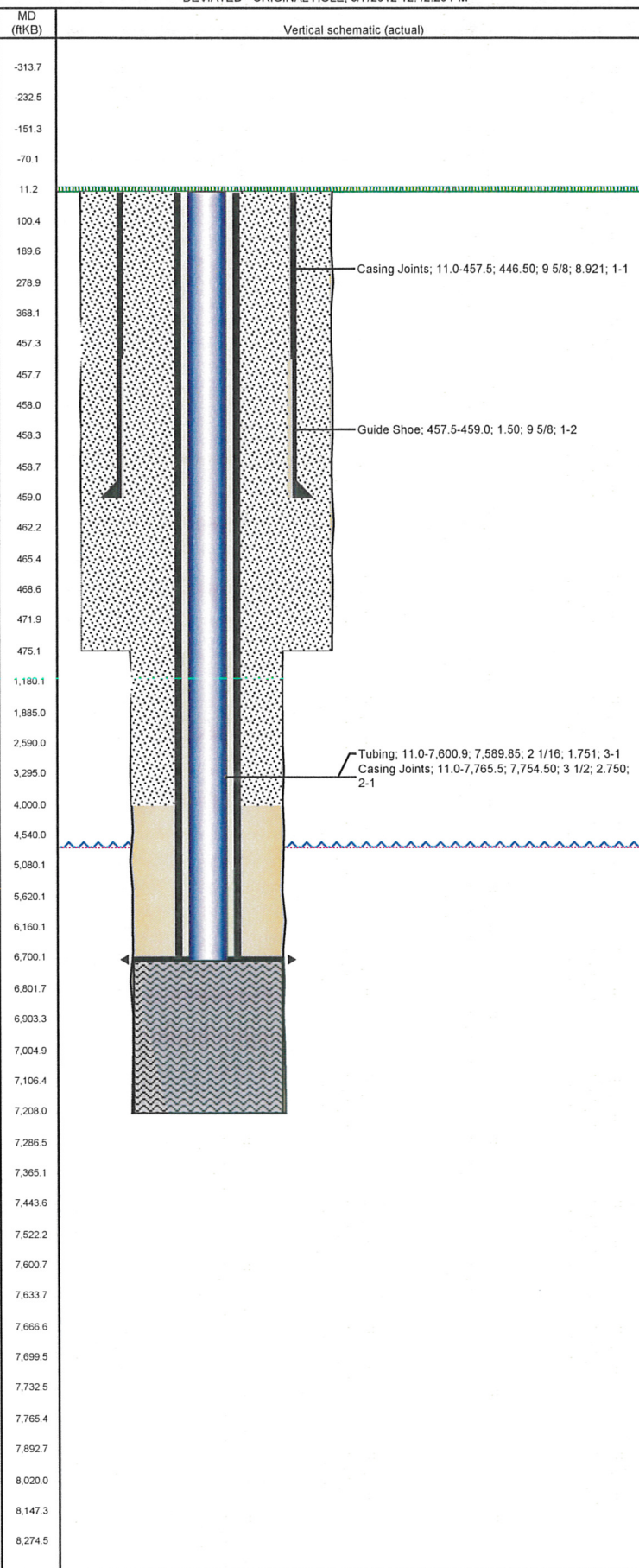


Well Name: KAMMERZELL 07-44

DEVIATED - ORIGINAL HOLE, 8/7/2012 12:42:29 PM



Well Header

API 05-123-17292	Business Unit WATTENBERG	District 15	Well Config DEVIATED
Original KB Elevation (ft) 4,723.00	KB - GL / MSL (ftKB) 11.00	Spud Date 9/3/1993	P & A Date

Comment
DISCREPANCIES IN WELL FILE - POOR INFORMATION

THIS IS A SIDETRACK WELLBORE

1/25/94 FOUND HOLES IN CSG FROM 4802' - 4932'.
1/27/94 SET PACKER @ 5112' & PRESSURE TEST TO 2000#, PACKER HELD OK.

Directions To Well
HWY 60 & 46, WEST 0.1, NORTH 0.2 INTO.

