DataBase Concepts G-1 Assistant

The G-1 Form Assistant helps you calculate values including the AOF and then exports all values to the Form G-1. The image below shows the data input fields (white) and the calculated fields (gray).

Calculates AOF for these Gas Measurement Methods

Prepares 4-point and 1-point tests

Video Help Tutorials

G-1 Assistant

Test Data | Plot

Gas Measurement Method:
- ● Orifice Meter - Flange Taps
- ○ Orifice Meter - Pipe Taps
- ○ Positive Choke
- ○ Critical Flow Prover - 2 inch
- ○ Critical Flow Prover - 4 inch

☐ Dry Gas Well

Test Type
- ● 4 Point
- ○ 1 Point

Help

Line Size	Orif. or Choke Size	24 Hr. Coeff. Orif. or Choke	Static Pm or Choke Pressure	Diff. hw	Flowing Temp.	Temp. Factor Ftf	Gravity Factor Fg	Compress Factor Fpv	Volume MCF/Day

Gravity:	Gas Liquid Hydrocarbon	Gas-Liquid Hydrocarbon Ratio	Gmix:	Ave. Shut-in Temp.	Bottom Hole Temp.	Depth		Gas Produced During Test

Deff ^ 8/3 (Select...)	Tf	Tf ^ 0.5	Ave. Length of Flow String	GL ^ 0.5	C	GL ^ 0.5 / C

Run No.	Time of Run Minutes	Wellhead Press. PSIA Pw	Wellhead Flow Temp. F	Pw ^2	R	R ^ 2	P1	Pw/P1
Shut-In								
1								
2								
3								
4								

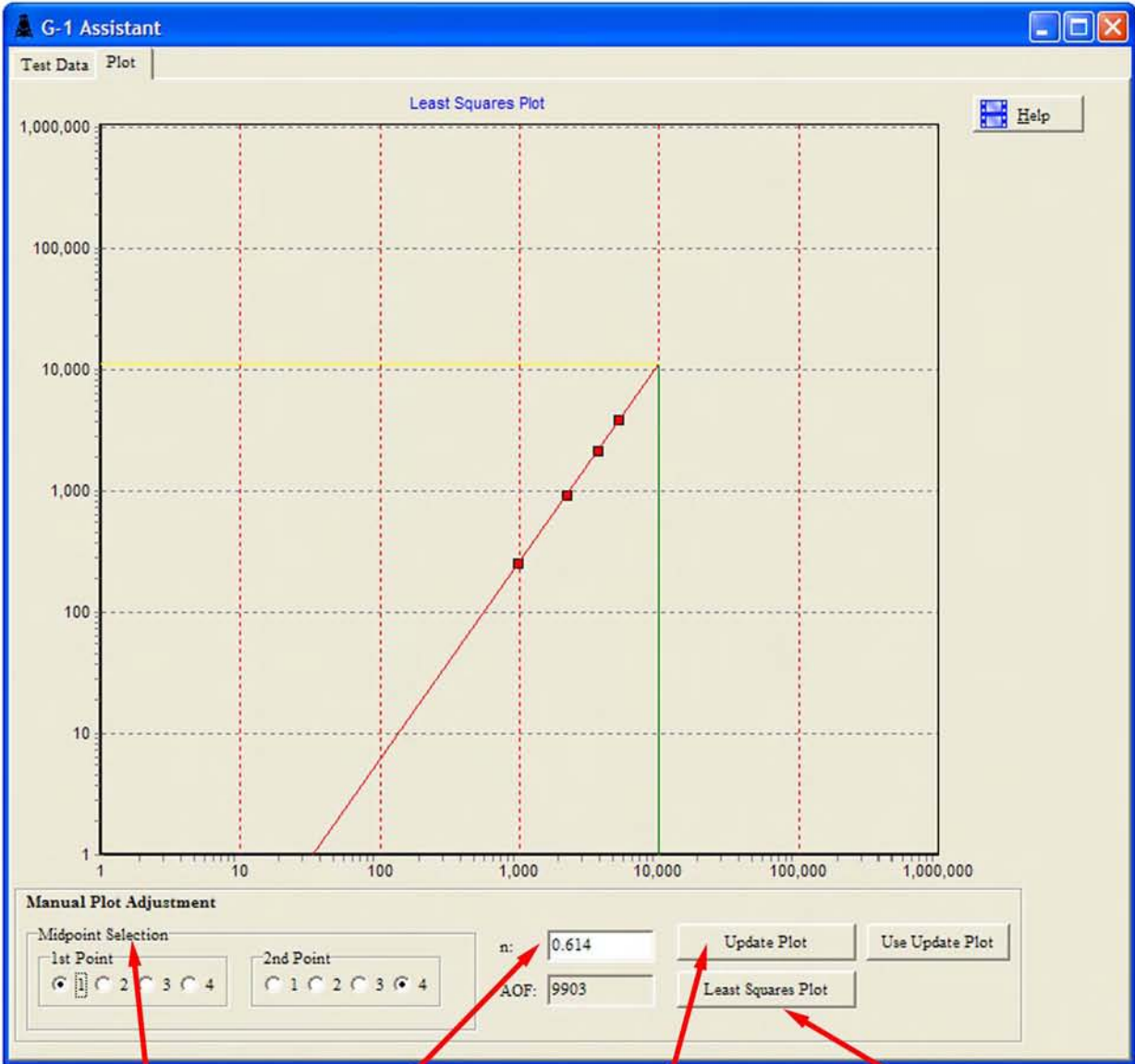| Run No.	F	K	S = 1/Z	Eks	Pf and Ps	Pf ^2 and Ps ^2	Pf^2 - Ps ^2	
Shut-In								
1								
2								
3								
4								

