

31279-21

TORP

Memo

Post-It® Fax Note	7671	Date	4/1/97	# of pages	1
To	Tim Carr	From	Rodney Reynolds		
Co./Dept	KGS	Co.	TORP		
Phone #	cc: Paul Gerlach + Saibal	Phone #	4-4491		
Fax #	4-5317	Fax #	4-4967		

To: Paul Willhite
 Don Green
 Shapour Vossoughi

From: Rodney Reynolds

CC: Tim Carr
 Paul Gerlach
 Saibal Bhattacharya

Date: April 1, 1997

Re: Wellbore flowing pressures in the Schaben Field

I am in receipt of a copy of the recent fluid level data acquired by Ritchie Exploration on the wells they operate in the Schaben Field. From my experience as a production engineer, I am familiar with how this data is acquired, the instruments used to acquire this data, the accuracy limitations associated with these instruments, and how to interpret the data. My evaluation of the data indicates that of the 23 wells on which data was received, 15 of the wells are operating in a pumped off condition. This is the general practice of the oil industry, especially when dealing with marginal production. However, occasionally situations dictate that backpressure be held against the formation in wells that have high productivity, produce excessive amounts of water, to assist in reducing lifting costs, or in some instances may assist in maintaining some percentage in oil cut. I also spoke with Danny Biggs (production superintendent) and Jack Gurley (petroleum engineer) for Pickrell Drilling Company, concerning fluid levels on their wells. They indicated that they have not recently shot fluid levels, but in general they try to pump the wells off, however they have a few large water producers they cannot pump off. They said its time to shoot fluid levels and they will supply a copy of the results to me.

I have also compared the recently acquired fluid level data to the fluid level information acquired from the historic information contained in the well files, on which TORP based the model and simulation. The recent data correlates with the data we used, with 2 exceptions. The recent data indicates the Moore B-6 is carrying approx. 200' fluid above the perforations and the well files indicated it to be pumped off and the Moore D-4 which Ritchie field personnel indicated to me had "a lot of fluid in the hole" and the recent data indicates it is pumped off.

