

Current Schematic

API / UWI 3003930320	Surface Legal Location 029-031N-006W-H	Field Name MV/DK COM	License No.	State/Province NEW MEXICO	Well Configuration Type DEVIATED
Ground Elevation (ft) 6,499 00	Original KB Elevation (ft) 6,515 00	KB-Ground Distance (ft) 16 00	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)	

Schematic - Actual

Frm Final

ROVD DEC 18 '08
OIL CONS. DIV.
DIST. 3

Wellbore Construction and Production Details:

- Surface to 16':** Casing Hanger, 4 1/2 in, 11 60 lbs/ft, L-80, 17 ftkB.
- 16' to 198':** Casing Joints, 4 1/2 in, 11 60 lbs/ft, L-80, 17 ftkB. Casing Hanger, 9 5/8 in, 32 30 lbs/ft, H-40, 19 ftkB. Casing Pup Joint, 4 1/2 in, 11 60 lbs/ft, L-80, 55 ftkB. Casing Joints, 9 5/8 in, 32 30 lbs/ft, H-40, 228 ftkB. SURFACE CSG CMT, 16-228, 6/23/2008, CIRC 3 BBL'S CMT TO SURFACE. Sawtooth Collar, 9 5/8 in, 32 30 lbs/ft, H-40, 228 ftkB. Intermediate Casing Cement, 16-237, 9/22/2008, PJSM - 2ND STG CMT = 10 BBL MD CLEAN II, & 2 BBL FRESH WATER SPACER - MIX & PMP 10 BBL OF 11 PPG PREMIUM LITE FM SCAVENGER SLURRY & 159 BBL'S OF 12.1 PPG PREMIUM LITE FM LEAD SLURRY. DRP PLUG & DISP W/ 117 BBL OF FRESH WATER, FCP = 950 PSI, BUMP PLUG W/2520 PSI - CHK PLUG, OK 1 BBL BLEED BACK TO TRUCK - FULL RTNRS THROUGHOUT JOB, 55 BBL'S CMT RTNRS TO SURFACE. NOTE - PLUG DOWN @ 01 34 HRS ON 9/23/2008.
- 198' to 228':** Casing Joints, 7 in, 23 00 lbs/ft, J-55, 2,939 ftkB. Casing cement, 16-2941, 9/22/2008, PJSM - 2ND STG CMT = 10 BBL MD CLEAN II & 2 BBL FRESH WATER SPACER - MIX & PMP 10 BBL OF 11 PPG PREMIUM LITE FM SCAVENGER SLURRY & 159 BBL'S OF 12.1 PPG PREMIUM LITE FM LEAD SLURRY. DRP PLUG & DISP W/ 117 BBL OF FRESH WATER, FCP = 950 PSI, BUMP PLUG W/2520 PSI - CHK PLUG, OK 1 BBL BLEED BACK TO TRUCK - FULL RTNRS THROUGHOUT JOB, 55 BBL'S CMT RTNRS TO SURFACE. NOTE - PLUG DOWN @ 01 34 HRS ON 9/23/2008.
- 228' to 229':** Stage Tool 7 in, 23 00 lbs/ft, J-55, 2,941 ftkB. Casing Joints, 7 in, 23 00 lbs/ft, J-55, 4,369 ftkB. Casing Joints, 7 in, 23 00 lbs/ft, J-55, 4,370 ftkB. Intermediate Casing Cement, 2,937-4,408, 9/22/2008, PJSM & R/U CMNTRS - TEST LINES 3500 PSI - 1ST STAGE CMT = 10 BBL GEL MUD, 2 BBL FRSH WTR SPACER - MIX & PMP 10 BBL OF 11 PPG PREMIUM LITE FM SCAVENGER SLURRY, 50 BBL'S OF 12.1 