March 9, 2026

Dr. Neil Deeds, PhD, PE, PG, INTERA | Project No.: 10853-256
Mr. Mitchel Sodek, General Manager, Central Texas GCD

Subject: Asphalt Inc, LLC. – Burnet Quarry
Hydrogeologic Report – Request for Additional Information

Dear Dr. Deeds,

Below please find our responses to your request for information dated January 26,2025.

Request #1: Detailed cross-section of aquifer units from surface to bottom of well completion zones, including other typical well completions in the area, and any inferred structural features (faulting/etc).

Response: A detailed hydrogeologic cross-section has been prepared and is included as Attachment A. The cross-section depicts the stratigraphic sequence from San Saba through Precambrian, formation tops interpreted from geophysical logs for Well 1, Well 2, the Monitor Well, the Existing Well, and the fault identified between Well 2 and the Monitor Well/Well 1 block.

Request #2: Please clarify the formation tops and bottoms in the geophysical log and clarify in which aquifer the wells were completed.

Response: Formation tops interpreted from the geophysical logs are summarized in Table 1.

Table 1. Formation Tops from Geophysical Log Interpretation (ft. bgs)

	Well 2	Monitor Well	Well 1	Existing Well
San Saba	0	0	0	0
Point Peak	132	25	68	178
Morgan Creek	176	92	122	230
Welge	302	240	270	382
Lion Mountain	326	278	306	416
Cap Mountain	400	354	380	494
Hickory	580	540	558	668
PreCambrian	720	680	690	--

Based on these calls, Well 1, Well 2, and the Monitor Well are all completed in the Hickory Aquifer, though none fully penetrate the formation. Screen intervals were set at the same elevations in all three wells, but due to the fault offset the screens intersect different portions of the Hickory. Well 1's screens are open to the middle portion of the aquifer, excluding the upper 20 ft and lower 10 ft of the Hickory section. At Well 2 and the Monitor Well, the same screened elevations leave the bottom 40 ft of the Hickory unscreened, so production is limited to the upper portion of the aquifer. All three wells penetrate approximately 45% of the Hickory thickness.

The Existing Well is screened from 460–640 ft. Based on formation tops at that location (Lion Mountain at 416 ft, Cap Mountain at 494 ft, Hickory at 668 ft), the screen interval is entirely above the Hickory — the upper 34 ft is in Lion Mountain and the remaining 146 ft is in Cap Mountain. This well appears to produce from the Lion Mountain member, not the Hickory Aquifer.

Precambrian tops were picked at the base of the weathered basement zone. The weathered zone at the top of the Precambrian can look and drill similarly to the basal Hickory, which makes the contact difficult to identify precisely and can result in picks that are too deep. At the Monitor Well, the bottom screen interval (680–720 ft) extends into Precambrian basement below the 680-ft contact and does not contribute to production. Geophysical logs, color-coded by formation for visual distinction, are provided in Attachment B.

Request #3: Analysis of test response in pumping wells to generate two more estimates of transmissivity. Discuss whether each monitor well response is reflective of being well-connected to pumping well. Also explain "stepwise" response in pumping well in terms of potential variation in flow rates during the test.

Response: Additional transmissivity estimates were developed from pumping well and monitor well drawdown using the Cooper-Jacob straight-line method (plots included in Attachment B). Well 1 (Test 2, Q = 115 gpm) yielded T = 185–226 ft²/day from late-time segments between VFD adjustments. Well 2 (Test 1, Q = 48 gpm) yielded T = 35 ft²/day. Both wells penetrate approximately 45% of the Hickory, and all wells are completed with discrete screened intervals rather than open hole across the full aquifer thickness. Well 1 is screened in the middle portion of the aquifer (excluding the upper 20 ft and lower 10 ft), while Well 2 is screened only in the upper portion, excluding the lower 40 ft. Partial penetration effects introduce additional head loss at the pumping well as flow converges vertically toward the screened intervals, resulting in pumping well transmissivity estimates that are biased low relative to the full aquifer transmissivity. These effects

are negligible beyond approximately 1.5 times the aquifer thickness from the pumping well.

Monitor Well responses, recorded at distances well beyond this threshold, provide transmissivity estimates free of partial penetration effects. During Test 2 (Well 1 pumping at 115 gpm, r = 868 ft), the Monitor Well recorded 13.1 ft of drawdown, yielding T = 249 ft^2/day and S = 1.2 × 10^{-4}. The Monitor Well estimate of 249 ft^2/day represents the most reliable transmissivity for the Well 1–Monitor Well block, and the pumping well values (185–226 ft^2/day) are consistent after accounting for partial penetration.

