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(Return to WM, 623-SS)

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Telecom: Dated 3/16/83 - 2:30 p.m.

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|--------------|-------------|
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The NRC staff initiated the call to answer some questions on the recently received RRL-2 drill hole report. The NRC staff was interested in two basic questions related to this report. These questions are:

1. Has the BWIP project noted any other core loss within the dense interior of Basalt flows encountered at the site similar to the core loss reported in the Umtanum dense interior in the RRL-2 report?
2. Has the BWIP project noted any other mud loss within the dense interior of Basalt flows encountered at the site similar to the mud loss reported in the Umtanum dense interior in the RRL-2 report?

In response to these questions, BWIP noted that they had not observed anything like this before. They specifically reviewed the RRL-6, RRL-14 and DC-16. BWIP did note that some additional drilling is ongoing and that DC-16 had one geophysical log with a BLIP on the chart. Also, BWIP wanted to check and verify an additional hole DC-14. The following comments were provided during discussions of the RRL-2 report:

- o BWIP's interpretation is that the fracture zone within the dense interior of the Umtanum unit in RRL-2 is connected with the flow bottom.
- o The reported 103,950 gallon mud loss was in the Umtanum flow top.
- o The dense interior was hydrologically tested. The results in the interval 3762-3805 feet provided a hydraulic conductivity of  $10^{11}$  to  $10^{10}$  feet per second.

- o A more permeable fracture zone was found within the interval 3,822 to 3,823.

In response to the staff's question about core loss, BWIP responded as follows:

- o Core loss between 3,773 to 3,783 was judged to be due to mechanical difficulty.
- o Core that fell back into the hole was judged to be ground up during subsequent drilling phases.
- o Project personnel have not seen anything like this elsewhere.

In response to the NRC's question on the thickness of flow tops, BWIP provided the following information:

<u>Hole Number</u>	<u>Flow Top Thickness</u>
RRL-2	148 feet
RRL-6	93 feet
RRL-14	69 feet
DC-7	88.5 feet
DC-12	53 feet
DC-15	108 feet

At this time, the NRC staff requested BWIP to provide detailed shift logs for RRL-2 and RRL-6 and RRL-14.

The NRC staff discussed the following hydraulic monitoring activities regarding the exploratory shaft with BWIP:

- o BWIP noted that RRL-2 is cased through the Vantage formation.
- o Monitoring the RRL-2 can be conducted in the Sentinel Bluffs and the bottom of cohassett formation.
- o BWIP intended to conduct monitoring within RRL-2 when the exploratory shaft gets into the Grande Ronde formation.
- o BWIP intends to consider the RRL-6 and RRL-14 to evaluate monitoring at these locations.

- o Monitoring can be achieved by placing packers within specific flow tops as the exploratory shaft is advanced.
- o Drill holes RRL-6 and RRL-14 may be so far away you may not observe anything.
- o It will be difficult to interpret response in holes adjacent to the exploratory shaft.

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