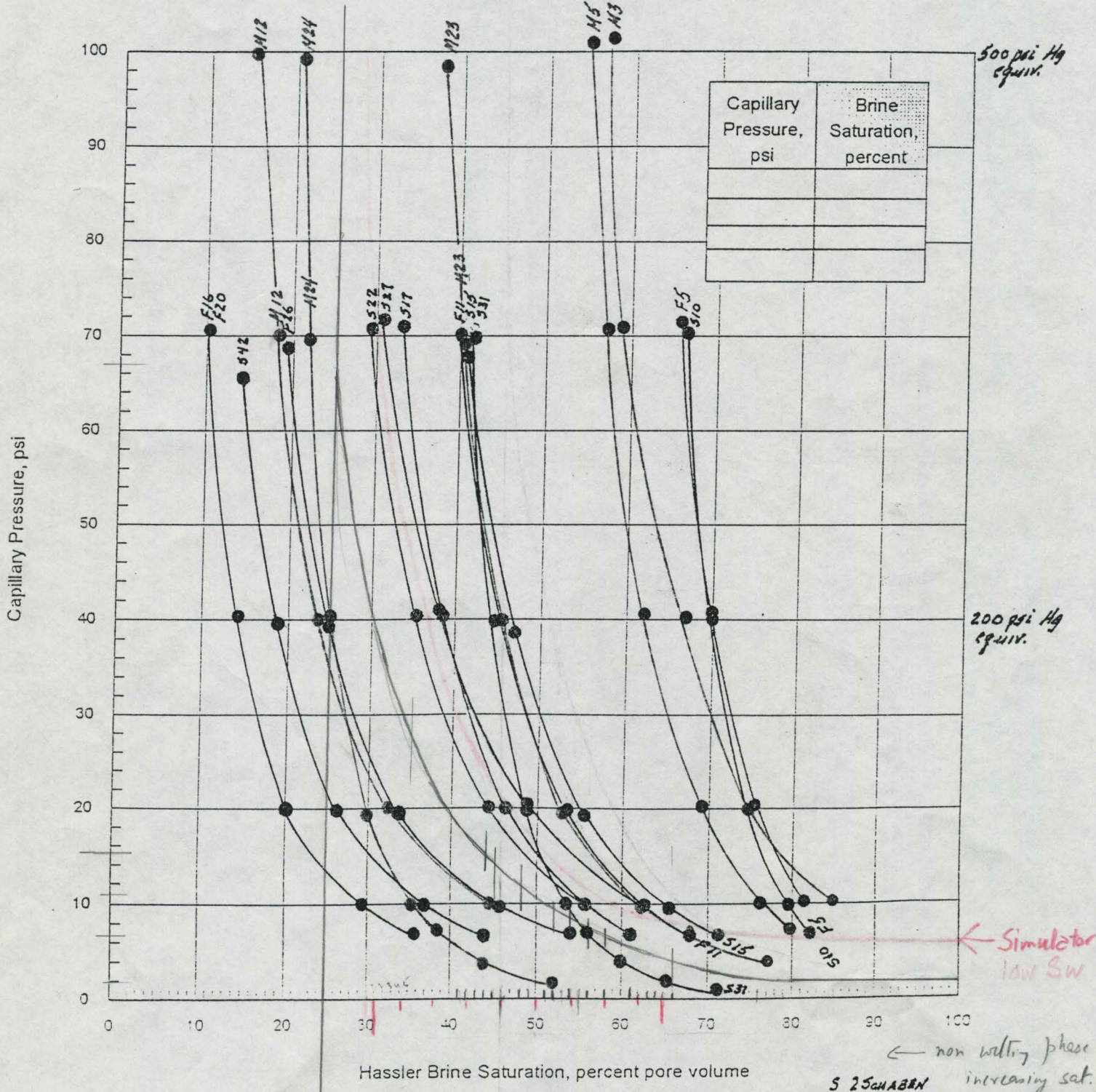
CENTRIFUGE CAPILLARY PRESSURE

Air Displacing Brine System
Ambient Conditions

$c(10) = .3608 P_c(10)$

Well: Ritchie
Field: Schaben
Location: Ness County, Kansas

Sample ID:
Depth, ft.:
Permeability to Air, md:
Porosity, percent:



S 25 SCHABEN
F 1 FOOS
H 4 MOORE

← non wetting phase increasing sat.

15-135

30-19-21
25-19-22

Name	Interval	Vis.	Oil gr.	B= FVF	K	Phi	C	Skin	Final pr.	Temp	Water Sp gr.	Chlorides	Sulfates	Calcium	Magnesium	Kh/Vis.
To	From	cp			md		vol/vol/psi*10^6			F						
Moore B5	4395	4405	3	1.2		0.15		10	6.87	1375	118					
15-135-30062	4385	4395	3	1.2	30	0.15		10	5.41	1382	118					
Moore B1	4430	4440										1.029	25800	2500	2140	300
15-135-29344	4313	4325		39 @ 60						119						
	4380	4396								116						
	4330	4396								116						
	4396	4410	2.5	42.6	1.2	115	0.15	12	-3.96	665	120					
	4410	4420	2.5		1.2	13.65	0.15	10	2.02	1397	119					
	4420	4430	2.5		1.2	87	0.15	12	-2.91	1413	120					
	4430	4440									118					
Moore B4	4402	4412	3	1.2	11.45	0.15		10	0.353	1273	118					
15-135	4412	4422	3	1.2	216	0.15		10	20.8	1377	120					
30042	4393	4402									118					
Moore B6	4415	4427									112					
15-135	4427	4437									112					
19004	4437	4447		39 @ 60							118					
Moore C2	Prod. Int			38												
19013	4304	4319									110					
Moore C3	DST 7															21.75
21024	DST 6				3.45											9.19
Moore D1	4392		28 @ 77F									25000				
30047	4366	4383	3	1.2	1.17	0.15		10	0.727	1405	100					
	4383	4398	3	40.5-60	1.2	28	0.17	10	2.49	1377	100					
	4398	4410	3		1.2	13.8	0.13	10	3.195	1407	100					
Moore D2	4365	4386	2.5	1.2				10	0.5	1340	116					
30023	4386	4393									118					
Moore D3	4400	4410									119					
30030	4381	4388									118					
	4388	4400	3	1.15	21.1	0.15		10	8.08	1383	119					
	4400	4410	3	1.15	100	0.15		10	11.65	1372	119					
Moore D4	4408	4418									112					
	4418	4428		36							112					
	4428	4436		38							112					
Foos A2	4409	4414		36 @ 60							115	1.035	29200	3250	2000	250
30025	4401	4409									115					
Humburg A2												1.04	29201	5000	1222	793
19015	4391	4401	3	1.2	17.3	0.15		10	0.695	1370	110					
	4401	4411	3	1.2	20.4	0.15		10		1275	112					
	4295	4310									110					
Borger A1	4405	4422		38 @ 60							115					
19012	4308	4323									115					
Borger A2	4398	4410	3	1.2		0.15		10	0.435	1389						
30004	4389	4398	3	1.2	9.6	0.15		10	1.7	1456	100					
	4369	4378									100					

Total dissolved solids

= 30740

25000

↓
Avg.
1.035

