



WELL NAME: **Bret Grandbouche 24-02H**
FIELD: **Niobrara**
PROJECT AREA: **Thunderhead Moffat**
COUNTY/STATE: **Moffat, CO**
RIG

SPUD DATE: **9/27/2011** API# **5081076790000**
COMP DATE: **12/22/2011** AFE# **2011054032**
ID DATE: WELL CODE
QRI WI **100 %**
QRI NRI **80.0 %**

KB:

SURFACE CASING:

DEPTH: **1208'** SIZE: **9 5/8"** WT: **36#** GRADE: **J-55** BIT SIZE: **12 1/4"**
CEMENT: **Lead: 200 sks Varicem (12.3 ppg) Tail: 195 sks Varicem (13.5 ppg)**

INTERMEDIATE CASING:

DEPTH: **6,397'** SIZE: **7"** WT: **26#** GRADE: **N-80** BIT SIZE: **8 3/4"**
CEMENT: **Lead: 265sks Econocem (12.2 ppg) Tail: 80 sks Expandacem (14.2 ppg)**

PRODUCTION CASING:

DEPTH: **12,480'** SIZE: **4 1/2"** WT: **13.5** GRADE: **P-110** BIT SIZE: **6.125"**
CEMENT: **Lead: 595sks Lifecem (13.5 ppg)**
TOC from CBL: 5,280'

COMPLETION:

STAGE	PERFS	HOLES	RATE	10% Acetic	15% HCL	Total Fluid Vol	20/40 RC	Plug Depth	Fluid Type
			BPM	(gal)	(gal)	(gal)	(lb)	(ft)	
1	12,400'-01', 12,338'-39', 12,276'-77', 12,214'-15', 12,152'-53' (Fired Add'l 30holes between 12,307'-12,400')	60	50	0	0	64,680	21,560	12,050	X-linked Butane
2	12,850'-51', 1,956'-57', 11,862'-63', 11,768'-74', 11,674'-75'	54	50	0	0	133,560	150,000	11,550	X-linked Butane
3	11,500'-01', 11,450'-51.5', 11,400'-01', 11,390'-91.5', 11,330'-31.5', 11,300'-301', 11,270'-71.5', 11,210'-11.5', 11,200'-01', 11,150'-51.5'	108	50	750	0	101,136	102,000	11,025	X-linked Butane
4	10,910'-11.5', 10,880'-81.5', 10,850'-51.5', 10,820'-91.5', 10,790'-81.5', 10,760'-61.5', 10,730'-31.5', 10,700'-91.5', 10,670'-71.5', 10,640'-41.5', 10,610'-11.5', 10,580'-81.5'	108	50	1,000	0	139,776	93,000	10,425	X-linked Butane
5	10,370'-71.5', 10,305'-06.5', 10,240'-41.5', 10,175'-76.5', 10,110'-11.5', 10,045'-46.5'	54	50	1,500	2,000	127,764	150,000	9,975	X-linked Butane
6	9,920'-21.5', 9,855'-56.5', 9,790'-91.5', 9,725'-26.5', 9,660'-61.5', 9,595'-06.5'	54	50	1,500	2,000	118,440	170,000	9,350	X-linked Butane
7	9,305'-06.5', 9,255'-56.5', 9,205'-06.5', 9,155'-56.5', 9,105'-06.5', 9,055'-56.5'	54	12	1,500	2,000	(Performed Acid Breakdown)	9,000		Acid
8	9,015'-16.5', 8,950'-51.5', 8,885'-86.5', 8,82'-21.5', 8,755'-56.5', 8,690'-91.5'	54	50	1,500	2,000	49,770	0		X-linked Butane
(Perforations in red signify perforations added after screen outs.)		Totals	546	7,750	8,000	735,126	686,560		

AZIMUTH: **185** DEG
KOP: **6,890'** MD **6,820'** TVD
30 DEG: **7,231'** MD **7,205'** TVD
60 DEG: **7,486'** MD **7,393'** TVD
TD: **12,480'** MD **7,475'** TVD
PBDT: **12,437'** MD