PPG PREMIUM LITE FM LEAD SLURRY & 23 BBL'S TYPE III & ADDS TAIL SLURRY - DRP PLG & DISP W/70 BBL FRESH WATER & 103 BBL'S DRG MUD, FCP = 780 PSI, PLUG DOWN @ 20 18 HRS ON 9/22/2008, BMP PLG W/1170 PSI, @ 20 18 HRS, CHK FLOATS OK (1 BBL BLEED BACK TO TRUCK), OPEN STAGE TOOL @ 2937' W/2280 PSI & CIRC 30 BBL'S CMT OUT FROM BEHIND CSG - CHANGE OVER TO RIG PUMP.
- 229' to 234':** Float Shoe, 7 in, 4,410 ftkB. Intermediate Casing Cement, 2,941-4,410, 9/22/2008, PJSM & R/U CMNTRS - TEST LINES 3500 PSI - 1ST STAGE CMT = 10 BBL GEL MUD, 2 BBL FRSH WTR SPACER - MIX & PMP 10 BBL OF 11 PPG PREMIUM LITE FM SCAVENGER SLURRY, 50 BBL'S OF 12.1 PPG PREMIUM LITE FM LEAD SLURRY & 23 BBL'S TYPE III & ADDS TAIL SLURRY - DRP PLG & DISP W/70 BBL FRESH WATER & 103 BBL'S DRG MUD, FCP = 780 PSI, PLUG DOWN @ 20 18 HRS ON 9/22/2008, BMP PLG W/1170 PSI, @ 20 18 HRS, CHK FLOATS OK (1 BBL BLEED BACK TO TRUCK), OPEN STAGE TOOL @ 2937' W/2280 PSI & CIRC 30 BBL'S CMT OUT FROM BEHIND CSG - CHANGE OVER TO RIG PUMP.
- 234' to 2,939':** Casing Joints, 4 1/2 in, 11 60 lbs/ft, L-80, 4,609 ftkB. MARKER JT, 4 1/2 in, 11 60 lbs/ft, L-80, 4,622 ftkB.
- 2,939' to 2,941':** Tubing, 2 3/8 in, 4 70 lbs/ft, L-80, 6,026 ftkB.
- 2,941' to 4,369':** Hyd Frac-Foam N2, 11/10/2008, CLIFFHOUSE & UPPER MENEFFEE STIMULATION (5,462 TO 5,850'). BREAKDOWN THE ZONE AT 2,404 PSI, PUMPED 20 BBL'S OF 2% KCL WATER START 10 BBL'S OF 15% HCL ACID AT 7 BPM AT 780 PSI. FRAC THE ZONE WITH 105,850 GALLONS OF 60 QUALITY FOAM AT 50 TO 54 BPM WITH 100,420 LBS OF 20/40 BRADY SAND, RAN FRICTION REDUCER (B-145) AT 1,00 GAL/1000 GALS SURFACTANT (F-103) AT 1 GAL/1000 GALS FOAMER (F-104) AT 3.0 GAL/1000 GALS TOTAL N2, 1,200,300 SCF, PUMPED 83 BBL FOAMED FLUSH. MIN RATE 50 BPM MAX RATE 54 BPM AVG RATE 53 BPM. MIN PSI 2,420 PSI MAX PSI 3,950 PSI AVG PSI 2,690 PSI MAX SAND CONC 1.65 PSA ISDP 1,440 PSI FRAC GRADIENT 48 PSI/FT (BASED OFF ISDP) FLUID TO RECOVER (BREAKDOWN, ACID AND FRAC, 1,071 CLEAN BBL'S) PUMPED 1,172 SLURRY BBL'S. SAND AMOUNT BASED OFF WEIGHT TICKET AMOUNTS AND 2ND STAGE SAND COUNT THE POD DENSIOMETER COUNTED 93,500 LBS.
- 4,369' to 4,370':** Tubing Pup Joint, 2 3/8 in, 4 70 lbs/ft, L-80, 6,028 ftkB. Tubing, 2 3/8 in, 4 70 lbs/ft, L-80, 6,059 ftkB. Profile Nipple, 2 3/8 in, 4 70 lbs/ft, L-80, 6,060 ftkB. expendable Check Mule Shoe, 2 3/8 in, 4 70 lbs/ft, L-80, 6,060 ftkB.
