

TP 2002

02-030

Steve Pullen

From: Patrick.G.Corser@us.mwhglobal.com
Sent: Sunday, April 07, 2002 3:57 PM
To: Steve_pullen@nmenv.state.nm.us
Cc: Pete Domenici; doldom@lobo.net; Diane.L.Dwire@us.mwhglobal.com; Ken.Schultz@comcast.net
Subject: Neutron Probe Monitoring



Moisture Content and
Neutron P...

Steve,

I have reviewed the Neutron probe monitoring that was completed at the site as part of the site investigation work. In addition, I have summarized the moisture content tests in the Upper Dockum materials that were obtained during the drilling programs. The Neutron probe results are reported in units of API and the moisture contents are in % of dry weight. It is my understanding that there is not direct correlation between the two readings. The summary of data is presented on the attached spread-sheet.

Review of this indicates that (based on the limited data) if the moisture content of the existing sediments increased by roughly a factor of 2, then this would indicate that the sediments were close to fully saturated. On the other hand the Neutron probes, which only provide an indication of the moisture content, indicate that the API readings in the wet sediments will decrease to approximately 0.25 of the conditions in a dry state. Therefore, it is recommended that if the Neutron probes indicate a reading that is less then 0.25 of the baseline readings then a sample should be obtained.

I would appreciate your comments on this approach.

(See attached file: Moisture Content and Neutron Prob Data.xls)

Regards,

Pat

cc: Dale Gandy - Via fax

Gandy Neutron Prob Results					Summary			
	Number	Moisture Conditions	Depth (ft)	API	Dry Range		Wet Range	
Boreholes					Low	High	Low	High
	PB14	Dry	0 - 60	3250	3250			
		Wet	64 - 90	500			500	
	PB14 Off Set	Dry	38 - 90	2625	2625			
		Wet	90	500			500	
	PB26	Dry	0 - 80	3000	3000			
		Dry	80 - 130	1500 - 3750	1500	3750		
		Wet	130 - 155	700 - 1000			700	1000
	WW-1	Dry	0 - 140	1500 - 3000	1500	3000		
		Wet	140 - 550	350			350	
		Wet	550 - 810	500 - 650			500	650
	WW-2	Dry	40 - 160	1750	1750			
		Wet	160 - 400	350			350	
					2271	3375	483	825
						Low	High	
		Ratio of Wet:Dry				0.21	0.24	