

SEL32/2003 July 2007 Annual Report

Appendix 2

Drill Stem Test Results

By

Focal Petroleum Engineering PTY LTD.

Fingal 41b DST Reports

- 1. Seam B**
- 2. Seam C**
- 3. Seam D**
- 4. Seam F**
- 5. Seam G upper & G lower**

**FINGAL 41B
DRILL STEM TEST
FINAL REPORT
“B” ZONE COAL SEAM
OPEN HOLE INTERVAL 301.9 – 306.5 mGL
JUNE 17 – 18, 2007**

**Prepared for:
Pure Energy Resources Limited**



**Prepared by:
Focal Petroleum Engineering Pty Ltd.**

July 11, 2007



July 11, 2007

Pure Energy Resources Limited
P.O. Box 952
SOUTH PERTH, WA 6951

Attention: Mr. Steve Beardsall

Dear Sir

Re: Fingal 41b Coal "B" Drill Stem Test Report

The following is a summary of the results obtained from the Drill stem test conducted from June 17 to 18, 2007 over the "B" Coal, open hole interval from circa 301.85 – 306.5 mGL.

The DST was conducted through the drillpipe and coring bit, using an off bottom inflatable packer. Prior to testing, circa 295 meters of water were displaced from the drillpipe with air to allow inflow from the reservoir to occur.

The test was comprised of a 10 minute pre-flow and 30 minute initial shut-in period followed by a 30 minute main flow and a 14.5 hour main buildup (recorders left overnight). A low flow gas meter was used to measure the gas recovery and a fluid recorder in the drill pipe was used to establish daily water production volumes (bbl/day) from the inflow of water into the wellbore.

During the inflation of the isolation packers, a rapid falloff in pressure was noted below the packer suggesting that the permeability within the test interval was high and that the reservoir is significantly under-pressured.

Comments and Conclusions

- The pressure response observed during the flow and buildup periods suggested a reservoir with very high flow capacity to water. Since the inflow from the reservoir was predominantly water, the test was analysed as a water well. The gas volume recovered was insignificant (< 5 cf) and was not used in the interpretation.

- The net pay of 9.2 ft (2.8 m) was obtained from the core samples. A default porosity of 2% was used for the interpretation.
- Average water rates of circa 33 bbl/d and 31 bbl/d were calculated using the pressure increase from the inflow of water into the wellbore during the pre-flow and main flow periods, respectively.
- An initial estimated reservoir pressure of 189 psia was extrapolated from the late-time pressure fall-off data observed after the packers were inflated. The best estimate of reservoir pressure (P_i) of 187 psia was calculated from the simulation and has been quoted throughout this report. The subject reservoir is significantly under-pressured with a reservoir gradient of 0.19 psi/ft.
- The pressure derivative indicated that wellbore storage was immediately overcome by a zero slope (radial flow) trend and remained for the duration of the buildup. The late-time derivative on the log-log plot appears to begin an upward trend. However, this trend is not evident on the semi-log plot and is likely a function of the gauge resolution as the buildup approaches reservoir pressure (average step increase of circa 0.2 psi).
- Conventional analysis and Simulation were both conducted. A good match of the entire data set was achieved using a Vertical model. The simulation compared very well with the conventional results and has been quoted throughout this report.
- The large positive skin value is attributed to coal fines in the near wellbore area as a result of the rapid depressurising of the reservoir during the DST.

A summary of the Test Results is as follows:

Average Reservoir Pressure (Pr) @ 296.5 mGL	187	psia (simulation)
Apparent Skin Factor	+38	
Average Permeability to Water	179	md
Flow Capacity to Water	1645	md.ft
Radius of Investigation	135	ft

If further clarification of the test interpretation is required, please contact the undersigned on (08) 9474 9622.

Yours faithfully,

FOCAL PETROLEUM ENGINEERING PTY LTD

Ryan Gee

WELL TEST CONSULTANT

Terry Primeau

MANAGING DIRECTOR

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Figure 11 – Simulation Match – Semi-Log Plot

Figure 12 – Simulation Results

Validata

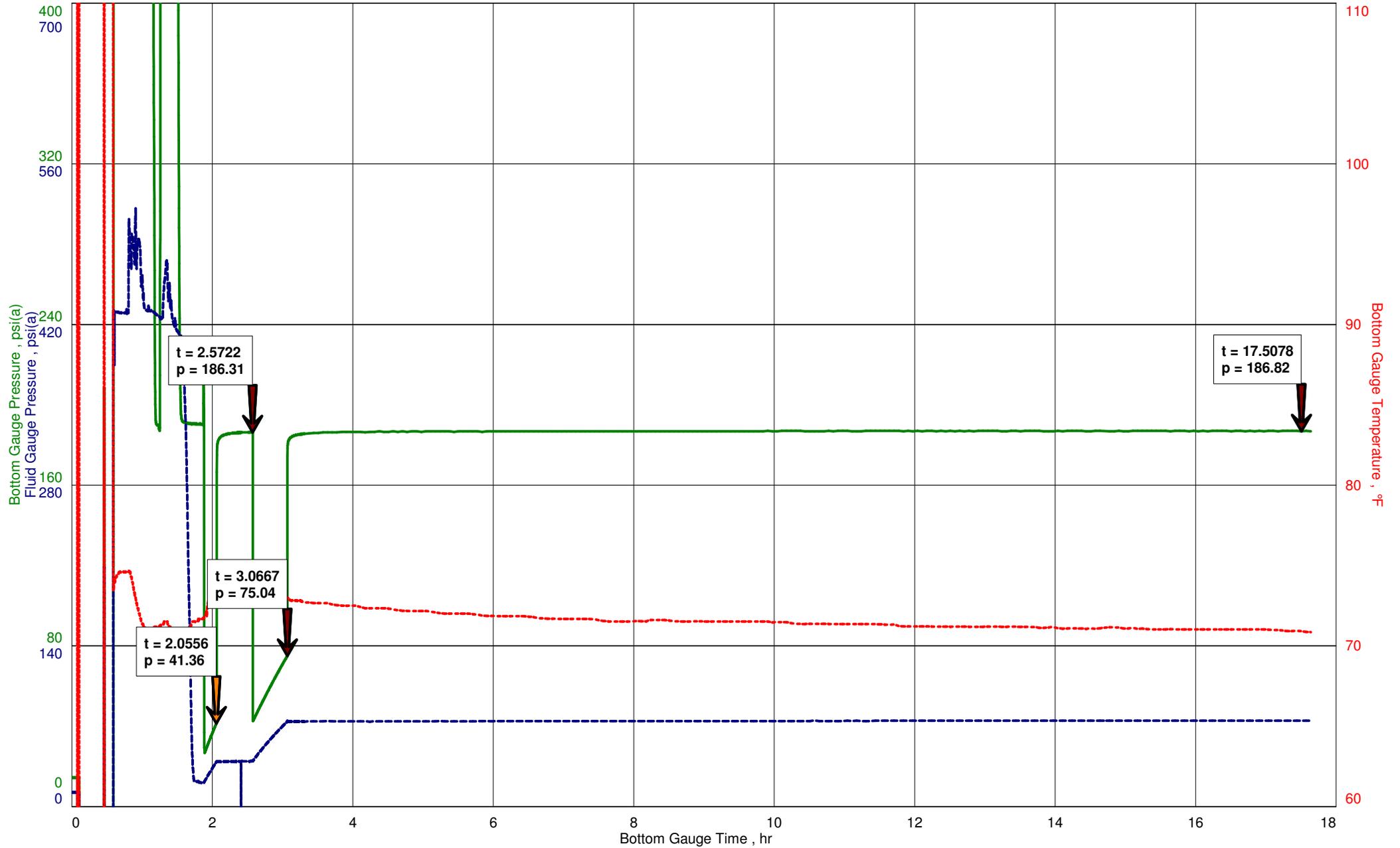


Figure 1

Fingal 41B
Seam B
Packer Depth @ 300.4 mGL
June 17, 2007

Initial Pressure Falloff

Radial

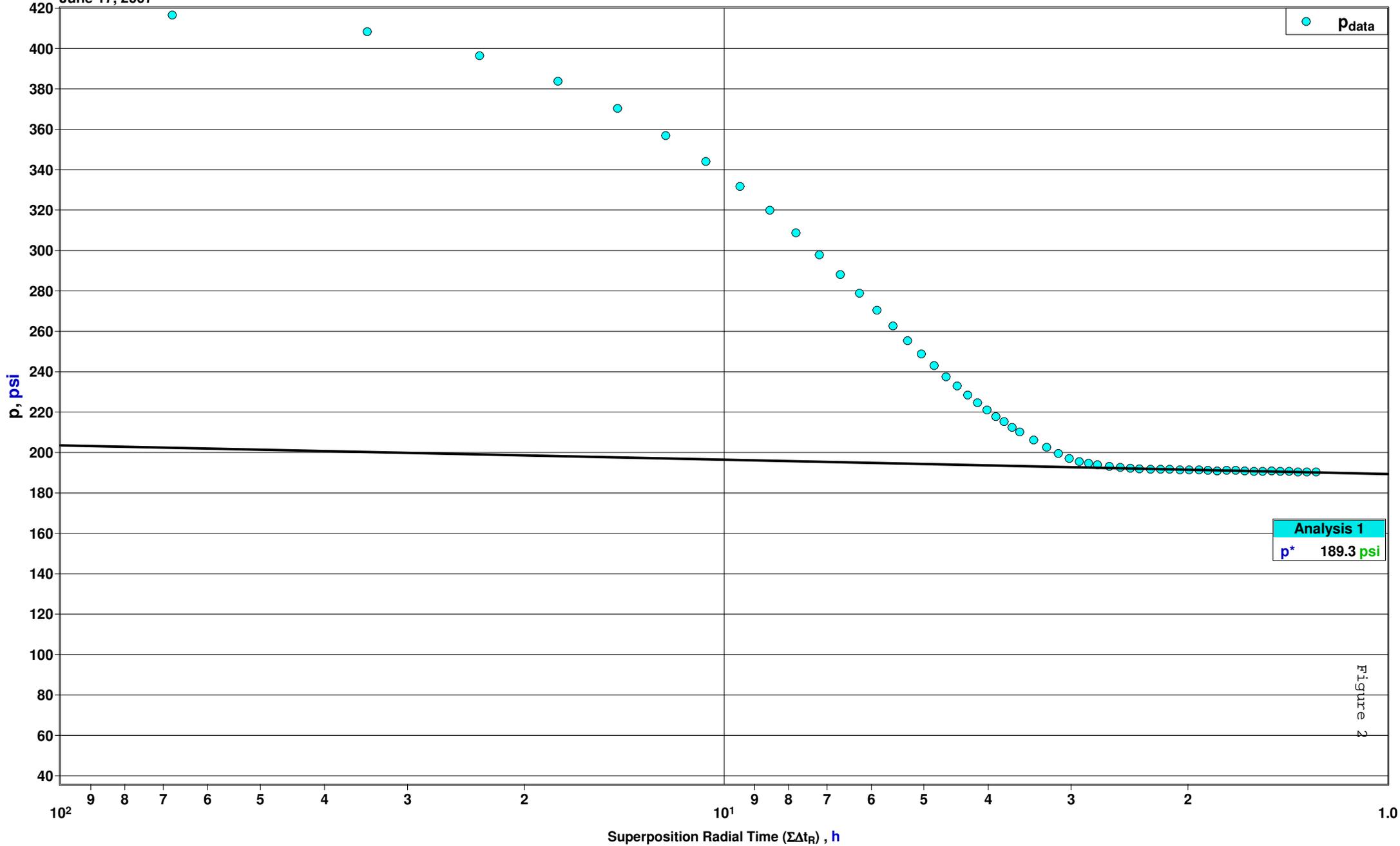


Figure 2

Fingal 41B
 B Seam
 Packer Depth @ 300.4 mGL
 June 17 - 18, 2007

Strip Chart Total Test

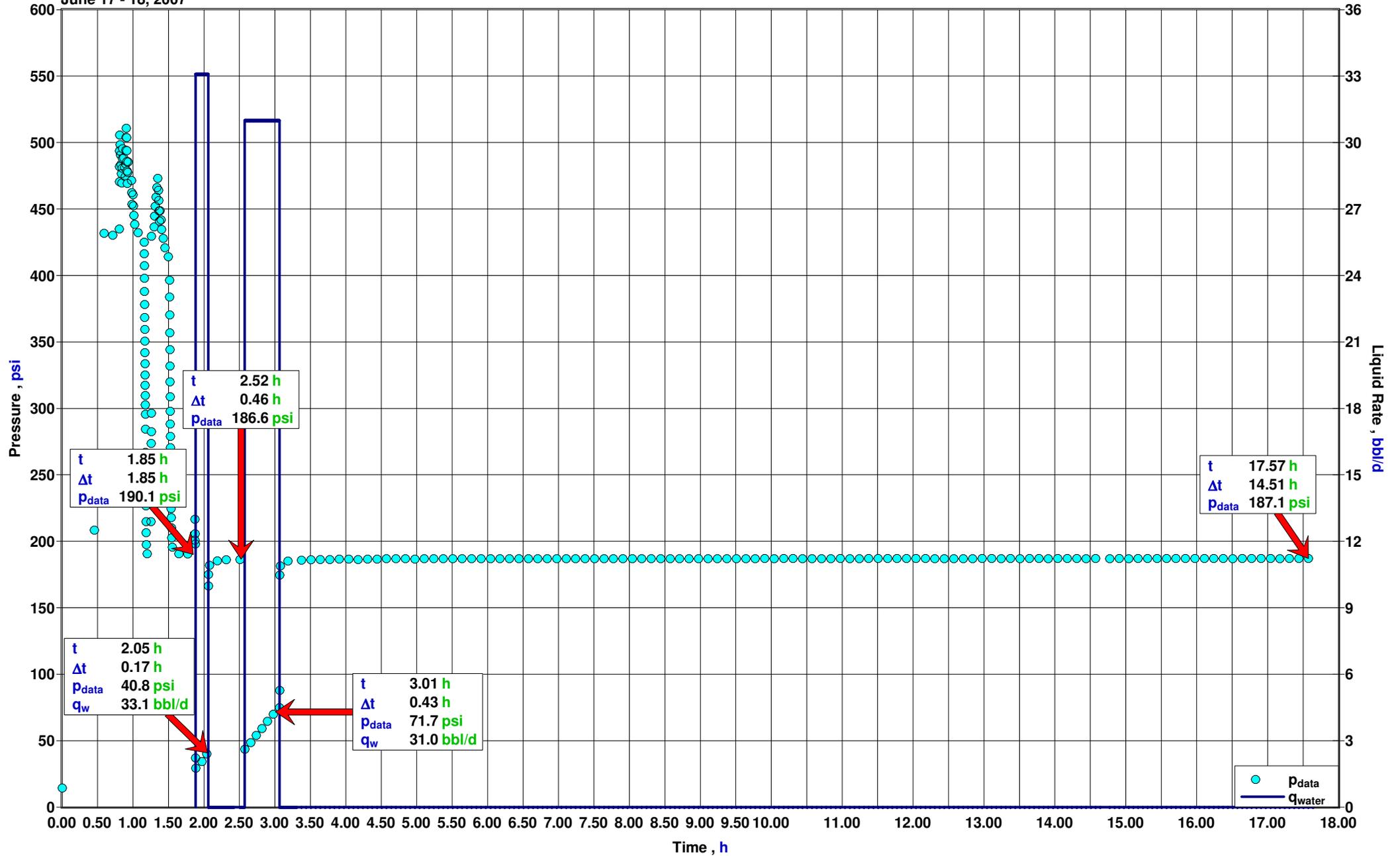
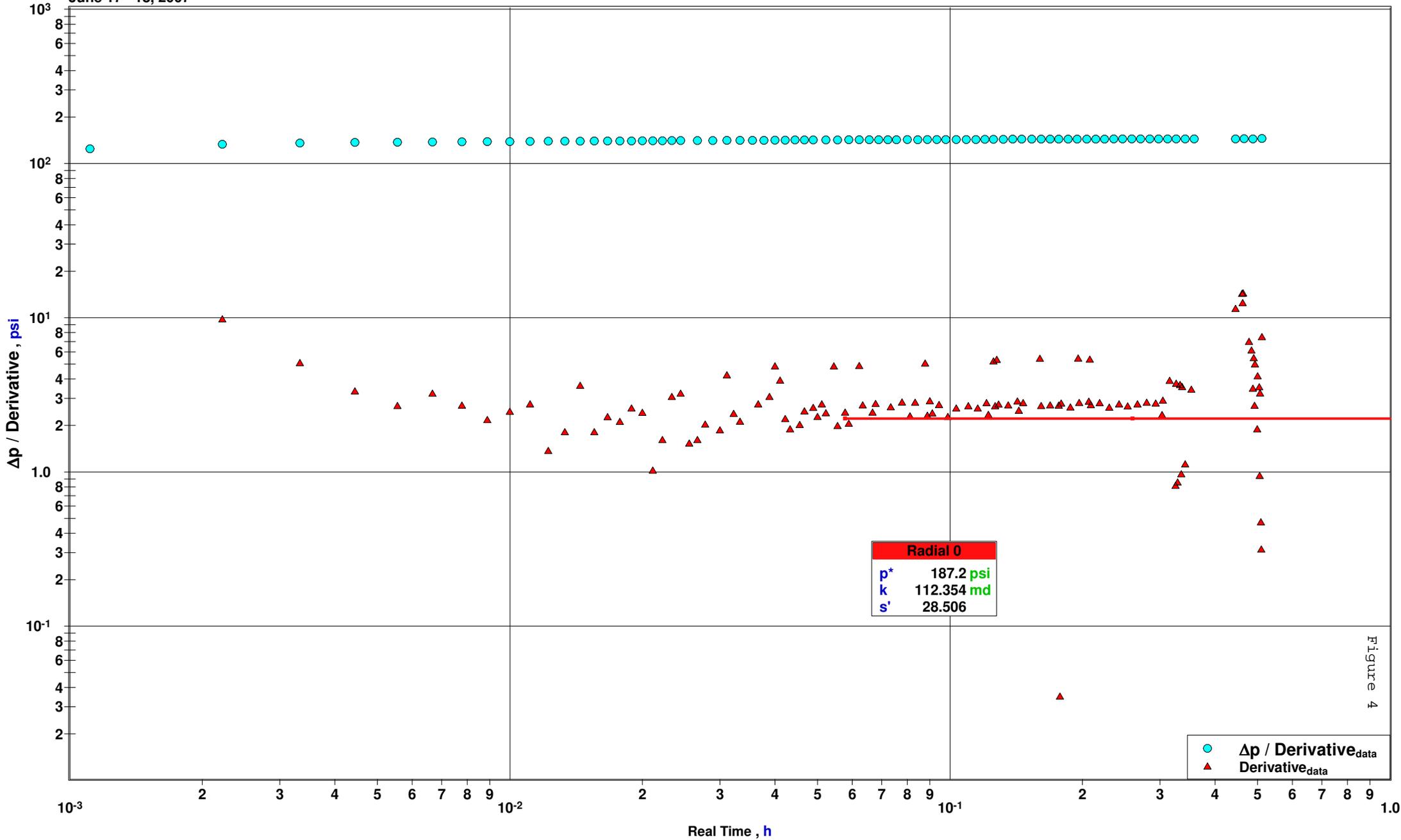


Figure 3

Fingal 41B
 B Seam
 Packer Depth @ 300.4 mGL
 June 17 - 18, 2007

Diagnostic Analysis - Initial Shut-in

Typecurve



Fingal 41B
 B Seam
 Packer Depth @ 300.4 mGL
 June 17 - 18, 2007

Diagnostic Analysis - Initial Shut-in

Radial

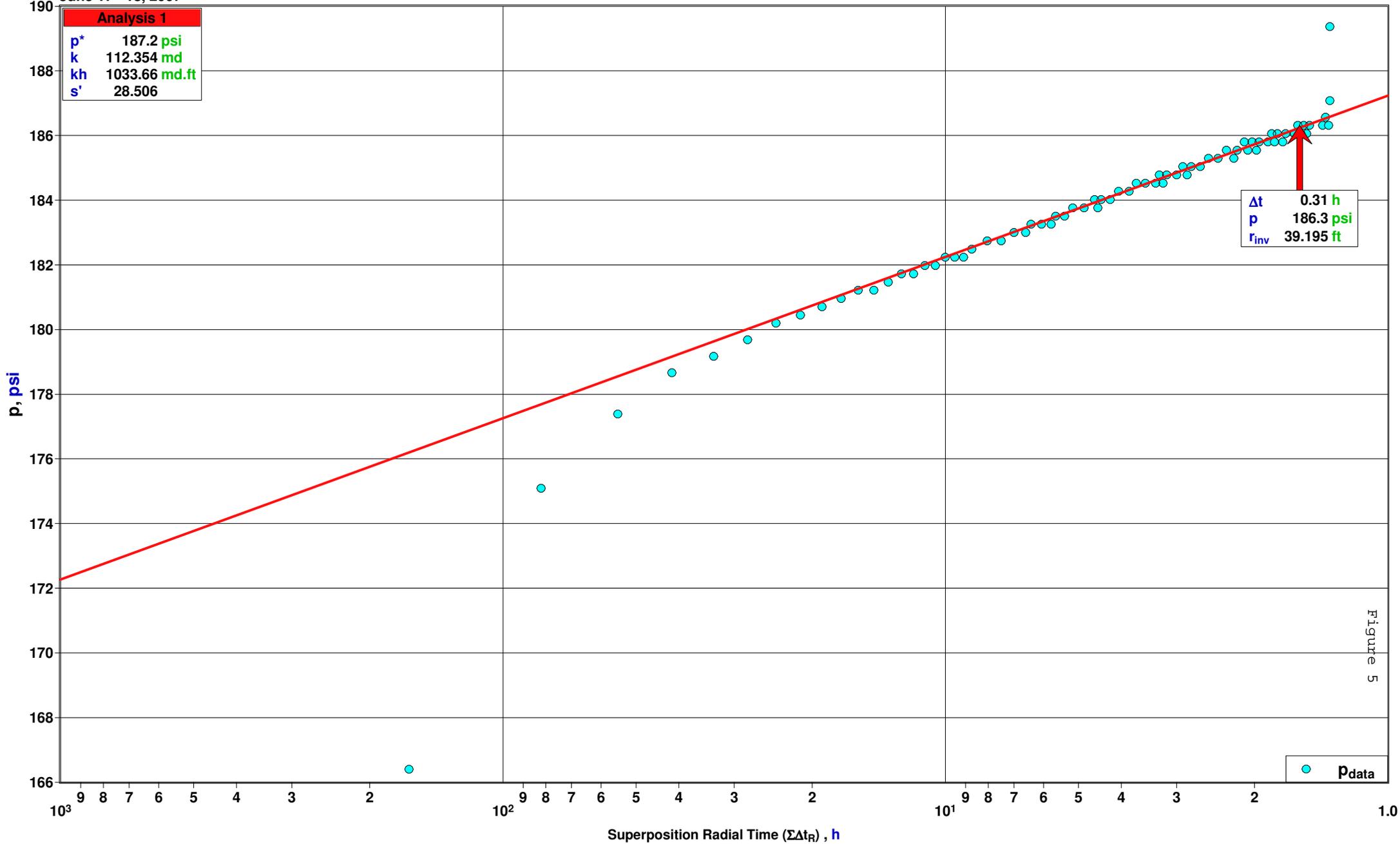


Figure 5

Fingal 41B
 B Seam
 Packer Depth @ 300.4 mGL
 June 17 - 18, 2007

Diagnostic Analysis - Main Buildup

Typecurve

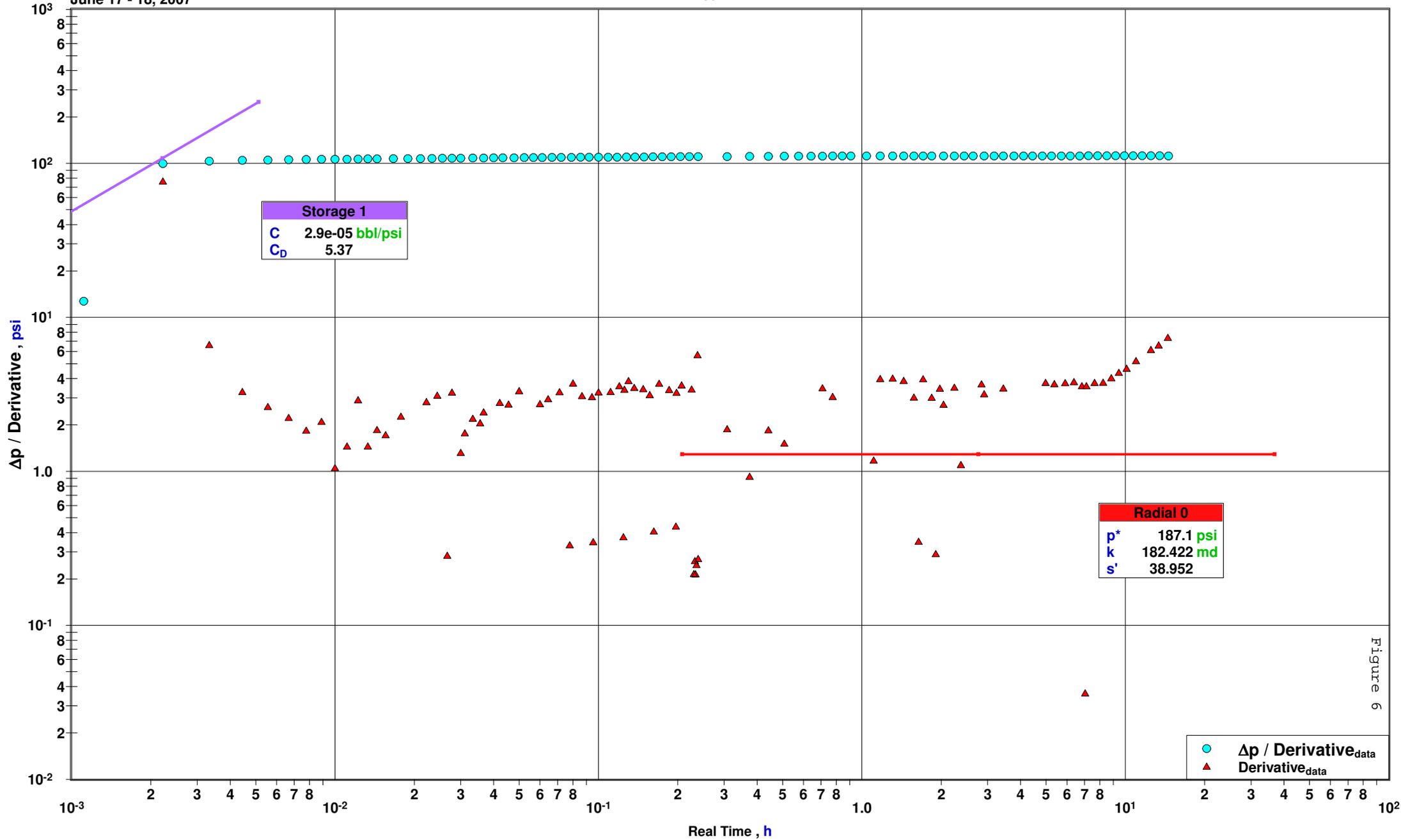


Figure 6

Fingal 41B
 B Seam
 Packer Depth @ 300.4 mGL
 June 17 - 18, 2007

Diagnostic Analysis - Main Buildup

Radial

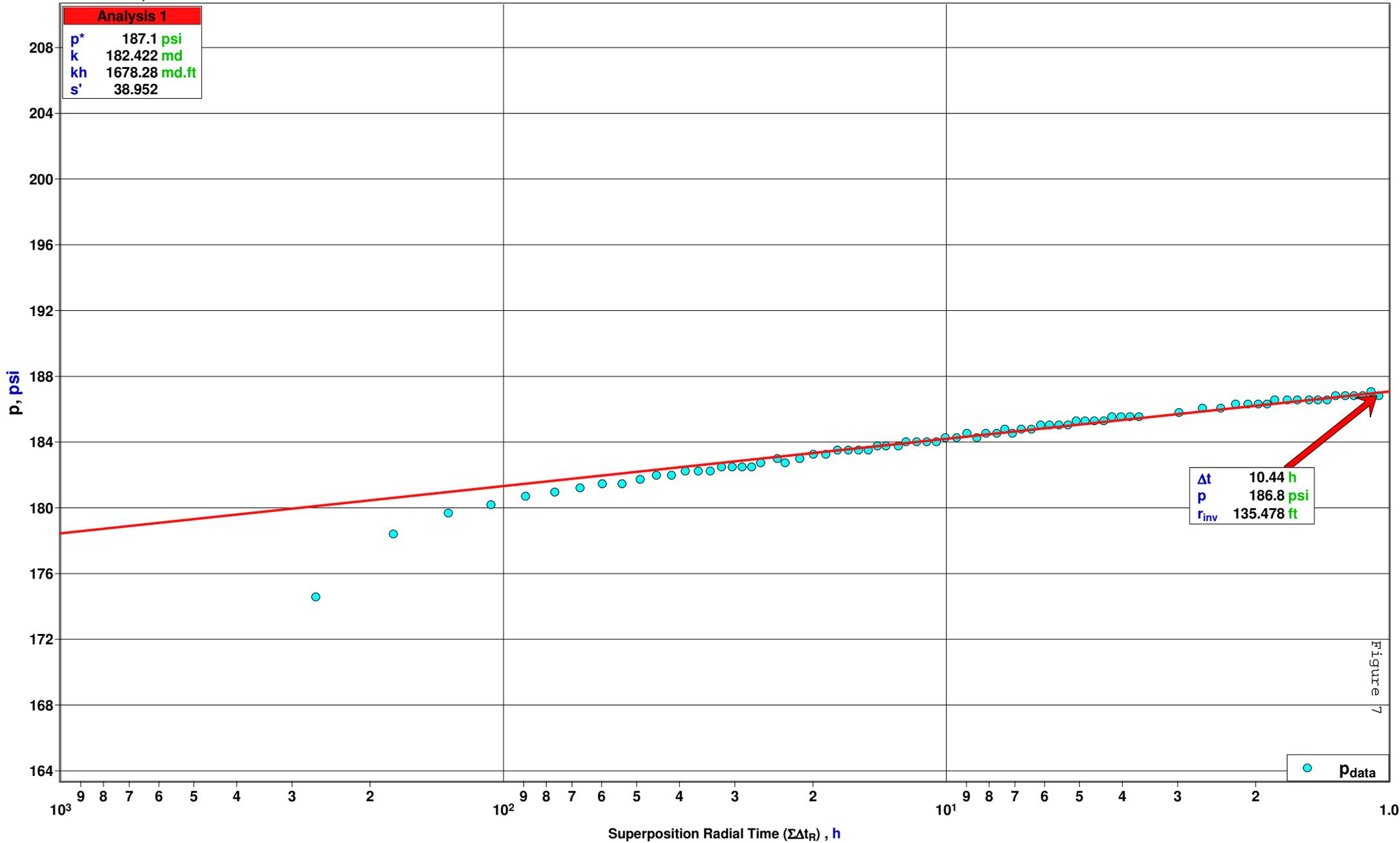


Figure 7

Water Well Test - Buildup

Radial Flow Analysis

Fingal 41B

Packer Depth @ 300.4 mGL

B Seam

June 17 - 18, 2007

Analysis Results

Total Sandface Rate ($q_t B_t$)	30.989 bbl/d	Apparent Skin (s')	38.952
Semilog Slope (m)	2.88	Skin - Damage	38.952
Gas Permeability (k_G)	md	Skin - Inclination	
Oil Permeability (k_O)	md	Skin - Partial Penetration	
Water Permeability (k_W)	182.422 md	Pressure Drop Due to Skin (Δp_s)	97.38 psi
Flow Capacity (kh)	1678.283 md.ft	Damage Ratio (DR)	7.677
Total Mobility (k/μ_{t1})	190.38 md/cp	Flow Efficiency (FE)	0.130
Total Transmissivity (kh/μ_{t1})	1751.53 md.ft/cp		

Reservoir Parameters

Net Pay (h)	9.200 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_W)	95.00 %
Oil Saturation (S_O)	0.00 %
Gas Saturation (S_G)	5.00 %
Wellbore Radius (r_w)	0.30 ft
Formation Temperature (T)	71.0 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	2.893e-4 psi ⁻¹

Pressures

Initial Pressure (p_i)	187.00 psi
Extrapolated Pressure (p^*)	187.07 psi
Final Flowing Pressure (p_{wf0})	75.04 psi

Production and Times

Corrected Flow Time (t_c)	0.6844 hr
Cumulative Water Production	0.884 bbl
Final Water Rate	31.000 bbl/d

Fluid Properties

Water Compressibility (c_W)	3.28607e-6 psi ⁻¹
Water Formation Volume Factor (B_W)	1.000
Water Viscosity (μ_{tW})	0.958 cp
Solution Gas Ratio (R_{SW})	0 scf/bbl
Specific Gravity (G)	1.000
Gas Gravity (G)	0.650
PVT Reference Pressure (p_{pVT})	187.00 psi

Fingal 41B
 B Seam
 Packer Depth @ 300.4 mGL
 June 17 - 18, 2007

Simulation Total Test

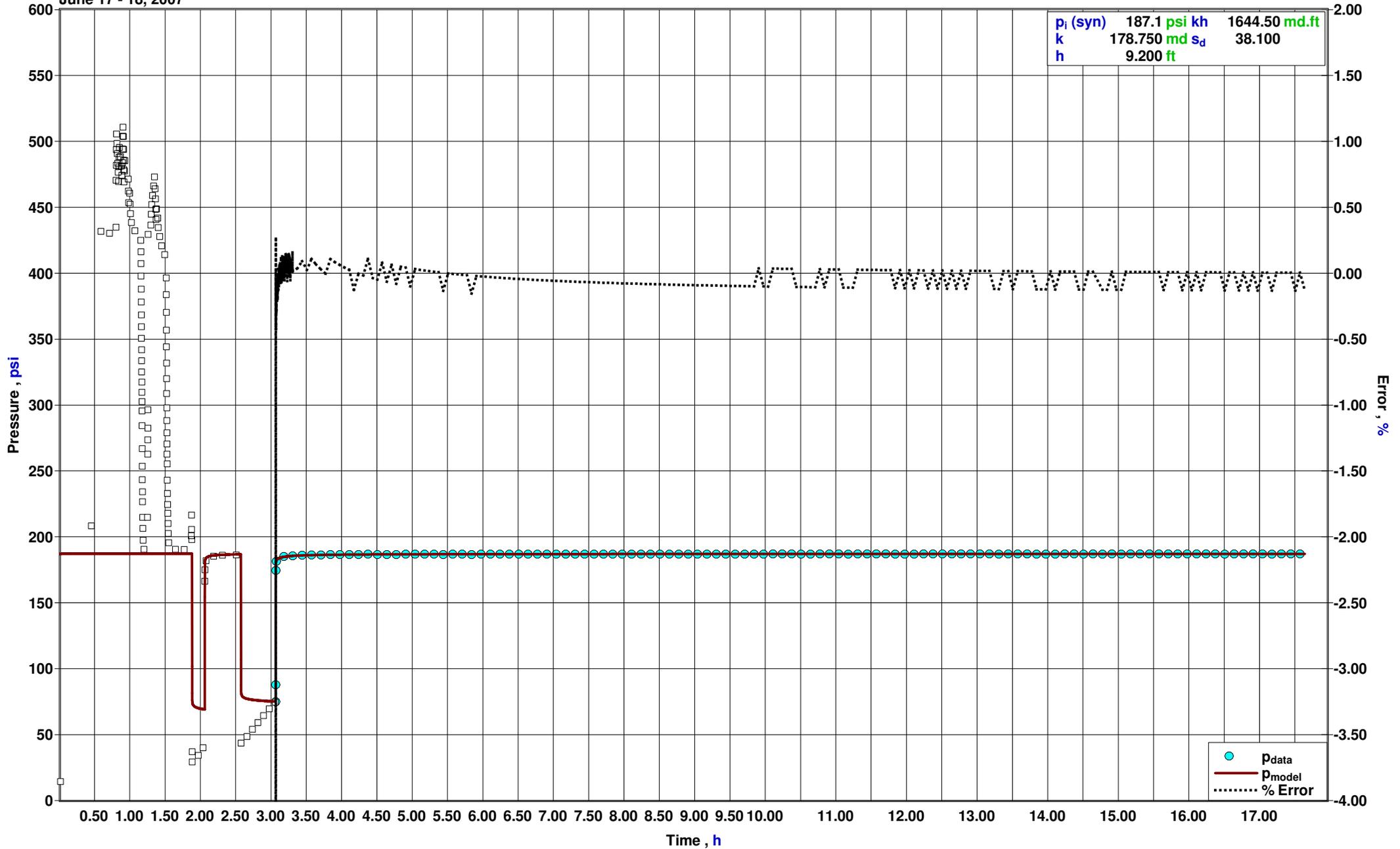


Figure 9

Fingal 41B
 B Seam
 Packer Depth @ 300.4 mGL
 June 17 - 18, 2007

Simulation Typecurve

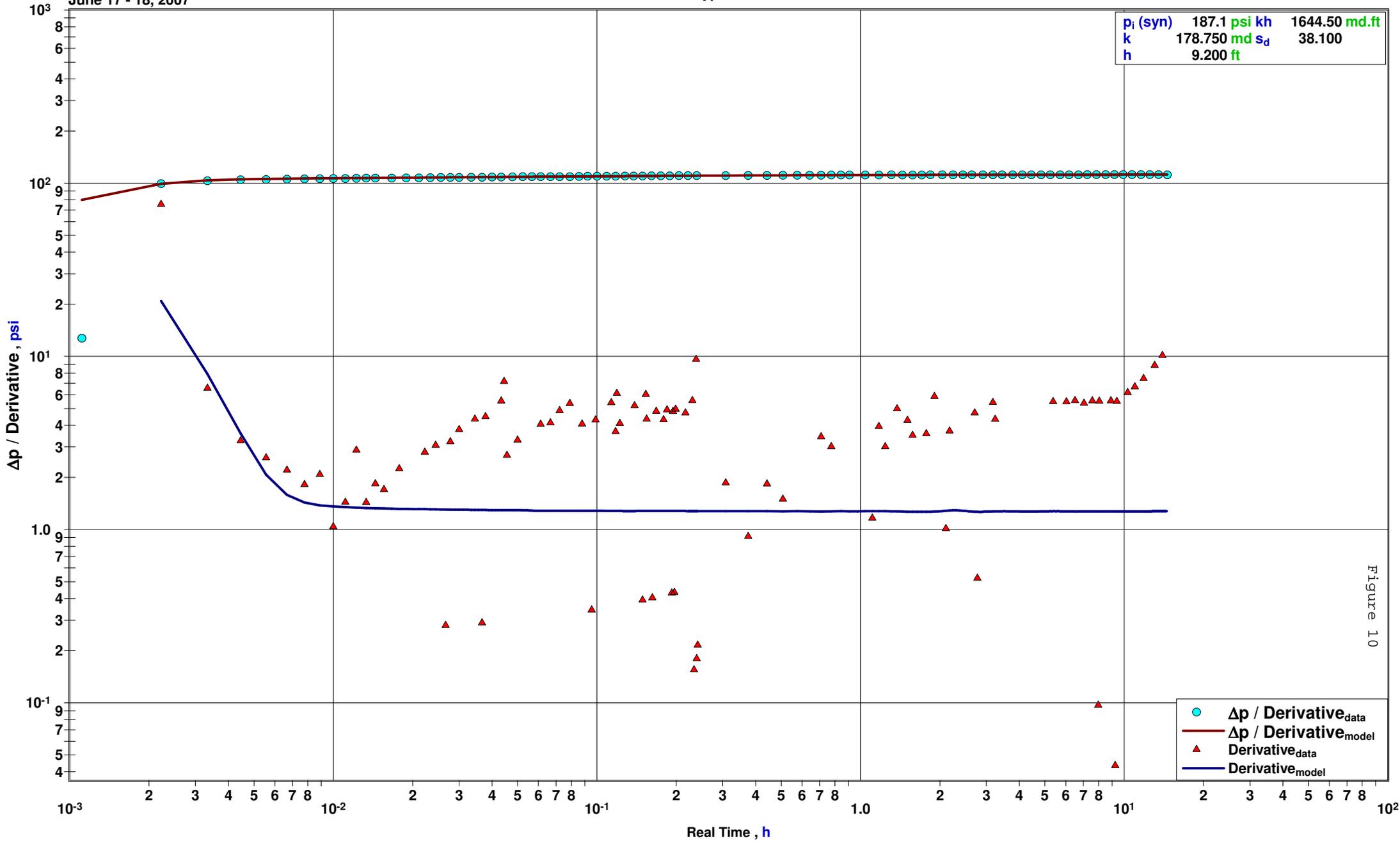


Figure 10

Fingal 41B
 B Seam
 Packer Depth @ 300.4 mGL
 June 17 - 18, 2007

Simulation Radial

p_i (syn)	187.1 psi	kh	1644.50 md.ft
k	178.750 md	s_d	38.100
h	9.200 ft		

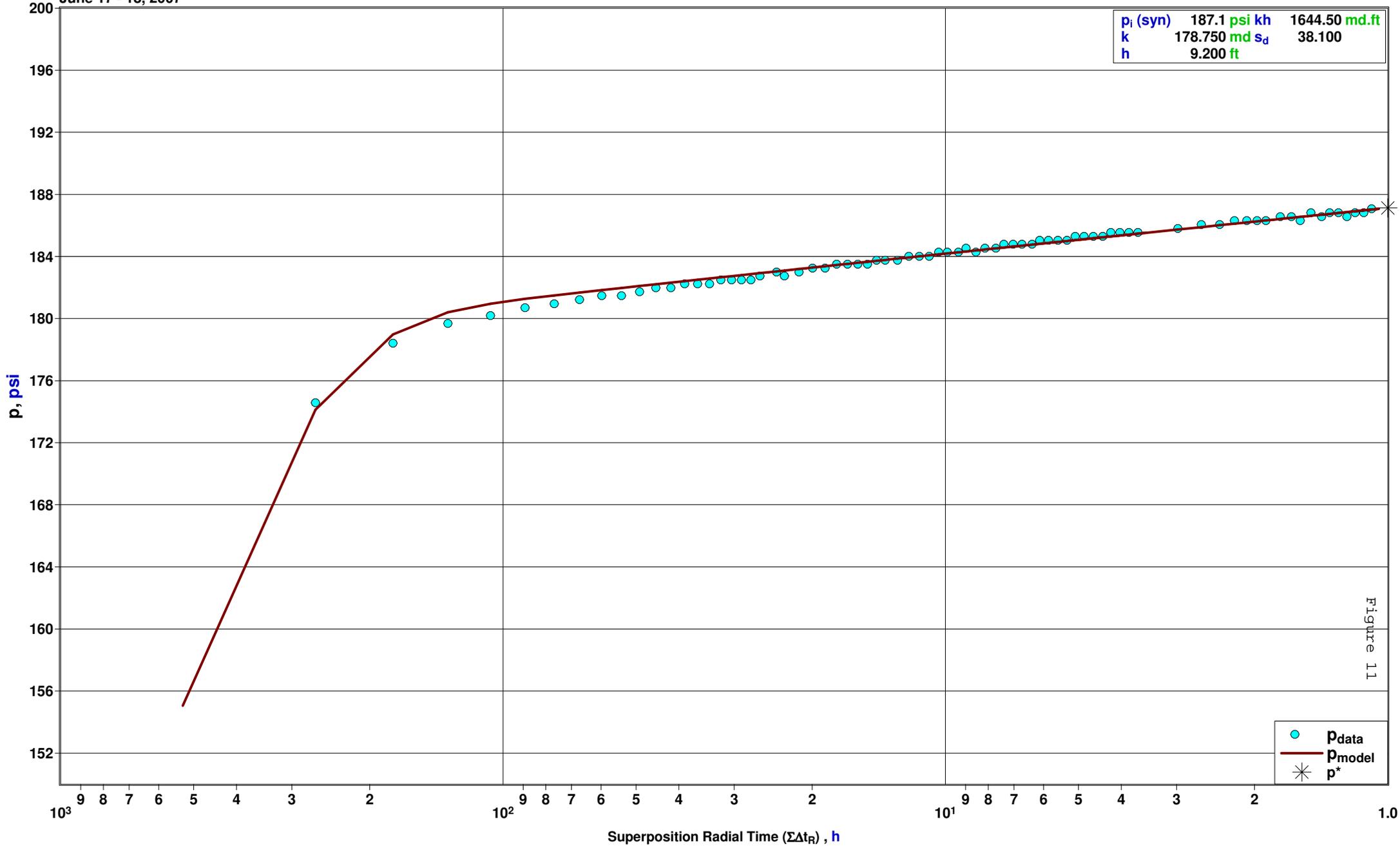


Figure 11

● p_{data}
— p_{model}
* p^*

Vertical Water Well Model

Case Name : Simulation

Fingal 41B

Packer Depth @ 300.4 mGL

B Seam

June 17 - 18, 2007

Model Parameters

Water Permeability (k_w)	178.750 md	Reservoir Length (X_e)	1000000.000 ft
Gas Permeability (k_g)	md	Reservoir Width (Y_e)	1000000.000 ft
Skin (s)	38.100	Active Well At (X_w)	ft
Total Mobility (k/μ) _t	186.55 md/cp	Active Well At (Y_w)	ft
Total Transmissivity (kh/μ) _t	1716.27 md.ft/cp		
Wellbore Storage Constant Dim. (C_D)	1.75		

Formation Parameters

Net Pay (h)	9.200 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_w)	95.00 %
Oil Saturation (S_o)	0.00 %
Gas Saturation (S_g)	5.00 %
Wellbore Radius (r_w)	0.30 ft
Formation Temperature (T)	71.0 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	2.893e-4 psi ⁻¹

Fluid Properties

Water Compressibility (c_w)	3.28607e-6 psi ⁻¹
Water Formation Volume Factor (B_w)	1.000
Water Viscosity (μ_w)	0.958 cp
Solution Gas Ratio (R_{sw})	0 scf/bbl
Specific Gravity (G)	1.000
PVT Reference Pressure (p_{pvt})	187.00 psi

Production and Pressure

$Q_t B_t$	30.989 bbl/d
Final Water Rate	31.000 bbl/d
Final Gas Rate	MMCF/D
Final Flowing Pressure (p_{wfo})	75.04 psi
Final Measured Pressure	186.82 psi
Cumulative Water Production	0.884 bbl

Synthesis Results

Average Error	0.24 %
Synthetic Initial Pressure (p_i)	187.13 psi
Extrapolated Pressure at Specified Time	187.13 psi
Pressure Drop Due To Skin (Δp_s)	97.13 psi
Flow Efficiency (FE)	0.133
Damage Ratio (DR)	7.495

Forecasts

Forecast Flowing Pressure (P_{flow})	75.04 psi
3 - Month Constant Rate Forecast @ Curr. Skin	28.347 bbl/d
6 - Month Constant Rate Forecast @ Curr. Skin	28.144 bbl/d
Forecast Flow Duration (t_{flow})	12.00 month
Constant Rate Forecast @ Curr. Skin	27.945 bbl/d
PI / II (Actual)	0.251 bbl/d/psi
Constant Rate Forecast @ Skin=0	127.716 bbl/d
PI / II (Ideal)	1.178 bbl/d/psi
Constant Rate Forecast @ Skin=-4	204.290 bbl/d

FINGAL 41B
DRILL STEM TEST
FINAL REPORT
“C” ZONE COAL SEAM
OPEN HOLE INTERVAL 328.1 – 330.8 mGL
JUNE 19, 2007

Prepared for:
Pure Energy Resources Limited



Prepared by:
Focal Petroleum Engineering Pty Ltd.

