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UNC TETON EXPLORATION DRILLING, INC.

PDR - RETURN TO 596-SS

Subsidiary of United Nuclear Corporation
A UNC RESOURCES Company
P.O. Drawer A-1
Casper, Wyoming 82602
Telephone 307/265-4102

July 6, 1982

CERTIFIED RETURN RECEIPT NO. 915918

Mr. Frederick W. Ross
U. S. NUCLEAR REGULATORY COMMISSION
Uranium Recovery and Licensing Branch
Mail Stop 462-SS
Silver Springs, Maryland 20910

RE: SUA-1373

Docket No. 40-8728

Dear Fred:

Enclosed for your review is a copy of UNC Teton's N Zone Restoration Report Addendum which provides data from wells sampled in the zone last month to answer our concerns and yours about groundwater stability.

If you have any further questions please contact me.

Thank you for your concern and assistance.

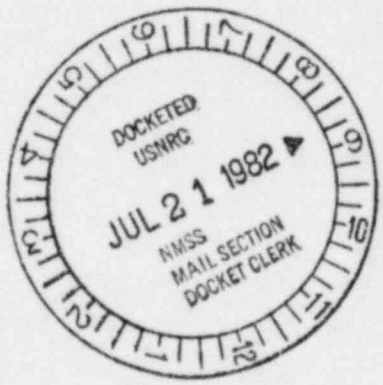
Sincerely yours,

UNC TETON EXPLORATION DRILLING, INC.

Richard R. Appel

R. Appel
Coordinator
Permits and Licensing

RA/mdd
Enclosure



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N ZONE RESTORATION STABILITY REPORT

ADDENDUM

As followup to questions raised by the State of Wyoming Department of Environmental Quality and the U. S. Nuclear Regulatory Commission concerning noted data inconsistencies during the N Zone restoration stability period, UNC Teton undertook an extensive sampling, analytical, and research program. Comments from the agencies tended to suggest that Month 14 (January 8, 1982 final sampling) data was biased. It was the finding of Teton, that, although admittedly, errant data, due to either or both sampling and analytical error, was submitted for Months 11 and 14, the final data (Month 14) was consistent with earlier stabilization trends. The following report summarizes Teton's findings and presents supportive data.

In order to determine direction of analytical trends, Teton resampled six of the seven wells utilized for the stability demonstration on June 10, 1982. The seventh well (574) was not sampled due to the excessive cost of renting a compressor for a single two-inch well sample. The samples were analyzed for major parameters, electrical conductivity, pH and uranium. Results of these analyses and results dating back to June 19, 1981 (Month 7) are attached to this report for comparison purposes. The samples were split and analyzed at both Wamco (a commercial Casper, Wyoming laboratory) and the Teton Central Research Laboratory.

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One agency noted inconsistency was the marked difference between Month 11 and Month 14 uranium data. Teton Lab analyzed the Month 11 samples utilizing a sensitive colorimetric technique with a detection limit of 0.10 mg/ℓ U. Wamco analyzed Month 14 samples using a fluorimetric technique which has a detection limit of 0.005 mg/ℓ. Admittedly, the colorimetric technique is subject to some interferences, namely sample turbidity, vanadium and potentially iron. The fluorimetric analysis is reportedlv interference free, but is highly subject to cross contamination from solution or airborne lab sources. The mean Teton U value at Month 11 was 1.43 ± .30 mg/ℓ and the mean Wamco value at Month 14 was 0.072± 0.053 mg/ℓ. On comparing Month 19 values between the same labs, Teton showed 1.52± 1.29 mg/ℓ and Wamco showed 0.50± 0.42 mg/ℓ. Although Teton analyses showed a positive bias, it was not nearly the magnitude of difference noted between Months 11 and 14. A mean of analyses for Months 7 and 9, showed uranium at 1.968± 1.44 mg/ℓ, which appears consistent with Month 19 results, even though, Month 9 Wamco data appeared to have a positive bias, In summary, Teton contends that due to procedural differences between the labs, and possible Wamco range or reporting error at Month 14, uranium values seemed suppressed at the final sampling date. Present data appears to be consistent with earlier stabilization data. Teton has adopted the procedure of analyzing uranium both in-house and at outside labs (sample splits) on M Zone restoration stability samples to prevent submittal of this type of confusing data.

