CHEMOURS DELISLE PLANT

2017 HWDIR EXEMPTION PETITION REISSUANCE APPLICATION

7.0 MECHANICAL INTEGRITY TESTING

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7.0 MECHANICAL INTEGRITY TESTING

7.1 INTRODUCTION

In accordance with 40 CFR 146.68(d), Class I hazardous waste injection wells will undergo an annual mechanical integrity test (MIT) to determine the integrity of the injection well's long string casing, injection tubing, annular seal, and bottom-hole cement. This requirement is incorporated into DeLisle's MDEQ permit, MSI1001 (Section C, Part 6). .

The 2019 MITs were performed in accordance with these requirements over the time period from April 8 - 13, 2019 as specified in the table below.

Well No.	Test Dates	Annulus Pressure Test	Radioactive Tracer Survey	Bottomhole Pressure Test	Differential Temperature Survey
Well 2	April 10	X	X		
Well 3	April 9 (APT & RTS) April 12-13 (BHP Test)	X	X	X	
Well 4	April 11	X	X		
Well 5	April 8	X	X		

Note that previously performed site reservoir tests between the wells proved inter-well communication between the injection intervals of Well Nos. 2, 3, 4, and 5; therefore, the MDEQ permit requirement stipulates that the annual bottom hole pressure test (BHP) be performed on a rotating basis so that each well is tested at least once every four years. The plant must also perform a temperature, gamma ray, or other approved survey in each well every two years. Previously, the temperature surveys were performed in 2018. Therefore, temperature surveys were not performed this year (2019).

Testing indicated that all injection wells at the DeLisle Plant are mechanically sound.

7.2 PLANT WELL NO. 2

7.2.1 Mechanical Integrity Test

The APT was performed on the morning of April 10, 2019. Plant pressure sensor equipment, connected to the tubing-casing annulus of Well No. 2, was used to measure the pressure. Plant data recording equipment was used to record the pressure test information in digital format.

The annular pressure was increased to ~760 psig with plant annulus pressure equipment. The pressure was allowed to stabilize, and the 30-minute test, required by the MDEQ, began at 6:05 a.m., with a pressure of 772.0 psig. The test ended at 6:35 a.m. with a pressure of 775.3 psig. The resultant pressure increase of 3.3 pounds per square inch (psi) in 30 minutes represents a increase of 0.43 percent. This pressure increase is within the 5 percent change in 30 minutes allowed by the MDEQ guidelines. A graph of the test data and a digital record of the APT test data are included in Appendix 7-1.

On April 10, 2019, following the APT, a RTS was conducted on Well No. 2. Two statistical checks of the gamma ray tools were performed at 9,690 feet and 9,723 feet, while the plant injected at 29 gallons per minute (gpm). A before-survey gamma ray log was run from 9,950 feet to 8,900 feet while the plan injected at 29 gpm.

Two flow profile surveys were performed as the plant continued pumping iron chloride at 29 gpm. The tracer material was monitored between 9,400 feet and 9,950 feet, with the radioactive slugs exiting through the screen into the injection interval. The surveys showed no evidence of upward fluid flow.

The plant increased the injection rate to approximately 301 gpm and the first time drive was conducted with the tool at 9,723 feet. Two successful 21-minute time-drive surveys were performed, with the tool positioned at 9,723 feet. The surveys showed no evidence of upward fluid flow. An after-survey gamma ray log, run from 9,950 feet to 8,900 feet, demonstrated that all tracer material had exited the wellbore. A copy of the RTS log for Plant Well No. 2 is included in Appendix 7-2.

7.3 PLANT WELL NO. 3

7.3.1 Mechanical Integrity Test

The APT was performed on the morning of April 9, 2019. Plant pressure sensor equipment, connected to the tubing-casing annulus of Well No. 3, was used to measure the pressure. Plant data recording equipment was used to record the pressure test information in digital format.

The annular pressure was increased to ~760 psig with plant annulus pressure equipment. The pressure was allowed to stabilize, and the 30-minute test, required by the MDEQ, began at 7:25 am, with a pressure of 769.3 psig. The test ended at 7:55 am with a pressure of 770.7 psig. The resultant pressure increase of 1.4 psi in 30 minutes represents an increase of 0.18 percent. This pressure decrease is within the 5 percent change in 30 minutes allowed by the MDEQ guidelines. A graph of the test data and a digital record of the APT test data are included in Appendix 7-3.

On April 9, 2019, following the APT, a RTS was conducted on Plant Well No. 3Two statistical checks of the gamma ray tools were performed at 9,611 feet and 9,715 feet, while the plant pumped ferric chloride at 29 gpm. A before-survey gamma ray log was run from 10,036 feet to 9,000 feet

Two flow profile surveys were performed as the plant continued pumping ferric chloride at 29 gpm. The tracer material was monitored between 9,400 feet and 10,036 feet, with the radioactive slugs exiting through the screen into the injection interval. The surveys showed no evidence of upward fluid flow.

The plant increased the injection rate to approximately 302 gpm, but the first time-drive was aborted after 12 minutes, after a slug was observed from surface (observed first on the upper detector, followed by the lower detector). The plant continued to inject at 300 gpm, and two successful time-drive surveys were performed, all with the tool positioned at 9,715 feet. An after-survey gamma ray log, run from 10,036 feet to 9,000 feet, demonstrated that all tracer material had exited the wellbore. A copy of the RTS log for Plant Well No. 3 is included in Appendix 7-4.

7.4 PLANT WELL NO. 4

7.4.1 Mechanical Integrity Test

The APT was performed on the morning of April 11, 2019. Plant pressure sensor equipment, connected to the tubing-casing annulus of Well No. 4, was used to measure the pressure. Plant data recording equipment was used to record the pressure test information in digital format.

The annular pressure was increased to ~760 psig with plant annulus pressure equipment. The pressure was allowed to stabilize, and the 30-minute test required by the Mississippi DEQ began at 6:20 a.m., with a pressure of 765.1 psig. The test ended at 6:50 a.m. with a pressure of 762.4 psig. The resultant pressure decrease of 2.7 psi in 30 minutes represents a loss of only 0.35 percent. This pressure loss is within the 5 percent change in 30 minutes allowed by the MDEQ guidelines. A graph and a digital record of the APT test data are included in Appendix 7-5.

On April 11, 2019, an RTS was conducted on Well No. 4 Two statistical checks of the gamma ray tools were performed at 9,673 feet and 9,718 feet, while the plant pumped iron chloride at 25 gpm. A before-survey gamma ray log was run from 9,957 feet to 9,000 feet.

The plant maintained 30 gpm for the completion of the two flow profiles. The tracer material was monitored between 9,400 feet and 9,957 feet, with the radioactive slugs exiting through the screen into the injection interval.

The plant continued to inject at 302 gpm, and two successful time-drive surveys were performed, all with the tool positioned at 9,718 feet. The surveys showed no evidence of upward fluid flow. An after-survey gamma ray log, run from 9,959 feet to 9,000 feet, demonstrated that all tracer material had exited the wellbore. A copy of the RTS log for Plant Well No. 4 is included as Appendix 7-6.

7.5 PLANT WELL NO. 5

7.5.1 Mechanical Integrity Test

The APT was performed on the morning of April 8, 2019. Plant pressure sensor equipment, connected to the tubing-casing annulus of Well No. 5, was used to measure the pressure. Plant data recording equipment was used to record the pressure test information in digital format.

The annular pressure was increased to ~760 psig at 5:00 a.m. with plant annulus pressure equipment. The pressure was allowed to stabilize, and the 30-minute test required by the MDEQ began at 6:00 a.m., with a pressure of 769.6 psig. The test ended at 6:30 a.m. with a pressure of 772 psig. The resultant pressure change of 2.4 psi in 30 minutes represents an increase of 0.31 percent. This pressure loss is within the 5 percent change in 30 minutes allowed by the MDEQ guidelines. A graph of the test data and a digital record of the APT test data are included in Appendix 7-7.

Two statistical checks of the gamma ray tools were performed at 9,670 feet and 9,741 feet, while the plant pumped iron chloride at 28 gpm. A base gamma ray log was run from 9,986 feet to 9,000 feet while the plant injected iron chloride at 28 gpm.

Two flow profile surveys were performed at an injection rate of 28 gpm. The tracer material was monitored between 9,400 feet and 9,986 feet, with the radioactive slugs exiting through the screen into the injection interval.

The plant increased the injection rate to approximately 300 gpm, and two successful time-drive surveys were performed, with the tool positioned at 9,741 feet. The surveys showed no evidence of upward fluid flow. An after survey gamma ray log, run from 9,986 feet to 9,000 feet, demonstrated that all tracer material had exited the wellbore. Appendix 7-8 contains a copy of the RTS log for Plant Well No. 5.

7.6 BOTTOMHOLE PRESSURE FALLOFF TEST

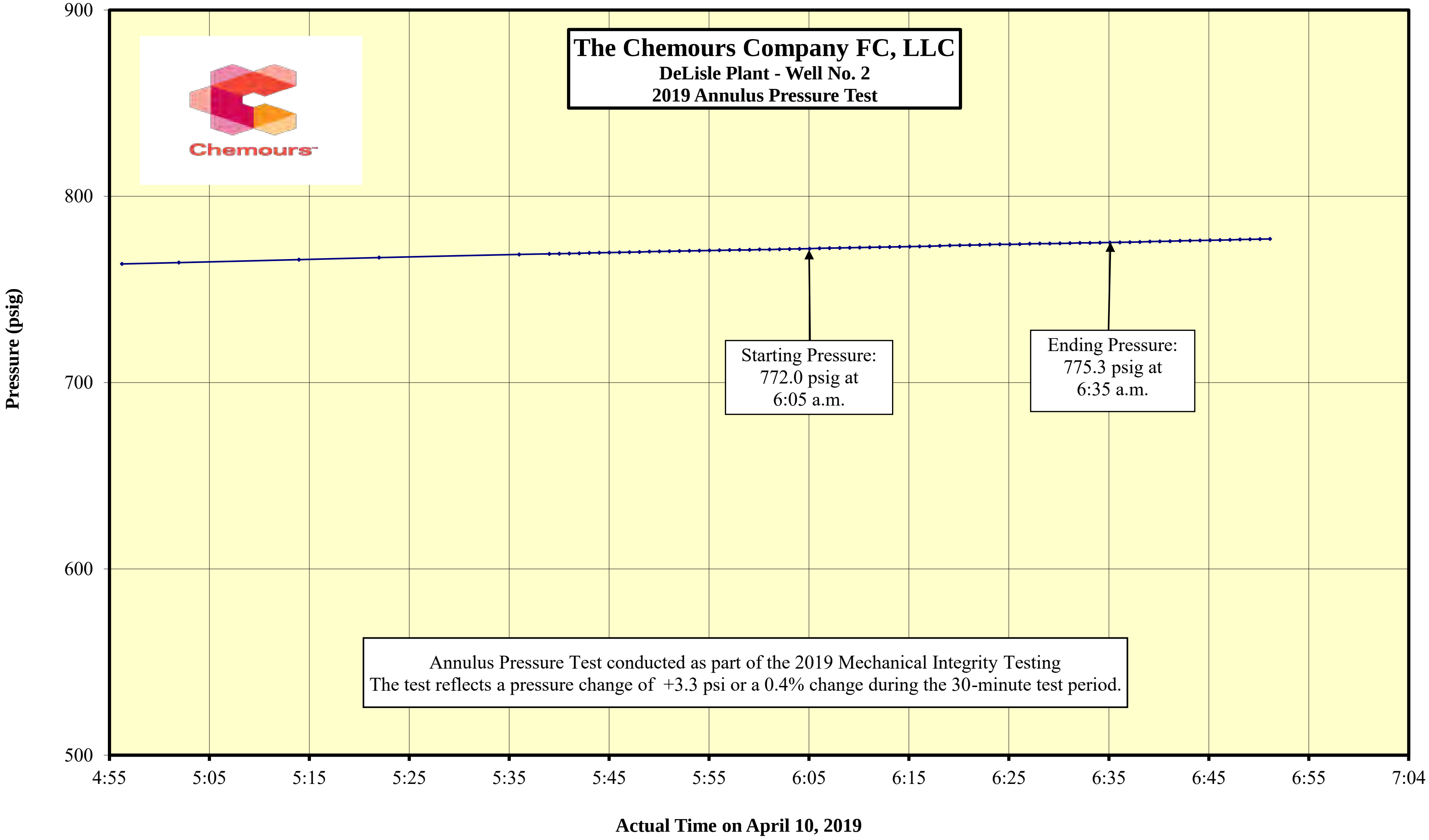
A BHP Falloff Test was conducted in Well No. 3 on April 12-13, 2019, to satisfy annual testing requirements in the Washita-Fredericksburg Injection Interval Sands for 2019.

The static BHP (final pressure) was measured in Well No. 3 at 3,272.43 psig, at a gauge depth of 7,000 feet. When corrected to the historical depth reference, the BHP compares closely with historical results, and indicates that cumulative iron chloride injection through Plant Well Nos. 2, 3, 4, and 5 has not caused significant pressure build-up within the Washita-Fredericksburg Injection Sand Interval.

The final injection pressure in Well No. 3 was recorded as 4,072.17 psig, at a depth of 6,998 feet. When corrected to the historical depth reference and adjusted for skin effects, the final flowing bottomhole pressure in Well No. 3 is calculated to be 4,934 psig, at 9,850 feet. This pressure is approximately 710 psi below the corresponding pressure predictions of the DuPont Model, and provides data that confirms the DuPont Model is conservative in its estimate and future prediction of reservoir pressure buildup due to fluid injection within the Washita-Fredericksburg Injection Sand.

APPENDICES

APPENDIX 7-1
PLANT WELL NO. 2 2019 ANNULAR PRESSURE TEST CHART



The Chemours Company FC, LLC
DeLisle Plant - Well No. 2
2019 Annulus Pressure Test

Starting Pressure:
772.0 psig at
6:05 a.m.

Ending Pressure:
775.3 psig at
6:35 a.m.

Annulus Pressure Test conducted as part of the 2019 Mechanical Integrity Testing
The test reflects a pressure change of +3.3 psi or a 0.4% change during the 30-minute test period.

The Chemours Company FC, LLC

DeLisle, MS Plant Well No. 2

Annulus Pressure Test

Gauge: Plant Gauge
Model: N/A
Serial Number: N/A
Range: N/A
Calibration Date: N/A

Note: Injection Tubing was static at 0 psig.

	Date	Time	Pressure (psig)
	4/10/2019	4:56:15	763.7
	4/10/2019	5:01:57	764.4
	4/10/2019	5:13:58	766.0
	4/10/2019	5:21:59	767.1
	4/10/2019	5:36:00	768.8
	4/10/2019	5:39:01	769.1
	4/10/2019	5:40:01	769.2
	4/10/2019	5:41:01	769.3
	4/10/2019	5:42:01	769.4
	4/10/2019	5:43:01	769.6
	4/10/2019	5:44:01	769.7
	4/10/2019	5:45:01	769.8
	4/10/2019	5:46:02	769.9
	4/10/2019	5:47:02	770.0
	4/10/2019	5:48:02	770.1
	4/10/2019	5:49:02	770.3
	4/10/2019	5:50:02	770.4
	4/10/2019	5:51:02	770.5
	4/10/2019	5:52:02	770.6
	4/10/2019	5:53:02	770.7
	4/10/2019	5:54:02	770.8
	4/10/2019	5:55:02	770.9
	4/10/2019	5:56:02	771.0
	4/10/2019	5:57:03	771.1
	4/10/2019	5:58:03	771.2
	4/10/2019	5:59:03	771.2
	4/10/2019	6:00:03	771.4
	4/10/2019	6:01:03	771.4
	4/10/2019	6:02:03	771.6
	4/10/2019	6:03:03	771.7
	4/10/2019	6:04:03	771.8
Start Test	4/10/2019	6:05:03	771.9
	4/10/2019	6:06:03	772.1
	4/10/2019	6:07:03	772.2
	4/10/2019	6:08:04	772.3
	4/10/2019	6:09:04	772.4
	4/10/2019	6:10:04	772.5
	4/10/2019	6:11:04	772.6
	4/10/2019	6:12:04	772.7
	4/10/2019	6:13:04	772.8
	4/10/2019	6:14:04	772.9
	4/10/2019	6:15:04	773.0
	4/10/2019	6:16:04	773.1
	4/10/2019	6:17:04	773.2
	4/10/2019	6:18:05	773.4
	4/10/2019	6:19:05	773.6
	4/10/2019	6:20:05	773.7
	4/10/2019	6:21:05	773.8
	4/10/2019	6:22:05	773.9
	4/10/2019	6:23:05	774.1
	4/10/2019	6:24:05	774.2
	4/10/2019	6:25:05	774.2
	4/10/2019	6:26:05	774.3
	4/10/2019	6:27:05	774.5
	4/10/2019	6:28:05	774.6
	4/10/2019	6:29:05	774.6
	4/10/2019	6:30:06	774.7
	4/10/2019	6:31:06	774.8
	4/10/2019	6:32:06	775.0
	4/10/2019	6:33:06	775.0
	4/10/2019	6:34:06	775.1
End Test	4/10/2019	6:35:06	775.2
	4/10/2019	6:36:06	775.3
	4/10/2019	6:37:06	775.4
	4/10/2019	6:38:06	775.5
	4/10/2019	6:39:06	775.7
	4/10/2019	6:40:06	775.8
	4/10/2019	6:41:07	775.9
	4/10/2019	6:42:07	776.1
	4/10/2019	6:43:07	776.2
	4/10/2019	6:44:07	776.3
	4/10/2019	6:45:07	776.4
	4/10/2019	6:46:07	776.5
	4/10/2019	6:47:07	776.6
	4/10/2019	6:48:07	776.8
	4/10/2019	6:49:07	776.9
	4/10/2019	6:50:07	777.0
	4/10/2019	6:51:07	777.1

APPENDIX 7-2
PLANT WELL NO. 2 2019 RADIOACTIVE TRACER LOG

COASTAL WIRELINE SERVICES, INC.

Chemours
Waste Disposal Well 2
DeLisle Facility
DeLisle, Mississippi
April 10, 2019

RADIOACTIVE TRACER SURVEY

The two phases of this test included; 1) determining the flow through and from the tubing by ejecting a slug of radioactive material (Iodine-131 10mci) and monitoring the flow profile as it moves down the tubing and into the formation. 2) Testing the mechanical integrity of the casing, cement, and formation bond by positioning gamma-ray detector slightly above the point where the formation accepts fluid and monitoring the gamma radiation response from an ejected slug of radioactive material. A baseline gamma-ray log was run from 9,950 feet to 8,900 feet (800 feet above top of packer assembly). the injection rate was 29 gpm for the profile runs and 301 gpm for the time drive surveys.

The first phase of this test incorporates the injection of radioactive slug at 9,400 feet (300 feet above top of packer assembly) and passing the detector through the radioactive material until it passes from the tubing and into the formation. The first slug gave an indication of leaving the packer at 9,700 feet and going into the formation below 9,743 feet. Made four (4) passes and chased slug down to 9,794 feet. This portion of this test was repeated with four (4) passes and slug chased down to 9,800 feet. Profile survey indicates that all fluid is going into injection interval at this time. No indication of any fluid migrating up hole behind pipe above 9,743 feet.

The second phase of this test involved setting lower detector at 9,723 feet (20 feet above casing shoe) and ejecting a slug at 9,712 feet and recorded on stationary time drive for twenty one (21) minutes with an injection rate of 301 gpm. This test was repeated at 9,723 feet with a rate of 301 gpm. Time drive survey indicates no fluid migrating up hole behind pipe above 9,723 feet at this time.

RADIOACTIVE TRACER SURVEY CONTINUE

A post gamma ray log pass was run from 9,950 feet to 8,900 feet and compared to original base gamma ray log which indicated some residue of radioactive material from 9,970 feet to 9,725 feet but none above 9,723 feet.

Radioactive Tracer Survey was conducted by Stoney Johnson (Coastal Wireline Services, Inc.) and witnessed by Mr. Steven Henry (Geostock Sandia Entrepose).

Sincerely

Stoney Johnson
Engineer C.W.S.

Company	CHEMOURS
Well	PLANT WELL # 2 SIDE TRACK # 1
Field	DELISLE FACILITY
County	HARRISON
State	MISSISSIPPI
Country	U.S.A.

COASTAL WIRELINE SERVICES

RADIOACTIVE TRACER SURVEY MECHANICAL INTEGRITY TEST

Company	CHEMOURS
Well	PLANT WELL # 2 SIDE TRACK # 1
Field	DELISLE FACILITY
County	HARRISON
State	MISSISSIPPI
Country	U.S.A.

Location: N/A

API # :

SEC TWP RGE

Other Services: NONE

Permanent Datum	GROUND LEVEL	Elevation 16.58'	Elevation
Log Measured From	13'		K.B. 29.58'
Drilling Measured From	KELLY BUSHING		D.F. 28.58' G.L. 16.58'

Date	4/10/2019
Run Number	ONE
Depth Driller	10060'
Depth Logger	9971'
Bottom Logged Interval	9970'
Top Log Interval	3050'
Open Hole Size	N/A
Type Fluid	BRINE
Density / Viscosity	N/A
Max. Recorded Temp.	N/A
Estimated Cement Top	SURFACE
Time Well Ready	08:00
Time Logger on Bottom	11:17
Equipment Number	P-104
Location	PEARLAND
Recorded By	S. JOHNSON
Witnessed By	MR. S. HENRY / MR. J. SPARKS

Borehole Record			Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Run Number	Bit	From	To

Size	Weight	From	To
4 1/2"	TITANIUM	SURFACE	20'
5 1/2"	RB-2500	22'	7284'
4 1/2"	RB-2500	7314'	9700'

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	13 3/8"	68	SURFACE	3658'
Prot. String	9 5/8"	40-53.5	SURFACE	9855'
Production String	7"	26 & TITA	7573'	9743'
Liner	4 1/2"	RB-2500	9719'	10018'

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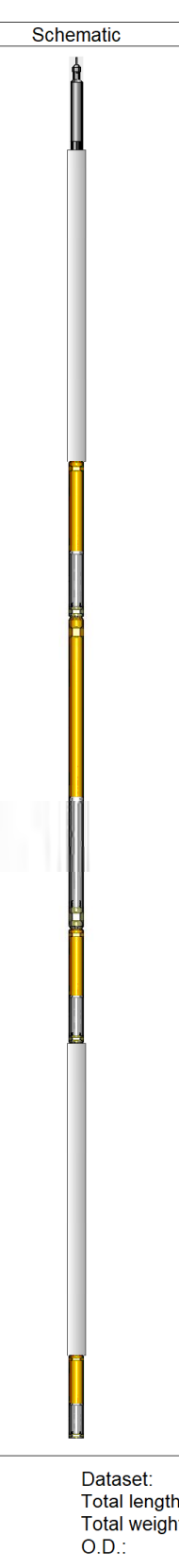
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

RADIOACTIVE TRACER SURVEY INDICATES THAT ALL FLUID IS GOING INTO INJECTION INTERVAL AT THIS TIME. NO INDICATION OF ANY FLUID MIGRATING UP HOLE BEHIND PIPE ABOVE 9743'.

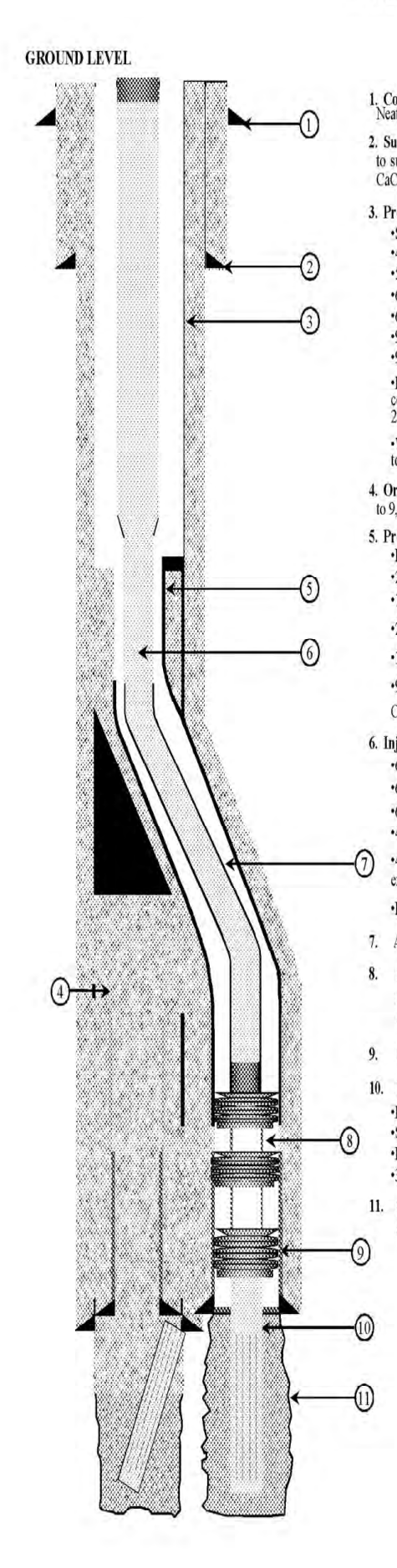
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Cablehead-Titan Cable Head	1.50	1.40	3.00
			TRDET-Probe (132646) Trdet	5.00	1.38	25.00
DET	15.67		TREJCT-Probe (134398) 1 3/8" Ejector	2.50	1.38	15.00
			1.38Bar-Titan 1 3/8" Weight Bar	5.00	1.38	45.00
CCL	6.71		CCL-Probe (080935) 1 3/8" Probe ccl	1.83	1.38	5.00
			TRDET #2 -Probe (132645) Trdet	5.00	1.38	25.00
DET#2	1.33		CalScan-memory (1.24Memory_Guage) CalScan Memory	1.33	1.24	5.00

Dataset:	ddl2-19.db: field/well/run2/pass1
Total length:	22.17 ft
Total weight:	123.00 lb
O.D.:	1.40 in

Chemours Company, FC, LLC,
Titanium Technologies

DeLisle Plant Well No. 2
Sidetrack No. 1 (UIC-1001)
Well Schematic

GL = 16.58' MSL
KB = 29.58' LMF
All depths RKB



COMPLETION DETAIL

1. **Conductor Pipe**: 20", Surface to 101'. Set in 26" hole & cemented to surface with 200 sx Neat cement.
2. **Surface Casing**: 13-3/8", 68 ppf, K-55, Surface to 3,658'. Set in 17-1/2" hole and cemented to surface with 2,280 sx of Halliburton Light (0.25#/sx Flocele) and 275 sx Class H (35% $CaCl_2$).
3. **Protection Casing**: 9-5/8", Surface to 9,855' in 12-1/4" hole:
   - •Surface to 40', 53.5-ppf, N-80, LT&C.
   - •40' to 5510', 40-ppf, N-80, LT&C.
   - •5510' to 6000', 47-ppf, N-80, LTC
   - •6000' to 6041', Cross-Over, 47-ppf, N80, LT&C X Buttress
   - •6041' to 9766', 47-ppf, P-110, Buttress
   - •9766' to 9845', Titanium, ½" wall
   - •9845' to 9855', 53.5-ppf, N-80
   - •Halliburton Stage tools (DV) with string at 4885' and 9160'. Protective casing was cemented in 3 stages: Lower stage was 98 bbls of Epseal®, lower stage consisted of 2047.5 sxs., Upper stage consisted of 1150 sxs and cement was circulated to surface.
   - •Weatherford Bottom Trip Whipstock set 7,803' to 7,822' with window milled from 7,800' to 7,815''.
4. **Original Protection Liner** (plugged and abandoned, November, 1995): 7" OD from 8,551' to 9,792'.
5. **Protection Liner**: 7" OD from set in a 9-7/8" hole, from 7,573' to 9,743':
   - •Baker CMC Liner Hanger from 7,573' to 7,591'.
   - •25 Joints, 26 ppf, L-80, Hydril SLX, from 7,591' to 8,677'.
   - •1 Joint, 26 ppf, L-80, Hydril SLX, 8,677'-8,697' (marker, short joint).
   - •20 Joints, 26 ppf L-80, Hydril SLX, over-wrapped w/fiberglass from 8,697' to 9,536'.
   - •1 Joint, 7-5/8" Tubular Fiberglass RB-2500, LT&C from 9,536' to 9,563'.
   - •9 Joints, 0.375" wall (6.151 drift) Gr. 7 Titanium, AB ST-L, from 9,563' to 9,743'. Cemented with 225 bbl Epseal® LC Epoxy Resin. Set December, 1995.
6. **Injection Tubing**: Tapered string of 6-5/8" X 4-1/2" FRP, from Surface to 9,517':
   - •6-5/8" Titanium Grade 2 landing joint from Surface to 4'.
   - •6-5/8" BB-2500 (257 jts and 2 pup joints) from 4' to 7,516'.
   - •6-5/8" X 4-1/2" crossover joint from 7,516' to 7,545'.
   - •4-1/2" BB-2500 (66 jts) from 7,545' to 9,496'.
   - •4-1/2" Titanium Grade 7 Delta P, Inc (DPI) Seal assembly with locator collar and extension (L = 20.72 ft) from 9,496' to 9,517'.
   - •DPI Latch-in Polished Bore Receptacle from 9,499' to 9,519'
7. **Annulus Fluid**: Calcium Chloride Brine at 10.7 ppg with Tetra Technologies inhibitors.
8. **Straddle Packer Assembly**: Set from 9,519' to 9,696'. Upper Straddle Packer at 9,519' (element at 9,524'), Lower Straddle Packer at 9,579 feet (element at 9,575'), 11 joints of 4-1/2-inch titanium spacer pipe with latch-in seal assembly
9. **Injection Packer**: DPI Model 12, 7" X 4-1/2", Titanium Grade 7, set at 9,696' to 9,701'.
10. **Injection Screen Assembly**: 4-1/2" BB 2500 FRP Tubing.
    - •Blank tubing (2 jts) from 9,701' to 9,764'.
    - •Slotted Fiberglass screen (8 jts) from 9,764' to 9,999'.
    - •Bull plug bottom at 10,000'
    - •33 slots per foot, 3" penetration per slot, and 0.15 thickness per slot.
11. **Open Hole**: ID = 9,743' to 10,060', Drilled 8-1/2". Under reamed to 16" in September 2014.

GEOSTOCK SANDIA
ENTREPOSE

Drawn by: GCH Date: 9/6/2017 *Drawing not to scale*

Figure 2 Well No. 2 Wellbore Schematic

Geostock Sandia, LLC

COASTAL WIRELINE SERVICES, INC.
RADIOACTIVE TRACER RUN SHEET
CHEMOURS DELISLE WELL # 2 (April 10, 2019)

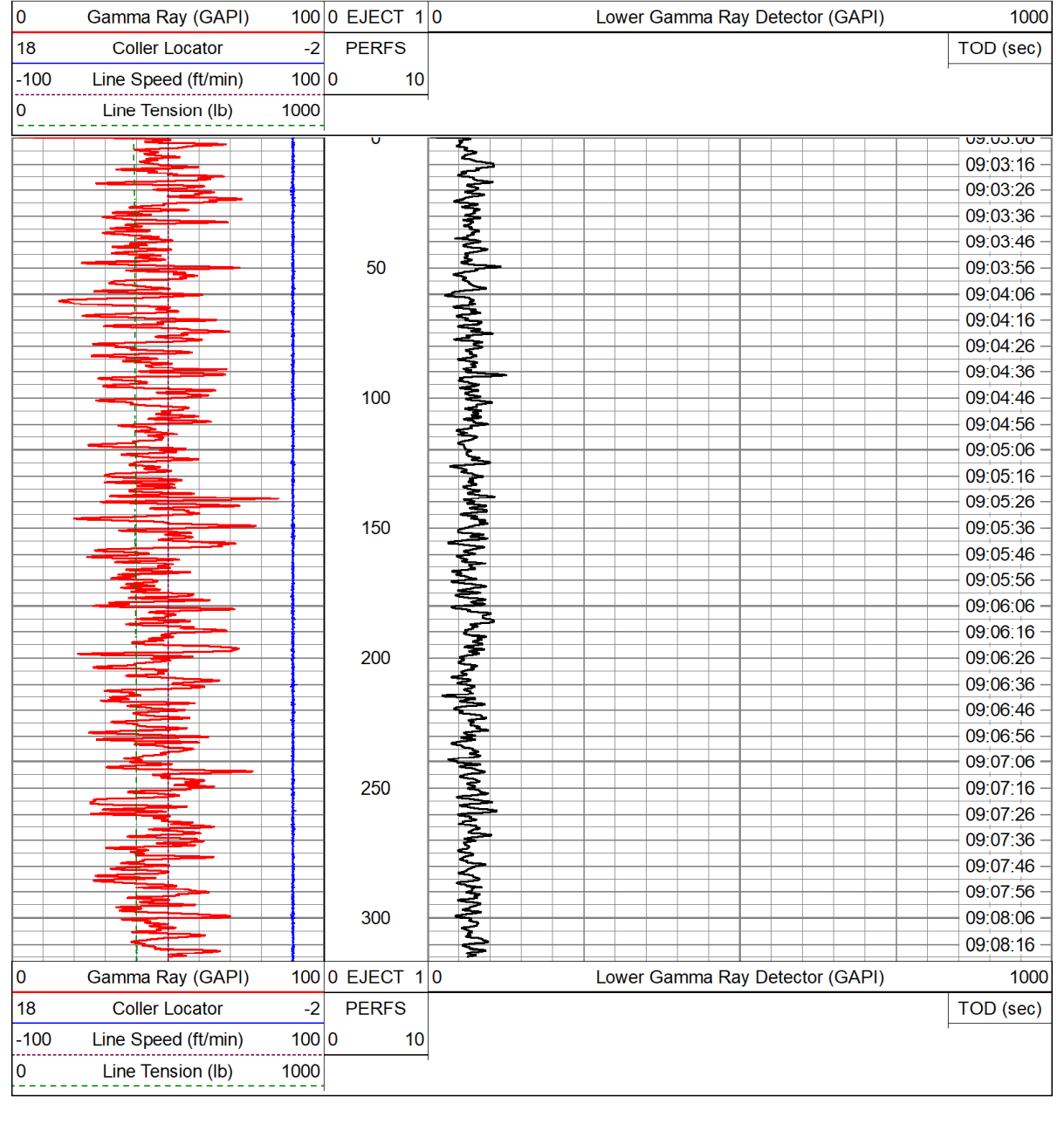
Run No	Time Start	Time End	Depth Start	Depth End	Rate gpm	Speed f/m	Press psi	Comments
1	9:03:06	9:03:16		9690'	29	ST	0	STATISTCAL CHECK ABOVE PACKER
2	9:10:22	9:15:31		9723'	29	ST	0	STATISTICAL CHECK LINER SHOE
3	9:19:32	9:37:51	9950'	8900'	29	56	0	BASE GAMMA RAY LOG PASS
	9:44:00			9400'	29	ST	0	EJECTED FOR PROFILE RUN # 1
4	9:45:09	9:46:49	9502'	9400'	29	50	0	PASS # 1 PEAK @ 9474' @ 9:45:37
5	9:49:51	9:55:22	9743'	9430'	29	56	0	PASS # 2 PEAK @ 9714' @ 9:50:22
6	9:58:40	10:02:48	9842'	9650'	29	55	0	PASS # 3 PEAK @ 9797' @ 9:59:39
7	10:05:34	10:10:45	9950'	9650'	29	60	0	PASS # 4 PEAK @ 9938' @ 10:05:48
	10:14:00			9400'	29	ST	0	EJECTED FOR PROFILE RUN # 2
8	10:15:05	10:16:52	9502'	9400'	29	55	0	PASS # 1 PEAK @ 9474' @ 10:15:34
9	10:19:27	10:24:06	9722'	9440'	29	50	0	PASS # 2 PEAK @ 9696' @ 10:19:53
10	10:27:22	10:31:12	9850'	9630'	29	50	0	PASS # 3 PEAK @ 9797' @ 10:28:20
11	10:33:57	10:39:06	9950'	9650'	29	56	0	PASS # 4 PEAK @ 9938' @ 10:34:12
12	10:47:35	11:10:25		9723'	301	ST	59	TIME DRIVE # 1 EJECTED @ 10:50
13	11:11:02	11:34:11		9723'	301	ST	86	TIME DRIVE # 2 EJECTED @ 11:13
15	11:38:50	11:56:50	9950'	8900	28	60	0	GAMMA RAY LOG AFTER SURVEY

COASTAL WIRELINE SERVICES

STATISTICAL CHECK ABOVE TOP OF PACKER

UPPER DETECTOR AT 9673' LOWER DETECTOR AT 9690'
INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl2-19.db
Dataset Pathname	pass2
Presentation Format	tracer
Dataset Creation	Wed Apr 10 09:03:06 2019
Charted by	Time scaled 72/hour

