using a high volume sampler. The filters were composited into a quarterly sample and analyzed for radionuclides by Camp, Dresser and McKee of Denver, Colorado. The results are significantly less than the 10 CFR 20 limit. Third quarter results will be included on the next quarterly report.

#### Area Dosimetry

Table 5 lists area dosimetry values for the quarter.

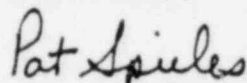
#### PROPOSED ACTIVITIES

Both well patterns will remain shut down while regulatory agencies evaluate restoration stability.

Site activities during the third quarter of 1982 will be limited to maintaining security at the facility. Final restoration reports for both Reno Creek well patterns were submitted during the quarter.

If you have any questions, please give me or Mike Neumann a call.

Sincerely,



P. R. Spieles  
Manager, Facility Operations

PRS;jma  
Attachments

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NRC, Document Management Branch  
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R. E. Iwanicki  
M. R. Neumann

TABLE 1  
 RENO CREEK  
 GROUNDWATER SAMPLING - THIRD QUARTER, 1982  
 PATTERN 1

	<u>Sample Date</u>	<u>pH</u>	<u>TDS mg/l</u>	<u>Calcium mg/l</u>	<u>Sulfate mg/l</u>	<u>U<sub>3</sub>O<sub>8</sub> mg/l</u>
M-1	CL*	6.5	2858	286	1606	1.102
	7/23/82	7.8	1100	90	602	0.027
	8/3/82	7.7	1175	91	716	0.040
	9/1/82	8.0	1125	80	715	0.013
M-2	CL*	6.5	2744	278	1644	1.027
	7/20/82	8.0	1240	122	762	0.024
	8/3/82	8.1	1250	98	765	0.016
	9/1/82	7.8	1275	87	805	0.018
M-3	CL*	6.5	3104	286	1657	1.750
	7/20/82	11.2	1300	143	745	0.010
	8/3/82	11.1	1150	111	692	0.024
	9/1/82	10.9	1175	110	685	0.005
M-4	CL*	6.5	3096	304	1783	1.550
	July **	---	----	---	----	-----
	8/3/82	11.0	1250	116	702	0.046
	9/1/82	11.3	1275	116	703	0.028
LSM-1	CL*	6.5	994	207	137	1.022
	7/23/82	10.6	250	1,6	1,6	0.086
	8/3/82	10.2	230	4,5	24	0.663
	9/1/82	11.1	270	28	20	0.042
USM-1	CL*	6.5	987	32	137	1.029
	7/23/82	7.3	375	20	0,3	0,001
	8/3/82	7.5	350	20	1,0	0,001
	9/1/82	7.9	325	20	1,7	0,002
P-1	CL*	3.8	2771	267	1673	5,00
	7/20/82	5.2	2400	265	1527	1,44
	8/3/82	5.2	2300	276	1528	1,48
	9/1/82	5.8	2280	244	1496	1,34
P-2	CL*	3.8	2771	267	1673	5,0
	7/20/82	5.3	2480	263	1673	1,13
	8/3/82	5.0	2450	297	1650	1,06
	9/1/82	5.1	2660	272	1796	0,05

\*CL - Stabilization Control Limits

\*\* No sample taken. A submersible pump was wedged in the well bore above the water table. After considerable effort, the pump was retrieved August 1, 1982.

TABLE 2  
 RENO CREEK  
 RESERVOIR  
 MONTHLY GRAB SAMPLE  
 THIRD QUARTER, 1982

		<u>July</u>	<u>Aug.</u>	<u>Sept.</u>
pH	standard units	5.8	5.7	6.3
Conductivity	µmhos/cm	18300	20,000 +	20,000 +
Sulfate	mg/l	10093	10,433	11,108
Bicarbonate	mg/l	24	24	28
Calcium	mg/l	448	374	465
Magnesium	mg/l	322	201	355
Chloride	mg/l	617	749	673
Sodium	mg/l	965	1179	1302
Iron	mg/l	2.34	6.0	10.6
Zinc	mg/l	0.38	0.44	0.28
Aluminum	mg/l	0.5	0.5	0.5
Uranium (U <sub>3</sub> O <sub>8</sub> )	mg/l	1.84	1.99	2.89
Vanadium	mg/l	0.08	0.12	0.01
TDS	mg/l	14500	16,775	18,000
Arsenic	mg/l	0.005	0.005	0.005
Selenium	mg/l	0.014	0.005	0.005
Ra-226	pCi/l	260	190	*
Silicon (SiO <sub>2</sub> )	mg/l	31	31	37
Th-230	pCi/l	92	170	*