Calculate

theta:

n:

AOF:

Selectable effective diameter of the flow string ($D_{eff}^{8/3}$)

Key Calculated Values:
- AOF Absolute Open Flow
- Theta
- 24 hour Coefficient
- Temperature Factor (F_{tf})
- Gravity Factor (F_g)

- Supercompressibility Factor (F_{pv})
- Rate of Flow Volume MCF per Day
- Gas produced during test in MCF
- Gravity of Mixture (Gmix)
- Effective diameter of the flow string ($D_{eff}^{8/3}$)
- Average temperature of the flow-stream °R (T_f)

G-1 Assistant Plot Adjustments

You can manually adjust slope and mid-point placement to alter AOF calculations.

GAS WELL BACK PRESSURE CURVE
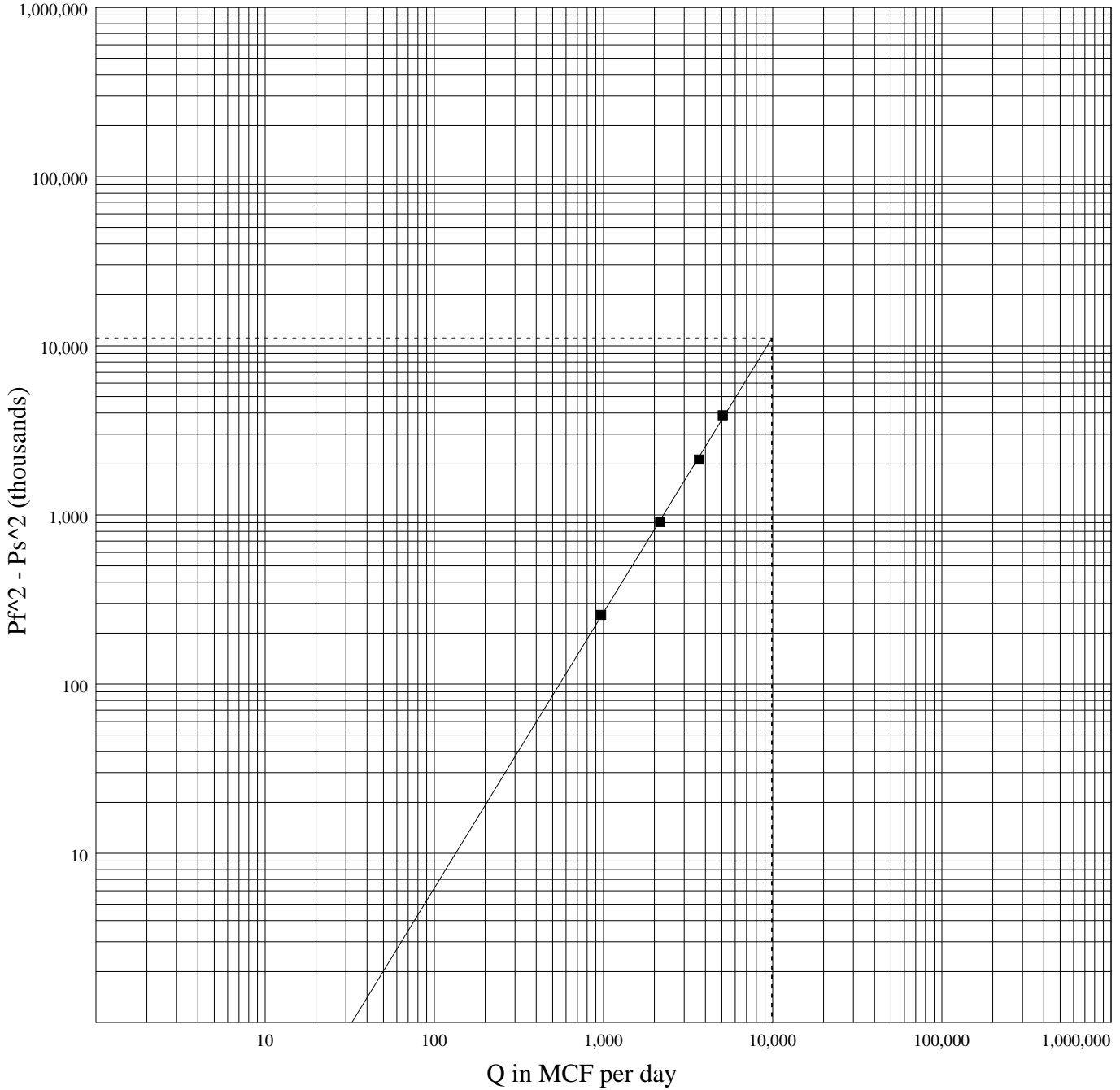
Operator: Example   Date of Test: 07/01/2006

County: Travis   Field: Memphis Blues

Lease: Hopkins #1   Well Number: 1

Volume: 9903   MCF/24 hr.   n: 0.614   theta: 58.4 °

Q in MCF per day

(y-axis) Pf^2 - Ps^2 (thousands)

Point	Rate MCF/Day	BHP Psia	(Pf^2 - Ps^2) (thousands)
Shut-in	0	3328	- - - -
1	969	3289	256.0
2	2160	3188	907.8
3	3667	2992	2123.4
4	5077	2683	3874.1
AOF	9903		11074

Certified by: _____

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