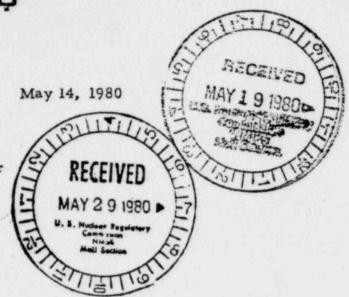
PDR 40-8380

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DOCKETED USINGC USINGC MAY 2 9 1980 NMSS MAIL SECTION CKET CLERK

> Mr. Dennis Morrow, District Engineer DEQ - Land Quality Division District IV 30 East Grinnell Street Sheridan, WY 82801

Dear Mr. Morrow:

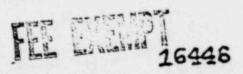


RE: Pattern III Status Report

Enclosed are sample results from the April 1st and April 16th sampling of Pattern III monitor wells. You should have received all values for the April 1st sampling, except those for uranium, arsenic, and selenium, which are reported here. Well M-40 is now back within baseline range for all parameters except uranium which is less than 0.2 mg/l. Well M-43 still shows uranium and vanadium levels above baseline; however, 'oth levels are less than 1.0 mg/l and appear to be dropping.

The April 1st sampling of Well M-41 indicated that calcium, magnesium, and vanadium values were abnormally high. In order to affirm this, the Weil was sampled again on April 3rd. The April 3rd sampling results indicated that the well was within the upper control limits (UCL) for the excursion parameters (pH, conductivity, sulfate, and uranium), although calcium, magnesium, and vanadium levels were slightly elevated. This would indicate that one of two things occurred: 1) that we were beginning to see the leading edge of an excursion which was quickly reversed when injection was stopped on April 1st, or 2) that the April 1st sample was inadvertently contaminated or biased. M-41 will be resampled next week, and you will be advised of any new developments.

Pattern III production continues at 5 gpm from the upper and lower ore zones with no injection. The net flow of 10 gpm is being routed through the ion exchange columns to the lime treatment circuit, and barium chloride precipitation step where the overflow is discharged to the new pond (Reservoir B) with the underflow reporting to the old pond.



Mr. Dennis Morrow May 14, 1980 Page Two

As we discussed on the phone Monday, May 12th, future status reports on Pattern III will be filed on a monthly basis now that injection has stopped and values for the excursion control parameters are stabilizing.

If you have any questions, please give me a call at your convenience.

Sincerely,

M. R. Neumann

Field Environmental Coordinator

MRN/ph Attachments

cc: Margery Hulburt (DEQ)
Jack Rothfleisch (NRC)
NRC - Region IV

Rick I wanicke
Kent Loest
Pat Spieles

	Sample	p!I	El	EM	AF C	Cond	Alk mg/l	Hard	co3	нсо3	Ca	Mg	Na	к		504		v		Mn			U308	Gross	Gross	Po- 210	Po- 210	Ra-	T'
Sample Date	Description		M	v. M	ıv .	imbor		,ñg/Γ c3Ĉο;	mg/1	nig/1	mg/1	mg/1	mg/l	mg/1	mg/l	mg/1	mg/1	mg/1	mg/1	rog/1	rng/1	mg/1	mg/1	pG1/1	oCi/l	pCi/I	pCi/I	Ci/I	oC.
9-40	UCL	43	1	-		3110					137	85	615	16	1.4	2522	42	a.12	2719		0.04	0.05	.055			124	47.8	106	37.
	4/1/80	7.6		;	1	2300					104	48	488	23.5	0.2	1165	41	0.1	2100		207	.01	(20)						_
M-10	4/16/80	16.60		-		2600					82	54	510	19.3	.04	1308	46.5	2.7	2060		00:	4.001	147	- -					-
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* Value given is the LCL (Lower Control Limit)

Eample Date	Sample Description	рΗ	Eh	EMF	Cond	Alk	Hard	co3	нсо3	Ca	мв	Na	the second	Fc		Commence of the Commence of th			Min			U308	Gron	Gross	Pb-	Po-	P.a. 226	77
			MV	MV	un:ho:	CaCo	5320g	mg/1	mg/l	mg/l	mg/l	nig/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	pCi/I	pCi/I	pCi/1	oCi/1	pC:/1	PC
M-41	UCL	4.3			3400														034	.04	.04	.67			24.9	17.4	20%	1
11-41	11/80	6.2			2800					140	69	505	11.6	0.30	1332	36	4.1)	2240		.007	6,001	340_	-					-
		6.95			Ruch					93	50	474	9.0	0.23	1/28	27.3	0.7	2000		075	00:	,070						-
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^{*} Value given is the LCL (Lower Control Limit)

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	Description		M	V. MV	umho	CaCo	cacos	mg/1	mg/1	mg/l	mg/1	mg/l	mg/l	mg/1	mg/1	mg/l	mg/1	mg/1	mg/1	mg/1	mg/1	mg/1	pCi/l	pCi/1	þCi/1	pCi/1	oCi/I)°C
11-42	UCL	64		:	3000					80	51	545	14	2.1	1716	47	0.35	2245	0.31	.02	. 02	.049			245	12.7	52.1	2
	4/1/80	7.1		A :	2100					88	42	476	8.3	0.3	1127	30	(0.1	1240	4	1001	.002	.320						-
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----*-Value-given is the LCL (Lower Control Limit)

Sample Date	Sample Description	pił	Eh	EMF	Cond	ΛIk	Hard	co3	нсс3	Ca	Mg	Ma	K	Fe	504	Cl	V	TDS	Mn	٨٠	Sc	U308	Groe	Gran	Pb- 210	Po-	Ra- 226	T
		MV. MV	v. MV un	umho	n.g/I	ක්දැ උදීදීල	mg/l	mg/1	mg/1	mg/1	mg/1	ing/l	mg/1	mg/l	pCi/I	pCI/I	pCi/1	pCi/l	10.76	c								
11-43	UCI.	6.4			3300					-	-	-	-	2000	1266	1			-	0.05	0.02	.035			8.2	24.0	70.9	3
4/1/30	m-43	6.7			2450					120	34	485	10.1	0.4	1309	33.5	6.6	2160		.001	M4(.772						
M-43 4/1/80 4/16/80	M-43	6.9	!		2600				_	93	34	474	8.0	0,38	1222	41.0	8.5	2010		.003	0050	815						
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