- 4,370' to 4,408':** Hyd Frac-Foam N2, 11/10/2008, LOWER MENEFFEE & POINT LOOKOUT STIMULATION (5,874 TO 6,356'). BREAKDOWN THE ZONE AT 1,713 PSI, PUMPED 10 BBL'S OF 2% KCL WATER START 10 BBL'S OF 15% HCL ACID AT 7 BPM AT 1,100 PSI. FRAC THE ZONE WITH 105,850 GALLONS OF 60 QUALITY FOAM AT 50 TO 54 BPM WITH 99,800 LBS OF 20/40 BRADY SAND, RAN FRICTION REDUCER (B-145) AT 1,00 GAL/1000 GALS SURFACTANT (F-103) AT 1 GAL/1000 GALS FOAMER (F-104) AT 3.0 GAL/1000 GALS TOTAL N2, 1,208,400 SCF, PUMPED 91 BBL FLUID FLUSH. MIN RATE 50 BPM MAX RATE 54 BPM AVG RATE 53 BPM. MIN PSI 2,600 PSI MAX PSI 3,420 PSI AVG PSI 2,800 PSI MAX SAND CONC 1.65 PSA ISIP 80 PSI FRAC GRADIENT 45 PSI/FT (BASED OFF ISDP) FLUID TO RECOVER (BREAKDOWN, ACID AND FRAC, 1,157 CLEAN BBL'S) PUMPED 1,262 SLURRY BBL'S.
- 4,408' to 4,409':** Hyd Frac-Slickwater, 11/10/2008, DAKOTA STIMULATION (8,180' TO 8,256'). BREAKDOWN THE ZONE AT 1,800 PSI, PUMPED 15 BBL'S OF 2% KCL WATER START 10 BBL'S OF 15% HCL ACID AT 7 BPM AT 1,280 PSI. FRAC THE ZONE AT 50 TO 53 BPM WITH 97,700 GALLONS OF SLICKWATER AND 40,140 LBS OF 20/40 TLC PROPANT, RAN FRICTION REDUCER (B-145) AT 1.5 GAL/1000 GALS SURFACTANT (F-103) AT 5 GAL/1000 GALS FOAMER (F-104) AT 3.0 GAL/1000 GALS TOTAL N2, 1,208,400 SCF, PUMPED 123 FLUSH BBL'S. MIN RATE 50 BPM MAX RATE 53 BPM AVG RATE 53 BPM. MIN PSI 3,550 PSI MAX PSI 5,450 PSI AVG PSI 3,980 PSI MAX SAND CONC 1.6 PSA ISIP 2,410 PSI FRAC GRADIENT 73 PSI/FT (BASED OFF ISDP) FLUID TO RECOVER (BREAKDOWN, ACID AND FRAC, 2,473 CLEAN BBL'S) PUMPED 2,515 SLURRY BBL'S. SAND AMOUNT BASED OFF WEIGHT TICKET AMOUNT AND THE POD DENSIOMETER COUNTED 38,250 LBS.
- 4,409' to 4,464':** Perforated, 5,462-5,850, 11/10/2008.
- 4,464' to 4,610':** Perforated, 5,874-6,356, 11/10/2008.
- 4,610' to 4,622':** Bridge Plug - Temporary, 6,456-6,458, WEATHERFORD 4 1/2" COMPOSITE BRIDGE PLUG SET TO ISOLATE THE DAKOTA ZONE AND CONTINUE WELL STIMULATION OPERATIONS.
- 4,622' to 5,462':** Casing Joints, 4 1/2 in, 11 60 lbs/ft, L-80, 7,931 ftkB. MARKER JT, 4 1/2 in, 11 60 lbs/ft, L-80, 7,943 ftkB.
- 5,462' to 5,850':** Perforated, 8,180-

ROAD DEC 18 '08
OIL CONS. DIV.
DIST. 3