\*pending

TABLE 3  
 RENO CREEK  
 RADON GAS - THIRD QUARTER, 1982

<u>Site</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>
Upwind Boundary #8*	0.00 ± 1.02	0.87 ± 1.07	0.16 ± 1.27
Downwind Boundary #10*	1.45 ± 1.03	1.81 ± 1.23	0.00 ± 1.25
Plant Building (inside)**	1.44 ± 0.93	0.90 ± 1.30	0.00 ± 1.26

\*10 CFR 20 Limit (unrestricted area) 3.0 x 10<sup>-9</sup> μCi/ml

\*\*10 CFR 20 Limit (restricted area) 3.0 x 10<sup>-8</sup> μCi/ml

All values reported in μCi/ml x 10<sup>-9</sup>

TABLE 4  
 RADIOMETRIC AIR PARTICULATE  
 RENO CREEK  
 SECOND QUARTER, 1982

<u>Site</u>	-----10 <sup>-16</sup> $\mu$ Ci/ml-----		
	<u>Ra-226</u>	<u>Th-230</u>	<u>Uranium</u>
Upwind (#8)	5.2	3.3	7.2
Downwind (#10)	5.3	1.7	0.4
Plant Building (#9)*	8.1	7.7	17.0
10 CFR 20 Limit * (restricted area)	$3 \times 10^{-11}$	$2 \times 10^{-12}$	$7 \times 10^{-11}$
10 CRF 20 Limit (unrestricted area)	$2 \times 10^{-12}$	$8 \times 10^{-14}$	$3 \times 10^{-12}$

TABLE 5  
AREA DOSIMETRY  
RENO CREEK  
THIRD QUARTER, 1982

<u>SITE</u>	<u>MREM/QUARTER</u>
Upwind Boundary (#8)	24.18
Downwind Boundary (#10)	24.58
Pattern 1	**
Pattern 2	24.58
Office	23.00
Lab	21.29
Plant Building	32.99

\*Dosimetry service performed by Eberline. Badges are exchanged quarterly.

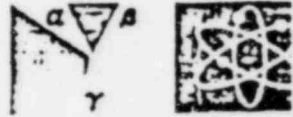
\*\*Badge lost.

# eberline

EBERLINE INSTRUMENT CORPORATION  
 P.O. BOX 3108, SANTA FE, NEW MEXICO 87501  
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## TLD AREA MONITOR REPORT

DATE ISSUED: 07/01/82 DATE RECEIVED: 06/18/82 3646  
 DATE OF EXPOSURE: 10/11/82 DATE OF DEVELOPMENT: 10/13/82 2



DATE	IDENTIFICATION	DOSIMETER READINGS					AVERAGE	SD	WEEK	FREQUENCY
		FIRST	SECOND	THIRD	FOURTH	FIFTH				
1019	OFFICE 2	35	33	38	33	28	33.3	7.9	1.95	
1020	OFFICE 3	25	28	26	29	26	26.8	3.6	1.60	
2030	CONTRGL	30	30	30	23	22	27.0	8.3	1.62	
2001	NC88	31	32	34	30	28	30.8	4.9	1.84	
2002	NC810	37	33	33	27	28	31.3	8.4	1.87	
2004	RC-PLANT BLD	38	47	43	41	41	42.0	6.3	2.51	
2006	RCOFFICE	32	28	30	32	26	29.3	5.2	1.75	
2007	RCLAB	25	28	24	26	32	27.0	6.1	1.62	
2009	SUMP	25	25	27	28	23	25.3	3.8	1.51	
2013	RC-P2	36	33	27	27	34	31.2	8.6	1.87	
2018	MNL-4	32	33	31	32	36	32.5	3.9	1.94	
2019	RADIATION LAB	31	29	26	26	32	28.7	5.5	1.72	

DOSIMETER DAMAGED  
 BASED ON ELAPSED TIME  
 FROM DATE ANNEALED TO  
 DATE READ

### FREQUENCY CODE

- M MONTHLY
- Q QUARTERLY
- S SEMI ANNUAL
- A ANNUAL
- Y YEARLY

DATE 10/13/82

RUCKY MOUNTAIN ENERGY CO  
 PAT SPIELES  
 P O BOX 3719  
 GASPER WY 82602

(41)



1018

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