

RODSTAR 3.6.31

Company: Sandia Data

Well: Well 5B

Disk file: Sandia Data Well 5B (SnapOn).rsdx

Comment: Test Number: 5B. Test Date July/Aug 1996

Theta Oilfield Services, Inc.

(gotheta.com)

Norris/AOT DAL

432-561-8101

Page 1 of 5

User: Scott Malone 432-559-2005

Date: 8/1/2014

INPUT DATA			CALCULATED RESULTS		
Strokes per minute:	6.5	Fluid level	Production rate (bfpd):	433	Peak pol. pod load (lbs): 15345
Run time (hrs/day):	24.0	(ft from surface): 304	Oil production (BOPD):	65	Min. pol. rod load (lbs): 8212
Tubing pres. (psi):	205	(ft over pump): 4756	Strokes per minute:	6.5	MPRL/PPRL: 0.535
Casing pres. (psi):	180	Stuf.box fr. (lbs): 100	System eff. (Motor->Pump):	6%	Unit struct. loading: 50%
		Pol. rod. diam. 1.25"	Permissible load HP:	52.9	PRHP / PLHP: 0.17
			Fluid load on pump (lbs):	1367	Buoyant rod weight (lbs): 10688
			Fluid level tvd (ft from surface):	304	N/No: .139 , Fo/SKr: .027
			Polished rod HP:	8.9	

Fluid Properties

Water cut: 85%
Water sp. gravity: 1.01
Oil API gravity: 35.0
Fluid sp. gravity: 0.986

Motor & Power Meter

Power meter Detent
Elect. cost: \$.06/KWH
Type: NEMA D

Pumping Unit: Lufkin Conventional - New

API Size: C-640-305-168 (Unit ID: CL10)
Crank hole number: # 1 (out of 4)
Calculated stroke length (in): 169.8
Crank rotation with well to right: CCW

Max. cb moment (M in-lbs): Unknown
Structural unbalance (lbs): -1500
Crank offset angle (degrees): 0.0

Tubing And Pump Information

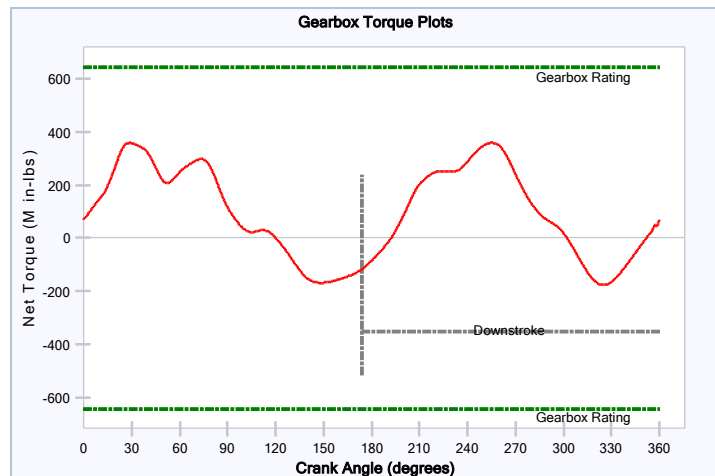
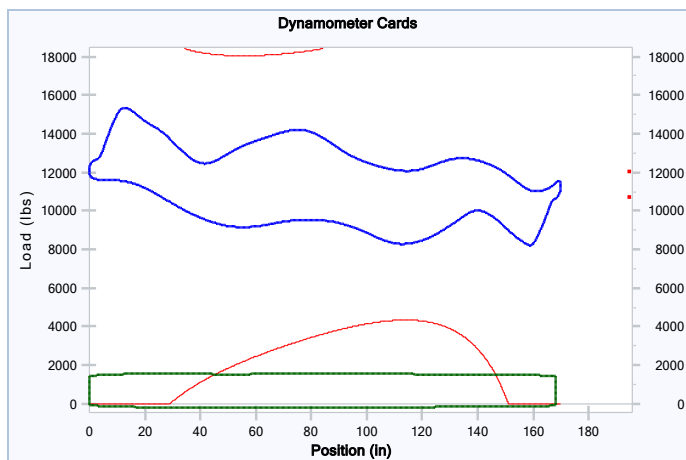
Tubing O.D. (in): 2.875 Upstr. rod-fl. damp. coeff.: 0.100
Tubing I.D. (in): 2.441 Dnstr. rod-fl. damp. coeff.: 0.100
Pump depth (ft): 5060 Tub.anch.depth (ft): 4970
Pump conditions: Full
Pump type: Insert Pump vol. efficiency: 85%
Plunger size (in): 2 Pump friction (lbs): 200.0