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Another parameter which showed relatively major fluctuation between Months 11 and 14 was electrical conductivity. Again, procedural differences or analytical error explain the discrepancy. Teton analyzes for conductivity by Standard Methods procedures i.e. daily cell constant check against a standardized 0.01N KCI solution and converting readings to values at 25°c. A constant relationship between summation TDS and electrical corductivity should be exhibited on waters with similar chemical constituent concentrations. For Teton on Months 7, 11, and 19, this constant averaged 1.212 (COND/TDSE). Wamco showed a ratio in Months 9, 14, and 19 of 1.099 (COND/ETDS). Table I shows trends in summation TDS (sum of major parameter values) for Months 7 through 19.

TABLE I

Month	7	9	11	14	19	19
Lab	Teton	Wamco	Teton	Wamco	Teton	Wamco
ETDS	785	786	844	661	704	687
COND.	915	801	1015	732	893	806

As may be noted from Table I, relative stability is shown for TDS, however, conductivity values range greatly. Since conductivity is a function of specific soluble ions, the conductivity variance must be related to procedural differences between labs.

One additional anomoly can be noted in Table I, that being the high TDS value on Month 11. It is Teton's contention that the skew data noted by the agencies is actually Month 11 data, and not Month 14 data. At the point of Month 11 sampling (October 5, 1981) Teton was in the midst of decommissioning the Leuenberger facility and most technical personnel had been laid off. As a result, personnel unfamiliar with well

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sampling procedures were utilized. The wells should be pumped for at least seventy-five minutes to clear 1.5 casing displacements. In noting the parameters responsible for the rise in TDS, it became obvious that the wells were not pumped for a sufficient time period prior to sampling. Parameters which showed marked elevation in field operation wells at Month 11 generally included HCO_3^-, $SO_4^=$, Ca^{++} and Mg^{++}. During plant and field operation, Teton noticed a red scale developing on piping and pump internals. The composition was determined to be a Fe, Ca, Mg, Ra, $CO_3^=$, $SO_4^=$ complex. As Teton was not filtering samples prior to preservation and analysis, the iron content was showing as a high level trace. Month 14 samples were filtered by Wamco and the corresponding drop in iron and other specific traces was noted. (Teton has adopted the practice on M Zone restoration stability at filtering samples through 0.45 µm paper prior to preservation or analysis). Teton contends that, due to inadequate pumping at Month 11, slight solubilization of the scale and well completion cement was involved and assayed in the samples, thus increasing TDS. Further data supporting this theory can be noted on the Well 317 sheet. This well was located within the field and was a designated restoration monitor. As no solution was introduced to this well (or withdrawn continuously) during mining, less scale would have been deposited on the casing. Well 317 did not show the Month 11 peak, nor did 2" Monitor Well 574.

In summary, Teton believes that indeed some errant data was included in the N Zone stability report, and that it was a combined effect of procedural differences between labs and poor sampling at Month 11. We believe Month 11 is the skew

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data and that stability had occurred as early as Month 7, as is evidenced by the relatively flat trend to Month 19 (excluding Month 11 data). Teton has taken steps to assure that consistent sampling, sample preservation, and analytical procedures will be utilized in the analysis of M Zone restoration stability. We hope this analysis is sufficient to answer your questions and look forward to progressing with complete surface reclamation in the N Zone permit area.