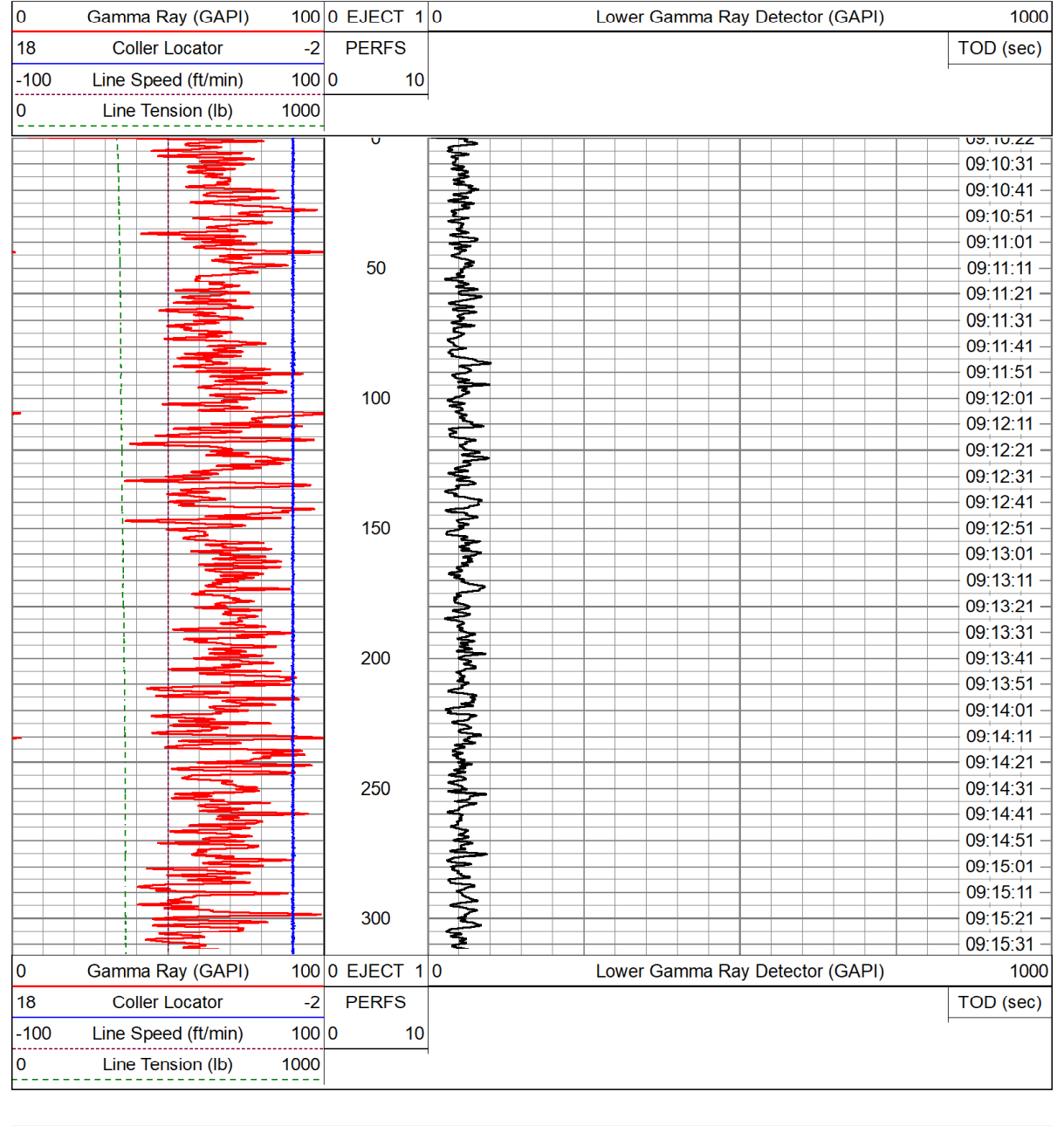


COASTAL WIRELINE SERVICES

STATISTICAL CHECK ABOVE TOP OF LINER SHOE

UPPER DETECTOR AT 9706' LOWER DETECTOR AT 9723'
INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl2-19.db
Dataset Pathname	pass3
Presentation Format	tracer
Dataset Creation	Wed Apr 10 09:10:22 2019
Charted by	Time scaled 72/hour

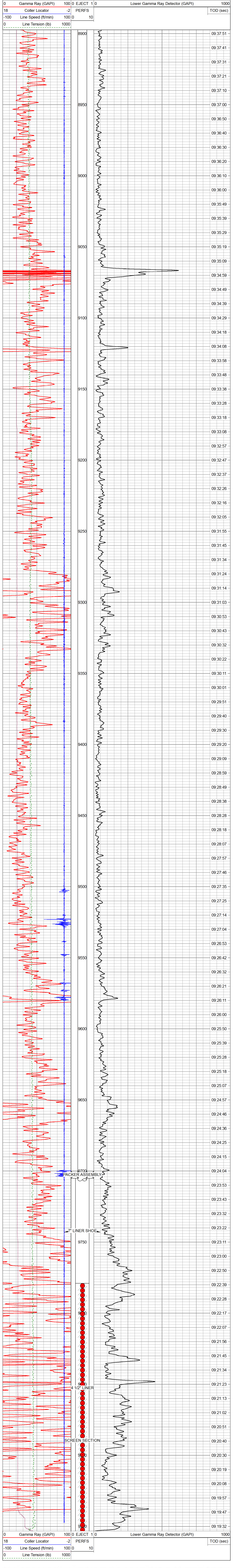


COASTAL WIRELINE SERVICES

BASE GAMMA RAY LOG PASS

INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl2-19.db
Dataset Pathname	run2/pass1
Presentation Format	tracer
Dataset Creation	Wed Apr 10 09:19:24 2019
Charted by	Depth in Feet scaled 1:240

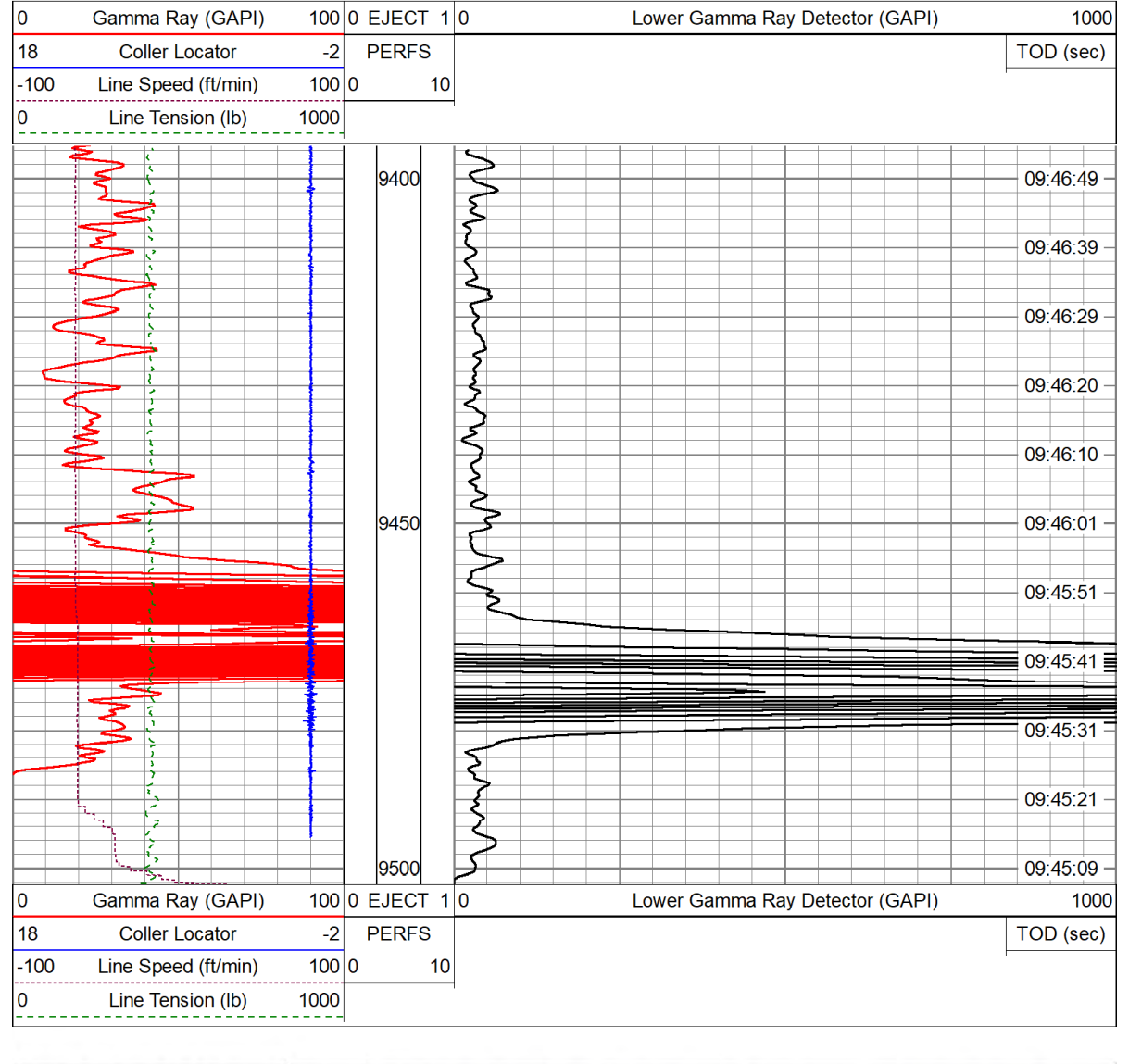


COASTAL WIRELINE SERVICES

PASS # 1 ON SLUG # 1 EJECTED AT 9400' AT 9:44

PEAK AT 9474' AT 9:45:37
INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl2-19.db
Dataset Pathname	run2/pass2
Presentation Format	tracer
Dataset Creation	Wed Apr 10 09:45:04 2019
Charted by	Depth in Feet scaled 1:240

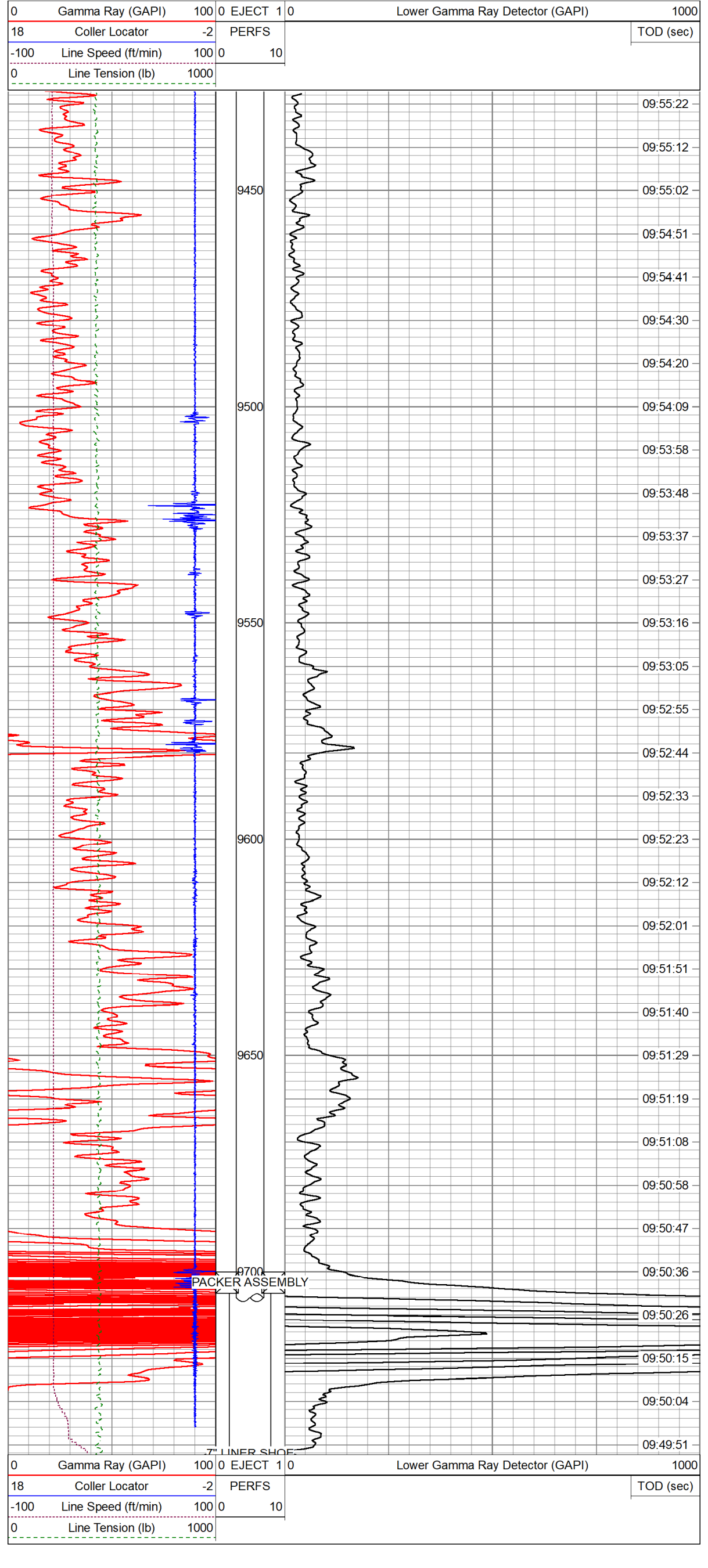


COASTAL WIRELINE SERVICES

PASS # 2 ON SLUG # 1 EJECTED AT 9400' AT 9:44

PEAK AT 9714' AT 9:50:22
INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl2-19.db
Dataset Pathname	run2/pass3
Presentation Format	tracer
Dataset Creation	Wed Apr 10 09:49:47 2019
Charted by	Depth in Feet scaled 1:240

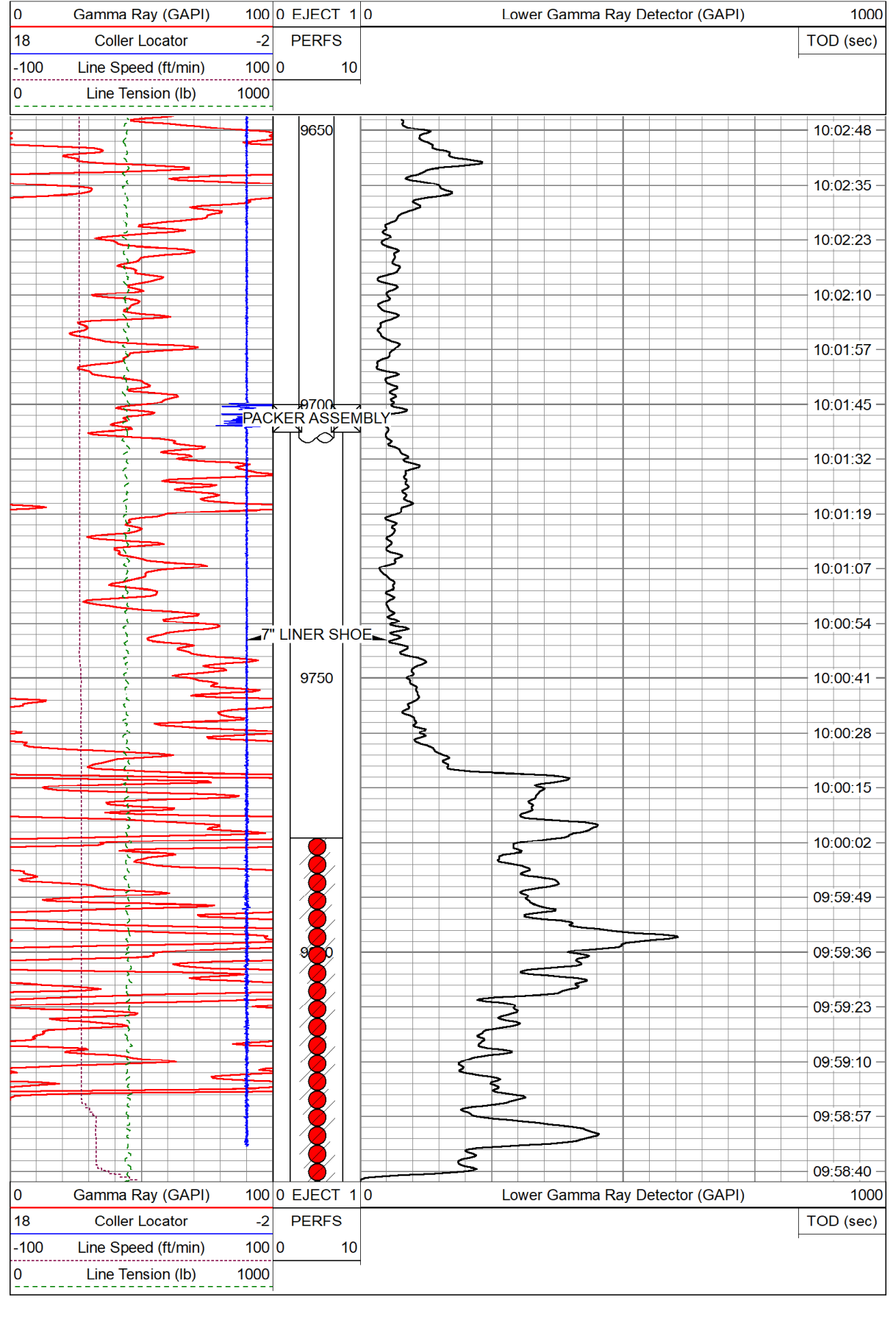


COASTAL WIRELINE SERVICES

PASS # 3 ON SLUG # 1 EJECTED AT 9400' AT 9:44

PEAK AT 9797' AT 9:59:39
INJECTION ARTE 29 GPM AT 0 PSI

Database File	ddl2-19.db
Dataset Pathname	run2/pass4
Presentation Format	tracer
Dataset Creation	Wed Apr 10 09:58:34 2019
Charted by	Depth in Feet scaled 1:240

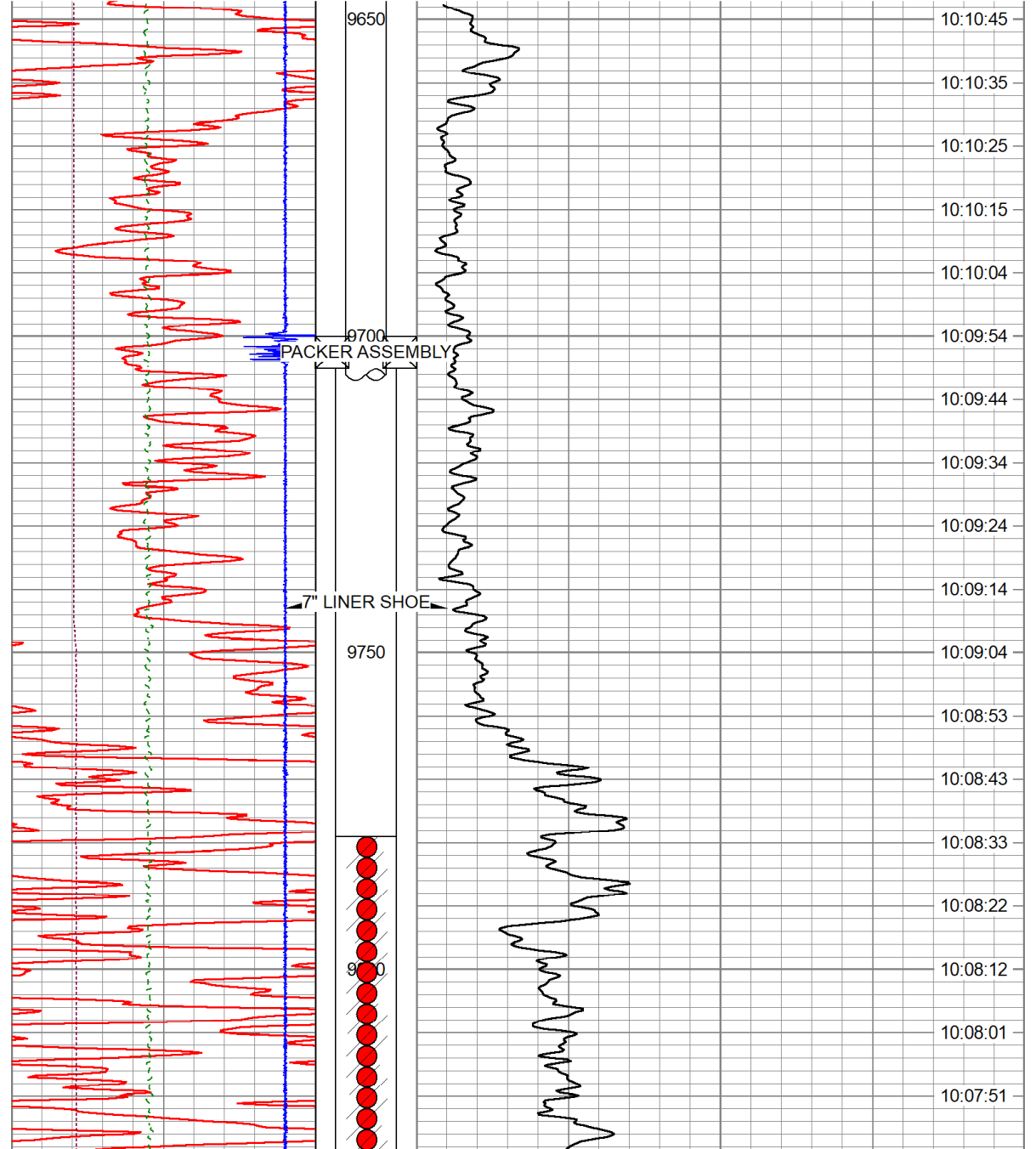


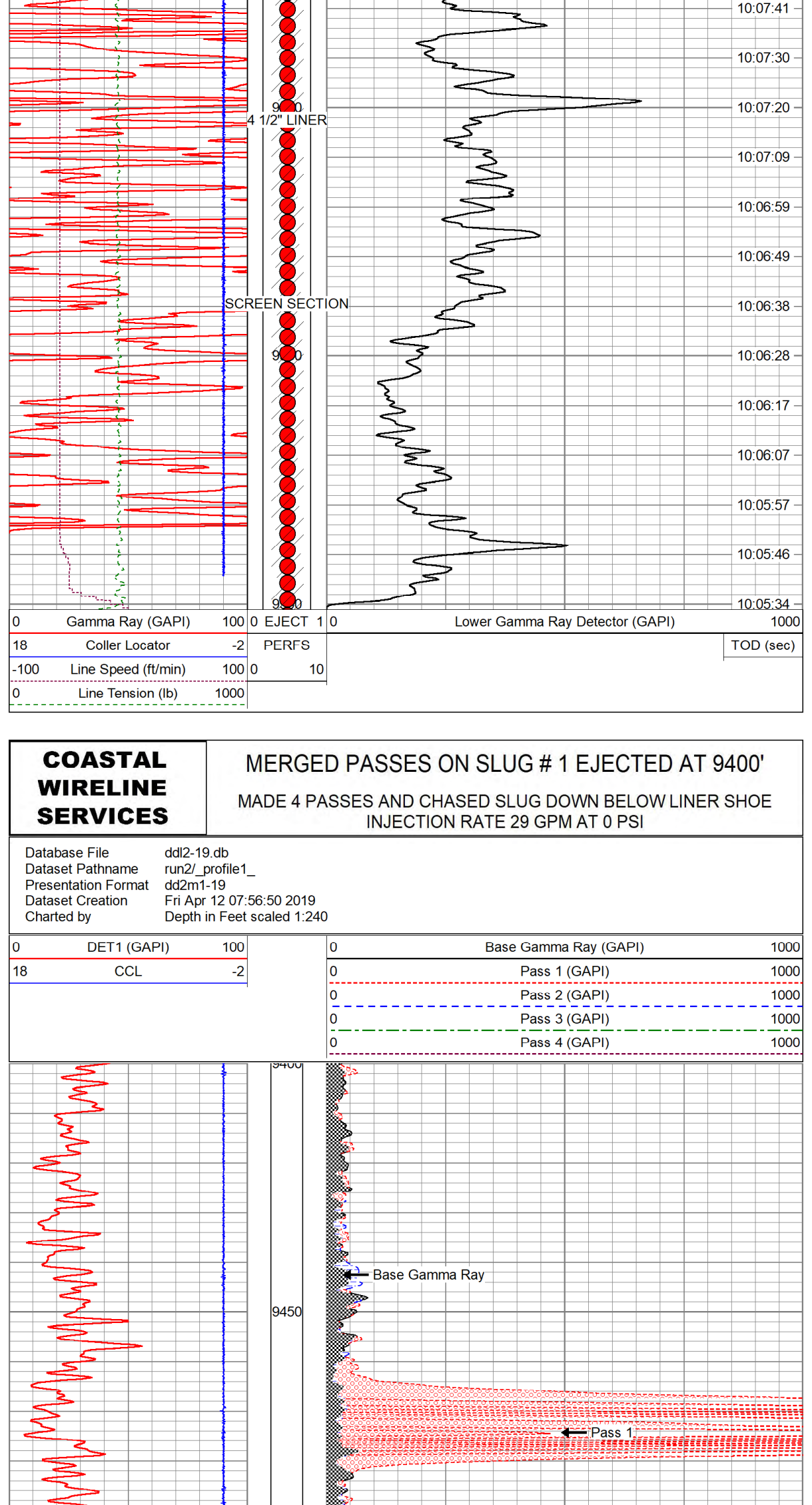
COASTAL WIRELINE SERVICES

PASS # 4 ON SLUG # 1 EJECTED AT 9400' AT 9:44

PEAK AT 9938' AT 10:05:48
INJECTION ARTE 29 GPM AT 0 PSI

Database File	ddl2-19.db
Dataset Pathname	run2/pass5
Presentation Format	tracer
Dataset Creation	Wed Apr 10 10:05:33 2019
Charted by	Depth in Feet scaled 1:240



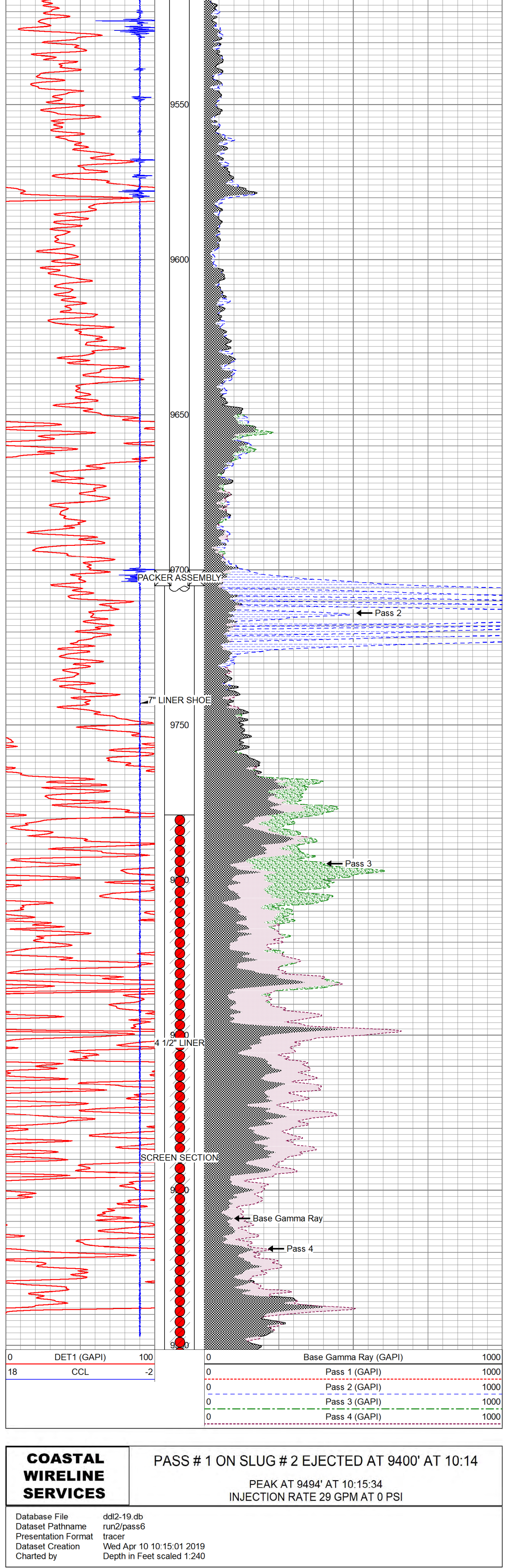


COASTAL WIRELINE SERVICES

MERGED PASSES ON SLUG # 1 EJECTED AT 9400'

MADE 4 PASSES AND CHASED SLUG DOWN BELOW LINER SHOE
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl2-19.db
Dataset Pathname run2/_profile1_
Presentation Format dd2m1-19
Dataset Creation Fri Apr 12 07:56:50 2019
Charted by Depth in Feet scaled 1:240

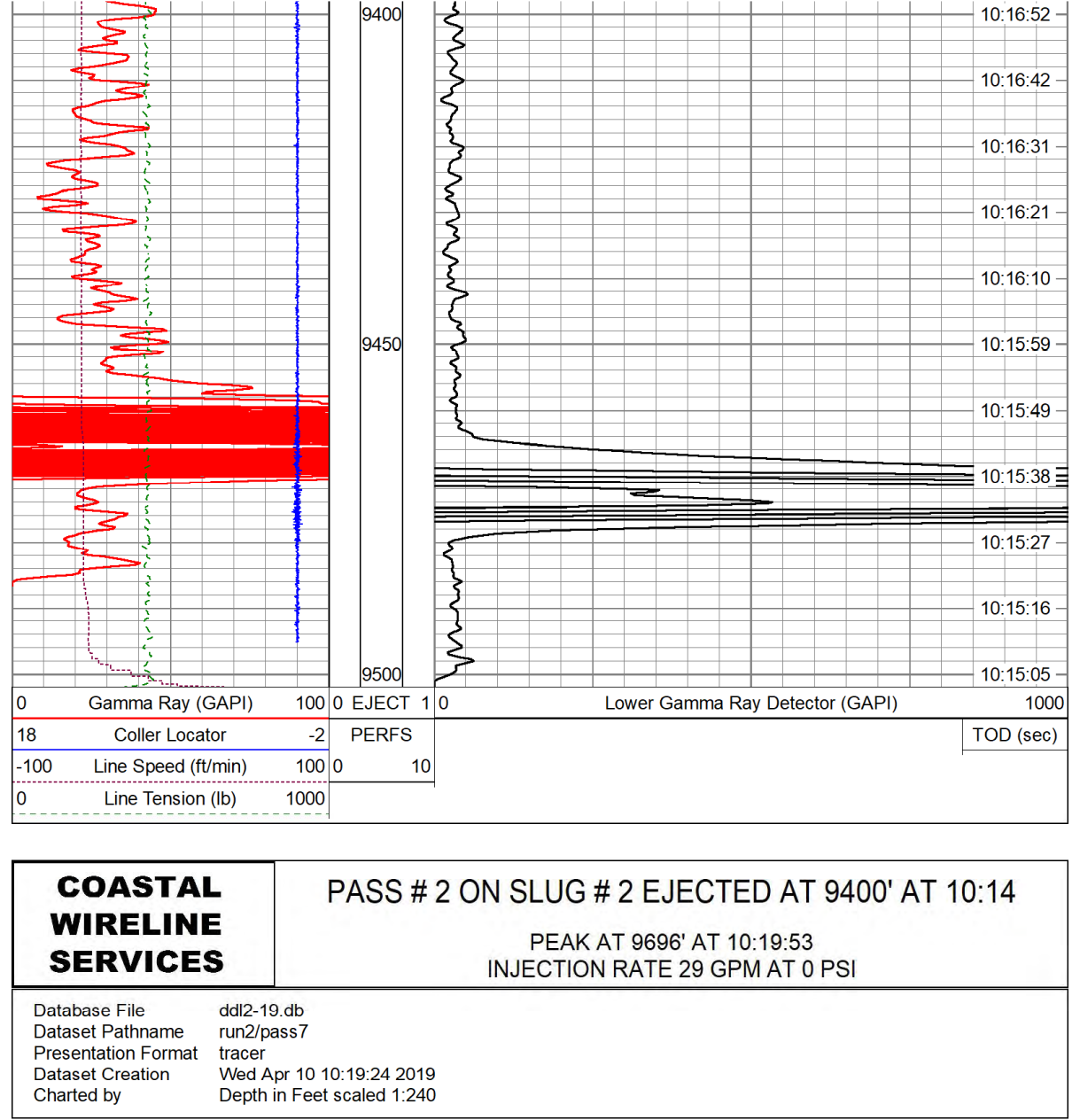


COASTAL WIRELINE SERVICES

PASS # 1 ON SLUG # 2 EJECTED AT 9400' AT 10:14

PEAK AT 9494' AT 10:15:34
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl2-19.db
Dataset Pathname run2/pass6
Presentation Format tracer
Dataset Creation Wed Apr 10 10:15:01 2019
Charted by Depth in Feet scaled 1:240

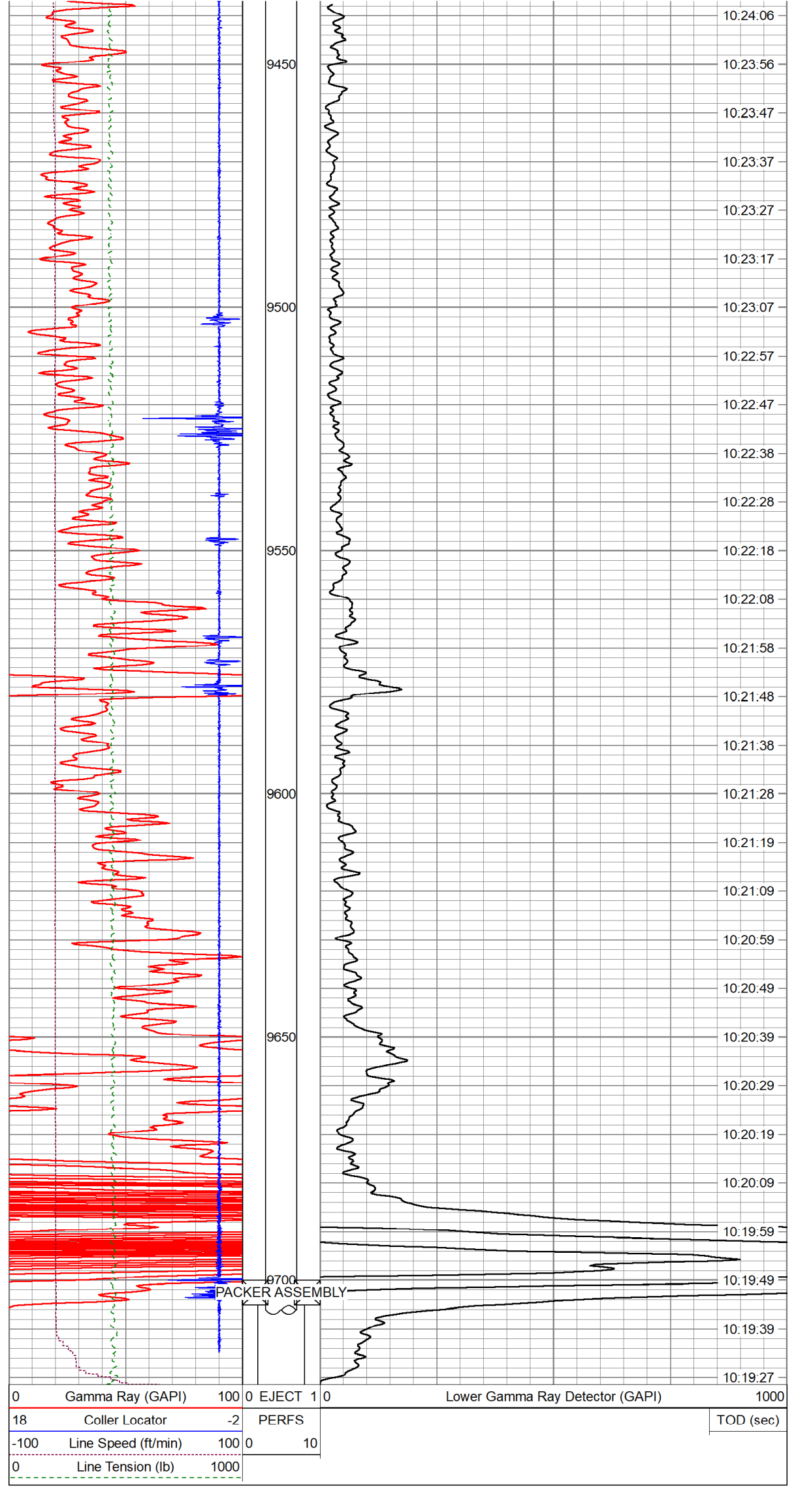


COASTAL WIRELINE SERVICES

PASS # 2 ON SLUG # 2 EJECTED AT 9400' AT 10:14

PEAK AT 9696' AT 10:19:53
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl2-19.db
Dataset Pathname run2/pass7
Presentation Format tracer
Dataset Creation Wed Apr 10 10:19:24 2019
Charted by Depth in Feet scaled 1:240

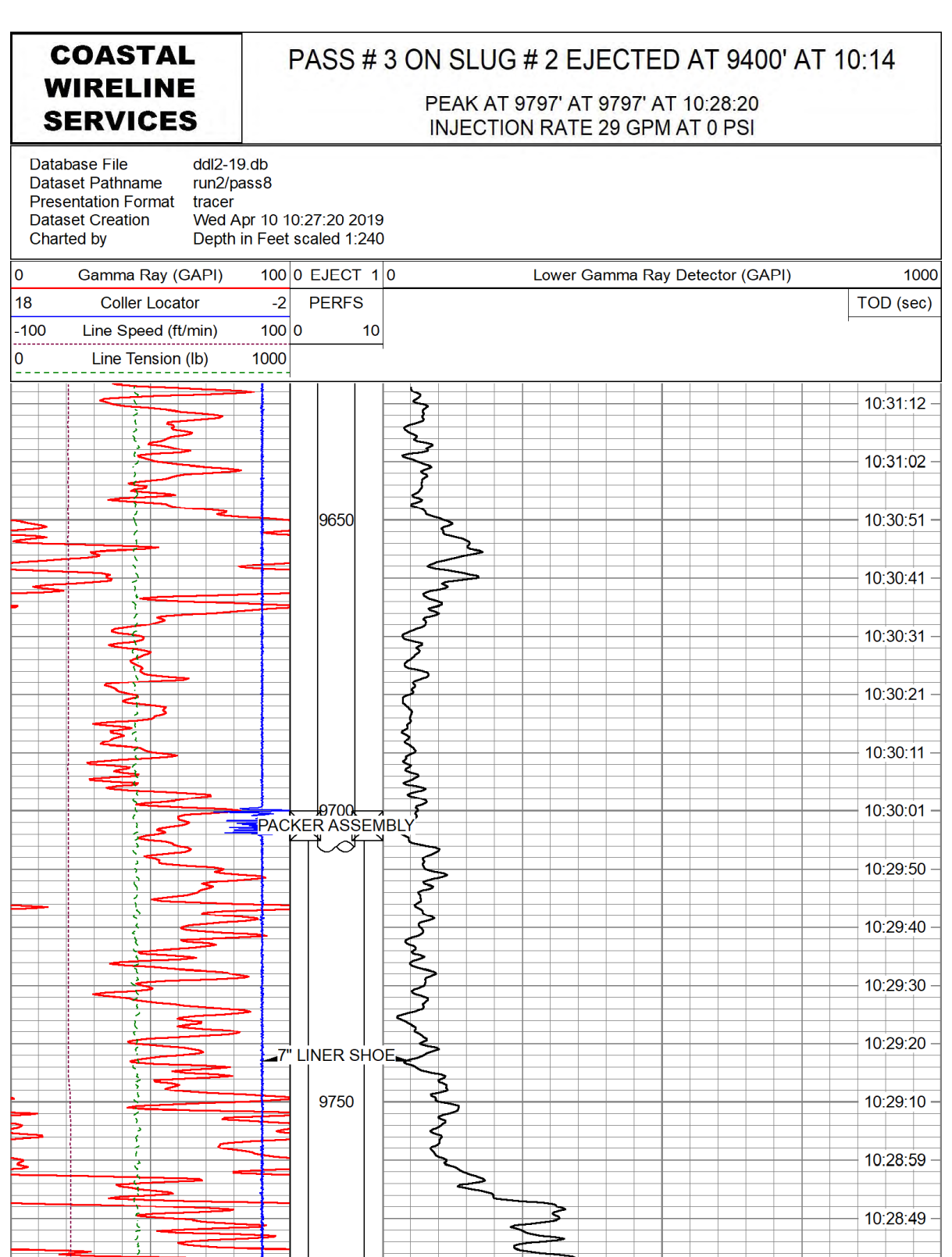


COASTAL WIRELINE SERVICES

PASS # 3 ON SLUG # 2 EJECTED AT 9400' AT 10:14

PEAK AT 9797' AT 9797' AT 10:28:20
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl2-19.db
Dataset Pathname run2/pass8
Presentation Format tracer
Dataset Creation Wed Apr 10 10:27:20 2019
Charted by Depth in Feet scaled 1:240

