FORMATION INTERVAL TESTS

Test Data

Eleven tests were run in the Natomas of India BB-A-1R and the results are summarized as follows:

FIT NO.	DEPTH	RECOVERY	REMARKS
1	13002' openhole	Recovered 0.4 cu. ft. gas and trace of water ISIP = - IFP = 0 (5 mins) FSIP = 0 (15 mins) HP = 12500 psi	0.2 cu. ft. free gas and 0.2 cu.ft. shot gas, tight test, RMF: 0.408, ohm/m @ 76° NaCl :13500 ppm
2	12400 openhole		Misrun
3	12400 openhole	Recovered 0.2 cu.ft. shot gas ISIP : - FP : 0 psi FSI : 11300 psi HP : 11570 psi	Lost seal in 2 minutes after second shot
4	12400 openhole		misrun - "O" ring failure
5	12401 openhole	Recovered 10200 cc mud, 0 free gas and 0.1 cu. ft. shot gas ISIP: - Sampling = 11350 psi(4 mins) FSI = 11350 psi HP - 11570 psi	Lost seal when second shot fired Rmf - 0.408 ohm/m @ 76° NaCl = 13500 ppm
6	12402 openhole	Recovered 8500 cc mud ISIP : - Sampling = 11400 psi (3.7 mins) FSI = - HP = 11750 psi	Lost seal when flowline opened Rmf = 0.408 ohm/m @ 76° NaCl = 13,500 ppm
7	12268 Openhole	Recovered 7800 cc water and 800 cc mud Sampling = 1000 psi (10 mins) FSI = 11200 psi (10.4 mins) HP = 11550 psi	Rrf (filtered) = 0.49 ohm/m @ 78° NaCl = 10500 ppm Rmf = 0.408 @ 76° = 13500 ppm

8	11815 Through casing	Recovered 0.1 cu.ft. shot gas, 0.9 cu.ft. free gas and 9600 cc water Sampling = 10700 psi (4 mins,est) FSI = 10700 psi (10 mins, est) HP = 11000 psi	Rrf (filtered) = 0.497 ohm/m @ 76 °, NaCl = 12000 ppm Rmf = 0.408 ohm/m @ 76° NaCl = 13500 ppm C - 1 = 27800 ppm C - 2 = 18576 ppm C - 3 = 429 ppm IC-4 = 357 ppm
9	11087 Through casing	Recovered 1.4 cu. ft. gas and 10000 cc water (Free gas = 1.3 cu. ft) Sampling = 9850 psi (4 mins) FSI = 9850 (10 mins) HP = 10750 psi	Rrf = 0.49 ohm/m @ 76° NaCl = 12,000 ppm Rmf= 0.408 ohm/m @ 76°, NaCl = 13500 ppm C-1 = 39000 ppm C-2 = 3750 ppm C-3 = 462 ppm IC-4 = 330 ppm NC-4 = 93 ppm
10	10125 Through casing	Recovered 24.9 cu.ft. gas and 4250 cc water (24.8 cu. ft. free gas) Sampling = 2700 psi (15 mins) FSI = 5600 psi (30 mins) HP = 9700 psi	Rrf = 0.49 ohm/m @ 72°, NaCl = 13000 ppm Rmf = 0.408 ohm/m @ 76° NaCl= 13500 ppm Test aborted after 15 mins sampling and 30 mins shut-in. C-1 = 709443 ppm C-2 = 41925 ppm C-3 = 9324 ppm IC-4 = 4540 ppm NC-4 = 2170 ppm C- 5 = 1032 ppm
11	9787 Through Casing	Recovered 0.8 cu.ft. gas and 2000 cc mud (0.6 cu.ft. free gas) Sampling = 0 (5 mins) FSI = 2000 psi (31.5 mins) HP = 9200 psi	Annulus fluid - plugged perforation lack of cement

DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company NATOMAS OF INDIA Formation _____ File SP-2760-CA

Well BB-A-1R Core Type SIDEWALL Date Report 12 JAN. 1976

Field BAY OF BENGAL Drilling Fluid _____ Analysts BDZ/MA

County _____ State _____ Elev. _____ Location _____

Lithological Abbreviations

SAND – SD SHALE – SH LIME – LM	DOLOMITE – DOL CHERT – CH GYPSUM – GYP	ANHYDRITE – ANHY CONGLOMERATE – CONG FOSSILIFEROUS – FOSS	SANDY – SDY SHALY – SHY LIMY – LMY	FINE – FN MEDIUM – MED COARSE – CSE	CRYSTALLINE – XLN GRAIN – GRN GRANULAR – GRNL	BROWN – BRN GRAY – GY VUGGY – VGY	FRACTURED – FRAC LAMINATION – LAM STYLOLITIC – STY	SLIGHTLY – SLI VERY – V/ WITH – W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
1.	8518	0.23	17.4			Sd, lt gy, v/fn grn, hd, well srtd, sm clay mtrx, v/calc, subrnd-rnd, mica, no show
2.	8546	4.3	24.4			Sd, gy, v/fn grn, sft, well srtd, sm clay mtrx, v/calc, subrnd-rnd, mica, no show
3.	9754	INSUFFICIENT SAMPLE				Sd, gy, v/fn-v/cse grn, hd, v/ calc, subrnd-subang, qtz pebble, mica, uncons, no show
4.	9759	0.46	21.9	0.0	62.2	Sd, gy, v/fn-v/cse grn, hd, v/ calc, subrnd-subang, int lam w/ clay, qtz pebble, mica, uncons, no show
5.	9765	1.5	22.6			Sd, gy, v/fn-fn grn, fm, mod srtd, sm clay mtrx, v/calc, subrnd-subang, tr of carb and mica, no show
6.	9794	*	27.6	0.0	58.8	Sd, gy, v/fn-fn grn, sft-fm, mod srtd, clay mtrx, calc, subrnd-subang, black minerals? qtz, mica, no show
7.	9811	1.7	23.6	0.0	55.9	Sd, gy, v/fn-fn grn, sft-fm, fair srtd, sm clay mtrx, sl calc, subrnd-subang, black minerals? qtz, mica, no show
8.	9832	1.2	21.2	0.0	49.0	Sd, gy, v/fn-v/cse grn, fm, v/calc, subrnd-subang, int lam w/clay, black minerals? qtz pebble, mica, uncons, no show
9.	9834	FRACTURED	18.0	0.0	66.7	Silt, lt brn, fm-hd, calc, sm v/fn grn, no show

DALLAS, TEXAS

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Lithological Abbreviations

SAND – SD SHALE – SH LIME – LM	DOLOMITE – DOL CHERT – CH GYPSUM – GYP	ANHYDRITE – ANHY CONGLOMERATE – CONG FOSSILIFEROUS – FOSS	SANDY – SDY SHALY – SHY LIMY – LMY	FINE – FN MEDIUM – MED COARSE – CSE	CRYSTALLINE – XLN GRAIN – GRN GRANULAR – GRNL	BROWN – BRN GRAY – GY VUGGY – VGY	FRACTURED – FRAC LAMINATION – LAM STYLOLITIC – STY	SLIGHTLY – SLI VERY – VY WITH – W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS	POROSITY PERCENT	RESIDUAL SATURATION PERCENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
10.	9844	44	26.3	0.0	47.3	Sd, gy, v/fn-cse grn, sft, ppor srtd, sm clay mtrx, v/calc, subrnd-subang, black minerals? mica, no show
11.	9855	47	22.9	0.0	49.0	Same as above

NOTE: UNSEALED SAMPLE

* DENOTES TOO FRIABLE FOR ANALYSIS OR INSUFFICIENT SAMPLE.