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ANALYTICAL WELL HISTORY

WELL NR-1

DATE SMPLD	6-19-81	8-10-81	10-5-81	1-8-82	6-10-82	6-10-82	
ANALYSIS DATES	6-19-81 ↓ 6-22-81 MONTH 7	8-11-81 ↓ 9-16-81 MONTH 9	10-7-81 ↓ 12-1-81 MONTH 11	1-10-82 ↓ 2-5-82 MONTH 14	6-11-82 MONTH 19	6-11-82 ↓ 6-14-82 MONTH 19	
	TETON	WAMCO	TETON	WAMCO	TETON	WAMCO	
HCO_3^- mg/l	264	256	261	134	221.6	216	
$CO_3^=$ mg/l	-0-	-0-	-0-	-0-	-0-	-0-	
Cl^- mg/l	4	3	4.4	3	1.4	3	
$SO_4^=$ mg/l	268	314	281	318	270	264	
Anion eq.	10.02	10.84	10.26	8.84	9.30	9.13	
Ca^{++} mg/l	101	90	107	96	96.8	100	
Mg^{++} mg/l	26	41	23.4	23	22.0	22	
Na^+ mg/l	64	65	61.5	49	66.4	53	
K^+ mg/l	10	12	11.7	7	10.5	12	
Cation eq.	10.26	11.00	10.27	8.99	9.83	9.45	
-/+balance	97.74	98.55	99.84	98.33	94.59	96.61	
Sum TDS	737	781	750	630	689	670	
Cond um/cm	836	835	919	720	878	786	
TDS mg/l	666	732	650	566	NA	578	
pH unit	6.9	6.73	7.21	7.27	7.40	7.24	
U mg/l	0.70	1.375	0.18	0.027	0.57	0.260	
Al mg/l	0.10	0.82	0.10	<0.05			
NH_4^+ mg/l	NA	0.46	<0.05	0.40			
As mg/l	0.008	<0.001	<0.001	<0.005			
Ba mg/l	NA	<0.10	<0.10	<0.03			
B mg/l	NA	<0.01	<0.01	<0.01			
Cd mg/l	NA	0.003	<0.01	<0.002			
Cr mg/l	NA	<0.01	<0.05	<0.01			
Cu mg/l	NA	0.01	<0.05	<0.01			
F mg/l	NA	0.40	0.33	0.33			
Fe mg/l	1.26	1.36	0.88	<0.01			
Pb mg/l	NA	<0.05	<0.05	<0.01			
Mn mg/l	0.08	0.08	0.08	<0.01			
Hg mg/l	NA	<0.0002	<0.0002	<0.0005			
Mo mg/l	NA	<0.10	<0.10	<0.05			
Ni mg/l	NA	<0.02	<0.05	<0.02			
NO_2/NO_3 "	NA	<0.05	ND	<0.05			
Se mg/l	0.011	0.099	0.015	<0.005			
V mg/l	NA	<0.10	<0.50	<0.05			
Zn mg/l	NA	0.016	<0.01	<0.005			
Ra^{226} pci/l	389 ± 10	493 ± 12	306 ± 9	336 ± 10			
Th^{230} pci/l	NA	NA	6.0 ± 0.9				
Gross A "	NA	NA	NA	NA			
Gross B "	NA	NA	NA	NA			