July 11, 2007



July 11, 2007

Pure Energy Resources Limited
P.O. Box 952
SOUTH PERTH, WA 6951

Attention: Mr. Steve Beardsall

Dear Sir

Re: Fingal 41b Coal "C" Drill Stem Test Report

The following is a summary of the results obtained from the Drill Stem Test conducted on June 19, 2007 over the "C" Coal, open hole interval from circa 328.1 – 330.8 mGL.

The DST was conducted through the drillpipe and coring bit, using an off bottom inflatable packer. Prior to testing, circa 260 meters of water were displaced from the drillpipe with air to allow inflow from the reservoir to occur.

The test was comprised of a 1.3 hour flow and a 2.1 hour buildup. A low flow gas meter was used to measure the gas recovery and a fluid recorder in the drill pipe was used to establish daily water production volumes (bbl/day) from the inflow of water into the wellbore.

During the inflation of the isolation packers, a rapid falloff in pressure was noted below the packer suggesting that the permeability within the test interval was high and that the reservoir is significantly under-pressured.

Comments and Conclusions

- The pressure response observed during the flow and buildup periods suggested a reservoir with very high flow capacity to water. Since the inflow from the reservoir was predominantly water, the test was analysed as a water well. The gas volume recovered was insignificant (< 2 cf) and was not used in the interpretation.

- The net pay of 5.2 ft (1.6 m) was obtained from the core samples. A default porosity of 2% was used for the interpretation.
- An average water rate of circa 4.8 bbl/d was calculated using the pressure increase from the inflow of water into the wellbore during the flow period.
- A reservoir pressure (P_i) of 223 psia was calculated from the simulation and has been quoted throughout the report. The subject reservoir is significantly under-pressured with a reservoir gradient of 0.21 psi/ft.
- The pressure derivative indicated that wellbore storage was overcome within the first minute of shut-in by a zero slope (radial flow) trend that remained for the duration of the buildup.
- Conventional analysis and Simulation were both conducted. The buildup was initially modelled with a vertical model, however the early time data was not well matched. A radial composite model was incorporated with an increasing (three times) flow capacity (kh) circa eight feet away from the wellbore region in order to match the early time data. The dominant outer region of the simulation (radial composite model) compared very well with the conventional results and has been quoted throughout this report.
- The large positive skin value is attributed to coal fines in the near wellbore area as a result of the rapid depressurising of the reservoir during the DST.

A summary of the Test Results is as follows:

Average Reservoir Pressure (Pr) @ 322.6 mGL **223 psia (simulation)**

Apparent Skin Factor **+8**

Near Wellbore Zone

Average Permeability to Water **12.3 md**

Flow Capacity to Water **65 md.ft**

Radius of Investigation **7.5 ft**

Outer Area Zone

Average Permeability to Water **33.5 md**

Flow Capacity to Water **176 md.ft**

Radius of Investigation **72 ft**

If further clarification of the test interpretation is required, please contact the undersigned on (08) 9474 9622.

Yours faithfully,

FOCAL PETROLEUM ENGINEERING PTY LTD

Ryan Gee

WELL TEST CONSULTANT

Terry Primeau

MANAGING DIRECTOR

LIST OF FIGURES

Figure 1 – Validata Plot

Figure 2 – Strip Chart

Figure 3 – Conventional Log-Log Plot

Figure 4 – Conventional Semi-Log Plot

Figure 5 – Conventional Results

Figure 6 – Simulation Match – Strip Chart

Figure 7 – Simulation Match – Log-Log Plot

Figure 8 – Simulation Match – Semi-Log Plot

Figure 9 – Simulation Results

Validata

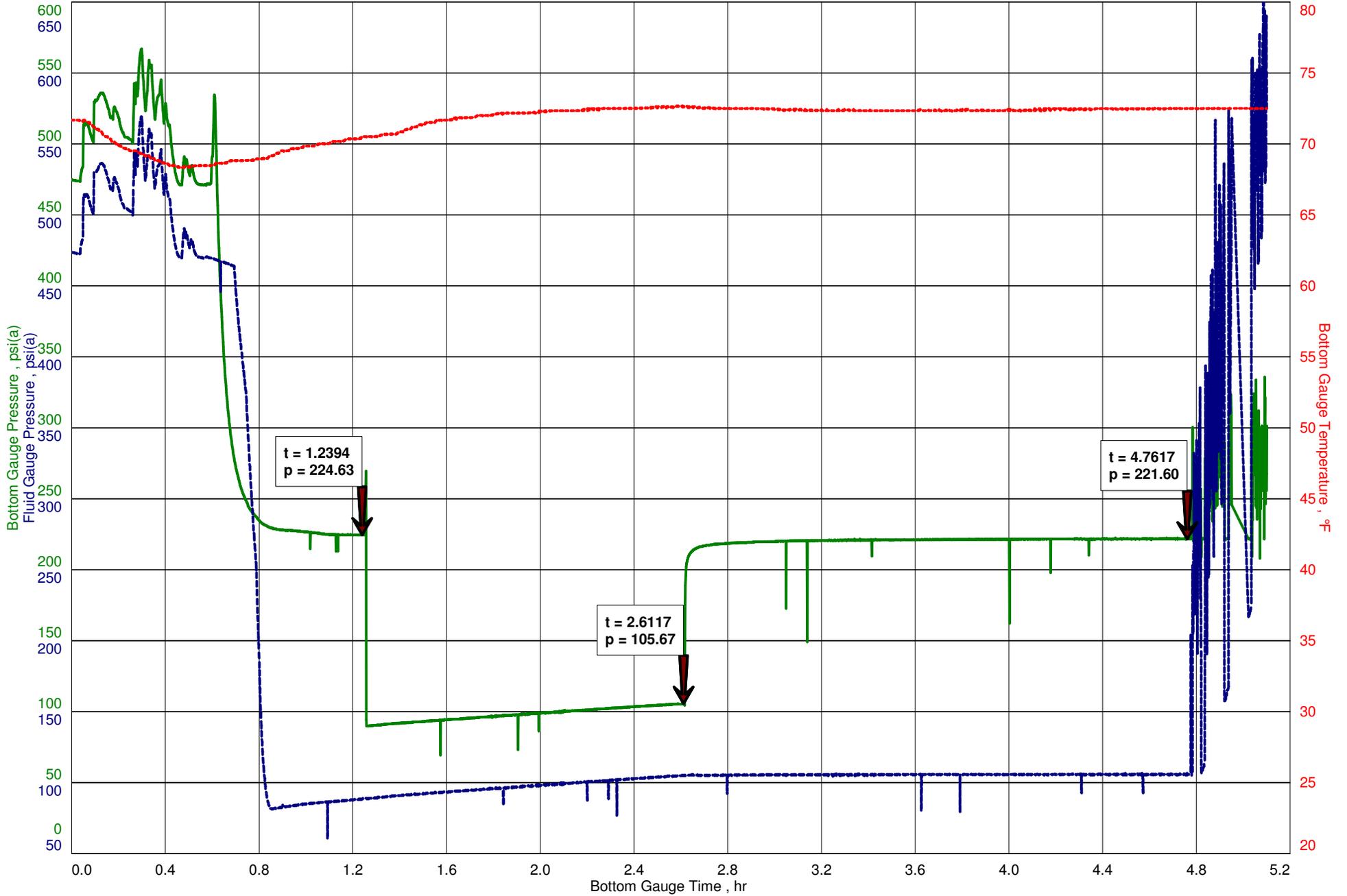


Figure 1

Fingal 41B
C Seam
Packer Depth @ 326.5 mGL
June 19, 2007

Strip Chart Total Test

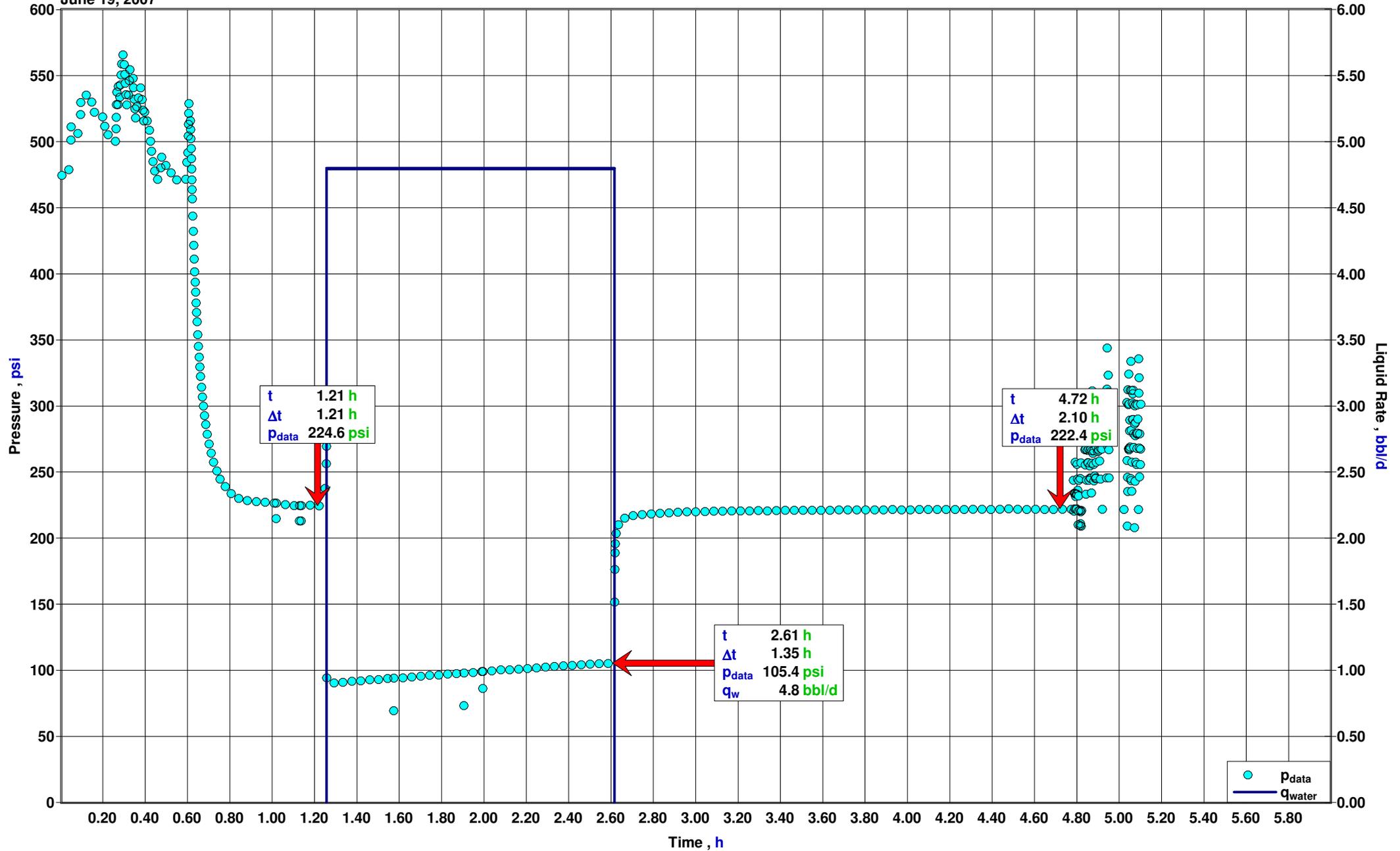


Figure 2

Fingal 41B
 C Seam
 Packer Depth @ 326.5 mGL
 June 19, 2007

Diagnostic Analysis

Typecurve

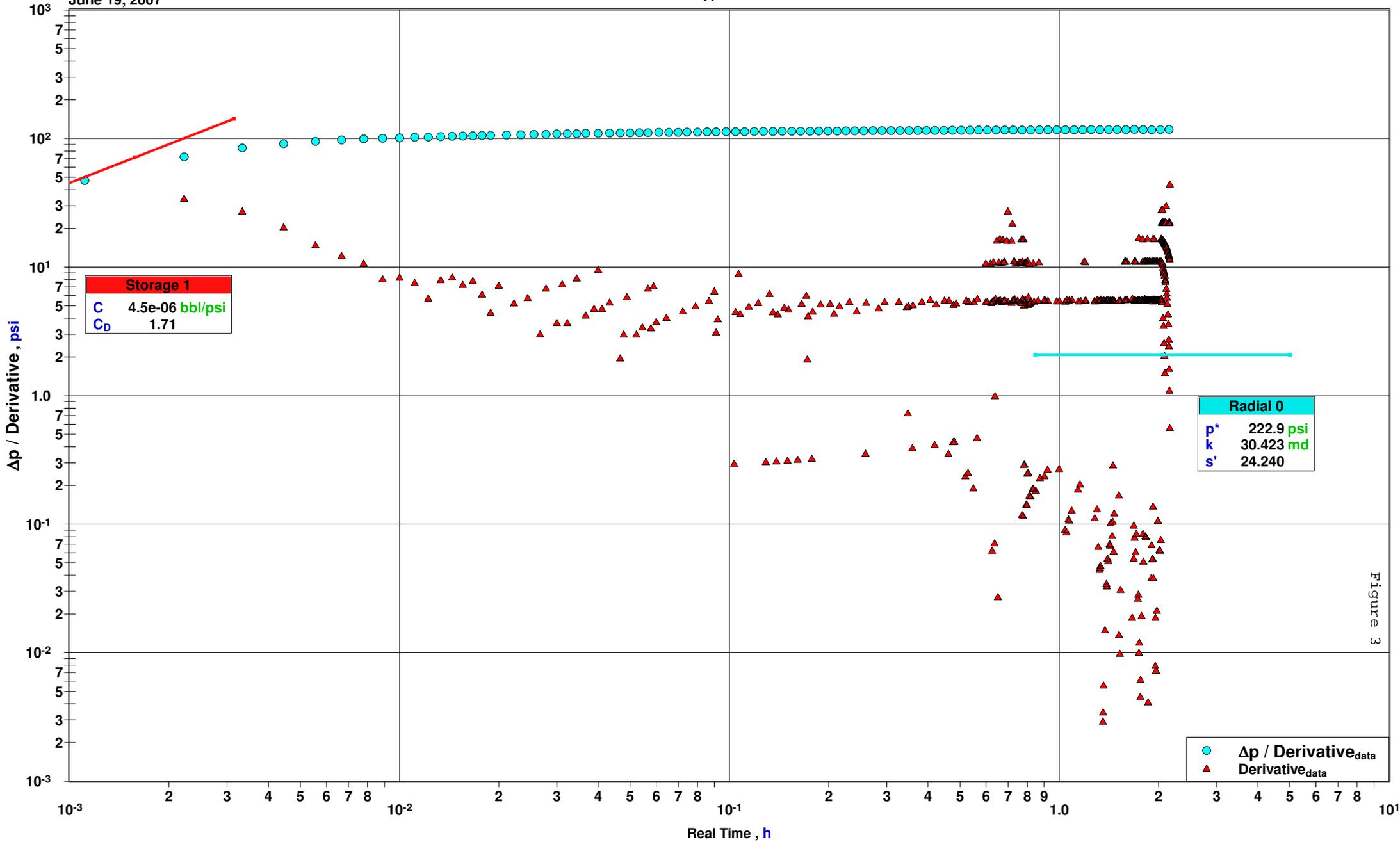


Figure 3

Fingal 41B
 C Seam
 Packer Depth @ 326.5 mGL
 June 19, 2007

Diagnostic Analysis

Radial

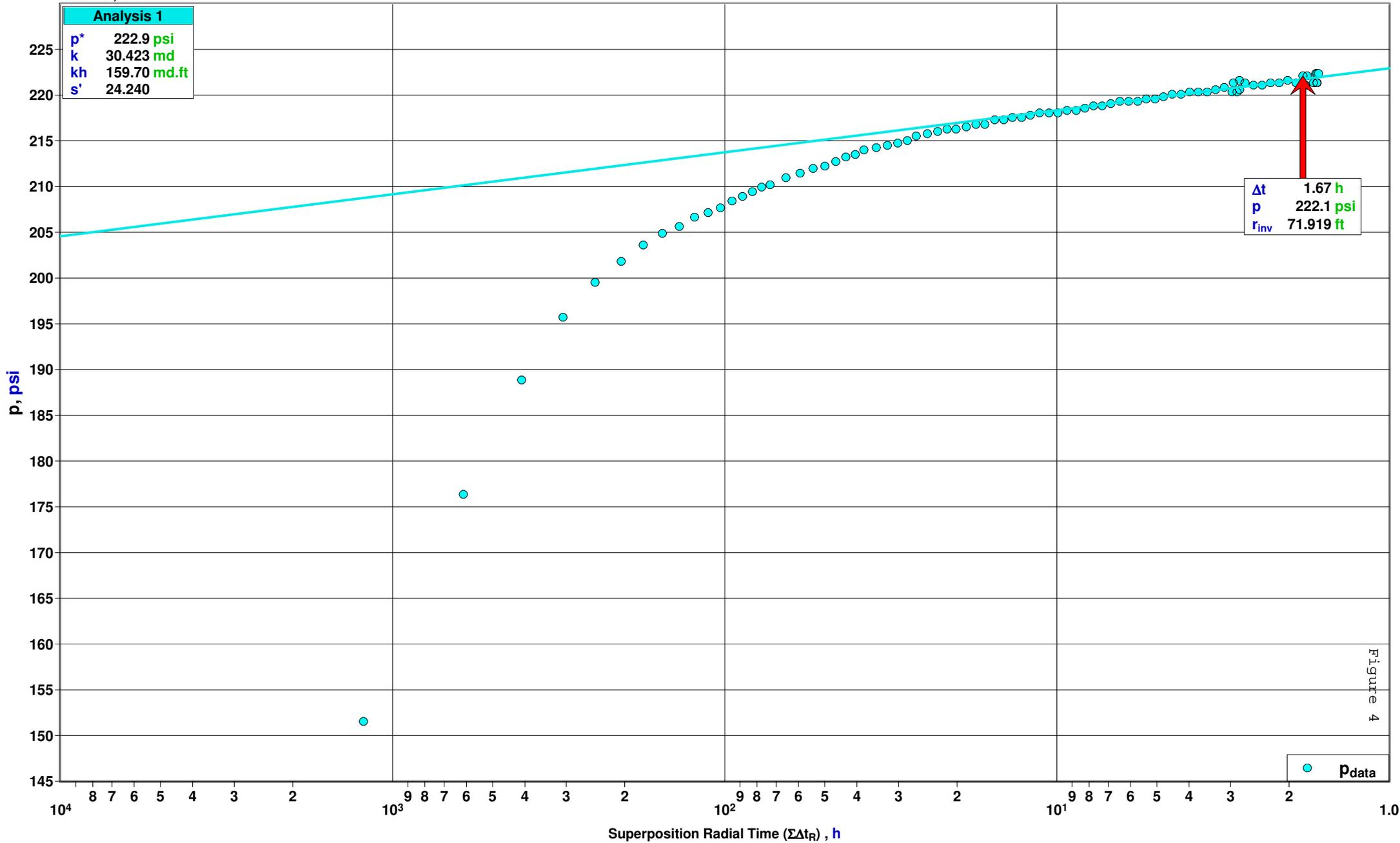


Figure 4

Water Well Test - Buildup

Radial Flow Analysis

Fingal 41B

Packer Depth @ 326.5 mGL

C Seam

June 19, 2007

Analysis Results

Total Sandface Rate ($q_t B_t$)	4.799 bbl/d	Apparent Skin (s')	24.240
Semilog Slope (m)	4.59	Skin - Damage	24.240
Gas Permeability (k_g)	md	Skin - Inclination	
Oil Permeability (k_o)	md	Skin - Partial Penetration	
Water Permeability (k_w)	30.423 md	Pressure Drop Due to Skin (Δp_s)	96.69 psi
Flow Capacity (kh)	159.701 md.ft	Damage Ratio (DR)	5.619
Total Mobility (k/μ_t)	32.38 md/cp	Flow Efficiency (FE)	0.178
Total Transmissivity(kh/μ_t)	169.99 md.ft/cp		

Reservoir Parameters

Pressures

Net Pay (h)	5.249 ft	Initial Pressure (p_i)	222.00 psi
Total Porosity (ϕ_t)	2.00 %	Extrapolated Pressure (p^*)	222.92 psi
Water Saturation (S_w)	95.00 %	Final Flowing Pressure (p_{wfo})	104.37 psi
Oil Saturation (S_o)	0.00 %		
Gas Saturation (S_g)	5.00 %		
Wellbore Radius (r_w)	0.30 ft		
Formation Temperature (T)	72.5 °F		
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹		
Total Compressibility (c_t)	2.471e-4 psi ⁻¹		

Production and Times

Corrected Flow Time (t_c)	1.3600 hr
Cumulative Water Production	0.272 bbl
Final Water Rate	4.800 bbl/d

Fluid Properties

Water Compressibility (c_w)	3.27519e-6 psi ⁻¹
Water Formation Volume Factor (B_w)	1.000
Water Viscosity (μ_w)	0.939 cp
Solution Gas Ratio (R_{sw})	0 scf/bbl
Specific Gravity (G)	1.000
Gas Gravity (G)	0.650
PVT Reference Pressure (p_{pVT})	222.00 psi

Fingal 41B
 C Seam
 Packer Depth @ 326.5 mGL
 June 19, 2007

Fingal 41B Total Test

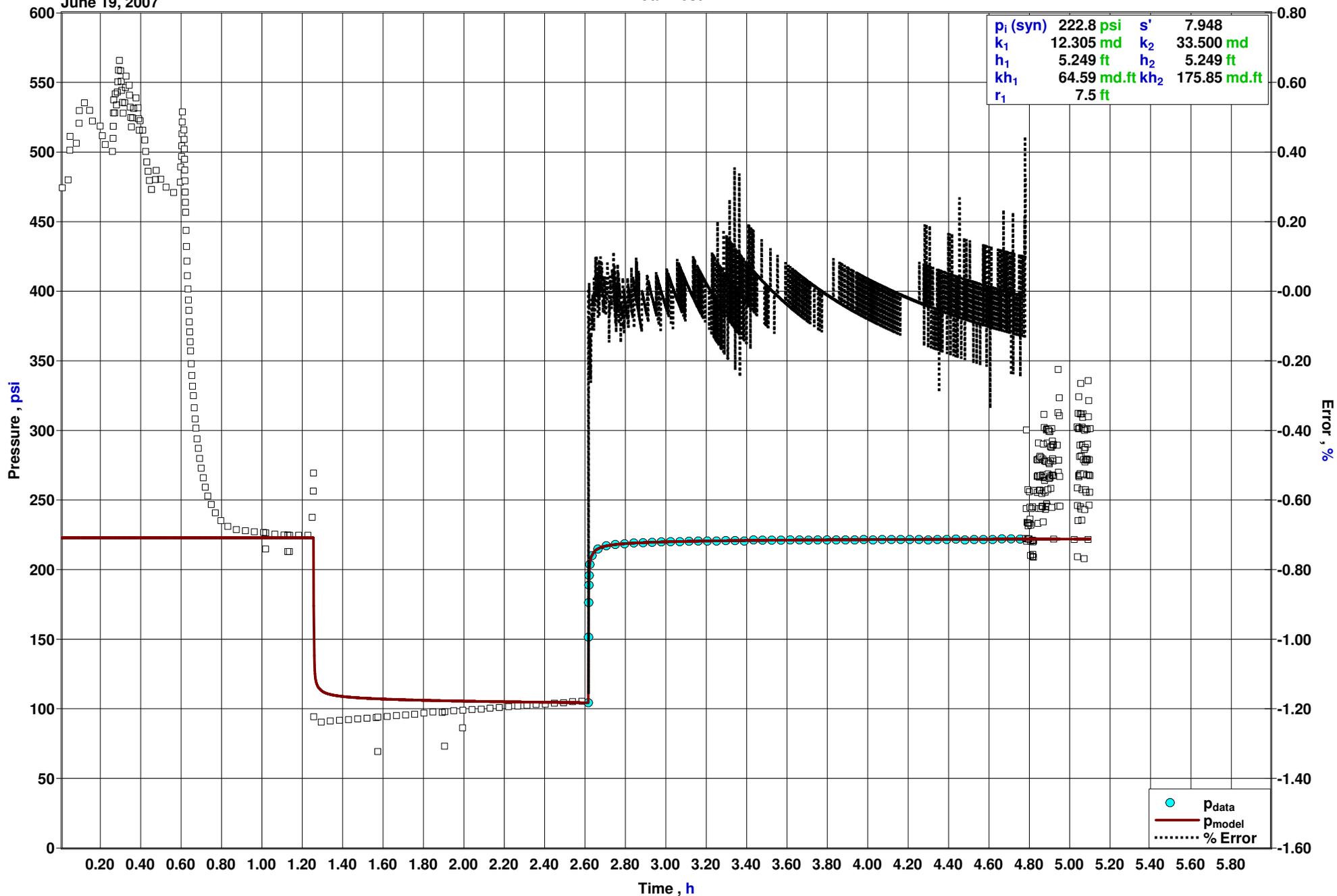


Figure 6

Fingal 41B
 C Seam
 Packer Depth @ 326.5 mGL
 June 19, 2007

Simulation - Radial Composite

Typecurve

p_i (syn)	222.8 psi	s'	7.948
k_1	12.305 md	k_2	33.500 md
h_1	5.249 ft	h_2	5.249 ft
kh_1	64.59 md.ft	kh_2	175.85 md.ft
r_1	7.5 ft		

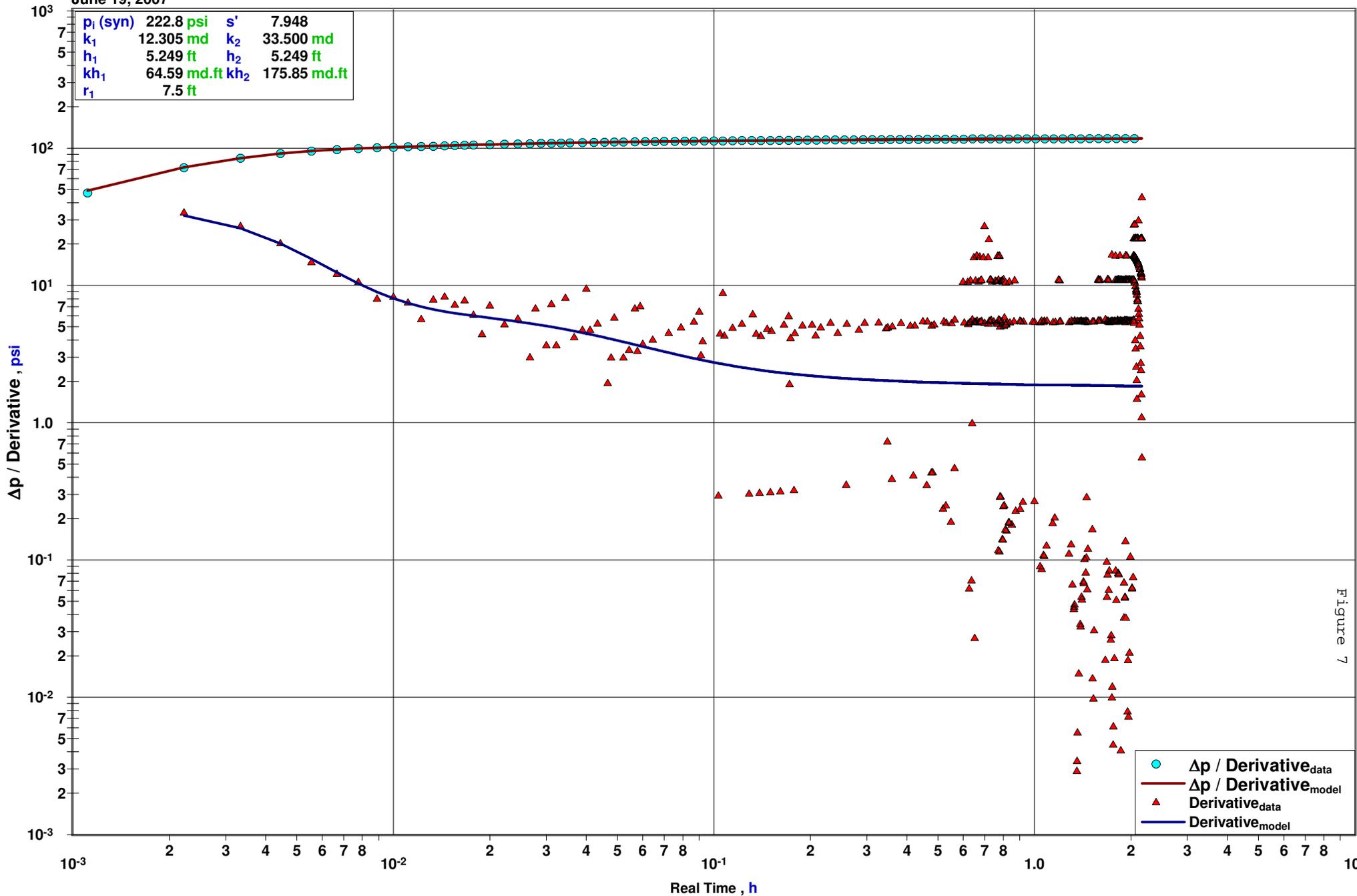


Figure 7

- $\Delta p / \text{Derivative}_{\text{data}}$
- $\Delta p / \text{Derivative}_{\text{model}}$
- ▲ $\text{Derivative}_{\text{data}}$
- $\text{Derivative}_{\text{model}}$

Fingal 41B
 C Seam
 Packer Depth @ 326.5 mGL
 June 19, 2007

Simulation

Radial

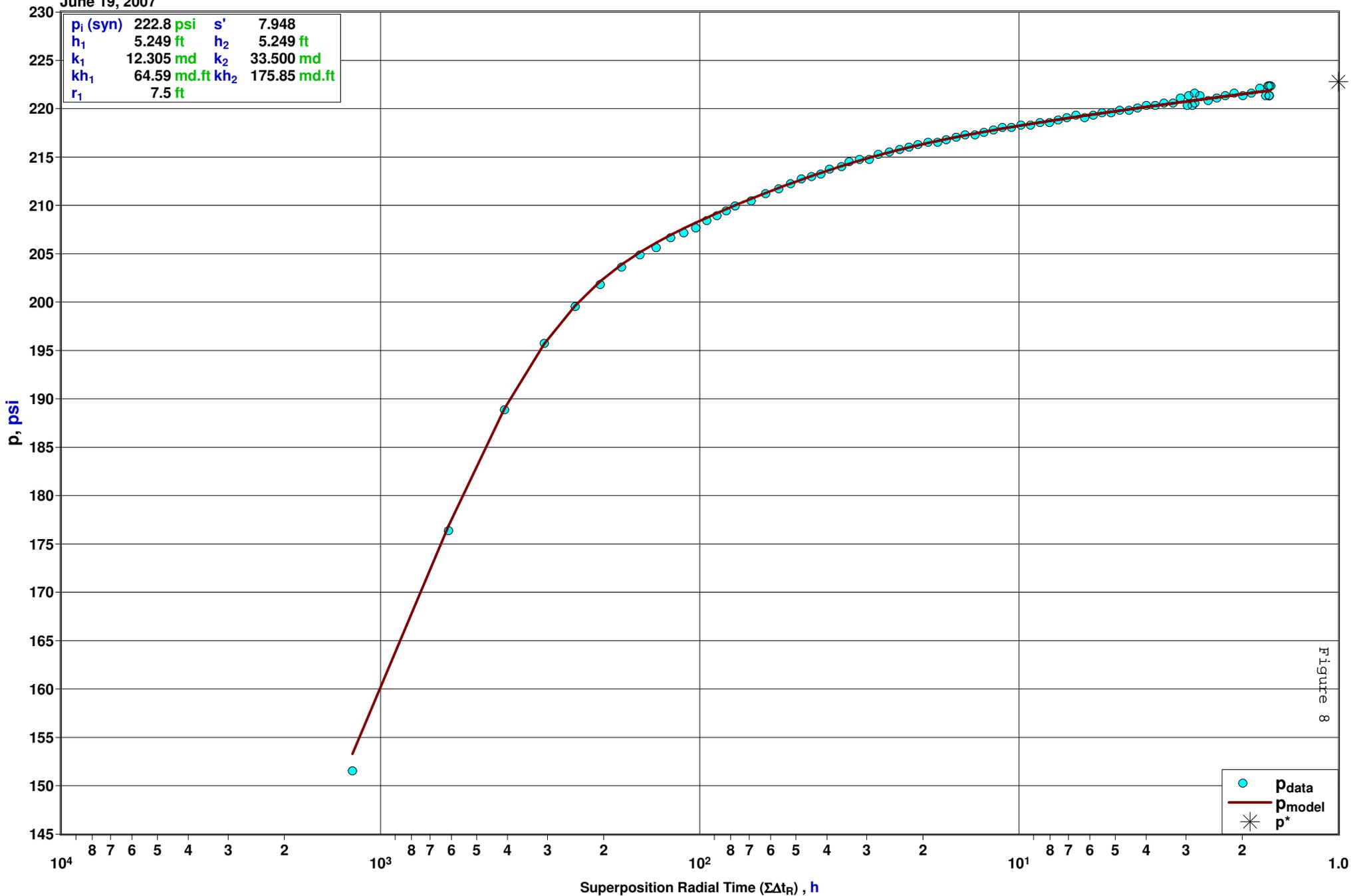


Figure 8

Composite Water Well Model

Case Name : Radial Composite

Fingal 41B

Packer Depth @ 326.5 mGL

C Seam

June 19, 2007

Model Parameters

Formation Parameters

Region 1

Total Mobility (k/μ) _t	13.10 md/cp
Permeability (k) ₁	12.305 md
Net Pay (h) ₁	5.25 ft
Total Porosity (ϕ) ₁	2.00 %
Viscosity (μ) ₁	0.939 cp
Total Compressibility (c _t) ₁	2.471e-4 psi ⁻¹
Region Radius (r) ₁	7.494 ft
Skin (s)	7.948

Region 2

Total Mobility (k/μ) _t	35.66 md/cp
Permeability (k) ₂	33.500 md
Net Pay (h) ₂	5.25 ft
Total Porosity (ϕ) ₂	2.00 %
Viscosity (μ) ₂	0.939 cp
Total Compressibility (c _t) ₂	2.471e-4 psi ⁻¹
Region Radius (r) ₂	ft

Gas Saturation (S _g)	5.00 %
Water Saturation (S _w)	95.00 %
Oil Saturation (S _o)	0.00 %
Wellbore Radius (r _w)	0.30 ft
Formation Temperature (T)	72.5 °F

Apparent Wellbore Storage Dim. (C _{aD})	1.71
Wellbore Storage Constant Dim. (C _D)	1.20
Storage Pressure Param. Dim. (C _{pD})	

Fluid Properties

Water Compressibility (c _w)	3.27519e-6 psi ⁻¹
Oil Compressibility (c _o)	1.50000e-6 psi ⁻¹
Gas Compressibility (c _g)	4.69021e-3 psi ⁻¹
Water Formation Volume Factor (B _w)	1.000
Gas Formation Volume Factor (B _g)	0.011565 bbl/scf
Water Viscosity (μ_{w})	0.939 cp
Gas Viscosity (μ_{g})	0.0107 cp
Solution Gas Ratio (R _{sw})	0 scf/bbl
Specific Gravity (G)	1.000
PVT Reference Pressure (p _{pVT})	222.00 psi

Production and Pressure

Q _{tBt}	4.799 bbl/d
Final Water Rate	4.800 bbl/d
Final Gas Rate	MMCF/D
Final Flowing Pressure (p _{wfo})	104.37 psi
Final Measured Pressure	301.34 psi
Cumulative Water Production	0.272 bbl

Synthesis Results

Average Error	0.05 %
Synthetic Initial Pressure (p _i)	222.78 psi
Extrapolated Pressure at Specified Time	222.78 psi
Pressure Drop Due To Skin (Δp_s)	78.33 psi
Flow Efficiency (FE)	0.338
Damage Ratio (DR)	2.955

Forecasts

Forecast Flowing Pressure (P _{flow})	104.37 psi
3 - Month Constant Rate Forecast @ Curr. Skin	4.312 bbl/d
6 - Month Constant Rate Forecast @ Curr. Skin	4.271 bbl/d
Forecast Flow Duration (t _{flow})	12.00 month
Constant Rate Forecast @ Curr. Skin	4.231 bbl/d
PI / II (Actual)	0.036 bbl/d/psi
Constant Rate Forecast @ Skin=0	10.151 bbl/d
PI / II (Ideal)	0.088 bbl/d/psi
Constant Rate Forecast @ Skin=-4	25.794 bbl/d

FINGAL 41B
DRILL STEM TEST
FINAL REPORT
“D” ZONE COAL SEAM
OPEN HOLE INTERVAL 355.7 – 364.5 mGL
JUNE 23 – 24, 2007

Prepared for:
Pure Energy Resources Limited



Prepared by:
Focal Petroleum Engineering Pty Ltd.