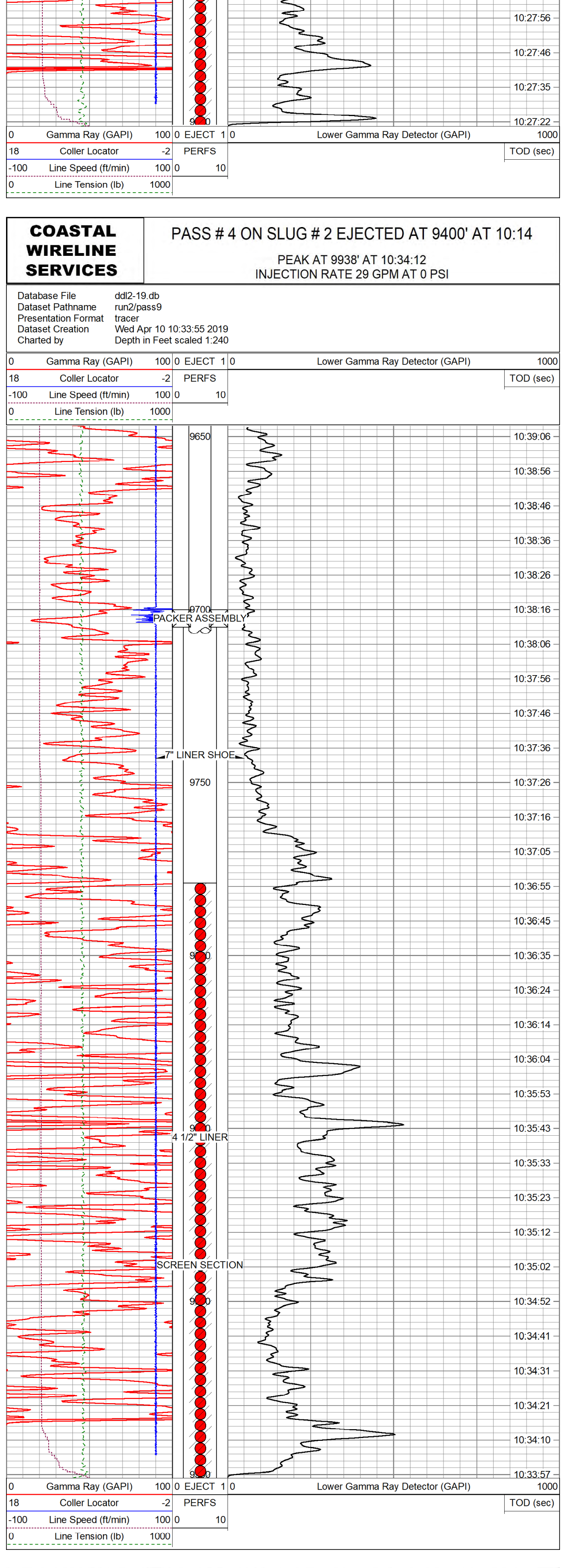


COASTAL WIRELINE SERVICES

PASS # 4 ON SLUG # 2 EJECTED AT 9400' AT 10:14

PEAK AT 9938' AT 10:34:12
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl2-19.db
Dataset Pathname run2/pass9
Presentation Format tracer
Dataset Creation Wed Apr 10 10:33:55 2019
Charted by Depth in Feet scaled 1:240

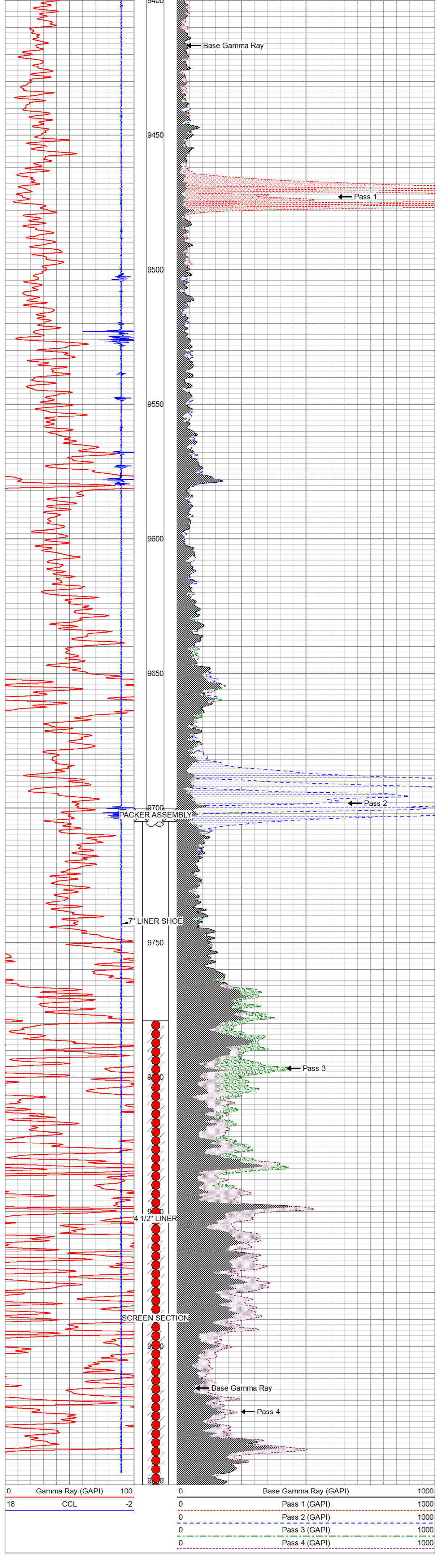


COASTAL WIRELINE SERVICES

MERGED PASSES ON SLUG # 2 EJECTED AT 9400'

MADE 4 PASSES AND CHASED SLUG DOWN BELOW LINER SHOE
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl2-19.db
Dataset Pathname run2/_profile5_
Presentation Format dd2m1-19
Dataset Creation Fri Apr 12 08:39:38 2019
Charted by Depth in Feet scaled 1:240

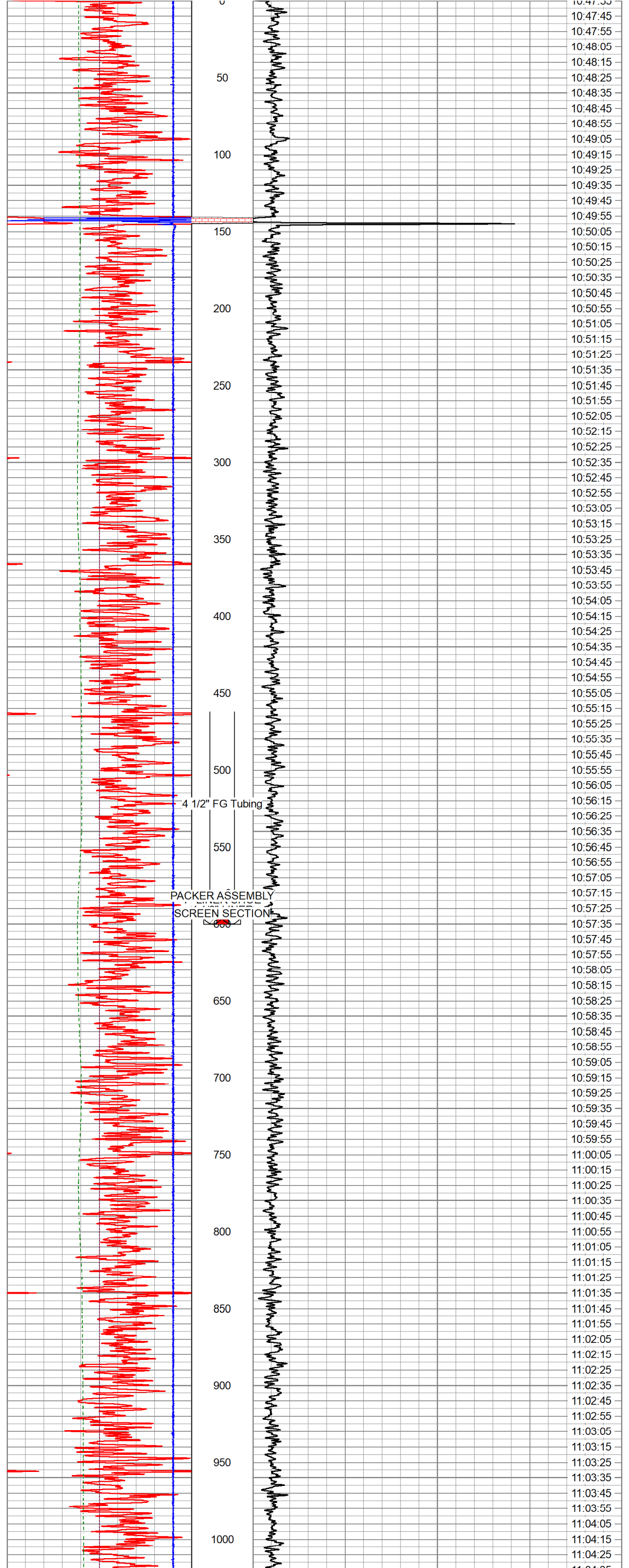


COASTAL WIRELINE SERVICES

EJECTED AT 9712' AT 10:50 FOR TIME DRIVE # 1

UPPER AT 9706' LOWER DETECTOR AT 9723'
INJECTION RATE 301 GPM AT 59 PSI

Database File ddl2-19.db
Dataset Pathname run2/pass10
Presentation Format tracer
Dataset Creation Wed Apr 10 10:47:35 2019
Charted by Time scaled 72/hour

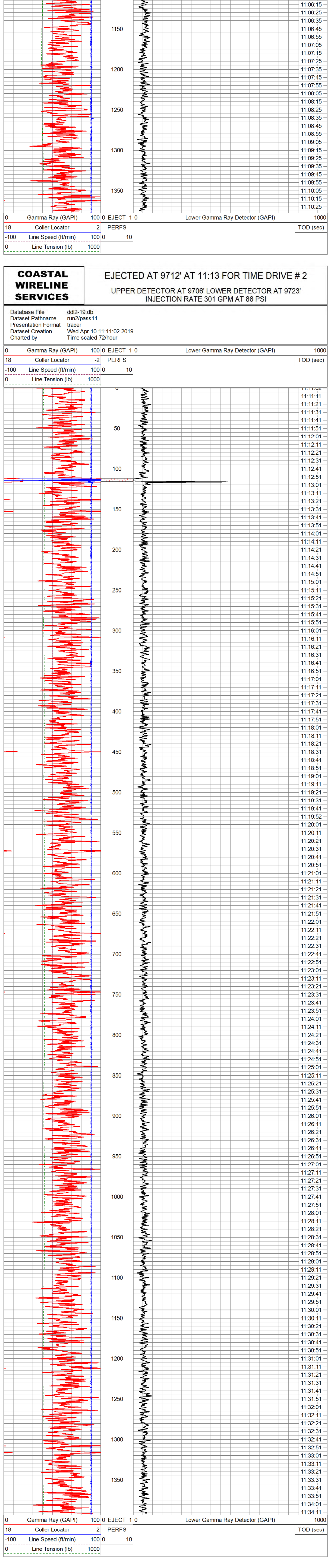


COASTAL WIRELINE SERVICES

EJECTED AT 9712' AT 11:13 FOR TIME DRIVE # 2

UPPER DETECTOR AT 9706' LOWER DETECTOR AT 9723'
INJECTION RATE 301 GPM AT 86 PSI

Database File ddl2-19.db
Dataset Pathname run2/pass11
Presentation Format tracer
Dataset Creation Wed Apr 10 11:11:02 2019
Charted by Time scaled 72/hour



COASTAL WIRELINE SERVICES

POST GAMMA RAY LOG PASS

SERVICES

INJECTION RATE 28 GPM AT 0 PSI

Database File ddl2-19.db
Dataset Pathname run2/pass12
Presentation Format tracer
Dataset Creation Wed Apr 10 11:38:39 2019
Charted by Depth in Feet scaled 1:240

0 Gamma Ray (GAPI) 100	0 EJECT 1	0 Lower Gamma Ray Detector (GAPI) 1000
18 Coller Locator -2	PERFS	TOD (sec)
-100 Line Speed (ft/min) 100	0 10	
0 Line Tension (lb) 1000		

0 Gamma Ray (GAPI) 100	0 EJECT 1	0 Lower Gamma Ray Detector (GAPI) 1000
18 Coller Locator -2	PERFS	TOD (sec)
-100 Line Speed (ft/min) 100	0 10	
0 Line Tension (lb) 1000		

COASTAL WIRELINE SERVICES

POST GAMMA RAY LOG

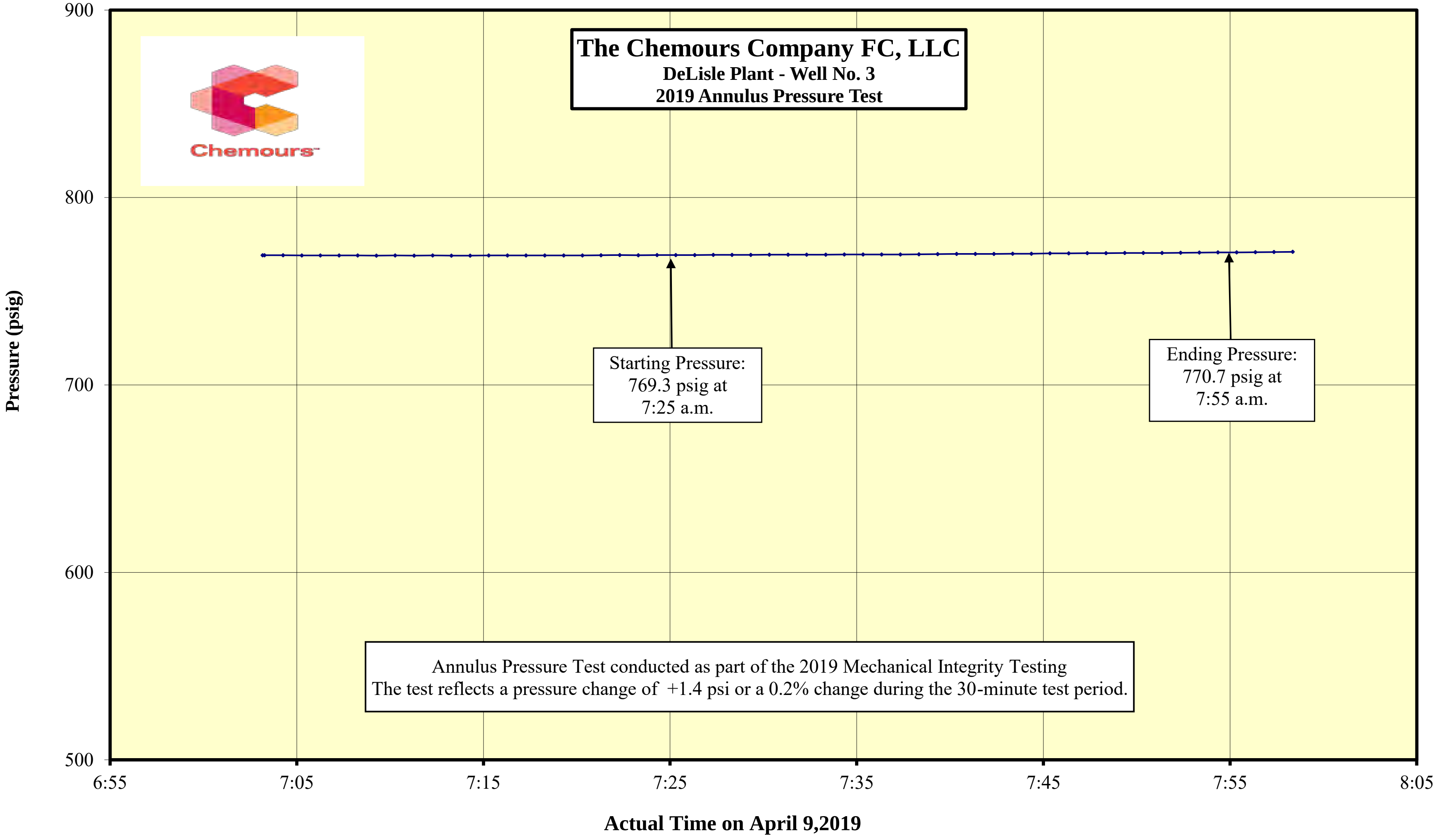
MERGED PASSES
INJECTION RATE 28 GPM AT 0 PSI

Database File ddl2-19.db
Dataset Pathname run2/_profile6_
Presentation Format dd2m3-19
Dataset Creation Fri Apr 12 09:16:36 2019
Charted by Depth in Feet scaled 1:240

0 Gamma Ray (GAPI) 100	0 Base Gamma Ray Log Pass (GAPI) 1000
18 Coller Locator -2	0 Post Gamma Ray Log Pass (GAPI) 1000

0 Gamma Ray (GAPI) 100	0 Base Gamma Ray Log Pass (GAPI) 1000
18 Coller Locator -2	0 Post Gamma Ray Log Pass (GAPI) 1000

APPENDIX 7-3
PLANT WELL NO. 3 2019 ANNUAL PRESSURE TEST CHART


The Chemours Company FC, LLC
DeLisle Plant - Well No. 3
2019 Annulus Pressure Test

Starting Pressure:
769.3 psig at
7:25 a.m.

Ending Pressure:
770.7 psig at
7:55 a.m.

Annulus Pressure Test conducted as part of the 2019 Mechanical Integrity Testing
The test reflects a pressure change of +1.4 psi or a 0.2% change during the 30-minute test period.

The Chemours Company FC, LLC

DeLisle, MS Plant Well No. 3

Annulus Pressure Test

Gauge:	Plant Gauge
Model:	N/A
Serial Number:	N/A
Range:	N/A
Calibration Date:	N/A

Note: Injection Tubing was static at 0 psig.

	Date	Time	Pressure (psig)
	4/9/2019	7:03:10	769.2
	4/9/2019	7:03:16	769.2
	4/9/2019	7:04:16	769.2
	4/9/2019	7:05:16	769.1
	4/9/2019	7:06:16	769.1
	4/9/2019	7:07:16	769.1
	4/9/2019	7:08:16	769.1
	4/9/2019	7:09:16	769.0
	4/9/2019	7:10:16	769.1
	4/9/2019	7:11:17	769.0
	4/9/2019	7:12:17	769.1
	4/9/2019	7:13:17	769.0
	4/9/2019	7:14:17	769.0
	4/9/2019	7:15:17	769.1
	4/9/2019	7:16:17	769.1
	4/9/2019	7:17:17	769.1
	4/9/2019	7:18:17	769.1
	4/9/2019	7:19:18	769.1
	4/9/2019	7:20:18	769.1
	4/9/2019	7:21:18	769.2
	4/9/2019	7:22:18	769.3
	4/9/2019	7:23:18	769.2
	4/9/2019	7:24:18	769.3
Start Test	4/9/2019	7:25:18	769.3
	4/9/2019	7:26:19	769.3
	4/9/2019	7:27:19	769.4
	4/9/2019	7:28:19	769.4
	4/9/2019	7:29:19	769.4
	4/9/2019	7:30:19	769.5
	4/9/2019	7:31:19	769.5
	4/9/2019	7:32:19	769.5
	4/9/2019	7:33:20	769.5
	4/9/2019	7:34:20	769.6
	4/9/2019	7:35:20	769.6
	4/9/2019	7:36:20	769.6
	4/9/2019	7:37:20	769.6
	4/9/2019	7:38:20	769.7
	4/9/2019	7:39:20	769.8
	4/9/2019	7:40:21	769.9
	4/9/2019	7:41:21	769.9
	4/9/2019	7:42:21	769.9
	4/9/2019	7:43:21	770.0
	4/9/2019	7:44:21	770.0
	4/9/2019	7:45:21	770.2
	4/9/2019	7:46:21	770.2
	4/9/2019	7:47:21	770.3
	4/9/2019	7:48:21	770.3
	4/9/2019	7:49:21	770.4
	4/9/2019	7:50:21	770.4
	4/9/2019	7:51:21	770.4
	4/9/2019	7:52:21	770.5
	4/9/2019	7:53:21	770.6
	4/9/2019	7:54:21	770.7
End Test	4/9/2019	7:55:21	770.7
	4/9/2019	7:56:21	770.8
	4/9/2019	7:57:21	770.9
	4/9/2019	7:58:21	771.0

APPENDIX 7-4
PLANT WELL NO. 3 2019 RADIOACTIVE TRACER LOG

COASTAL WIRELINE SERVICES, INC.

Chemours
Waste Disposal Well # 3
De Lisle Facility
De Lisle, Mississippi
April 9, 2019

RADIOACTIVE TRACER SURVEY

The two phases of this test included; 1) determining the flow through and from the tubing by ejecting a slug of radioactive material (Iodine-131 10mci) and monitoring the flow profile as it moves down the tubing and into the formation. 2) Testing the mechanical integrity of the casing, cement, and formation bond by positioning gamma-ray detector slightly above the point where the formation accepts fluid and monitoring the gamma radiation response from an ejected slug of radioactive material. A baseline gamma-ray log was run from 10,036 feet to 9,000 feet (621 feet above top of packer assembly). The injection rate was 29 gpm for the profile runs and 302 gpm for the time drive surveys.

The first phase of this test incorporates the injection of radioactive slug at 9,400 feet (221 feet above top of packer assembly) and passing the detector through the radioactive material until it passes from the tubing and into the formation. The first slug gave an indication of leaving the packer at 9,621 feet and going into the formation below 9,735 feet. Made four (4) passes and chased slug down to 9,956 feet. This portion of this test was repeated with four (4) passes and slug chased down to 9,956 feet. Profile survey indicates that all fluid is going into injection interval at this time. No indication of any fluid migrating up hole behind pipe above 9,735 feet.

The second phase of this test involved setting lower detector at 9,715 feet (20 feet above top of casing shoe) and ejecting a slug of radioactive material at 9,704 feet and recorded on time drive for twenty one (21) minutes with an injection rate of 302 gpm. This portion of this test was repeated at same depth and rate of 300 gpm. Time drive survey indicates no fluid migrating up hole behind pipe at this time.

RADIOACTIVE TRACER SURVEY CONTINUE

A post gamma ray log pass was run from 10036 feet to 9,000 feet and compared to original base gamma ray log which indicated no residue of radioactive material up to 9,735 feet at this time.

Radioactive Tracer Survey was conducted by Stoney Johnson (Coastal Wireline Services, Inc.) and witnessed by Mr. Steven Henry (Geostock Sandia Entrepose) and Mr. Jimmy Sparks (M.D.E.Q.).

Sincerely

Stoney Johnson
Engineer C.W.A.

Company	CHEMOURS
Well	PLANT WELL # 3 SIDE TRACK # 1
Field	DELISLE FACILITY
County	HARRISON
State	MISSISSIPPI
Country	U.S.A.

COASTAL WIRELINE SERVICES

RADIOACTIVE TRACER SURVEY

Company CHEMOURS
Well PLANT WELL # 3 SIDE TRACK # 1
Field DELISLE FACILITY
County HARRISON
State MISSISSIPPI Country U.S.A.

Location: API #: N/A
SEC TWP RGE

Other Services: NONE

Permanent Datum GROUND LEVEL Elevation 16.58
Log Measured From 13.0
Drilling Measured From KELLY BUSHING

Elevation
K.B. 29.58
D.F. 28.58
G.L. 16.58

Date	4/9/2019
Run Number	ONE
Depth Driller	10050'
Depth Logger	10038'
Bottom Logged Interval	10036'
Top Log Interval	9000'
Open Hole Size	N/A
Type Fluid	BRINE
Density / Viscosity	N/A
Max. Recorded Temp.	N/A
Estimated Cement Top	SURFACE
Time Well Ready	7:00
Time Logger on Bottom	9:52
Equipment Number	P-104
Location	PEARLAND
Recorded By	S. JOHNSON
Witnessed By	MR. S. HENRY MR. JIMMY SPARKS

Borehole Record

Run Number	Bit	From	To

Tubing Record

Size	Weight	From	To
6 5/8"	TITANIUM	SURF.	32'
6 5/8"	RB-2500	32'	6590'
4 1/2"	RB-2500	6620'	9492'
4 1/2"	TITANIUM	9492'	9517'

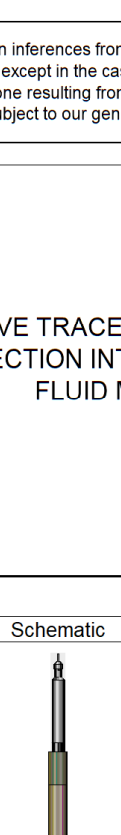
Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	13 3/8"	68	SURFACE	3613'
Prot. String	9 5/8"	40-47	SURFACE	9610'
Production String	7"	26&FG	6808'	9735'
Liner	4 1/2"	RB-2500	9658'	10045'

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

RADIOACTIVE TRACER SURVEY INDICATES THAT ALL FLUID IS GOING INTO INJECTION INTERVAL AT THIS TIME. NO INDICATION OF ANY FLUID MIGRATING UP HOLE ABOVE 9735'.

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Cablehead-Titan Cable Head	1.50	1.40	3.00
			TRDET-Probe (132646) Trdet	5.00	1.38	25.00
DET	15.67		TREJCT-Probe (134398) 1 3/8" Ejector	2.50	1.38	15.00
			1.38Bar-Titan 1 3/8" Weight Bar	5.00	1.38	45.00
CCL	6.71		CCL-Probe (080935) 1 3/8" Probe ccl	1.83	1.38	5.00
			TRDET #2 -Probe (132645) Trdet	5.00	1.38	25.00
DET#2	1.33		CalScan-memory (1.24Memory_Guage) CalScan Memory	1.33	1.24	5.00

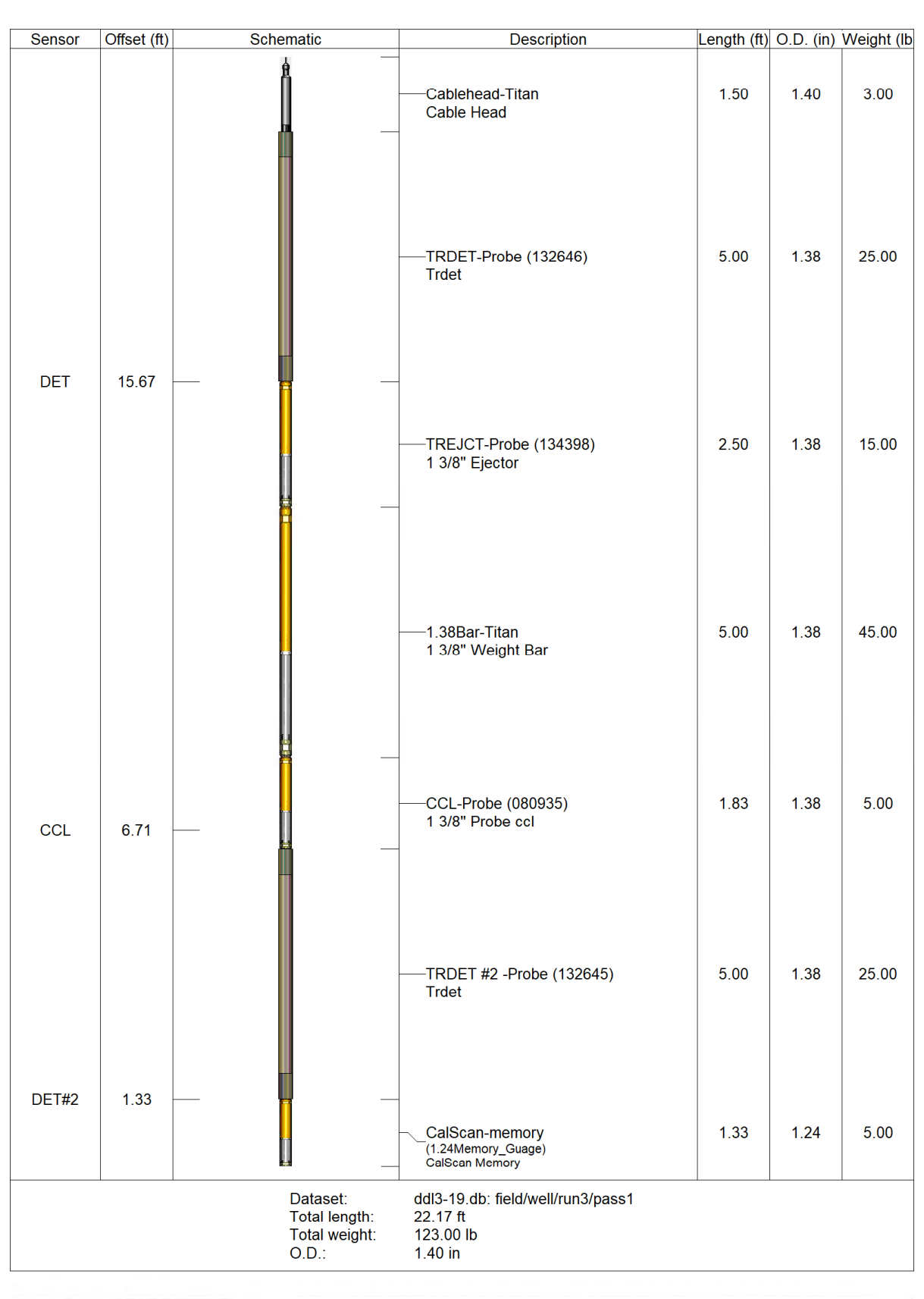
Dataset: ddl3-19.db: field/well/run3/pass1
Total length: 22.17 ft
Total weight: 123.00 lb
O.D.: 1.40 in

COASTAL WIRELINE SERVICES

STATISTICAL CHECK ABOVE TOP OF PACKER

UPPER DETECTOR AT 9594' LOWER DETECTOR AT 9611'
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl3-19.db
Dataset Pathname run2/pass1
Presentation Format tracer
Dataset Creation Tue Apr 09 09:31:34 2019
Charted by Time scaled 72/hour

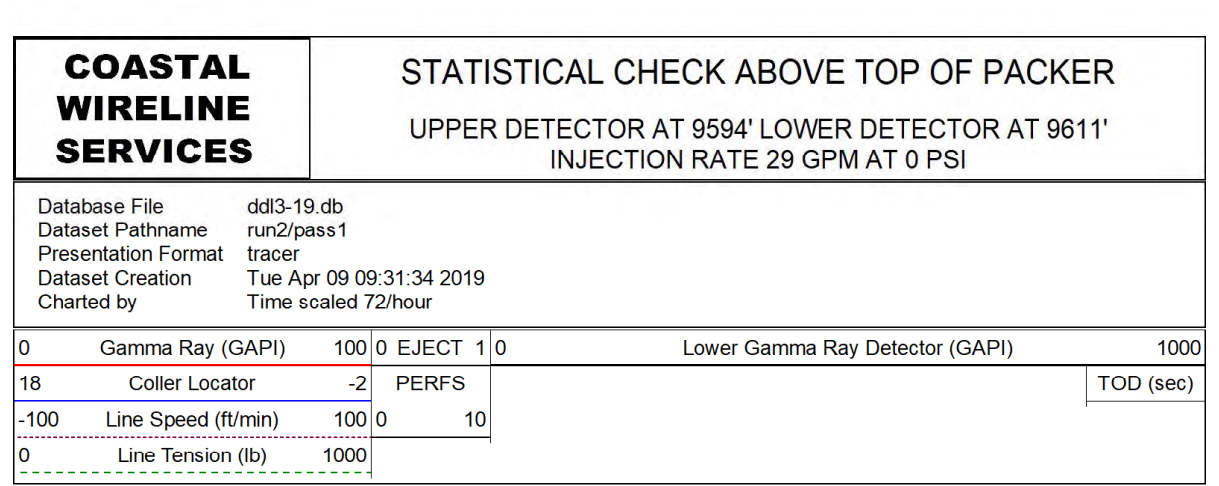


COASTAL WIRELINE SERVICES

STATISTICAL CHECK ABOVE CASING SHOE

UPPER DETECTOR AT 9698' LOWER DETECTOR AT 9715'
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl3-19.db
Dataset Pathname run2/pass2
Presentation Format tracer
Dataset Creation Tue Apr 09 09:39:06 2019
Charted by Time scaled 72/hour

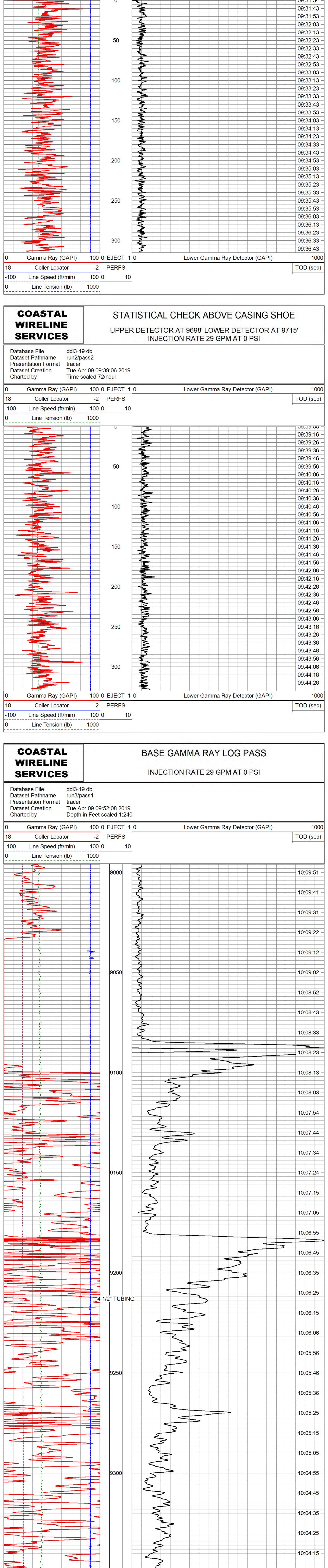


COASTAL WIRELINE SERVICES

BASE GAMMA RAY LOG PASS

INJECTION RATE 29 GPM AT 0 PSI

Database File ddl3-19.db
Dataset Pathname run3/pass1
Presentation Format tracer
Dataset Creation Tue Apr 09 09:52:08 2019
Charted by Depth in Feet scaled 1:240

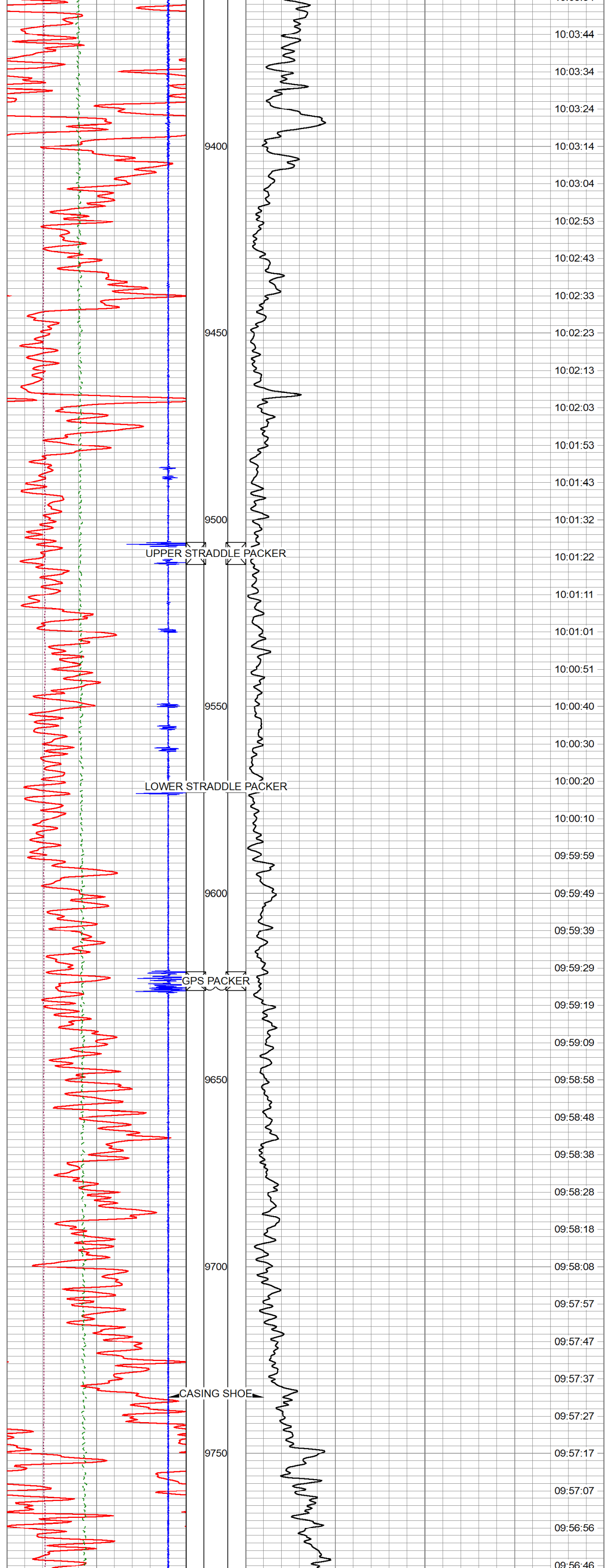


COASTAL WIRELINE SERVICES

PASS # 1 ON SLUG # 1 EJECTED AT 9400' AT 10:20

PEAK AT 9454' AT 10:21:26
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl3-19.db
Dataset Pathname run3/pass2
Presentation Format tracer
Dataset Creation Tue Apr 09 10:20:56 2019
Charted by Depth in Feet scaled 1:240