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ANALYTICAL WELL HISTORY

WELL - NI-1

DATE SMPLD	6-19-81	8-10-81	10-5-81	1-8-82	6-10-82	6-10-82	
ANALYSIS DATES	6-19-81 ↓ 6-22-81	8-11-81 ↓ 9-16-81	10-7-81 ↓ 12-1-81	1-10-82 ↓ 2-5-82	6-11-82	6-11-82 ↓ 6-14-82	
	MONTH 7	MONTH 9	MONTH 11	MONTH 14	MONTH 19	MONTH 19	
	TETON	WAMCO	TETON	WAMCO	TETON	WAMCO	
HCO_3^- mg/l	264	427	438	264	287.9	285	
$CO_3^=$ mg/l	-0-	-0-	-0-	-0-	-0-	-0-	
Cl mg/l	6	6	10.3	6	4.5	5	
$SO_4^=$ mg/l	264	331	303	254	270	266	
Anion eq.	10.00	14.04	13.78	9.78	10.47	10.35	
Ca^{++} mg/l	121	122	138	101	106.7	110	
Mg^{++} mg/l	30	34	30.3	22	24.2	22	
Na^+ mg/l	81	117	93.5	59	68.9	62	
K^+ mg/l	12	15	14.2	10	11.9	14	
Cation eq.	12.38	14.35	13.85	9.68	10.65	10.39	
-/+balance	80.76	97.84	99.49	101.03	98.30	99.68	
Sum TDS	780	1055	1027	716	774	764	
Cond um/cm	1140	1117	1203	775	987	884	
TDS mg/l	774	916	846	588	NA	644	
pH unit	7.0	6.75	7.11	7.44	7.07	7.27	
U mg/l	1.9	3.625	2.2	0.058	1.27	0.390	
Al mg/l	0.18	0.52	0.10	<0.05			
NH_3^+ mg/l	NA	0.54	<0.05	<0.05			
As mg/l	0.006	<0.001	0.012	<0.005			
Ba mg/l	NA	<0.10	<0.10	<0.03			
B mg/l	<0.25	<0.01	<0.01	<0.01			
Cd mg/l	NA	<0.002	<0.01	<0.0002			
Cr mg/l	NA	<0.02	<0.05	<0.01			
Cu mg/l	NA	0.01	<0.05	<0.01			
F mg/l	NA	0.36	0.30	0.51			
Fe mg/l	0.84	1.82	0.88	<0.01			
Pb mg/l	NA	<0.05	<0.05	<0.01			
Mn mg/l	0.08	0.17	0.08	0.02			
Hg mg/l	NA	<0.0002	<0.0002	<0.0005			
Mo mg/l	NA	<0.10	<0.10	<0.05			
Ni mg/l	NA	0.05	<0.05	<0.02			
NO_2/NO_3 "	NA	<0.05	0.01	0.46			
Se mg/l	0.032	0.216	0.059	<0.005			
V mg/l	NA	0.18	<0.50	<0.05			
Zn mg/l	NA	0.036	<0.01	<0.005			
Ra^{226} pci/l	850 ± 14	456 ± 12	491 ± 11	370 ± 11			
Th^{230} pci/l	NA	NA	32 ± 2				
Gross A "	NA	NA	NA	NA			
Gross B "	NA	NA	NA	NA			

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ANALYTICAL WELL HISTORY

WELL: NI-2

DATE SMPLD	6-19-81	8-10-81	10-5-81	1-8-82	6-10-82	6-10-82	
ANALYSIS DATES	6-19-81 ↓ 6-22-81 MONTH 7	8-11-81 ↓ 9-16-81 MONTH 9	10-7-81 ↓ 12-1-81 MONTH 11	1-10-82 ↓ 2-5-82 MONTH 14	6-11-82 MONTH 19	6-11-82 ↓ 6-14-82 MONTH 19	
	TETON	WAMCO	TETON	WAMCO	TETON	WAMCO	
HCO_3^- mg/l	319	220	331	224	248.9	252	
$CO_3^=$ mg/l	-0-	-0-	-0-	-0-	-0-	-0-	
Cl mg/l	6	6	5	3	3	4	
$SO_4^=$ mg/l	326	284	301	284	281	272	
Anion eq.	12.19	9.68	11.84	9.65	10.02	9.91	
Ca^{++} mg/l	109	87	125	98	102.3	102	
Mg^{++} mg/l	27	20	26.2	24	22.6	22	
Na^+ mg/l	70	73	72.2	56	67.2	56	
K^+ mg/l	12	14	13.3	10	11.6	13	
Cation eq.	11.05	9.52	11.91	9.56	10.22	9.70	
-/+balance	110.31	101.68	99.37	100.94	98.06	102.16	
Sum TDS	872	707	874	6.99	737	721	
Cond um/cm	940	877	1040	760	932	835	
TDS mg/l	729	643	744	589	NA	624	
pH unit	6.6	6.65	7.20	7.60	6.99	7.12	
U mg/l	3.0	3.340	2.0	0.160	2.64	1.100	
Al mg/l	0.06	0.61	<0.10	<0.05			
NH_3^+ mg/l	NA	0.30	<0.05	<0.05			
As mg/l	0.010	<0.001	<0.001	<0.005			
Ba mg/l	NA	<0.10	<0.10	<0.03			
B mg/l	NA	<0.01	<0.01	<0.01			
Cd mg/l	NA	0.004	<0.01	<0.002			
Cr mg/l	NA	<0.01	<0.05	<0.01			
Cu mg/l	NA	0.01	<0.05	<0.01			
F mg/l	NA	0.24	0.36	0.36			
Fe mg/l	1.47	0.90	0.77	<0.01			
Pb mg/l	NA	<0.05	<0.05	<0.01			
Mn mg/l	NA	0.09	0.10	0.03			
Hg mg/l	NA	<0.0002	<0.0002	<0.0005			
Mo mg/l	NA	<0.10	<0.10	<0.05			
Ni mg/l	NA	<0.02	<0.05	<0.02			
NO_2/NO_3 "	NA	<0.05	ND	0.23			
Se mg/l	0.020	0.149	0.024	<0.005			
V mg/l	NA	<0.10	<0.50	<0.05			
Zn mg/l	NA	0.022	<0.01	<0.005			
Ra^{226} pci/l	503 ± 12	402 ± 11	339 ± 9	355 ± 11			
Th^{230} pci/l	NA	NA	29 ± 2				
Gross A "	NA	NA	NA	NA			
Gross B "	NA	NA	NA	NA			

