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November 13, 1986

WM Record File

101-4

WM Project 10

Docket No.

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Distribution:

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TO: Hiddenbrand

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Mr. Jack Keeting
Division Manager
Basalt Waste Isolation Project
Post Office Box 550
Richland, Washington 99352

Dear Mr. Keeting:

The Yakima Indian Nation (YIN) would like to participate in the upcoming NRC data examination of DOE BWIP hydrology data. In discussion with BWIP Division of Geosciences and Technology, it was indicated that the Department of Energy encouraged participation by the YIN in the process of evaluating recently collected data. We welcome and commend this interpretation of the Tribe's role as an affected party in the nuclear waste repository program.

Following is a list of requested data needed for hydrologic baselining. It should be noted that:

- (1) the requested data may change as more information becomes available from the U.S. Department of Energy;
- 2) following the data examination all water level, downhole pressure and atmospheric pressure measurements requested in Tables 1 through 6 should be provided on tape or floppy disk.

The following specifications should be used:

Tape: Density 1600 BPI
Record length 80 to 132
Block factor: 50
ASCII format

8612220108 861113
PDR WASTE
WM-10 PDR

2223

Mr. Jack Keeting
November 13, 1986
Page 2

Floppy disk: IBM PC compatible
360 k or 1.2 M bytes.

Sincerely,

YAKIMA INDIAN NATION



Russell Jim, Manager
Nuclear Waste Program

RJ:d11

Enclosures

cc: Mike Thompson, Division of Geotechnology
Paul Hilderbrant, NRC
Terry Husseman, Department of Ecology

TABLE 1

Borehole	Hydrogeologic Unit	Water Level	Downhole Pressure	Atmospheric Pressure	Period
DC-19A	Basalt Ringold	x	x	x	1984 - 1986
DC-19A	Rattlesnake Ridge Interbed	x	x	x	1984 - 1986
DC-19D	Mabton Interbed	x	x	x	1984 - 1986
DC-19C	Priest Rapids Interflow Zone	x	x	x	1984 - 1986
DC-19C	Sentinel Gap	x	x	x	1984 - 1986
DC-19C	Ginkgo	x	x	x	1984 - 1986
DC-19C	Rocky Coulee Flow Top	-	x*	x**	1984 - 1986
DC-19C	Cohasset Flow Top	-	x*	x**	1984 - 1986
DC-19C	Umtanum Flow Top	-	x*	x**	1984 - 1986

x : Requested

- : Not Requested

* : Downhole Pressures needed from August 1985 to January 1986

** : Atmospheric pressures needed from April 1984 to January 1986

TABLE 2

Borehole	Hydrogeologic Unit	Water Level	Downhole Pressure	Atmospheric Pressure	Period
DC-20A	Basalt Ringold	x	x	x	1984 - 1986
DC-20A	Rattlesnake Ridge Interbed	x	x	x	1984 - 1986
DC-20D	Mabton Interbed	x	x	x	1984 - 1986
DC-20C	Priest Rapids Interflow Zone	x	x	x	1984 - 1986
DC-20C	Sentinel Gap	x	x	x	1984 - 1986
DC-20C	Ginkgo	x	x	x	1984 - 1986
DC-20C	Rocky Coulee Flow Top	-	x*	x**	1984 - 1986
DC-20C	Cohasset Flow Top	-	x*	x**	1984 - 1986
DC-20C	Umtanum Flow Top	-	x*	x**	1984 - 1986

x : Requested

- : Not Requested

* : Downhole Pressures needed from August 1985 to January 1986

** : Atmospheric pressures needed from April 1984 to January 1986

TABLE 3

Borehole	Hydrogeologic Unit	Water Level	Downhole Pressure	Atmospheric Pressure	Period
DC-22A	Basalt Ringold	x	x	x	1984 - 1986
DC-22A	Rattlesnake Ridge Interbed	x	x	x	1984 - 1986
DC-22D	Mabton Interbed	x	x	x	1984 - 1986
DC-22C	Priest Rapids Interflow Zone	x	x	x	1984 - 1986
DC-22C	Sentinel Gap	x	x	x	1984 - 1986
DC-22C	Ginkgo	x	x	x	1984 - 1986
DC-22C	Rocky Coulee Flow Top	-	x*	x**	1984 - 1986
DC-22C	Cohasset Flow Top	-	x*	x**	1984 - 1986
DC-22C	Umtanum Flow Top	-	x*	x**	1984 - 1986

x : Requested

- : Not Requested

* : Downhole Pressures needed from August 1985 to January 1986

** : Atmospheric pressures needed from April 1984 to January 1986

TABLE 4: Deep Basalt Aquifer (1)