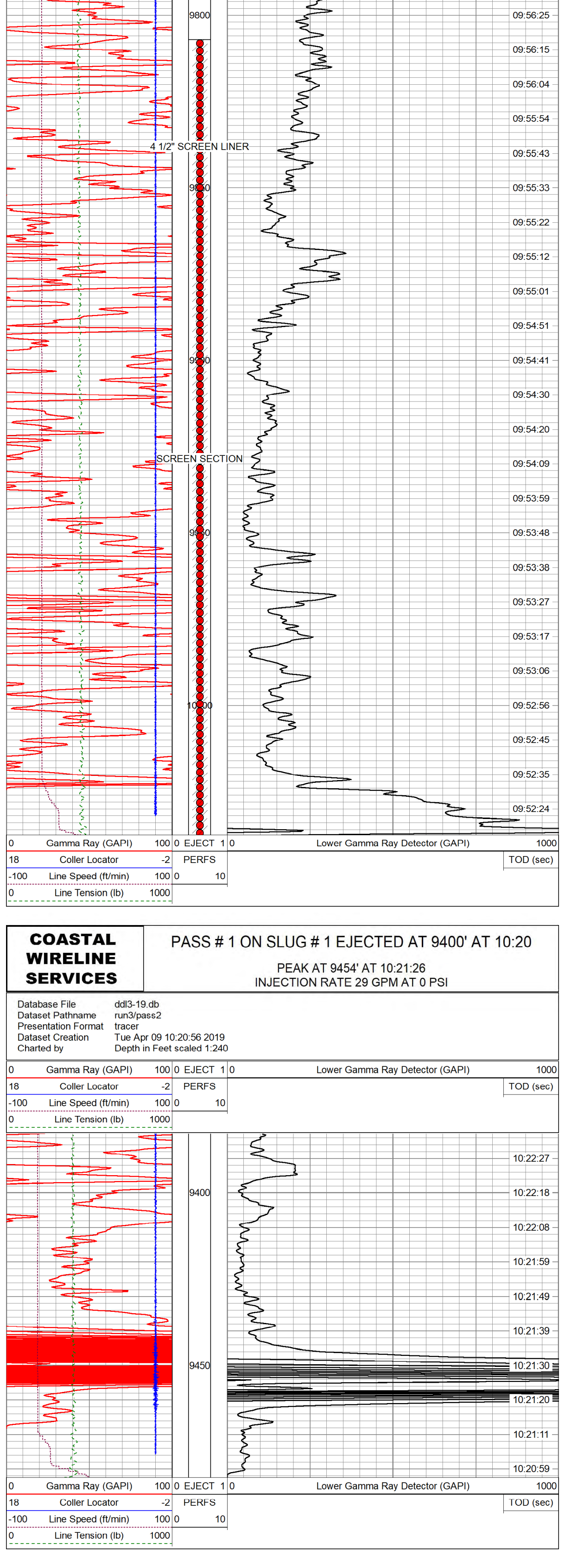


COASTAL WIRELINE SERVICES

PASS # 2 ON SLUG # 1 EJECTED AT 9400' AT 10:20

PEAK AT 9646' AT 10:25:39
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl3-19.db
Dataset Pathname run3/pass3
Presentation Format tracer
Dataset Creation Tue Apr 09 10:24:57 2019
Charted by Depth in Feet scaled 1:240

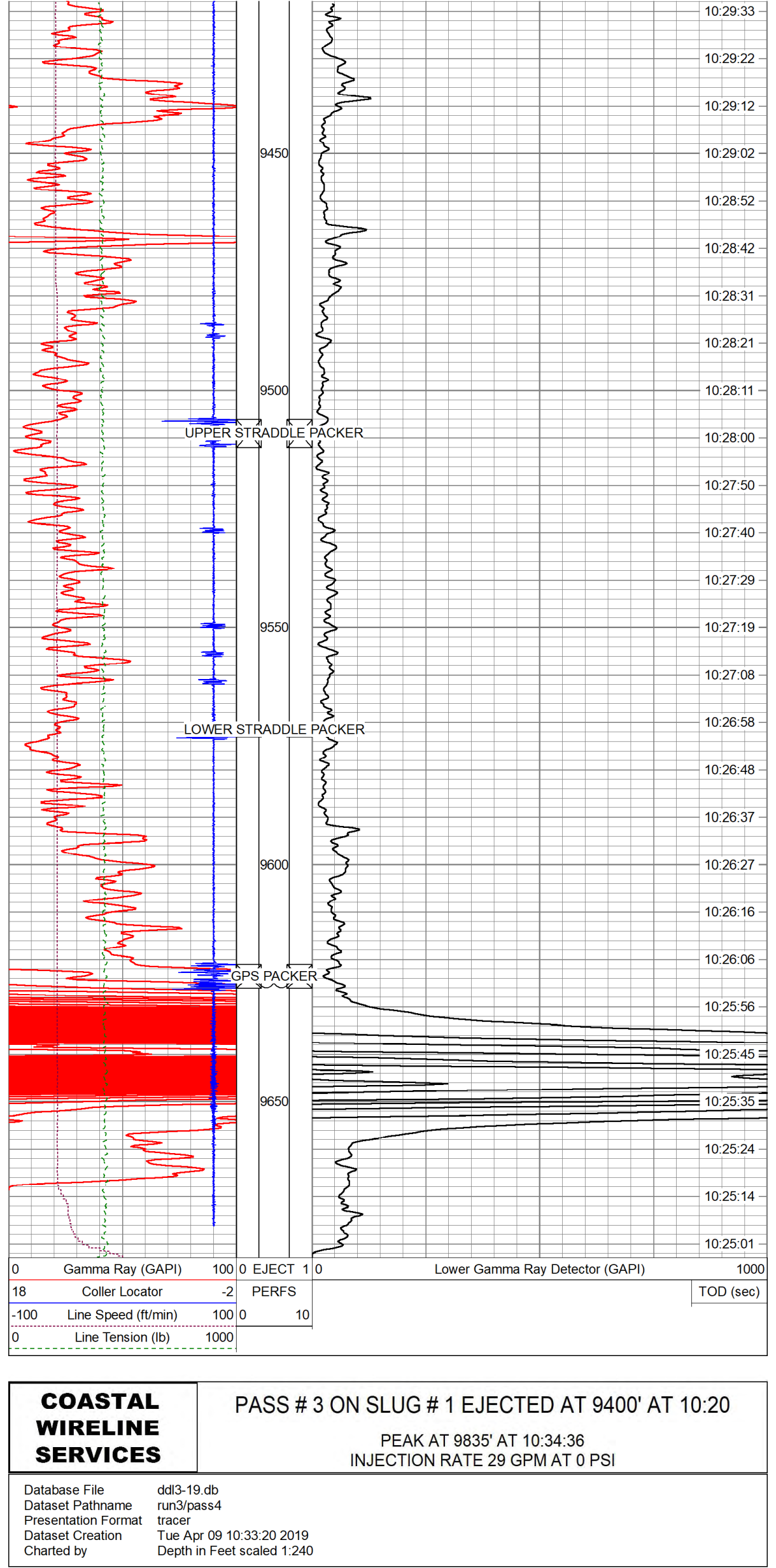


COASTAL WIRELINE SERVICES

PASS # 3 ON SLUG # 1 EJECTED AT 9400' AT 10:20

PEAK AT 9835' AT 10:34:36
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl3-19.db
Dataset Pathname run3/pass4
Presentation Format tracer
Dataset Creation Tue Apr 09 10:33:20 2019
Charted by Depth in Feet scaled 1:240

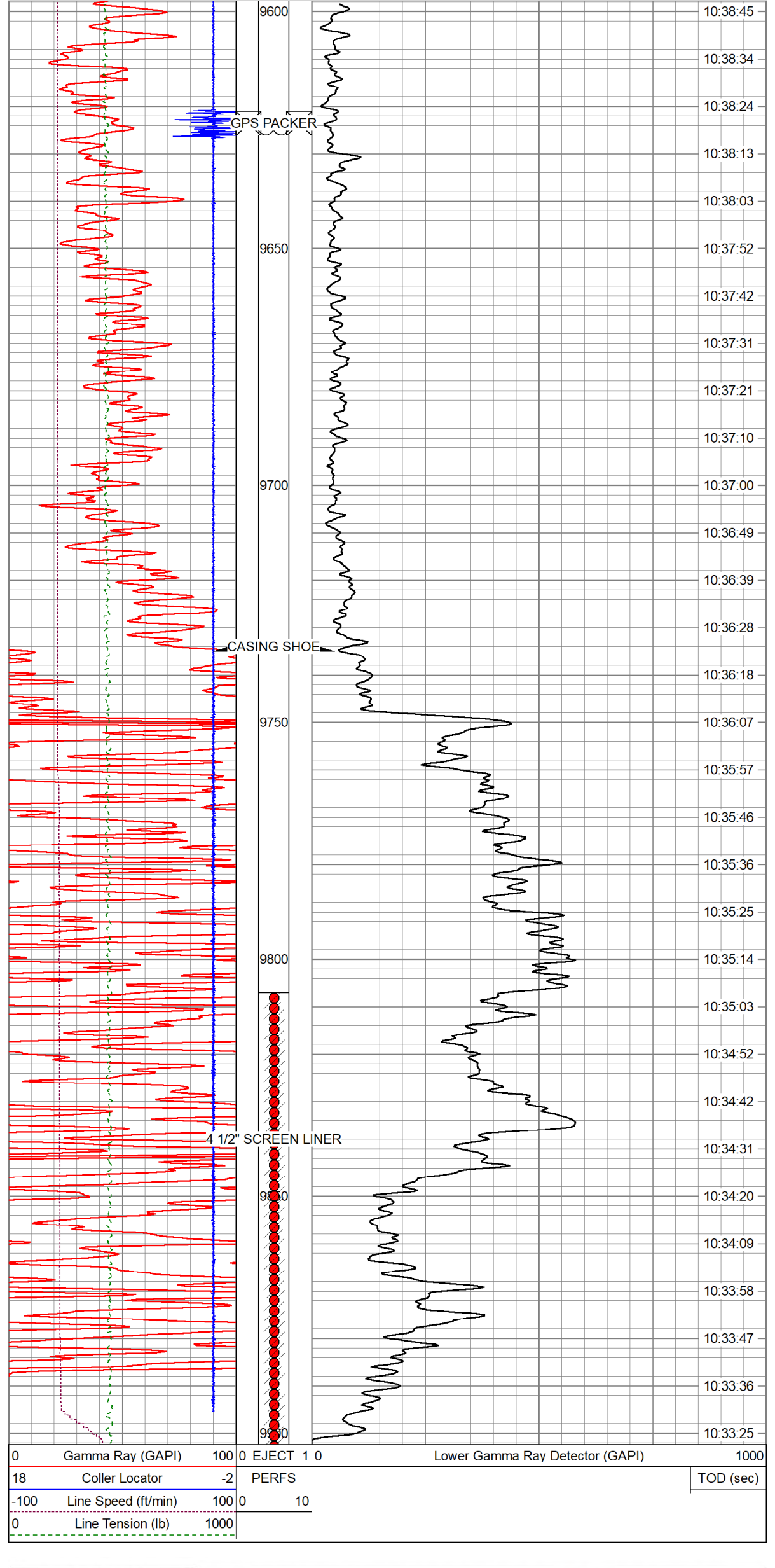


COASTAL WIRELINE SERVICES

PASS # 4 ON SLUG # 1 EJECTED AT 9400' AT 10:20

SLUG DISSIPATING BELOW 9735'
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl3-19.db
Dataset Pathname run3/pass5
Presentation Format tracer
Dataset Creation Tue Apr 09 10:42:27 2019
Charted by Depth in Feet scaled 1:240

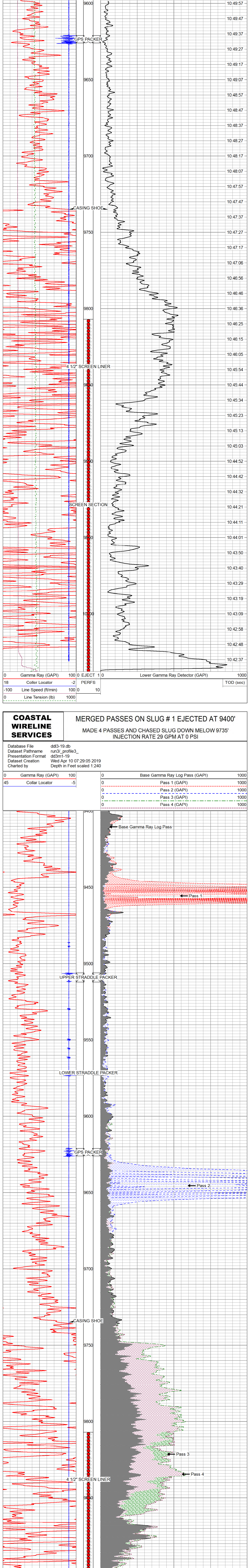


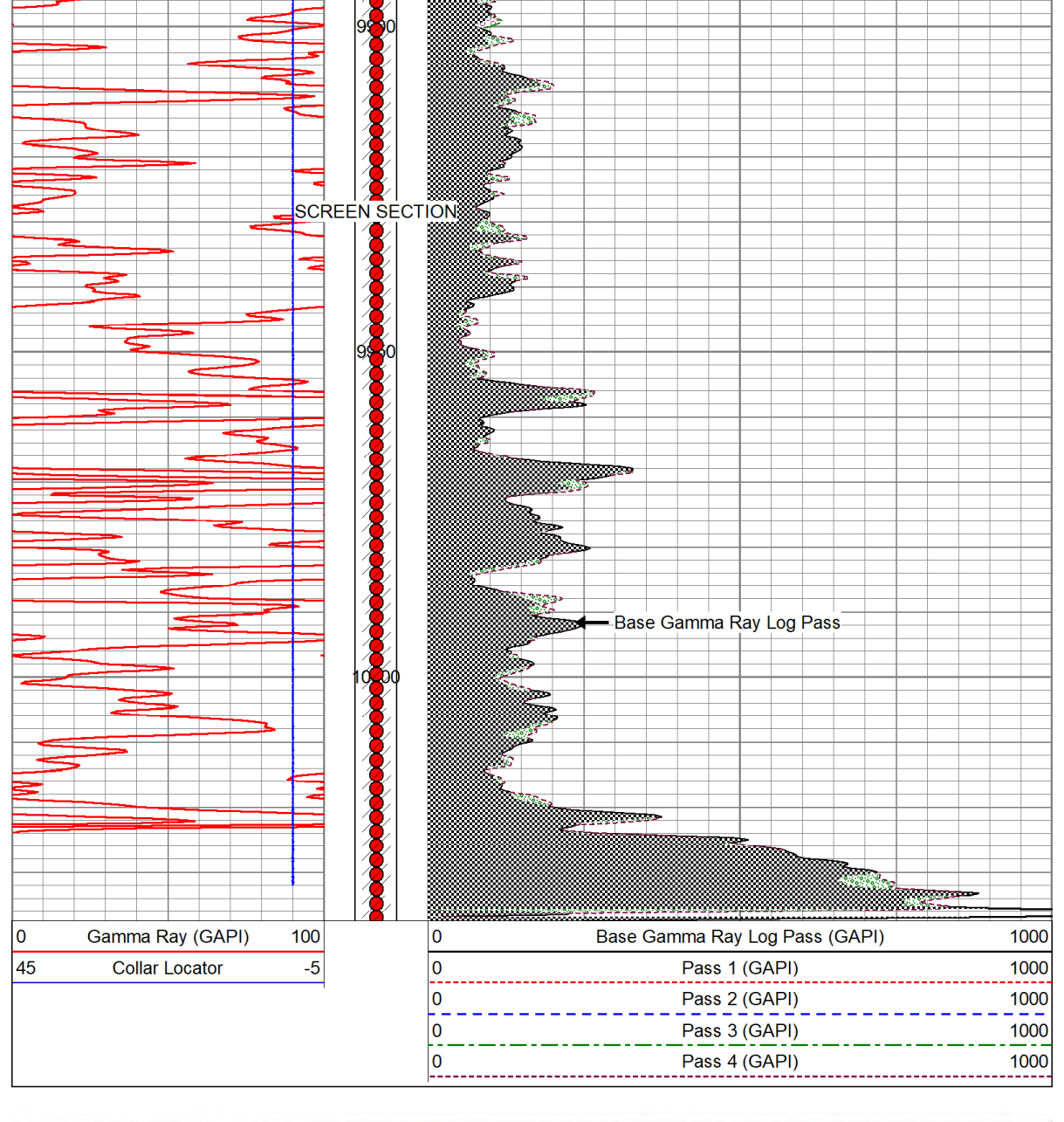
COASTAL WIRELINE SERVICES

MERGED PASSES ON SLUG # 1 EJECTED AT 9400'

MADE 4 PASSES AND CHASED SLUG DOWN MELOW 9735'
INJECTION RATE 29 GPM AT 0 PSI

Database File ddl3-19.db
Dataset Pathname run3/_profile3_
Presentation Format dd3m1-19
Dataset Creation Wed Apr 10 07:29:05 2019
Charted by Depth in Feet scaled 1:240



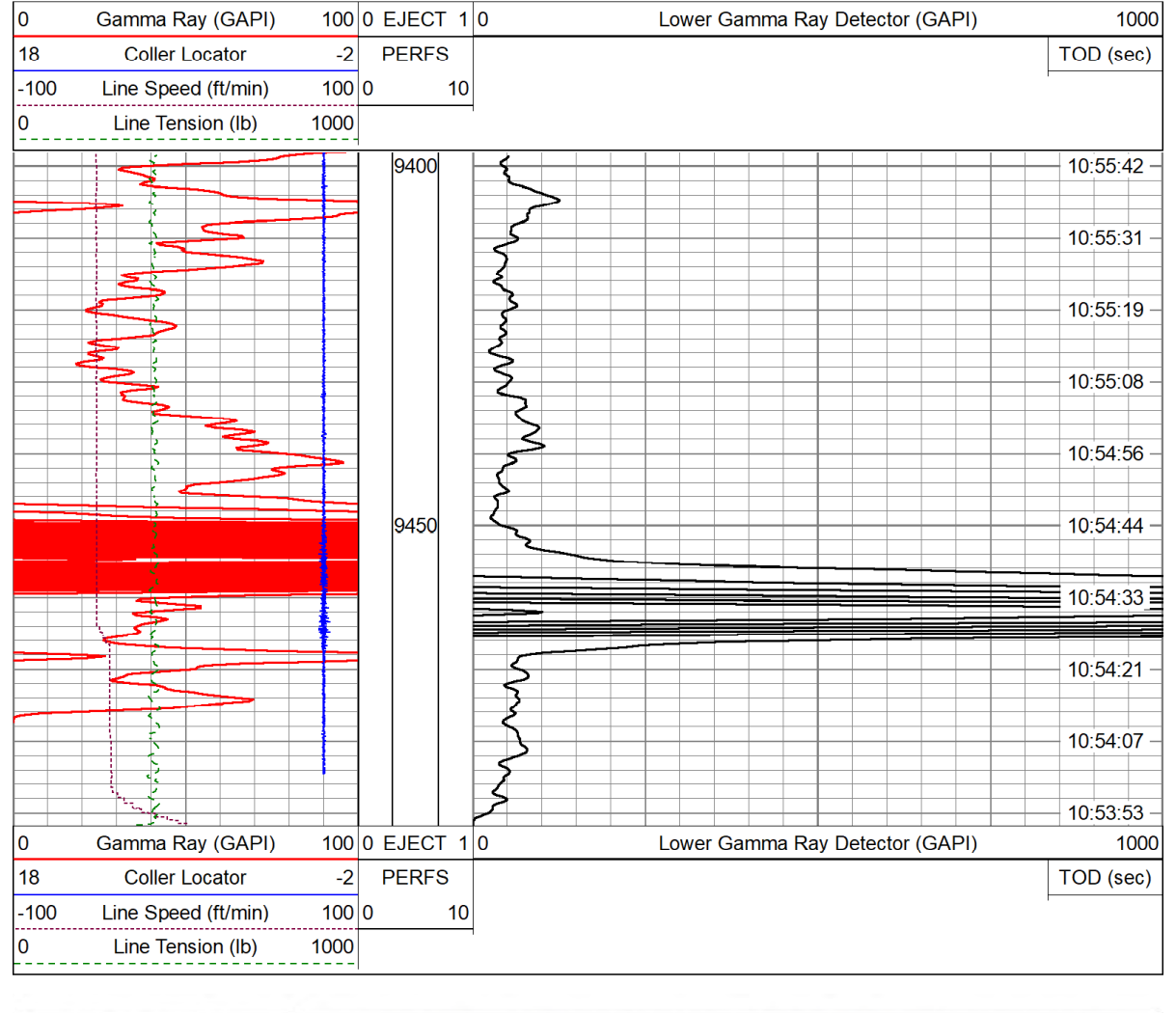


COASTAL WIRELINE SERVICES

PASS # 1 ON SLUG # 2 EJECTED AT 9400' AT 10:53

PEAK AT 9462' AT 10:54:31
INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl3-19.db
Dataset Pathname	run3/pass6
Presentation Format	tracer
Dataset Creation	Tue Apr 09 10:53:50 2019
Charted by	Depth in Feet scaled 1:240

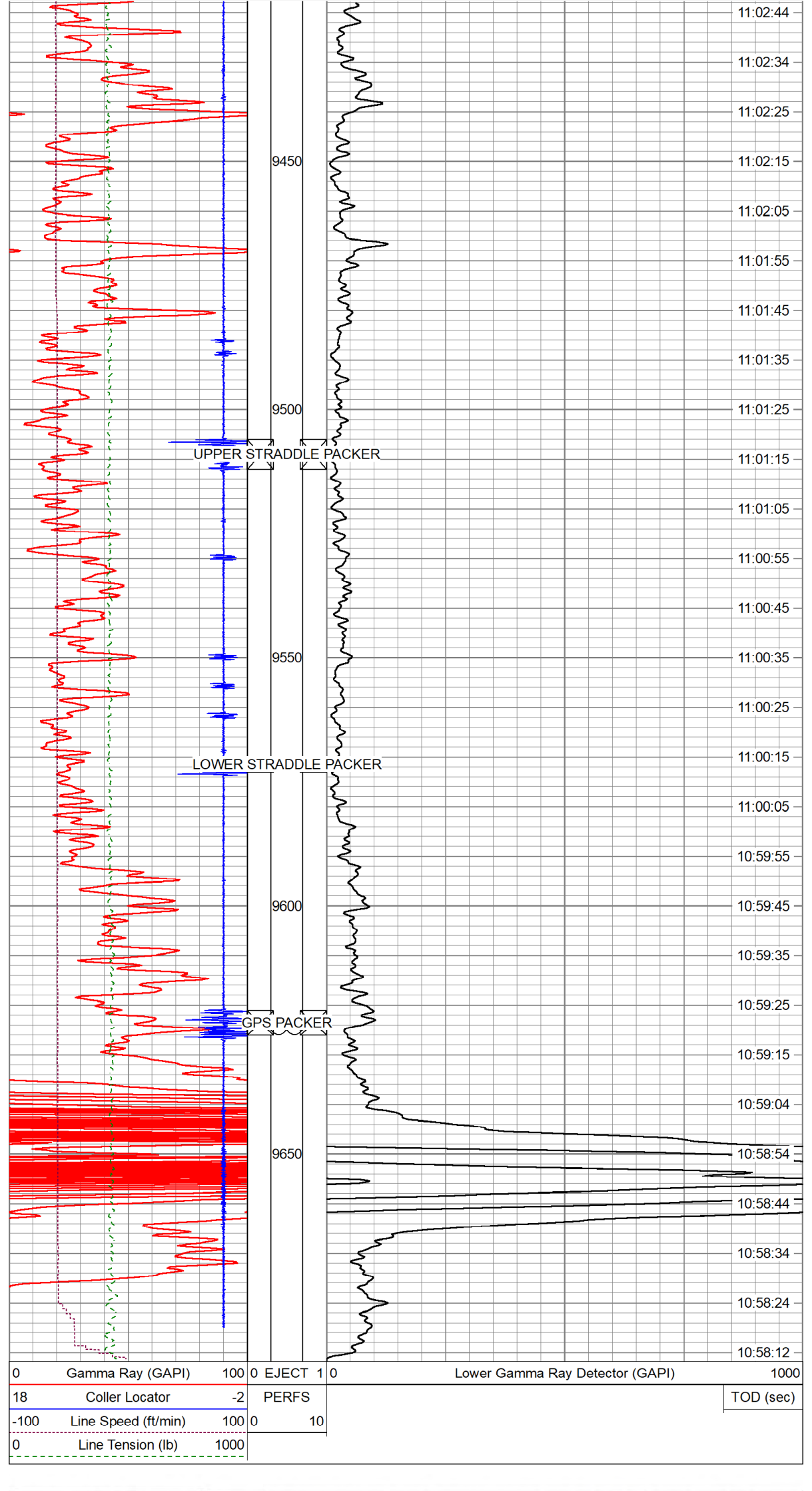


COASTAL WIRELINE SERVICES

PASS # 2 ON SLUG # 2 EJECTED AT 9400' AT 10:53

PEAK AT 9656' AT 10:58:48
INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl3-19.db
Dataset Pathname	run3/pass7
Presentation Format	tracer
Dataset Creation	Tue Apr 09 10:58:10 2019
Charted by	Depth in Feet scaled 1:240

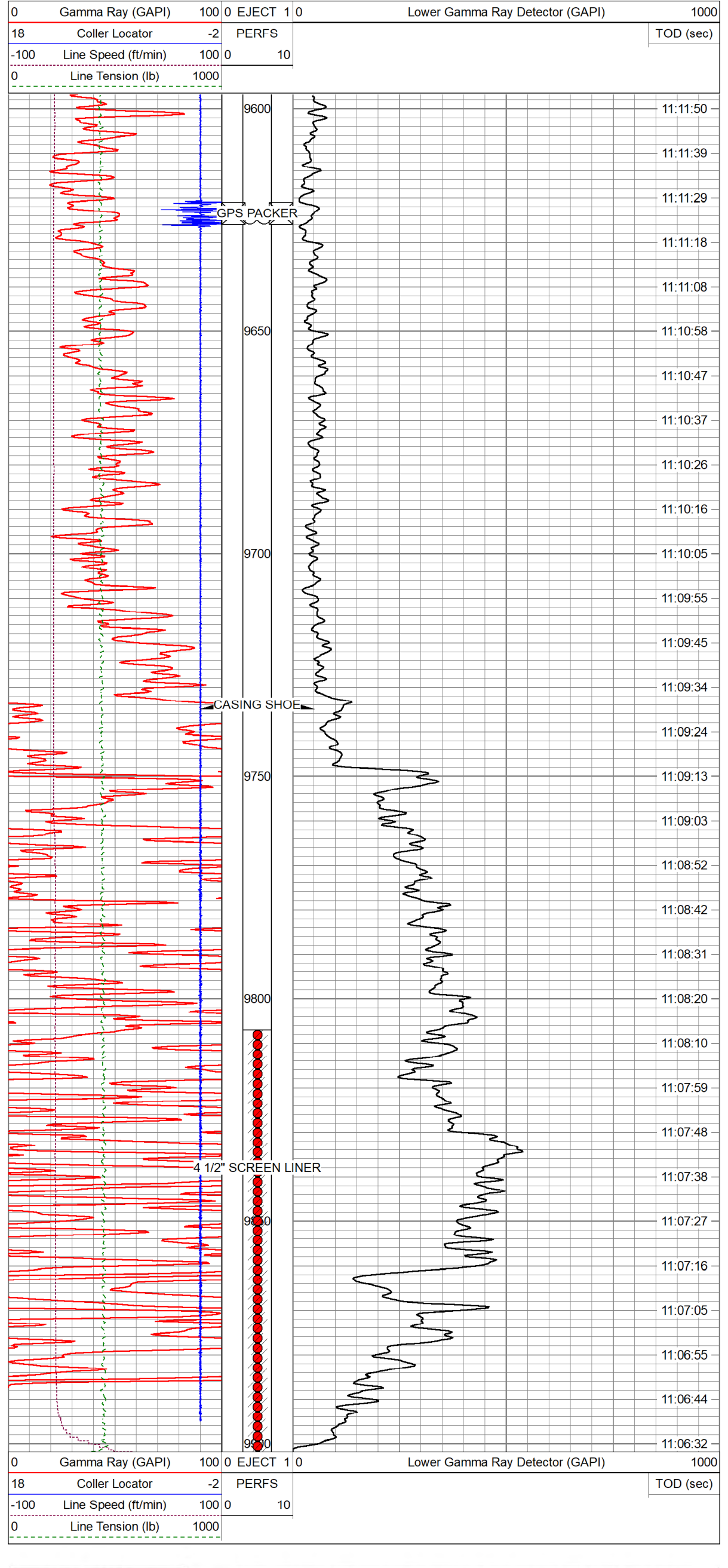


COASTAL WIRELINE SERVICES

PASS # 3 ON SLUG # 2 EJECTED AT 9400' AT 10:53

PEAK AT 9834' AT 11:07:44
INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl3-19.db
Dataset Pathname	run3/pass8
Presentation Format	tracer
Dataset Creation	Tue Apr 09 11:06:27 2019
Charted by	Depth in Feet scaled 1:240

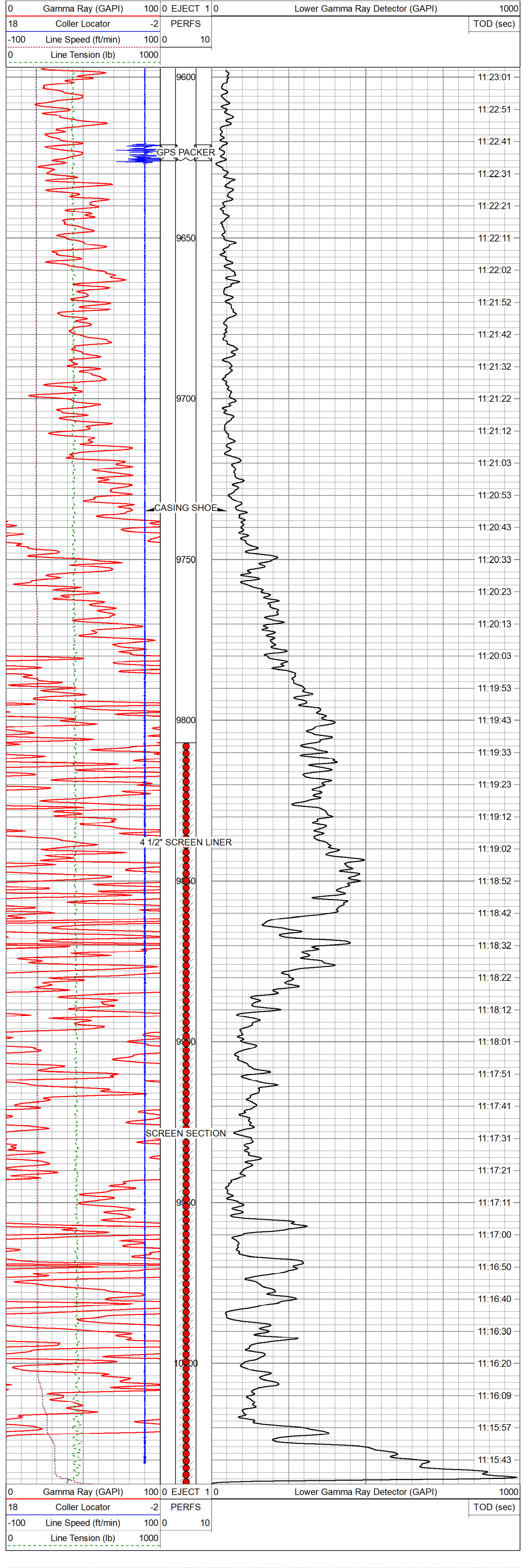


COASTAL WIRELINE SERVICES

PASS # 4 ON SLUG # 2 EJECTED AT 9400' AT 10:53

SLUG DISSIPATING BELOW 9735'
INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl3-19.db
Dataset Pathname	run3/pass9
Presentation Format	tracer
Dataset Creation	Tue Apr 09 11:15:30 2019
Charted by	Depth in Feet scaled 1:240

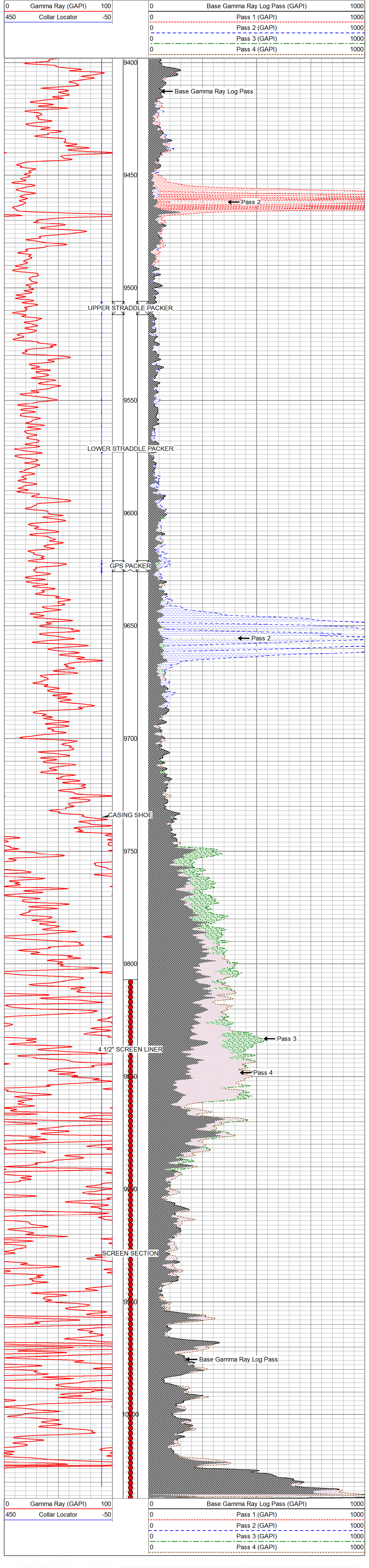


COASTAL WIRELINE SERVICES

MERGED PASSES ON SLUG # 2 EJECTED AT 9400'

MADE 4 PASSES AND CHASED SLUG DOWN BELOW 9735'
INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl3-19.db
Dataset Pathname	run3/_profile1_
Presentation Format	dd3m2-18
Dataset Creation	Wed Apr 10 07:37:45 2019
Charted by	Depth in Feet scaled 1:240

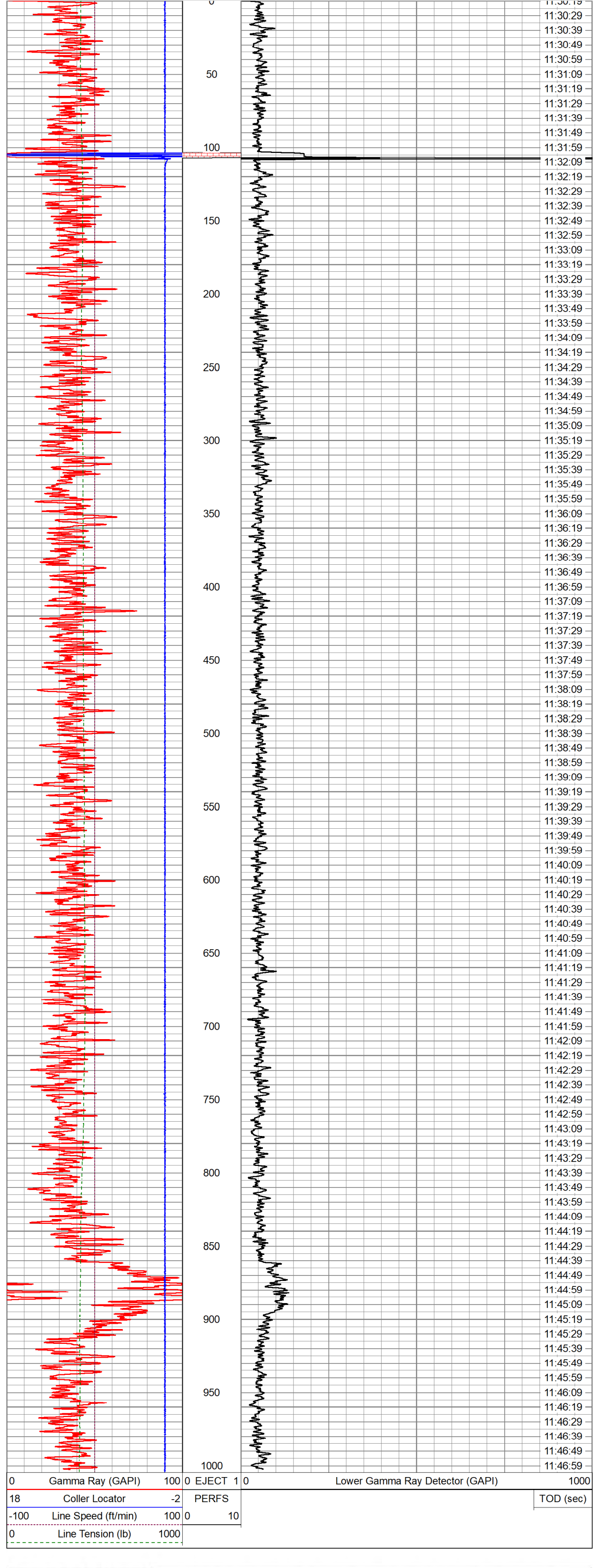


COASTAL WIRELINE SERVICES

EJECTED AT 9704' AT 11:32 FOR TIME DRIVE # 1

UPPER DETECTOR AT 9698' LOWER DETECTOR AT 9715'
INJECTION RATE 302 GPM AT 80 PSI

Database File	ddl3-19.db
Dataset Pathname	run2/pass4
Presentation Format	tracer
Dataset Creation	Tue Apr 09 11:30:19 2019
Charted by	Time scaled 72/hour