July 11, 2007



July 11, 2007

Pure Energy Resources Limited
P.O. Box 952
SOUTH PERTH, WA 6951

Attention: Mr. Steve Beardsall

Dear Sir

Re: Fingal 41b Coal "D" Drill Stem Test Report

The following is a summary of the results obtained from the Drill Stem Test conducted from June 23 – 24, 2007 over the "D" Coals, open hole interval from circa 355.7 – 364.45 mGL.

The DST was conducted through the drillpipe and coring bit, using an off bottom inflatable packer. Prior to testing, circa 310 meters of water were displaced from the drillpipe with air to allow inflow from the reservoir to occur.

The test was comprised of a one hour flow and a 14.5 hour buildup (recorders left downhole overnight. A low flow gas meter was used to measure the gas recovery and a fluid recorder in the drill pipe was used to establish daily water production volumes (bbl/day) from the inflow of water into the wellbore.

During the inflation of the isolation packers, a rapid falloff in pressure was noted below the packer suggesting that the reservoir is significantly under-pressured and that there is permeability within the formation.

Comments and Conclusions

- The pressure response observed during the flow and buildup periods suggested a reservoir with moderate flow capacity to water. Since the inflow from the reservoir was predominantly water, the test was analysed as a water well. The gas volume recovered was insignificant (< 2 cf) and was not used in the interpretation.

- A temperature anomaly was noted during the buildup from about 10.5 to 12.5 hours after shut-in. This has been attributed to the temperature recorder and not to a reservoir response. Furthermore, the pressure gauges did not indicate any similar behaviour at this time and all corresponding pressure data was used in the interpretation.
- The gross net pay of 9.8 ft (3 m) was obtained from the core samples (D upper section 4.5 ft, D lower section 5.3 ft). A default porosity of 2% was used for the interpretation.
- An average water rate of circa 9.3 bbl/d was calculated using the pressure increase from the inflow of water into the wellbore during the flow period.
- A reservoir pressure (P_i) of 252 psia was extrapolated from the late-time semi-log data. The subject reservoir is significantly under-pressured with a reservoir gradient of 0.22 psi/ft.
- The pressure derivative indicated that wellbore storage was overcome within the first minute of shut-in by radial flow (zero slope). The pressure derivative displayed some erratic behaviour (non-reservoir activity) during the course of the buildup, but returned to the initial radial flow trend. The non-reservoir activity has been attributed to wellbore effects including minor phase redistribution and liquid movement.
- Conventional analysis and Simulation were both conducted. A line was placed through the initial radial flow portion on the semi-log plot to determine permeability and skin. A second line of identical slope was placed through the late-time semi-log data to extrapolate reservoir pressure.
- The positive skin value is considered moderate and is likely attributed to coal fines in the near wellbore region.

A summary of the Test Results is as follows:

Average Reservoir Pressure (Pr) @ 351.6 mGL	252 psia (semi-log)
Apparent Skin Factor	+2
Average Permeability to Water	4.9 md
Flow Capacity to Water	48 md.ft
Radius of Investigation	34 ft

If further clarification of the test interpretation is required, please contact the undersigned on (08) 94749622.

Yours faithfully,

FOCAL PETROLEUM ENGINEERING PTY LTD

Ryan Gee

WELL TEST CONSULTANT

Terry Primeau

MANAGING DIRECTOR

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Figure 7 – Simulation Match – Log-Log Plot

Figure 8 – Simulation Match – Semi-Log Plot

Figure 9 – Simulation Results

Validata

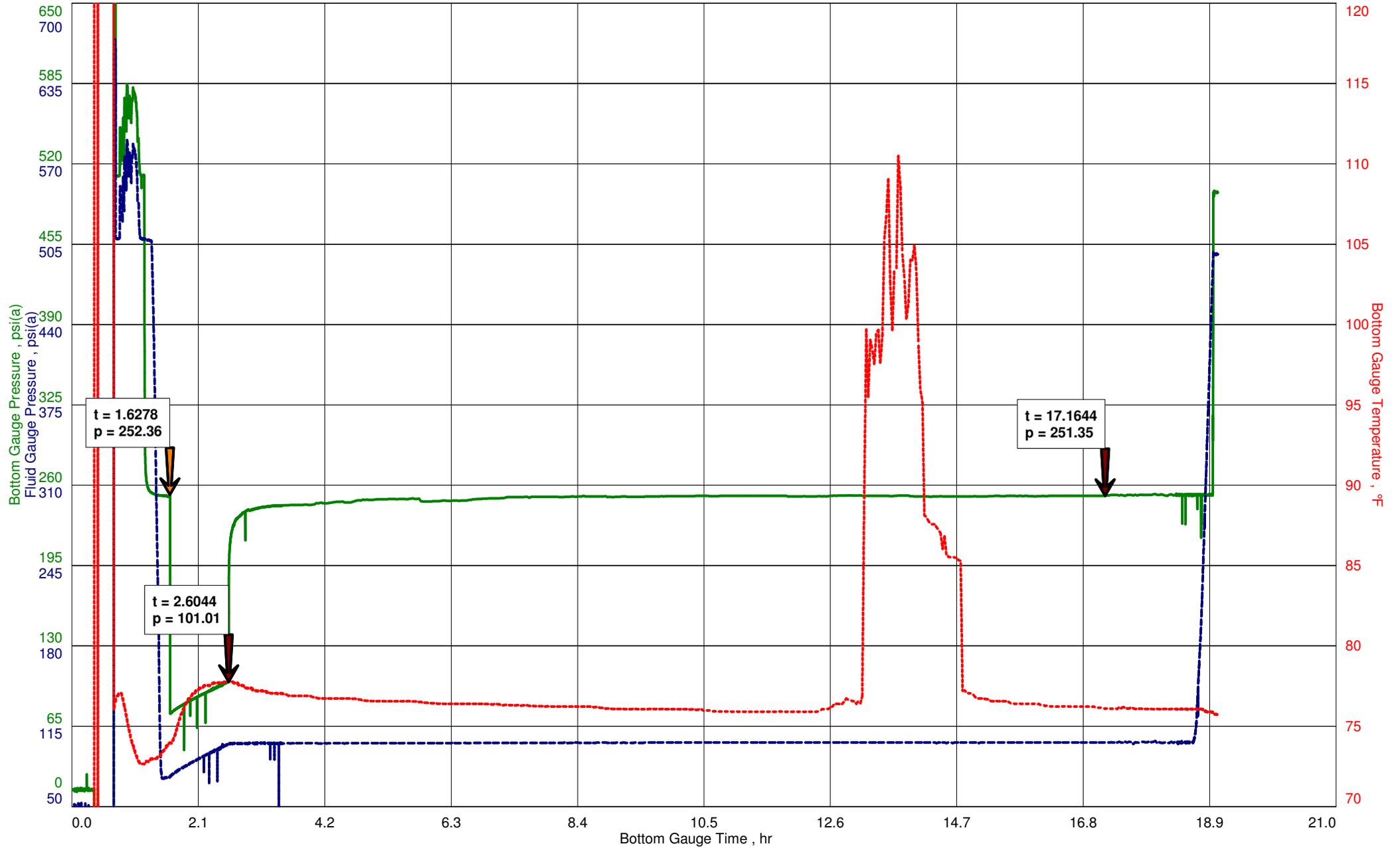


Figure 1

Fingal 41B
Seam D
Packer Depth @ 355.5 mGL
June 23 - 24, 2007

Strip Chart Total Test

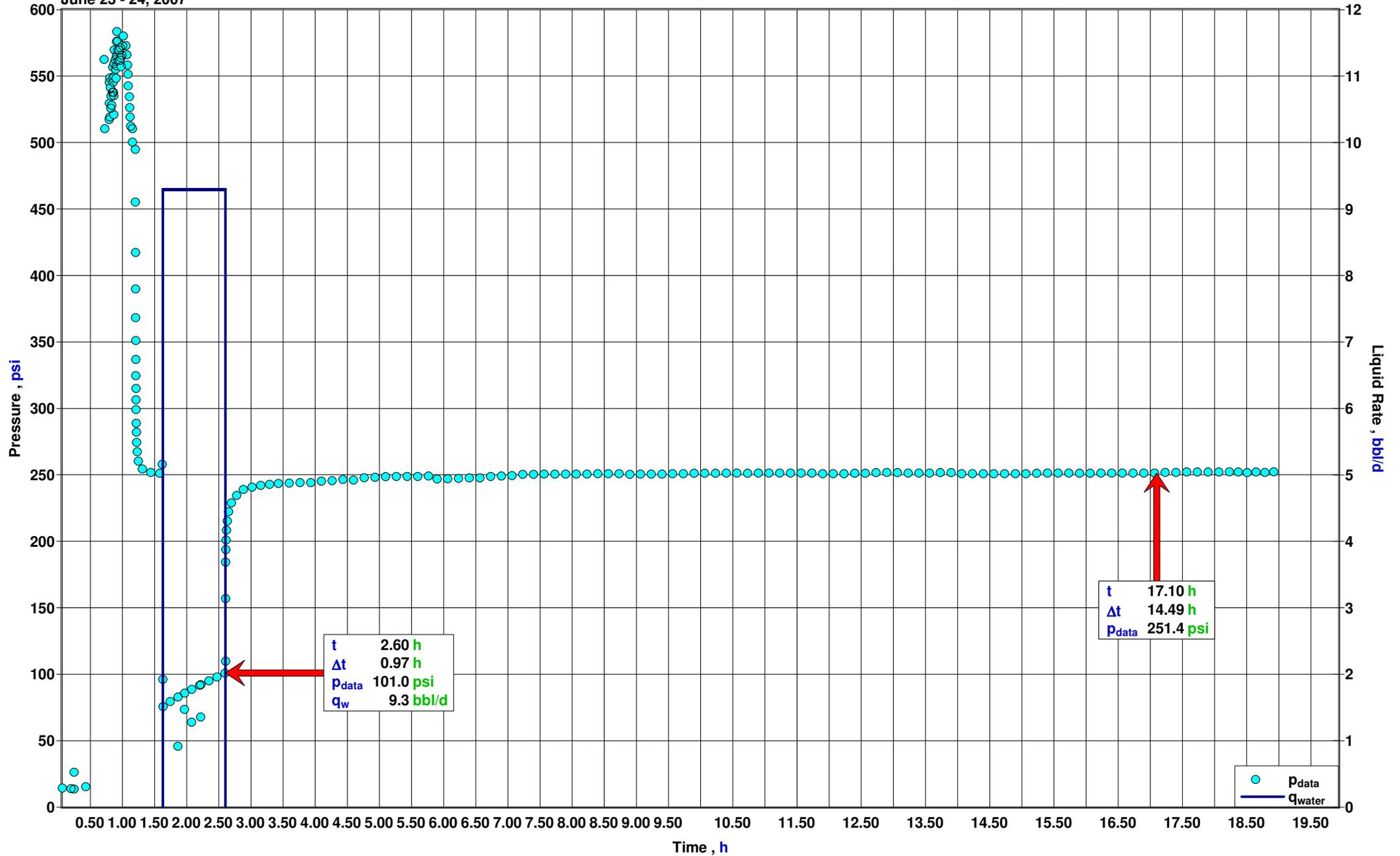


Figure 2

Fingal 41B
 Seam D
 Packer Depth @ 355.5 mGL
 June 23 - 24, 2007

Diagnostic Analysis Typecurve

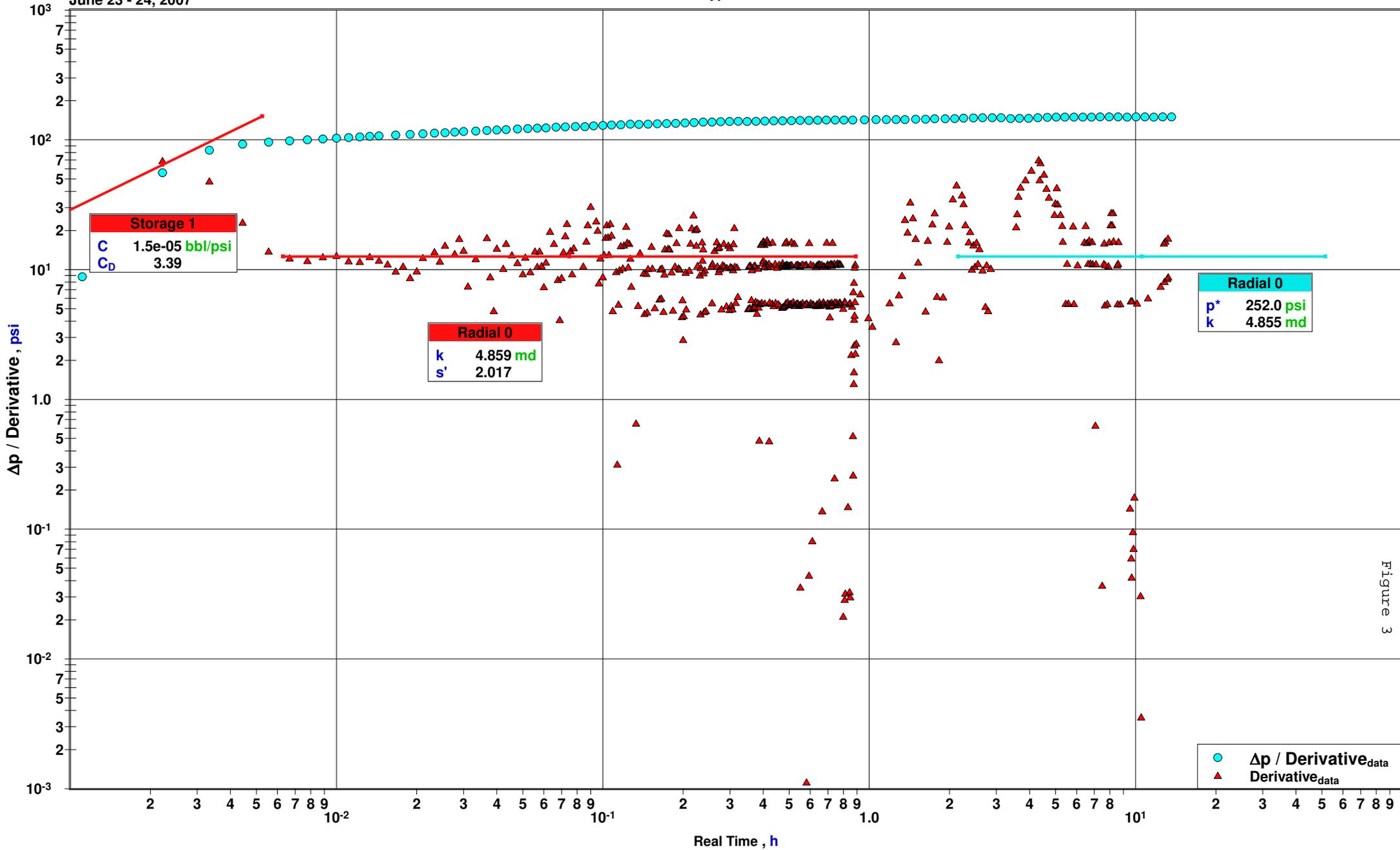
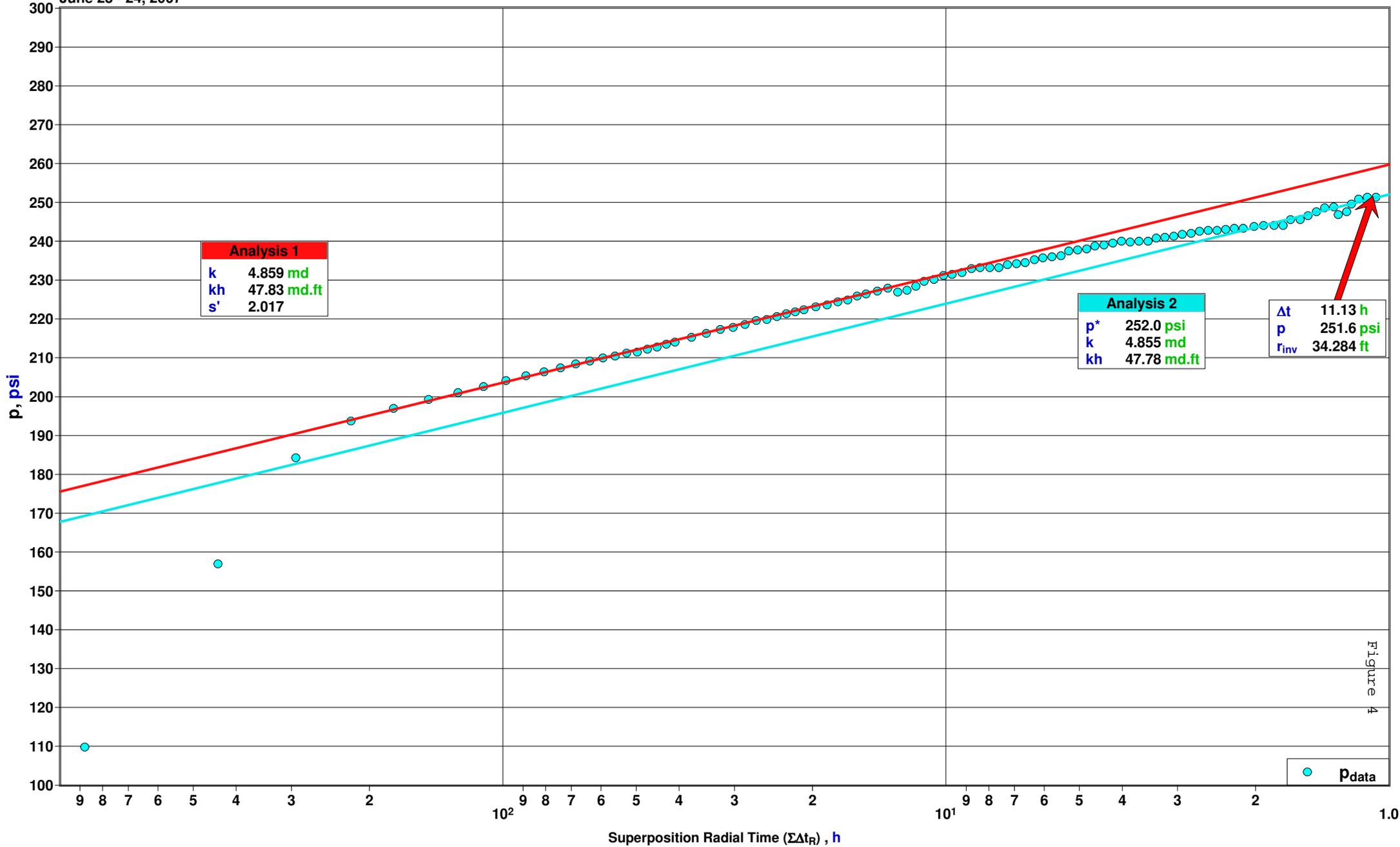


Figure 3

Fingal 41B
 Seam D
 Packer Depth @ 355.5 mGL
 June 23 - 24, 2007

Diagnostic Analysis

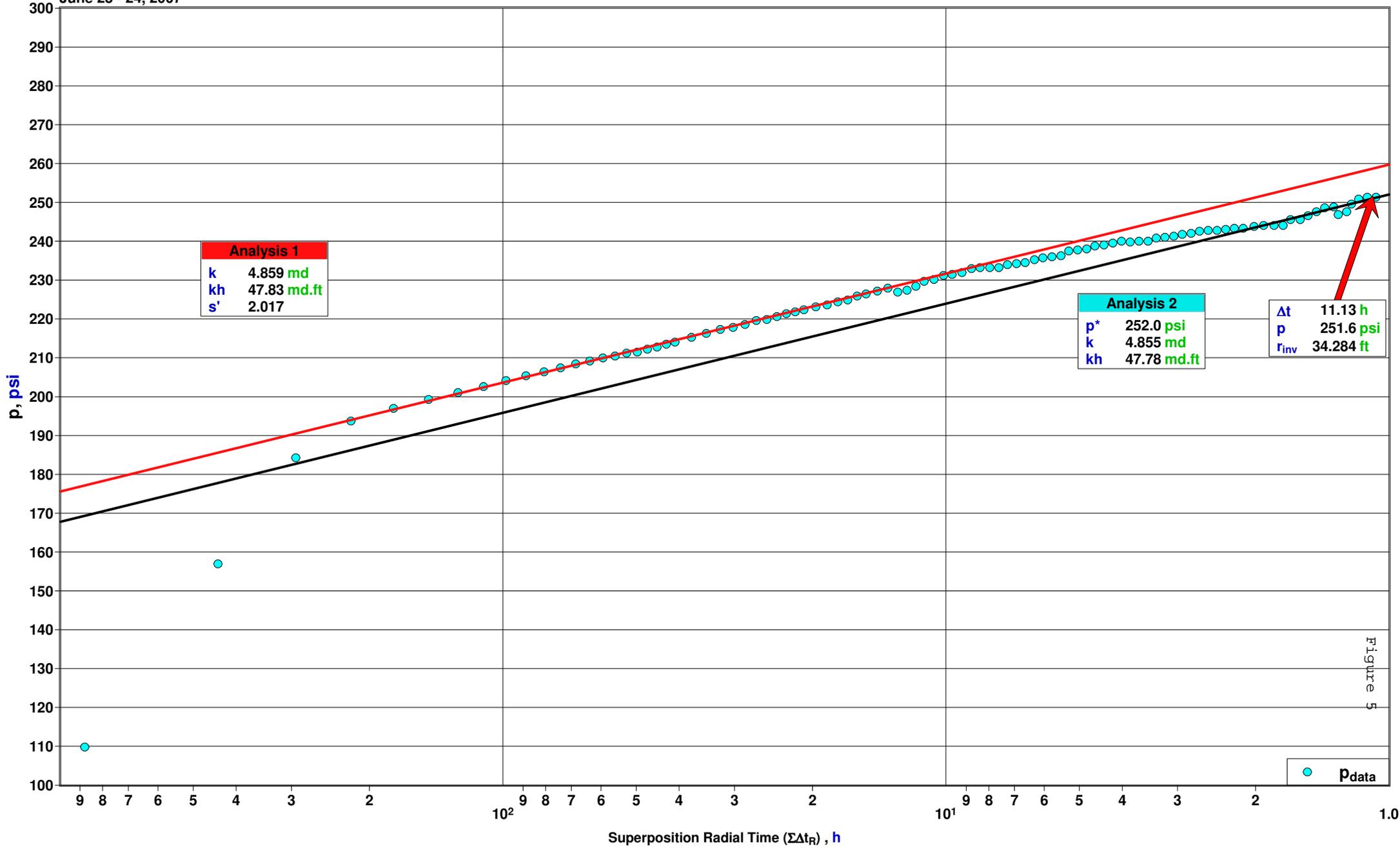
Radial



Fingal 41B
 Seam D
 Packer Depth @ 355.5 mGL
 June 23 - 24, 2007

Diagnostic Analysis

Radial



Fingal 41B
 Seam D
 Packer Depth @ 355.5 mGL
 June 23 - 24, 2007

Fingal 41B Total Test

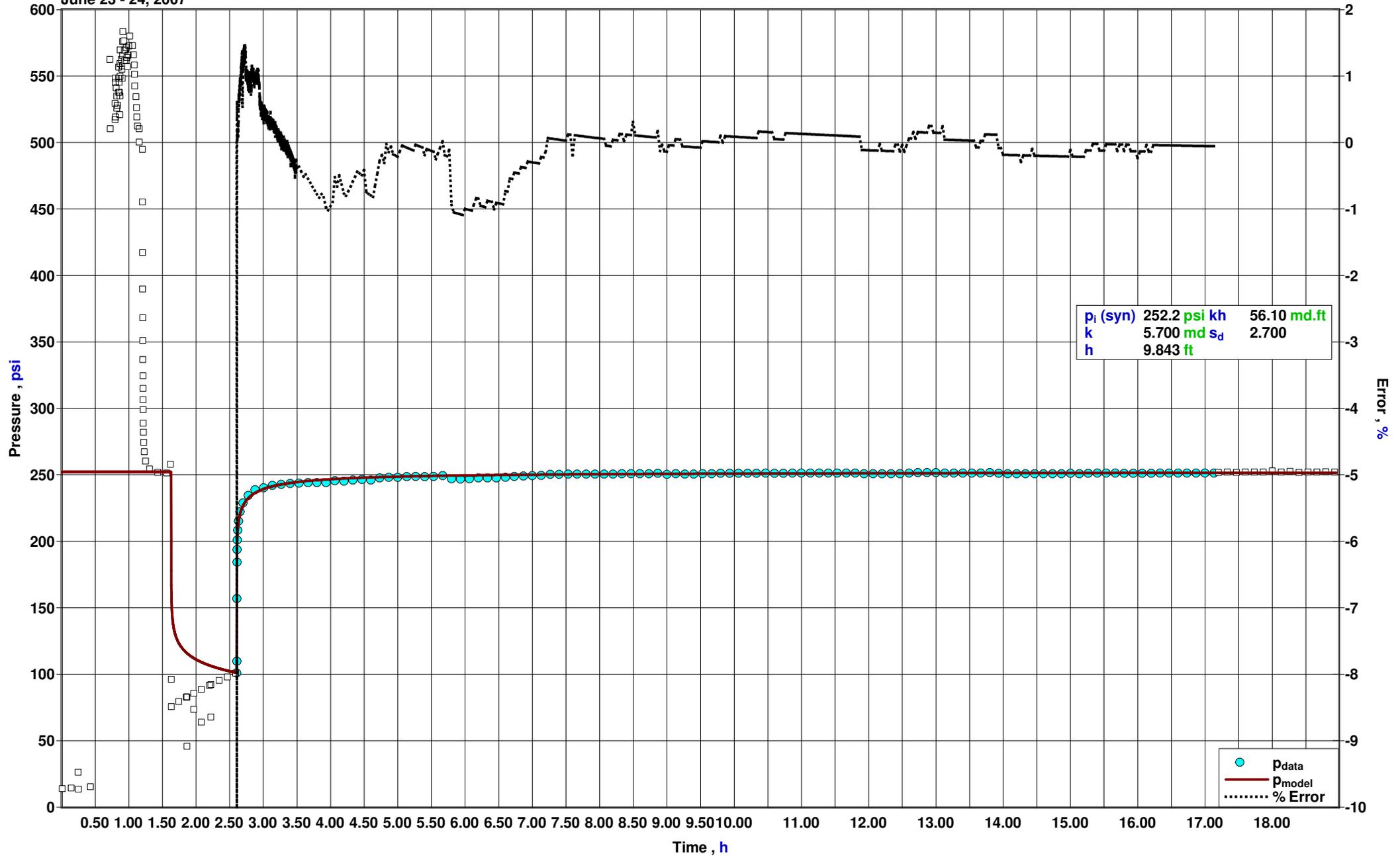


Figure 6

Fingal 41B
 Seam D
 Packer Depth @ 355.5 mGL
 June 23 - 24, 2007

Simulation Typecurve

p_i (syn)	252.2 psi	kh	56.10 md.ft
k	5.700 md	s_d	2.700
h	9.843 ft		

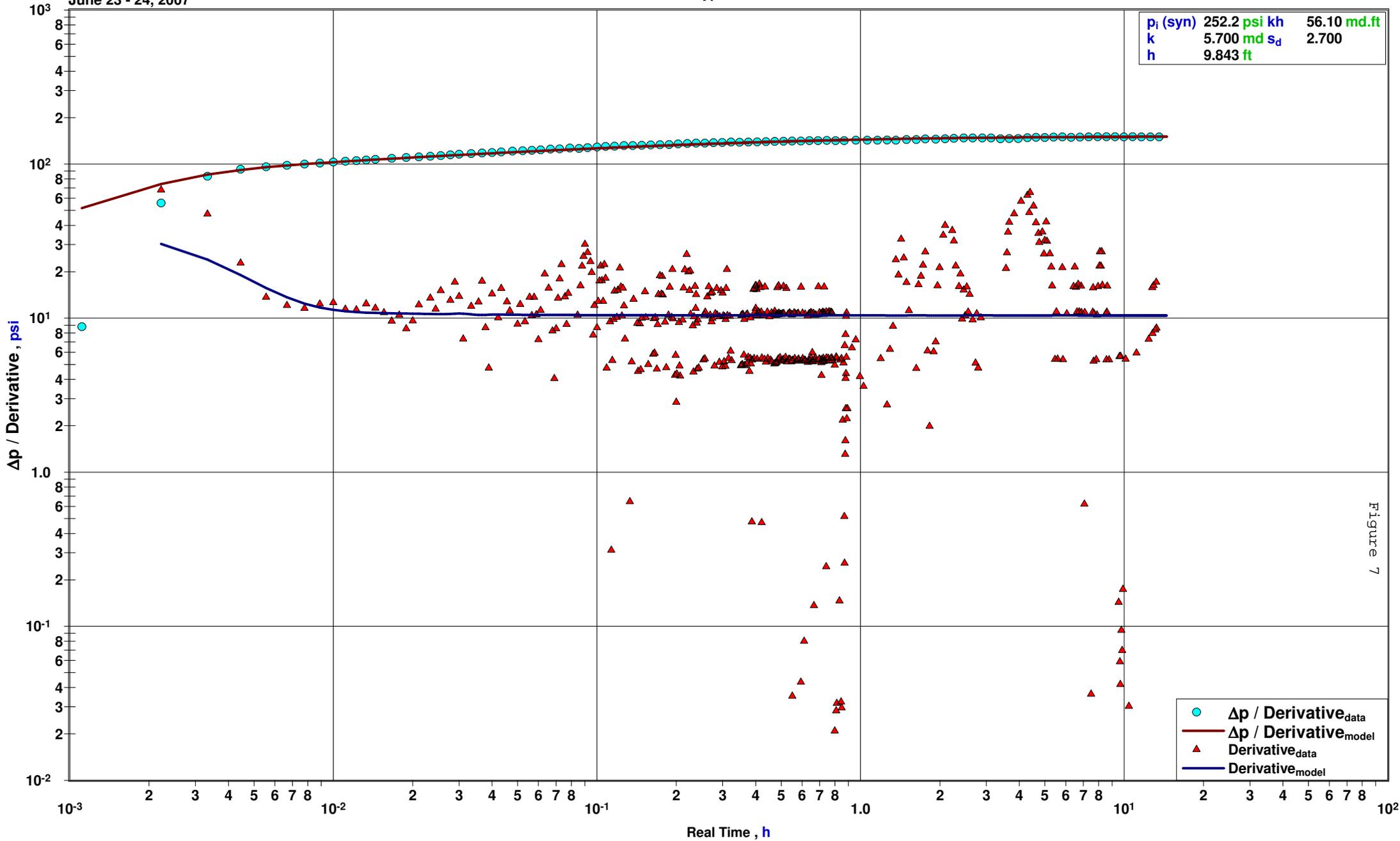


Figure 7

●	$\Delta p / \text{Derivative}_{\text{data}}$
—	$\Delta p / \text{Derivative}_{\text{model}}$
▲	$\text{Derivative}_{\text{data}}$
—	$\text{Derivative}_{\text{model}}$

Fingal 41B
 Seam D
 Packer Depth @ 355.5 mGL
 June 23 - 24, 2007

Simulation Radial

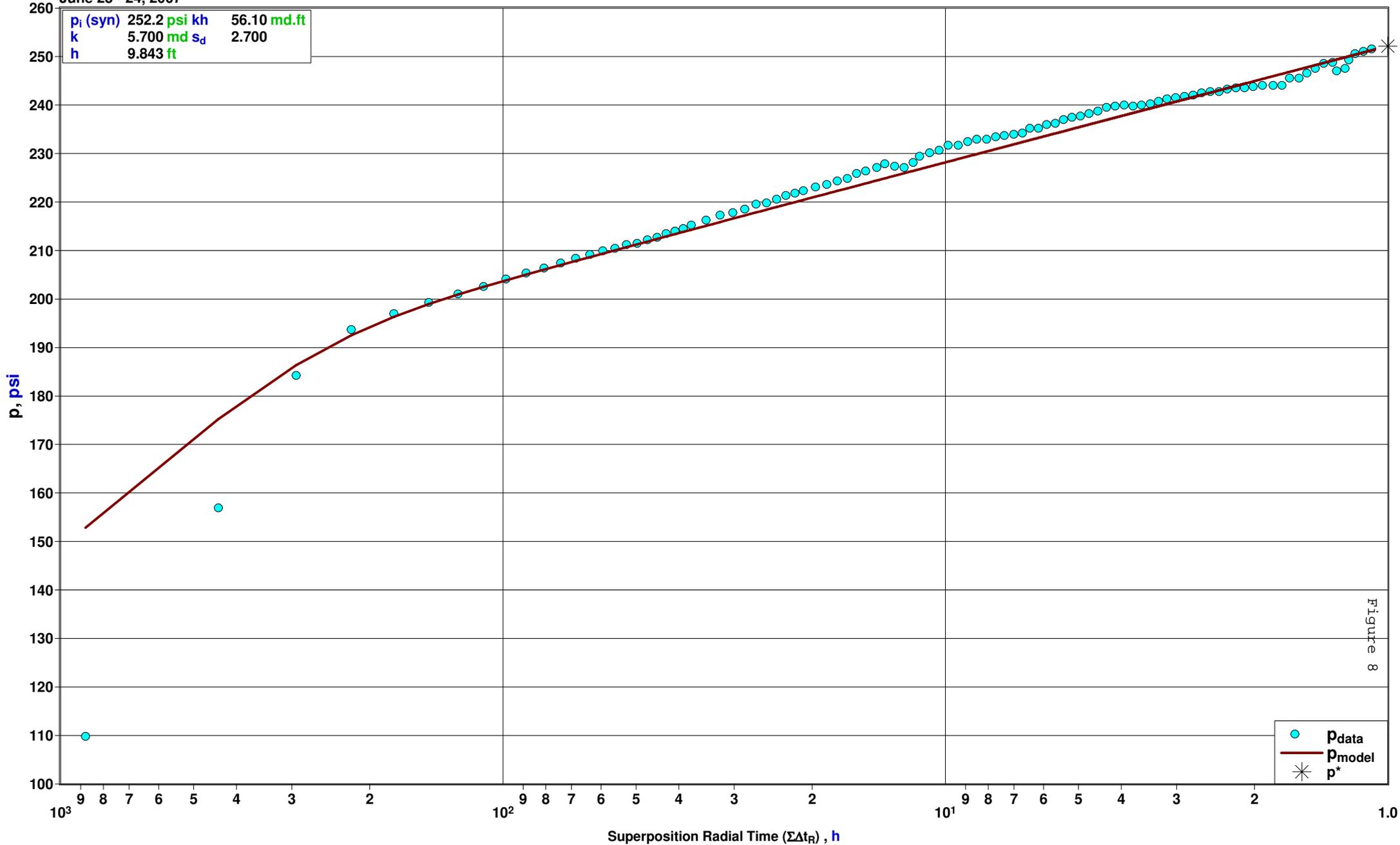


Figure 8

Vertical Water Well Model

Case Name : Simulation

Fingal 41B

Packer Depth @ 355.5 mGL

Seam D

June 23 - 24, 2007

Model Parameters

Water Permeability (k_w)	5.700 md	Reservoir Length (X_e)	1000000.000 ft
Gas Permeability (k_g)	md	Reservoir Width (Y_e)	1000000.000 ft
Skin (s)	2.700	Active Well At (X_w)	ft
Total Mobility (k/μ_t)	6.42 md/cp	Active Well At (Y_w)	ft
Total Transmissivity (kh/μ_t)	63.19 md.ft/cp		
Wellbore Storage Constant Dim. (C_D)	1.20		

Production and Pressure

Formation Parameters

Net Pay (h)	9.843 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_w)	95.00 %
Oil Saturation (S_o)	0.00 %
Gas Saturation (S_g)	5.00 %
Wellbore Radius (r_w)	0.30 ft
Formation Temperature (T)	76.9 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	2.201e-4 psi ⁻¹

$Q_t B_t$	9.303 bbl/d
Final Water Rate	9.300 bbl/d
Final Gas Rate	MMCF/D
Final Flowing Pressure (p_{wfo})	101.01 psi
Final Measured Pressure	251.85 psi
Cumulative Water Production	0.378 bbl

Synthesis Results

Average Error	0.45 %
Synthetic Initial Pressure (p_i)	252.16 psi
Extrapolated Pressure at Specified Time	252.16 psi
Pressure Drop Due To Skin (Δp_s)	56.12 psi
Flow Efficiency (FE)	0.629
Damage Ratio (DR)	1.591

Fluid Properties

Water Compressibility (c_w)	3.25199e-6 psi ⁻¹
Water Formation Volume Factor (B_w)	1.000
Water Viscosity (μ_w)	0.888 cp
Solution Gas Ratio (R_{sw})	0 scf/bbl
Specific Gravity (G)	1.000
PVT Reference Pressure (p_{pvt})	251.93 psi

Forecasts

Forecast Flowing Pressure (P_{flow})	101.01 psi
3 - Month Constant Rate Forecast @ Curr. Skin	6.075 bbl/d
6 - Month Constant Rate Forecast @ Curr. Skin	5.891 bbl/d
Forecast Flow Duration (t_{flow})	12.00 month
Constant Rate Forecast @ Curr. Skin	5.719 bbl/d
PI / II (Actual)	0.039 bbl/d/psi
Constant Rate Forecast @ Skin=0	7.412 bbl/d
PI / II (Ideal)	0.051 bbl/d/psi
Constant Rate Forecast @ Skin=-4	13.197 bbl/d

**FINGAL 41B
DRILL STEM TEST
FINAL REPORT
“F” ZONE COAL SEAM
OPEN HOLE INTERVAL 405 – 407.9 mGL
JUNE 27, 2007**

**Prepared for:
Pure Energy Resources Limited**



**Prepared by:
Focal Petroleum Engineering Pty Ltd.**

July 11, 2007



Reservoir Engineering & Simulation Well Testing Oil & Gas Property Evaluation

July 11, 2007

Pure Energy Resources Limited
P.O. Box 952
SOUTH PERTH, WA 6951

Attention: Mr. Steve Beardsall

Dear Sir

Re: Fingal 41b Coal "F" Drill Stem Test Report

The following is a summary of the results obtained from the Drill Stem Test conducted on June 27, 2007 over the "F" Coal, open hole interval from circa 405 – 407.9 mGL.

The DST was conducted through the drillpipe and coring bit, using an off bottom inflatable packer. Prior to testing, circa 345 meters of water was displaced from the drillpipe with air to allow inflow from the reservoir to occur.

The test was comprised of a one hour flow and a 35 minute shut-in period. The fluid recorder observed a negligible (zero) increase in pressure during the flow period, indicating no measurable inflow from the reservoir. Immediately after shut-in, the bottomhole pressures began to decline indicating the reservoir pressure was lower than the 55 meters of hydrostatic head in the drill pipe. Therefore, the test was terminated after only 35 minutes of shut-in and based on discussions with Pure personnel, a re-test of the F seam was not conducted. The following report is a qualitative analysis of the F seam.

During the inflation of the isolation packers, a long and slow falloff in pressure was noted below the packer suggesting that the permeability within the test interval is low and that the reservoir is extremely under-pressured.



Comments and Conclusions

- The pressure response observed during the initial falloff and shut-in period suggested a reservoir with low flow capacity to water. A water injection rate was incorporated into the flow period in order to provide some qualitative analysis of the data.
- The net pay of nine ft (2.9 m) was obtained from the core samples. A default porosity of 2% was used for the interpretation.
- The last measured pressure during the shut-in period was 62.8 psia at recorder run depth (RRD). The minimum estimate of reservoir pressure (P_i) of 49.1 psia was extrapolated from the late-time semi-log plot. These pressures are the range for reservoir pressure of the F seam. The subject zone is extremely under-pressured with a formation gradient between 0.037 and 0.048 psi/ft.
- The pressure derivative suggested that wellbore storage was overcome by what appears to be fracture flow (half slope trend) effects that lasted for the duration of the test. This could be attributed to a small fracture created in the very near wellbore area as a result of the over balance pressure of the hydrostatic column (circa 580 psi) in the wellbore during drilling.

If further clarification of the test interpretation is required, please contact the undersigned on (08) 94749622.