During Test 1 (Well 2 pumping at 48 gpm, r = 758 ft), the Monitor Well recorded 17.8 ft of drawdown, yielding T = 63 ft^2/day and S = 4.9 × 10^{-5}. A mapped fault lies between Well 2 and the Monitor Well and appears to partially compartmentalize the Hickory. Despite a lower pumping rate and shorter distance, Test 1 produced substantially more drawdown at the Monitor Well than Test 2, consistent with reduced transmissivity in the Well 2 block and possible barrier effects that concentrate drawdown on the pumping side of the fault. The Well 2 block transmissivity is estimated at 33–63 ft^2/day, where the lower value reflects pumping well analysis with partial penetration effects and the upper value is from the Monitor Well analysis, which may underestimate true block transmissivity due to the fault's influence.

Stepwise drawdown observed in pumping well records reflects VFD adjustments made to maintain constant discharge, not aquifer boundary effects.

Request #4: Further support estimates of storativity that will be used in the forward simulation, with precedence for field estimates. Increased storativity with time must be demonstrated in the aquifer testing to use in forward simulation.

Response: Storativity estimates were derived from Monitor Well drawdown using the Cooper-Jacob straight-line method. Test 1 (Well 2 pumping) yielded S = 5.22 × 10^{-5} and Test 2 (Well 1 pumping) yielded S = 1.2 × 10^{-4}. Both values fall within the expected range for confined sandstone aquifers (10^{-5} to 10^{-3}).

The difference between the two estimates is attributed to structural compartmentalization rather than temporal changes in storage behavior — a mapped fault lies between Well 2 and the Monitor Well, and the two tests are sampling hydraulic properties of separate structural blocks.

The forward simulation will use block-specific parameters: T = 249 ft²/day and S = 1.2×10^{-4} for the Well 1–Monitor Well block, and T = 67 ft²/day and S = 5.22×10^{-5} for the Well 2 block.

Request #5: For the predictive simulation, please only include wells that have been drilled and tested.

Response: The predictive simulation has been revised to include only the wells that have been drilled and tested: Well 1 and Well 2. The revised simulation represents production from Well 1 at 115 gpm and Well 2 at 35 gpm.

Request #6: Contour plot of 30-years predicted drawdown, including locations of existing wells. The map should be plotted at two scales, with one including an area within an approximate 0.5 mile radius of the wells (to include wells that were monitored during testing), and a broader one including an area within a 2 mile radius of the wells.

Response: Contour plots of 30-year predicted drawdown have been prepared at two scales as requested and are included in Attachment D:

- **Figure D.1: 0.5-mile radius centered on the production wells, showing detailed drawdown contours and the locations of the Monitor Well and existing wells monitored during testing.**
- **Figure D.2: 2-mile radius showing broader regional drawdown impacts.**

The 30-year drawdown projections presented in the contour plots should be interpreted with the following considerations:

- ***Theis Model Limitations in Heterogeneous Settings:* The Theis solution assumes a homogeneous, infinite, and laterally unbounded aquifer. The local hydrostratigraphy is affected by regional faulting and facies variability typical of the Llano Uplift, which creates structural complexity not captured by the radial flow model.**

- ***Demonstrated Aquifer Heterogeneity and Compartmentalization*: Two onsite wells completed in the same aquifer exhibit substantially different transmissivities (249 ft²/day for Well #1 vs. 63 ft²/day for Well #2), indicating significant fault-controlled compartmentalization. A mapped fault between Well #2 and the Monitor Well/Well #1 block appears to act as a leaky barrier that partially compartmentalizes the Hickory Aquifer.**

  During Test 1 (Well #2 pumping), despite a lower pumping rate (48 gpm vs. 115 gpm) and shorter distance, substantially more drawdown was observed at the Monitor Well (17.8 ft vs.

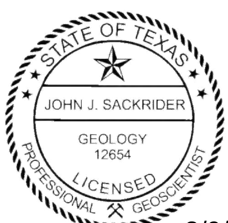
13.1 ft). This response is consistent with cross-fault flow in which Well #2, located in a lower-transmissivity compartment, induced drawdown in the adjacent higher-transmissivity block by drawing water across the leaky fault boundary. This demonstrates that the fault acts as a semi-permeable barrier rather than allowing unrestricted radial flow.

- ***Implications for Drawdown Distribution:*** **The forward projections utilize the Monitor Well-derived transmissivity estimates ($T = 249$ ft^2/day for the Well #1 block, $T = 63$ ft^2/day for the Well #2 block) and storativity values ($S = 1.2 \times 10^{-4}$ and $S = 4.9 \times 10^{-5}$, respectively) as discussed in Requests #3 and #4. However, the actual spatial distribution of drawdown will differ from the idealized radial patterns shown in the contour plots due to structural controls: fault barriers may concentrate drawdown within individual compartments while restricting propagation across structural boundaries, and preferential flow paths may create anisotropic spreading patterns, resulting in a more heterogeneous drawdown distribution than the uniform radial pattern assumed by Theis.**

WESTWARD will continue to serve as the technical contact for Asphalt Inc., LLC on this project. Please ensure that WESTWARD is copied on all correspondence. If you have any other questions, or require further information, please contact our office at 830-249-8284.

