



March 4, 1985

INTER-OFFICE CORRESPONDENCE / SUBJECT:

Transmittal of core to R&D for analysis  
Modoc strat tests 54-29, 68-16, and 14-23  
and Medicine Lake strat test 28-32

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In am sending you, via United Parcel Service, rock samples from four strat tests drilled near Medicine Lake, California. These samples will be sent in three separate boxes. Enclosed please find four lists of well samples with sample depths and requested work to be done. Each individual sample is in a bag with its depth and requested work on the label.

I am presently trying to use previous analytical data provided by you, plus the results from these samples, to sort out the volcanic stratigraphy in the Medicine Lake area. Whole rock and thin sections will be used to characterize and classify the rocks, while their trace elements will be used in correlation work.

In the whole rock (WRx) analyses, please include the major oxides:  $\text{SiO}_2$ ,  $\text{TiO}_2$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{FeO}$  (if possible),  $\text{MnO}$ ,  $\text{MgO}$ ,  $\text{CaO}$ ,  $\text{Na}_2\text{O}$ ,  $\text{K}_2\text{O}$ ,  $\text{P}_2\text{O}_5$ , plus LOI and  $\text{H}_2\text{O}^+$ . I would also like to have trace element analyses done on the whole rock samples. If possible, please include the following trace elements: Sr, Ba, Y, Zr, Ti, Nb, Rb, K, and Mn. If anyone at R&D has any good ideas or experience using trace elements and could suggest any other elements, I would appreciate it.

I would appreciate it if you would process the thin sections (TS) first and then follow-up as your schedule allows with the whole rock/trace element work. The thin sections need not be polished or have cover slips. If you have any questions, please call me in Salt Lake City at 801/263-6234. Thanks for your help.

Kent W. Smith  
Geologist

KWS:sdm  
Enclosures

MODOC STRAT TEST 68-16  
 (Elev. 6,400 feet)

<u>Depth (ft)</u>	<u>Elevation</u>	<u>WRx</u>	<u>Ts</u>	<u>Remarks</u>
505	5,895	X		
530	5,870	X		
654	5,746	X	X	
751.5	5,648.5	X		
829	5,571	X		
918	5,482	X	X	Tuff or flow?
1,171	5,229	X		
1,205	5,195	X	X	
1,276.5	5,123.5	X		
1,290	5,110	X		
1,304	5,096	X		
1,468	4,932	X	X	Same mica as in 14-23 (2,206')
1,611	4,789	X		Tuff?
1,713	4,687	X	X	
1,742.5	4,657.5	X	X	Tuff?
1,855	4,545	X		
2,010	4,390	X	X	Basalt?
2,056	4,344	X		Andesite?
2,081	4,319	X		
2,169	4,231	X	X	
2,285	4,115	X	X	
2,420	3,980	X		Compare w/ 2037' in 14-23
2,581	3,819	X	X	
2,935	3,465	X	X	