Rod string design

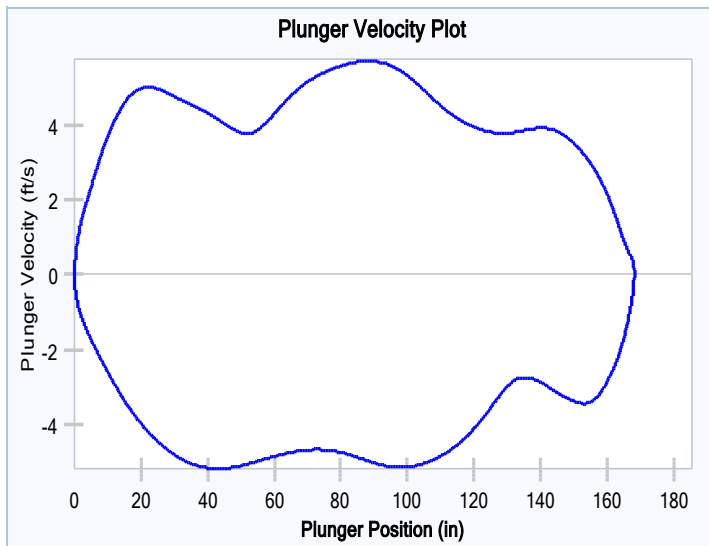
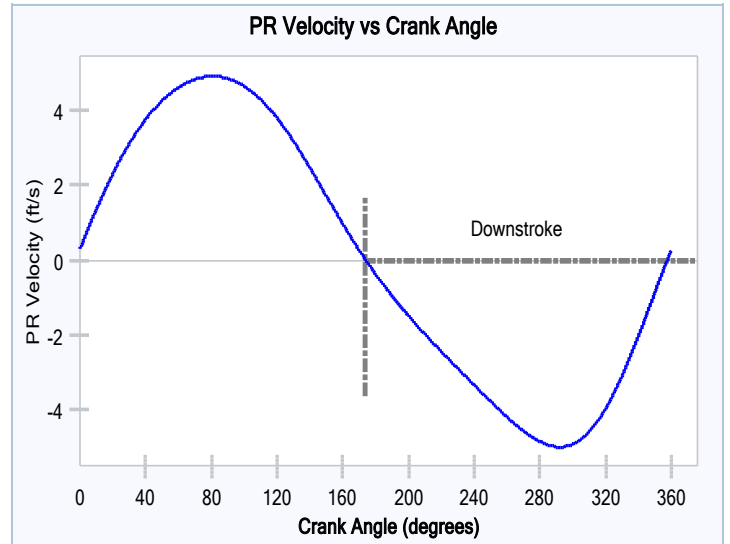
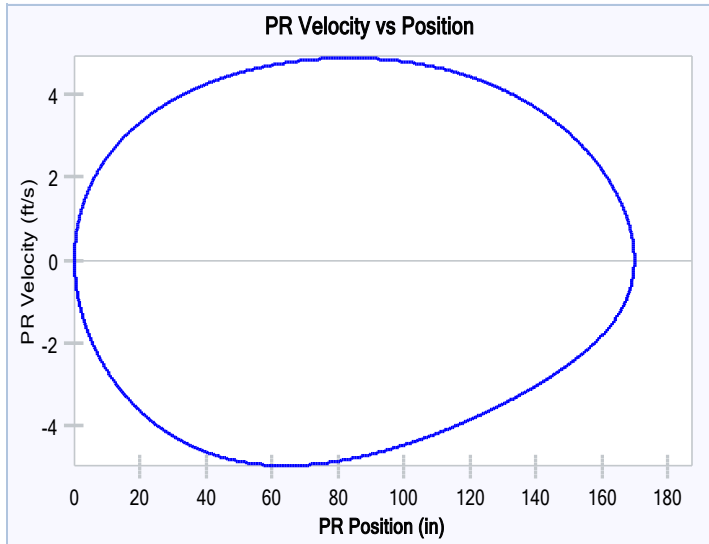
Diameter (inches)	Rod Grade	Length (ft)	Min. Ten. Str. (psi)	Fric. Coeff	Stress Load %	Top Maximum Stress (psi)	Top Minimum Stress (psi)	Bot. Minimum Stress (psi)	# Guides/Rod
+ 1	D (API)	1510	115000	0.2	36.6%	19411	10583	6547	0
0.875	D (API)	1600	115000	0.2	36.1%	17250	8160	4354	0
0.75	D (API)	1700	115000	0.3	33.9%	14240	5264	1177	2
@ 1.5	C (API. SB)	250	90000	0.3	13.7%	3014	-80	-113	0

+requires slimhole couplings. @ stress calculations based on elevator neck of 7/8 (for 1.25 sinker bars) or 1 (for other sinker bars).

