

WELL DRILLER'S LOG

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT Martin WELL NO. Mobil DATE 3-8-90

TIME DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
0745	Left District to meet Hydrowell crew.
0825	met David Demonstranti at SR 76 & gave him Hack Kit
0830	met Hydrowell crew, proceeding to site
0900	On site - rigging up...
1040	Mixing mud (2 bags Aquapel)
1100	Ready to split spoon
	0-2' 50% recov. 10 blows. Med. grain sand + organics (0-1") med.-grained qtz sand, less organics (1-2')
	2-4' 50% recov. Medium grained qtz sand. Fe stained from tool
	4'-6' 100% recov. Clayey, organic sand; grading into sand.
	6-8' 100% Slightly silty sand
	8-10' 100% Top foot probably contaminant Brown sand w/ trace silt.
1130	Cleaning hole to 10' using 4" drag bit
1145	Resume spooning.
	10-12' 100% (~28 blows) Organics & sand (poss some clay?)
	12-14' 90% as above
1200	14-16' 100% Dark organics & sand; Fe stained, increased staining w/ depth. Very black organic streak at 15'
	16-18' 90% Organics & sand, very Fe-stained. Thin, infreq. streaks of black organics
	18-20' as above. 100% recov.
1220	Cleaning out hole to 20'. Break for lunch.
1325	Resuming spooning...
	20-22' 100%. As above, organics increasing w/ depth. Some very coarse grains at ~21'.
	22-24' 100% Clean coarse sand, Fe stained (22'-23.5') as above w/ more mud (23.5'-24')
	24'-26' 100%. As above, Fe decreasing, trace mud
1350	26-28' 100% Lt. brown sand (26'-27'); Greenish sand w/ trace silt (27'-28')
	28'-30' 100% Lt. sand, poss contaminant (28-29'); coarse greenish sand w/ trace silt as above.

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1408	Cleaning out hole to 30' (4" drag bit)
1422	Tripping out. Back to spooning
	30-32' 100% Olive, coarse sand w/ distinct clay stringer at ~31.7'. Organics show up from 31-32'
	32-34' 80% Coarse sand, changing color from olive to dk gray. (32-33') SS & micrite (33'-34'; sharp contact) LOW permeability.
	34-36' 100% Unconsolid. micrite, minor sand, tr. phosphate + silt. Low permeability
	36-38' 80% As above w/ increasing sand + grain size as depth increases (36-37) F. grained, gray sand w/ minor amt. broken shell (37-38')
	38-40' 100% Fine gray sand w/ trace broken shell (38-39') V. fine, "tight" gray, phosphatic sand (39-40'). <sup>LOW</sup> Perm.
1500	Washing & reaming hole to 40' (4" bit)
1530	Tripping out of hole; resume spooning
	40-42' 100% (~55 blows). V. fine gray phosphatic sand w/ trace shell. Low to v. low permeability
	42-44' 75% as above
1552	44-46' 75% as above
	46'-48' 90% as above; phosphate minimal (poss. contam.) no shell.
	48'-50' 100% Fine gray sand.
1616	Tripping in w/ 4" drag bit to clean hole to 50'
1639	Tripping out; resume spooning
	50-52' 100%. Silty, fine sand. more shells at ~52'
	52'-54' 100% as above (52-53') Gray, sandy clay (53.0-53.7). Gray sand & shell (53.7-54')
1700	54-56' 100% as above (54-55') as above w/ coarser shells well rounded sandstone pieces (55-56)
	56'-58' 100% 56-57' is prob. contaminant (coarse shell, sand & ss pieces), Gray phosphatic med. grained sand w/ trace shell (57-58)

1725 Suitable coring mat'l has not appeared yet - decided to stop for today.

1730 OFF SITE

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PROJECT Martin WELL NO. Mobil DATE Friday 3-9-90

DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
0740	On site; fueling trash pump; rig
0805	Tripping in w/ 4" bit to clean hole.
0820	Tripping in - ready to start spooling.
	58-60' ~ 130 blows * 80% (really packed, probably 100%) Fine-med phosphatic sand + shell. Decide to core at this point
0845	Pipe wrench goes down the hole. Going to run in 4" bit + try to knock it into the side of the bare hole.
0924	Decide to move forward a bit & drill out to 60' w/ 6" bit + set casing.
0940	Finish draining out mud pit. Moved SW ~ 20 to 25' Contractor doesn't have cement to plug hole, so we'll wait till Monday, (3-12).
1000	Mixing mud for new hole. (Aquaagel)
1015	Begin drilling to 60' ....
1045	@ ~ 40 losing circulation (1 1/2 chambers of mud tank)
1050	Mixing more mud.
1100	Resume drilling. Formation still taking mud; mixing more. @ 50' Adding E-2 mud polymer (Note: Tell Marty they want about 10 more gallons)
1140	@ 60'. Tripping out of hole & preparing to set 4" steel casing.
1207	Bottom of casing @ 61'
1215	Tripping in to clean out hole. mixed more Aquaagel. Adding E-2 mud polymer
1240	Cleaning out core barrel. Note:
1310	Tripping in w/ core barrel
	Used 5 bags Aquaagel ~ 1 bag Quickgel ~ 1 qt E-2 mud
1316	Start Core Run #1
1324	Stop Core #1
	Core #1 61'-67' (6' in 8 min.) 17% recovery. Gray phosphatic sandstone on top of fine gray phosphatic sand

#1





PROJECT Mobil WELL NO. 1 DATE 3/13/90

DEPTH	DESCRIPTION - ROCK TYPE, COLOR, HARDNESS, OTHER
0840	Drillers arrive on-site
	Run rod down hole to clean out to 90'
	Added water to mud-pit, mixed mud (Aquagel) 1/2 bag
0905	tripped out of hole, attached split spoon to bottom
0918	start split spoon sampling at 90'
	90-91' <sup>80%</sup> Sand shell fragm. limestone fragments
	91-92 fine, phosphatic sand
0935	Attached spoon, tripped down hole, tagged bottom @ 90'
	pulled rod, attached 4" bit, washed hole to 92'
0955	Added water, mixed mud (Aquagel)
1023	Start split spoon 97 blows 92'-94' 80% recovery
	92-92 1/2 fine sand, 92 1/2-93 1/2 sand shell fragm.,
	93 1/2-94 micritic sand, shell
1035	run 4" bit down hole to wash
1055	run split spoon down hole
1105	start split spoon at 94'
	94'-96' 70% recovery thin lt orange sand lense 94 1/2"
	sand shell fragm 50/50
1120	run 4" bit down hole, tagged bottom at 93', drilled to 96'
	added water, ez-mud to pit
1155	run split spoon down hole 1200 start hammering 96' to 98'
	96-98 90% recovery 96-96 3/4 shell, sand as above
	96 3/4-97 1/4 fine sand w/ dk gray sandstone pieces
	97 1/4-98 fine sand, minor silt
1220	Drillers leave site for lunch
1255	Drillers return
1310	Run 4" bit down hole, tagged bottom @ 94'
1340	begin split spoon 98-100' soft, quick
	98-100' 90% 98-98 3/4" shell, sand, gray limestone pieces
	98 3/4-99 1/2 fine sand w/ dk gray limestone, slightly silty
	99 1/2-100 shell, larger limestone pieces
	Decide to try a core
	Added water, ez mud to pit