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ANALYTICAL WELL HISTORY

WELL NI-3

DATE SMPLD	6-19-81	8-10-81	10-5-81	1-8-82	6-10-82	6-10-82	
ANALYSIS DATES	6-19-81 ↓ 6-22-81 MONTH 7	8-11-81 ↓ 9-16-81 MONTH 9	10-7-81 ↓ 12-1-81 MONTH 11	1-10-82 ↓ 2-5-82 MONTH 14	6-11-82 MONTH 19	6-11-82 ↓ 6-14-82 MONTH 19	
	TETON	WAMCO	TETON	WAMCO	TETON	WAMCO	
HCO_3^- mg/l	352	244	370	256	253.3	252	
$CO_3^=$ mg/l	-0-	-0-	-0-	-0-	-0-	-0-	
Cl^- mg/l	7	4	6.5	4	2.7	3	
$SO_4^=$ mg/l	251	298	284	264	264	266	
Anion eq.	11.20	10.31	12.17	10.26	9.73	9.76	
Ca^{++} mg/l	117	96	127	101	102.3	100	
Mg^{++} mg/l	29	29	27.6	22	22.6	26	
Na^+ mg/l	73	61	75.9	59	63.1	53	
K^+ mg/l	12	11	12.9	10	11.4	12	
Cation eq.	11.75	10.10	12.28	9.68	10.03	9.78	
-/+balance	95.31	102.08	99.06	105.99	96.96	99.78	
Sum TDS	841	746	904	716	719	712	
Cond um/cm	931	903	1071	775	911	818	
TDS mg/l	734	662	746	586	NA	597	
pH unit	7.0	7.88	7.16	7.35	7.23	7.26	
U mg/l	0.6	3.340	0.35	0.030	0.30	0.080	
Al mg/l	<0.05	0.30	<0.10	<0.05			
NH_4^+ mg/l	NA	0.38	<0.05	<0.05			
As mg/l	0.008	<0.001	<0.001	<0.005			
Ba mg/l	NA	<0.10	<0.10	<0.03			
B mg/l	<0.25	<0.01	<0.01	<0.01			
Cd mg/l	NA	0.007	<0.01	<0.002			
Cr mg/l	NA	<0.01	<0.05	<0.01			
Cu mg/l	NA	0.01	<0.05	<0.01			
F mg/l	NA	0.40	0.40	0.40			
Fe mg/l	0.63	3.12	1.02	<0.01			
Pb mg/l	NA	<0.05	<0.05	<0.01			
Mn mg/l	0.08	0.13	0.09	0.03			
Hg mg/l	NA	<0.0002	<0.0002	<0.0005			
Mo mg/l	NA	<0.10	<0.10	<0.05			
Ni mg/l	NA	<0.02	<0.05	<0.02			
NO_2/NO_3 "	NA	<0.05	ND	0.14			
Se mg/l	0.024	0.057	0.027	<0.005			
V mg/l	NA	<0.10	<0.50	<0.05			
Zn mg/l	NA	0.040	<0.01	<0.005			
Ra^{226} pci/l	484 ± 11	468 ± 12	345 ± 9	271 ± 9			
Th^{230} pci/l	NA	NA	9.3 ± 1.1				
Gross A "	NA	NA	NA	NA			
Gross B "	NA	NA	NA	NA			