NOTE: Displayed bottom minimum stress calculations do not include buoyancy effects (top minimum and maximum stresses always include buoyancy).



VELOCITY PLOTS



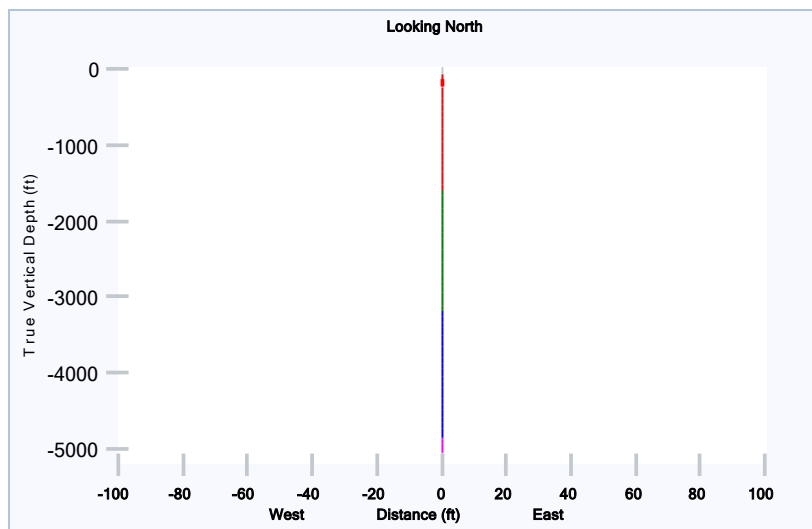