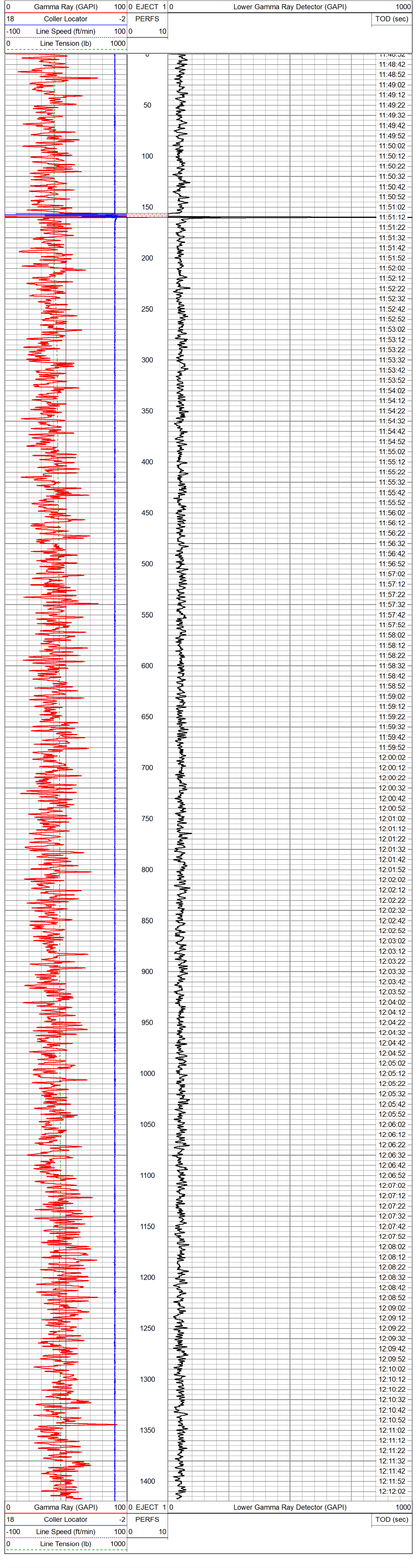


COASTAL WIRELINE SERVICES

EJECTED AT 9704' AT 11:51 FOR TIME DRIVE # 2

UPPER DETECTOR AT 9698' LOWER DETECTOR 9715'
INJECTION RATE 302 GPM AT 290 PSI

Database File	ddl3-19.db
Dataset Pathname	run2/pass5
Presentation Format	tracer
Dataset Creation	Tue Apr 09 11:48:32 2019
Charted by	Time scaled 72/hour

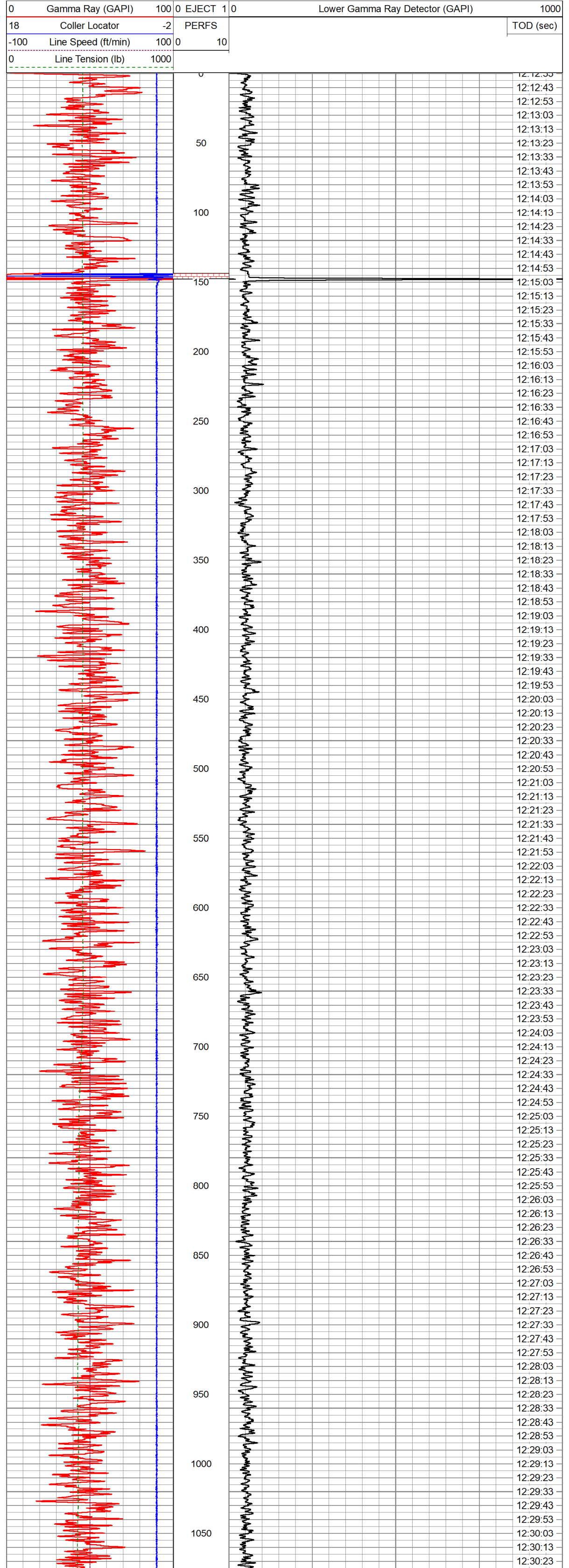


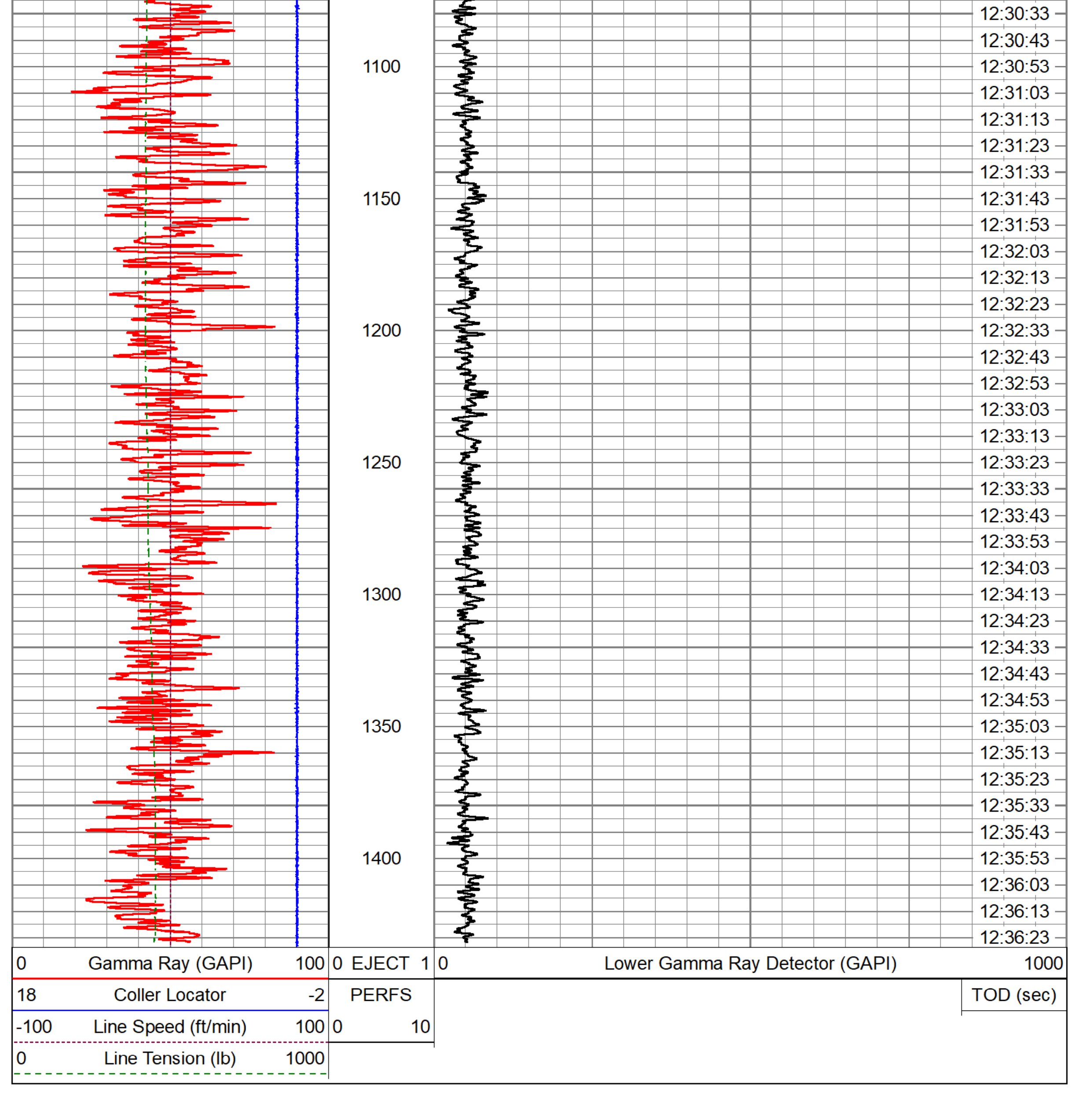
COASTAL WIRELINE SERVICES

EJECTED AT 9704' AT 12:15 FOR TIME DRIVE # 3

UPPER DETECTOR AT 9698' LOWER DETECTOR AT 9715'
INJECTION RATE 302 GPM AT 360 PSI

Database File	ddl3-19.db
Dataset Pathname	run2/pass6
Presentation Format	tracer
Dataset Creation	Tue Apr 09 12:12:33 2019
Charted by	Time scaled 72/hour





COASTAL WIRELINE SERVICES

POST GAMMA RAY LOG PASS

INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl3-19.db
Dataset Pathname	run3/pass11
Presentation Format	tracer
Dataset Creation	Tue Apr 09 12:52:03 2019
Charted by	Depth in Feet scaled 1:240

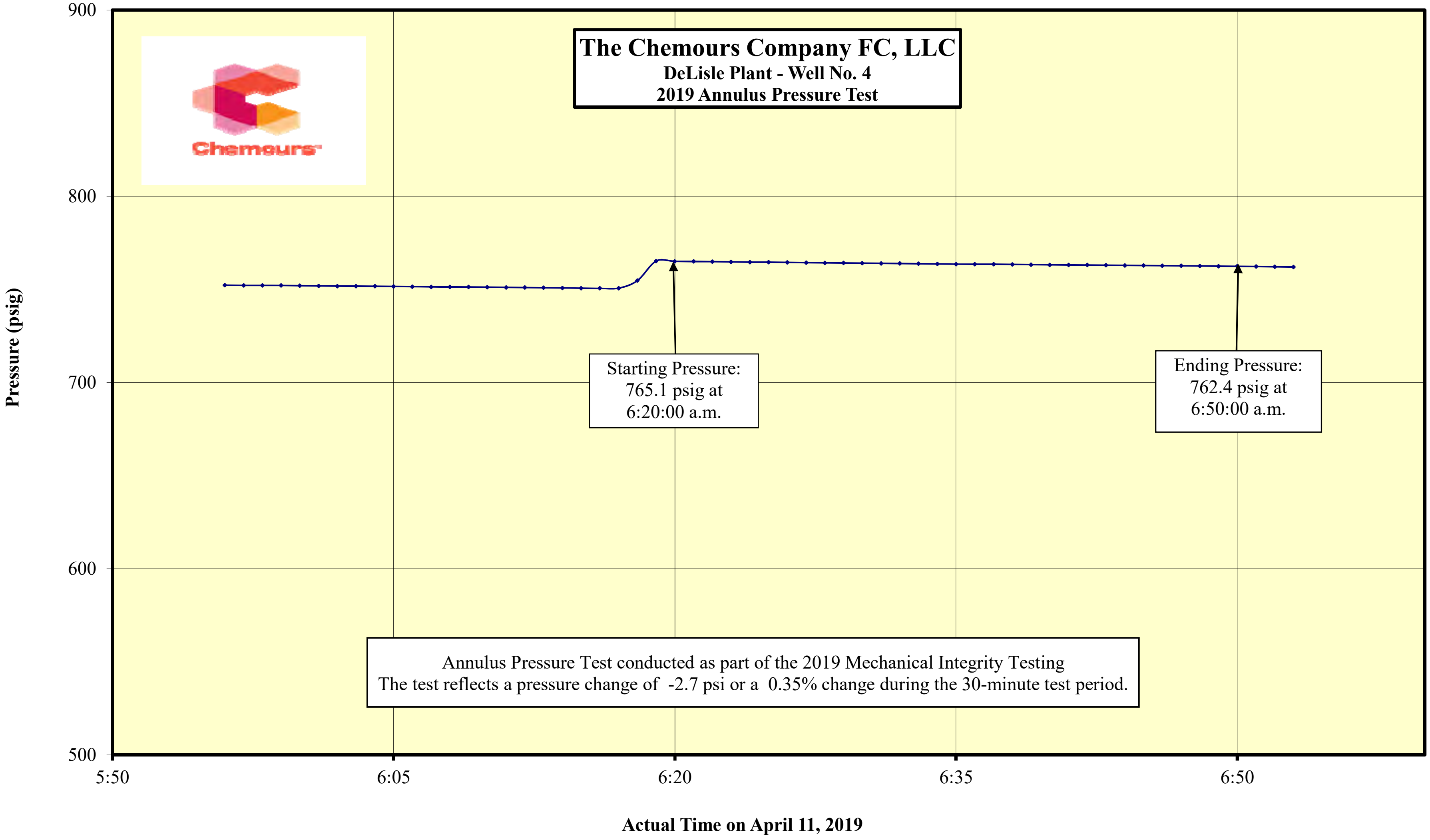
COASTAL WIRELINE SERVICES

POST GAMMA RAY LOG PASS

MERGED PASSES
INJECTION RATE 29 GPM AT 0 PSI

Database File	ddl3-19.db
Dataset Pathname	run3/_profile2_
Presentation Format	dd3m3-19
Dataset Creation	Wed Apr 10 08:17:50 2019
Charted by	Depth in Feet scaled 1:240

APPENDIX 7-5
PLANT WELL NO. 4 2019 ANNULAR PRESSURE TEST CHART



The Chemours Company FC, LLC
DeLisle Plant - Well No. 4
2019 Annulus Pressure Test

Starting Pressure:
765.1 psig at
6:20:00 a.m.

Ending Pressure:
762.4 psig at
6:50:00 a.m.

Annulus Pressure Test conducted as part of the 2019 Mechanical Integrity Testing
The test reflects a pressure change of -2.7 psi or a 0.35% change during the 30-minute test period.

The Chemours Company FC, LLC

DeLisle, MS Plant Well No. 4

Annulus Pressure Test

Gauge: Plant Gauge
Model: N/A
Serial Number: N/A
Range: N/A
Calibration Date: N/A

Note: Injection Tubing was static at 0 psig.

	Date	Time	Pressure (psig)
	4/11/2019	5:56:00	752.3
	4/11/2019	5:57:00	752.2
	4/11/2019	5:58:00	752.1
	4/11/2019	5:59:00	752.1
	4/11/2019	6:00:00	752.0
	4/11/2019	6:01:00	751.9
	4/11/2019	6:02:00	751.8
	4/11/2019	6:03:00	751.8
	4/11/2019	6:04:00	751.7
	4/11/2019	6:05:00	751.6
	4/11/2019	6:06:00	751.5
	4/11/2019	6:07:00	751.4
	4/11/2019	6:08:00	751.4
	4/11/2019	6:09:00	751.3
	4/11/2019	6:10:00	751.2
	4/11/2019	6:11:00	751.1
	4/11/2019	6:12:00	751.0
	4/11/2019	6:13:00	750.9
	4/11/2019	6:14:00	750.8
	4/11/2019	6:15:00	750.7
	4/11/2019	6:16:00	750.6
	4/11/2019	6:17:00	750.7
	4/11/2019	6:18:00	754.7
	4/11/2019	6:19:00	765.2
Start Test	4/11/2019	6:20:00	765.1
	4/11/2019	6:21:00	765.0
	4/11/2019	6:22:00	764.9
	4/11/2019	6:23:00	764.8
	4/11/2019	6:24:00	764.7
	4/11/2019	6:25:00	764.6
	4/11/2019	6:26:00	764.5
	4/11/2019	6:27:00	764.4
	4/11/2019	6:28:00	764.3
	4/11/2019	6:29:00	764.2
	4/11/2019	6:30:00	764.1
	4/11/2019	6:31:00	764.0
	4/11/2019	6:32:00	763.9
	4/11/2019	6:33:00	763.8
	4/11/2019	6:34:00	763.7
	4/11/2019	6:35:00	763.6
	4/11/2019	6:36:00	763.5
	4/11/2019	6:37:00	763.5
	4/11/2019	6:38:00	763.4
	4/11/2019	6:39:00	763.3
	4/11/2019	6:40:00	763.2
	4/11/2019	6:41:00	763.1
	4/11/2019	6:42:00	763.1
	4/11/2019	6:43:00	763.0
	4/11/2019	6:44:00	762.9
	4/11/2019	6:45:00	762.9
	4/11/2019	6:46:00	762.8
	4/11/2019	6:47:00	762.7
	4/11/2019	6:48:00	762.6
	4/11/2019	6:49:00	762.5
End Test	4/11/2019	6:50:00	762.4
	4/11/2019	6:51:00	762.3
	4/11/2019	6:52:00	762.2
	4/11/2019	6:53:00	762.1

APPENDIX 7-6
PLANT WELL NO. 4 2019 RADIOACTIVE TRACER LOG

COASTAL WIRELINE SERVICES, INC.

Chemours
Waste Disposal Well # 4
DeLisle Facility
DeLisle, Mississippi
April 11, 2019

RADIOACTIVE TRACER SURVEY

The two phases of this test included; 1)determining the flow through and from the tubing by ejecting a slug of radioactive material (Iodine-131 10mci) and monitoring the flow profile as it moves down the tubing and into the formation. 2)Testing the mechanical integrity of the casing, cement, and formation bond by positioning gamma-ray detector slightly above the point where the formation accepts fluid and monitoring the gamma radiation response from an ejected slug of radioactive material. A baseline gamma-ray log was run from 9,957 feet to 9,000 feet (683 feet above top of packer assembly). The injection rate was 30 gpm for the profile runs and 302 gpm for the time drive surveys.

The first phase of this test incorporates the injection of radioactive slug at 9,400 feet (283 feet above top of packer assembly) and passing the detector through the radioactive material until it passes from the tubing and into the formation. The first slug gave an indication of leaving the packer at 9,683 feet and going into the formation below 9,738 feet. Made four (4) passes and chased slug down to 9,910 feet. This portion of this test was repeated with four (4) passes and slug chased down to 9,938 feet. Profile survey indicates that all fluid is going into injection interval at this time. No indication of any fluid migrating up hole behind pipe above 9,738 feet.

The second phase of this test involved setting lower detector at 9,718 feet (20 feet above top of casing shoe) and ejecting a slug of radioactive material at 9,707 feet and recorded on time drive for twenty one (21) minutes with an injection rate of 302 gpm. This portion of this test was repeated at same depth and rate of 327 gpm. Time drive survey indicates no fluid migrating up hole behind pipe at this time.

RADIOACTIVE TRACER SURVEY CONTINUE

A Base after survey gamma ray log was ran from 9,957 feet to 9,000 feet and compared to original base gamma ray log which indicated no residue of radioactive material above 9,738 feet in formation, casing, tubing, or packer.

Radioactive Tracer Survey was conducted by Stoney Johnson (Coastal Wireline Services, Inc.) and witnessed by Mr. S. Henry (Geostock Sandia Entrepose) and Mr. J. Williams (M.D.E.Q.).

Sincerely

Stoney Johnson
Engineer C.W.A.

COASTAL WIRELINE SERVICES

RADIOACTIVE TRACER SURVEY
MECHANICAL INTEGRITY TEST

Company	CHEMOURS
Well	PLANT WELL # 4 (SIDE TRACK # 1)
Field	DELISLE FACILITY
County	HARRISON
State	MISSISSIPPI
Country	U.S.A.
API #:	
Location:	N.A.
SEC	
TWP	
RGE	
Other Services	NONE
Permanent Datum	GROUND LEVEL
Elevation	12.23'
Log Measured From	24.5'
Drilling Measured From	KELLY BUSHING
Elevation	K.B. 38.1' D.F. 37.1' G.L. 12.23'
Date	4/11/2019
Run Number	ONE
Depth Driller	10,050'
Depth Logger	9958'
Bottom Logged Interval	9957'
Top Log Interval	9000'
Open Hole Size	N.A.
Type Fluid	BRINE
Density / Viscosity	N.A.
Max. Recorded Temp.	214.8 @ 9400'
Estimated Cement Top	SURFACE
Time Well Ready	07:00
Time Logger on Bottom	9:09
Equipment Number	P-104
Location	PEARLAND
Recorded By	S. JOHNSON
Witnessed By	MR. S. HENRY MR. J. WILLIAMS

Borehole Record

Run Number	Bit	From	To

Tubing Record

Size	Weight	From	To
5 1/2"	TITANIUM	SURFACE	32
5 1/2	RB 2500	32'	6,690'
4 1/2	RB 2500	6,690'	9662'

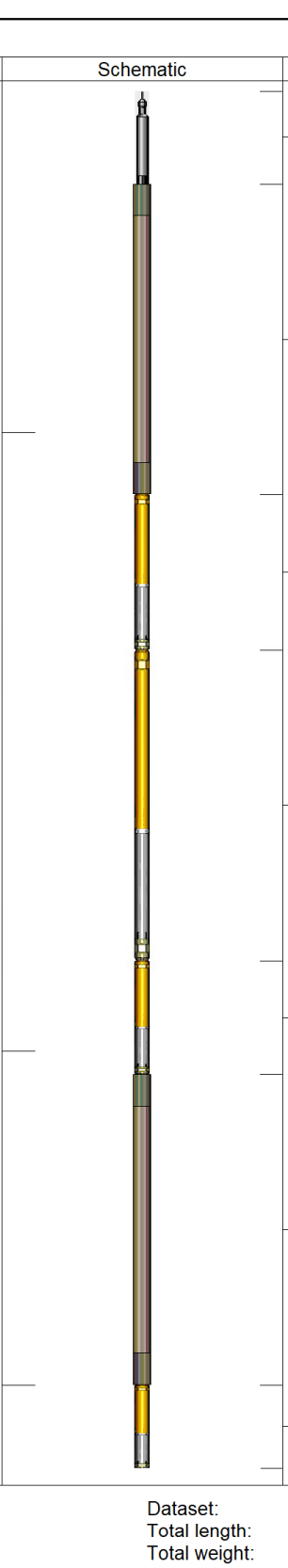
Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	13 3/8	68	SURFACE	3,613'
Prot. String	9 5/8	40-47	SURFACE	9,610'
Production String	7	FG & TITAN	7,254'	9,738'
Liner	4 1/2	RB 2500	9688'	10014'

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

RADIOACTIVE TRACER SURVEY INDICATES THAT ALL FLUID IS GOING INTO INJECTION INTERVAL AT THIS TIME. NO INDICATION OF ANY FLUID MIGRATING UP HOLE ABOVE 9738'.



Sensor	Offset (ft)	Description	Length (ft)	O.D. (in)	Weight (lb
		Cablehead-Titan Cable Head	1.50	1.40	3.00
DET	16.67	TRDET-Probe (132646) Trdet	5.00	1.38	25.00
		TREJCT-Probe (134398) 1 3/8" Ejector	2.50	1.38	15.00
		1.38Bar-Titan 1 3/8" Weight Bar	5.00	1.38	45.00
CCL	6.71	CCL-Probe (080935) 1 3/8" Probe ccl	1.83	1.38	5.00
		TRDET #2 -Probe (132645) Trdet	5.00	1.38	25.00
DET#2	1.33	CalScan-memory (1.24Memory_Guage) CalScan Memory	1.33	1.24	5.00

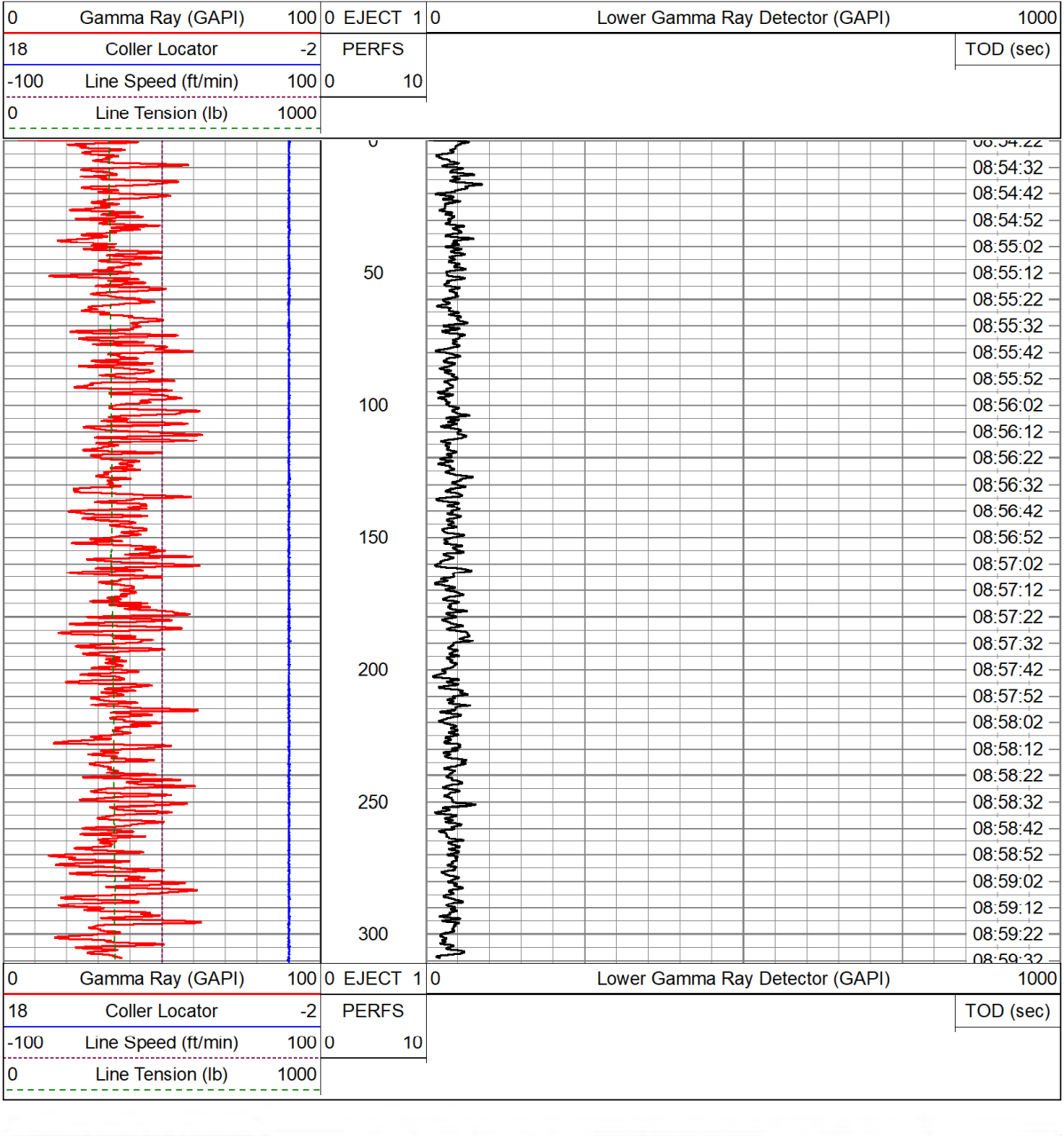
Dataset: ddl4-19.db: field/well/run3/pass1
Total length: 22.17 ft
Total weight: 123.00 lb
O.D.: 1.40 in

COASTAL WIRELINE SERVICES

STATISTICAL CHECK ABOVE TOP OF PACKER

UPPER DETECTOR AT 9656' LOWER DETECTOR AT 9673'
INJECTION RATE 25 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run2/pass1
Presentation Format	tracer
Dataset Creation	Thu Apr 11 08:54:22 2019
Charted by	Time scaled 72/hour

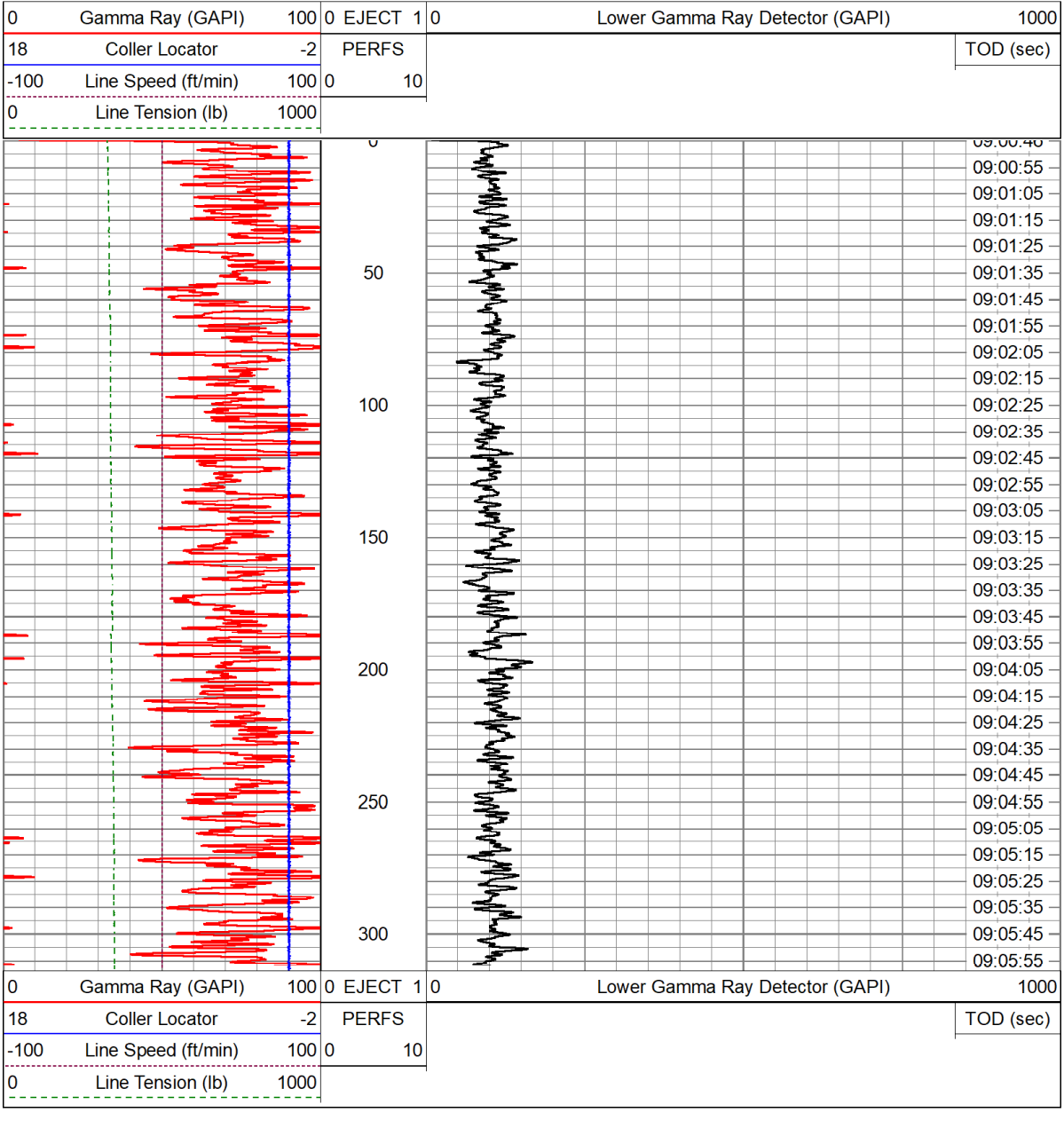


COASTAL WIRELINE SERVICES

STATISTICAL CHECK ABOVE LINER SHOE

UPPER DETECTOR AT 9701' LOWER DETECTOR AT 9718'
INJECTION RATE 25 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run2/pass2
Presentation Format	tracer
Dataset Creation	Thu Apr 11 09:00:46 2019
Charted by	Time scaled 72/hour

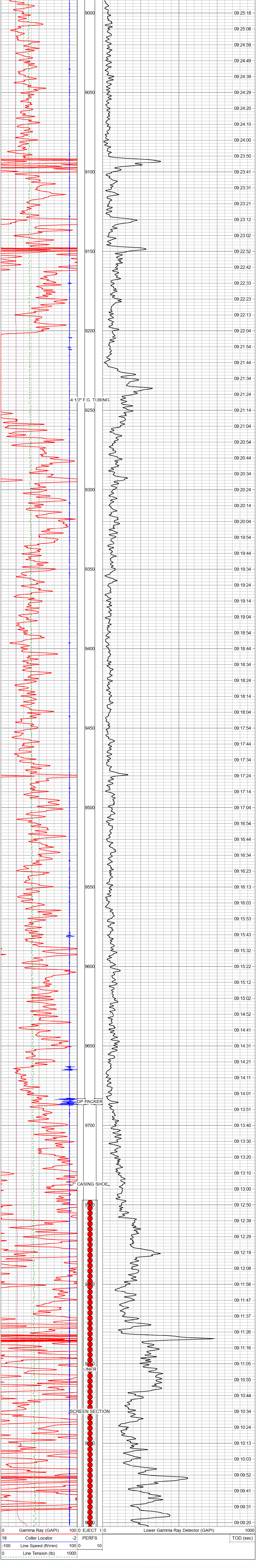


COASTAL WIRELINE SERVICES

BASE GAMMA RAY LOG PASS

INJECTION RATE 30 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/pass1
Presentation Format	tracer
Dataset Creation	Thu Apr 11 09:09:06 2019
Charted by	Depth in Feet scaled 1:240

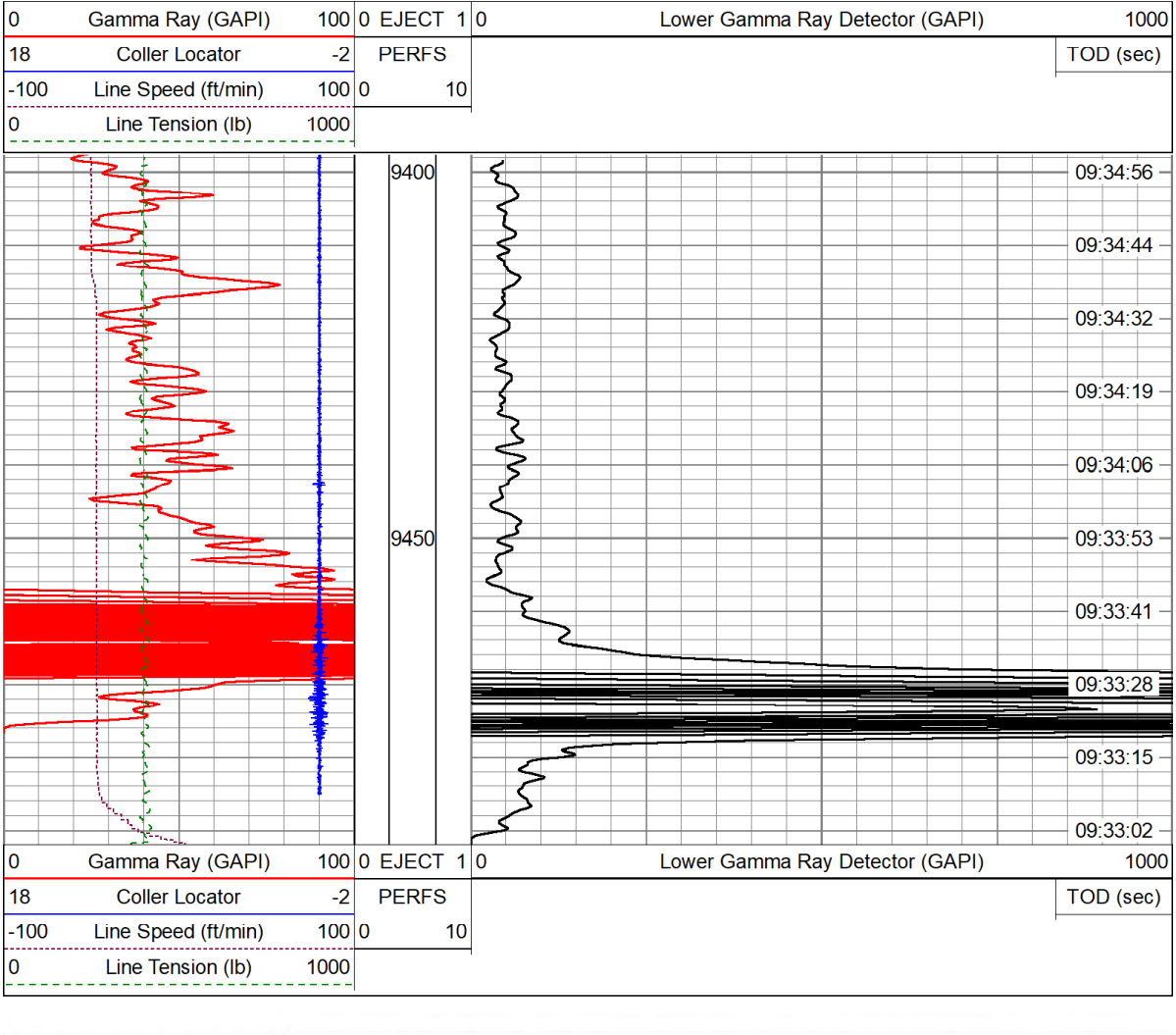


COASTAL WIRELINE SERVICES

PASS # 1 ON SLUG # 1 EJECTED AT 9400' AT 9:32

PEAK AT 9473' AT 9:33:25
INJECTION RATE 30 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/pass2
Presentation Format	tracer
Dataset Creation	Thu Apr 11 09:32:58 2019
Charted by	Depth in Feet scaled 1:240