Respectfully submitted,
WESTWARD ENVIRONMENTAL, INC.

John (Jack) Sackrider, P.G.
Geology Manager



3/9/2026

TX PG Firm No. 50112

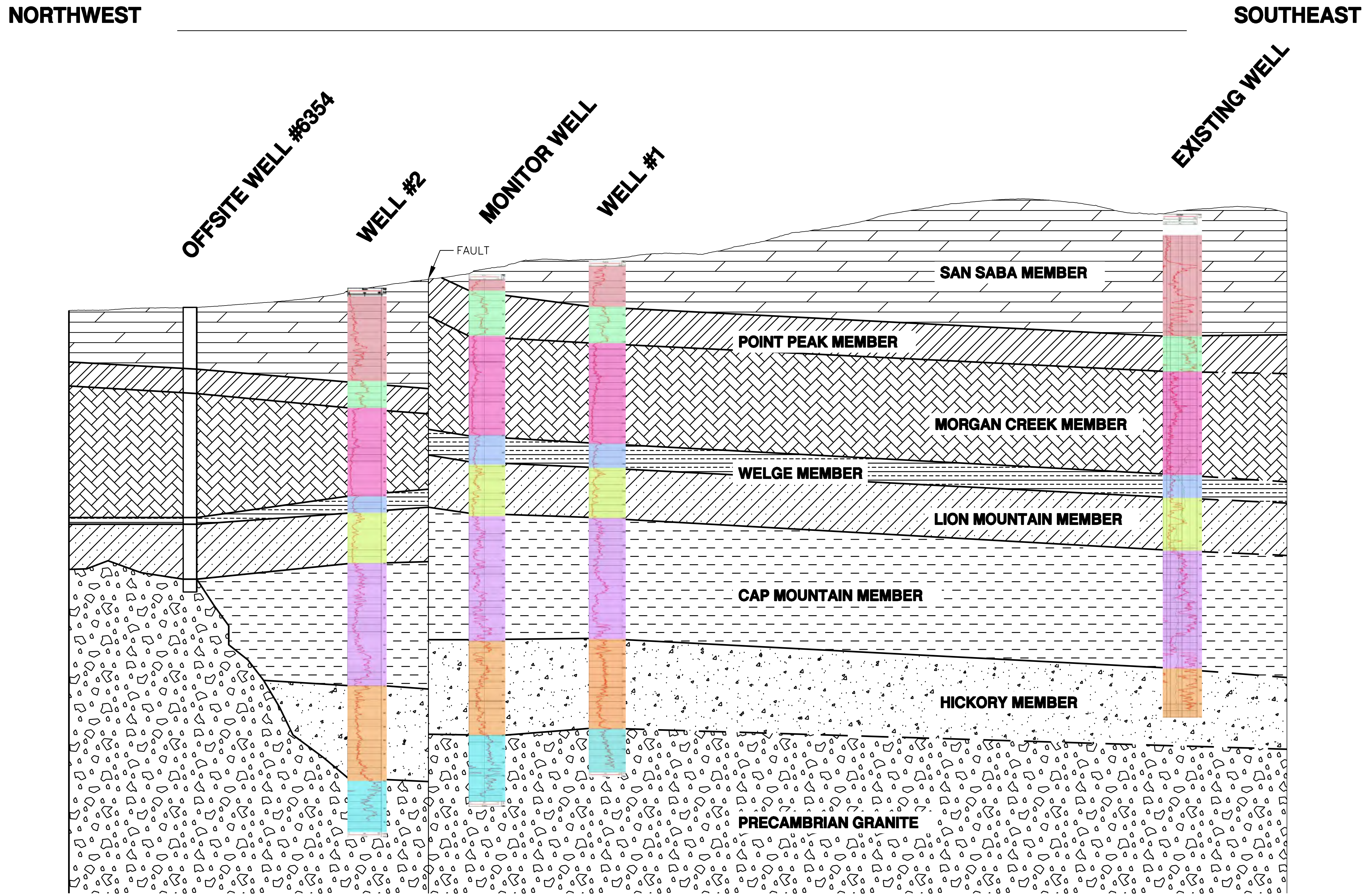
Attachments

A. Hydrogeologic Cross-section
B. Interpreted Geophysical Logs
C. Cooper-Jacob Straight-line Method Charts
D. 30-year Predicted Drawdown Contour Plots