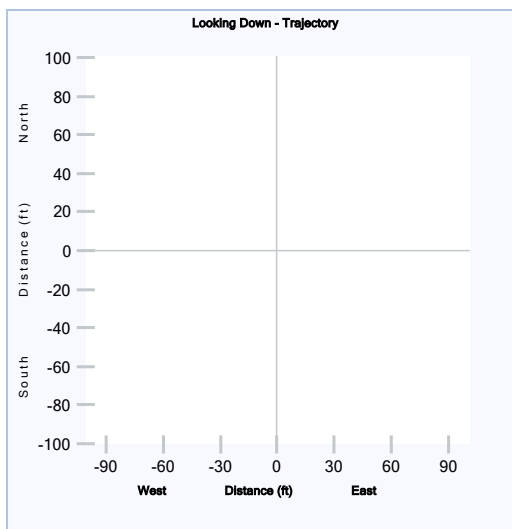
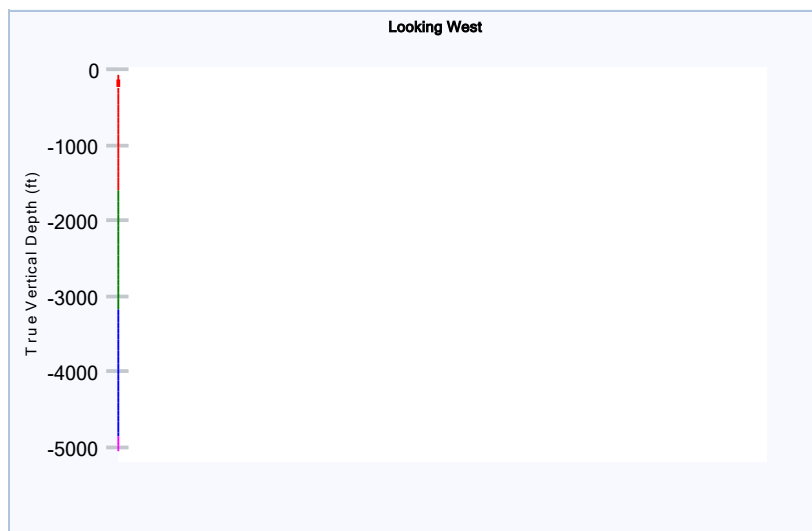
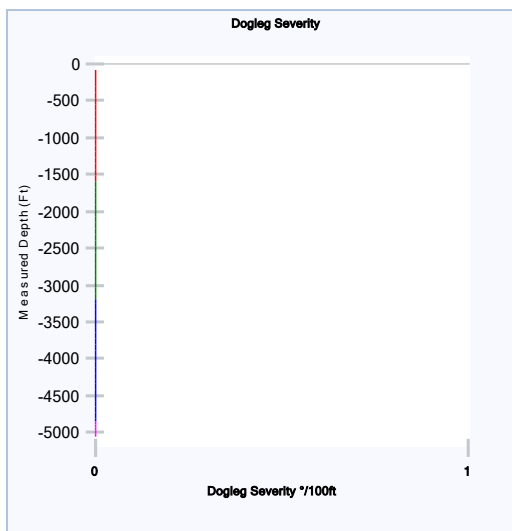
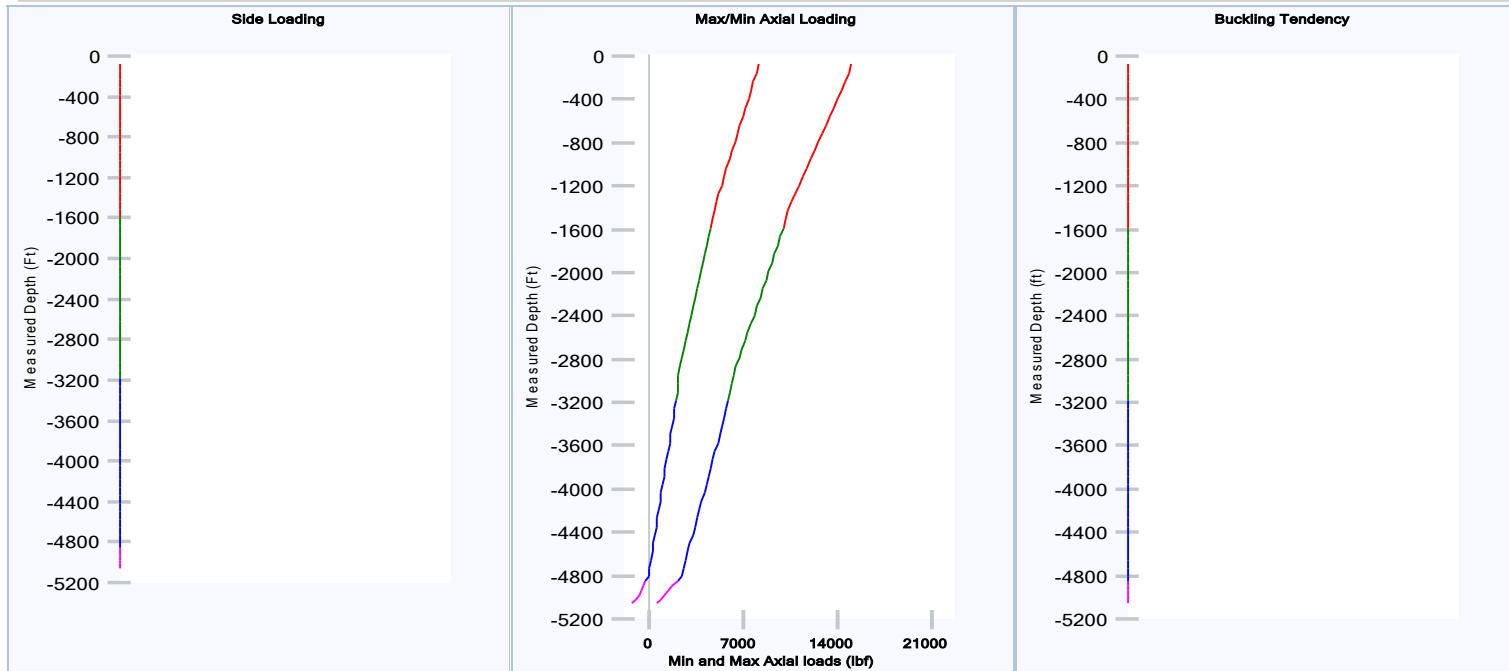
Maximum Upstroke Polished Rod Velocity (ft/s) : 4.883