Yours faithfully,

FOCAL PETROLEUM ENGINEERING PTY LTD

Ryan Gee

WELL TEST CONSULTANT

Terry Primeau

MANAGING DIRECTOR

LIST OF FIGURES

Figure 1 – Validata Plot

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Figure 3 – Conventional Log-Log Plot

Figure 4 – Conventional Semi-Log Plot

Validata

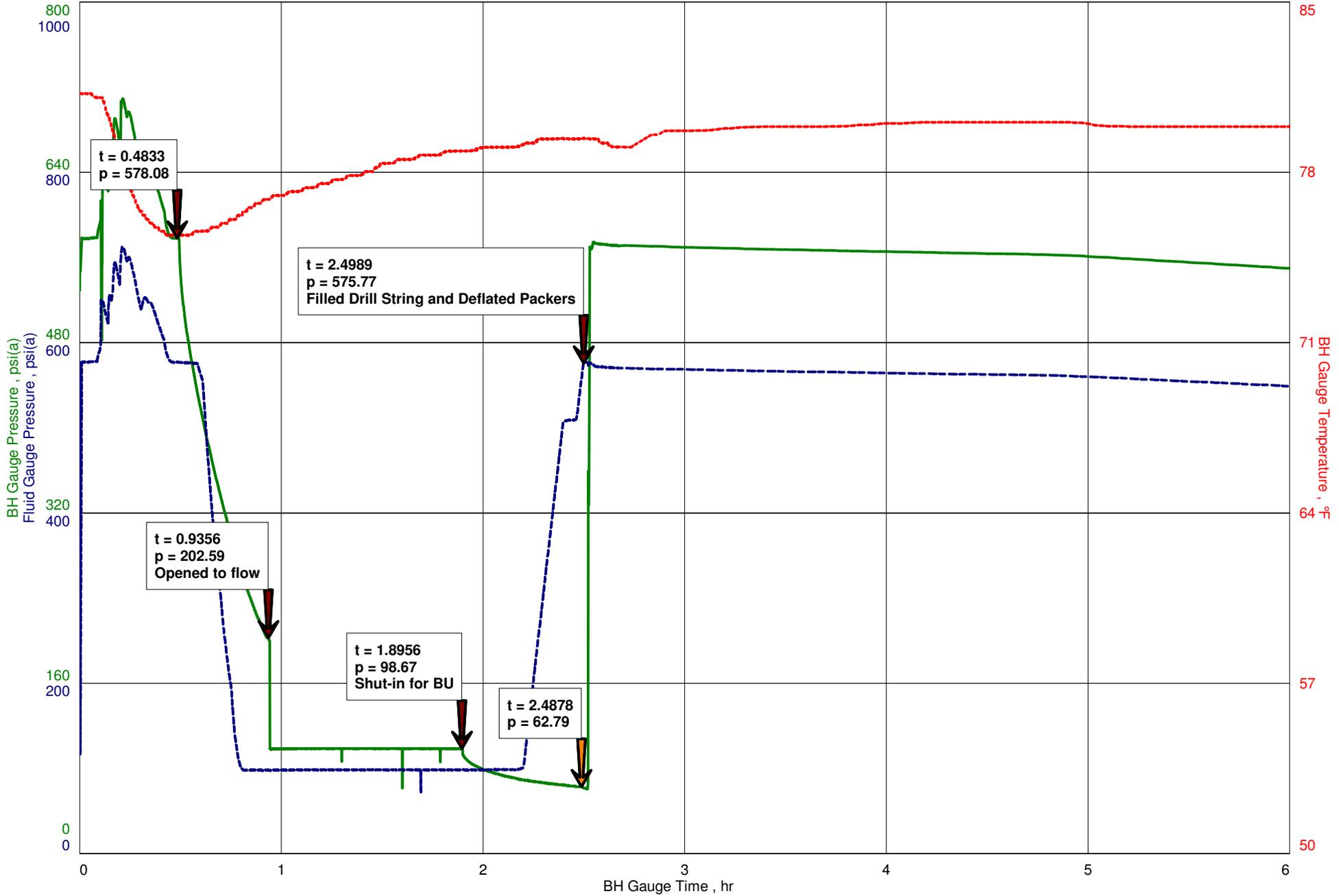


Figure 1

Fingal 41B
F Seam
Packer Depth @ 404.7 mGL
June 27, 2007

Strip Chart Total Test

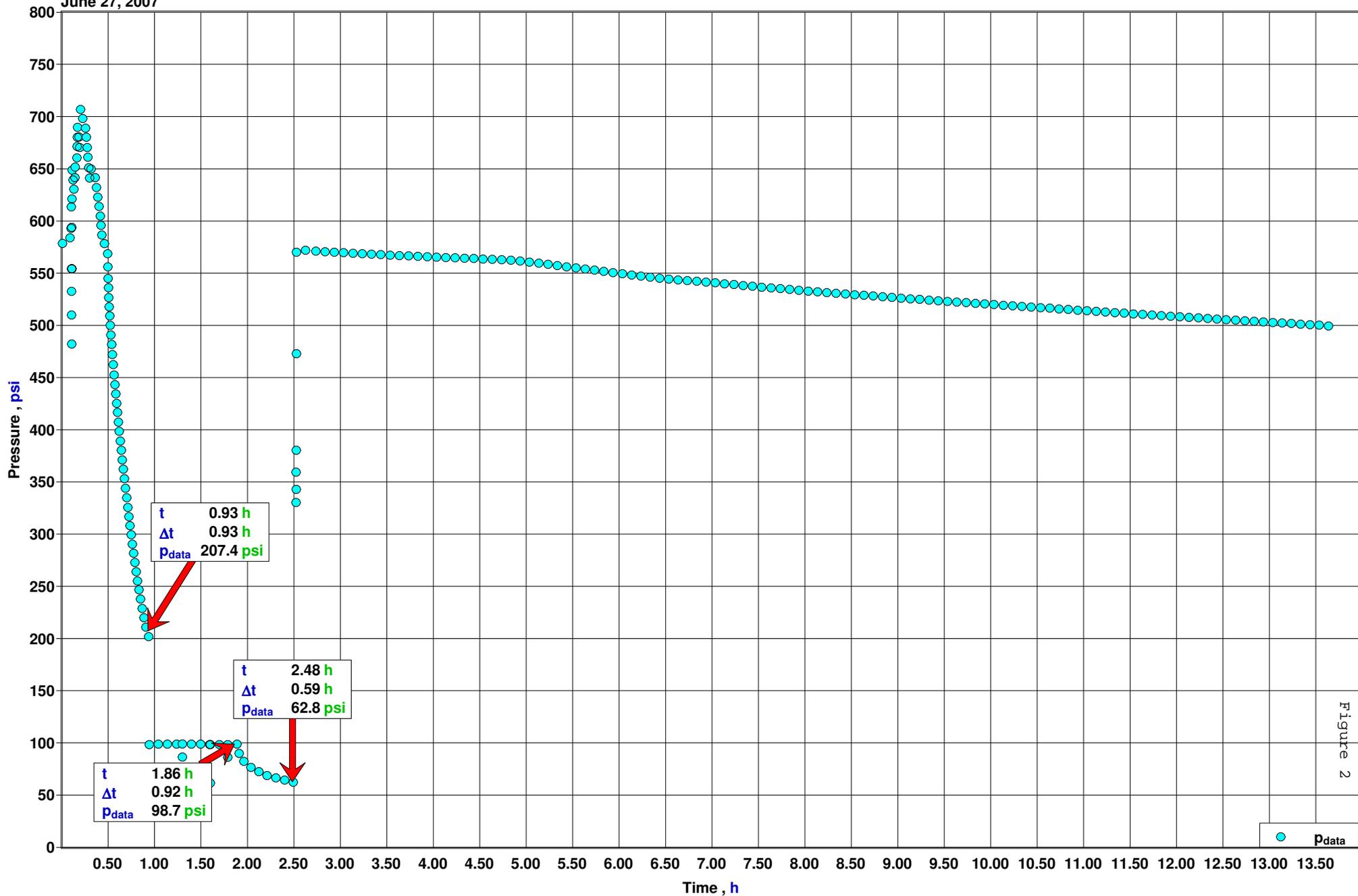
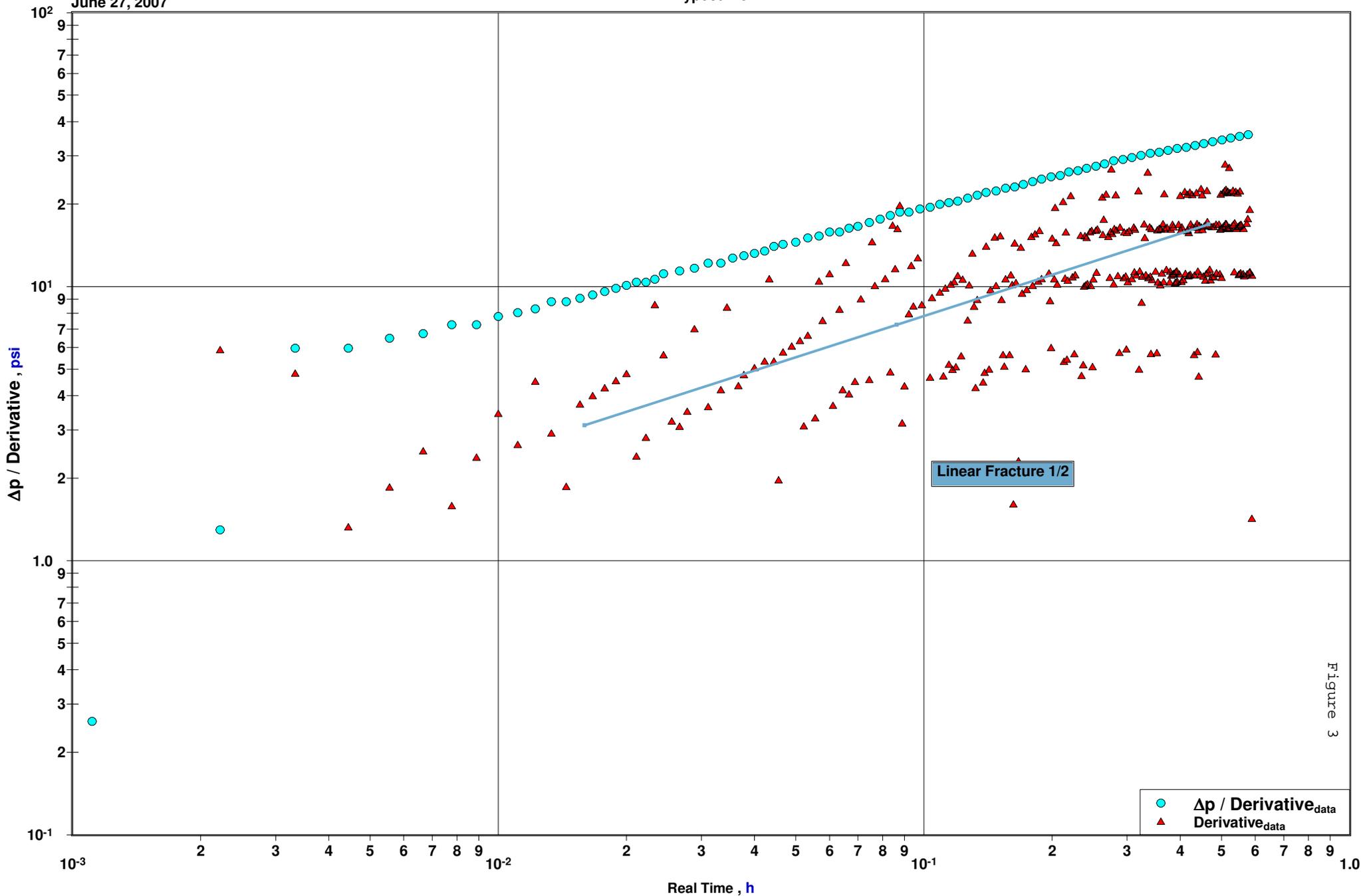


Figure 2

Fingal 41B
F Seam
Packer Depth @ 404.7 mGL
June 27, 2007

Diagnostic Analysis Typecurve



Linear Fracture 1/2

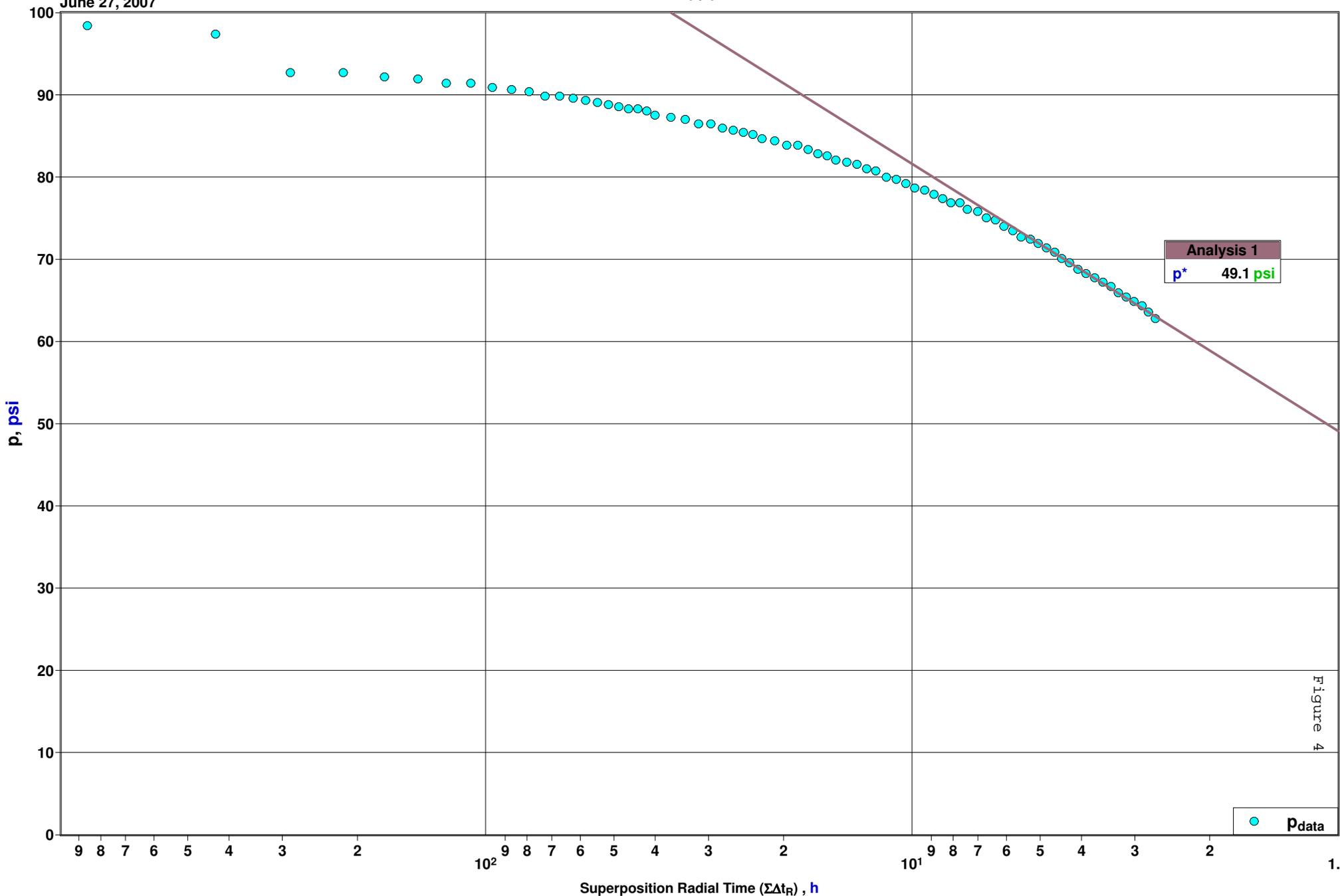
● $\Delta p / \text{Derivative}_{\text{data}}$
▲ $\text{Derivative}_{\text{data}}$

Figure 3

Fingal 41B
F Seam
Packer Depth @ 404.7 mGL
June 27, 2007

Diagnostic Analysis

Radial



Analysis 1
 $p^* = 49.1$ psi

\bullet Pdata

Figure 4

**FINGAL 41B
DRILL STEM TEST
FINAL REPORT
“G UPPER & G LOWER” ZONE COAL SEAMS
OPEN HOLE INTERVAL
453.7 – 455.1 & 462.6 – 463.6 mGL
JULY 1, 2007**

**Prepared for:
Pure Energy Resources Limited**



**Prepared by:
Focal Petroleum Engineering Pty Ltd.**

July 11, 2007



July 11, 2007

Pure Energy Resources Limited
P.O. Box 952
SOUTH PERTH, WA 6951

Attention: Mr. Steve Beardsall

Dear Sir

Re: Fingal 41b Coal "G Upper & G Lower" Drill Stem Test Report

The following is a summary of the results obtained from the Drill Stem Test conducted from July 1, 2007 over the "G upper and G lower" Coals, open hole interval from circa 453.65 – 455.1 and 462.58 – 463.64 mGL

The DST was conducted through the drillpipe and coring bit, using an off bottom inflatable packer. Prior to testing, circa 345 meters of water was displaced from the drillpipe with air to allow inflow from the reservoir to occur.

The test was comprised of a one hour flow and a 1.5 hour buildup. A low flow gas meter was used to measure the gas recovery and a fluid recorder in the drill pipe was used to establish daily water production volumes (bbl/day) from the inflow of water into the wellbore.

During the inflation of the isolation packers, a sharp increase in pressure followed by a long, slow falloff was noted below the packer suggesting that the reservoir has low permeability and is significantly under-pressured.

During the shut-in procedure (raising the drill string 70mm) for the downhole tool, a small drop in pressure was noted to start the buildup. This was the result of some upward movement by the packer, creating a small amount of suction in the wellbore.

The buildup data used in the well test analysis was truncated circa 15 minutes prior to the end of the downhole shut-in. It appeared that the late-time data was influenced by non-reservoir activity that has been attributed to the

commencement of operations to pull the gauges out of hole. This did not affect the overall interpretation of the test.

Comments and Conclusions

- The pressure response observed during the flow and buildup periods suggested a reservoir with very low flow capacity to water. Since the inflow from the reservoir was predominantly water, the test was analysed as a water well. The gas volume recovered was insignificant (< 1 cf) and was not used in the interpretation.
- The gross net pay of 7.9 ft (2.4 m) was obtained from the core samples (G upper 4.8 ft, G lower 3.1 ft). A default porosity of 2% was used for the interpretation.
- An average water rate of circa 0.5 bbl/d was calculated using the pressure increase from the inflow of water into the wellbore during the flow period.
- An initial estimated reservoir pressure of 273 psia was extrapolated from the late-time pressure fall-off data observed after the packers were inflated. The reservoir pressure (P_i) of 273 psia was also determined from the simulation match of the buildup and has been quoted throughout the report. The subject reservoir is significantly under-pressured with a reservoir gradient of 0.19 psi/ft.
- The pressure derivative indicated that wellbore storage dominated the entire buildup. For the purposes of this report, it was assumed that the late-time data was approaching radial flow (zero slope).
- Conventional analysis and Simulation were both conducted. The conventional estimates for permeability and skin were used to initiate the simulation match. An excellent match was obtained using a vertical model and the results have been quoted throughout this report. However, it should be noted that the match was non-unique and acceptable matches could also be obtained using other reservoir models and parameters. Therefore, these results should be used with some caution.
- The negative skin value is considered low and could be attributed to a slightly improved wellbore condition, or small natural fractures observed in the G upper section of core.

A summary of the Test Results is as follows:

Average Reservoir Pressure (Pr) @ 449.4 mGL	273 psia (simulation)
Apparent Skin Factor	-1.3
Average Permeability to Water	0.06 md
Flow Capacity to Water	0.5 md.ft
Radius of Investigation	3 ft

If further clarification of the test interpretation is required, please contact the undersigned on (08) 94749622.

Yours faithfully,

FOCAL PETROLEUM ENGINEERING PTY LTD

Ryan Gee

WELL TEST CONSULTANT

Terry Primeau

MANAGING DIRECTOR

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Figure 7 – Conventional Results

Figure 8 – Simulation Match – Strip Chart

Figure 9 – Simulation Match – Log-Log Plot

Figure 10 – Simulation Match – Semi-Log Plot

Figure 11 – Simulation Results

Validata

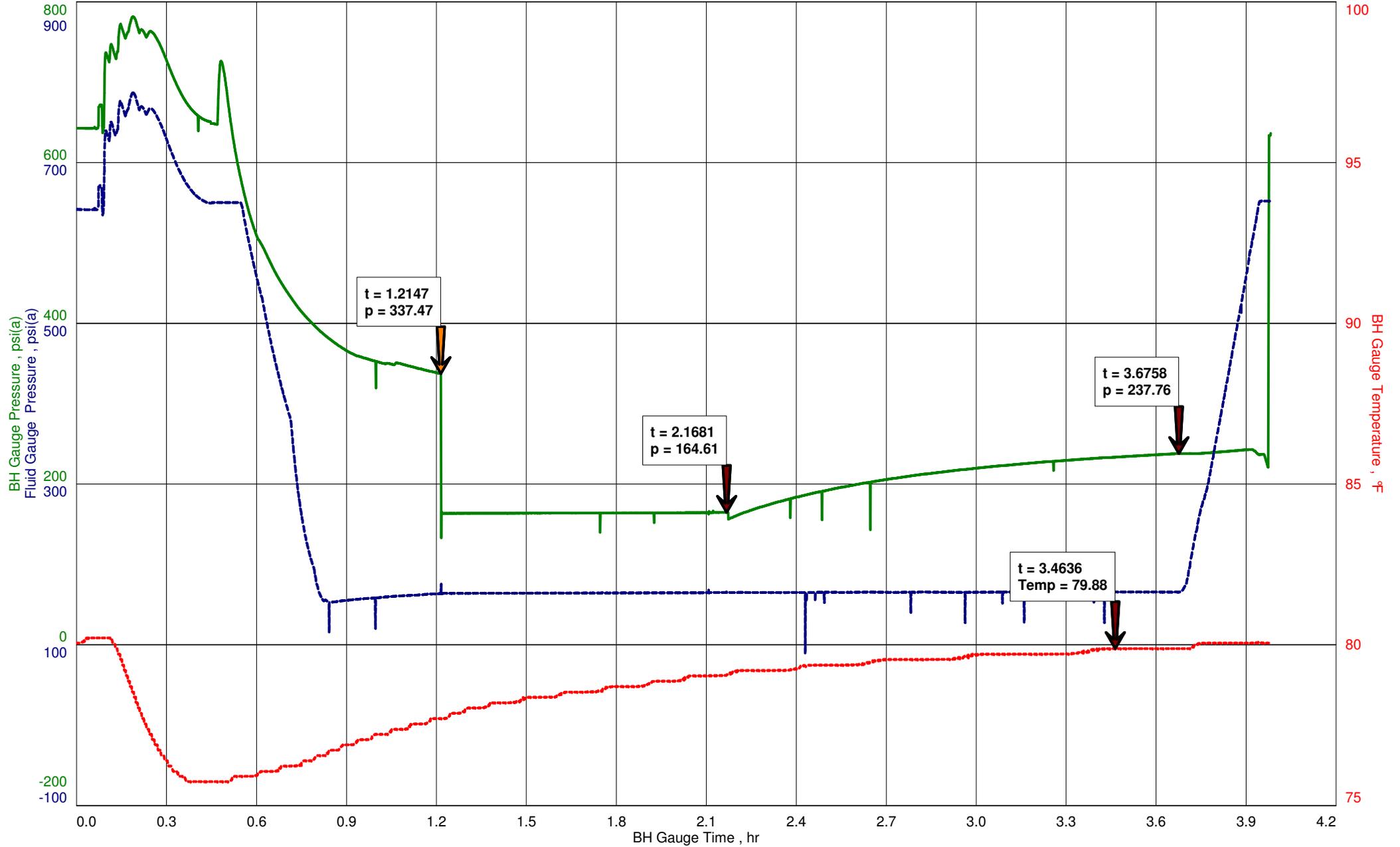
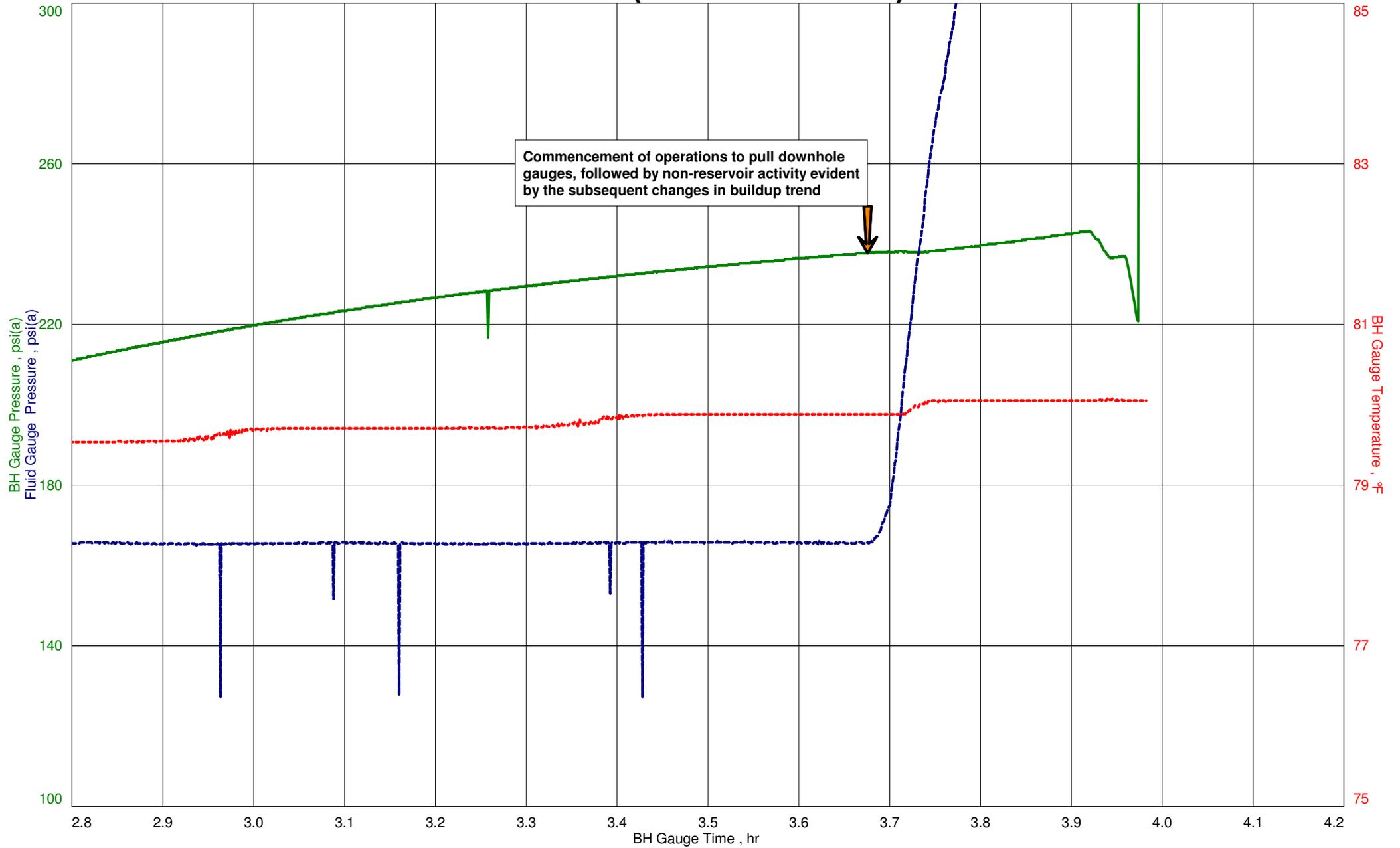


Figure 1

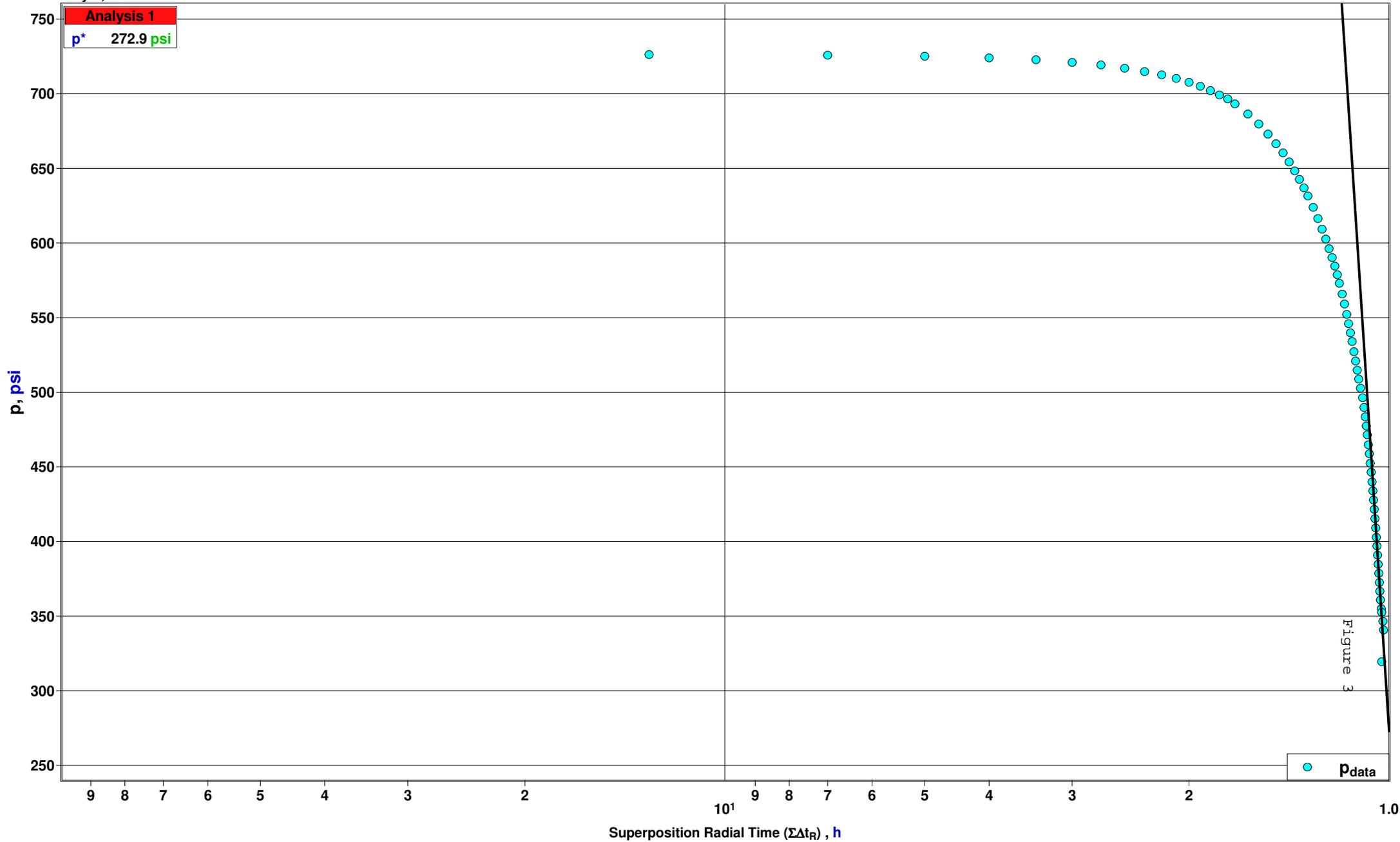
Validata (Late-Time Data)



Fingal 41B
Seam G upper & G lower
Packer Depth @ 453.3 mGL
July 1, 2007

Initial Pressure Falloff

Radial



Fingal 41B
 Seam G upper & G lower
 Packer Depth @ 453.3 mGL
 July 1, 2007

Strip Chart Total Test

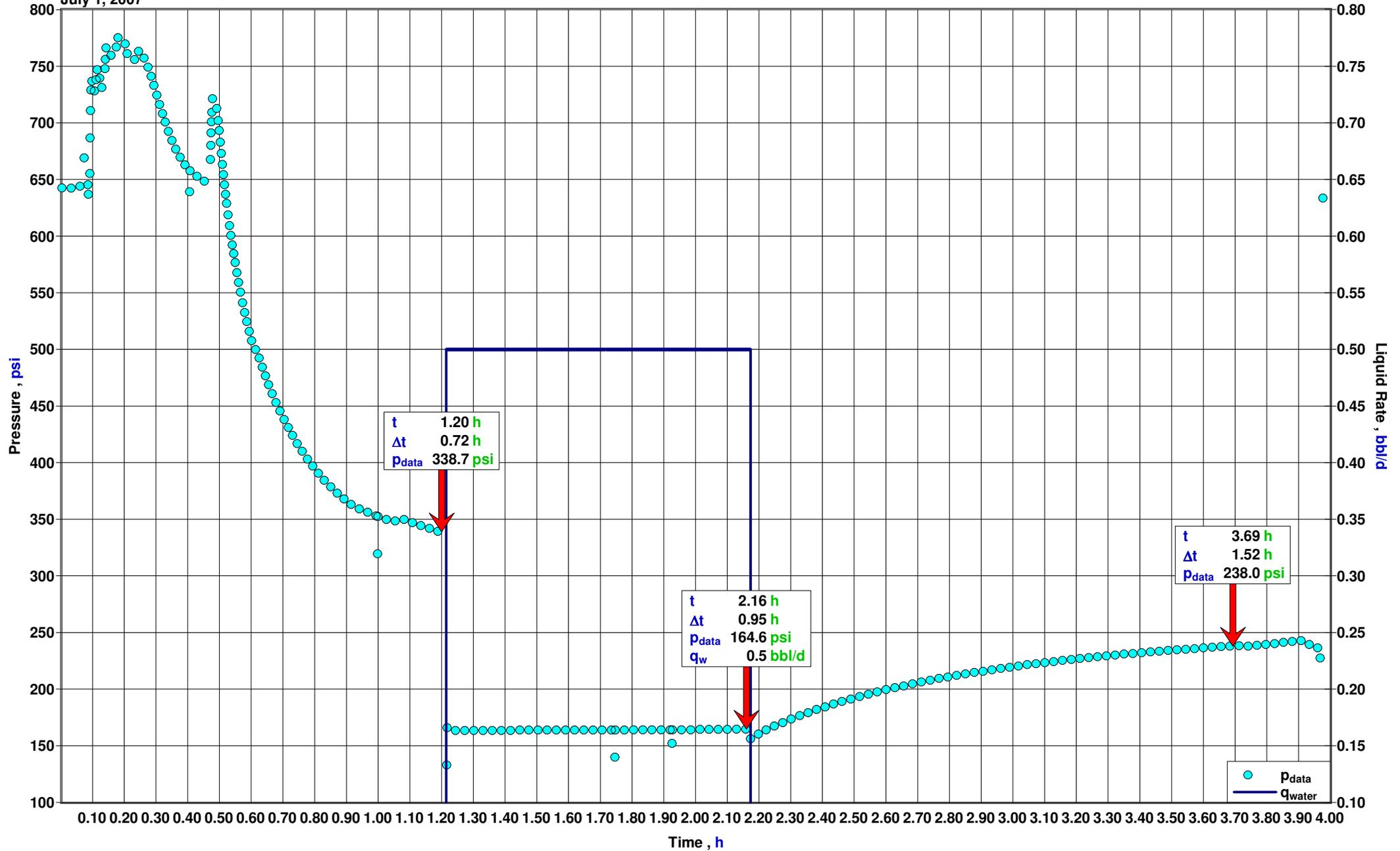


Figure 4

Fingal 41B
 Seam G upper & G lower
 Packer Depth @ 453.3 mGL
 July 1, 2007

Diagnostic Analysis Typecurve

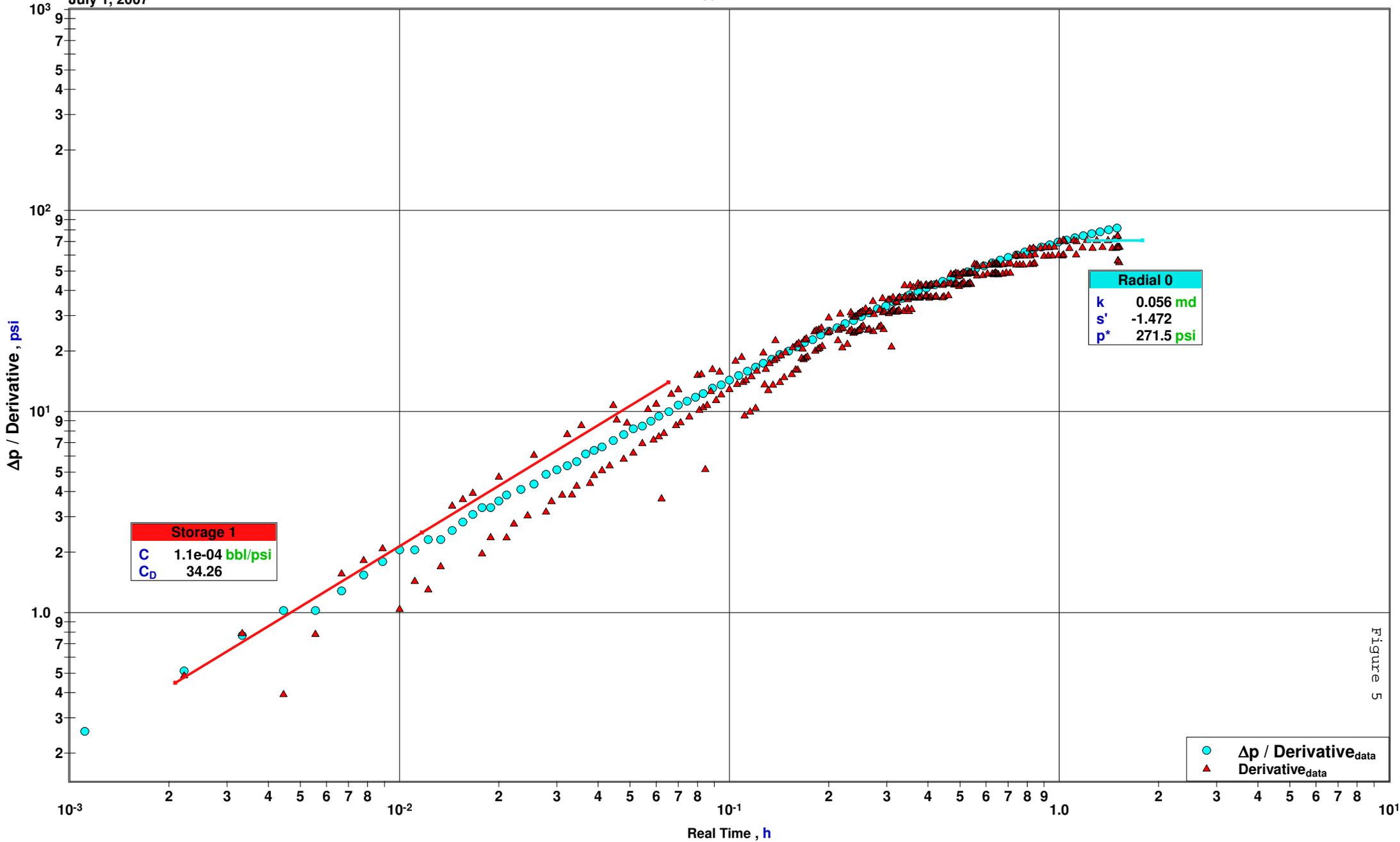
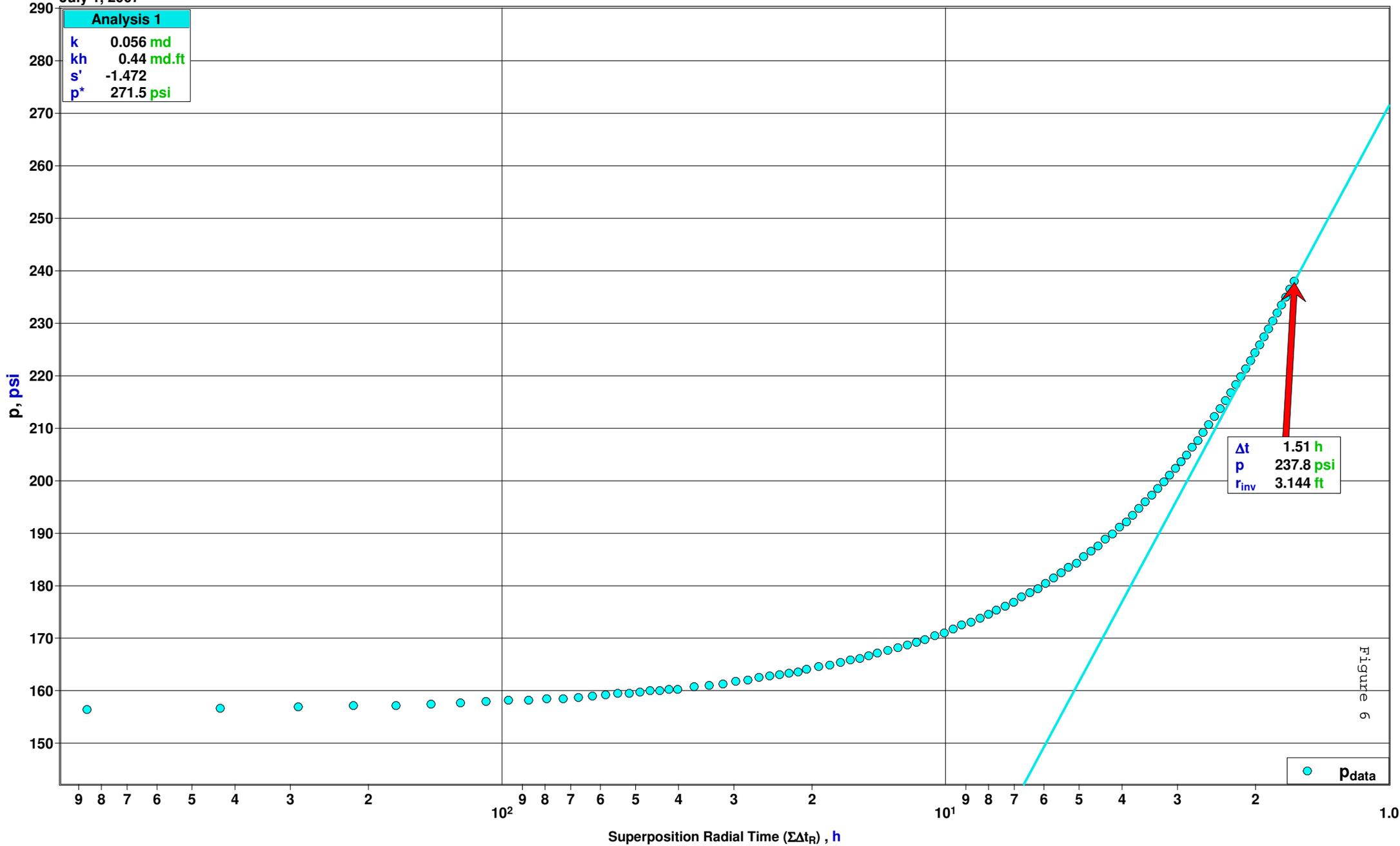