ATTACHMENT A: Hydrogeologic Cross-section

P:\10853 - ASPHALT INC\256 - LCRA & TXDOT PERMITTING QRRY BURNET\MAPS AND DRAWINGS\10853.256_WellCrossSections_v2.dwg

5X VERTICAL EXAGGERATION



HORIZONTAL SCALE: 1" = 800'

EST. 1996
WESTWARD
Environmental · Geology · Engineering
P.O. Box 2205 Boerne, Texas 78006
(830) 249-8284 Fax: (830) 249-0221
TBPE REG. NO.: F-4524
TBPG REG. NO.: 50112

STATE OF TEXAS
JOHN J. SACKRIDER
GEOLOGY
12654
LICENSED
PROFESSIONAL GEOSCIENTIST

3/9/2026

GEOLOGIC CROSS SECTION

BURNET QUARRY
ASPHALT INC,LLC
BURNET, BURNET COUNTY, TEXAS

REV.	DESCRIPTION	BY	DATE

IMAGE:	NONE
ISSUE DATE:	02/18/2026
DRAWN BY:	JJS
CHECKED BY:	XXX
SCALE: 1" =	AS NOTED
JOB NO.:	10853.256

SHEET NO.:
01
OF 01

ATTACHMENT B: Interpreted Geophysical Logs


WELL #2
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
460
480
500
520
540
560
580
600
620
640
660
680
700
720
740
760
780
0
cps
300
Gamma
Depth


Gamma
0
cps
300
Dep
1ft:20
MONITOR WELL
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
460
480
500
520
540
560
580
600
620
640
660
680
700
720
740
760
0
cps
300
Gamma