Borehole #	Hydrogeologic Unit	Water Level	Period
DB-1	Mabton Interbed	X	1978 - 1981
DB-1	Priest Rapid Flow Top	X	1982 - 1985
DB-2	Mabton Interbed	X	1978 - 1985
DB-2	Priest Rapids/Rosa Composite	X	1982 - 1985
DB-4	Mabton Interbed	X	1978 - 1985
DB-7	Mabton Interbed	X	1978 - 1985
DB-9	Mabton Interbed	X	1978 - 1984
DB-11	Priest Rapids Flow Top	X	1978 - 1979
DB-11	Mabton Interbed	X	1981 - 1982
DB-11	Priest Rapids	X	1982 - 1985
DB-12	Priest Rapids	X	1978 - 1985
DB-13	Mabton Interbed	X	1979 - 1985
DB-14	Priest Rapids	X	1981 - 1985
DB-14	Mabton Interbed	X	1979 - 1985
DB-15	Composite Wanupum	X	1984 - 1985
DC-1	Grande Ronde-Schwana Sequence (3931-4051 feet)	X	1972 - 1985
DC-1	Grande Ronde-Schwana Sequence (4760-4849 feet)	X	1972 - 1985
DC-1	Umtanum Flow Bottom	X	1972 - 1985
DC-1	Umtanum Flow Top	X	1972 - 1985
DC-1	Composite Wanapum	X	1972 - 1985
DC-2 A2	Composite Grande Ronde	X	1984 - 1985
DC-4	Composite Grande Ronde	X	1984 - 1985
DC-4	Rocky Coulee	X	1984 - 1985
DC-15	Composite Grande Ronde (2198-4243 feet)	X	1984 - 1985
DC-5	Rocky Coulee Flow Top	X	1984 - 1985
DC-15	Composite Grande Ronde	X	1984 - 1985
DC-7	Composite Grande Ronde	X	1984 - 1985
DC-8	Composite Grande Ronde	X	1984 - 1985
DC-12	Composite Grande Ronde	X	1984 - 1985

TABLE 4: Deep Basalt Aquifer (2)

Borehole #	Hydrogeologic Unit	Water Level	Period
DC-16B	Mabton Interbed	x	1983 - 1985
DC-16C	Priest Rapids Flow Top	x	1984 - 1985
RRL-2A	Composite Grande Ronde	x	1983 - 1985
RRL-2A	Rocky Coulee Flow Top	x	1984 - 1985
RRL-6B	Rocky Coulee Flow Top	x	1984 - 1985
RRL-14	Rocky Coulee Flow Top	x	1984 - 1985
McGee Interval	Composite Grande Ronde	x	1983 - 1985
McGee Inner-Ann	Composite Rosa/Frenchman Springs	x	1983 - 1985
McGee Outer-Ann	Composite Priest Rapids/Rosa	x	1983 - 1985
Ford Well	Priest Rapids	x	1979 - 1985
O'Brian	Priest Rapids Flow Top	x	1978 - 1985
Enyeart	Priest Rapids	x	1979 - 1985
DH-8B	Composite Umatilla-Mabton	x	1978 - 1985
DDH-3	Gingko	x	1978 - 1985
25-70	Suprabasalt Sediments	x	1983 - 1985
32-70	Suprabasalt Sediments	x	1983 - 1985
32-72	Suprabasalt Sediments	x	1983 - 1985
43-88	Suprabasalt Sediments	x	1983 - 1985
49-79	Suprabasalt Sediments	x	1983 - 1985
50-85	Suprabasalt Sediments	x	1983 - 1985

TABLE 5

Data Needed	Boreholes*
Drilling logs	x
Well test data	x
Horizontal hydraulic conductivity	x
Vertical hydraulic conductivity	x
Transmissivity	x

x : requested

* : Data needed for all boreholes and all hydrogeologic units listed in Table 1, Table 2, Table 3, and Table 4.