Figure 5

Fingal 41B
 Seam G upper & G lower
 Packer Depth @ 453.3 mGL
 July 1, 2007

Diagnostic Analysis

Radial



Water Well Test - Buildup

Radial Flow Analysis

Fingal 41B
Seam G upper & G lower

Packer Depth @ 453.3 mGL
July 1, 2007

Analysis Results

Total Sandface Rate ($q_t B_t$)	0.500 bbl/d	Apparent Skin (s')	-1.472
Semilog Slope (m)	157.05	Skin - Damage	-1.475
Gas Permeability (k_G)	md	Skin - Inclination	
Oil Permeability (k_O)	md	Skin - Partial Penetration	
Water Permeability (k_W)	0.056 md	Pressure Drop Due to Skin (Δp_S)	psi
Flow Capacity (kh)	0.443 md.ft	Damage Ratio (DR)	0.381
Total Mobility (k/μ_t)	0.07 md/cp	Flow Efficiency (FE)	2.626
Total Transmissivity (kh/μ_t)	0.52 md.ft/cp		

Reservoir Parameters

Net Pay (h)	7.874 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_W)	95.00 %
Oil Saturation (S_O)	0.00 %
Gas Saturation (S_G)	5.00 %
Wellbore Radius (r_W)	0.30 ft
Formation Temperature (T)	79.9 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	2.000e-4 psi ⁻¹

Pressures

Initial Pressure (p_i)	280.00 psi
Extrapolated Pressure (p^*)	271.49 psi
Final Flowing Pressure (p_{wfO})	156.16 psi

Production and Times

Corrected Flow Time (t_c)	0.9562 hr
Cumulative Water Production	0.020 bbl
Final Water Rate	0.500 bbl/d

Fluid Properties

Water Compressibility (c_W)	3.23639e-6 psi ⁻¹
Water Formation Volume Factor (B_W)	1.001
Water Viscosity (μ_W)	0.855 cp
Solution Gas Ratio (R_{SW})	0 scf/bbl
Specific Gravity (G)	1.000
Gas Gravity (G)	0.650
PVT Reference Pressure (p_{pVT})	280.00 psi

Fingal 41B
 Seam G upper & G lower
 Packer Depth @ 453.3 mGL
 July 1, 2007

Fingal 41 B Total Test

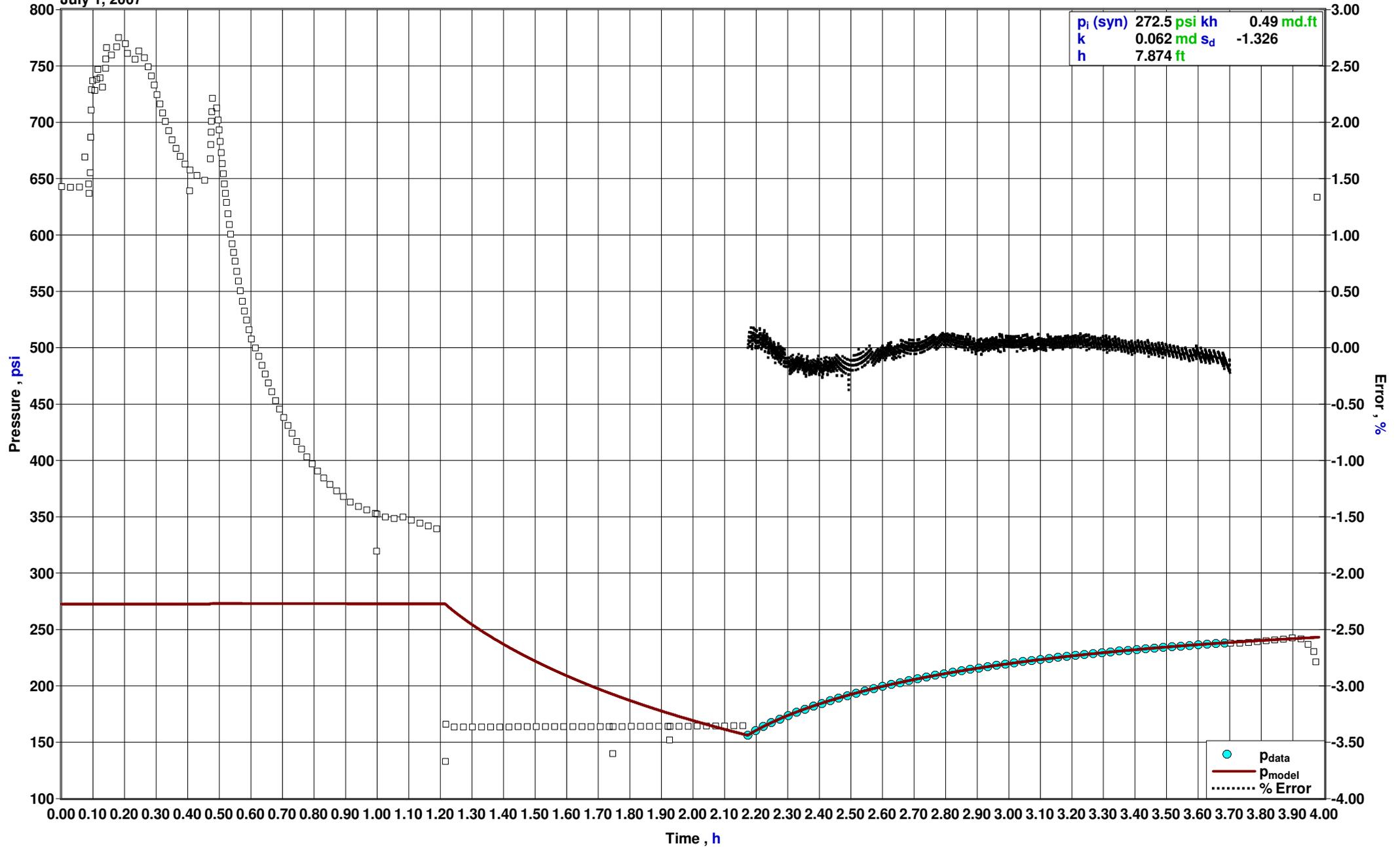


Figure 8

Fingal 41B
 Seam G upper & G lower
 Packer Depth @ 453.3 mGL
 July 1, 2007

Simulation Typecurve

p_i (syn)	272.5 psi	kh	0.49 md.ft
k	0.062 md	s_d	-1.326
h	7.874 ft		

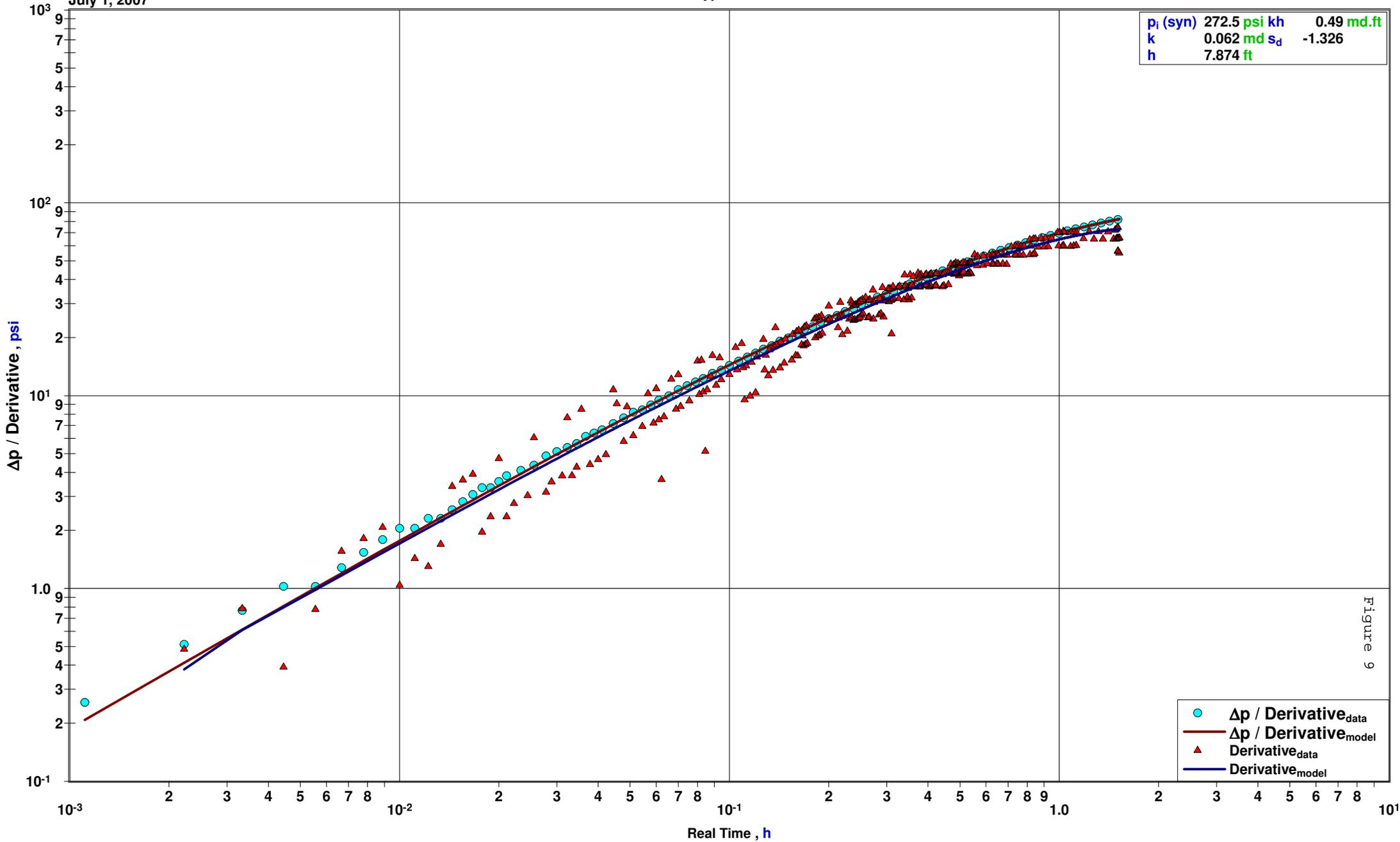


Figure 9

Fingal 41B
 Seam G upper & G lower
 Packer Depth @ 453.3 mGL
 July 1, 2007

Simulation Radial

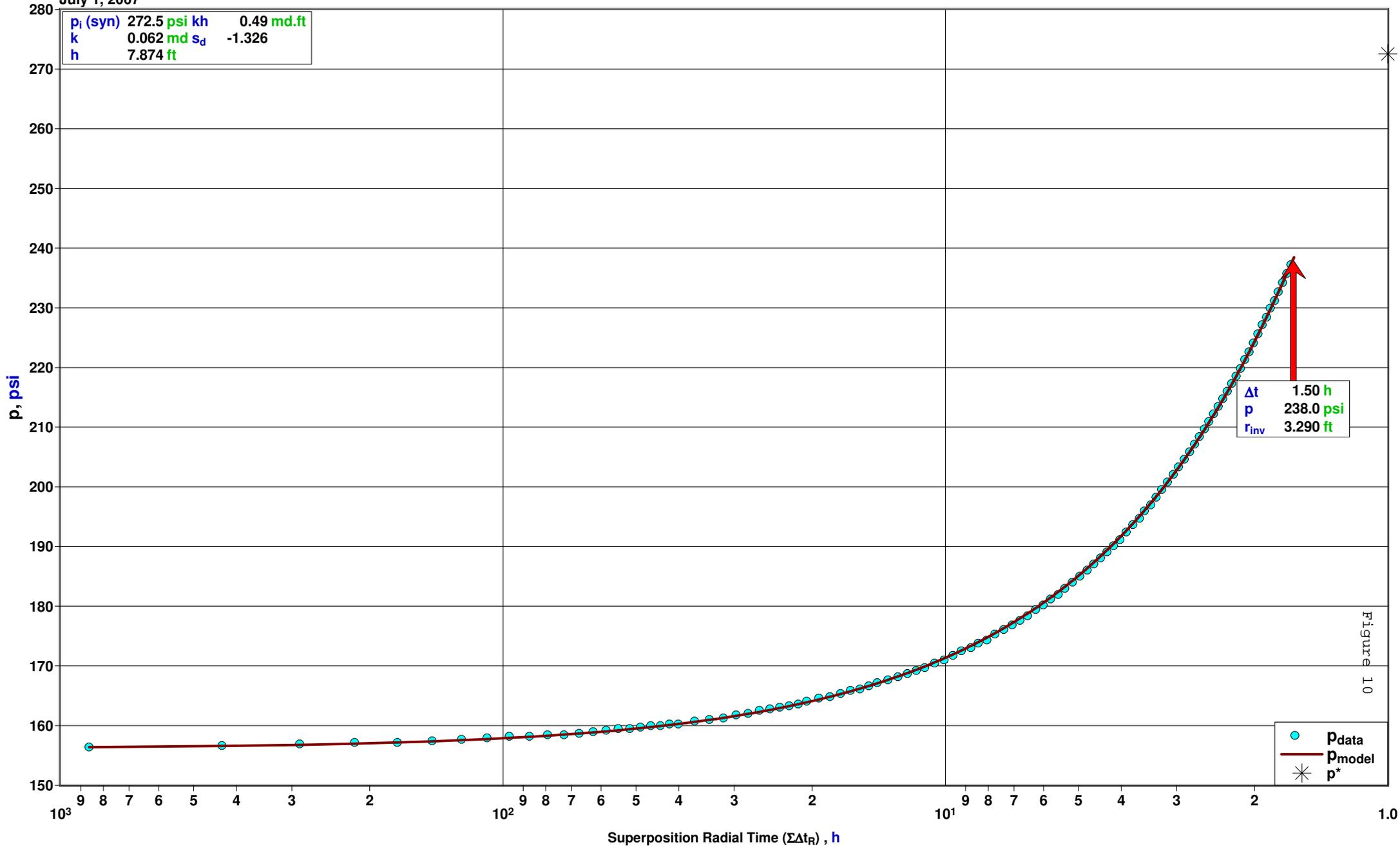


Figure 10

Vertical Water Well Model

Case Name : Simulation

Fingal 41B

Packer Depth @ 453.3 mGL

Seam G upper & G lower

July 1, 2007

Model Parameters

Water Permeability (k_w)	0.062 md	Reservoir Length (X_e)	1000000.000 ft
Gas Permeability (k_g)	md	Reservoir Width (Y_e)	1000000.000 ft
Skin (s)	-1.326	Active Well At (X_w)	ft
Total Mobility (k/μ_t)	0.07 md/cp	Active Well At (Y_w)	ft
Total Transmissivity (kh/μ_t)	0.57 md.ft/cp		
Wellbore Storage Constant Dim. (C_D)	25.03		

Formation Parameters

Net Pay (h)	7.874 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_w)	95.00 %
Oil Saturation (S_o)	0.00 %
Gas Saturation (S_g)	5.00 %
Wellbore Radius (r_w)	0.30 ft
Formation Temperature (T)	79.9 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	2.000e-4 psi ⁻¹

Fluid Properties

Water Compressibility (c_w)	3.23639e-6 psi ⁻¹
Water Formation Volume Factor (B_w)	1.001
Water Viscosity (μ_w)	0.855 cp
Solution Gas Ratio (R_{sw})	0 scf/bbl
Specific Gravity (G)	1.000
PVT Reference Pressure (p_{pvt})	280.00 psi

Production and Pressure

$Q_t B_t$	0.500 bbl/d
Final Water Rate	0.500 bbl/d
Final Gas Rate	MMCF/D
Final Flowing Pressure (p_{wfo})	156.16 psi
Final Measured Pressure	636.34 psi
Cumulative Water Production	0.020 bbl

Synthesis Results

Average Error	0.07 %
Synthetic Initial Pressure (p_i)	272.54 psi
Extrapolated Pressure at Specified Time	272.53 psi
Pressure Drop Due To Skin (Δp_s)	psi
Flow Efficiency (FE)	1.424
Damage Ratio (DR)	0.702

Forecasts

Forecast Flowing Pressure (P_{flow})	156.16 psi
3 - Month Constant Rate Forecast @ Curr. Skin	0.096 bbl/d
6 - Month Constant Rate Forecast @ Curr. Skin	0.090 bbl/d
Forecast Flow Duration (t_{flow})	12.00 month
Constant Rate Forecast @ Curr. Skin	0.084 bbl/d
PI / II (Actual)	0.001 bbl/d/psi
Constant Rate Forecast @ Skin=0	0.068 bbl/d
PI / II (Ideal)	0.001 bbl/d/psi
Constant Rate Forecast @ Skin=-4	0.161 bbl/d

Fingal 55b DST Reports

- 1. Seam B**
- 2. Seam D**
- 3. Seam F**
- 4. Seam G upper & G lower**

FINGAL 55B
DRILL STEM TEST
FINAL REPORT
“B” ZONE COAL SEAM
OPEN HOLE INTERVAL 187.1-190.7 mGL
JUNE 2, 2007

Prepared for:
Pure Energy Resources Limited



Prepared by:
Focal Petroleum Engineering Pty Ltd.

July 11, 2007



11 July 2007

Pure Energy Resources Limited
P.O. Box 952
SOUTH PERTH, WA 6951

Attention: Mr. Steve Beardsall

Dear Sir

Re: Fingal 55b Coal "B" Drill Stem Test Report

The following is a summary of the results obtained from the Drill stem test conducted on June 2, 2007 over the "B" Coals, open hole interval from circa 187.1-190.7 mGL.

The DST was conducted through the drillpipe and coring bit, using an off bottom inflatable packer. Prior to testing, circa 80 meters of water was displaced from the drillpipe with air to allow inflow from the reservoir to occur.

The test was comprised of a 15 minute flow period followed by a buildup period of 30 minutes. A low flow gas meter was used to measure the gas recovery and a fluid recorder in the drill pipe was used to establish daily water production volumes (bbl/day) from the inflow of water into the wellbore.

A pressure fall-off was observed prior to the subject test when the packers were inflated, and the reservoir was isolated from drill pipe.

Comments and Conclusions

- The pressure response observed during the flow and buildup periods suggested a reservoir with moderate to high flow capacity to water. Since the inflow from the reservoir was predominantly water, the test was analysed as water well. The gas volume recovered was insignificant (< 1 cf) and was not used in the interpretation.

- The net pay of 12.3 ft (3.75 m) was obtained from the core samples. A default porosity of 2% was used for the interpretation.
- A water rate of circa 18.6 bbl/d was calculated using the pressure increase from the inflow of water into the wellbore during the flow period.
- An initial estimated reservoir pressure (P_i) of 218 psia was extrapolated from the late-time pressure fall-off data observed after the packers were inflated. The reservoir pressure of 217 psia was calculated from the simulation match and has been quoted throughout this report. The subject reservoir is slightly under-pressured with a reservoir gradient of 0.36 psi/ft.
- The pressure derivative indicated that wellbore storage was overcome by radial flow (zero slope) within the first minute of shut-in. After about three minutes of shut-in, the pressure derivative followed a short upward trend until returning to zero slope (radial flow) at about 10 minutes after shut-in. The late-time pressure derivative appeared to begin a slight upward trend.
- Conventional analysis and Simulation were both conducted. The best fit match was obtained using composite model with decreasing flow capacity (kh) away from the wellbore. It should be noted that although the radial composite model infers a reduction in kh away from the wellbore, the pressure derivative signature could also be the result of a multi-layered reservoir, and the outer zone of the composite system is representative of the major contributing layer in the wellbore. An outer, third zone (3-zone composite model) was incorporated into the match to return the reservoir pressure closer to the initial pressure estimated from the fall-off extrapolation. The results from the simulation were very comparable with the conventional analysis and have been quoted throughout this report.
- The positive skin value is considered moderate and is likely attributed to coal fines in the near wellbore region.

A summary of the Test Results is as follows:

Average Reservoir Pressure (Pr) @ 182.6 mGL 217 psia (simulation)

Apparent Skin Factor +4

Zone/Layer 1

Average Permeability to Water 38 md

Flow Capacity to Water 470 md.ft

Radius of Investigation 17 ft

Zone/Layer 2

Average Permeability to Water 10 md

Formation Flow Capacity to Water 123 md.ft

Radius of Investigation 25 ft

Zone/Layer 3

Average Permeability to Water 8 md

Formation Flow Capacity to Water 92 md.ft

Radius of Investigation 50 ft

If further clarification of the test interpretation is required, please contact the undersigned on (08) 94749622.

Yours faithfully,

FOCAL PETROLEUM ENGINEERING PTY LTD

Ryan Gee

WELL TEST CONSULTANT

Terry Primeau

MANAGING DIRECTOR

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Figure 9 – Simulation Match – Semi-Log Plot

Figure 10 – Simulation Results

Validata

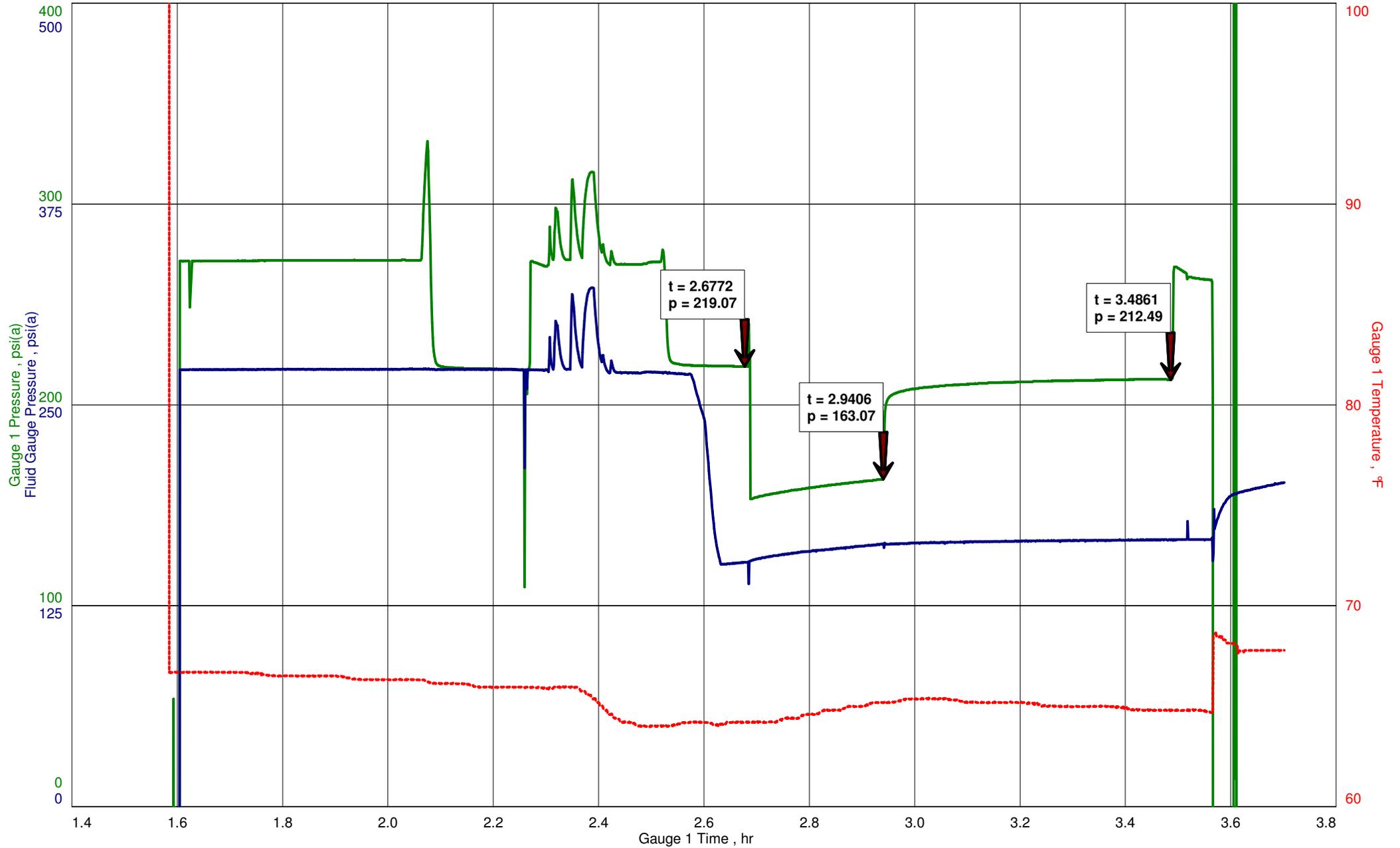


Figure 1

Fingal 55B
 Seam B
 Packer Depth @ 186.5 mGL
 Date: June 2, 2007

Pressure Falloff after setting Packer

Radial

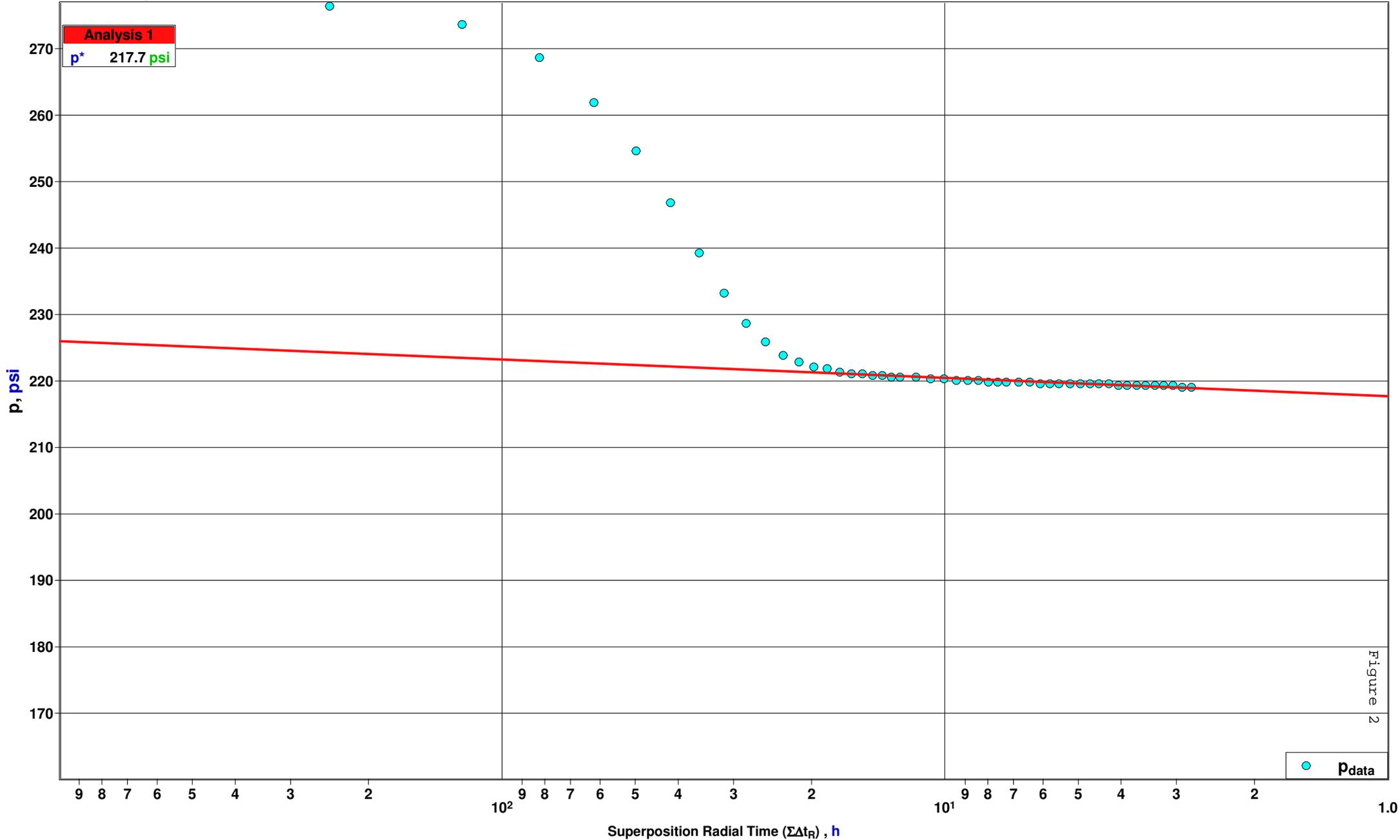


Figure 2

Fingal 55B
 Seam B
 Packer Depth @ 186.5 mGL
 Date: June 2, 2007

Strip Chart Total Test

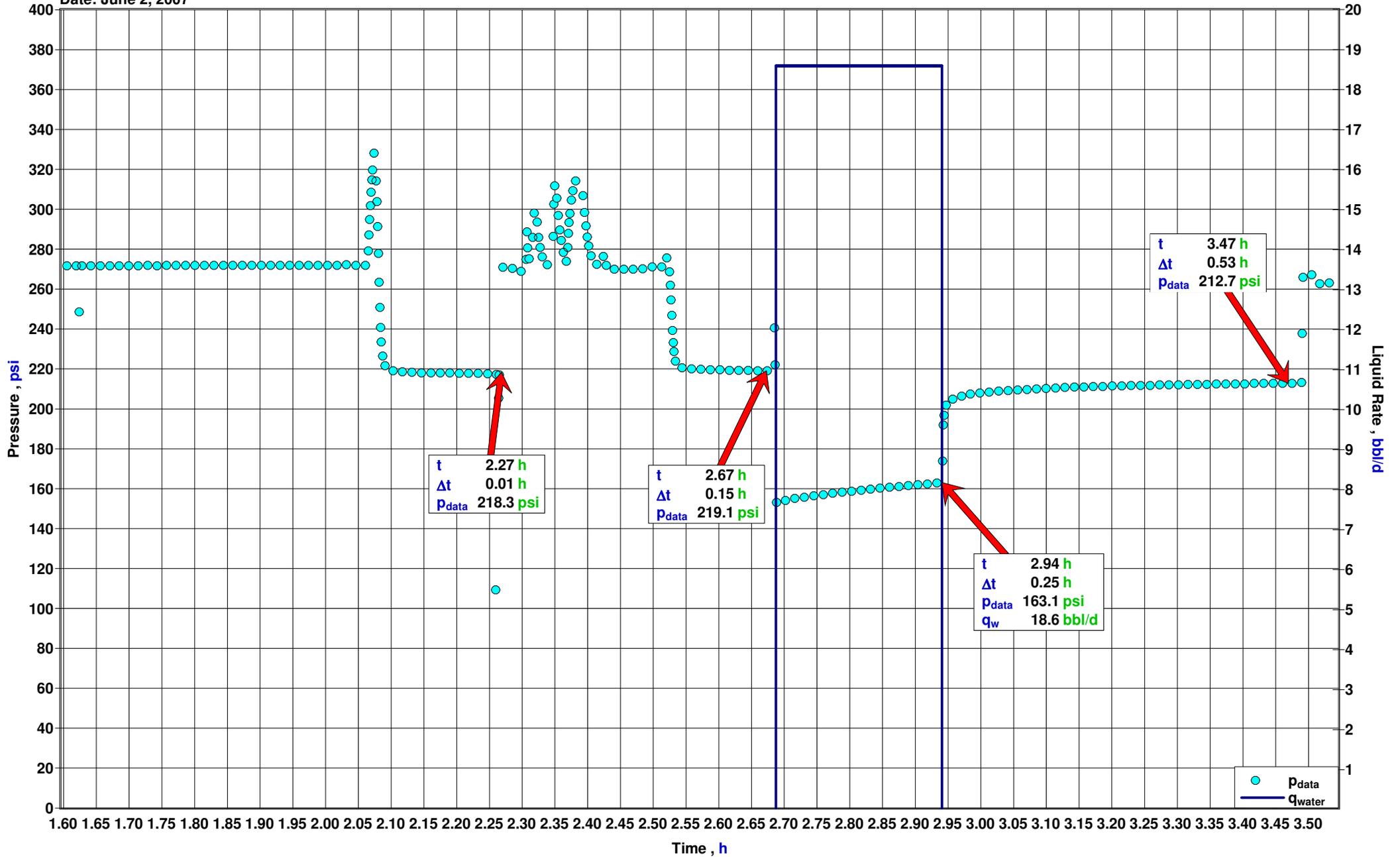


Figure 3

Fingal 55B
 Seam B
 Packer Depth @ 186.5 mGL
 Date: June 2, 2007

Diagnostic Analysis Typecurve

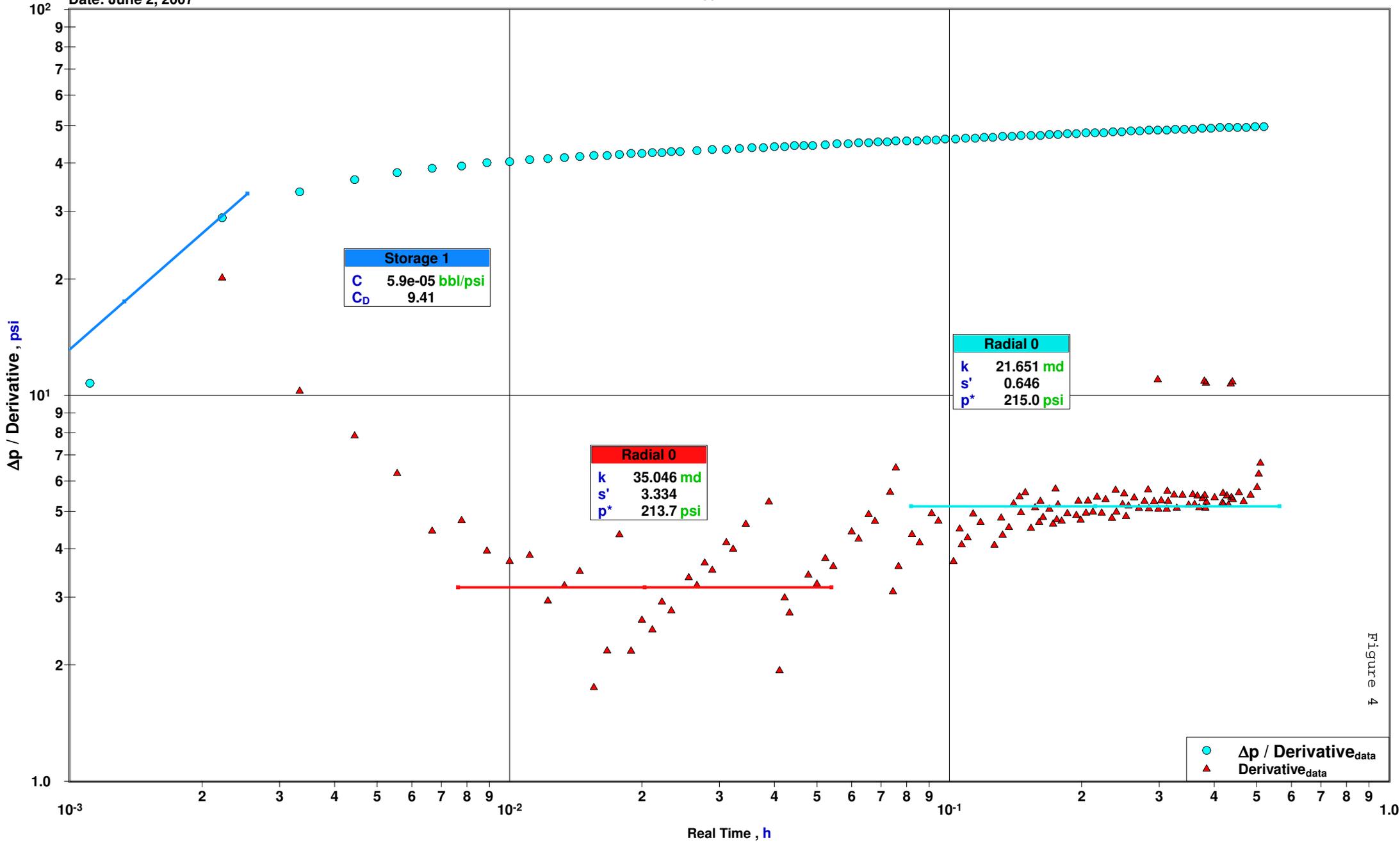


Figure 4

Fingal 55B
 Seam B
 Packer Depth @ 186.5 mGL
 Date: June 2, 2007

Diagnostic Analysis

Radial

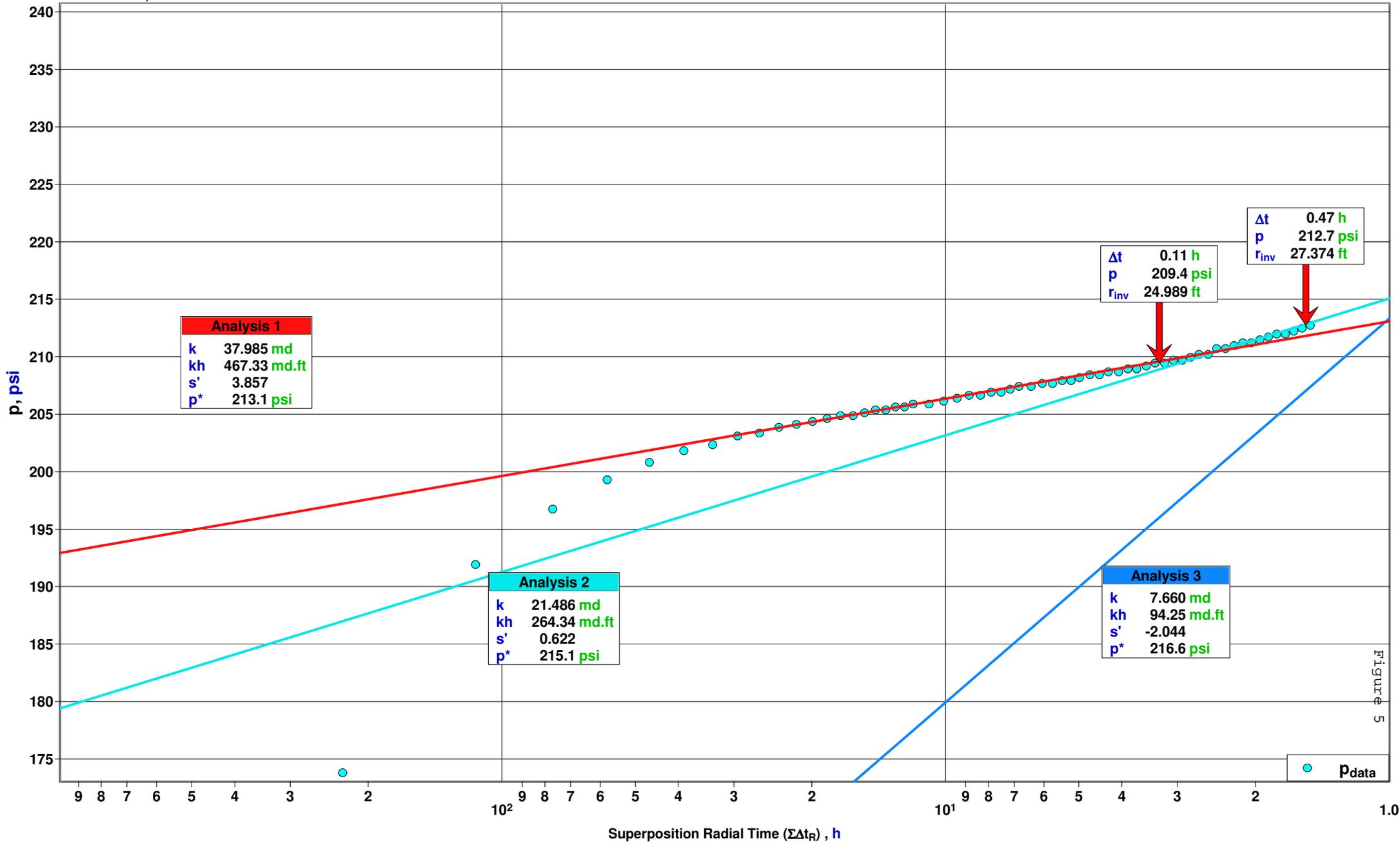


Figure 5

Water Well Test - Buildup

Radial Flow Analysis

Fingal 55B

Packer Depth @ 186.5 mGL

Seam B

Date: June 2, 2007

Analysis Results

Total Sandface Rate ($q_t B_t$)	18.575 bbl/d	Apparent Skin (s')	-2.044
Semilog Slope (m)	33.40	Skin - Damage	-2.044
Gas Permeability (k_G)	md	Skin - Inclination	
Oil Permeability (k_O)	md	Skin - Partial Penetration	
Water Permeability (k_W)	7.660 md	Pressure Drop Due to Skin (Δp_s)	psi
Flow Capacity (kh)	94.248 md.ft	Damage Ratio (DR)	0.468
Total Mobility (k/μ_t)	7.35 md/cp	Flow Efficiency (FE)	2.137
Total Transmissivity(kh/μ_t)	90.42 md.ft/cp		

Reservoir Parameters

Net Pay (h)	12.303 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_W)	95.00 %
Oil Saturation (S_O)	0.00 %
Gas Saturation (S_G)	5.00 %
Wellbore Radius (r_w)	0.30 ft
Formation Temperature (T)	64.8 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	2.547e-4 psi ⁻¹

Pressures

Initial Pressure (p_i)	215.24 psi
Extrapolated Pressure (p^*)	216.58 psi
Final Flowing Pressure (p_{wf0})	163.07 psi

Production and Times

Corrected Flow Time (t_c)	0.2518 hr
Cumulative Water Production	0.195 bbl
Final Water Rate	18.600 bbl/d

Fluid Properties

Water Compressibility (c_W)	3.31501e-6 psi ⁻¹
Water Formation Volume Factor (B_W)	0.999
Water Viscosity (μ_W)	1.042 cp
Solution Gas Ratio (R_{SW})	0 scf/bbl
Specific Gravity (G)	1.000
Gas Gravity (G)	0.650
PVT Reference Pressure (p_{pVT})	215.24 psi

Fingal 55B
 Seam B
 Packer Depth @ 186.5 mGL
 Date: June 2, 2007

Fingal 55B Total Test

p_i (syn)	216.5 psi	r_1	17.0 ft	k_3	7.500 md
k_1	38.100 md	k_2	10.000 md	h_3	12.303 ft
h_1	12.303 ft	h_2	12.303 ft	kh_3	92.27 md.ft
kh_1	468.75 md.ft	kh_2	123.03 md.ft	r_3	ft
s'	4.000	r_2	25.0 ft		