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WELL NI-4

DATE SMPLD	6-19-81	8-10-81	10-5-81	1-8-82	6-10-82	6-10-82	
ANALYSIS DATES	6-19-81 ↓ 6-22-81 MONTH 7	8-11-81 ↓ 9-16-81 MONTH 9	10-7-81 ↓ 12-1-81 MONTH 11	1-10-82 ↓ 2-5-82 MONTH 14	6-11-82 MONTH 19	6-11-82 ↓ 6-14-82 MONTH 19	
	TETON	WAMCO	TETON	WAMCO	TETON	WAMCO	
HCO_3^- mg/l	305	266	306	183	228.4	232	
$CO_3^=$ mg/l	.0.	-0-	-0-	-0-	-0-	-0-	
Cl mg/l	4	8	3.5	NO	1.3	9	
$SO_4^=$ mg/l	306	255	318	264	269	254	
Anion eq.	11.49	9.89	11.74	8.49	9.39	9.35	
Ca^{++} mg/l	128	83	136	98	104.5	112	
Mg^{++} mg/l	30	26	28.3	20	22.0	16	
Na^+ mg/l	56	79	54.9	42	53.7	41	
K^+ mg/l	11	11	11.9	8	9.9	11	
Cation eq.	11.62	10.00	11.85	8.56	9.65	9.00	
-/+balance	98.89		99.07	99.18	97.29	103.90	
Sum TDS	844	728	859	615	689	675	
Cond um/cm	921	908	1027	680	865	785	
TDS mg/l	786	670	756	530	NA	583	
pH unit	6.9	6.68	7.61	7.30	7.34	7.17	
U mg/l	4.20	0.317	3.40	0.110	3.55	0.960	
Al mg/l	0.54	0.30	0.20	<0.05			
NH_4^+ mg/l	NA	0.34	<0.05	<0.05			
As mg/l	0.008	<0.001	0.003	<0.005			
Ba mg/l	NA	<0.10	<0.10	<0.03			
B mg/l	<0.25	<0.01	<0.01	<0.01			
Cd mg/l	NA	0.006	<0.01	<0.002			
Cr mg/l	NA	<0.01	<0.05	<0.01			
Cu mg/l	NA	0.01	<0.05	<0.01			
F mg/l	NA	0.38	0.40	0.40			
Fe mg/l	0.42	1.50	1.68	<0.01			
Pb mg/l	NA	<0.05	<0.05	<0.01			
Mn mg/l	0.10	0.10	0.11	0.01			
Hg mg/l	NA	<0.0002	<0.0002	<0.0005			
Mo mg/l	NA	<0.10	<0.10	<0.05			
Ni mg/l	NA	<0.02	<0.05	<0.02			
NO_2/NO_3 "	NA	<0.05	ND	0.58			
Se mg/l	0.013	0.158	<0.01	<0.005			
V mg/l	NA	<0.10	<0.5	<0.05			
Zn mg/l	NA	0.043	<0.01	<0.005			
Ra^{226} pci/l	608 ± 12	544 ± 13	552 ± 12	506 ± 13			
Th^{230} pci/l	NA	NA	69 ± 3				
Gross A "	NA	NA	NA	NA			
Gross B "	NA	NA	NA	NA			