Current PBTD (ftKB)
ORIGINAL HOLE - 6,700.0; SIDETRACK 1 - 7,730.0

Surface Location (Congressional)

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp N...	Range	Rng E/W Dir
		SW	SE	7	4	N	66	W

Bottom Hole Location

North-South Distance (ft)	From N or S Line	East-West Distance (ft)	From E or W Line
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Plug Back Total Depths

Date	Depth (ftKB)	Method	Com
9/17/1993	7,736.0	CASING	PBTD
10/5/1993	7,691.0	CASED HOLE LOG	DEPTH LOGGER ON CBL

Wellbore Sections

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
PRODUCTION	7 7/8	6,700.0	8,002.0

Zone Statuses

Zone Name	Status Date	Status	Job
CODELL	2/2/1994	PR	DRILLING/COMPLETION - ORIGINAL, 9/3/1993 00:00
CODELL	5/21/2001	PR	RE-FRAC, 5/18/2001 00:00
CODELL	3/20/2012	SI	RECOMPLETION, 3/20/2012 10:00
NIOBRARA	4/4/2012	PR	RECOMPLETION, 3/20/2012 10:00

Casing Strings

Csg Des	Run Date	OD (in)	Wt/Len (lb/ft)	Grade	Top (ftKB)	Set Depth (ftKB)
Surface	9/4/1993	9 5/8	36.00	?	11.0	459.0
Production	9/17/1993	3 1/2	9.30	N-80	11.0	7,767.0

Cement

Des	Top (ftKB)	Btm (ftKB)
SURFACE CASING CEMENT	11.0	459.0
Cement Plug	6,700.0	7,208.0
PRODUCTION CASING CEMENT	6,744.0	7,767.0
REMEDIAL CASING ANNULAR CEMENT	11.0	4,000.0

Tubing Components

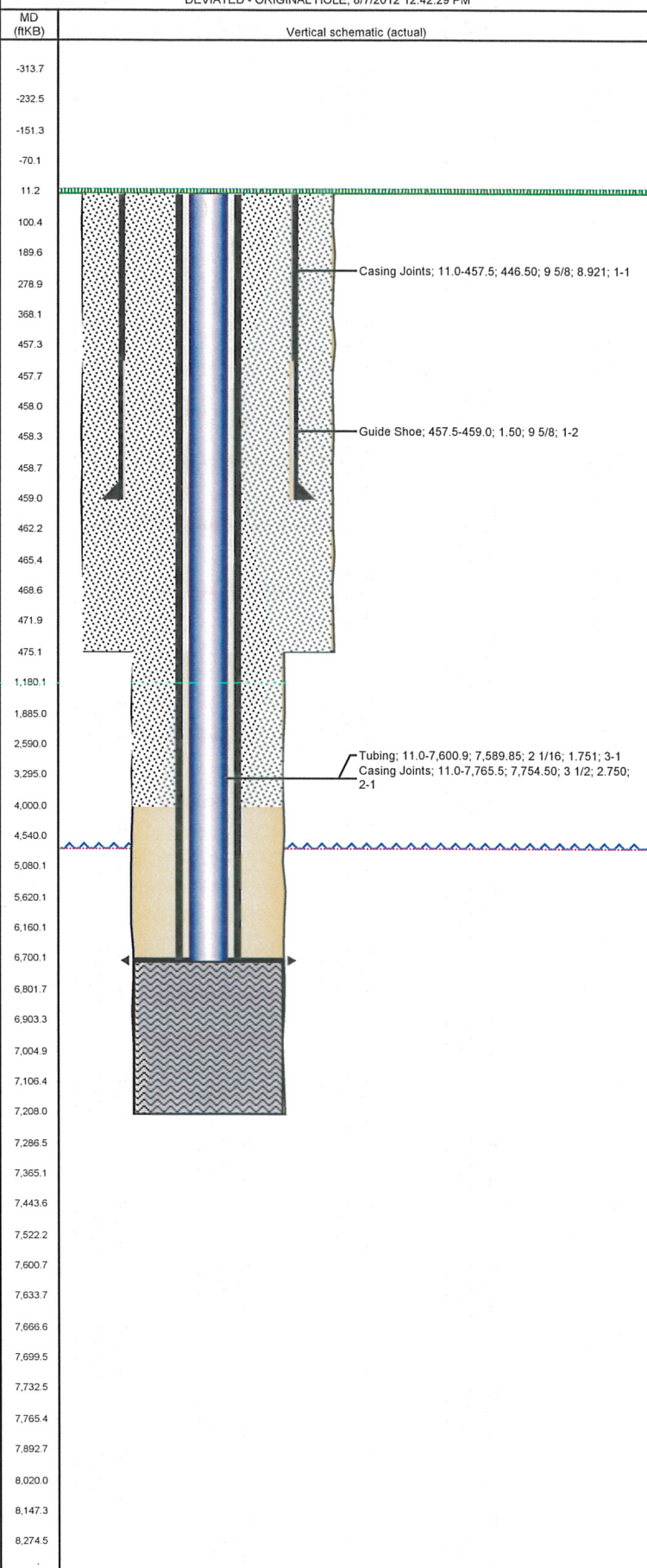
Item Des	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)
Tubing	2 1/16	3.25	J-55	235	7,589.85
Notched Seating Nipple	2 1/16	0.00	x	1	1.10