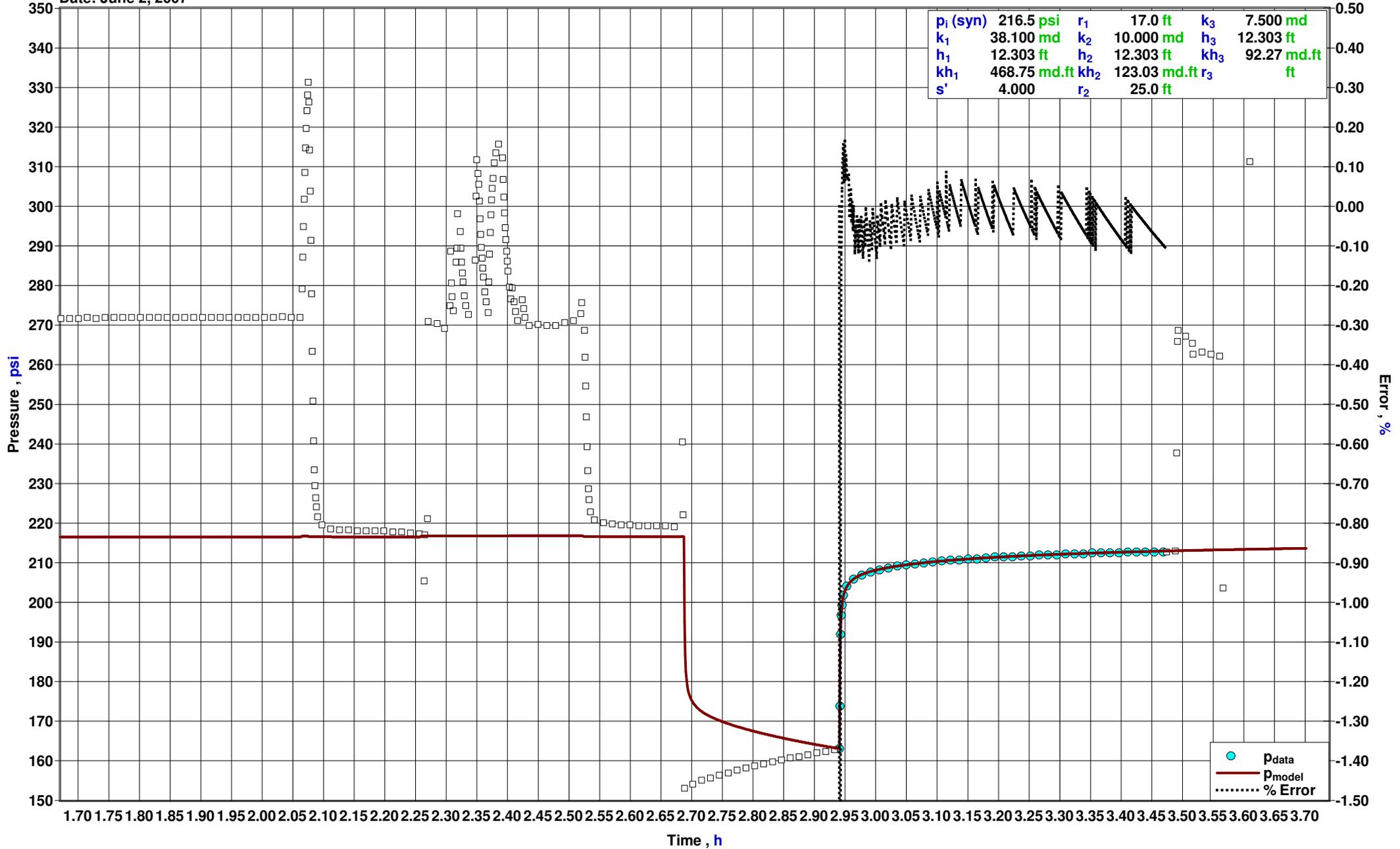


Figure 7

Fingal 55B
 Seam B
 Packer Depth @ 186.5 mGL
 Date: June 2, 2007

Simulation Typecurve

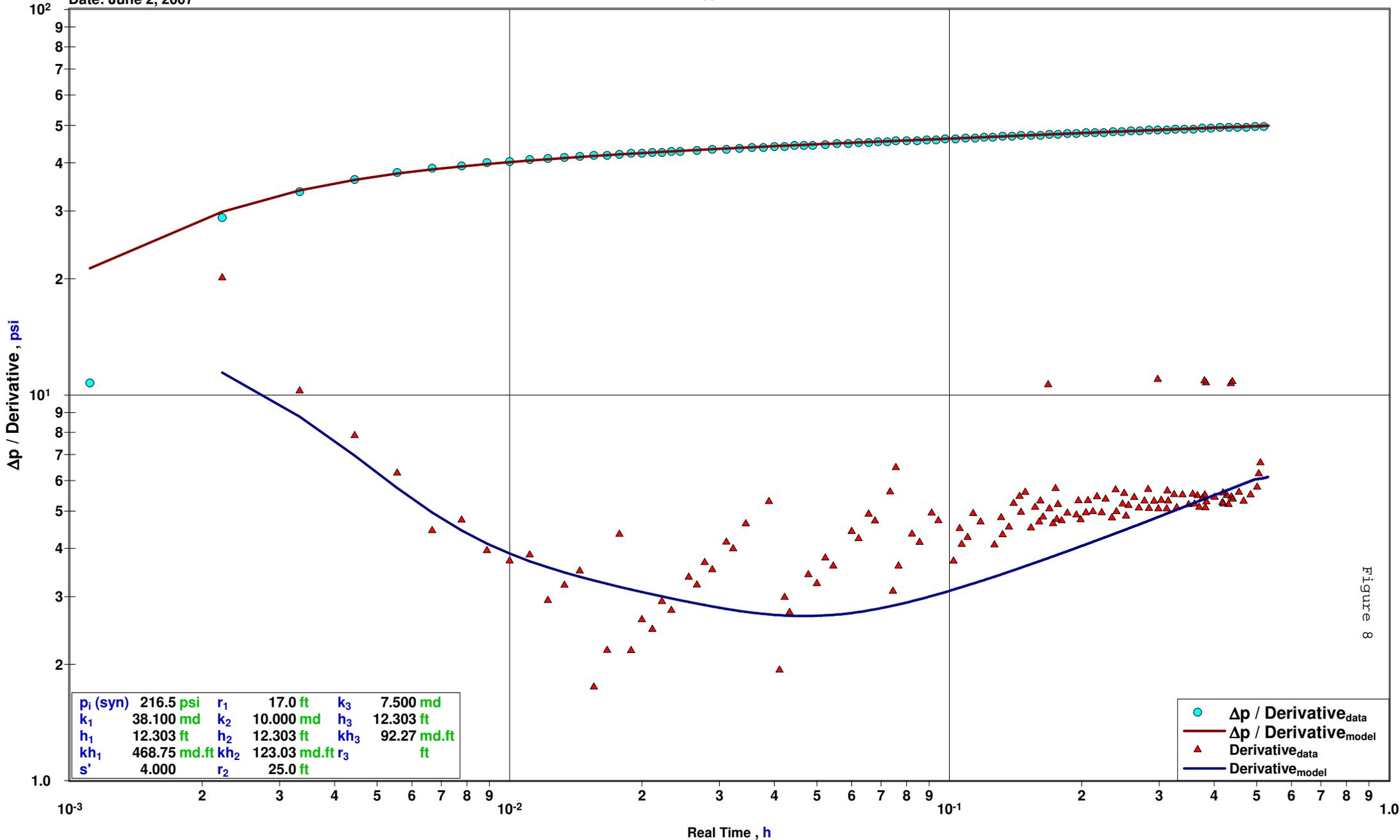


Figure 8

Fingal 55B
 Seam B
 Packer Depth @ 186.5 mGL
 Date: June 2, 2007

Simulation - Semi-log Radial

p_i (syn)	216.5 psi	r_1	17.0 ft	k_3	7.500 md
k_1	38.100 md	k_2	10.000 md	h_3	12.303 ft
h_1	12.303 ft	h_2	12.303 ft	kh_3	92.27 md.ft
kh_1	468.75 md.ft	kh_2	123.03 md.ft	r_3	ft
s'	4.000	r_2	25.0 ft		

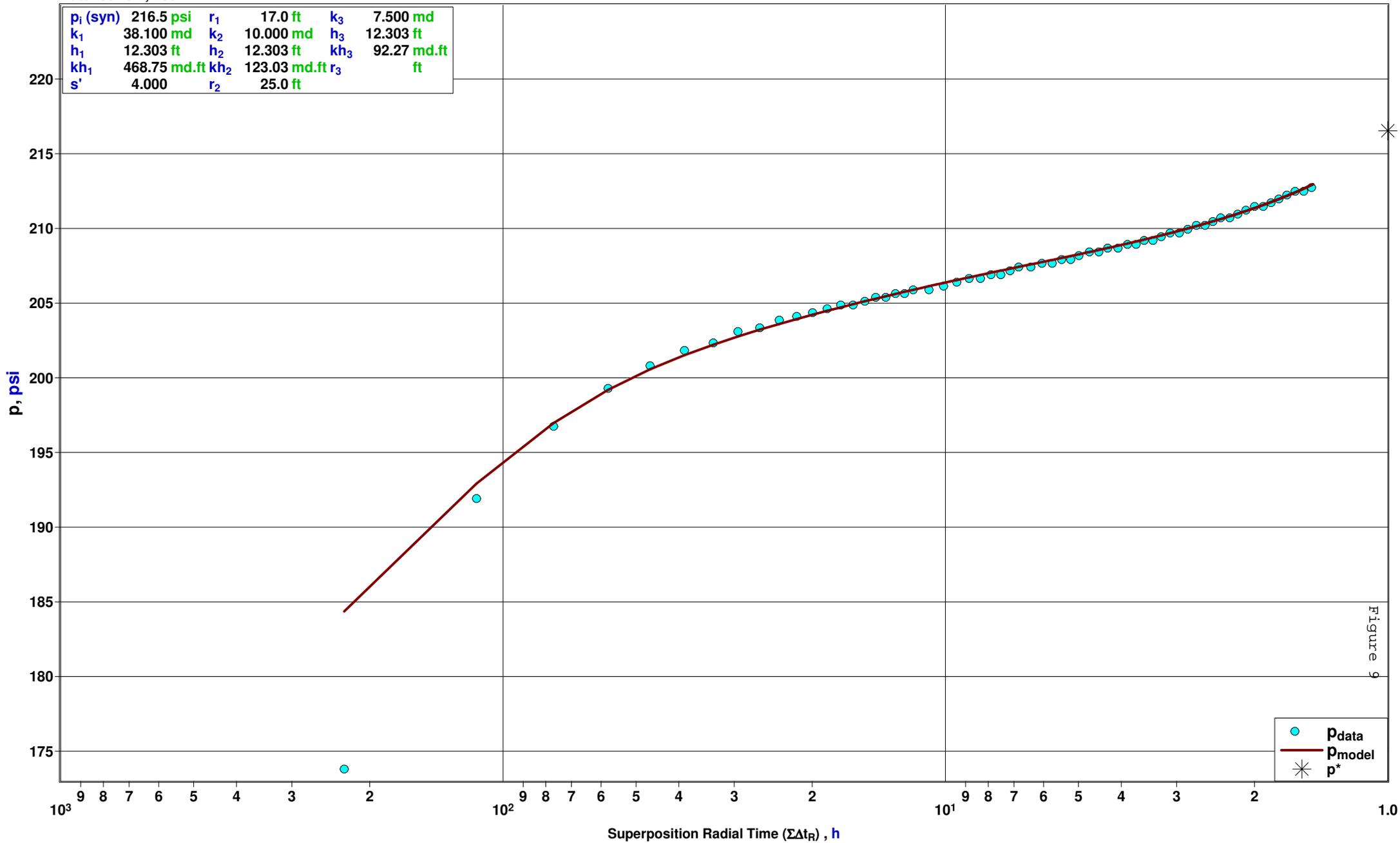


Figure 9

● p_{data}
— p_{model}
✱ p^*

Composite Water Well Model

Case Name : Composite 7

Fingal 55B

Packer Depth @ 186.5 mGL

Seam B

Date: June 2, 2007

Model Parameters

	<u>Region 1</u>	<u>Region 2</u>	<u>Region 3</u>
Total Mobility (k/μ) _t	36.55	9.59	Total 7.20 md/cp
Permeability (k)	38.100	10.000	7.500 md
Net Pay (h)	12.30	12.30	12.30 ft
Total Porosity (ϕ) _t	2.00	2.00	2.00 %
Viscosity (μ)	1.042	1.042	1.042 cp
Total Compressibility (c_t)	2.547e-4	2.547e-4	2.547e-4 psi ⁻¹
Region Radius (r)	17.000	25.000	1000.000 ft
Skin (s)	4.000		

Formation Parameters

Gas Saturation (S_g)	5.00 %
Water Saturation (S_w)	95.00 %
Oil Saturation (S_o)	0.00 %
Wellbore Radius (r_w)	0.30 ft
Formation Temperature (T)	64.8 °F

Apparent Wellbore Storage Dim. (C_{aD})	0.00
Wellbore Storage Constant Dim. (C_D)	3.90
Storage Pressure Param. Dim. (C_{pD})	

Fluid Properties

Water Compressibility (c_w)	3.31501e-6 psi ⁻¹
Oil Compressibility (c_o)	1.50000e-6 psi ⁻¹
Gas Compressibility (c_g)	4.84114e-3 psi ⁻¹
Water Formation Volume Factor (B_w)	0.999
Gas Formation Volume Factor (B_g)	0.011747 bbl/scf
Water Viscosity (μ_w)	1.042 cp
Gas Viscosity (μ_g)	0.0106 cp
Solution Gas Ratio (R_{sw})	0 scf/bbl
Specific Gravity (G)	1.000
PVT Reference Pressure (p_{pVT})	215.24 psi

Production and Pressure

$Q_t B_t$	18.575 bbl/d
Final Water Rate	18.600 bbl/d
Final Gas Rate	MMCF/D
Final Flowing Pressure (p_{wfo})	163.07 psi
Final Measured Pressure	-900.98 psi
Cumulative Water Production	0.195 bbl

Synthesis Results

Average Error	0.06 %
Synthetic Initial Pressure (p_i)	216.54 psi
Extrapolated Pressure at Specified Time	216.54 psi
Pressure Drop Due To Skin (Δp_s)	23.29 psi
Flow Efficiency (FE)	0.564
Damage Ratio (DR)	1.772

Forecasts

Forecast Flowing Pressure (P_{flow})	163.07 psi
3 - Month Constant Rate Forecast @ Curr. Skin	5.724 bbl/d
6 - Month Constant Rate Forecast @ Curr. Skin	5.404 bbl/d
Forecast Flow Duration (t_{flow})	12.00 month
Constant Rate Forecast @ Curr. Skin	5.119 bbl/d
PI / II (Actual)	0.101 bbl/d/psi
Constant Rate Forecast @ Skin=0	5.818 bbl/d
PI / II (Ideal)	0.116 bbl/d/psi
Constant Rate Forecast @ Skin=-4	7.058 bbl/d

FINGAL 55B
DRILL STEM TEST
FINAL REPORT
“D” ZONE COAL SEAM
OPEN HOLE INTERVAL 239.0 – 246.1 mGL
JUNE 5, 2007

Prepared for:
Pure Energy Resources Limited



Prepared by:
Focal Petroleum Engineering Pty Ltd.

July 11, 2007



Reservoir Engineering & Simulation Well Testing Oil & Gas Property Evaluation

July 11, 2007

Pure Energy Resources Limited
P.O. Box 952
SOUTH PERTH, WA 6951

Attention: Mr. Steve Beardsall

Dear Sir

Re: Fingal 55b Coal "D" Drill Stem Test Report

The following is a summary of the results obtained from the drill stem test conducted on June 5, 2007 over the "D" Coals, open hole interval from circa 239.0 – 246.05 mGL.

The DST was conducted through the drillpipe and coring bit, using an off bottom inflatable packer. Prior to testing, circa 120 meters of water was displaced from the drillpipe with air to allow inflow from the reservoir to occur.

The test was comprised of a 23 minute flow period followed by a buildup period of 60 minutes. A low flow gas meter was used to measure the gas recovery and a fluid recorder in the drill pipe was used to establish daily water production volumes (bbl/day) from the inflow of water into the wellbore.

During the inflation of the isolation packers, a rapid increase in pressure followed by a slow fall-off was noted below the packer, suggesting that the permeability within the test interval was very low.

During the shut-in procedure (raising the drill string 70mm) for the downhole tool, a sharp drop in pressure was noted to start the buildup. This was the result of some upward movement by the packer, creating a small amount of suction in the wellbore. For the purpose of this report, the drawdown data was corrected to match the start of the buildup.



Comments and Conclusions

- The pressure response observed during the flow and buildup periods suggested a reservoir with very low flow capacity to water. Since the inflow from the reservoir was predominantly water, the test was analysed as a water well. The gas volume recovered was insignificant (< 1 cf) and was not used in the interpretation.
- The net pay of 9.0 ft (2.75 m) was obtained from the core samples. A default porosity of 2% was used for the interpretation.
- A water rate of circa 0.3 bbl/d was calculated using the pressure increase from the inflow of water into the wellbore during the flow period.
- A reservoir pressure (Pi) of 268 psia was extrapolated from the late-time semi-log data. The subject reservoir is slightly under-pressured with a reservoir gradient of 0.35 psi/ft.
- The pressure derivative indicated wellbore storage was overcome by the start of radial flow (zero slope) at about 20 minutes after shut-in. The pressure derivative then followed an upward trend for an additional 20 minutes before returning to the initial radial flow trend. This non reservoir response has been attributed to a shift in the liquid level in the wellbore.
- Conventional analysis and Simulation were both conducted. A line was placed through the initial radial flow portion on the semi-log plot to determine permeability and skin. A second line of identical slope was placed through the late-time semi-log data to extrapolate reservoir pressure.
- The positive skin value is considered moderate and is likely attributed to coal fines in the near wellbore region.

A summary of the Test Results is as follows:

Average Reservoir Pressure (Pr) @ 234.4 mGL	268 psia (semi-log)
Apparent Skin Factor	+3.3
Average Permeability to Water	0.2 md
Flow Capacity to Water	1.8 md.ft
Radius of Investigation	4 ft

If further clarification of the test interpretation is required, please contact the undersigned on (08) 94749622.

Yours faithfully,

FOCAL PETROLEUM ENGINEERING PTY LTD

Ryan Gee

WELL TEST CONSULTANT

Terry Primeau

MANAGING DIRECTOR

LIST OF FIGURES

Figure 1 – Validata Plot

Figure 2 – Strip Chart

Figure 3 – Conventional Log-Log Plot

Figure 4 – Conventional Semi-Log Plot

Figure 5 – Conventional Results

Figure 6 – Simulation Match – Strip Chart

Figure 7 – Simulation Match – Log-Log Plot

Figure 8 – Simulation Match – Semi-Log Plot

Figure 9 – Simulation Results

Validata Plot

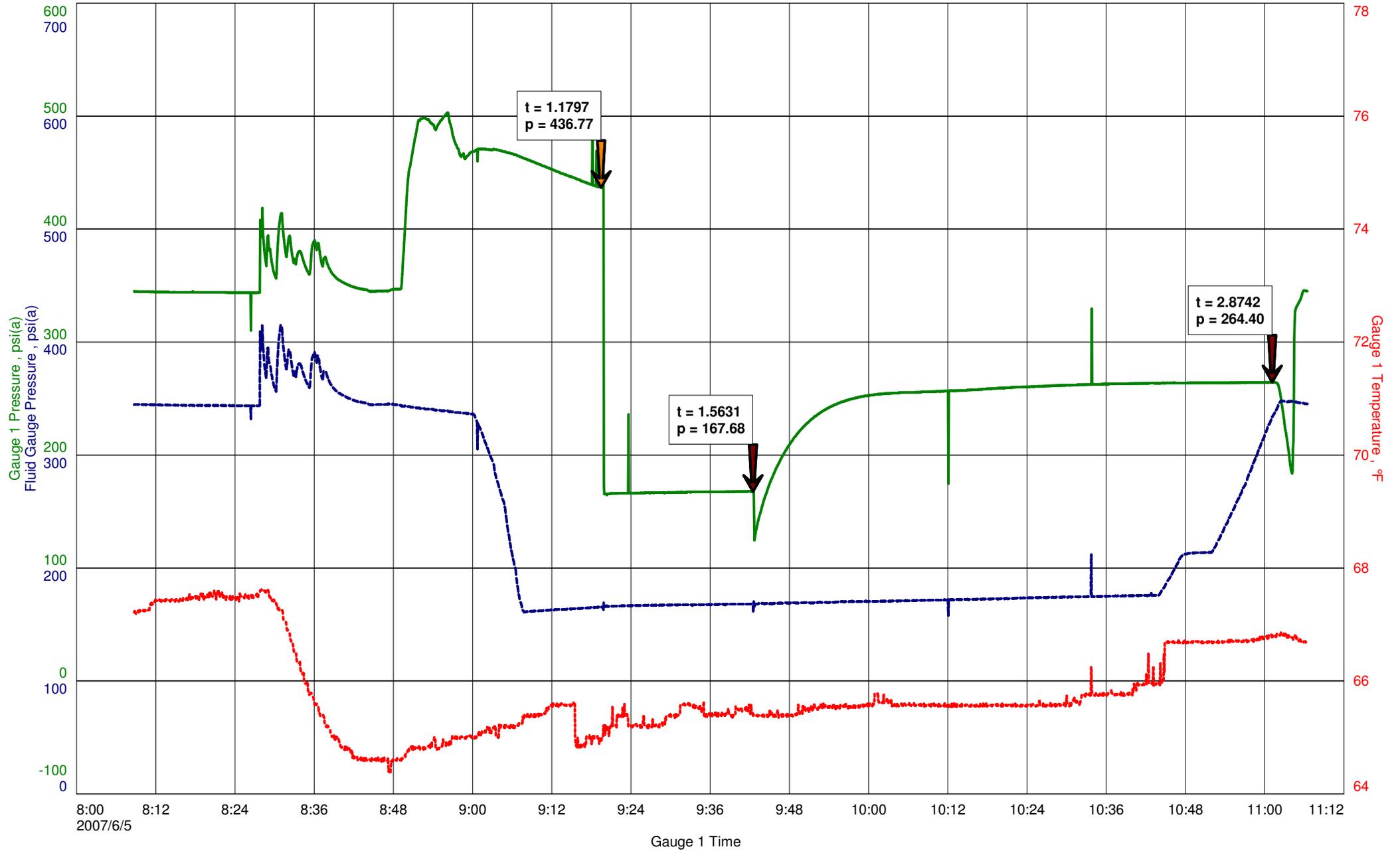


Figure 1

Fingal 55B
 Seam D
 Packer Depth @238.3 mGL
 June 5, 2007

Strip Chart Total Test

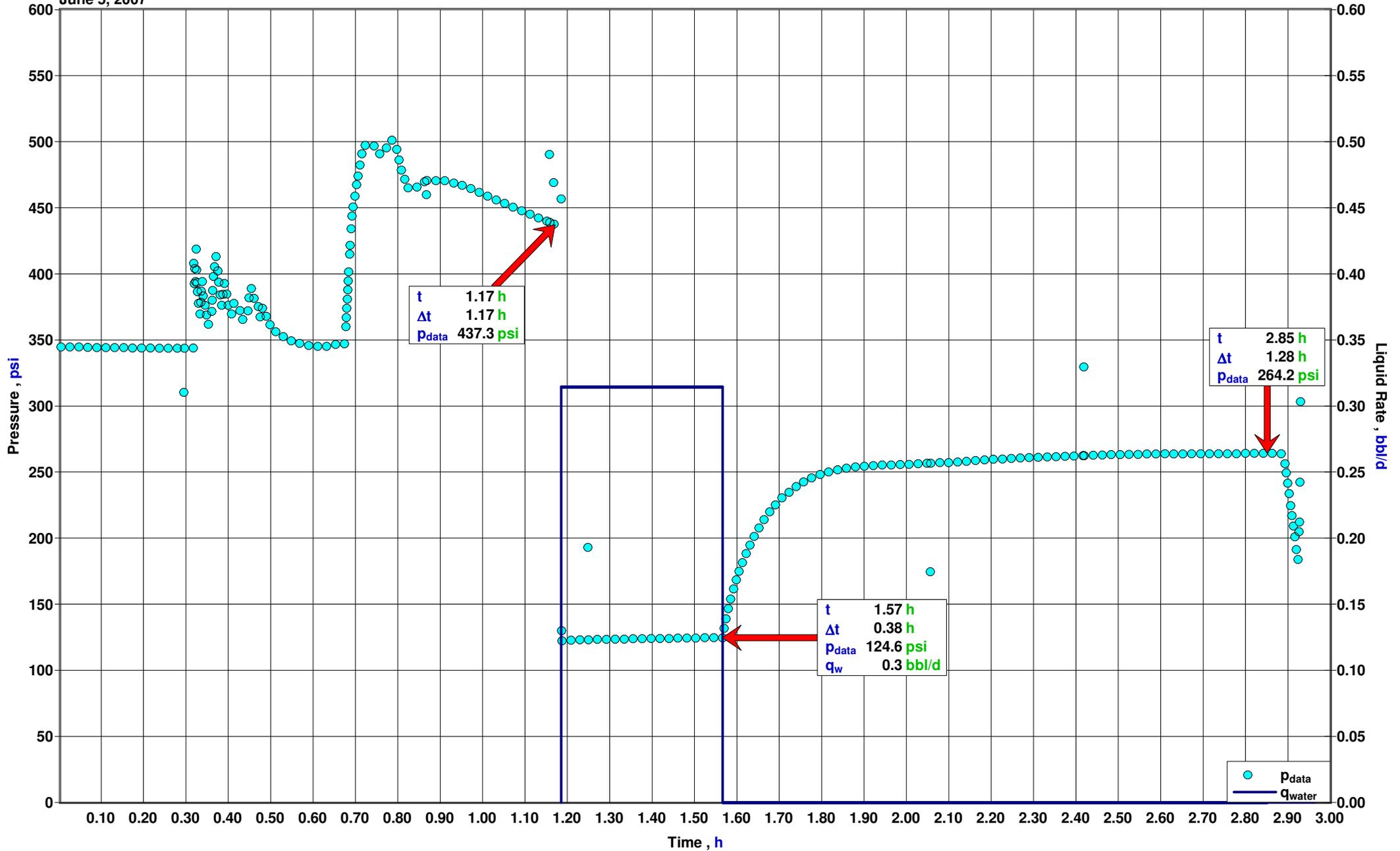


Figure 2

Fingal 55B
 Seam D
 Packer Depth @238.3 mGL
 June 5, 2007

Diagnostic Analysis Typecurve

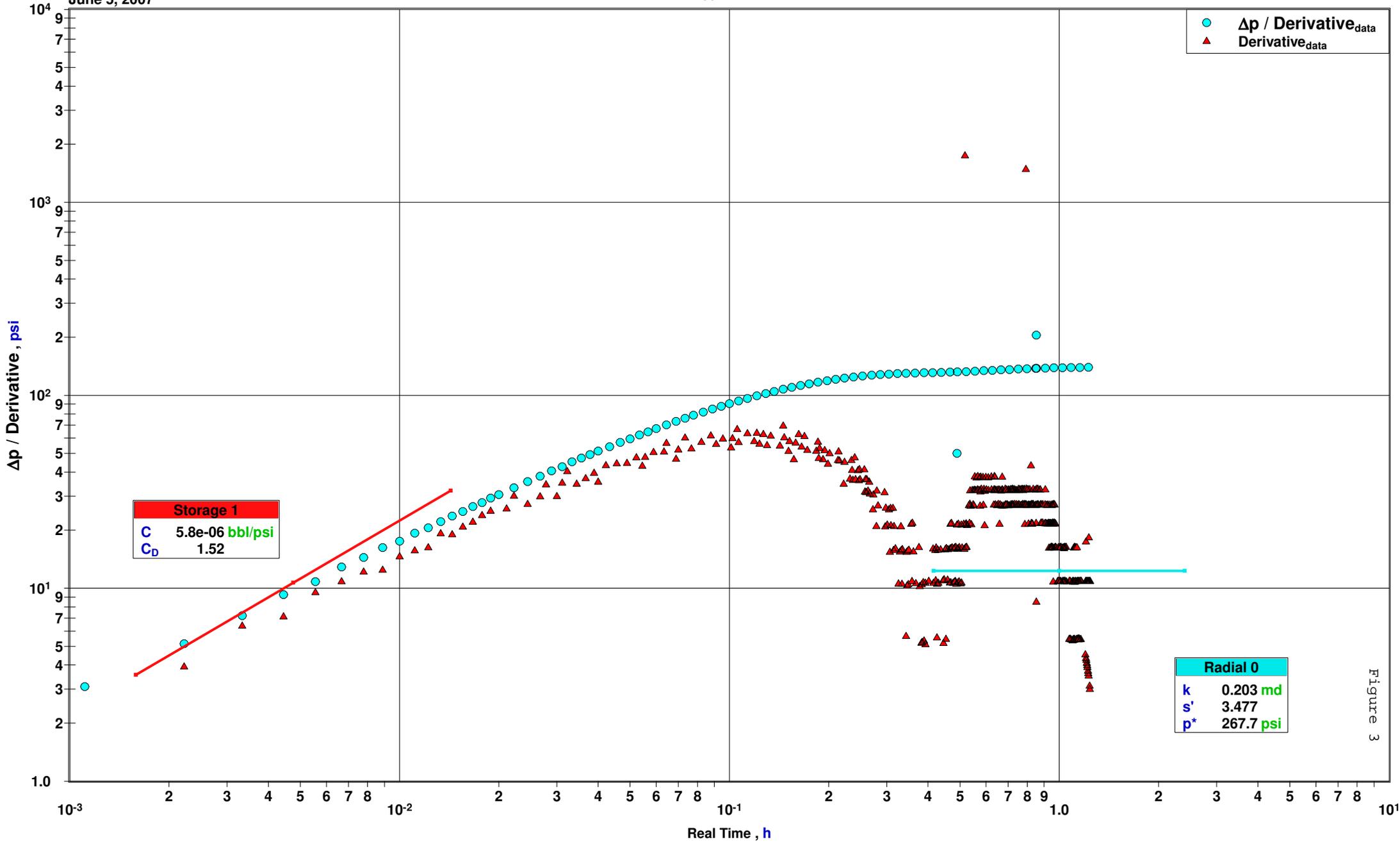


Figure 3

Fingal 55B
 Seam D
 Packer Depth @238.3 mGL
 June 5, 2007

Diagnostic Analysis

Radial

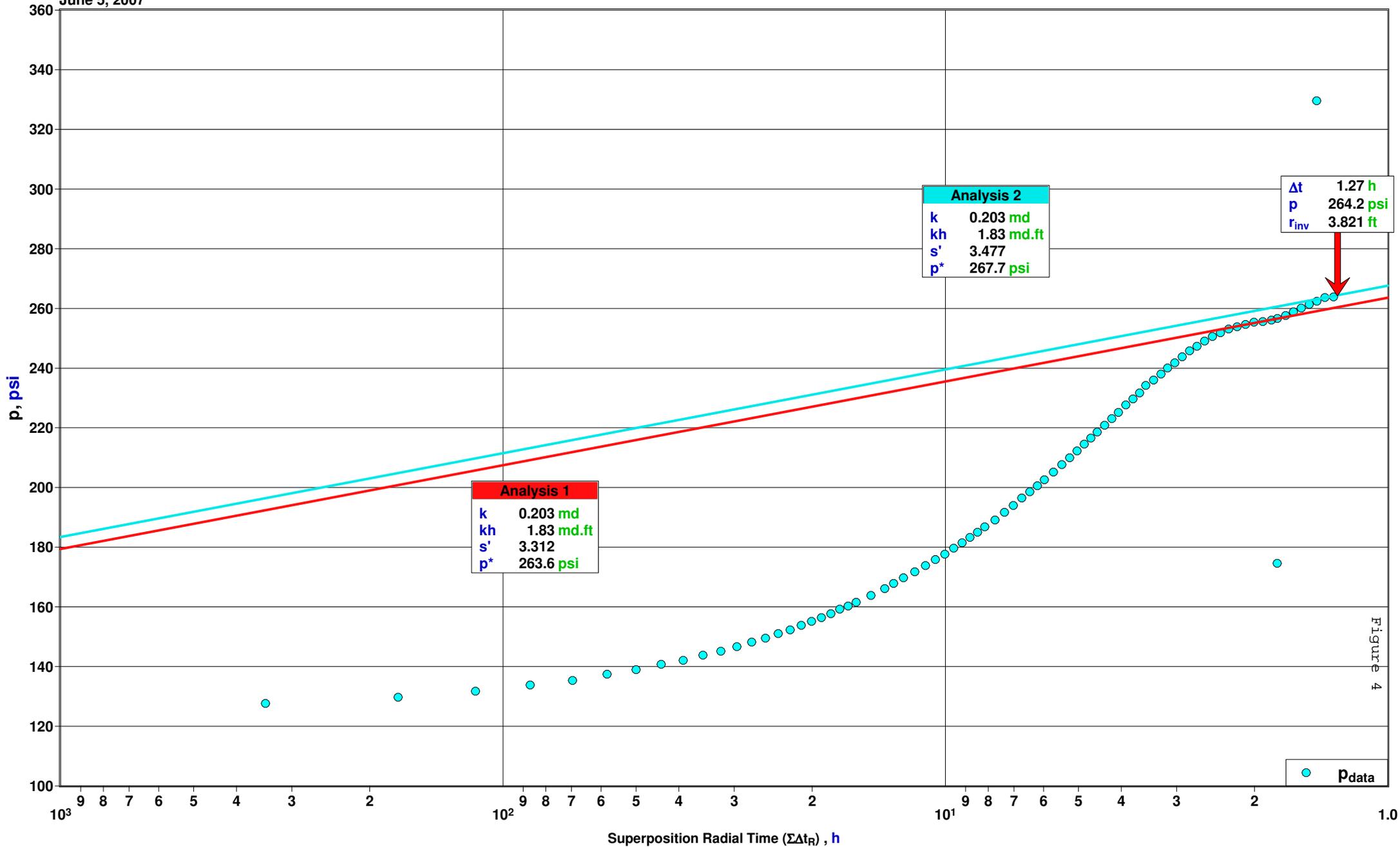


Figure 4

Water Well Test - Buildup

Radial Flow Analysis

Fingal 55B

Packer Depth @238.3 mGL

Seam D

June 5, 2007

Analysis Results

Total Sandface Rate ($q_t B_t$)	0.314 bbl/d	Apparent Skin (s')	3.477
Semilog Slope (m)	28.08	Skin - Damage	3.477
Gas Permeability (k_G)	md	Skin - Inclination	
Oil Permeability (k_O)	md	Skin - Partial Penetration	
Water Permeability (k_W)	0.203 md	Pressure Drop Due to Skin (Δp_s)	84.84 psi
Flow Capacity (kh)	1.827 md.ft	Damage Ratio (DR)	2.525
Total Mobility (k/μ_t)	0.20 md/cp	Flow Efficiency (FE)	0.396
Total Transmissivity(kh/μ_t)	1.82 md.ft/cp		

Reservoir Parameters

Net Pay (h)	9.022 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_W)	95.00 %
Oil Saturation (S_O)	0.00 %
Gas Saturation (S_G)	5.00 %
Wellbore Radius (r_w)	0.30 ft
Formation Temperature (T)	67.5 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	2.109e-4 psi ⁻¹

Pressures

Initial Pressure (p_i)	265.00 psi
Extrapolated Pressure (p^*)	267.65 psi
Final Flowing Pressure (p_{wf0})	124.53 psi

Production and Times

Corrected Flow Time (t_c)	0.3811 hr
Cumulative Water Production	0.005 bbl
Final Water Rate	0.314 bbl/d

Fluid Properties

Water Compressibility (c_W)	3.29556e-6 psi ⁻¹
Water Formation Volume Factor (B_W)	0.999
Water Viscosity (μ_W)	1.005 cp
Solution Gas Ratio (R_{SW})	0 scf/bbl
Specific Gravity (G)	1.000
Gas Gravity (G)	0.650
PVT Reference Pressure (p_{pVT})	265.00 psi