TABLE 6: Unconfined Aquifer (1)

Well Designation*	EMA NO*	Water Level**	Transmissivity
199 B3 2	1856	X	X
	1857	X	X
199 N 1	1908	X	X
199 N 2	1904	X	X
199 N 8P	1905	X	X
199 N 8S	1907	X	X
299 E23 1	2288	X	X
	2406	X	X
	2407	X	X
299 W11 2	2601	X	X
	2602	X	X
	2603	X	X
	2604	X	X
	2605	X	X
299 W11 13	2945	X	X
	2950	X	X
299 W14 3	2943	X	X
	2946	X	X
299 W19 1	2947	X	X
299 W19 4	2938	X	X
299 W22 24	2941	X	X
	2611	X	X
	2612	X	X
	2613	X	X
	2614	X	X
	2615	X	X
299 W22 27	2955	X	X
699 S31 1	4745	X	X
699 S18 E2A	4746	X	X
699 S14 20A	4662	X	X
699 S12 29P	4698	X	X
699 S11 E12A	4747	X	X
699 S7 34	4663	X	X
	4664	X	X
699 10 E12	4678	X	X
	4679	X	X
	4680	X	X
	4681	X	X
699 14 38	4616	X	X
	4617	X	X
699 15 15A	4601	X	X
699 17 26B	-	X	X
699 17 26C	-	X	X
699 18 25B	-	X	X
699 19 26B	-	X	X
699 19 58	4672	X	X

TABLE 6: Unconfined Aquifer (2)

Well Designation*	EMA NO*	Water Level**	Transmissivity
699 20 E12	4611	X	X
	4612	X	X
	4613	X	X
	4614	X	X
699 20 E5P	4705	X	X
699 20 E5Q	4706	X	X
699 20 E5R	4707	X	X
699 20 E5S	4708	X	X
699 20 E5T	4765	X	X
699 20 39	4782	X	X
699 22 70	4673	X	X
	4674	X	X
699 24 1P	4710	X	X
699 24 1Q	4711	X	X
699 24 1R	4712	X	X
699 24 1S	4713	X	X
699 24 1T	4709	X	X
699 28 40	4754	X	X
	4755	X	X
699 S31 1	4745	X	X
699 31 31	4738	X	X
	4757	X	X
699 31 53B	4659	X	X
699 31 65	4495	X	X
699 32 62	4783	X	X
699 36 46P	4751	X	X
699 36 46Q	4752	X	X
699 36 46R	4753	X	X
699 36 93	4579	X	X
699 37 82B	4685	X	X
	4686	X	X
	4687	X	X
	4688	X	X
699 38 65	4785	X	X
699 39 79	4661	X	X
699 43 104	4573	X	X
699 50 42	4666	X	X
699 50 85	-	X	X
699 51 75	4669	X	X
699 53 47A	4866	X	X
699 53 47B	4600	X	X
699 53 55A	4867	X	X
699 55 95	4534	X	X
699 80 43R	4762	X	X
699 80 43S	4763	X	X
699 55 50	4631	X	X
	4632	X	X
699 55 70	4625	X	X

TABLE 6: Unconfined Aquifer (3)

Well Designation*	EMA NO*	Water Level**	Transmissivity
699 60 60	4435	X	X
699 67 51	4691	X	X
	4692	X	X
699 69 45	4641	X	X
	4642	X	X
	4643	X	X
699 84 35A	4646	X	X
	4647	X	X
	4648	X	X
	4649	X	X
699 80 43P	4760	X	X
699 80 43Q	4761	X	X
699 96 49	4645	X	X

X : Requested

* : The well designation and the EMA (Environmental Monitoring Analysis Accumulation and Reporting) number correspond to the ones provided in the following reference:

McGhan, V.L., P.J. Mitchell, and R.S. Argo, 1985, Hanford Wells:
PNL-5397/UC-11, Pacific Northwest Laboratory, Richland, Washington.

** : The elevation of the measurement point should be provided so that the conversion from water level to water elevation could be done.

The period of observation needed is from 1978 to 1985.

TABLE 7

Station#	Average Monthly River Stage*
12472800	
Columbia River below Priest Rapid Dam	x
12520500	
Yakima River at Kiona	x

x : Requested

* : Period of Observation : 1978 - 1986