Perforation Data

Zone	Bnch/St g	Entered Shot Total	Top (ftKB)	Btm (ftKB)	Date
NIOBRARA, SIDETRACK 1	A	64	7,296.0	7,312.0	3/22/2012
NIOBRARA, SIDETRACK 1	B	64	7,412.0	7,428.0	3/22/2012
CODELL, SIDETRACK 1		40	7,635.0	7,645.0	5/16/2001
CODELL, SIDETRACK 1		40	7,636.0	7,646.0	1/26/1994

Well Name: KAMMERZELL 07-44

DEVIATED - ORIGINAL HOLE, 8/7/2012 12:42:29 PM



Stimulations & Treatments

Bnch/Stg	Date	Zone	Primary Job Type
	1/28/1994	CODELL, SIDETRACK 1	DRILLING/COMPLETION - ORIGINAL

Comment

Total Add Amount	Total Clean Volume...	Vol Slurry Tot (gal)	Vol Gas Tot (MCF)
Proppant 377000 lb; Proppant 100 MESH 17500 lb; Proppant AcFrac Black 8000 lb		139398.00	

Avg Treat Pressure (psi)	Max Treat Pressure (psi)	Avg Treat Rate (bbl/min)	Max Treat Rate (bbl/min)
6,484.0			

Bnch/Stg	Date	Zone	Primary Job Type
	5/18/2001	CODELL, SIDETRACK 1	RE-FRAC

Comment

Total Add Amount	Total Clean Volume...	Vol Slurry Tot (gal)	Vol Gas Tot (MCF)
Proppant 260040 lb		120750.00	

Avg Treat Pressure (psi)	Max Treat Pressure (psi)	Avg Treat Rate (bbl/min)	Max Treat Rate (bbl/min)

Bnch/Stg	Date	Zone	Primary Job Type
	4/3/2012	NIOBRARA, SIDETRACK 1	RECOMPLETION

Comment

INITIAL TUBING PRESSURE - 92, INITIAL CASING PRESSURE - 56, INITIAL SURFACE CASING PRESSURE - 0. HELD CASING PRESSURE BETWEEN 50 AND 300PSI DURING THE FRAC. STARTED OFF WITH TREATED WATER TO TEST PACKER AND ESTABLISH INJECTION BEFORE SWITCHING TO ACID. SPOTTED ACID AT PERFS AND SOAKED FOR 5 MIN. ISIP - 3365. HAD TO BLEED CASING PRESSURE DOWN MULTIPLE TIMES AT THE END OF THE SLICKWATER PAD, CASING PRESSURE STABILIZED AFTER XLINK AND SAND WERE DOWNHOLE. LOST FRAC PUMP DURING 3PPG STAGE, BROUGHT IT BACK UP IMMEDIATELY. FINAL ISIP - 3598, 5SIP - 3291, AVG RATE - 13.5, AVG PRESS - 7328, AVG VISC - 20, AVG PH - 10.5, AVG TEMP - 65, MAX RATE - 16.2, MAX PRESS - 8351. CASING PRESSURE BLED TO 0PSI AFTER JOB.

Total Add Amount	Total Clean Volume...	Vol Slurry Tot (gal)	Vol Gas Tot (MCF)
Proppant Ottawa 248119.001 lb	150657.78	161860.44	

Avg Treat Pressure (psi)	Max Treat Pressure (psi)	Avg Treat Rate (bbl/min)	Max Treat Rate (bbl/min)
7,328.0	8,351.0	13.50	16.20

Other In Hole

Run Date	Des	OD (in)	Top (ftKB)	Btm (ftKB)

Logs

Date	Type	Top (ftKB)	Btm (ftKB)
9/17/1993	COMPENSATED DENSITY	430.0	8,030.0
9/17/1993	INDUCTION	430.0	8,030.0
10/5/1993	SONIC	6,590.0	7,687.0