Fingal 55B
 Seam D
 Packer Depth @238.3 mGL
 June 5, 2007

Fingal 55B Total Test

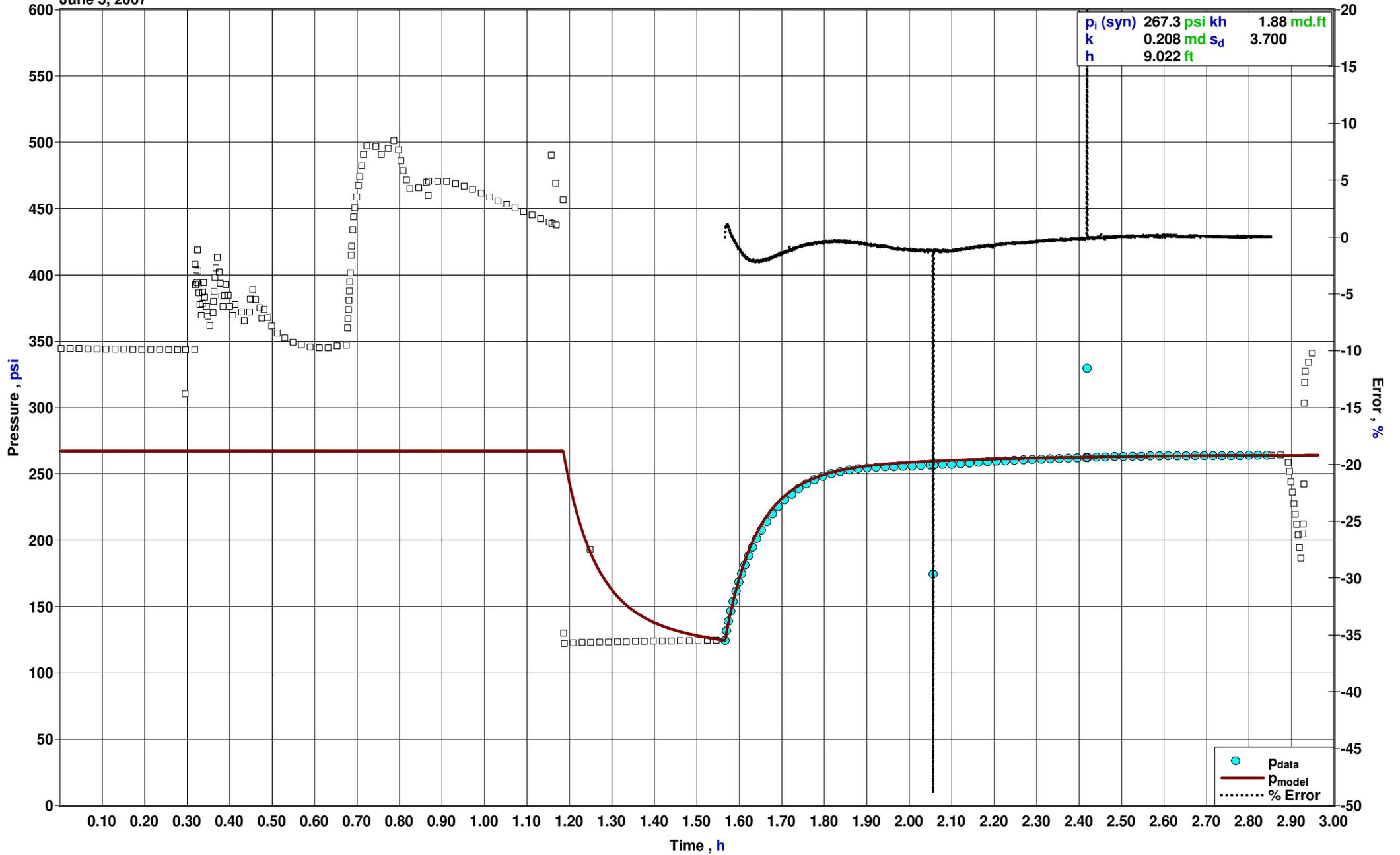


Figure 6

Fingal 55B
 Seam D
 Packer Depth @238.3 mGL
 June 5, 2007

Simulation Typecurve

p_i (syn)	267.3 psi	kh	1.88 md.ft
k	0.208 md	s_d	3.700
h	9.022 ft		

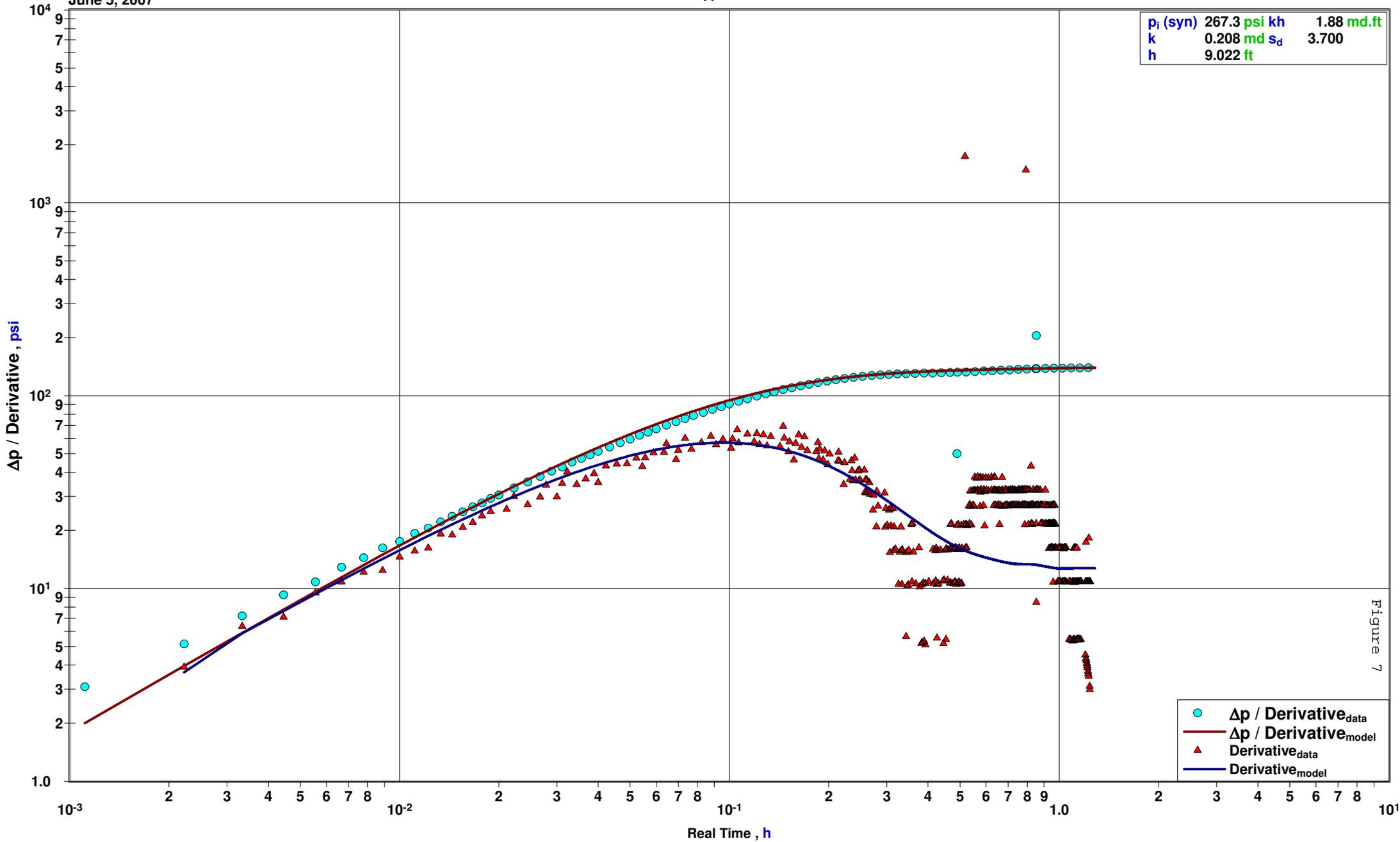


Figure 7

Fingal 55B
 Seam D
 Packer Depth @238.3 mGL
 June 5, 2007

Simulation Radial

p_i (syn)	267.3 psi	kh	1.88 md.ft
k	0.208 md	s_d	3.700
h	9.022 ft		

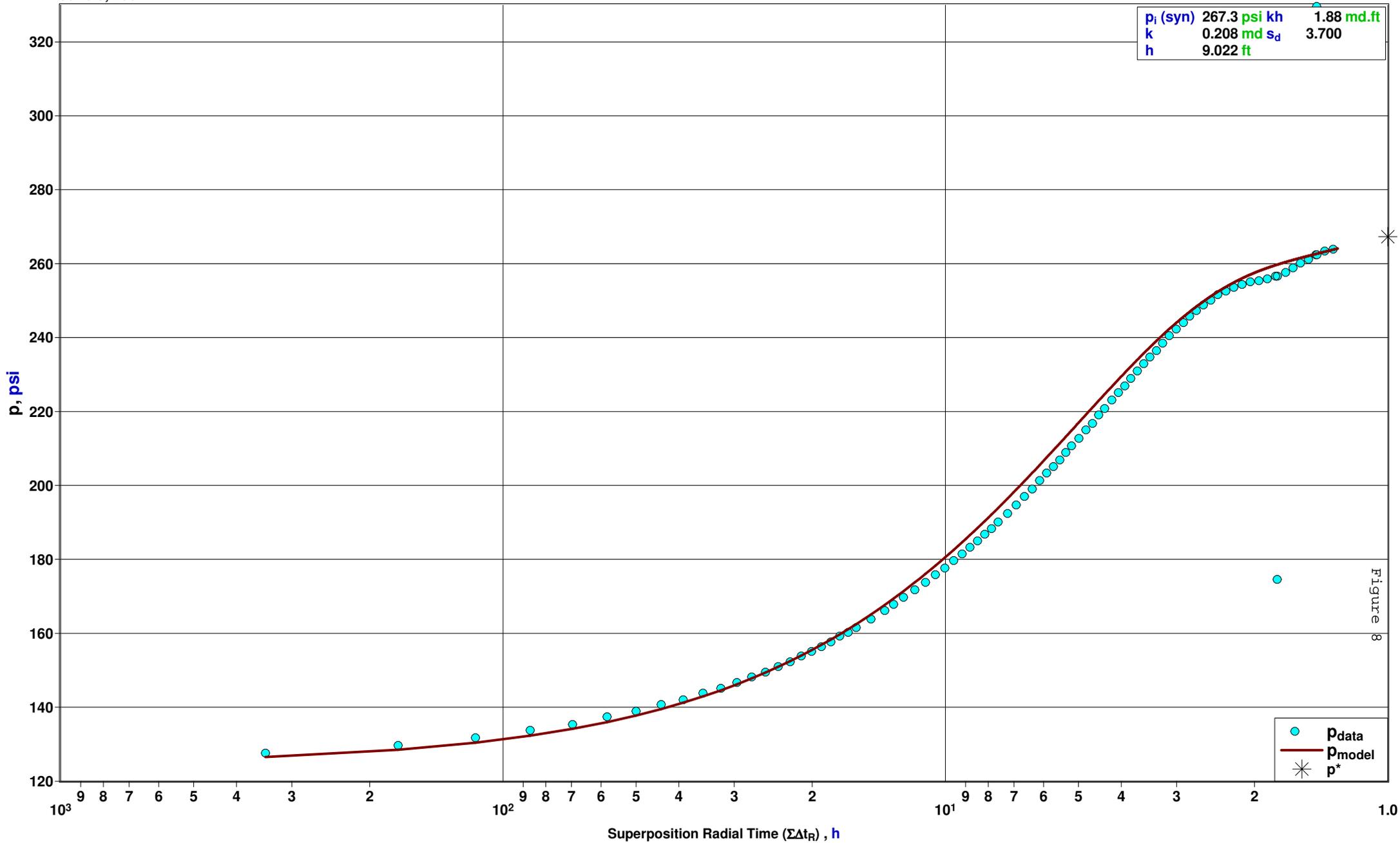


Figure 8

● p_{data}
 — p_{model}
 * p^*

Vertical Water Well Model

Case Name : Simulation

Fingal 55B

Packer Depth @238.3 mGL

Seam D

June 5, 2007

Model Parameters

Water Permeability (k_w)	0.208 md	Reservoir Length (X_e)	1000000.000 ft
Gas Permeability (k_g)	md	Reservoir Width (Y_e)	1000000.000 ft
Skin (s)	3.700	Active Well At (X_w)	ft
Total Mobility (k/μ_t)	0.21 md/cp	Active Well At (Y_w)	ft
Total Transmissivity (kh/μ_t)	1.87 md.ft/cp		
Wellbore Storage Constant Dim. (C_D)	1.83		

Production and Pressure

Formation Parameters

Net Pay (h)	9.022 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_w)	95.00 %
Oil Saturation (S_o)	0.00 %
Gas Saturation (S_g)	5.00 %
Wellbore Radius (r_w)	0.30 ft
Formation Temperature (T)	67.5 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	2.109e-4 psi ⁻¹

$Q_t B_t$	0.314 bbl/d
Final Water Rate	0.314 bbl/d
Final Gas Rate	MMCF/D
Final Flowing Pressure (p_{wfo})	124.53 psi
Final Measured Pressure	345.10 psi
Cumulative Water Production	0.005 bbl

Synthesis Results

Average Error	0.64 %
Synthetic Initial Pressure (p_i)	267.27 psi
Extrapolated Pressure at Specified Time	267.27 psi
Pressure Drop Due To Skin (Δp_s)	85.78 psi
Flow Efficiency (FE)	0.399
Damage Ratio (DR)	2.506

Fluid Properties

Water Compressibility (c_w)	3.29556e-6 psi ⁻¹
Water Formation Volume Factor (B_w)	0.999
Water Viscosity (μ_w)	1.005 cp
Solution Gas Ratio (R_{sw})	0 scf/bbl
Specific Gravity (G)	1.000
PVT Reference Pressure (p_{pvt})	265.00 psi

Forecasts

Forecast Flowing Pressure (P_{flow})	124.53 psi
3 - Month Constant Rate Forecast @ Curr. Skin	0.181 bbl/d
6 - Month Constant Rate Forecast @ Curr. Skin	0.175 bbl/d
Forecast Flow Duration (t_{flow})	12.00 month
Constant Rate Forecast @ Curr. Skin	0.170 bbl/d
PI / II (Actual)	0.001 bbl/d/psi
Constant Rate Forecast @ Skin=0	0.255 bbl/d
PI / II (Ideal)	0.002 bbl/d/psi
Constant Rate Forecast @ Skin=-4	0.551 bbl/d

**FINGAL 55B
DRILL STEM TEST
FINAL REPORT
“F” ZONE COAL SEAM
OPEN HOLE INTERVAL 297.5 – 298.9 mGL
JUNE 7, 2007**

**Prepared for:
Pure Energy Resources Limited**



**Prepared by:
Focal Petroleum Engineering Pty Ltd.**

July 11, 2007



July 11, 2007

Pure Energy Resources Limited
P.O. Box 952
SOUTH PERTH, WA 6951

Attention: Mr. Steve Beardsall

Dear Sir

Re: Fingal 55b Coal "F" Drill Stem Test Report

The following is a summary of the results obtained from the Drill stem test conducted on June 7, 2007 over the "F" Coals, open hole interval from circa 297.5 – 298.9 mGL.

The DST was conducted through the drillpipe and coring bit, using an off bottom inflatable packer. Prior to testing, 184 meters of water was displaced from the drillpipe with air to allow inflow from the reservoir to occur.

The test was comprised of a 63 minute flow period followed by a 70 minute buildup period. A low flow gas meter was used to measure the gas recovery and a fluid recorder in the drill pipe was used to establish daily water production volumes (bbl/day) from the inflow of water into the wellbore.

During the inflation of the isolation packers, a rapid increase in pressure followed by a slow fall-off was noted below the packer, suggesting that the permeability within the test interval was low.

During the shut-in procedure (raising the drill string 70mm) for the downhole tool, a sharp drop in pressure was noted to start the buildup. This was the result of some upward movement by the packer, creating a small amount of suction in the wellbore.

Comments and Conclusions

- The pressure response observed during the flow and buildup periods suggested a reservoir with low flow capacity to water. Since the inflow

from the reservoir was predominantly water, the test was analysed as a water well. The gas volume recovered was insignificant (< 1 cf) and was not used in the interpretation.

- The net pay of 4.6 ft (1.4 m) was obtained from the core samples. A default porosity of 2% was used for the interpretation.
- An average water rate of circa 2.6 bbl/d was calculated using the pressure increase from the inflow of water into the wellbore during the flow period.
- The reservoir pressure (P_i) of 339 psia was calculated from the simulation. The subject reservoir is slightly under-pressured with a reservoir gradient of 0.35 psi/ft.
- The pressure derivative indicated that wellbore storage was immediately overcome by a linear flow (half slope) trend until about three minutes after shut-in. The derivative then begins to bend over and follow a downward trend until about 20 minutes after shut-in, where it flattens into radial flow (zero slope) for the duration of the test.
- Conventional analysis and Simulation were both conducted. It is suspected that the rapid increase in pressure during packer inflation likely created a small fracture in the very near wellbore area, as evident by the early time half slope (fracture flow effects). However, since the mini fracture did not penetrate very far into the damaged, near wellbore zone, for the purposes of this analysis, it was modelled using changing wellbore storage. The simulation compared very well with the conventional results and has been quoted throughout this report.
- The positive skin value is considered moderate and is likely attributed to coal fines in the near wellbore region.

A summary of the Test Results is as follows:

Average Reservoir Pressure (Pr) @ 292.9 mGL	339 psia (simulation)
Apparent Skin Factor	+4.3
Average Permeability to Water	2.8 md
Flow Capacity to Water	12.9 md.ft
Radius of Investigation	22 ft

If further clarification of the test interpretation is required, please contact the undersigned on (08) 94749622.

Yours faithfully,

FOCAL PETROLEUM ENGINEERING PTY LTD

Ryan Gee

WELL TEST CONSULTANT

Terry Primeau

MANAGING DIRECTOR

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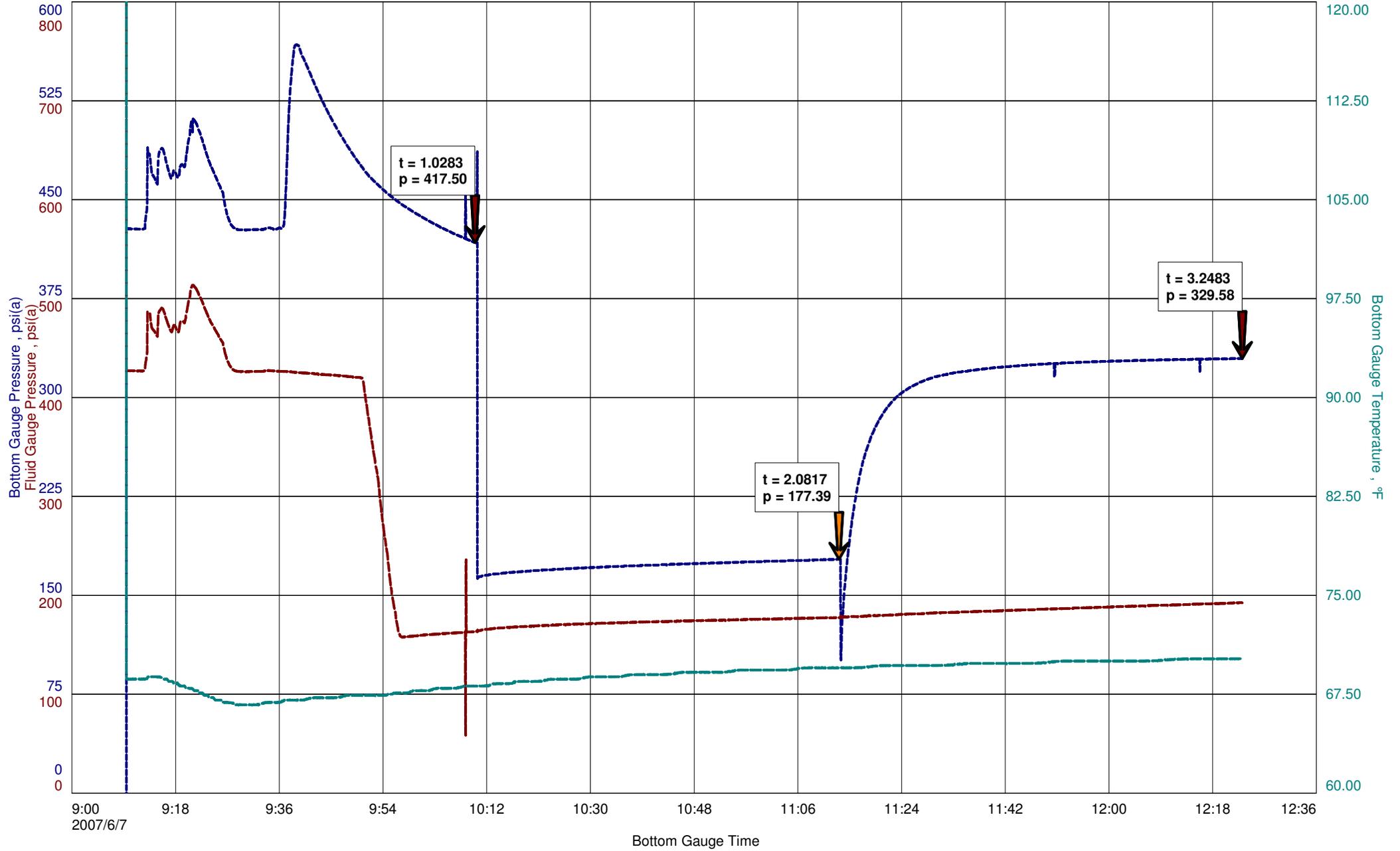
Figure 6 – Simulation Match – Strip Chart

Figure 7 – Simulation Match – Log-Log Plot

Figure 8 – Simulation Match – Semi-Log Plot

Figure 9 – Simulation Results

Validata



Fingal 55B
 F Seam
 Packer Depth @ 296.8 mGL
 June 7, 2007

Strip Chart Total Test

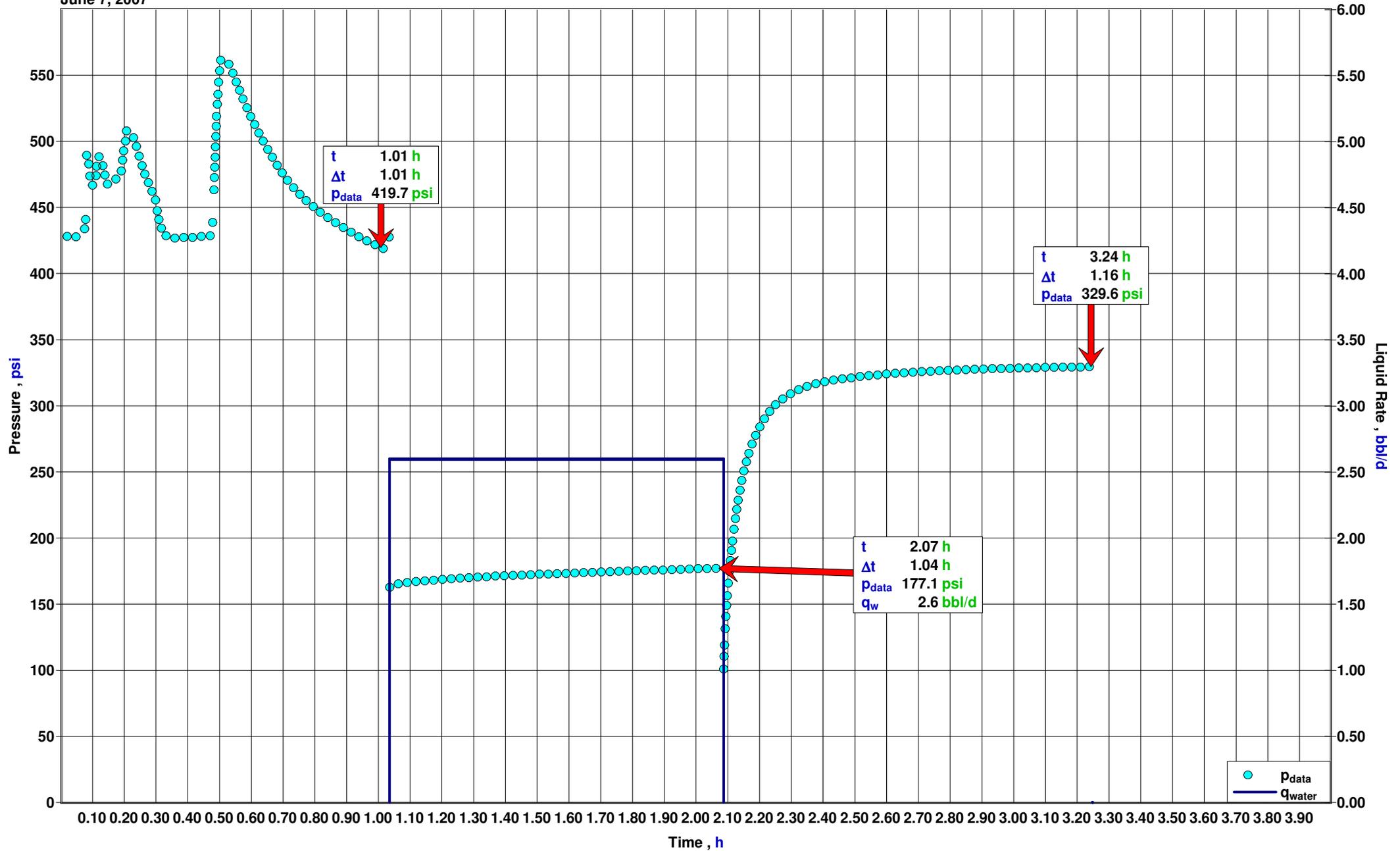


Figure 2

Fingal 55B
 F Seam
 Packer Depth @ 296.8 mGL
 June 7, 2007

Diagnostic Analysis Typecurve

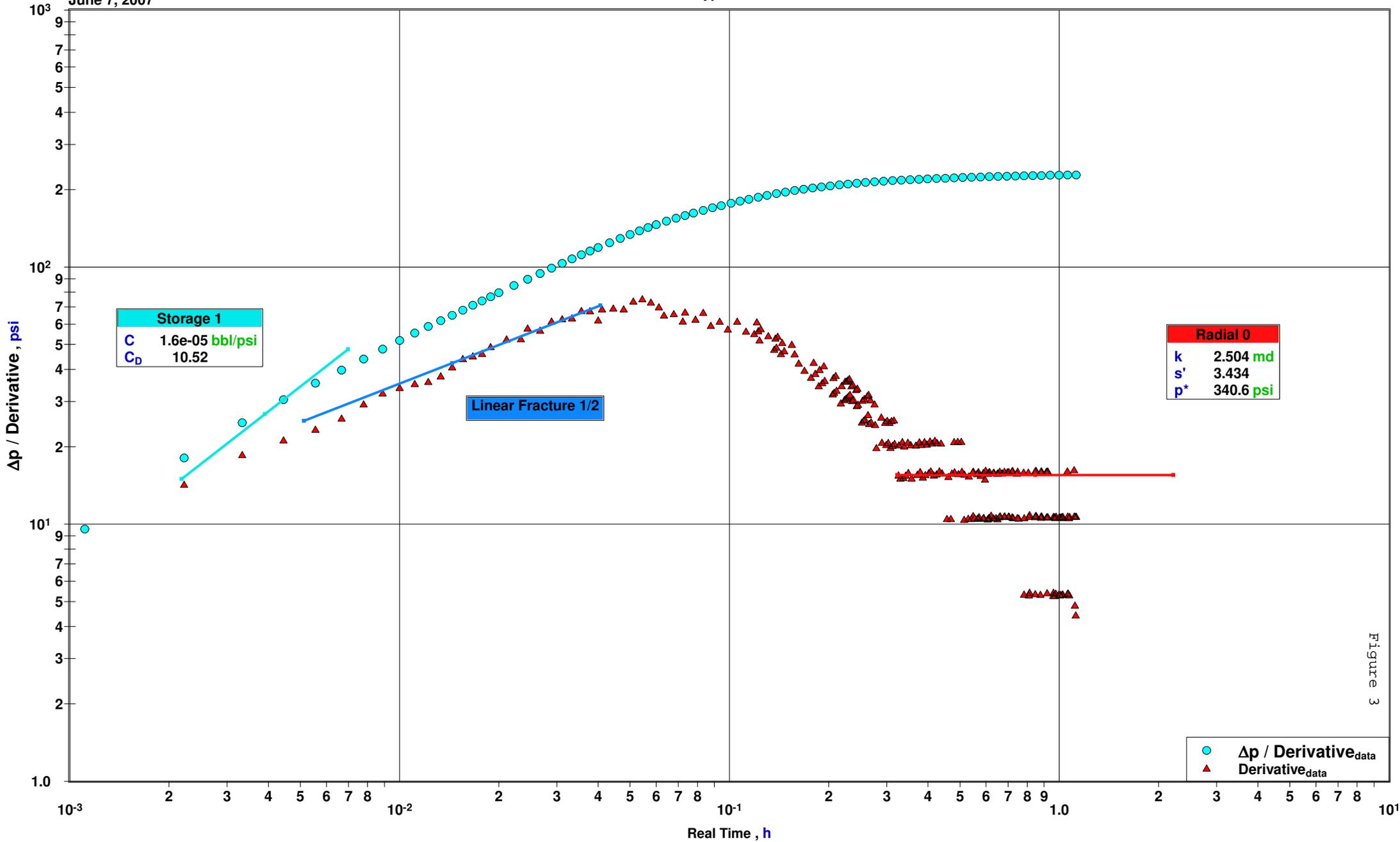


Figure 3

Fingal 55B
 F Seam
 Packer Depth @ 296.8 mGL
 June 7, 2007

Diagnostic Analysis

Radial

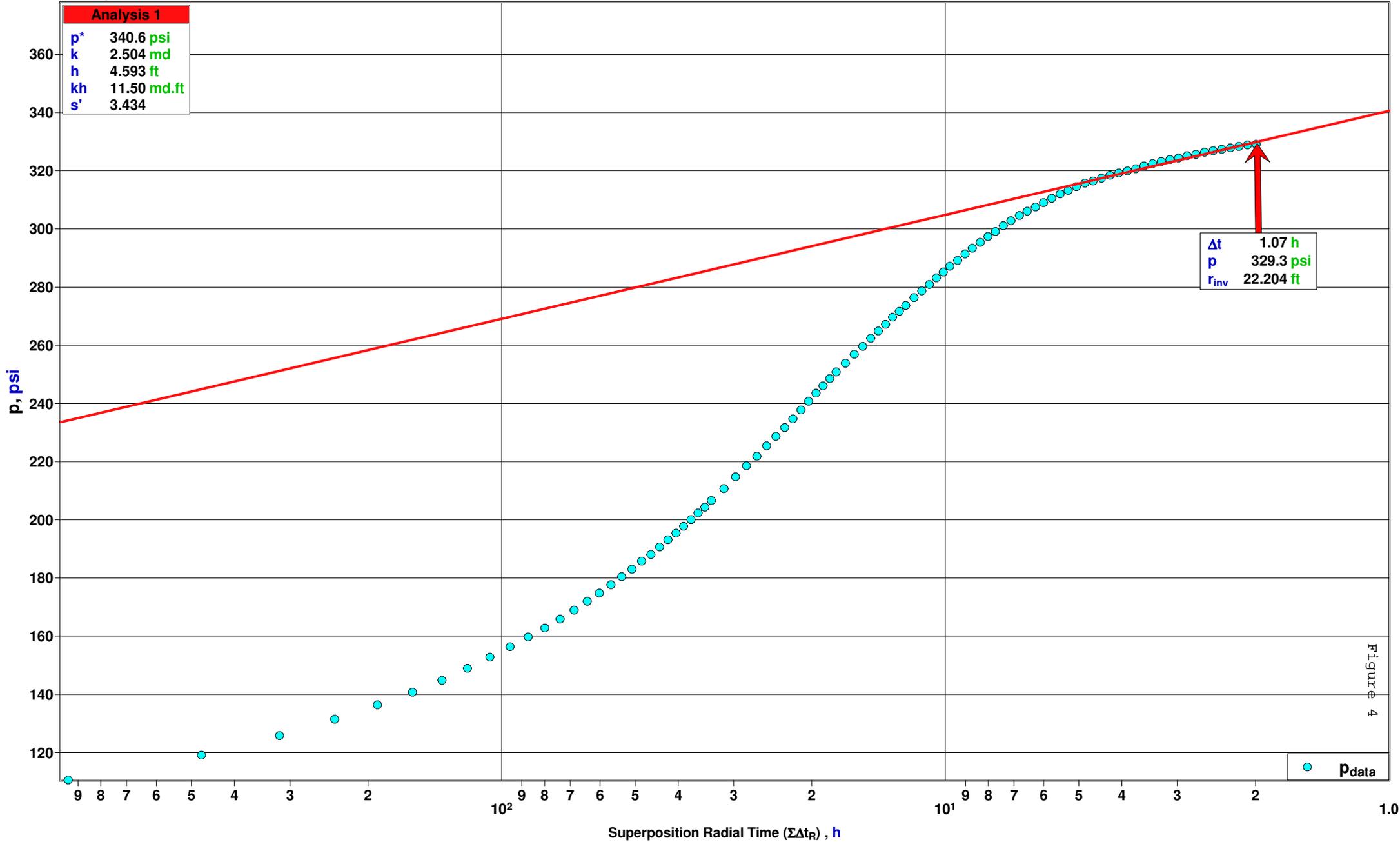


Figure 4

Water Well Test - Buildup

Radial Flow Analysis

Fingal 55B

Packer Depth @ 296.8 mGL

F Seam

June 7, 2007

Analysis Results

Total Sandface Rate ($q_t B_t$)	2.597 bbl/d	Apparent Skin (s')	3.434
Semilog Slope (m)	35.75	Skin - Damage	3.434
Gas Permeability (k_G)	md	Skin - Inclination	
Oil Permeability (k_O)	md	Skin - Partial Penetration	
Water Permeability (k_W)	2.504 md	Pressure Drop Due to Skin (Δp_S)	106.68 psi
Flow Capacity (kh)	11.501 md.ft	Damage Ratio (DR)	1.806
Total Mobility ($k/\mu_{t,t}$)	2.57 md/cp	Flow Efficiency (FE)	0.554
Total Transmissivity(kh/ $\mu_{t,t}$)	11.81 md.ft/cp		

Reservoir Parameters

Net Pay (h)	4.593 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_W)	95.00 %
Oil Saturation (S_O)	0.00 %
Gas Saturation (S_G)	5.00 %
Wellbore Radius (r_w)	0.30 ft
Formation Temperature (T)	69.8 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	1.692e-4 psi ⁻¹

Pressures

Initial Pressure (p_i)	340.00 psi
Extrapolated Pressure (p^*)	340.60 psi
Final Flowing Pressure (p_{wfO})	101.01 psi

Production and Times

Corrected Flow Time (t_c)	1.0522 hr
Cumulative Water Production	0.114 bbl
Final Water Rate	2.600 bbl/d

Fluid Properties

Water Compressibility (c_W)	3.27591e-6 psi ⁻¹
Water Formation Volume Factor (B_W)	0.999
Water Viscosity ($\mu_{t,W}$)	0.974 cp
Solution Gas Ratio (R_{SW})	0 scf/bbl
Specific Gravity (G)	1.000
Gas Gravity (G)	0.650
PVT Reference Pressure (p_{pVT})	340.00 psi

Fingal 55B
 F Seam
 Packer Depth @ 296.8 mGL
 June 7, 2007

Fingal 55B Total Test

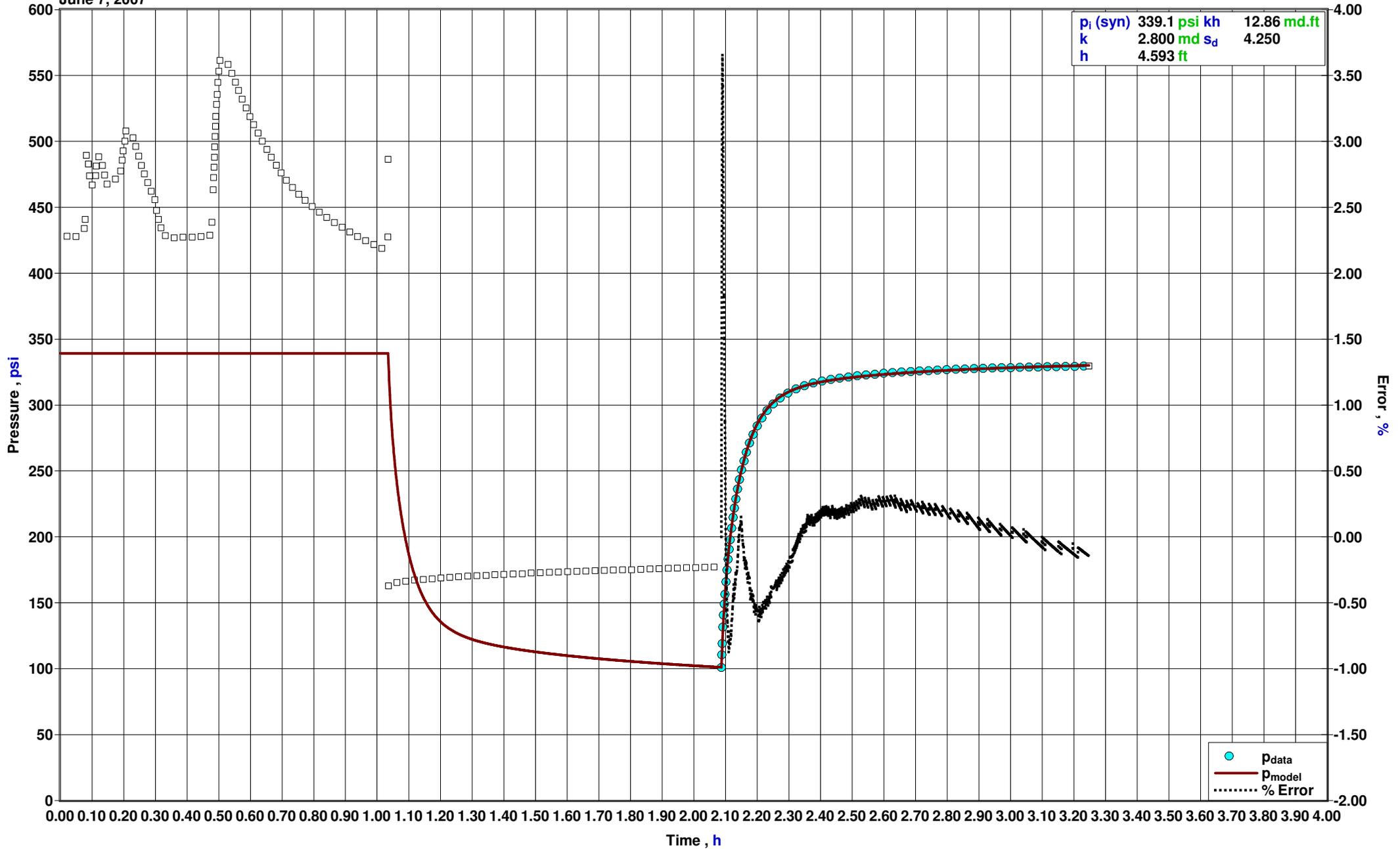


Figure 6

Fingal 55B
 F Seam
 Packer Depth @ 296.8 mGL
 June 7, 2007

Simulation Typecurve

p_i (syn)	339.1 psi	kh	12.86 md.ft
k	2.800 md	s_d	4.250
h	4.593 ft		

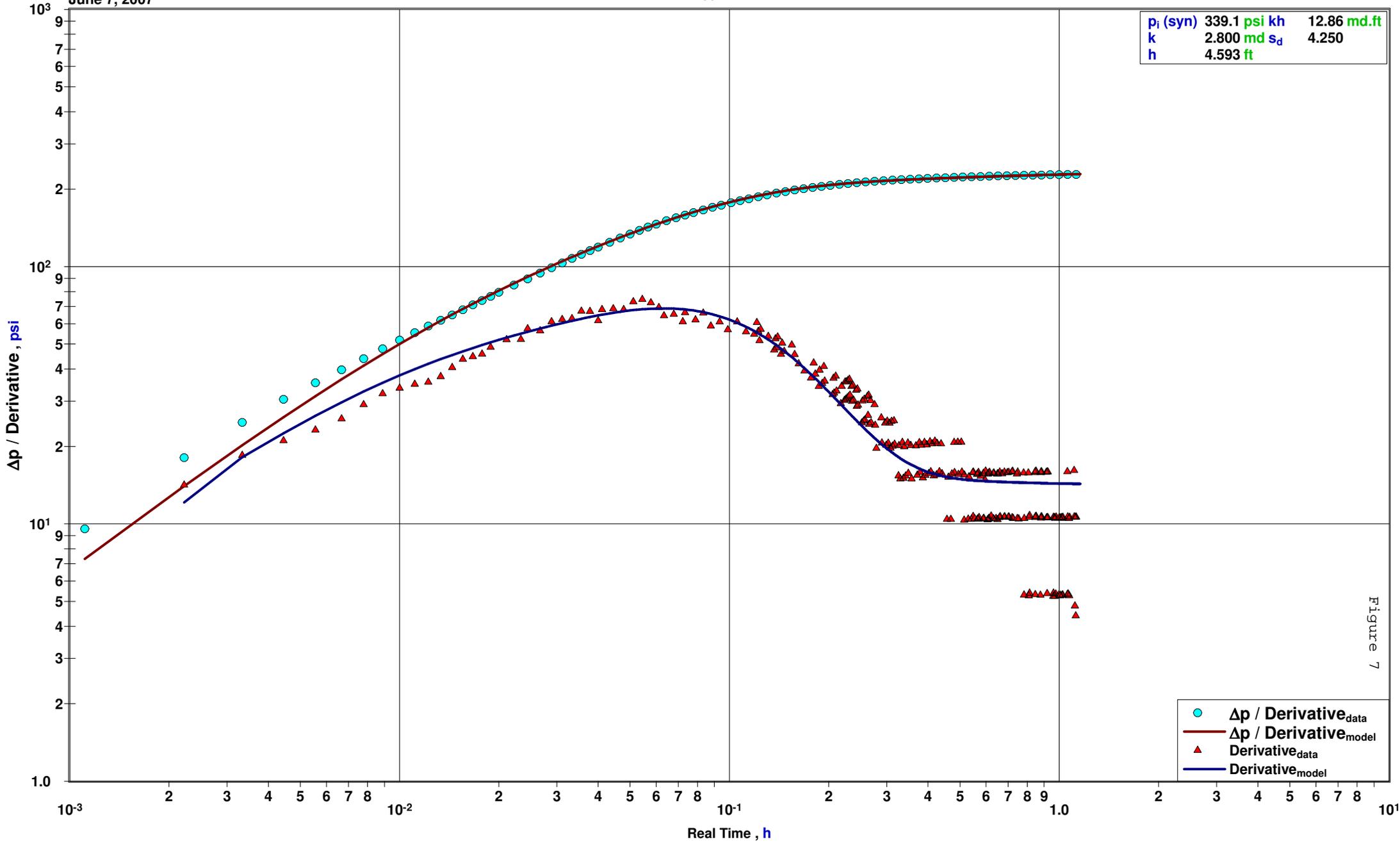


Figure 7

Fingal 55B
 F Seam
 Packer Depth @ 296.8 mGL
 June 7, 2007

Simulation Radial

p_i (syn)	339.1 psi	kh	12.86 md.ft
k	2.800 md	s_d	4.250
h	4.593 ft		

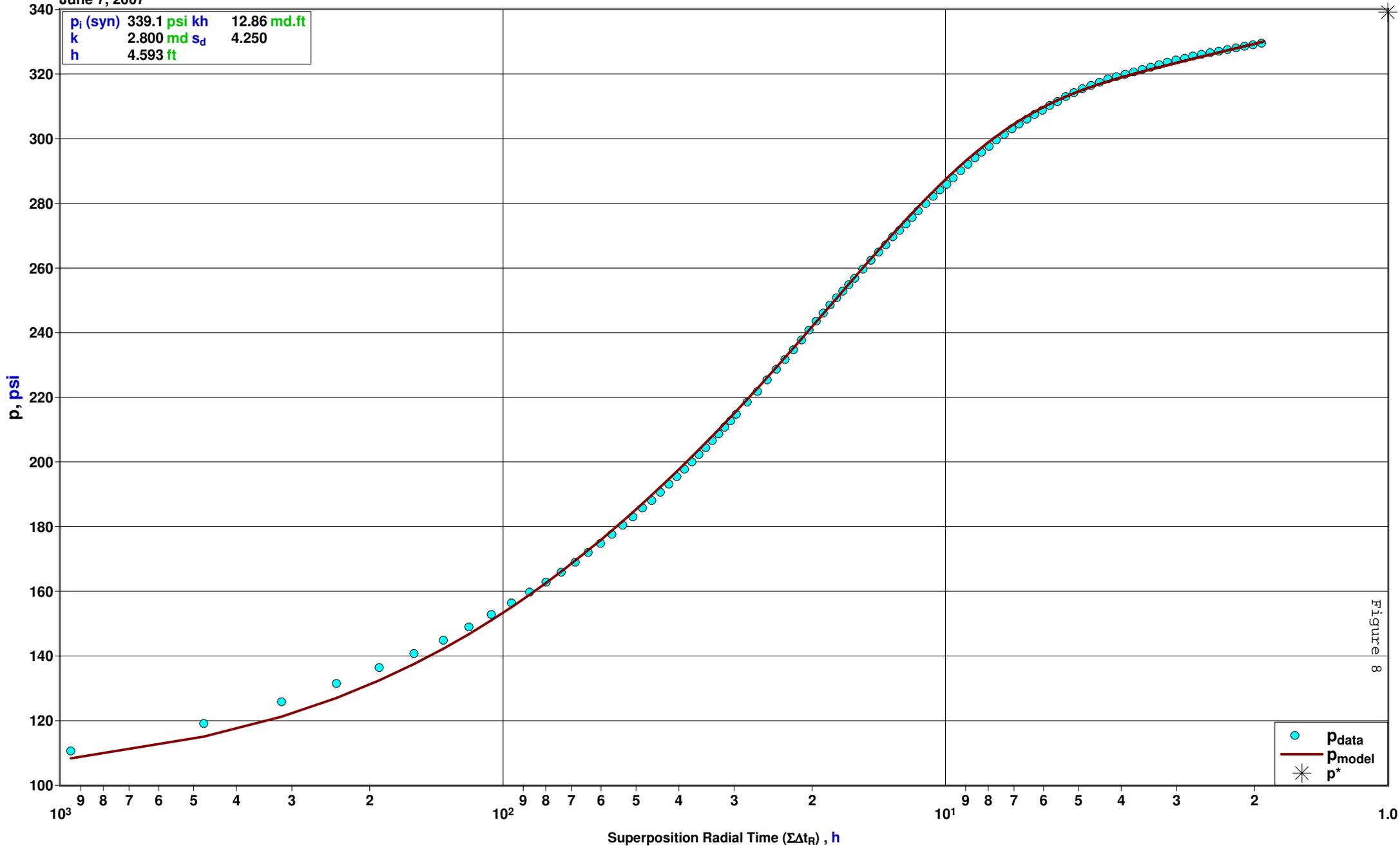


Figure 8

Vertical Water Well Model

Case Name : Radial Homogenous Simulation

Fingal 55B

Packer Depth @ 296.8 mGL

F Seam

June 7, 2007

Model Parameters

Water Permeability (k_w)	2.800 md	Reservoir Length (X_e)	1000000.000 ft
Gas Permeability (k_g)	md	Reservoir Width (Y_e)	1000000.000 ft
Skin (s)	4.250	Active Well At (X_w)	ft
Total Mobility (k/μ_t)	2.88 md/cp	Active Well At (Y_w)	ft
Total Transmissivity (kh/μ_t)	13.21 md.ft/cp		
Wellbore Storage Constant Dim. (C_D)	3.93		

Production and Pressure

Formation Parameters

Net Pay (h)	4.593 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_w)	95.00 %
Oil Saturation (S_o)	0.00 %
Gas Saturation (S_g)	5.00 %
Wellbore Radius (r_w)	0.30 ft
Formation Temperature (T)	69.8 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	1.692e-4 psi ⁻¹

$Q_t B_t$	2.597 bbl/d
Final Water Rate	2.600 bbl/d
Final Gas Rate	MMCF/D
Final Flowing Pressure (p_{wfo})	101.01 psi
Final Measured Pressure	329.58 psi
Cumulative Water Production	0.114 bbl

Synthesis Results

Average Error	0.21 %
Synthetic Initial Pressure (p_i)	339.14 psi
Extrapolated Pressure at Specified Time	339.14 psi
Pressure Drop Due To Skin (Δp_s)	117.91 psi
Flow Efficiency (FE)	0.505
Damage Ratio (DR)	1.981

Fluid Properties

Water Compressibility (c_w)	3.27591e-6 psi ⁻¹
Water Formation Volume Factor (B_w)	0.999
Water Viscosity (μ_w)	0.974 cp
Solution Gas Ratio (R_{sw})	0 scf/bbl
Specific Gravity (G)	1.000
PVT Reference Pressure (p_{pvt})	340.00 psi

Forecasts

Forecast Flowing Pressure (P_{flow})	101.01 psi
3 - Month Constant Rate Forecast @ Curr. Skin	1.797 bbl/d
6 - Month Constant Rate Forecast @ Curr. Skin	1.748 bbl/d
Forecast Flow Duration (t_{flow})	12.00 month
Constant Rate Forecast @ Curr. Skin	1.702 bbl/d
PI / II (Actual)	0.007 bbl/d/psi
Constant Rate Forecast @ Skin=0	2.519 bbl/d
PI / II (Ideal)	0.011 bbl/d/psi
Constant Rate Forecast @ Skin=-4	4.595 bbl/d

**FINGAL 55B
DRILL STEM TEST
FINAL REPORT
“G UPPER & G LOWER” ZONE COAL SEAMS
OPEN HOLE INTERVAL
342.5 – 343.5 & 346.7 – 347.9 mGL
JUNE 10 – 11, 2007**

**Prepared for:
Pure Energy Resources Limited**



**Prepared by:
Focal Petroleum Engineering Pty Ltd.**

July 11, 2007



Reservoir Engineering & Simulation Well Testing Oil & Gas Property Evaluation

July 11, 2007

Pure Energy Resources Limited
P.O. Box 952
SOUTH PERTH, WA 6951

Attention: Mr. Steve Beardsall

Dear Sir

Re: Fingal 55b Coal "G Upper & G Lower" Drill Stem Test Report

The following is a summary of the results obtained from the Drill Stem Test conducted from June 10 - 11, 2007 over the "G upper and G lower" Coals, open hole interval from circa 342.5 – 343.5 and 346.75 – 347.9 mGL.