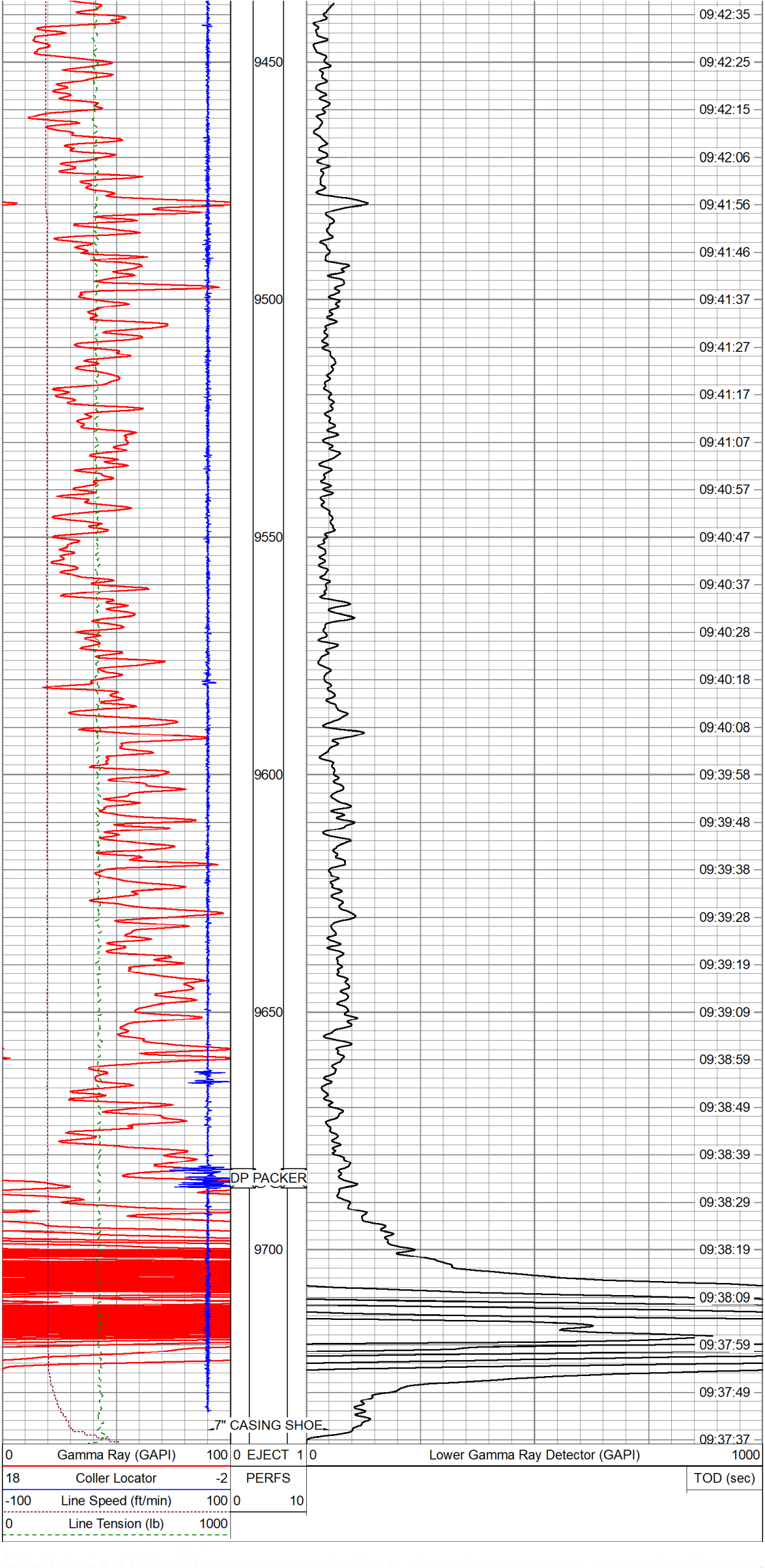


COASTAL WIRELINE SERVICES

PASS # 2 ON SLUG # 2 EJECTED AT 9400' AT 9:32

PEAK AT 9718' AT 9:38:01
INJECTION RATE 30 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/pass3
Presentation Format	tracer
Dataset Creation	Thu Apr 11 09:37:36 2019
Charted by	Depth in Feet scaled 1:240

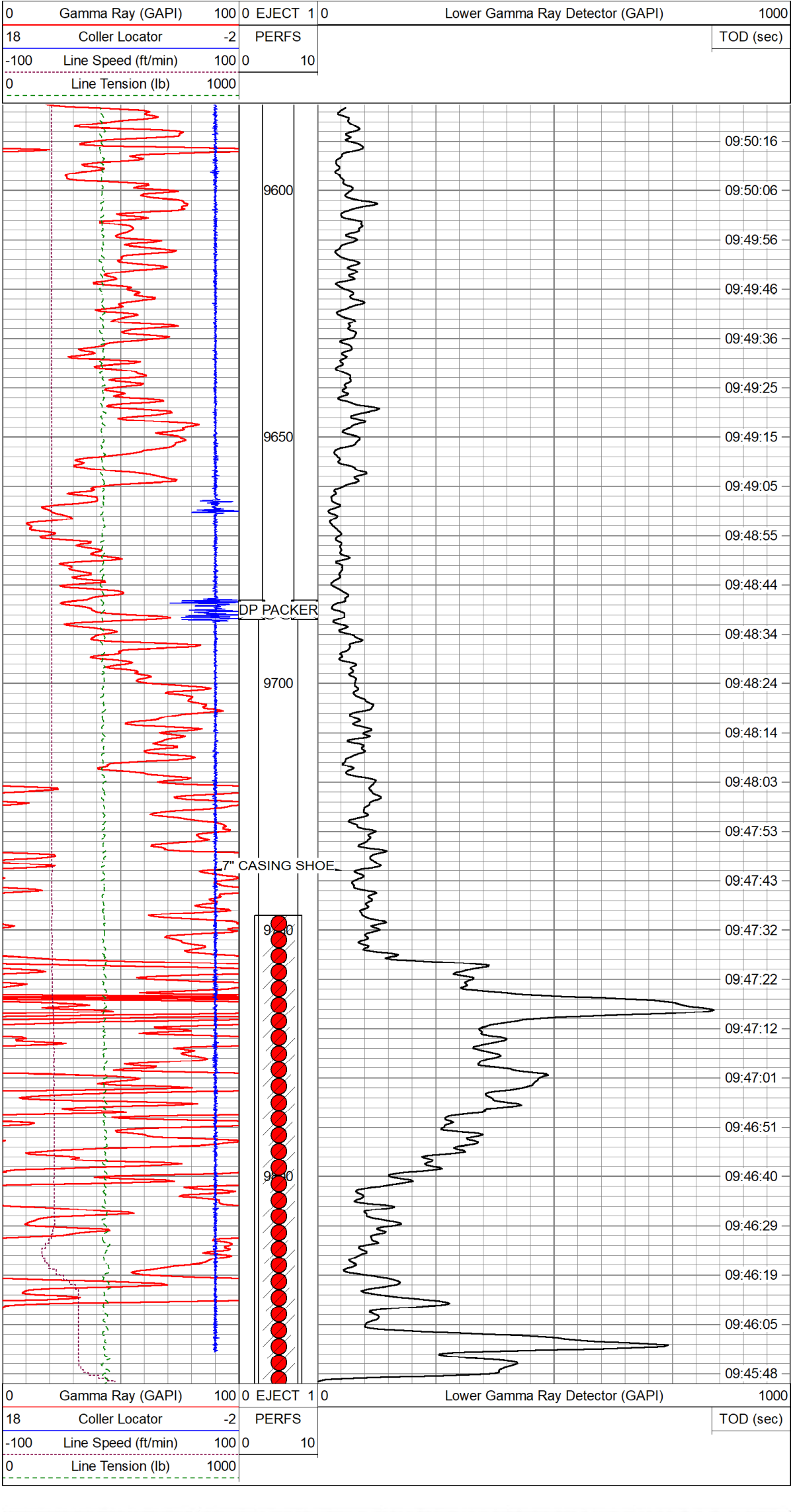


COASTAL WIRELINE SERVICES

PASS # 3 ON SLUG # 1 EJECTED AT 9400' AT 9:32

PEAK AT 9766' AT 9:47:16
INJECTION ARTE 30 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/pass4
Presentation Format	tracer
Dataset Creation	Thu Apr 11 09:45:44 2019
Charted by	Depth in Feet scaled 1:240

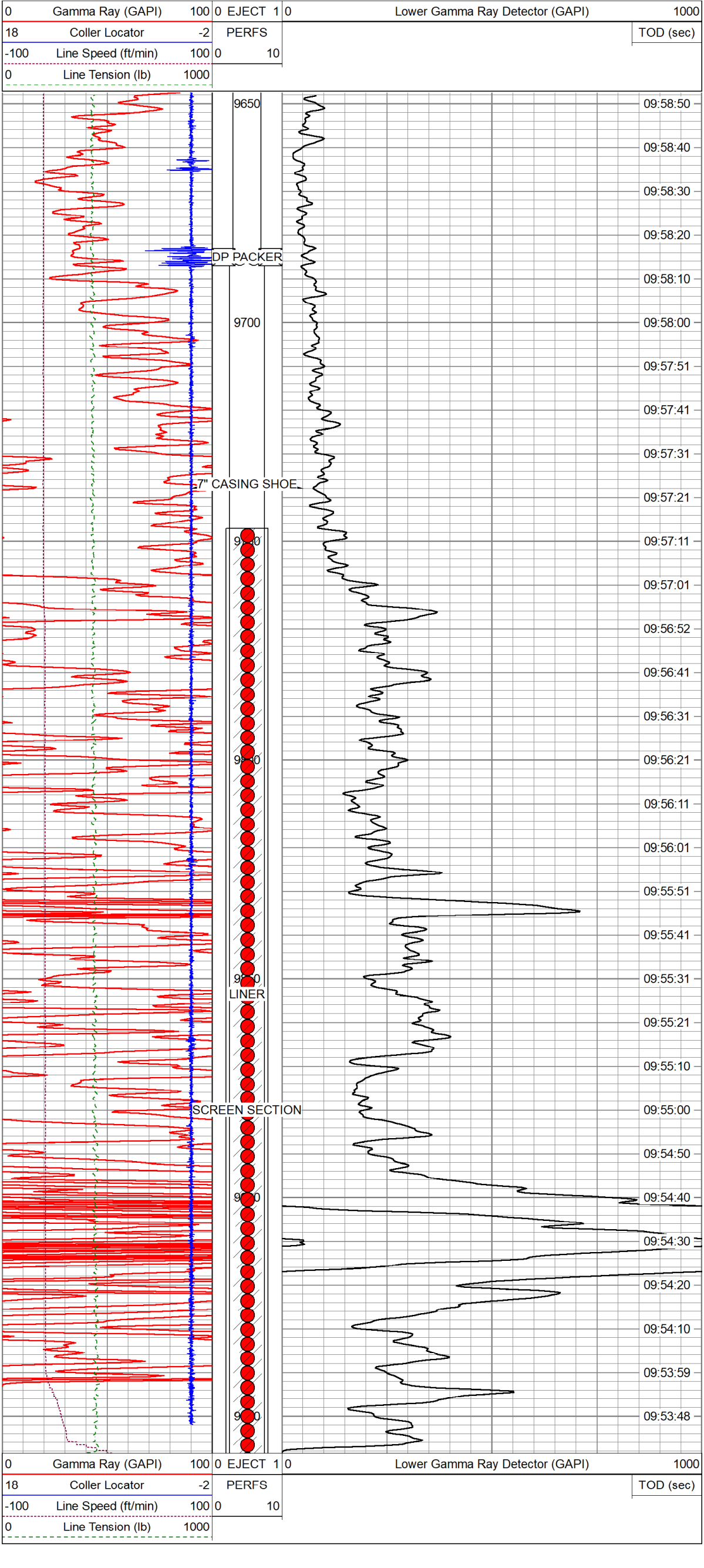


COASTAL WIRELINE SERVICES

PASS # 4 ON SLUG # 1 EJECTED AT 9400' AT 9:32

PEAK AT 9910' AT 9:54:30
INJECTION ATE 30 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/pass5
Presentation Format	tracer
Dataset Creation	Thu Apr 11 09:53:35 2019
Charted by	Depth in Feet scaled 1:240

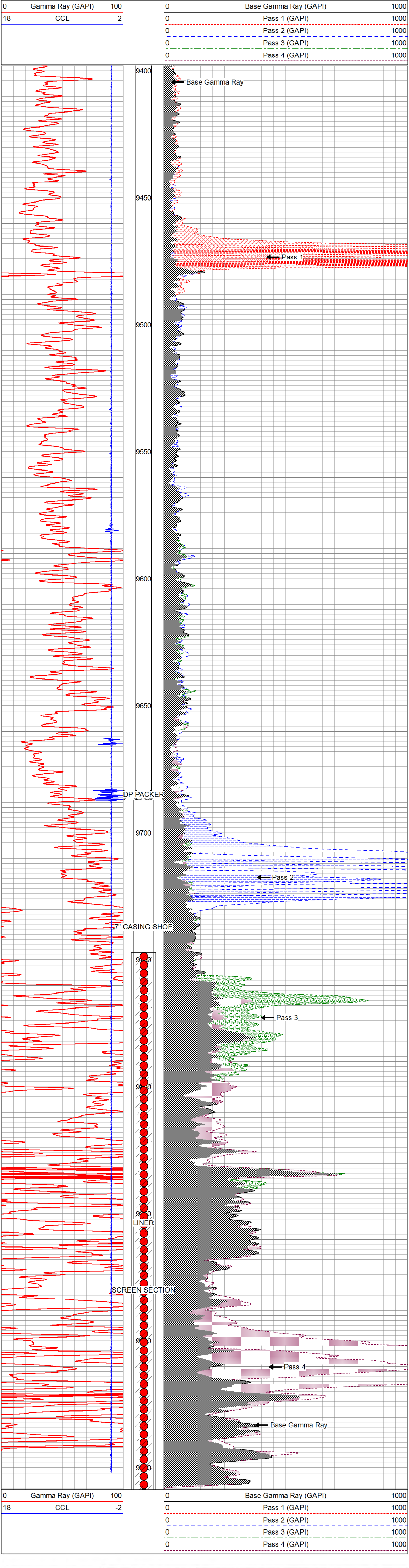


COASTAL WIRELINE SERVICES

MERGED PASSES ON SLUG # 1 EJECTED AT 9400'

MADE 4 PASSES AND CHASED SLUG DOWN BELOW LINER SHOE
INJECTION ATE 30 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/_profile1_
Presentation Format	dd4m1-19
Dataset Creation	Thu Apr 11 10:56:19 2019
Charted by	Depth in Feet scaled 1:240

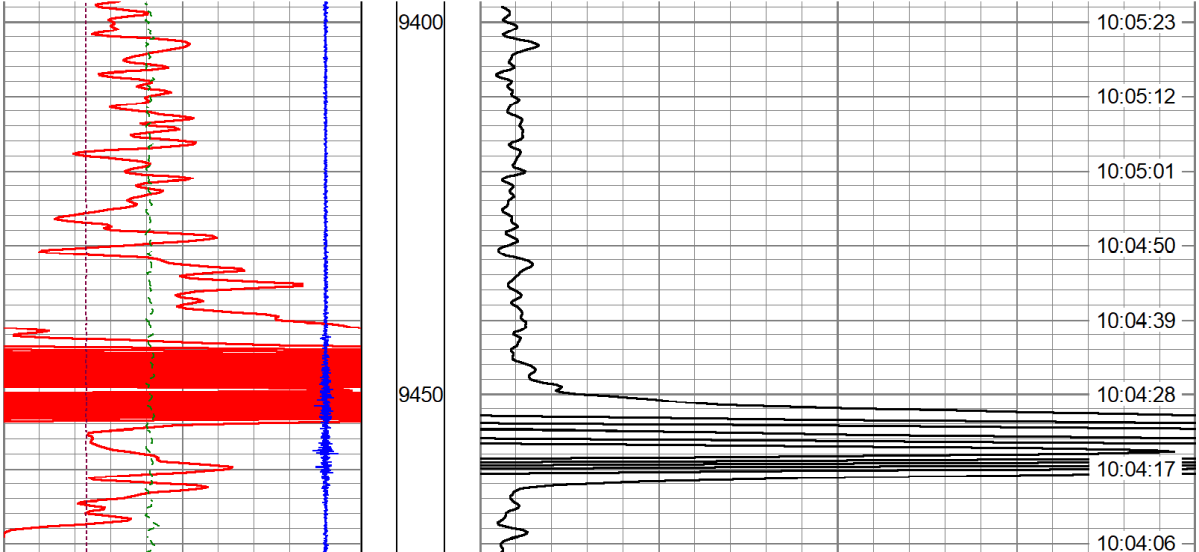


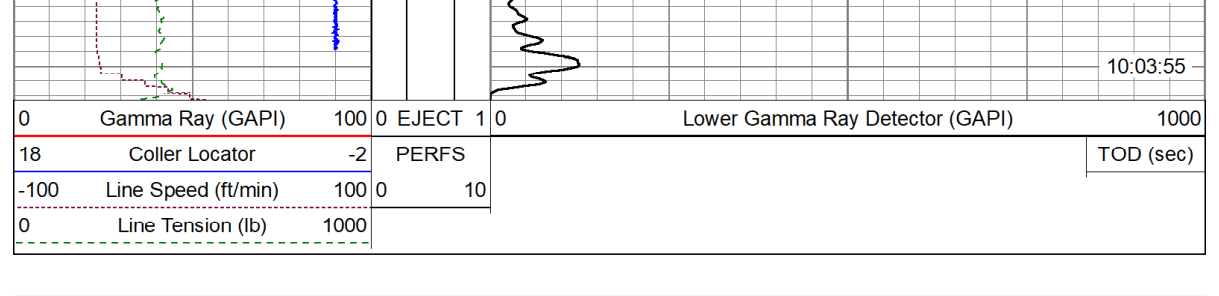
COASTAL WIRELINE SERVICES

PASS # 1 ON SLUG # 2 EJECTED AT 9400' AT 10:03

PEAK AT 9458' AT 10:04:19
INJECTION RATE 30 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/pass6
Presentation Format	tracer
Dataset Creation	Thu Apr 11 10:03:50 2019
Charted by	Depth in Feet scaled 1:240



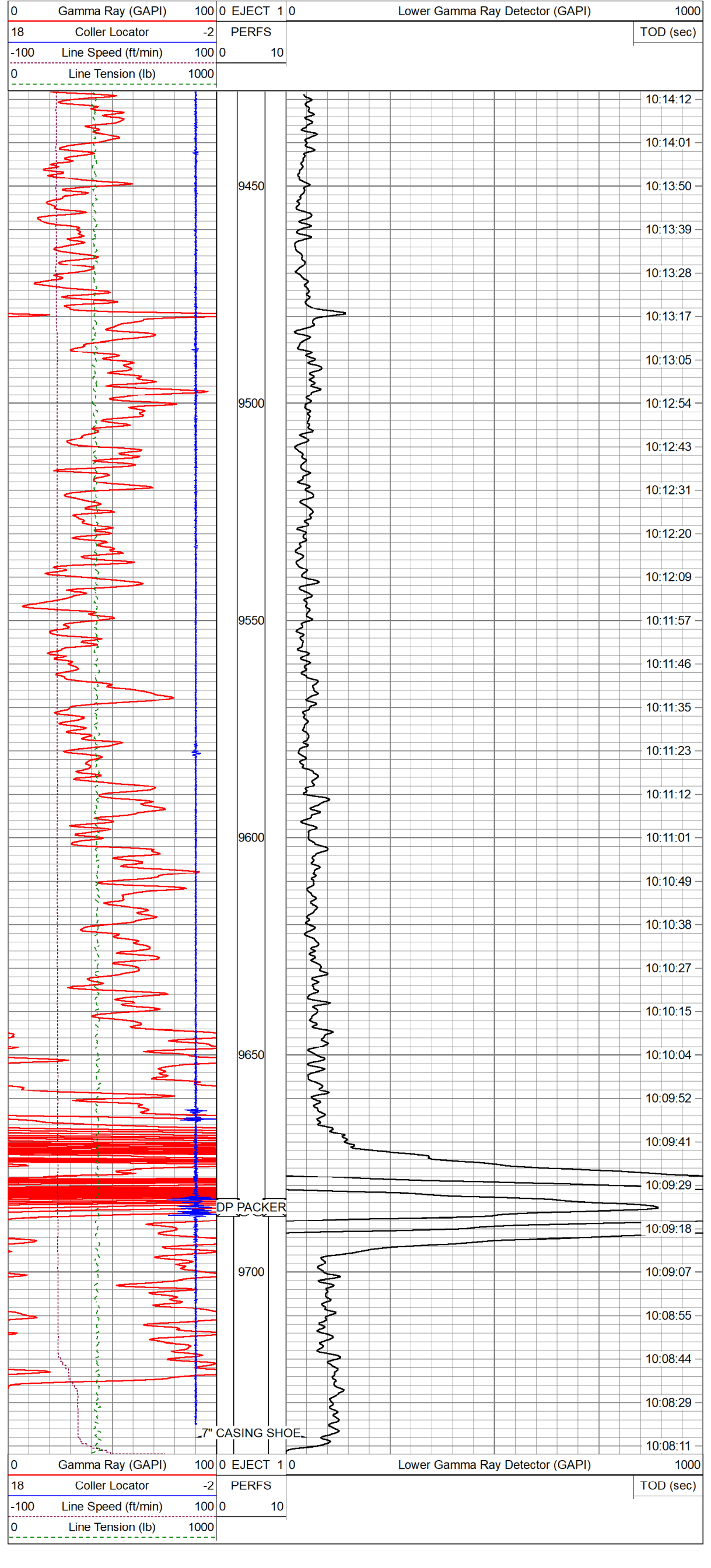


COASTAL WIRELINE SERVICES

PASS # 2 ON SLUG # 2 EJECTED AT 9400' AT 10:03

PEAK AT 9685' AT 10:09:23
INJECTION RATE 30 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/pass7
Presentation Format	tracer
Dataset Creation	Thu Apr 11 10:08:03 2019
Charted by	Depth in Feet scaled 1:240

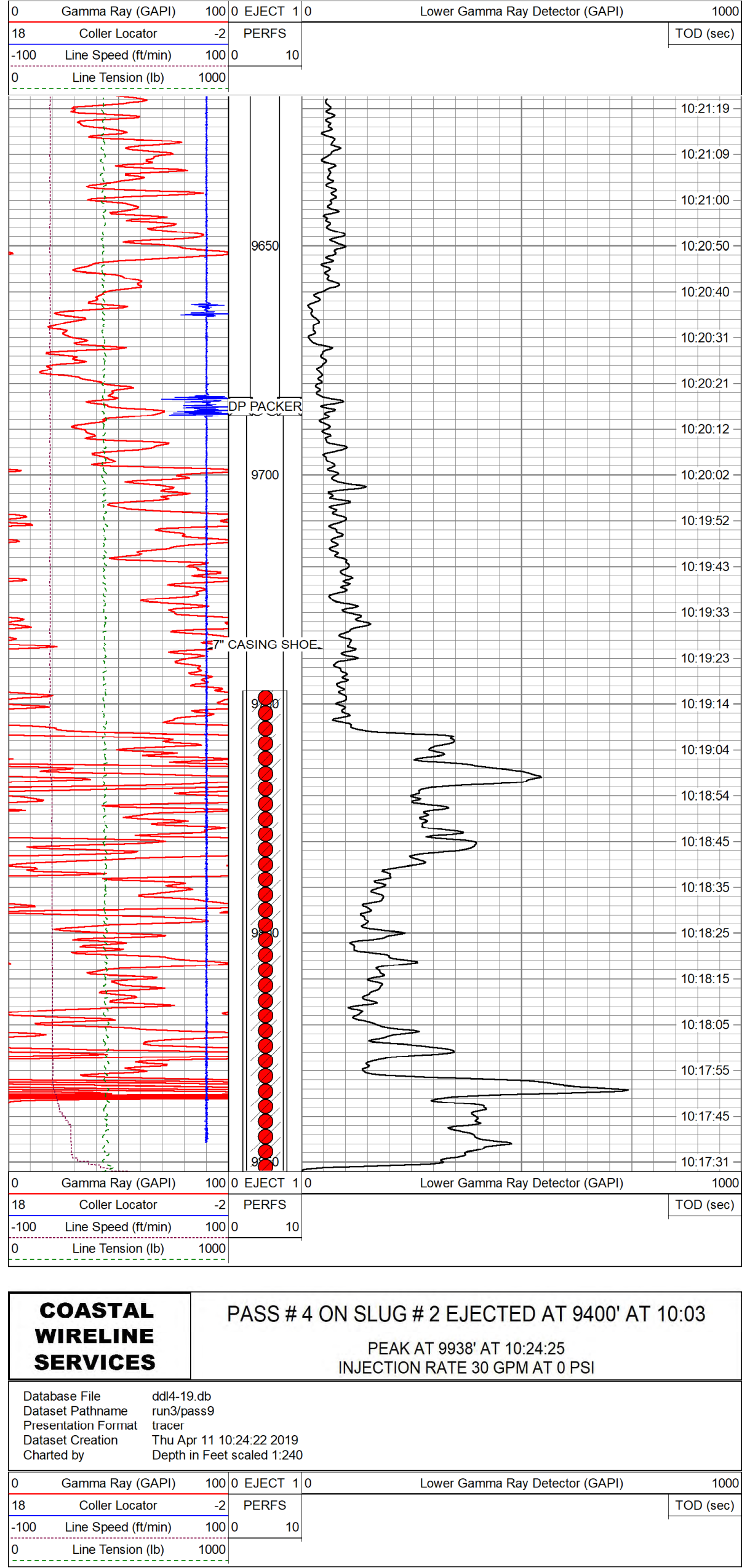


COASTAL WIRELINE SERVICES

PASS # 3 ON SLUG # 2 EJECTED AT 9400' AT 10:03

PEAK AT 9766' AT 10:18:50
INJECTION RATE 30 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/pass8
Presentation Format	tracer
Dataset Creation	Thu Apr 11 10:17:28 2019
Charted by	Depth in Feet scaled 1:240

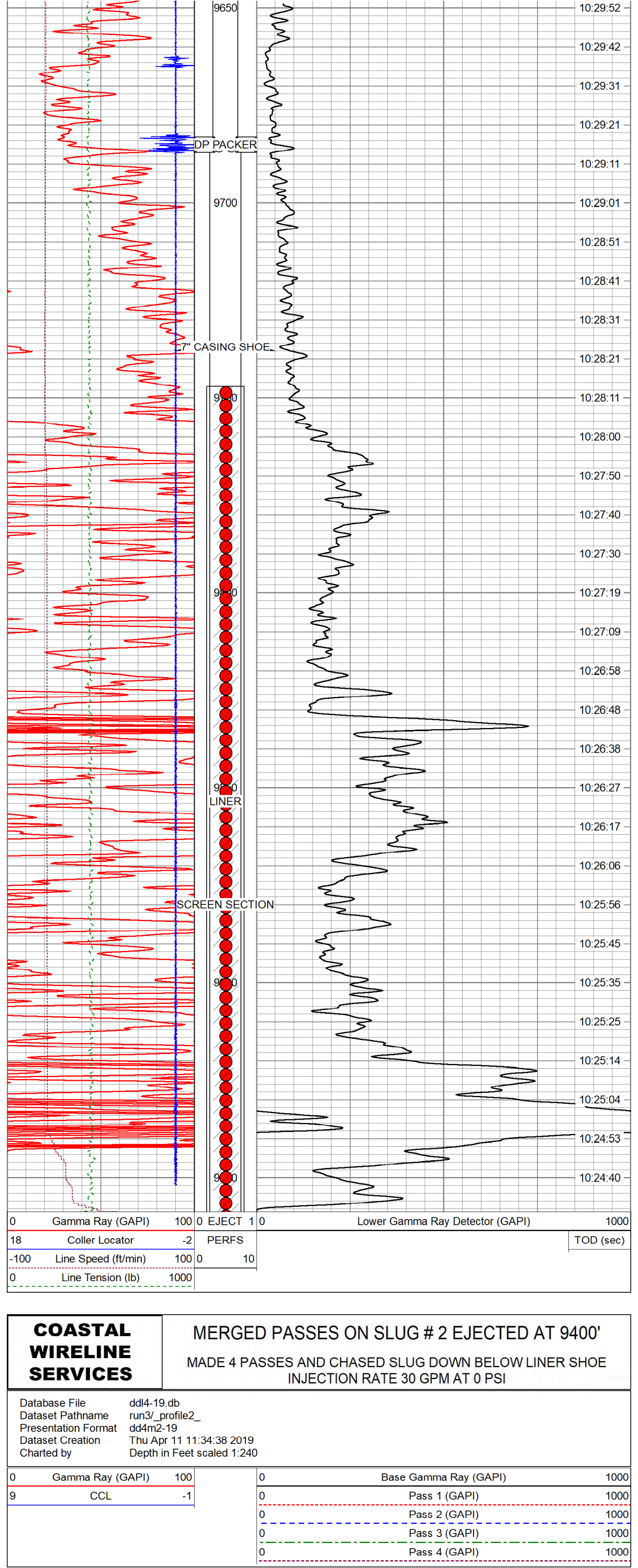


COASTAL WIRELINE SERVICES

PASS # 4 ON SLUG # 2 EJECTED AT 9400' AT 10:03

PEAK AT 9938' AT 10:24:25
INJECTION RATE 30 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/pass9
Presentation Format	tracer
Dataset Creation	Thu Apr 11 10:24:22 2019
Charted by	Depth in Feet scaled 1:240

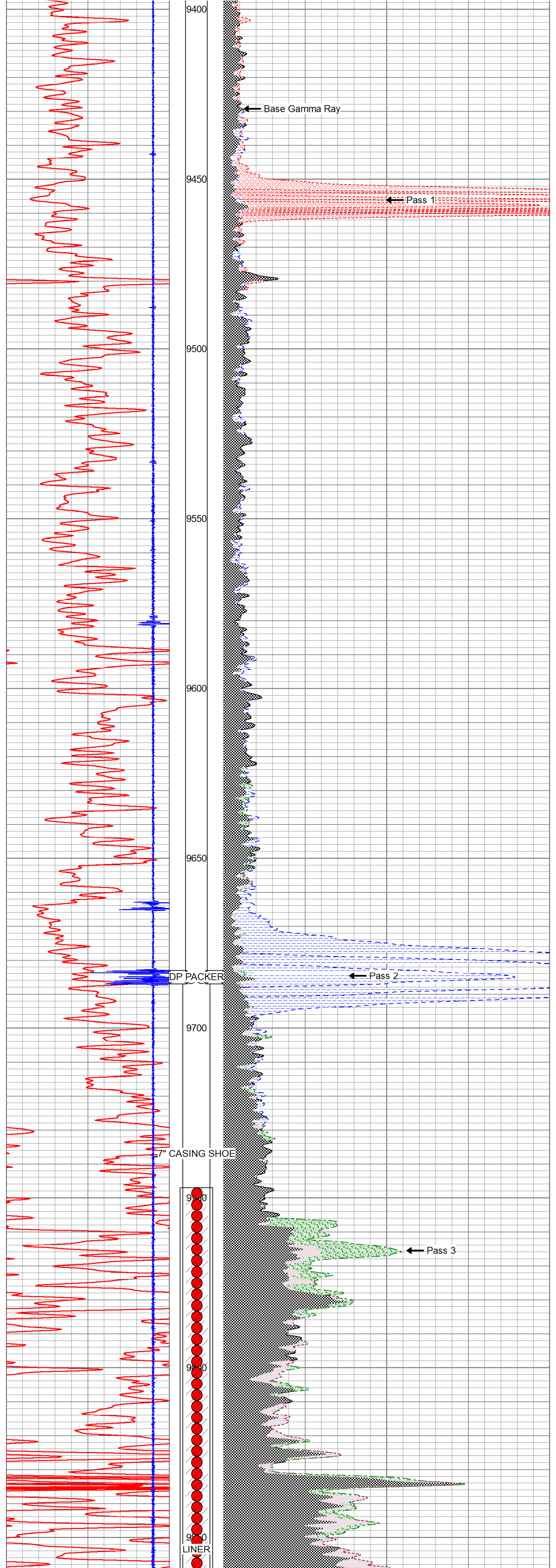


COASTAL WIRELINE SERVICES

MERGED PASSES ON SLUG # 2 EJECTED AT 9400'

MADE 4 PASSES AND CHASED SLUG DOWN BELOW LINER SHOE
INJECTION RATE 30 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/_profile2_
Presentation Format	dd4m2-19
Dataset Creation	Thu Apr 11 11:34:38 2019
Charted by	Depth in Feet scaled 1:240

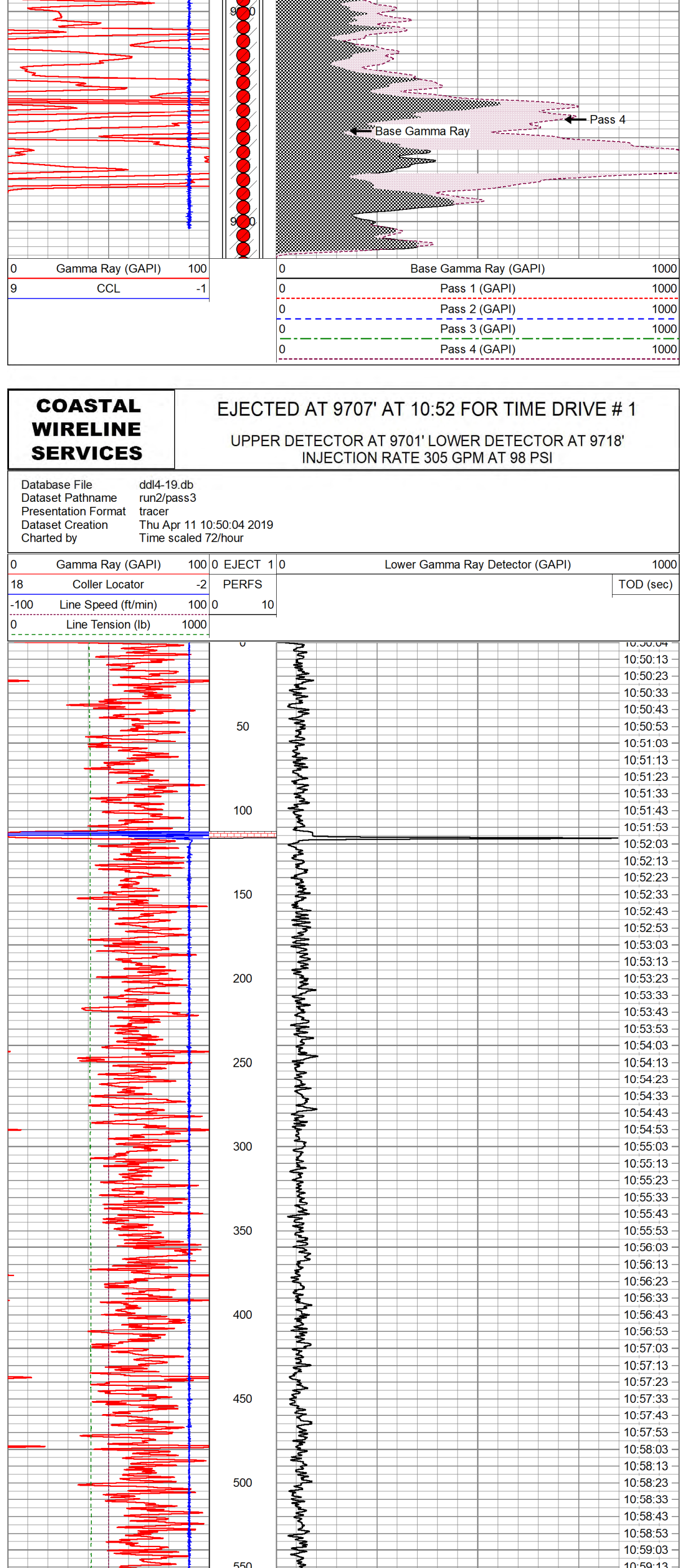


COASTAL WIRELINE SERVICES

EJECTED AT 9707' AT 10:52 FOR TIME DRIVE # 1

UPPER DETECTOR AT 9701' LOWER DETECTOR AT 9718'
INJECTION RATE 305 GPM AT 98 PSI

Database File	ddl4-19.db
Dataset Pathname	run2/pass3
Presentation Format	tracer
Dataset Creation	Thu Apr 11 10:50:04 2019
Charted by	Time scaled 72/hour

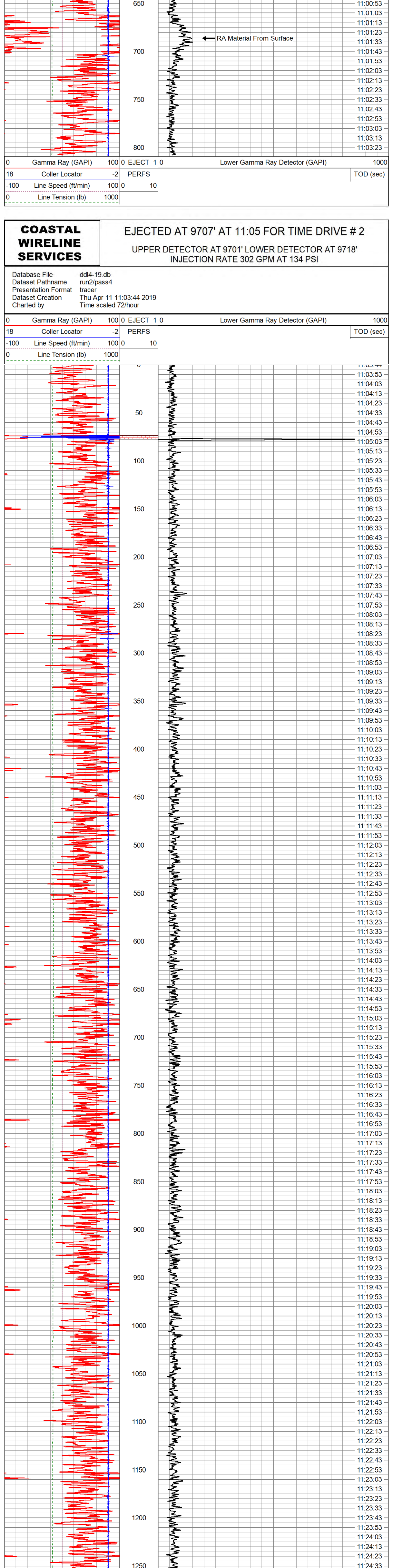


COASTAL WIRELINE SERVICES

EJECTED AT 9707' AT 11:05 FOR TIME DRIVE # 2

UPPER DETECTOR AT 9701' LOWER DETECTOR AT 9718'
INJECTION RATE 302 GPM AT 134 PSI

Database File	ddl4-19.db
Dataset Pathname	run2/pass4
Presentation Format	tracer
Dataset Creation	Thu Apr 11 11:03:44 2019
Charted by	Time scaled 72/hour