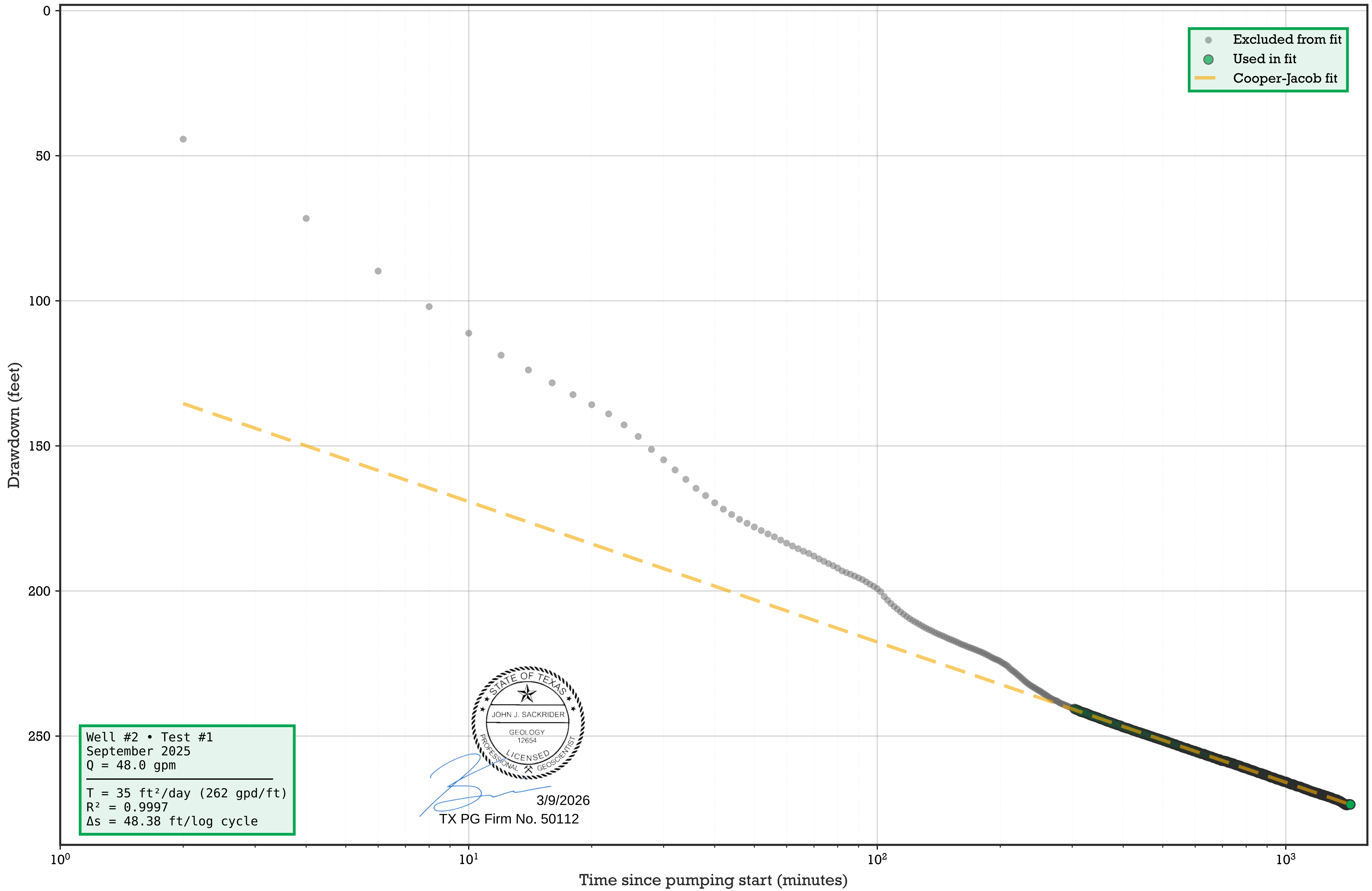

Gamma
0
cps
300
Dep
1ft:2
WELL #1
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
460
480
500
520
540
560
580
600
620
640
660
680
700
720
740
0
cps
300
Gamma
Dep
1ft:2

