

N.W. NATURAL RIECHHOLD POOL IW 14dH-23-65 WELL
INTERMEDIATE CASING AND CEMENT REPORT

CASING RAN: OCTOBER 22 2001
GRD. ELEVATION 905 FEET
K.B. ELEVATION 923 FEET ALL MEASUREMENTS FROM K.B.

CASING: 48 JOINTS NEW 8 5/8" 32# SPECIAL DRIFT J-55 LT& C
AB MODIFIED 8 RD. THREAD RNG. 3

1. 44.37	11. 44.39	21. 44.33	31. 44.35	41. 44.35
2. 44.35	12. 44.38	22. 44.32	32. 44.34	42. 44.35
3. 44.28	13. 44.35	23. 44.34	33. 44.34	43. 44.38
4. 44.42	14. 44.30	24. 44.44	34. 44.31	44. 44.37
5. 44.35	15. 44.35	25. 44.35	35. 44.36	45. 43.99
6. 44.24	16. 44.35	26. 44.38	36. 44.35	46. 44.35
7. 44.31	17. 44.35	27. 44.37	37. 44.35	47. 43.93
8. 44.35	18. 44.35	28. 44.32	38. 44.34	48. 44.37
9. 44.36	19. 44.33	29. 44.36	39. 44.37	354.04
10. 44.36	20. 44.31	30. 44.33	40. 44.42	
443.39	443.44	442.54	443.53	

CASING GUIDE SHOE 1'
CASING FLOAT COLLAR 1.5'
BAKER ECP 18.03'

TOTAL STRING LENGTH 2147.03 FEET

HOLE: 12.25" T.D. 2168 FEET MEASURED DEPTH { 72 DEG }
TOP OF TARGET SAND 2143 MEASURED DEPTH { C & W SAND }
CASING LANDED AT 2144 FEET MEASURED DEPTH K.B.

ECP ELEMENT BTM. AT 2095.6 TOP AT 2084.88 FEET K.B.
FLOAT COLLAR AT 2097.10 FEET K.B.

BAKER LOCKED GUIDE SHOE, FLOAT COLLAR, AND ECP
RAN TWO BOW SPRING CENTRALIZERS ON JOINT NO. 1
RAN SPIRAL RIDGID BAR STAB ON BTM. SUB ON ECP
RAN TWO BOW SPRING TURBOLIZERS ON TOP SUB OF THE ECP
RAN BOW SPRING CENT ON MIDDLE OFF NEXT 10 JOINTS, AND ONE
BOW SPRING CENT OVER COLLARS ON THESE JOINTS
THEN RAN BOW SPRING CENTS OVER COLLARS NEXT 10 JOINTS
THEN RAN BOW SPRING CENTS OVER EVERY SECOND COLLAR NEXT 20
JOINTS.

CASING CEMENTED BY HALLIBURTON CEMENTERS WITH:

330 SACKS LEAD CEMENT TYPE 111 + 2% ECONOLITE + 2%
CALSEAL + 6% SALT + 3% VERSASET + 5 LB/SK GILSONITE
5% MICROBOND + .25 LB/SK FLOCELE
CEMENT YEILD 2.12 CUBIC FEET PER SACK TOTAL YEILD
699 CUBIC FEET SLURRY MIXED AT 13.0 LB/GAL

310 SACKS TAIL CEMENT TYPE 111 + 2% KCL + 10% MICROBOND
+ .5% HALAD-344 + .3% CFRR-3 + .5% D-AIR 3000
CEMENT YEILD 1.47 CUBIC FEET PER SACK TOTAL YEILD
455 CUBIC FEET SLURRY MIXED AT 14.8 LB/GAL

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PAGE TWO:

TOTAL CEMENT REQUIRED FROM CALIPER / VOLUMETRIC LOG 950 FT/3

TOTAL CEMENT PUMPED 1154 CUBIC FT.

EXCESS CEMENT CIRCULATED TO SURFACE 22 BARRELS / 143 CU/FT

PUMPED 20 BARRELS MUD FLUSH 8.4 LB/GAL AND 50 BARRELS
DUAL SPACER 12.0 LB/GAL AHEAD OF CEMENT

PUMPED 30 SACK TYPE 111 PACKER INFLATE CEMENT AFTER DROPPING
WIPER PLUG.

DISPLACED WITH 128 BARRELS FRESH WATER

BUMPED PLUG WITH 1000 PSI

SET BAKER ECP WITH 2100 PSI PRESSURE / PACKER SET PROPERLY
BLEED DOWN CASING PACKER AND FLOAT HELD ALL OK

HAD 20 BARRELS EXCESS CLEAN CEMENT TO SURFACE CAUGHT SAMPLE
SAMPLE SET HARD IN 3 HRS.

SET 8 5/8" CASING SLIPS WITH FULL STRING WRIGHT HAD GOOD
CLEAN CEMENT BELOW SLIPS.

THE CEMENT REMAINED AT SURFACE / NO GAS BUBBLES NOTED

EXCELLENT CEMENT JOB NO PROBLEMS

BORE HOLE WAS IN GOOD SHAPE AND TOOK PROPER AMOUNT OFF
CEMENT.

CASING WAS RUN TO BTM. 2168 FT. K.B. TO ENSURE PROPER JOINT
COUNT AND MEASUREMENT.

CASING WAS LANDED WITH CASING SHOE AT 2144 FEET K.B.
1 FOOT BELOW THE C & W SAND TOP.
LEAVEING 24 FEET OPEN 9 7/8" HOLE BELOW CASING SHOE

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