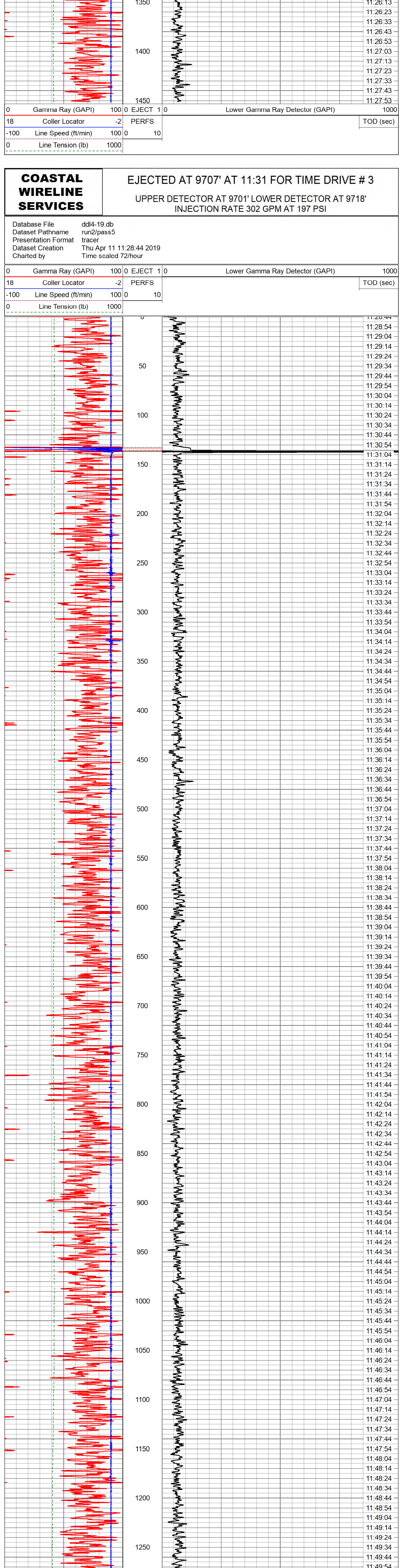


COASTAL WIRELINE SERVICES

EJECTED AT 9707' AT 11:31 FOR TIME DRIVE # 3

UPPER DETECTOR AT 9701' LOWER DETECTOR AT 9718'
INJECTION RATE 302 GPM AT 197 PSI

Database File	ddl4-19.db
Dataset Pathname	run2/pass5
Presentation Format	tracer
Dataset Creation	Thu Apr 11 11:28:44 2019
Charted by	Time scaled 72/hour

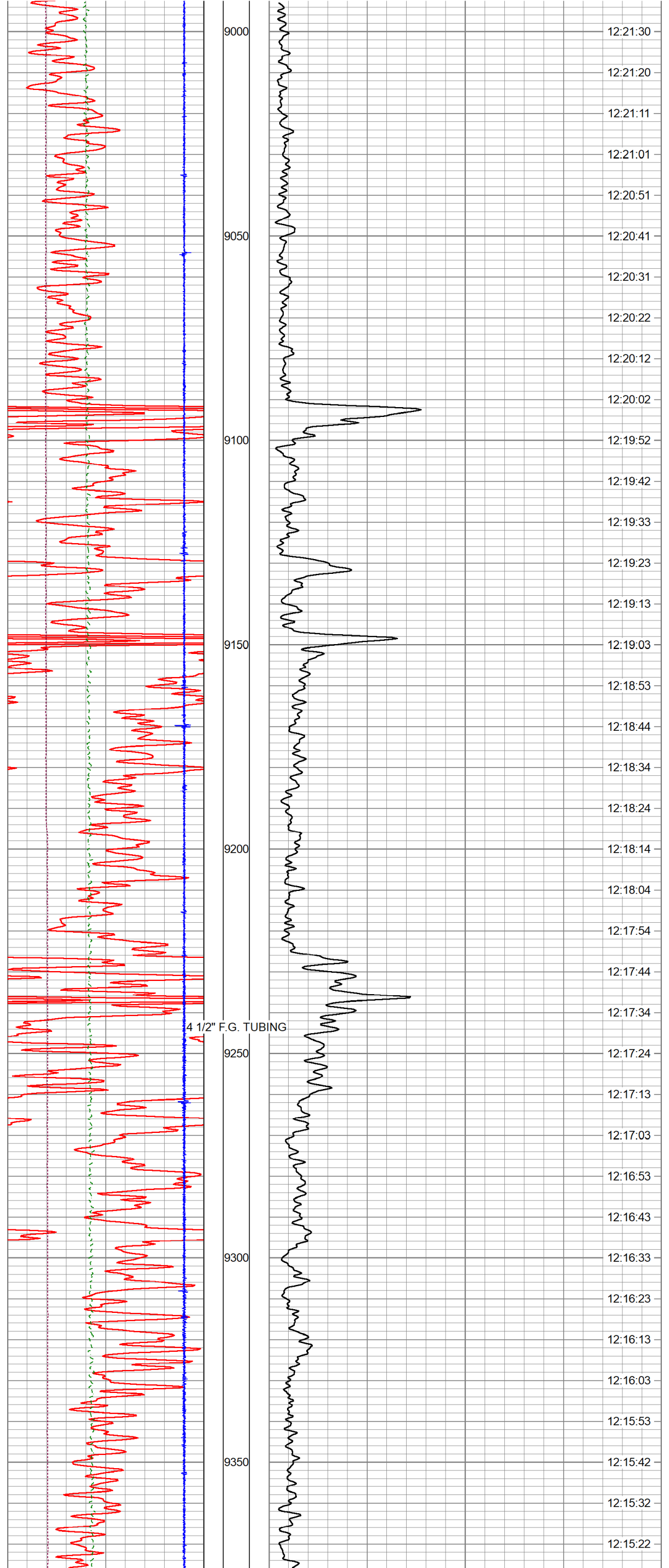


COASTAL WIRELINE SERVICES

POST GAMMA RAY LOG PASS

INJECTION RATE 25 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/pass10
Presentation Format	tracer
Dataset Creation	Thu Apr 11 12:03:37 2019
Charted by	Depth in Feet scaled 1:240



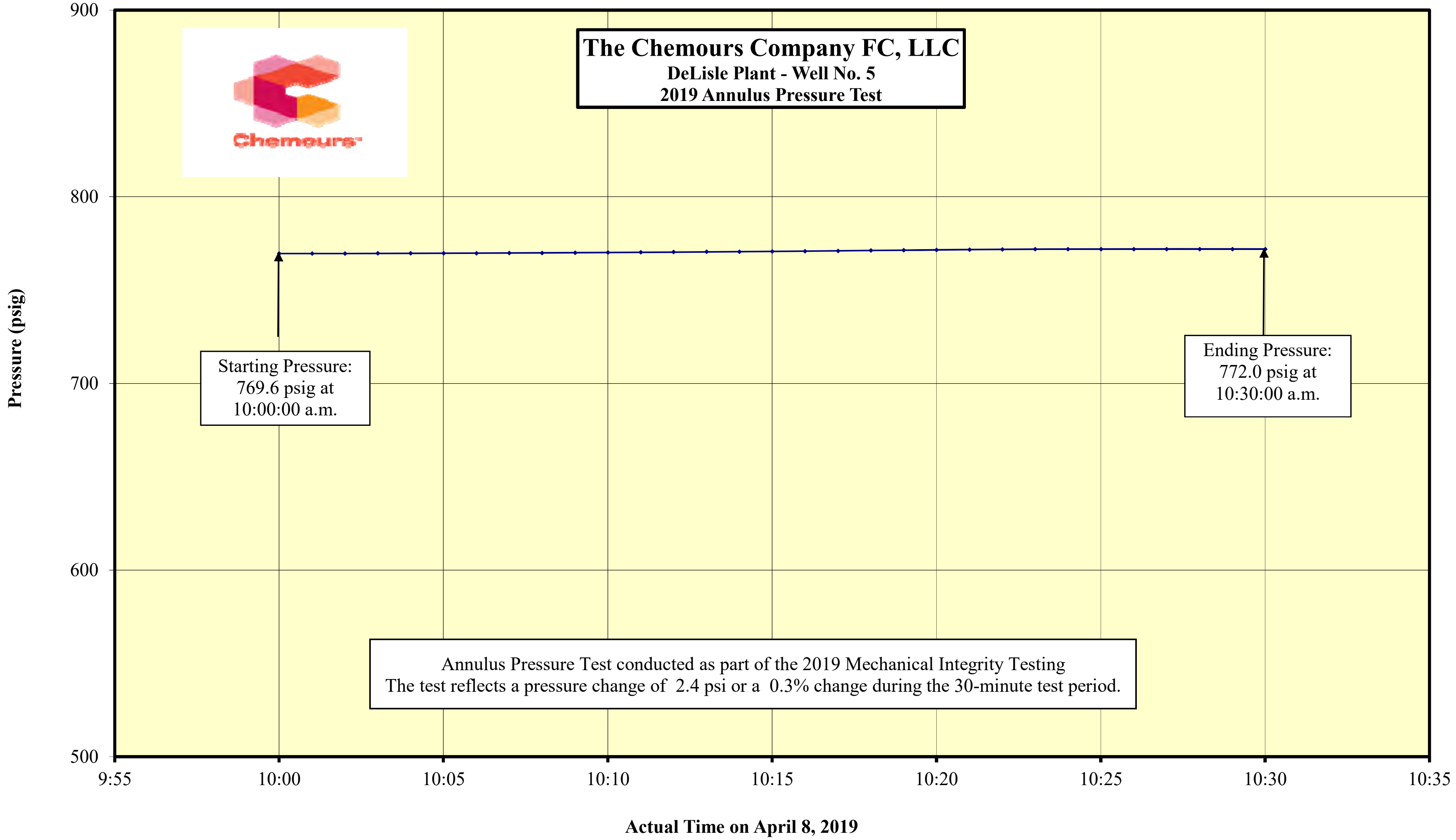
COASTAL WIRELINE SERVICES

POST GAMMA RAY LOG PASS

MERGED PASSES
INJECTION RATE 25 GPM AT 0 PSI

Database File	ddl4-19.db
Dataset Pathname	run3/_profile3_
Presentation Format	dd4m3-19
Dataset Creation	Thu Apr 11 12:32:56 2019
Charted by	Depth in Feet scaled 1:240

APPENDIX 7-7
PLANT WELL NO. 5 2019 ANNULUS PRESSURE TEST CHART



The Chemours Company FC, LLC
DeLisle Plant - Well No. 5
2019 Annulus Pressure Test

Starting Pressure:
769.6 psig at
10:00:00 a.m.

Ending Pressure:
772.0 psig at
10:30:00 a.m.

Annulus Pressure Test conducted as part of the 2019 Mechanical Integrity Testing
The test reflects a pressure change of 2.4 psi or a 0.3% change during the 30-minute test period.

The Chemours Company FC, LLC

DeLisle, MS Plant Well No. 5

Annulus Pressure Test

Gauge:	Plant Gauge
Model:	N/A
Serial Number:	N/A
Range:	N/A
Calibration Date:	N/A

Note: Injection Tubing was static at 0 psig.

	Date	Time	Pressure (psig)
Start Test	4/8/2019	10:00:00	769.6
	4/8/2019	10:01:00	769.6
	4/8/2019	10:02:00	769.6
	4/8/2019	10:03:00	769.7
	4/8/2019	10:04:00	769.7
	4/8/2019	10:05:00	769.8
	4/8/2019	10:06:00	769.8
	4/8/2019	10:07:00	769.9
	4/8/2019	10:08:00	769.9
	4/8/2019	10:09:00	770.0
	4/8/2019	10:10:00	770.1
	4/8/2019	10:11:00	770.3
	4/8/2019	10:12:00	770.4
	4/8/2019	10:13:00	770.5
	4/8/2019	10:14:00	770.6
	4/8/2019	10:15:00	770.7
	4/8/2019	10:16:00	770.9
	4/8/2019	10:17:00	771.0
	4/8/2019	10:18:00	771.2
	4/8/2019	10:19:00	771.4
	4/8/2019	10:20:00	771.5
	4/8/2019	10:21:00	771.7
	4/8/2019	10:22:00	771.8
	4/8/2019	10:23:00	772.0
	4/8/2019	10:24:00	772.0
	4/8/2019	10:25:00	772.0
	4/8/2019	10:26:00	772.0
	4/8/2019	10:27:00	772.0
	4/8/2019	10:28:00	772.0
	4/8/2019	10:29:00	772.0
End Test	4/8/2019	10:30:00	772.0

Date	Time	Pressure (psig)

APPENDIX 7-8
PLANT WELL NO. 5 2019 RADIOACTIVE TRACER LOG

COASTAL WIRELINE SERVICES, INC.

Chemours
Waste Disposal Well 5
DeLisle Facility
DeLisle, Mississippi
April 8, 2019

RADIOACTIVE TRACER SURVEY

The two phases of this test included; 1) determining the flow through and from the tubing by ejecting a slug of radioactive material (Iodine-131 10mci) and monitoring the flow profile as it moves down the tubing and into the formation. 2) Testing the mechanical integrity of the casing, cement, and formation bond by positioning gamma-ray detector slightly above the point where the formation accepts fluid and monitoring the gamma radiation response from an ejected slug of radioactive material. A baseline gamma-ray log was run from 9,986 feet to 9,000 feet (692 feet above top of packer assembly). The injection rate was 28 and 27 gpm for the profile runs and 300 gpm for the time drive surveys.

The first phase of this test incorporates the injection of radioactive slug at 9,400 feet (292 feet above top of packer assembly) and passing the detector through the radioactive material until it passes from the tubing and into the formation. The first slug gave an indication of leaving the packer at 9,692 feet and going into the formation below 9,761 feet. Made five (5) passes and chased slug down to 9,986 feet. This portion of this test was repeated with four (4) passes and slug chased down to 9,986 feet. Profile survey indicates that all fluid is going into injection interval at this time. No indication of any fluid migrating up hole behind pipe above 9,761 feet.

The second phase of this test involved setting lower detector at 9,741 feet (20 feet above casing shoe) and ejecting a slug at 9,730 feet and recorded on stationary time drive for twenty one (21) minutes with an injection rate of 300 gpm. This test was repeated same at 9,741 feet and rate of 300 gpm. Time drive survey indicates no fluid migrating up hole behind pipe above 9,741 feet at this time

.

RADIOACTIVE TRACER SURVEY CONTINUE

A post gamma ray log was ran from 9,986 feet to 9,000 feet and compared to original base gamma ray log which indicated no residue of radioactive material above 9,761 feet.

Radioactive Tracer Survey was conducted by Stoney Johnson (Coastal Wireline Services Inc.) and witnessed by Mr. Steven Henry (Sandia Technologies, LLC) and Mr. Jimmy Sparks (M.D.E.Q.).

Sincerely

Stoney Johnson
Engineer C.W.S.

COASTAL WIRELINE SERVICES

RADIOACTIVE TRACER SURVEY MECHANICAL INTEGRITY TEST

Company CHEMOURS
Well PLANT WELL # 5
Field DELISLE FACILITY
County HARRISON
State MISSISSIPPI Country U.S.A.

Company CHEMOURS
Well PLANT WELL # 5
Field DELISLE FACILITY
County HARRISON
State MISSISSIPPI Country U.S.A.

Location: API #:
N/A
SEC TWP RGE

Other Services
NONE

Permanent Datum GROUND LEVEL Elevation 33'
Log Measured From 31'
Drilling Measured From KELLY BUSHING

Elevation
K.B. 64'
D.F. 63'
G.L. 33'

Date	4/8/2019
Run Number	ONE
Depth Driller	10022'
Depth Logger	9987'
Bottom Logged Interval	9986'
Top Log Interval	9000'
Open Hole Size	N/A
Type Fluid	KCL BRINE
Density / Viscosity	N/A
Max. Recorded Temp.	N/A
Estimated Cement Top	SURFACE
Time Well Ready	9:00
Time Logger on Bottom	13:30
Equipment Number	P-104
Location	PEARLAND
Recorded By	S. JOHNSON
Witnessed By	MR. S. HENRY MR. SPARKS

Borehole Record			Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Run Number	Bit	From	To	Size	Weight	From	To
				6 5/8"	TITANIUM	0'	32'
				6 5/8"	RB 2500	32'	9453'
				4 1/2"	TITANIUM	9453'	9691'

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	13 3/8"	68	0	3440'
Prot. String	9 5/8"	43.5-53.5	0	9586'
Production String				
Liner				
Retrievable Liner				

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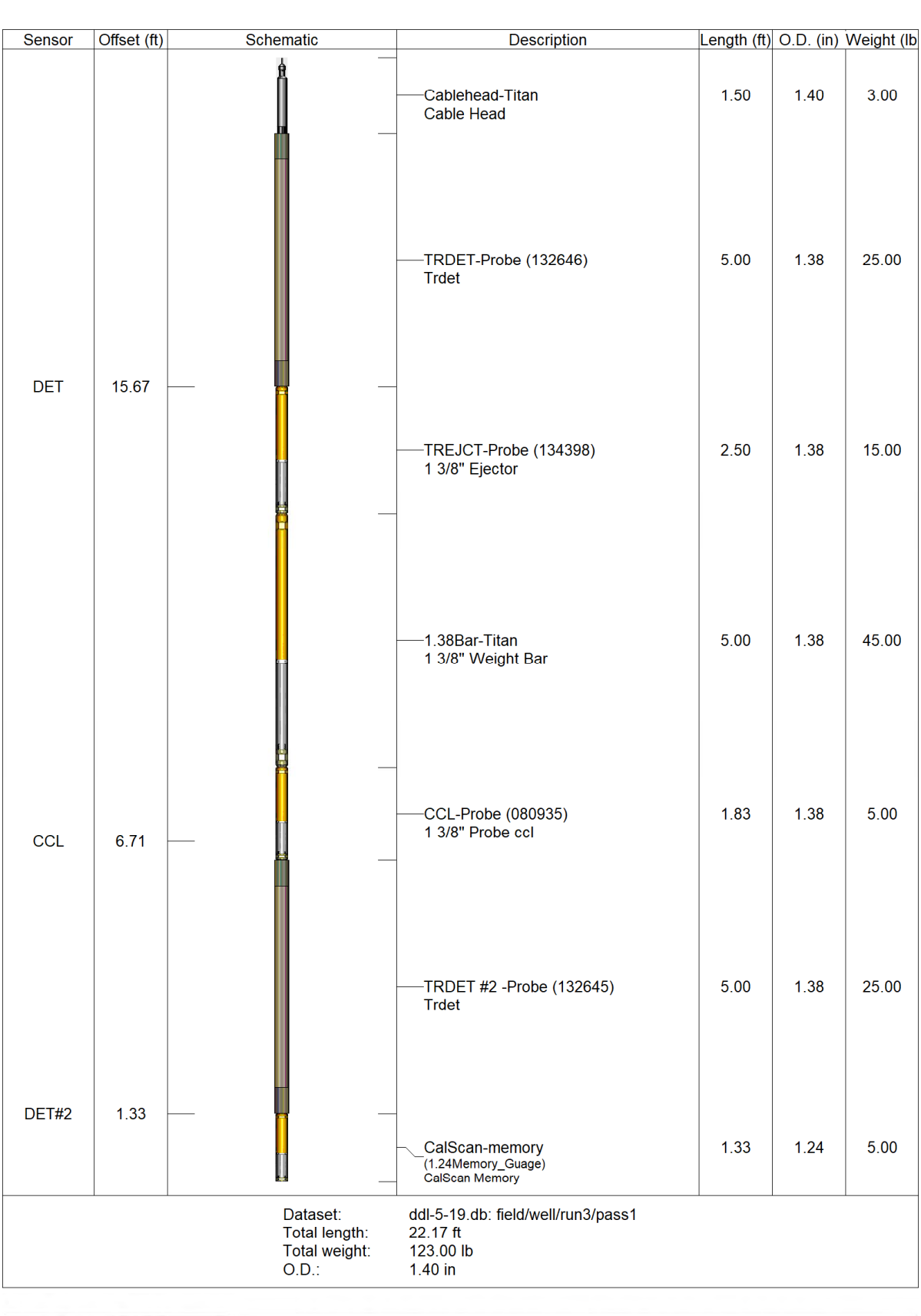
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

RADIOACTIVE TRACER SURVEY INDICATES THAT ALL FLUID IS GOING INTO INJECTION INTERVAL AT THIS TIME. NO INDICATION OF ANY FLUID MIGRATING UP HOLE BEHIND CASING ABOVE 9760'



Sensor	Offset (ft)	Description	Length (ft)	O.D. (in)	Weight (lb)
		Cablehead-Titan Cable Head	1.50	1.40	3.00
		TRDET-Probe (132646) Trdet	5.00	1.38	25.00
DET	15.67				
		TREJCT-Probe (134398) 1 3/8" Ejector	2.50	1.38	15.00
		1.38Bar-Titan 1 3/8" Weight Bar	5.00	1.38	45.00
CCL	6.71	CCL-Probe (080935) 1 3/8" Probe ccl	1.83	1.38	5.00
		TRDET #2 -Probe (132645) Trdet	5.00	1.38	25.00
DET#2	1.33	CalScan-memory (1.24Memory_Guage) CalScan Memory	1.33	1.24	5.00

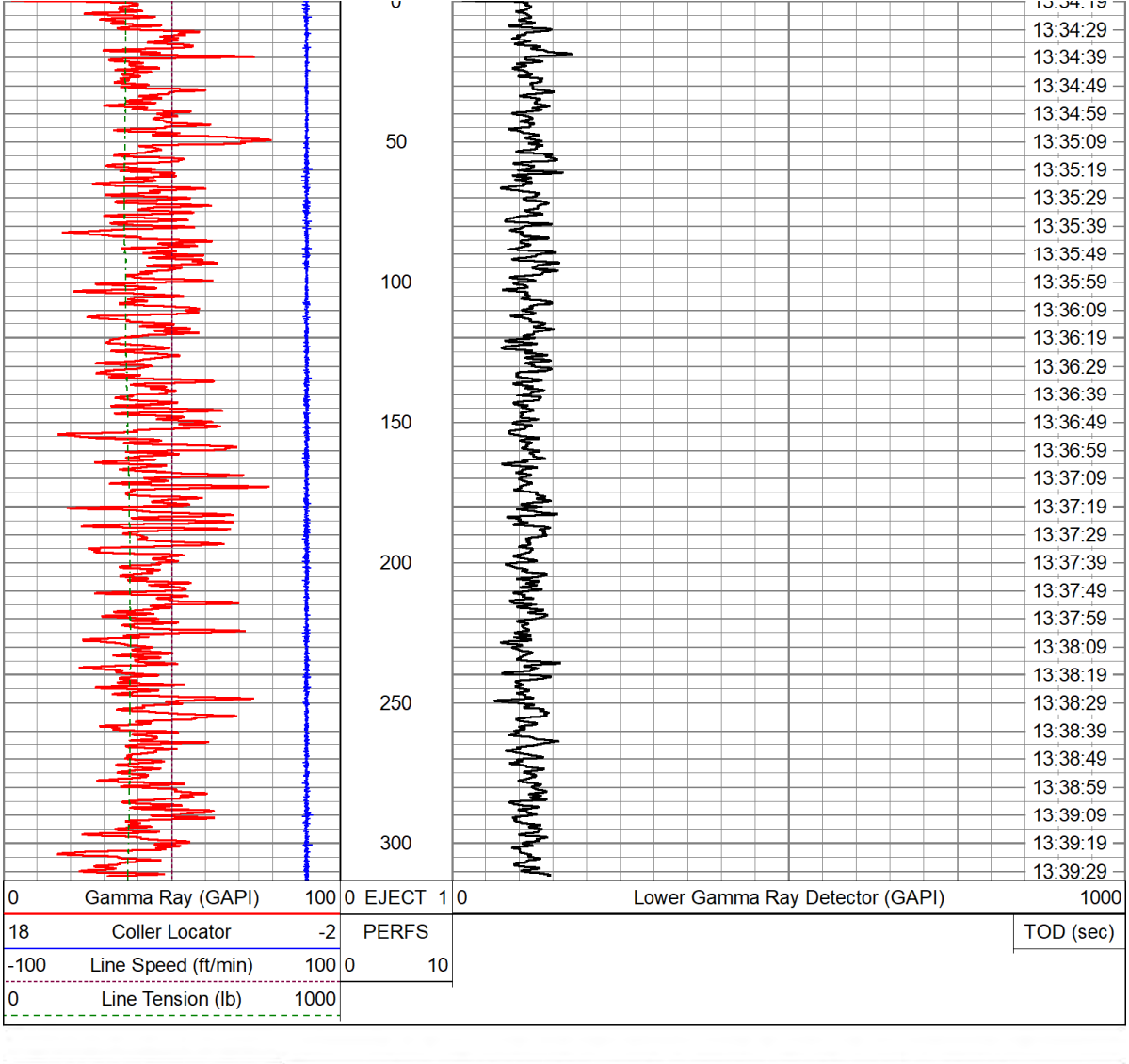
Dataset: ddl-5-19.db: field/well/run3/pass1
Total length: 22.17 ft
Total weight: 123.00 lb
O.D.: 1.40 in

COASTAL WIRELINE SERVICES

STATISTICAL CHECK ABOVE TOP OF PACKER

UPPER DETECTOR AT 9653' LOWER DETECTOR AT 9670'
INJECTION RATE 28 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run2/pass1
Presentation Format	tracer
Dataset Creation	Mon Apr 08 13:34:19 2019
Charted by	Time scaled 72/hour

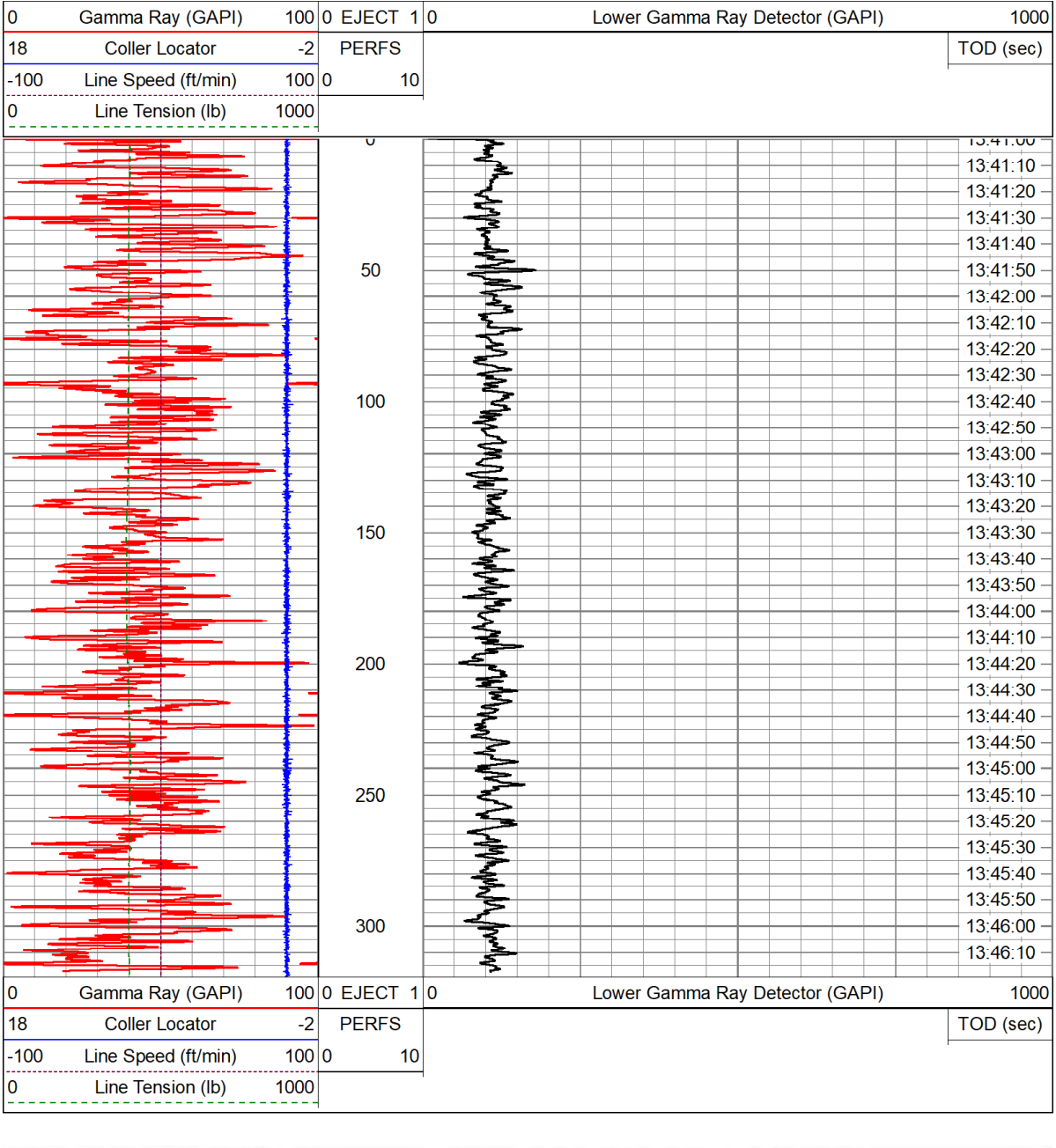


COASTAL WIRELINE SERVICES

STATISTICAL CHECK ABOVE CASING SHOE

UPPER DETECTOR AT 9724' LOWER DETECTOR AT 9741'
INJECTION RATE 28 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run2/pass2
Presentation Format	tracer
Dataset Creation	Mon Apr 08 13:41:00 2019
Charted by	Time scaled 72/hour

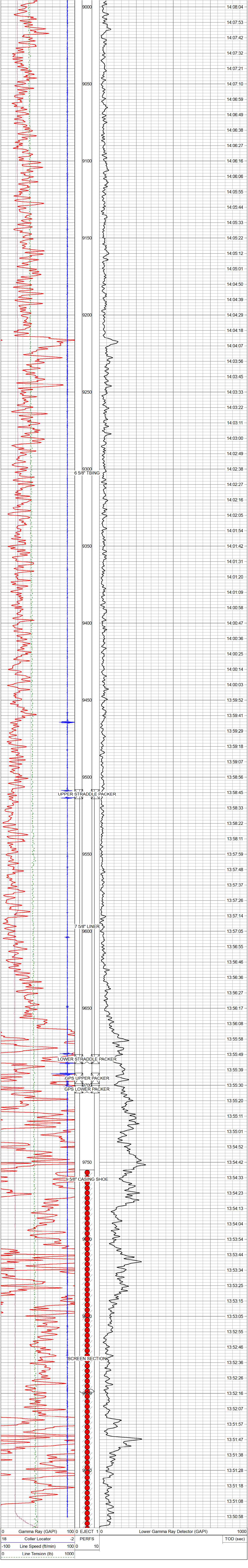


COASTAL WIRELINE SERVICES

BASE GAMMA RAY LOG PASS

INJECTION RATE 28 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/pass1
Presentation Format	tracer
Dataset Creation	Mon Apr 08 13:50:46 2019
Charted by	Depth in Feet scaled 1:240

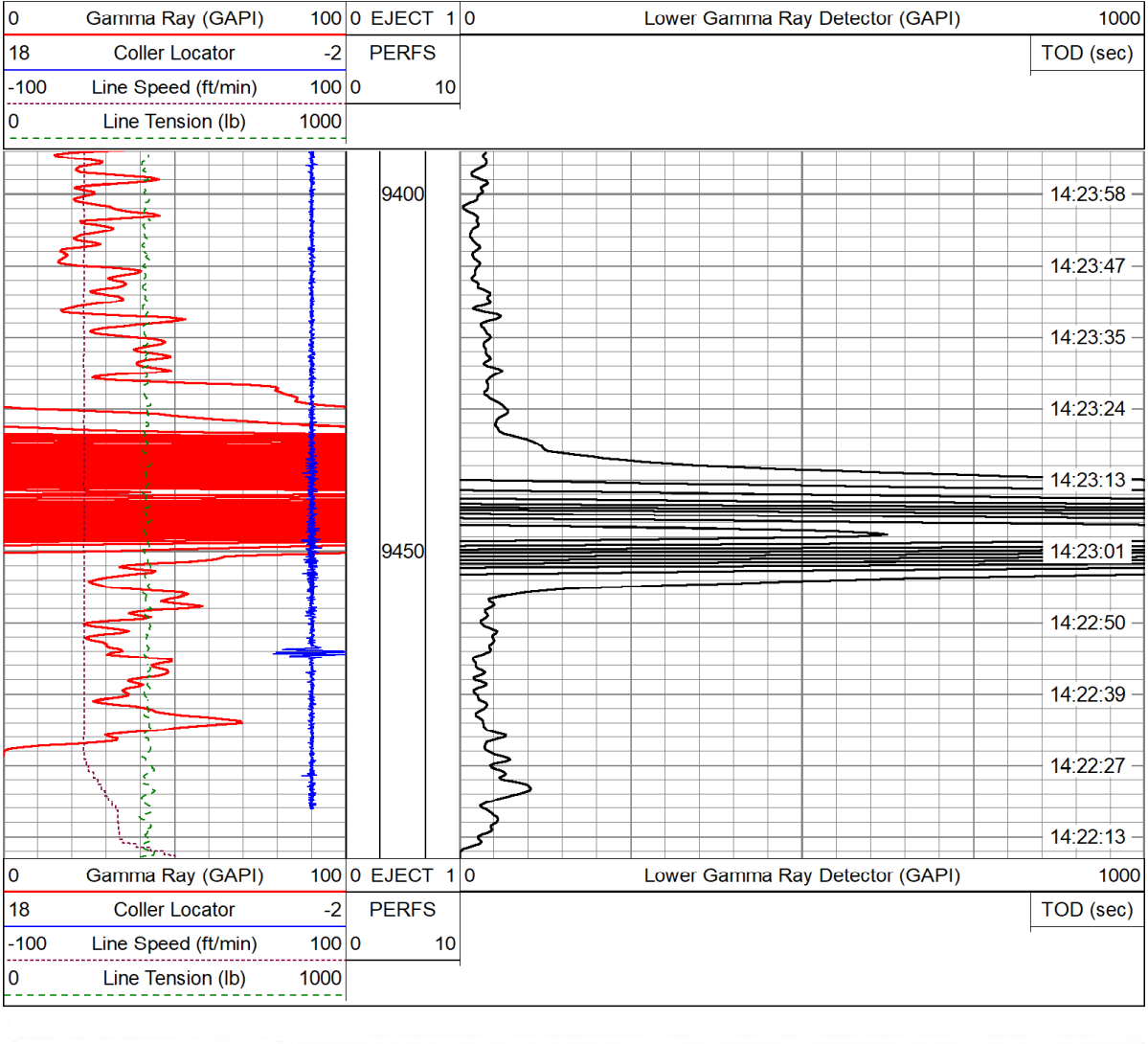


COASTAL WIRELINE SERVICES

PASS # 1 ON SLUG # 1 EJECTED AT 9400' AT 14:21

PEAK AT 9448' AT 14:23:03
INJECTION RATE 28 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/pass2
Presentation Format	tracer
Dataset Creation	Mon Apr 08 14:22:08 2019
Charted by	Depth in Feet scaled 1:240

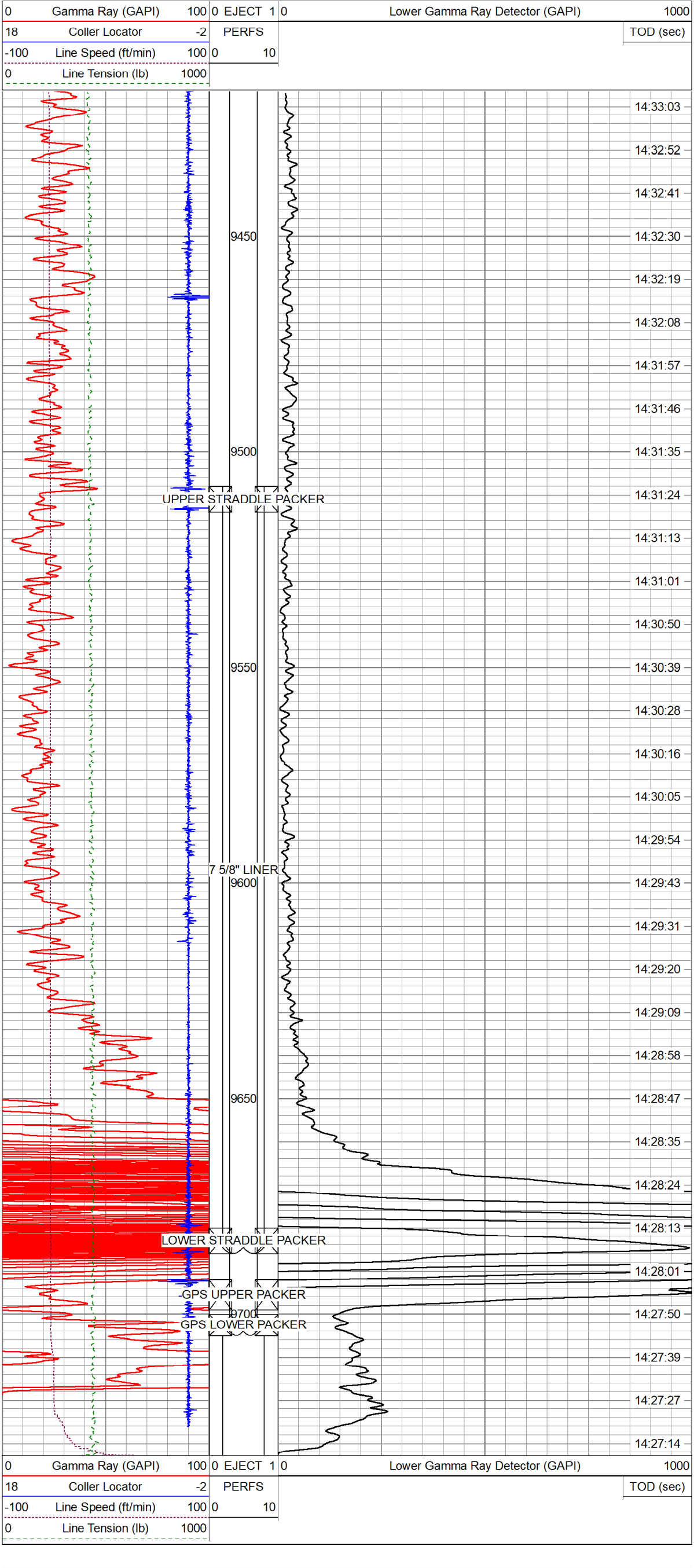


COASTAL WIRELINE SERVICES

PASS # 2 ON SLUG # 1 EJECTED AT 9400' AT 14:21

PEAK AT 9685' AT 14:28:06
INJECTION RATE 28 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/pass3
Presentation Format	tracer
Dataset Creation	Mon Apr 08 14:27:07 2019
Charted by	Depth in Feet scaled 1:240