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ANALYTICAL WELL HISTORY

WELL # 317

DATE SMPLD	6-19-81	8-10-81	10-5-81	1-8-82	6-10-82	6-10-82	
ANALYSIS DATES	6-19-81 ↓ 6-22-81 MONTH 7	8-11-81 ↓ 9-16-81 MONTH 9	10-7-81 ↓ 12-1-81 MONTH 11	1-10-82 ↓ 2-5-82 MONTH 14	6-11-82 MONTH 19	6-11-82 ↓ 6-14-82 MONTH 19	
	TETON	WAMCO	TETON	WAMCO	TETON	WAMCO	
HCO_3^- mg/l	203	207	204	187	182.5	183	
$CO_3^=$ mg/l	·0·	·0·	·0·	·0·	·0·	·0·	
Cl^- mg/l	5	2	3.6	·0·	2.0	2	
$SO_4^=$ mg/l	258	305	269	245	263	232	
Anion eq.	8.84	9.80	9.05	8.16	8.53	7.89	
Ca^{++} mg/l	91	88	96.8	93	92.4	96	
Mg^{++} mg/l	24	36	22.4	21	20.9	20	
Na^+ mg/l	44	49	45.1	37	47.6	34	
K^+ mg/l	10	10	11.4	8	10.0	11	
Cation eq.	8.72	9.82	8.96	8.18	8.69	8.23	
-/+balance	101.43	99.8	101.01	99.76	98.16	95.90	
Sum TDS	635	698	652	591	618	578	
Cond um/cm	722	735	828	680	787	727	
TDS mg/l	594	644	582	498	NA	620	
pH unit	7.1	6.88	7.39	7.67	7.47	7.42	
U mg/l	0.60	0.619	0.46	0.044	0.78	0.220	
Al mg/l	<0.05	0.30	<0.10	<0.05			
NH_4^+ mg/l	NA	0.31	<0.05	<0.05			
As mg/l	0.008	<0.001	<0.001	<0.005			
Ba mg/l	NA	<0.10	<0.10	<0.03			
B mg/l	<0.25	<0.01	<0.01	<0.01			
Cd mg/l	NA	<0.002	<0.01	<0.002			
Cr mg/l	NA	<0.01	<0.05	<0.01			
Cu mg/l	NA	0.01	<0.05	<0.01			
F mg/l	NA	0.45	0.57	0.51			
Fe mg/l	0.42	2.00	1.87	<0.01			
Pb mg/l	NA	<0.05	<0.05	<0.01			
Mn mg/l	0.08	0.08	0.11	0.07			
Hg mg/l	NA	<0.0002	<0.0002	<0.0005			
Mo mg/l	NA	<0.10	<0.10	<0.05			
Ni mg/l	NA	<0.02	<0.05	<0.02			
NO_2/NO_3 "	NA	0.10	ND	<0.05			
Se mg/l	<0.005	<0.001	<0.001	<0.005			
V mg/l	NA	<0.10	<0.50	<0.05			
Zn mg/l	NA	0.017	<0.01	<0.065			
Ra^{226} pci/l	446 ± 11	625 ± 14	829 ± 14				
Th^{230} pci/l	NA	NA	6.9 ± 0.9				
Gross A "	NA	NA	NA	NA			
Gross B "	NA	NA	NA	NA			

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WAMCO LAB

P. O. Box 2953 - Casper, WY 82602

ANALYSIS REPORT

COMPANY: Teton Exploration Drilling DATE: June 24, 1982

Sample type Water W. O. No. 3303

Analysis in Milligrams per Liter except where Noted
Limits of Detection are Noted Following Less Than Mark (<)

Sample No.	1	2	3	4	5
Total Diss. Solids	578	644	624	597	583
Sodium (Na)	53	62	56	53	41
Potassium (K)	12	14	13	12	11
Calcium (Ca)	100	110	102	100	112
Magnesium (Mg)	22	22	22	26	16
Sulfate (SO4)	264	266	272	266	254
Chloride (Cl)	3	5	4	3	9
Carbonate (CO3)	0	0	0	0	0
Bicarbonate (HCO3)	216	286	252	252	232
pH, Units	7.24	7.27	7.12	7.26	7.17
Conduct. uMhos/cm 25 C	786	884	835	818	785
Uranium (U3O8) PPB	260	390	1100	80	960

Sample No.	6
Total Diss. Solids	620
Sodium (Na)	34
Potassium (K)	11
Calcium (Ca)	96
Magnesium (Mg)	20
Sulfate (SO4)	232
Chloride (Cl)	2
Carbonate (CO3)	0
Bicarbonate (HCO3)	183
pH, Units	7.42
Conduct. uMhos/cm 25 C	727
Uranium (U3O8) PPB	220

Sample Description:

3303-1 NR-1 6-10-82
3303-2 NI-1 6-10-82
3303-3 NI-2 6-10-82
3303-4 NI-3 6-10-82
3303-5 NI-4 6-10-82
3303-6 317 6-10-82

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