GAMMA			Dept
0	CPS	175	1in:20
SP			
-150	mV	150	

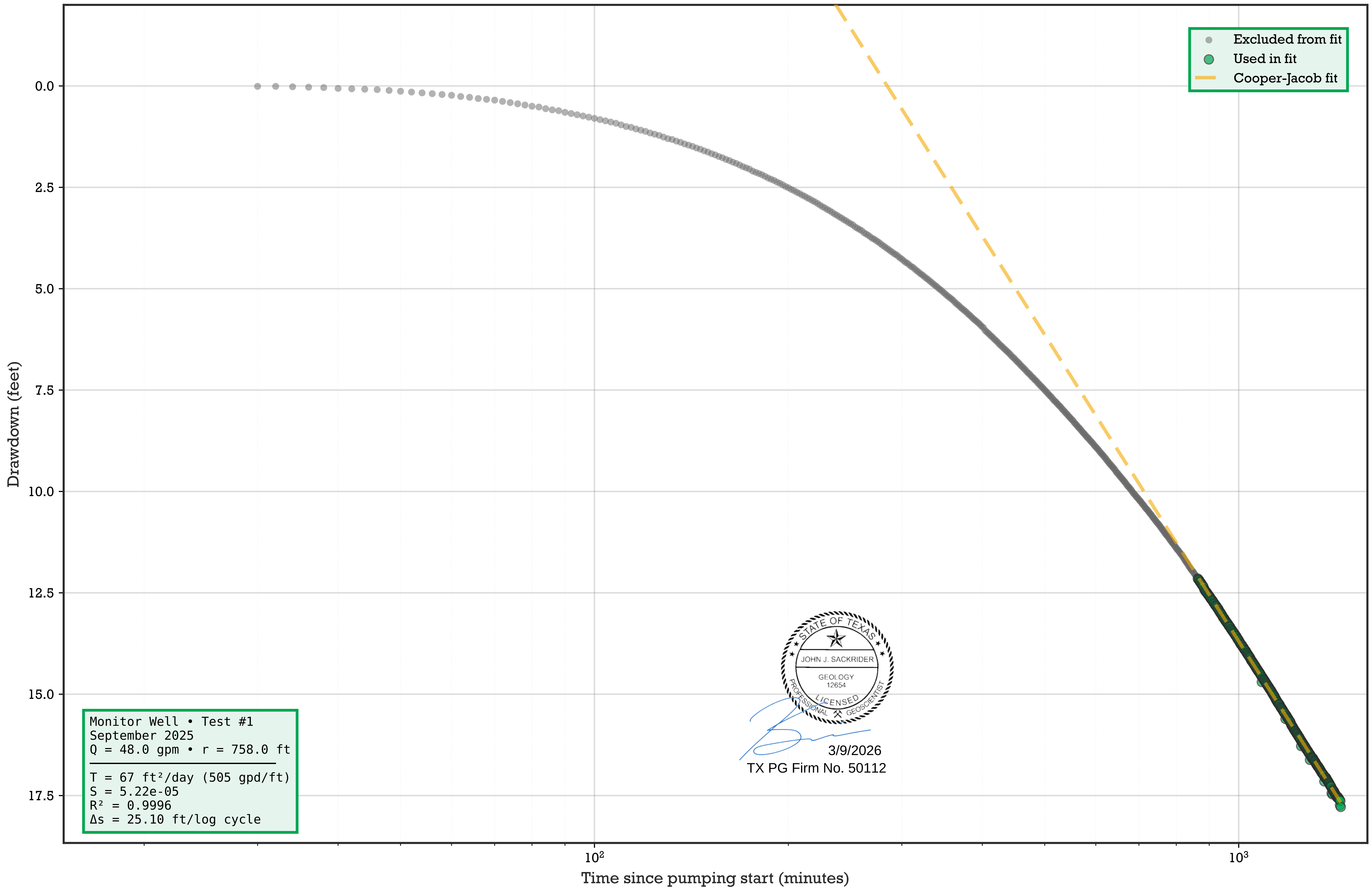
EXISTING WELL

ATTACHMENT C: Cooper-Jacob Straight-line Method Charts

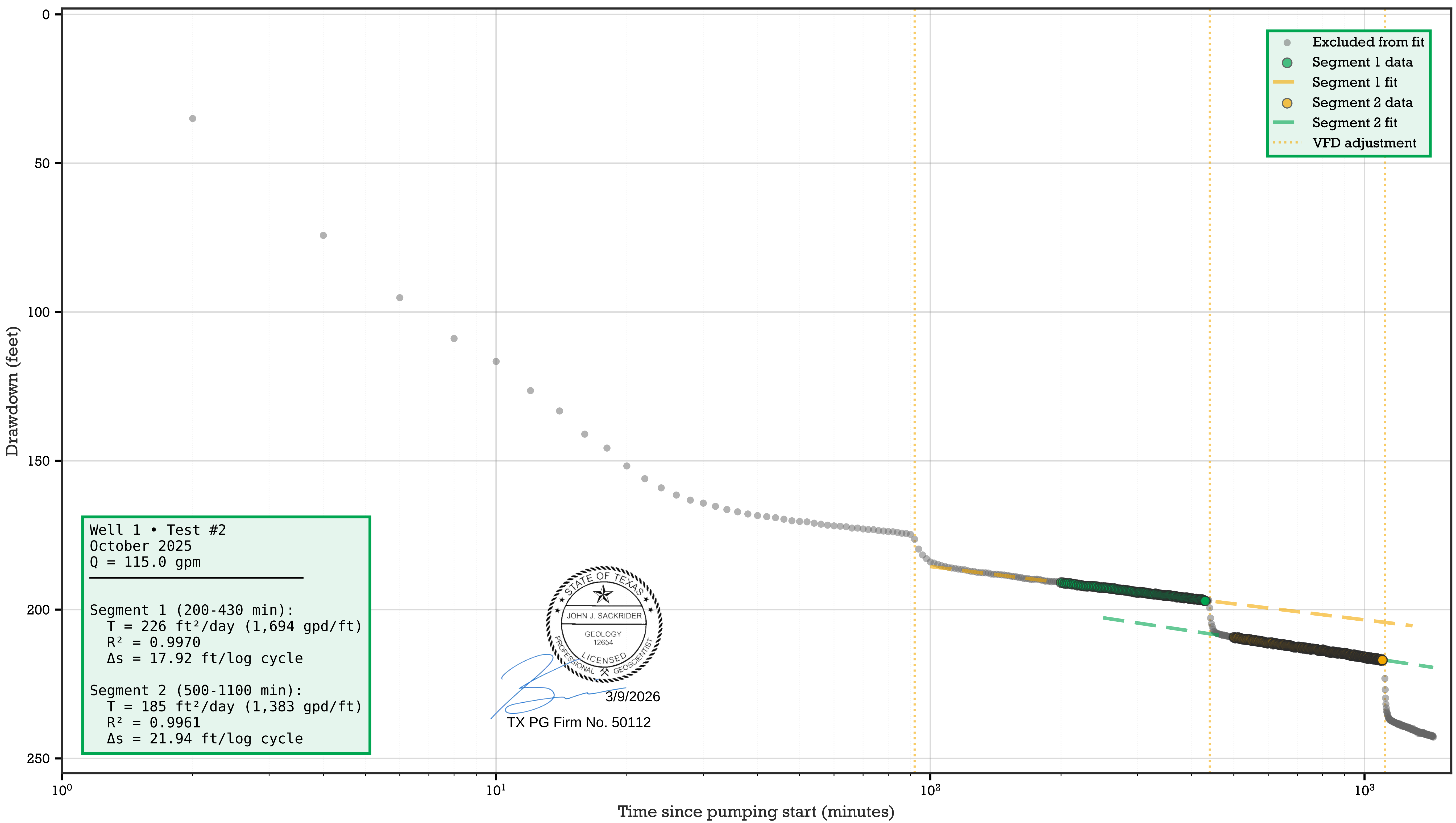
Cooper-Jacob Straight Line Method: Well #2 - Test #1