The DST was conducted through the drillpipe and coring bit, using an off bottom inflatable packer. Prior to testing, 195 meters of water was displaced from the drillpipe with air to allow inflow from the reservoir to occur.

The test was comprised of a 60 minute flow period followed by a 15.5 hour buildup period (recorders left overnight). A low flow gas meter was used to measure the gas recovery and a fluid recorder in the drill pipe was used to establish daily water production volumes (bbl/day) from the inflow of water into the wellbore.

During the inflation of the isolation packers, a rapid increase in pressure was noted below the packer suggesting that the permeability within the test interval was low.

During the shut-in procedure (raising the drill string 70mm) for the downhole tool, a small drop in pressure was noted to start the buildup. This is likely the result of some upward movement by the packer, creating a small amount of suction in the wellbore.



Comments and Conclusions

- The pressure response observed during the flow and buildup periods suggested a reservoir with low flow capacity to water. Since the inflow from the reservoir was predominantly water, the test was analysed as a water well. The gas volume recovered was insignificant (< 1 cf) and was not used in the interpretation.
- The gross net pay of 6.9 ft (2.1 m) was obtained from the core samples (G upper 3.3 ft, G lower 3.6 ft). A default porosity of 2% was used for the interpretation.
- An average water rate of circa 1.5 bbl/d was calculated using the pressure increase from the inflow of water into the wellbore during the flow period.
- A reservoir pressure (P_i) of 371 psia was determined from the simulation. The subject reservoir is slightly under-pressured, with a reservoir gradient of 0.34 psi/ft.
- The pressure derivative indicated that wellbore storage was overcome by zero slope (near wellbore radial flow) about 12 minutes after shut-in. At about 1 hour after shut-in, the derivative began to follow a downward trend. At about six hours after shut-in, the derivative flattened a second time into zero slope (outer area radial flow) that remained for the duration of the test.
- Conventional analysis and Simulation were both conducted. The late-time zero slope of the pressure derivative was attributed to an increase in flow capacity (k and/or h) commencing about 15 feet away from the wellbore. Although there is about three meters separating the G seams, any indication of individual flow capacity was masked by the increase (three times) in total flow capacity. The buildup was simulated and matched using a radial composite model. The results compared well with the conventional analysis and have been quoted throughout this report.
- The positive skin value is considered moderate and is likely attributed to coal fines in the near wellbore region.

A summary of the Test Results is as follows:

Average Reservoir Pressure (Pr) @ 337.3 mGL **371 psia (simulation)**

Apparent Skin Factor **+2.3**

Near Wellbore Zone

Average Permeability to Water **0.9 md**

Flow Capacity to Water **6 md.ft**

Radius of Investigation **16 ft**

Outer Area Zone

Average Permeability to Water **3.1 md**

Flow Capacity to Water **21.7 md.ft**

Radius of Investigation **29 ft**

If further clarification of the test interpretation is required, please contact the undersigned on (08) 94749622.

Yours faithfully,

FOCAL PETROLEUM ENGINEERING PTY LTD

Ryan Gee

WELL TEST CONSULTANT

Terry Primeau

MANAGING DIRECTOR

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Figure 6 – Conventional Results 2 – Outer Area Zone

Figure 7 – Simulation Match – Strip Chart

Figure 8 – Simulation Match – Log-Log Plot

Figure 9 – Simulation Match – Semi-Log Plot

Figure 10 – Simulation Results

Validata

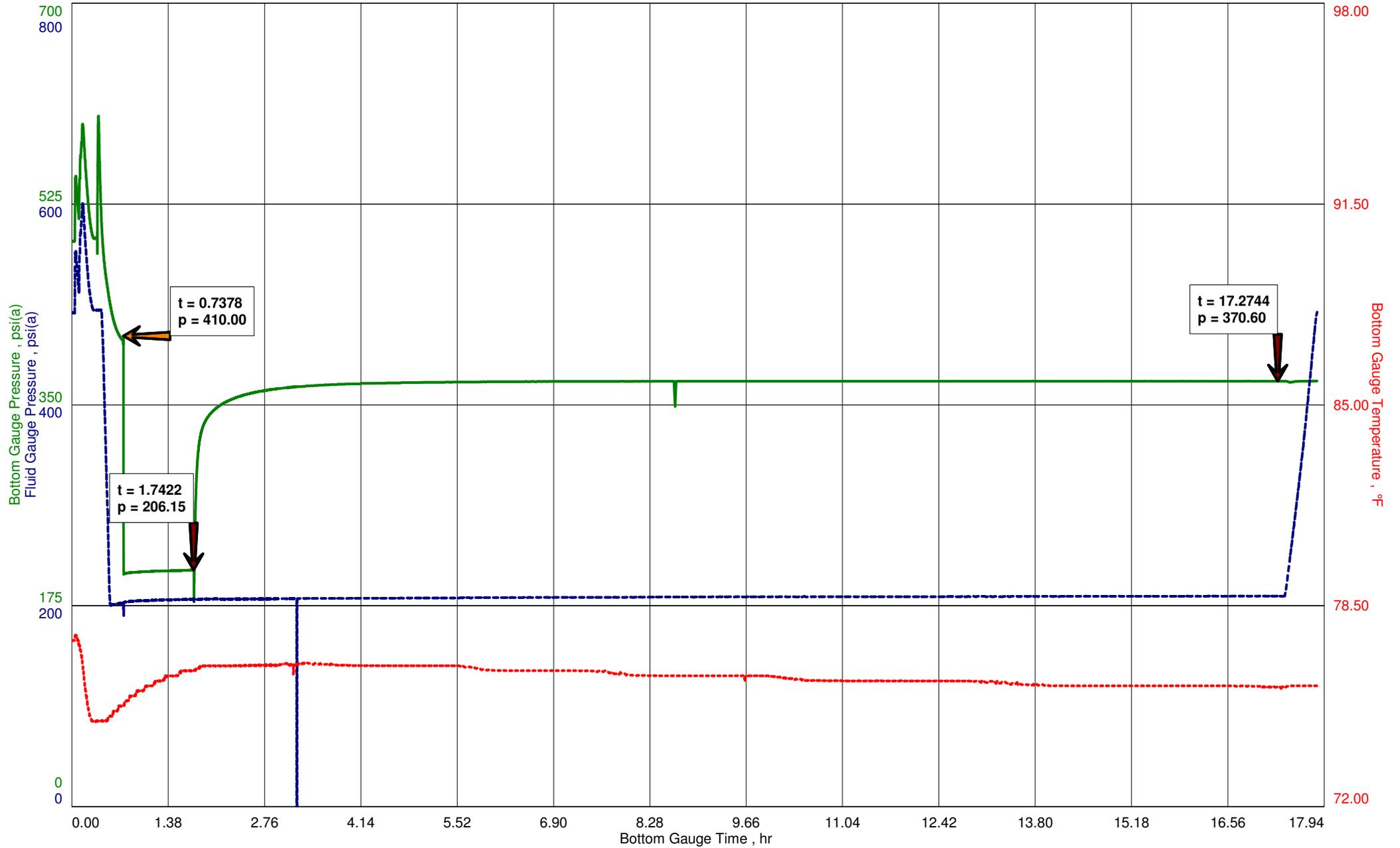


Figure 1

Fingal 55B
 Seam G upper & lower
 Packer Depth @ 341.2 mGL
 June 10 - 11, 2007

Strip Log

Total Test

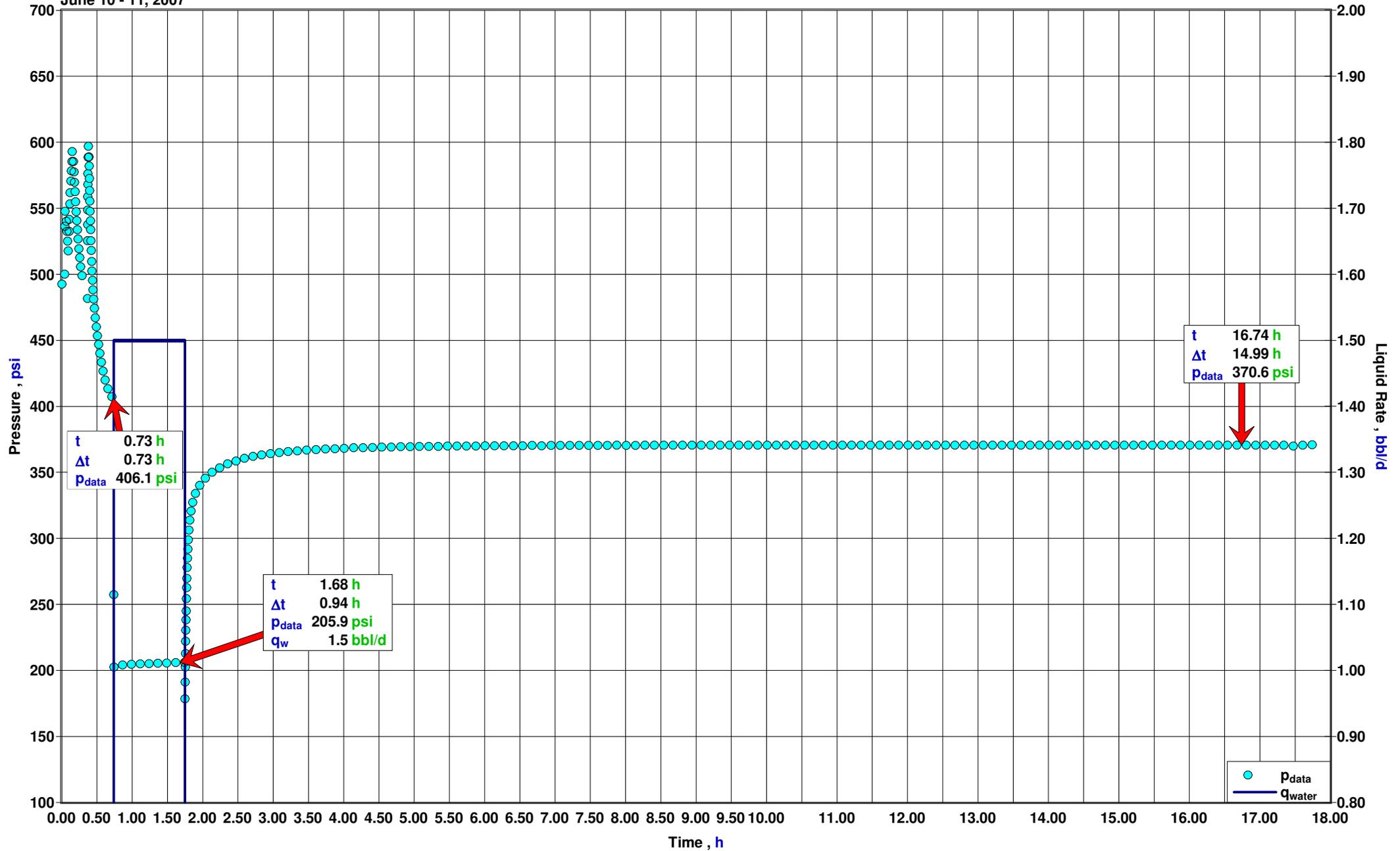


Figure 2

Fingal 55B
 Seam G upper & lower
 Packer Depth @ 341.2 mGL
 June 10 - 11, 2007

Diagonistic Analysis

Typecurve

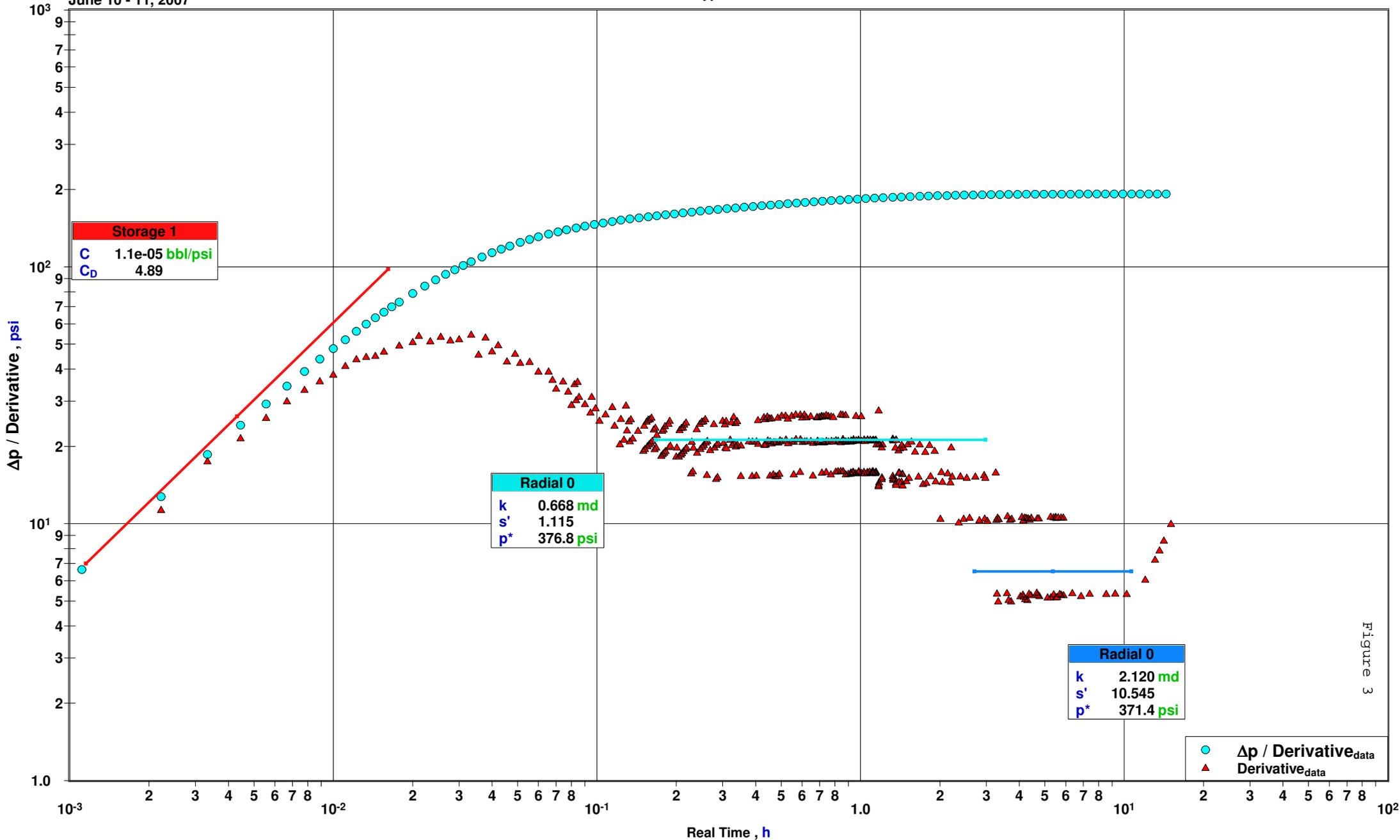
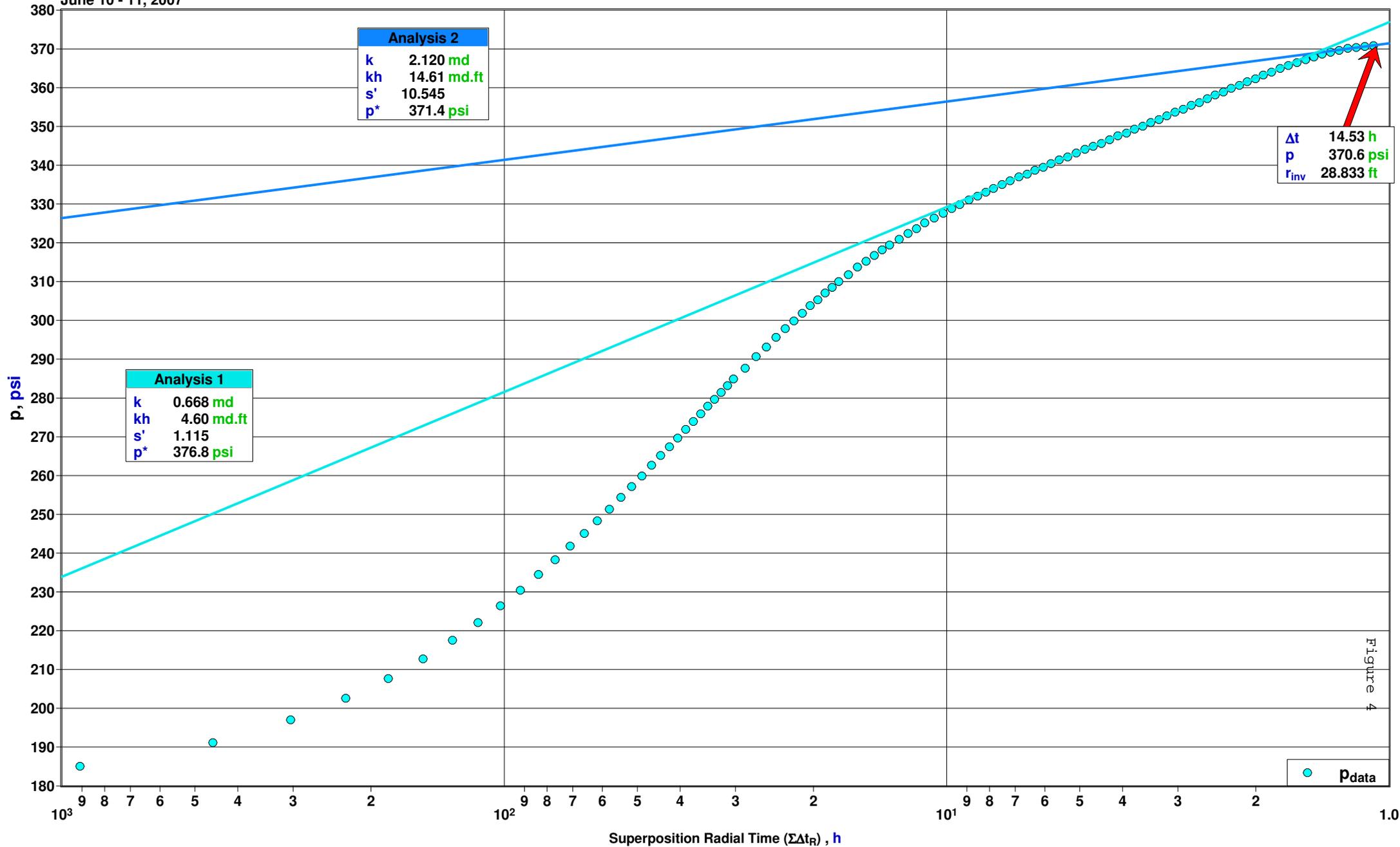


Figure 3

Fingal 55B
 Seam G upper & lower
 Packer Depth @ 341.2 mGL
 June 10 - 11, 2007

Diagonistic Analysis

Radial



Water Well Test - Buildup

Radial Flow Analysis

Fingal 55B
Seam G upper & lower

Packer Depth @ 341.2 mGL
June 10 - 11, 2007

Analysis Results

Total Sandface Rate ($q_t B_t$)	1.500 bbl/d	Apparent Skin (s')	1.115
Semilog Slope (m)	47.66	Skin - Damage	1.115
Gas Permeability (k_G)	md	Skin - Inclination	
Oil Permeability (k_O)	md	Skin - Partial Penetration	
Water Permeability (k_W)	0.668 md	Pressure Drop Due to Skin (Δp_S)	46.18 psi
Flow Capacity (kh)	4.601 md.ft	Damage Ratio (DR)	1.315
Total Mobility (k/μ_t)	0.74 md/cp	Flow Efficiency (FE)	0.760
Total Transmissivity (kh/μ_t)	5.12 md.ft/cp		

Reservoir Parameters

Net Pay (h)	6.890 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_W)	95.00 %
Oil Saturation (S_O)	0.00 %
Gas Saturation (S_G)	5.00 %
Wellbore Radius (r_W)	0.30 ft
Formation Temperature (T)	75.9 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	1.566e-4 psi ⁻¹

Pressures

Initial Pressure (p_i)	371.00 psi
Extrapolated Pressure (p^*)	376.85 psi
Final Flowing Pressure (p_{wfO})	178.41 psi

Production and Times

Corrected Flow Time (t_c)	1.0100 hr
Cumulative Water Production	0.063 bbl
Final Water Rate	1.500 bbl/d

Fluid Properties

Water Compressibility (c_W)	3.24418e-6 psi ⁻¹
Water Formation Volume Factor (B_W)	1.000
Water Viscosity (μ_W)	0.899 cp
Solution Gas Ratio (R_{SW})	0 scf/bbl
Specific Gravity (G)	1.000
Gas Gravity (G)	0.650
PVT Reference Pressure (p_{pVT})	371.00 psi

Water Well Test - Buildup

Radial Flow Analysis

Fingal 55B
Seam G upper & lower

Packer Depth @ 341.2 mGL
June 10 - 11, 2007

Analysis Results

Total Sandface Rate ($q_t B_t$)	1.500 bbl/d	Apparent Skin (s')	10.545
Semilog Slope (m)	15.01	Skin - Damage	10.545
Gas Permeability (k_G)	md	Skin - Inclination	
Oil Permeability (k_O)	md	Skin - Partial Penetration	
Water Permeability (k_W)	2.120 md	Pressure Drop Due to Skin (Δp_S)	137.54 psi
Flow Capacity (kh)	14.609 md.ft	Damage Ratio (DR)	3.498
Total Mobility (k/μ_t)	2.36 md/cp	Flow Efficiency (FE)	0.286
Total Transmissivity (kh/μ_t)	16.25 md.ft/cp		

Reservoir Parameters

Net Pay (h)	6.890 ft
Total Porosity (ϕ_t)	2.00 %
Water Saturation (S_W)	95.00 %
Oil Saturation (S_O)	0.00 %
Gas Saturation (S_G)	5.00 %
Wellbore Radius (r_W)	0.30 ft
Formation Temperature (T)	75.9 °F
Formation Compressibility (c_f)	9.482e-6 psi ⁻¹
Total Compressibility (c_t)	1.566e-4 psi ⁻¹

Pressures

Initial Pressure (p_i)	371.00 psi
Extrapolated Pressure (p^*)	371.41 psi
Final Flowing Pressure (p_{wfO})	178.41 psi

Production and Times

Corrected Flow Time (t_c)	1.0100 hr
Cumulative Water Production	0.063 bbl
Final Water Rate	1.500 bbl/d

Fluid Properties

Water Compressibility (c_W)	3.24418e-6 psi ⁻¹
Water Formation Volume Factor (B_W)	1.000
Water Viscosity (μ_W)	0.899 cp
Solution Gas Ratio (R_{SW})	0 scf/bbl
Specific Gravity (G)	1.000
Gas Gravity (G)	0.650
PVT Reference Pressure (p_{pVT})	371.00 psi

Fingal 55B
 Seam G upper & lower
 Packer Depth @ 341.2 mGL
 June 10 - 11, 2007

Fingal 55B
 Total Test

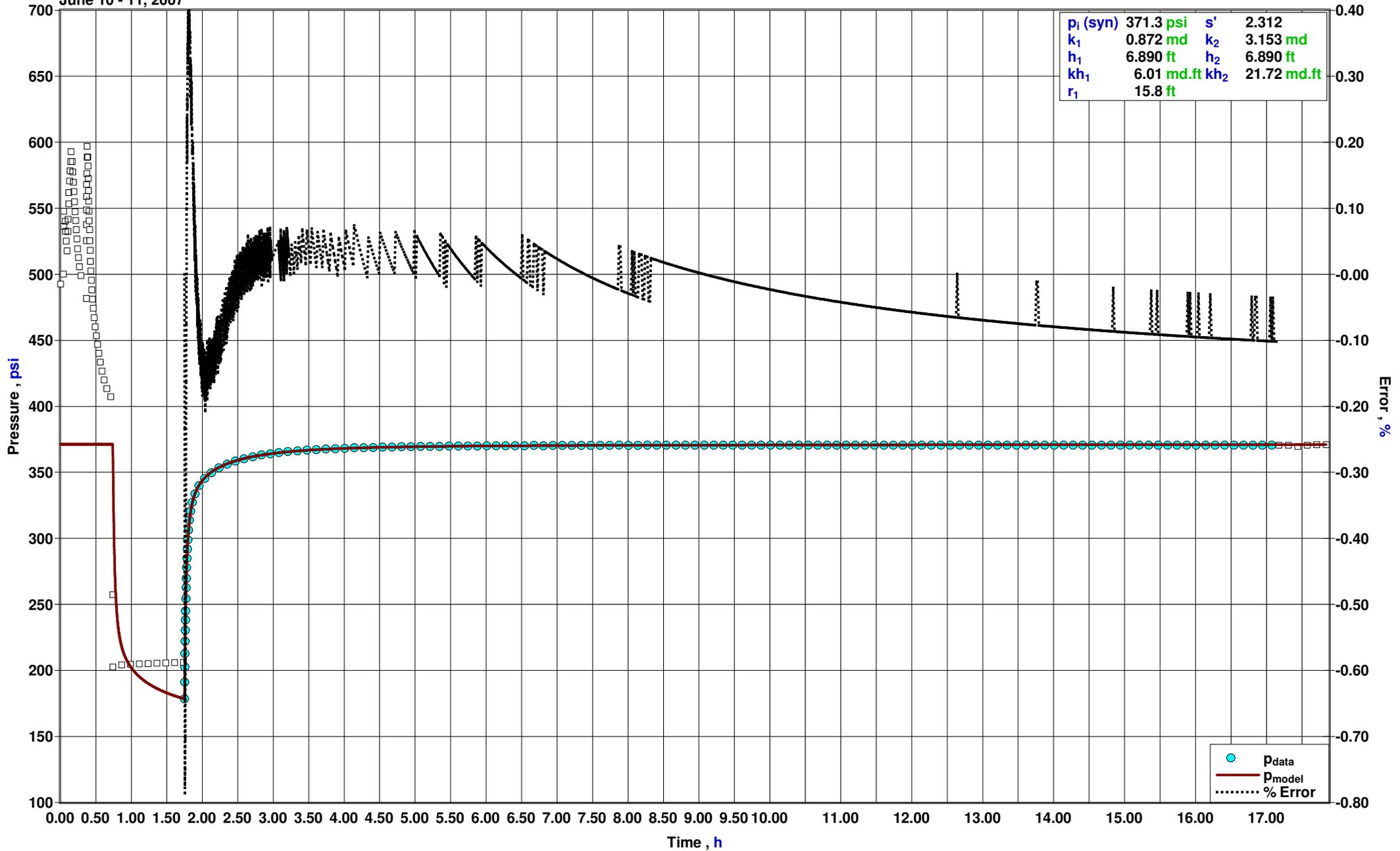
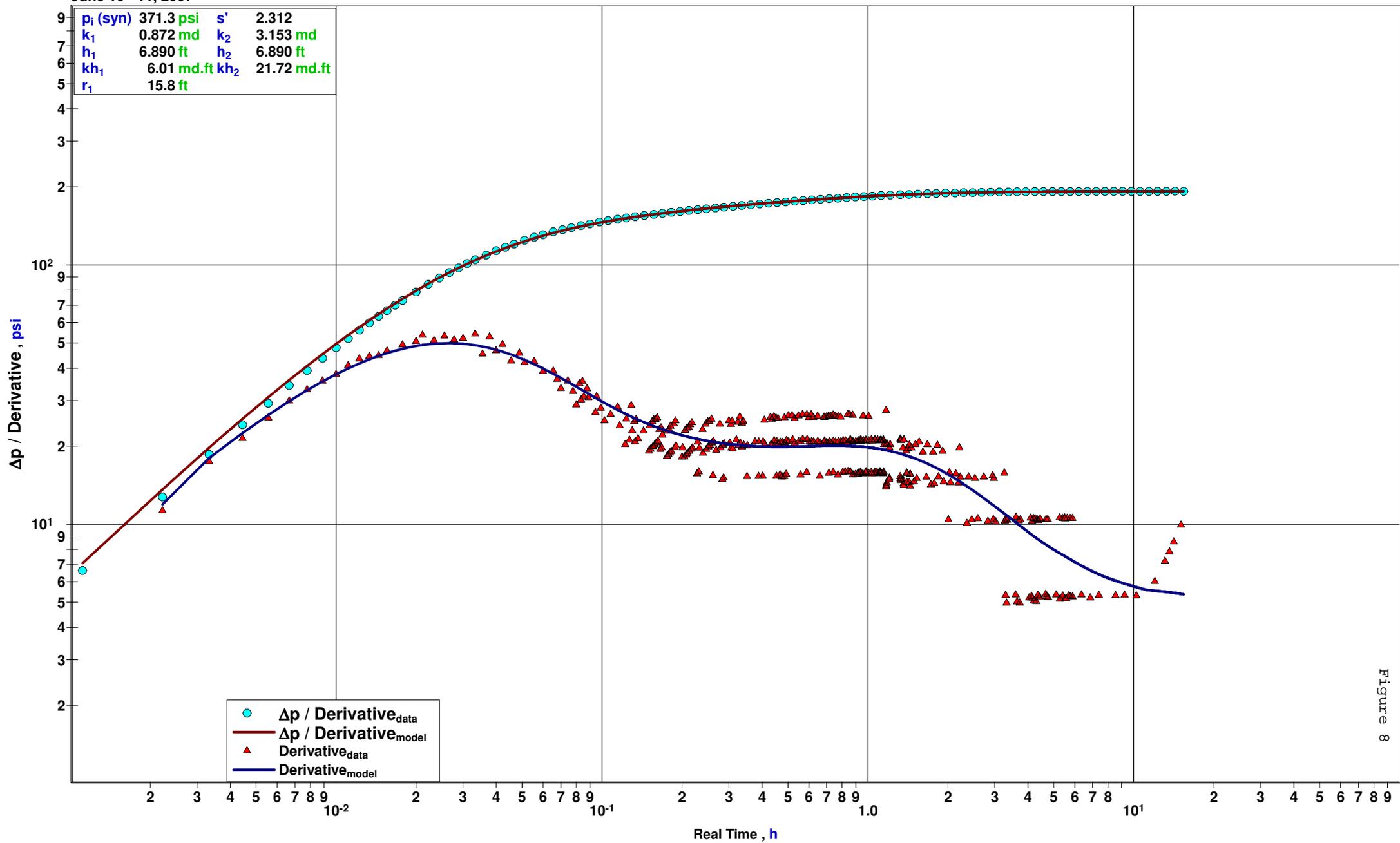


Figure 7

Fingal 55B
 Seam G upper & lower
 Packer Depth @ 341.2 mGL
 June 10 - 11, 2007

Simulation Typecurve

p_i (syn)	371.3 psi	s'	2.312
k_1	0.872 md	k_2	3.153 md
h_1	6.890 ft	h_2	6.890 ft
kh_1	6.01 md.ft	kh_2	21.72 md.ft
r_1	15.8 ft		



● $\Delta p / \text{Derivative}_{\text{data}}$
— $\Delta p / \text{Derivative}_{\text{model}}$
▲ $\text{Derivative}_{\text{data}}$
— $\text{Derivative}_{\text{model}}$

Figure 8

Fingal 55B
 Seam G upper & lower
 Packer Depth @ 341.2 mGL
 June 10 - 11, 2007

Simulation Radial

p_i (syn)	371.3 psi	s'	2.312
k_1	0.872 md	k_2	3.153 md
h_1	6.890 ft	h_2	6.890 ft
kh_1	6.01 md.ft	kh_2	21.72 md.ft
r_1	15.8 ft		

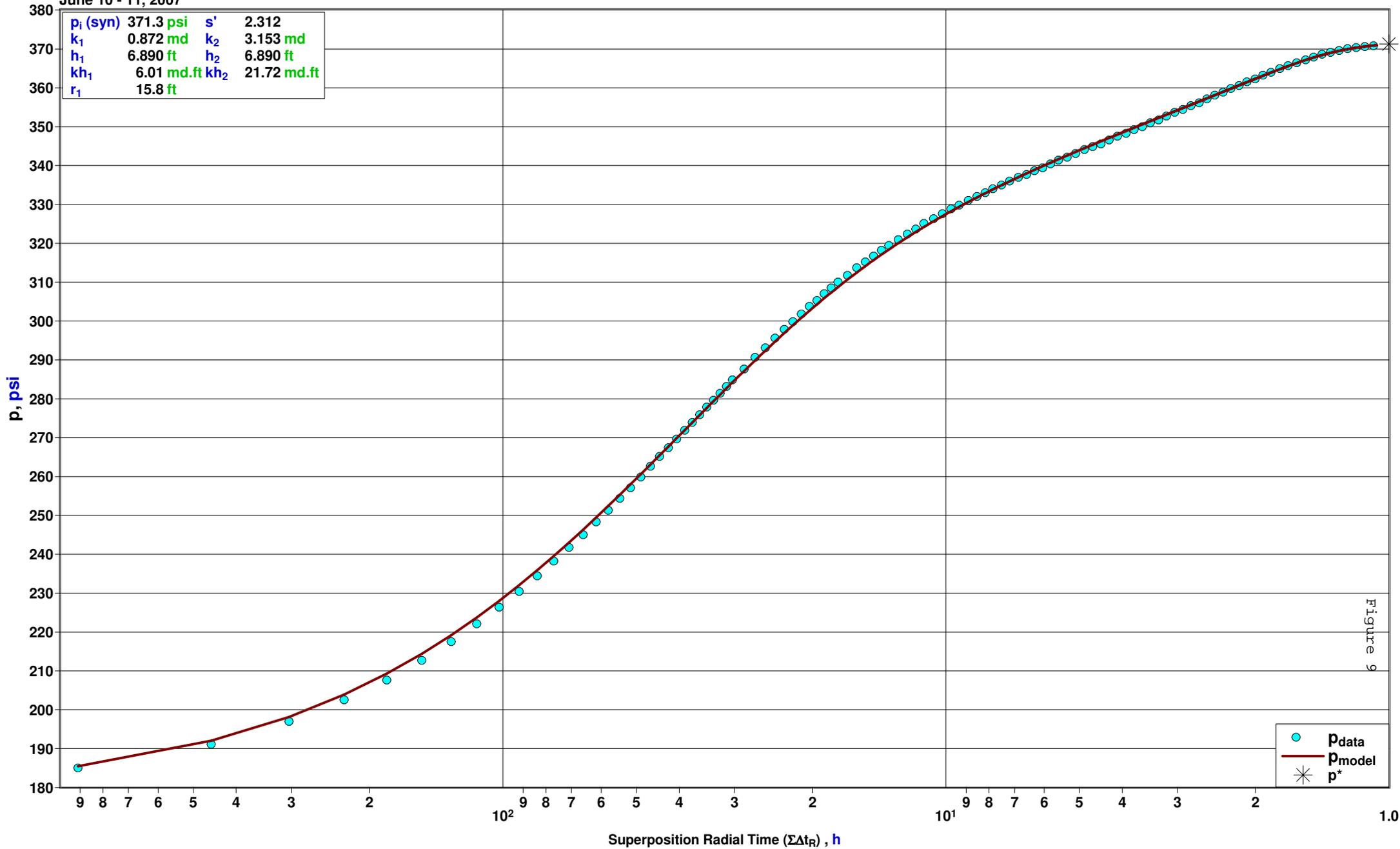


Figure 9

Composite Water Well Model

Case Name : Composite 2

Fingal 55B

Packer Depth @ 341.2 mGL

Seam G upper & lower

June 10 - 11, 2007

Model Parameters

Formation Parameters

Region 1

Region 2

Total Mobility (k/μ) _t	0.97 md/cp
Permeability (k) ₁	0.872 md
Net Pay (h) ₁	6.89 ft
Total Porosity (ϕ) ₁	2.00 %
Viscosity (μ) ₁	0.899 cp
Total Compressibility (c) _{t1}	1.566e-4 psi ⁻¹
Region Radius (r) ₁	15.810 ft
Skin (s)	2.312

Total Mobility (k/μ) _t	3.51 md/cp
Permeability (k) ₂	3.153 md
Net Pay (h) ₂	6.89 ft
Total Porosity (ϕ) ₂	2.00 %
Viscosity (μ) ₂	0.899 cp
Total Compressibility (c) _{t2}	1.566e-4 psi ⁻¹
Region Radius (r) ₂	100.000 ft

Gas Saturation (S _g)	5.00 %
Water Saturation (S _w)	95.00 %
Oil Saturation (S _o)	0.00 %
Wellbore Radius (r _w)	0.30 ft
Formation Temperature (T)	75.9 °F

Apparent Wellbore Storage Dim. (C _{aD})	4.89
Wellbore Storage Constant Dim. (C _D)	4.33
Storage Pressure Param. Dim. (C _{pD})	

Fluid Properties

Water Compressibility (c _w)	3.24418e-6 psi ⁻¹
Oil Compressibility (c _o)	1.50000e-6 psi ⁻¹
Gas Compressibility (c _g)	2.88021e-3 psi ⁻¹
Water Formation Volume Factor (B _w)	1.000
Gas Formation Volume Factor (B _g)	0.006784 bbl/scf
Water Viscosity (μ_{w})	0.899 cp
Gas Viscosity (μ_{g})	0.0110 cp
Solution Gas Ratio (R _{sw})	0 scf/bbl
Specific Gravity (G)	1.000
PVT Reference Pressure (p _{pVT})	371.00 psi

Production and Pressure

Q _t B _t	1.500 bbl/d
Final Water Rate	1.500 bbl/d
Final Gas Rate	MMCF/D
Final Flowing Pressure (p _{wfo})	178.41 psi
Final Measured Pressure	370.85 psi
Cumulative Water Production	0.063 bbl

Synthesis Results

Average Error	0.07 %
Synthetic Initial Pressure (p _i)	371.28 psi
Extrapolated Pressure at Specified Time	371.28 psi
Pressure Drop Due To Skin (Δp_s)	72.94 psi
Flow Efficiency (FE)	0.622
Damage Ratio (DR)	1.608

Forecasts

Forecast Flowing Pressure (P _{flow})	178.41 psi
3 - Month Constant Rate Forecast @ Curr. Skin	1.221 bbl/d
6 - Month Constant Rate Forecast @ Curr. Skin	1.206 bbl/d
Forecast Flow Duration (t _{flow})	12.00 month
Constant Rate Forecast @ Curr. Skin	1.191 bbl/d
PI / II (Actual)	0.006 bbl/d/psi
Constant Rate Forecast @ Skin=0	1.705 bbl/d
PI / II (Ideal)	0.009 bbl/d/psi
Constant Rate Forecast @ Skin=-4	5.639 bbl/d