Maximum Downstroke Polished Rod Velocity (ft/s) : 4.98

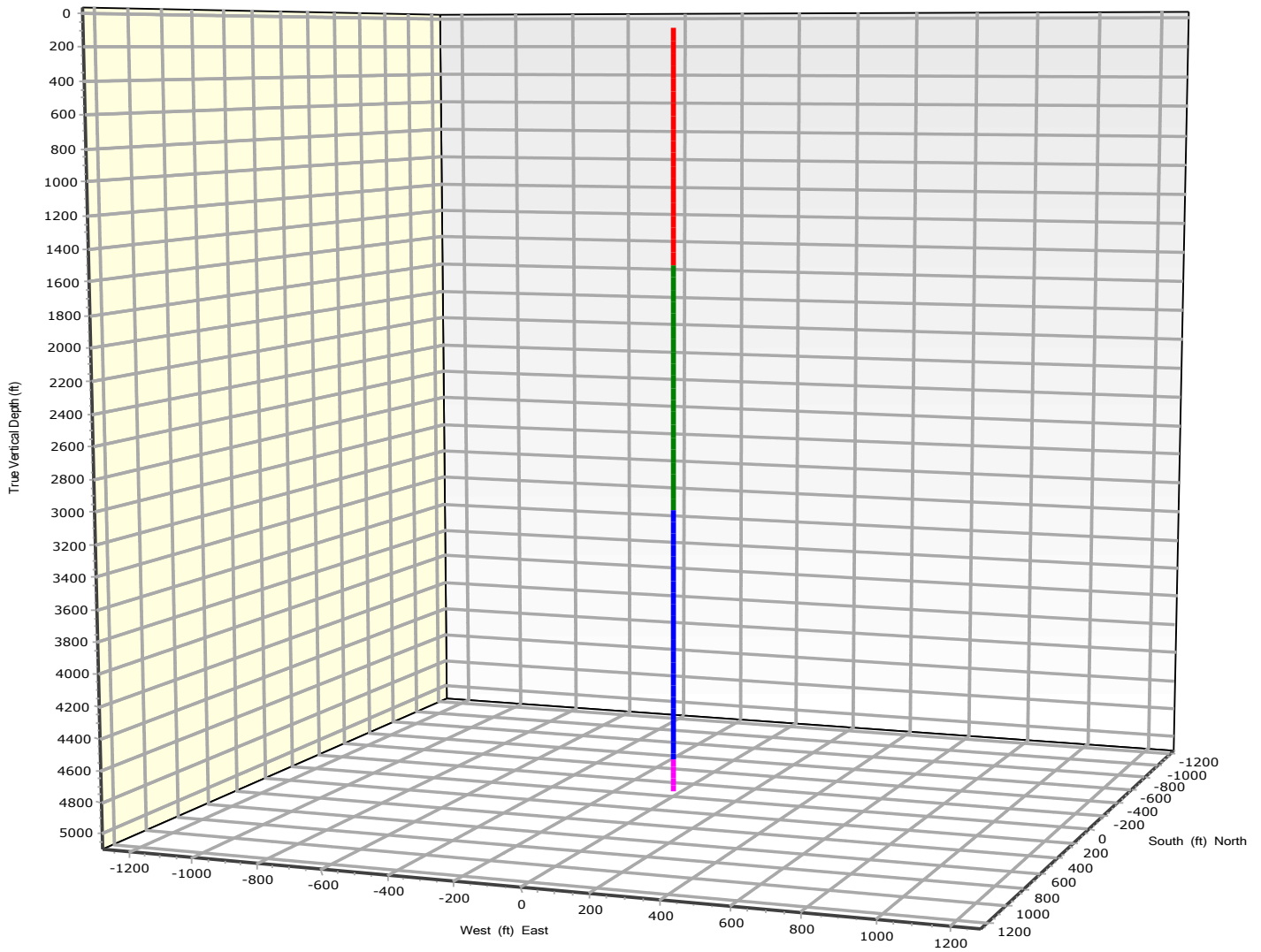
Maximum Upstroke Plunger Velocity (ft/s) : 5.687

Maximum Downstroke Plunger Velocity (ft/s) : 5.167

DEVIATION SURVEY PLOT



DEVIATION SURVEY PLOT



Rod Diameters	1"	7/8"	3/4"	1 1/2"
# Guides/Rod:	0	0	2	0

RODSTAR 3.6.31

Company: Sandia Data

- Theta Oilfield Services, Inc. (gotheta.com)

Page 5 of 5

Well: Well 5B

Norris/AOT DAL

User: Scott Malone 432-559-2005

Disk file: Sandia Data Well 5B (SnapOn).rsdx

432-561-8101

Date: 8/1/2014

Comment: Test Number: 5B. Test Date July/Aug 1996

MEASURED DEVIATION SURVEY

MD (ft)	Inclination (°)	Azimuth (°)	Dogleg sev. °/100ft	TVD (ft)	N-S (ft)	E-W (ft)
0	0	0	0	0	0	0
2000	0	0	0	2000	0	0
4000	0	0	0	4000	0	0
9000	0	0	0	9000	0	0
11000	0	0	0	11000	0	0