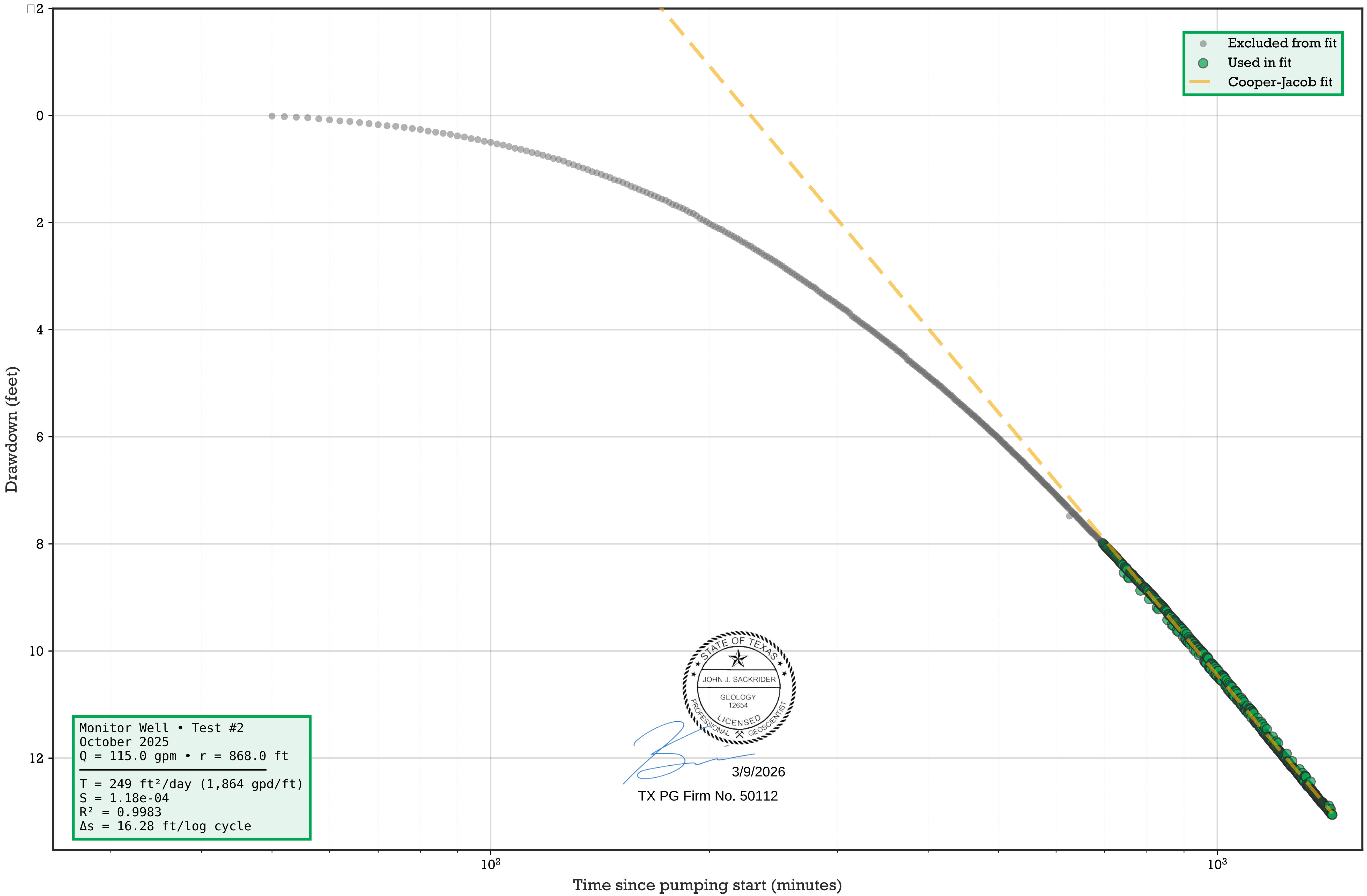
Cooper-Jacob Straight Line Method: Monitor Well - Test #1



Cooper-Jacob Straight Line Method: Well 1 - Test #2



Cooper-Jacob Straight Line Method: Monitor Well - Test #2



ATTACHMENT D: 30-year Predicted Drawdown Contour Plots

EST. 1996
WESTWARD
Environmental • Geology • Engineering

Predicted 30-Year Drawdown

Burnet Quarry — 0.5-Mile Radius

LEGEND

- Pumping Well
- Monitor Well
- Registered Well (SDR)
- Property Boundary

MODEL PARAMETERS

Well 1:

Q = 115 gpm

T = 249 ft²/day (1,863 gpd/ft)

S = 1.18e-04

Well 2:

Q = 35 gpm

T = 67 ft²/day (501 gpd/ft)

S = 5.22e-05

Method:

Theis (1935) with superposition

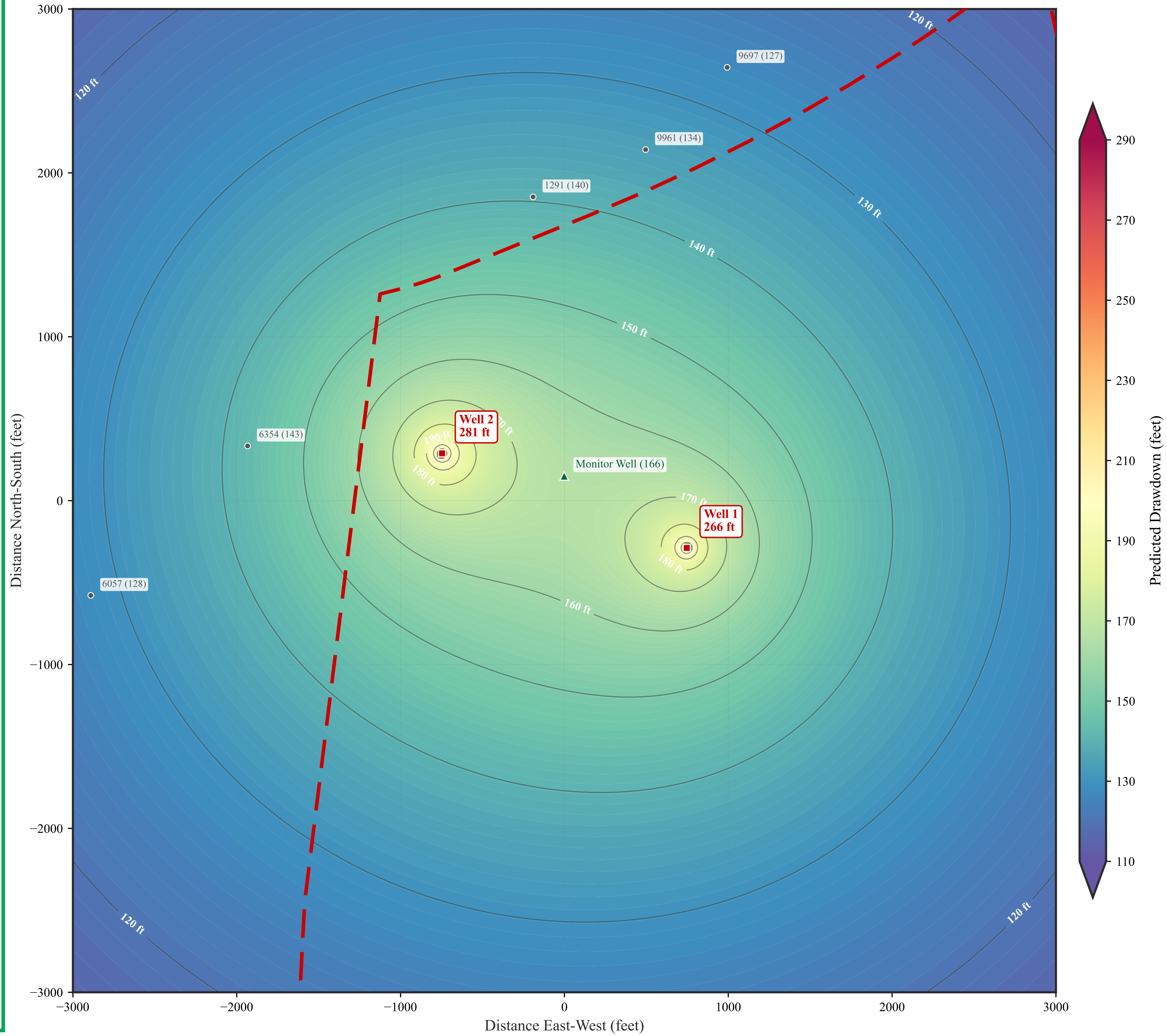
STATE OF TEXAS
JOHN J. SACKRIDER
GEOLOGY
12654
LICENSED
PROFESSIONAL GEOSCIENTIST

3/9/2026

TX PG Firm No. 50112

Asphalt Inc., LLC

10853.256 • 2026



EST. 1996
WESTWARD
Environmental • Geology • Engineering

Predicted 30-Year Drawdown

Burnet Quarry — 2-Mile Radius

LEGEND

- Pumping Well
- Monitor Well
- Registered Well (SDR)
- Property Boundary

MODEL PARAMETERS

Well 1:

Q = 115 gpm

T = 249 ft²/day (1,863 gpd/ft)

S = 1.18e-04

Well 2:

Q = 35 gpm

T = 67 ft²/day (501 gpd/ft)

S = 5.22e-05

Method:

Theis (1935) with superposition

STATE OF TEXAS
JOHN J. SACKRIDER
GEOLOGY
12654
LICENSED
PROFESSIONAL GEOSCIENTIST

3/9/2026
TX PG Firm No. 50112

Asphalt Inc., LLC

10853.256 • 2026