

**Well Name: HAGEN 09-10**

Well Config: VERTICAL - ORIGINAL HOLE, 3/13/2012 2:25:08 PM		Well Header			
ftKB (MD)	Schematic - Actual	API	Business Unit	Spud Date	Well Configuration Type
		05-123-17124	WATTENBERG	6/29/1993	VERTICAL
		Orig KB Elev (ft)	KB - GL / ...	Quarter Quarter	Sec/Abs Twn/Sur... Range P & A Date
		4,691.00	11	NWSE	9 4N 64W
		Comment			
		Directions To Well			
		WCR 46 & 55, NORTH 0.3, WEST 0.3, NORTH 300', WEST INTO.			
		Current PBSD (ftKB)			
		ORIGINAL HOLE - 6890.0			
		Bottom Hole Location			
		North-South Distance (ft)	From N or S Line	East-West Distance (ft)	From E or W Line
		PBDTs			
		Date	Depth (ftKB)	Method	Comment
		7/3/1993	6,948.0	CASING TALLY	FLOAT SHOE
		7/7/1993	6,890.0	CASED HOLE LOG	DEPTH LOGGER ON CBL
		Wellbore Sections			
		Section	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
		SURFACE	9 7/8	11.0	492.0
		PRODUCTION	6 1/4	492.0	7,006.0
		Zone Statuses			
		Zone	Status Date	Status	Job
		NIOBRARA	8/7/1993	PR	DRILLING/COMPLETION - ORIGI...
		CODELL	8/7/1993	PR	DRILLING/COMPLETION - ORIGI...
		CODELL	10/13/2002	PR	RE-FRAC, 10/2/2002 00:00
		NIOBRARA	11/25/2011	PR	RE-FRAC, 11/15/2011 06:00
		NIOBRARA	12/24/2011	PR	RE-FRAC, 11/15/2011 06:00
		CODELL	12/24/2011	PR	RE-FRAC, 11/15/2011 06:00
		Casing Strings			
		Casing Description	Run Date	String OD (in)	String Wt (lbs/ft)
		Surface	6/30/1993	7	20.00
		Production	7/3/1993	4 1/2	11.60
					String Grade
					Top (ftKB)
					Set Depth (ftKB)
					11.0 480.0
					11.0 6,991.0
		Cement			
		Description	Top (ftKB)	Btm (ftKB)	
		Surface Casing Cement	11.0	480.0	
		Production Casing Cement	5,931.0	6,991.0	
		Tubing Components			
		Item Description	OD (in)	Wt (lbs/ft)	Grade
		Pup Joint	2 3/8	4.70	N-80
		Tubing	2 3/8	4.70	J-55
		Seal Nipple	2 3/8	4.70	J-55
		Notched collar	2 3/8	4.70	J-55
					Jts Len (ft)
					1 10.00
					228 6,794.73
					1 0.82
					1 0.38
		Perforation Data			
		Zone	Bnch/Stg	Entered Shot Total	Top (ftKB)
		NIOBRARA, ORIGI...	A	32	6,560.0
		NIOBRARA, ORIGI...	A	8	6,562.0
		NIOBRARA, ORIGI...	B	32	6,644.0
		NIOBRARA, ORIGI...	B	12	6,649.0
		NIOBRARA, ORIGI...	C	4	6,715.0
		CODELL, ORIGINA...		56	6,834.0
		CODELL, ORIGINA...		20	6,835.0
					Btm (ftKB)
					6,576.0
					6,575.0
					6,660.0
					6,658.0
					6,718.0
					6,848.0
					6,845.0
		Stimulations & Treatments			
		Bnch/...	Date	Zone	Primary Job Type
			7/12/1993	CODELL, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL
		Comment			
		Total Add Amount	V (pumped) (gal)	V (slurry) (gal)	V (gas) (mcf)
		Proppant Ottawa 190000 lb		60312	
		Avg Treat Pressure (psi)	Max Treat Pressure (psi)	Avg Treat Rate (bbl/min)	Max Treat Rate (bbl/min)
		4,464.0	5,506.0	13.50	14.00

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## Stimulations & Treatments

Bnch/...	Date 7/22/1993	Zone NIOBRARA, ORIGINAL HOLE	Primary Job Type DRILLING/COMPLETION - ORIGINAL
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Comment

Total Add Amount		V (pumped) (gal)	V (slurry) (gal)	V (gas) (mcf)
Proppant Ottawa 163000 lb			53466	
Avg Treat Pressure (psi)	Max Treat Pressure (psi)	Avg Treat Rate (bbl/min)	Max Treat Rate (bbl/min)	
4,392.0	5,310.0	12.00	12.00	

Bnch/...	Date	Zone	Primary Job Type
	10/8/2002	CODELL, ORIGINAL HOLE	RE-FRAC

Comment
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Total Add Amount		V (pumped) (gal)	V (slurry) (gal)	V (gas) (mcf)
Proppant Ottawa 245700 lb			132846	
Avg Treat Pressure (psi)	Max Treat Pressure (psi)	Avg Treat Rate (bbl/min)	Max Treat Rate (bbl/min)	
4,528.0	6,463.0	14.00	14.60	

Bnch/...	Date	Zone	Primary Job Type
	11/23/2011	NI0BRARA, ORIGINAL HOLE	RE-FRAC

Comment
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(NIOBRARA):5 MIN SHUT IN PSI 3327 JOB WENT GOOD.

Total Add Amount		V (pumped) (gal)	V (slurry) (gal)	V (gas) (mcf)
Proppant Ottawa		147850	158487	
234455.298 lb				
Avg Treat Pressure (psi)	Max Treat Pressure (psi)	Avg Treat Rate (bbl/min)	Max Treat Rate (bbl/min)	
4,457.0	4,755.0	47.70	50.60	

## Other In Hole

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

## Logs

Date	Type	Top (ftKB)	Btm (ftKB)
7/4/1993	COMPENSATED DENSITY	4,228.0	7,016.0
7/4/1993	INDUCTION	479.0	7,008.0
7/7/1993	CEMENT BOND	5,700.0	6,890.0