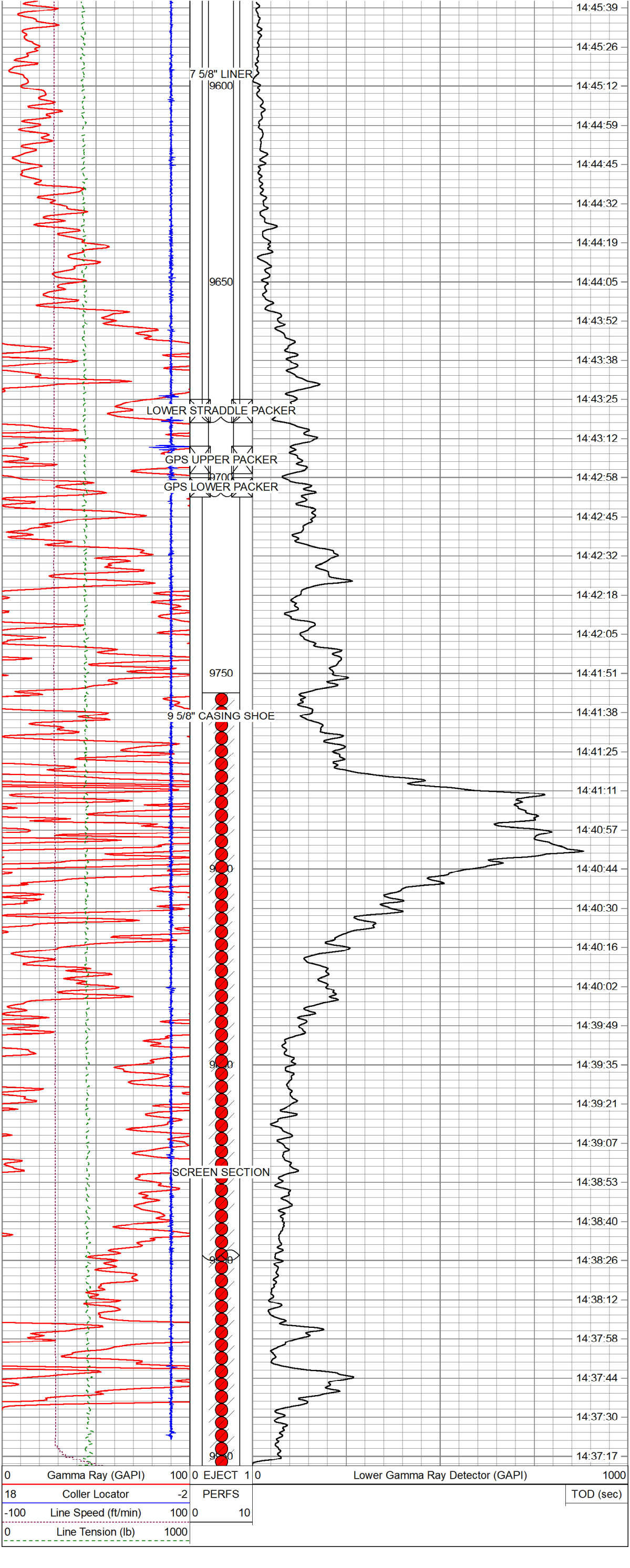


COASTAL WIRELINE SERVICES

PASS # 3 ON SLUG # 1 EJECTED AT 9400' AT 14:21

PEAK AT 9796' AT 14:40:48
INJECTION RATE 28 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/pass4
Presentation Format	tracer
Dataset Creation	Mon Apr 08 14:37:11 2019
Charted by	Depth in Feet scaled 1:240

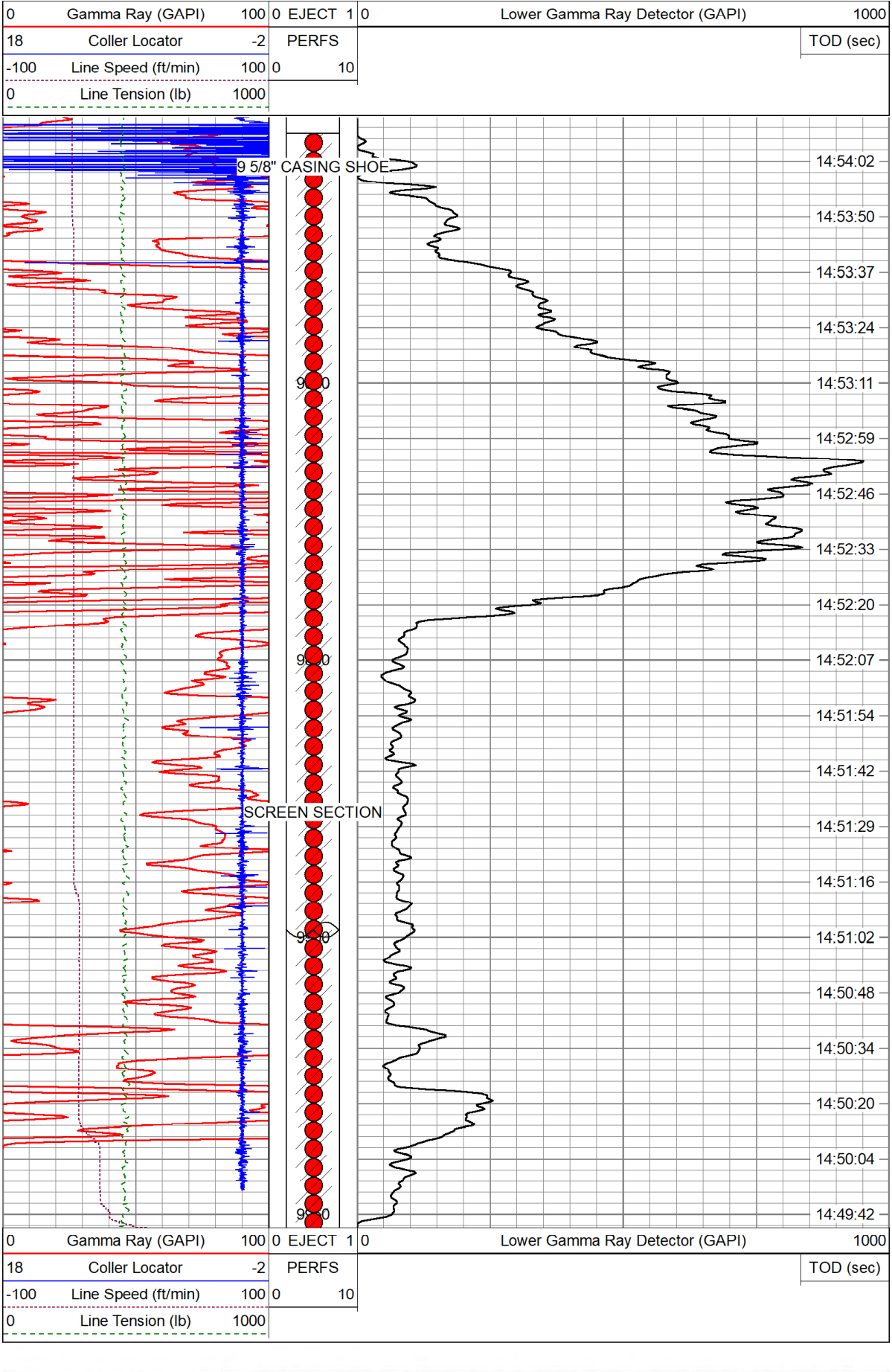


COASTAL WIRELINE SERVICES

PASS # 4 ON SLUG # 1 EJECTED AT 9400' AT 14:21

PEAK AT 9814' AT 14:52:55
INJECTION RATE 28 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/pass5
Presentation Format	tracer
Dataset Creation	Mon Apr 08 14:49:33 2019
Charted by	Depth in Feet scaled 1:240

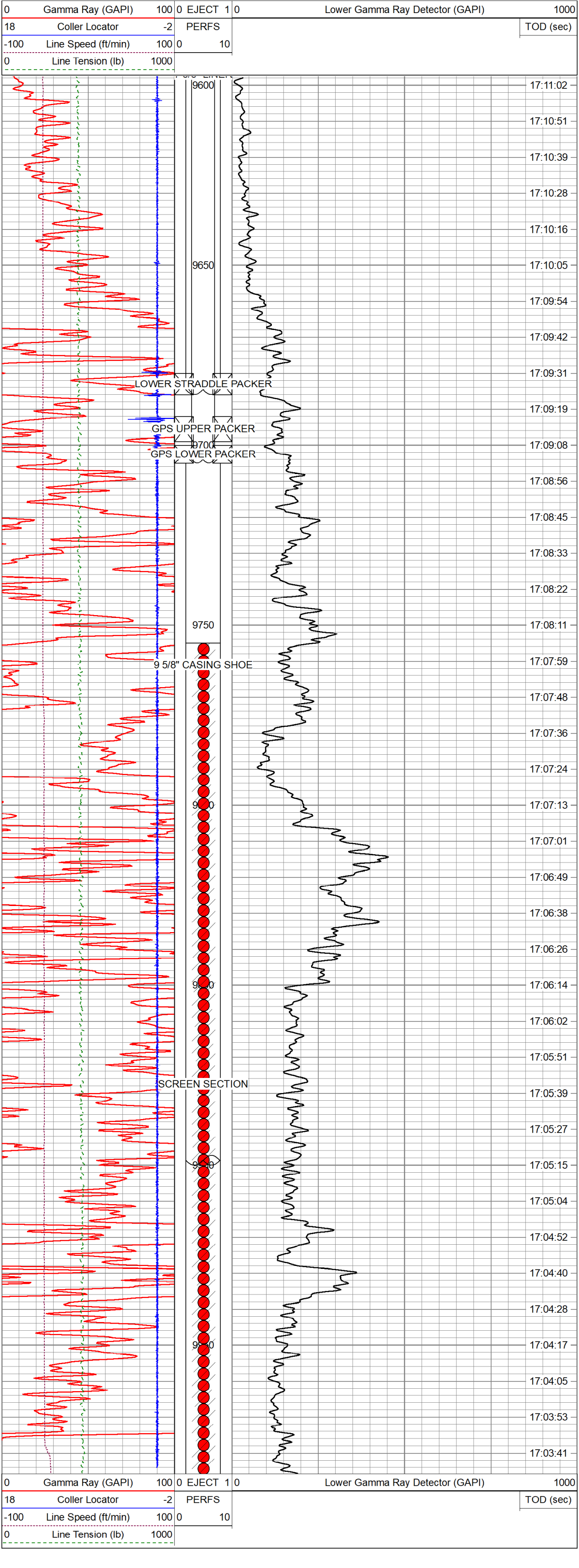


COASTAL WIRELINE SERVICES

PASS # 5 ON SLUG # 1 EJECTED AT 9400' AT 14:21

SLUG DISSIPATING BELOW 9761'
INJECTION RATE 37 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/pass6
Presentation Format	tracer
Dataset Creation	Mon Apr 08 17:03:24 2019
Charted by	Depth in Feet scaled 1:240

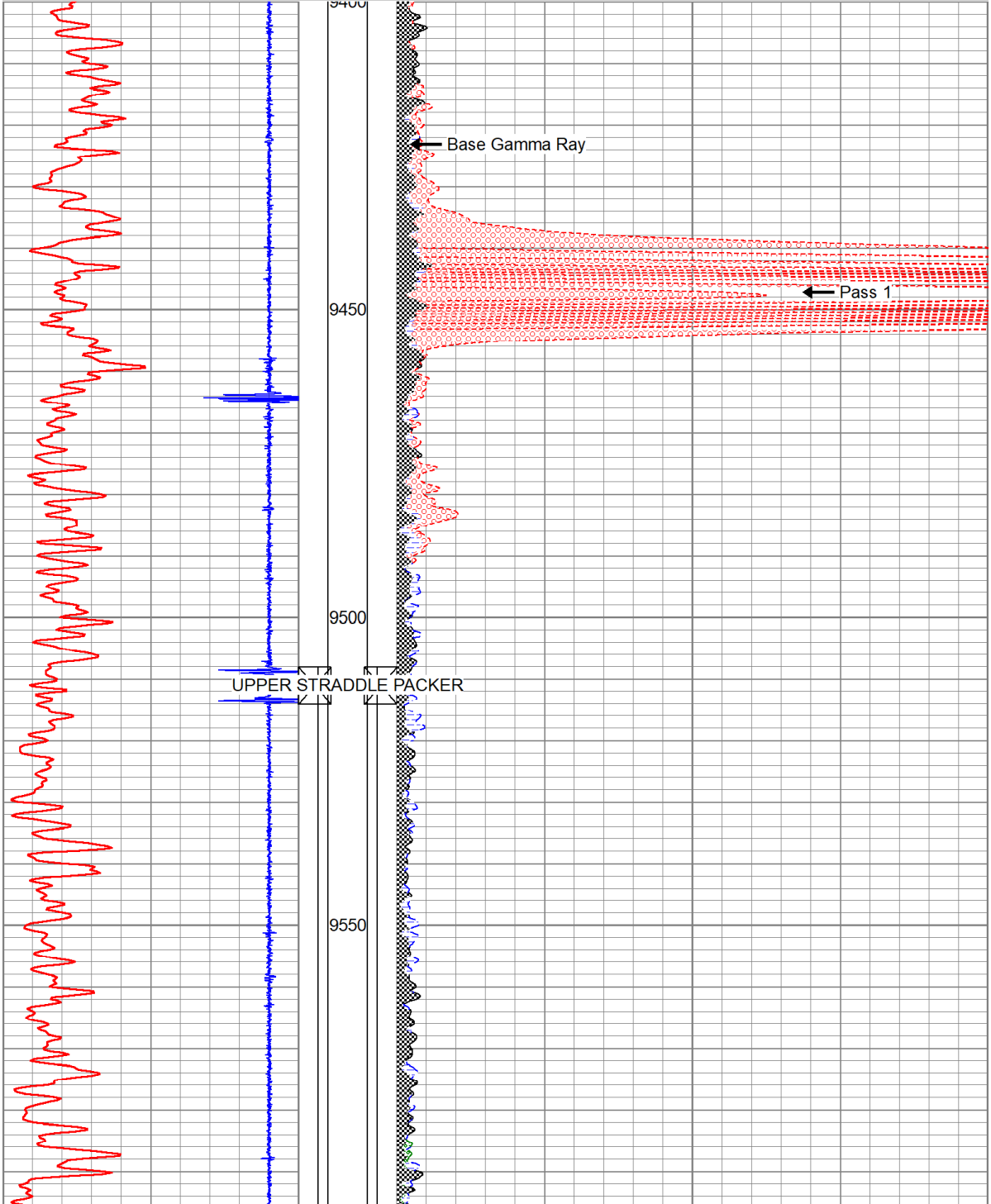


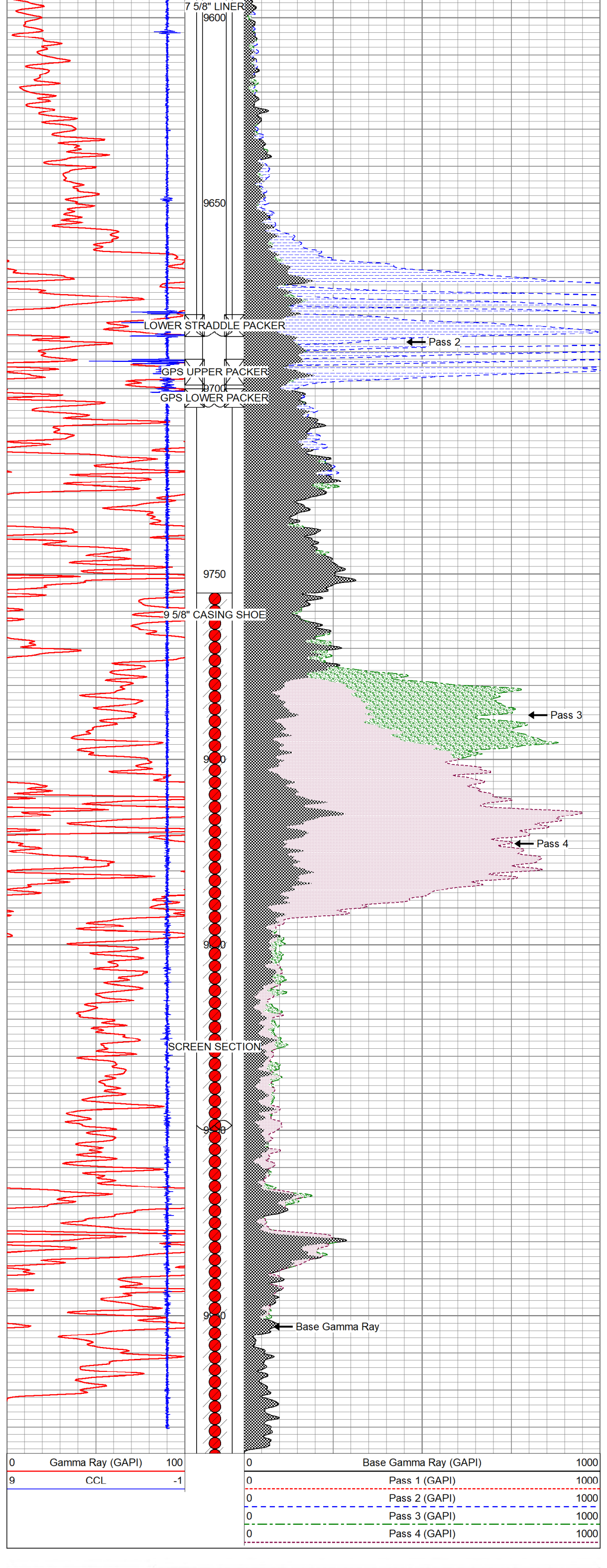
COASTAL WIRELINE SERVICES

MERGED PASSES ON SLUG # 1 EJECTED AT 9400'

MADE 5 PASSES AND CHASED SLUG BELOW CASING SHOE
INJECTION RATE 28 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/_profile1_
Presentation Format	dd5m1-19
Dataset Creation	Wed Apr 10 14:30:30 2019
Charted by	Depth in Feet scaled 1:240



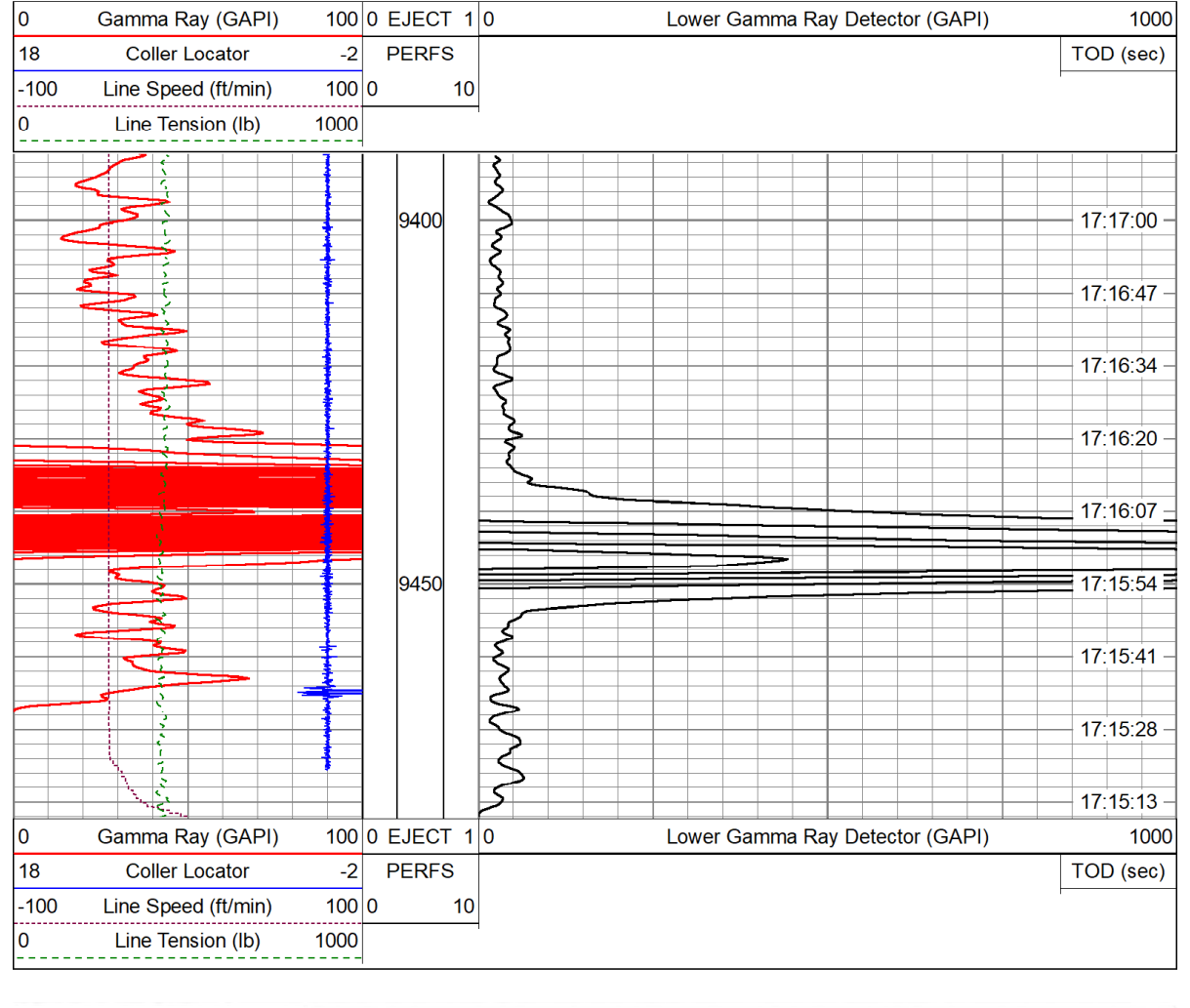


COASTAL WIRELINE SERVICES

PASS # 1 ON SLUG # 2 EJECTED AT 9400' AT 17:14

PEAK AT 9446' AT 17:15:58
INJECTION RATE 27 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/pass7
Presentation Format	tracer
Dataset Creation	Mon Apr 08 17:15:09 2019
Charted by	Depth in Feet scaled 1:240

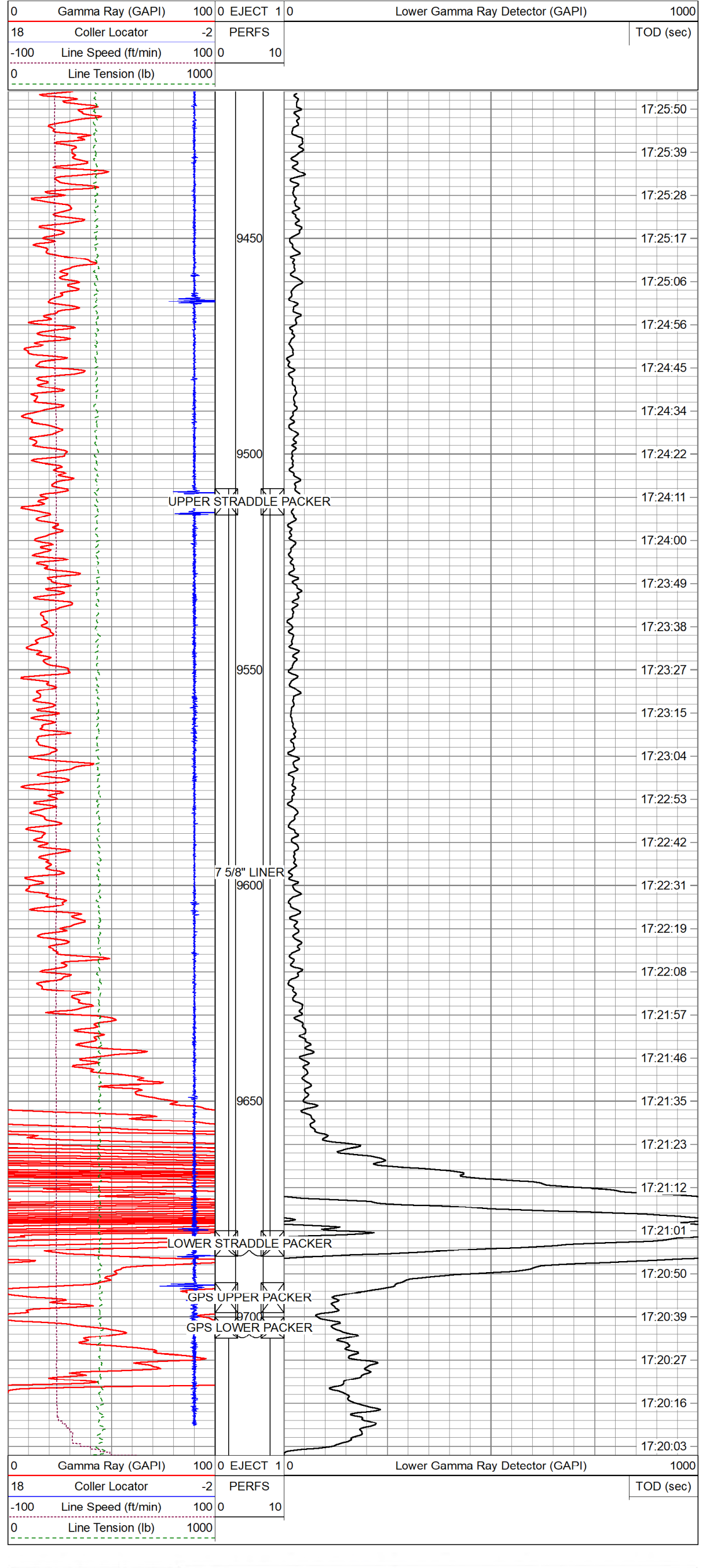


COASTAL WIRELINE SERVICES

PASS # 2 ON SLUG # 2 EJECTED AT 9400' AT 17:14

PEAK AT 9680' AT 17:21:01
INJECTION RATE 27 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/pass8
Presentation Format	tracer
Dataset Creation	Mon Apr 08 17:19:58 2019
Charted by	Depth in Feet scaled 1:240

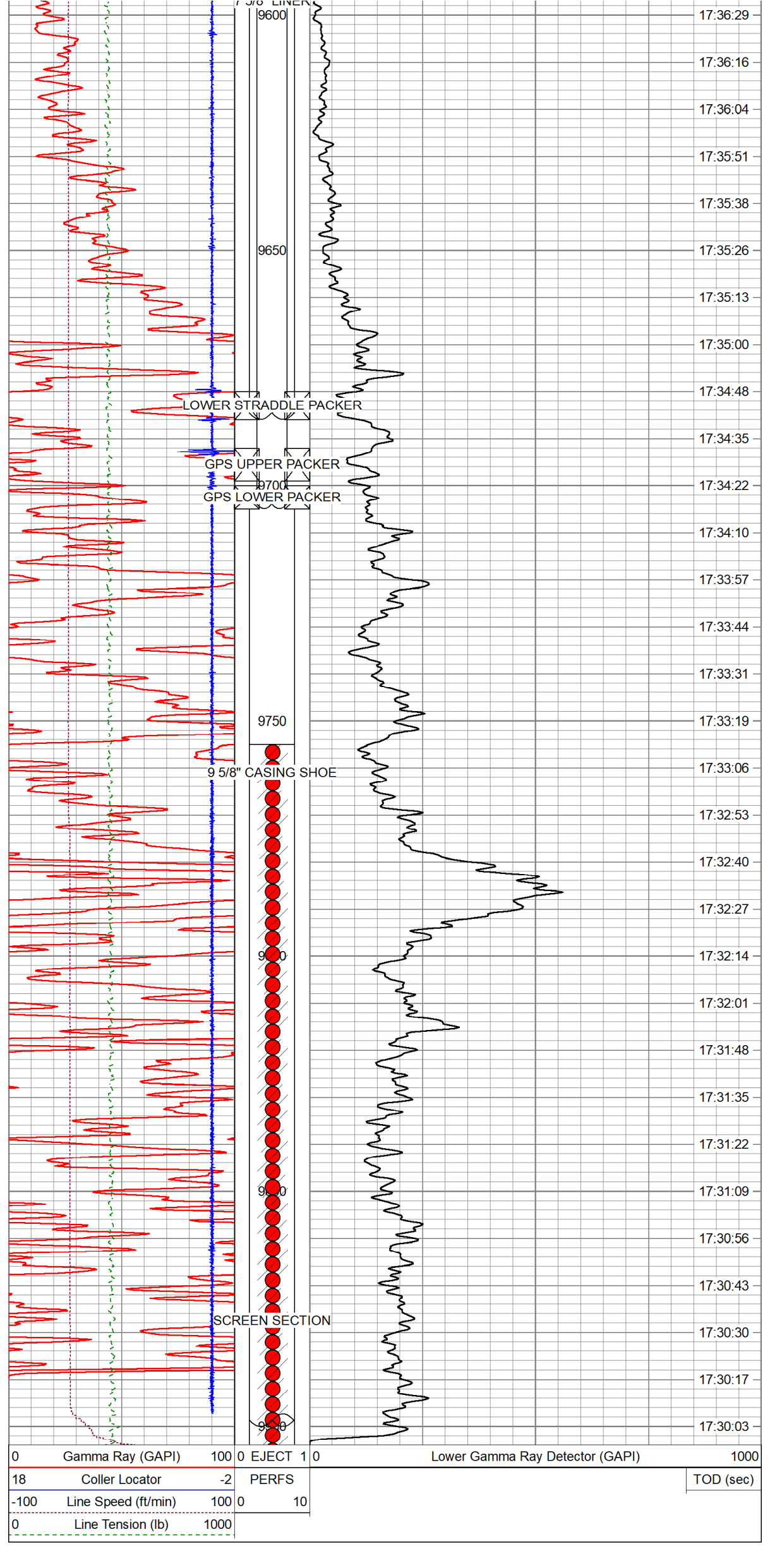


COASTAL WIRELINE SERVICES

PASS # 3 ON SLUG # 2 EJECTED AT 9400' AT 17:14

PEAK AT 9786' AT 17:32:31
INJECTION RATE 27 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/pass9
Presentation Format	tracer
Dataset Creation	Mon Apr 08 17:29:55 2019
Charted by	Depth in Feet scaled 1:240

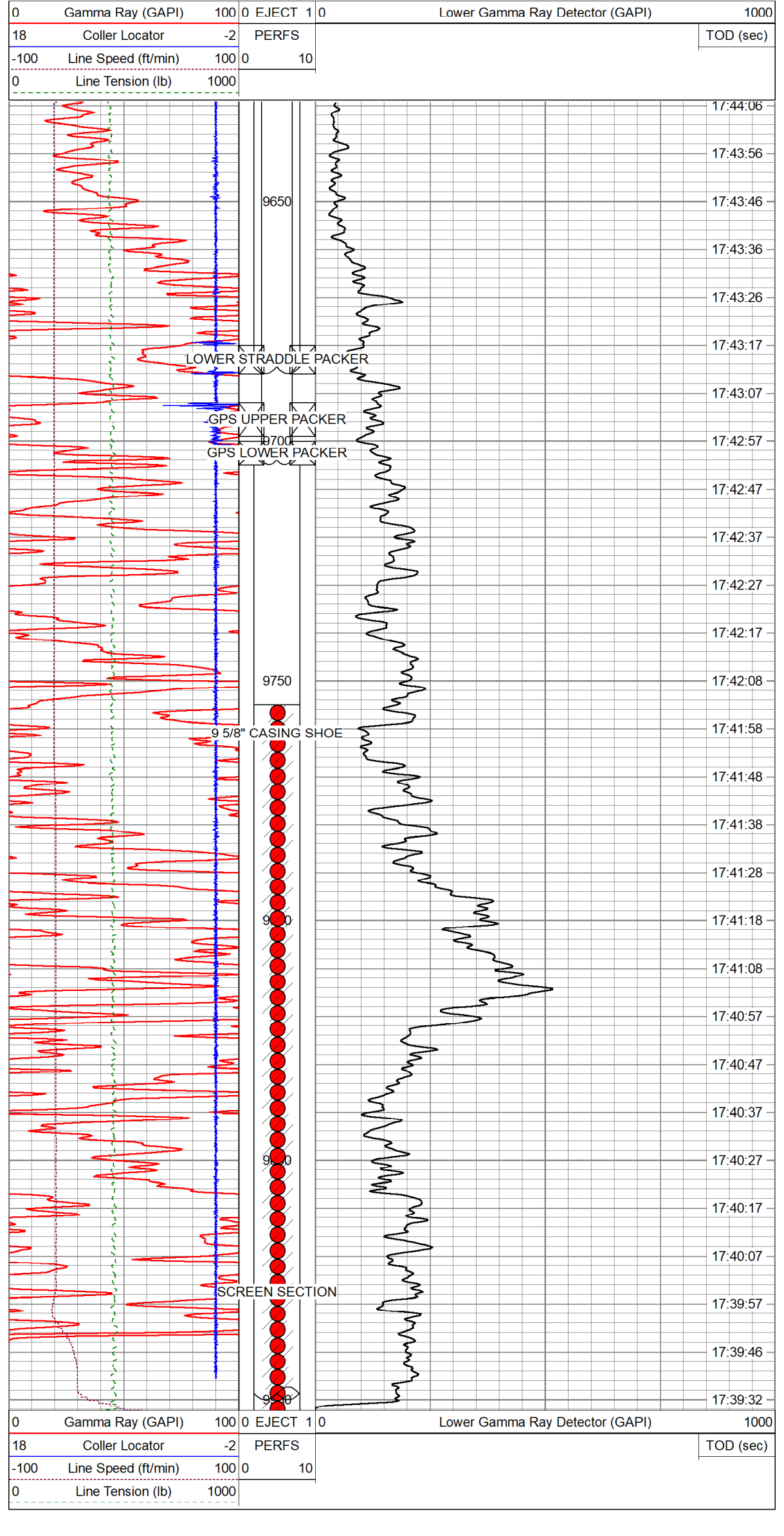


COASTAL WIRELINE SERVICES

PASS # 4 ON SLUG # 2 EJECTED AT 9400' AT 17:14

SLUG DISSIPATING BELOW 9761'
INJECTION RATE 27 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/pass10
Presentation Format	tracer
Dataset Creation	Mon Apr 08 17:39:27 2019
Charted by	Depth in Feet scaled 1:240

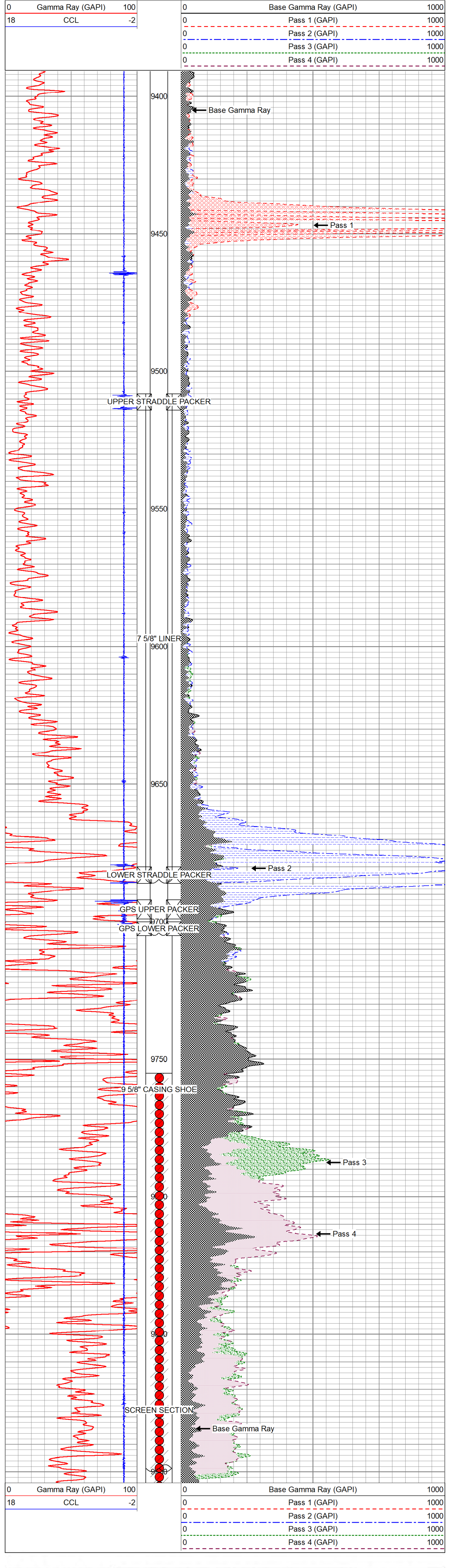


COASTAL WIRELINE SERVICES

MERGED PASSES ON SLUG # 2 EJECTED AT 9400'

MADE 4 PASSES AND CHASED SLUG DOWN BELOW CASING SHOE
INJECTION RATE 28 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/_profile3_
Presentation Format	dd5m2-19
Dataset Creation	Thu Apr 11 07:14:20 2019
Charted by	Depth in Feet scaled 1:240

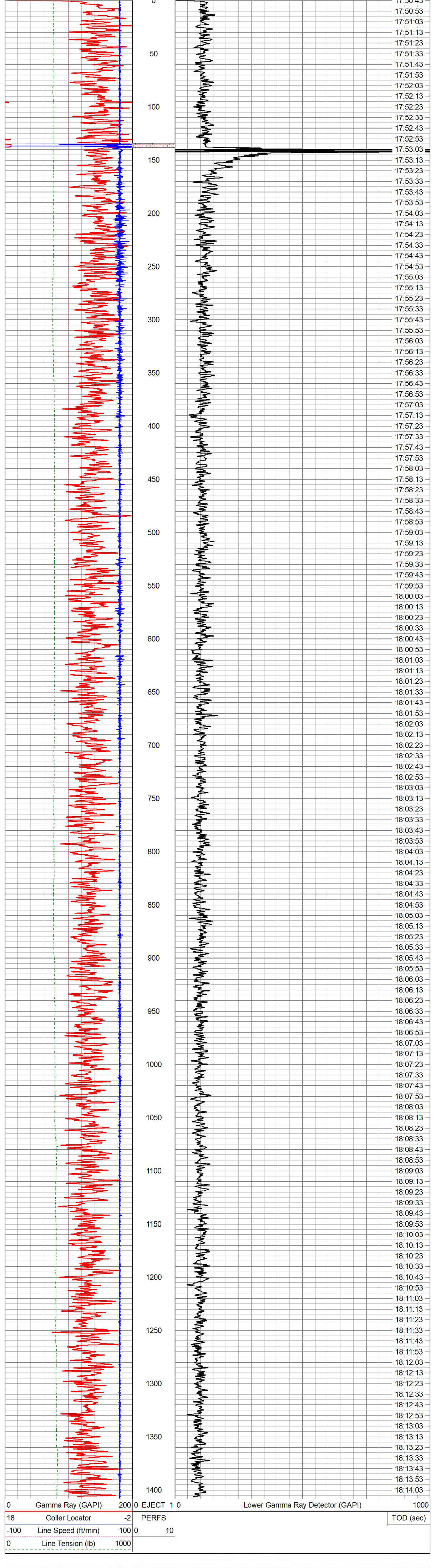


COASTAL WIRELINE SERVICES

EJECTED AT 9730' AT 17:53 FOR TIME DRIVE # 1

UPPER DETECTOR AT 9724' LOWER DETECTOR AT 9741'
INJECTION RATE 300 GOM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run2/pass3
Presentation Format	tracer
Dataset Creation	Mon Apr 08 17:50:43 2019
Charted by	Time scaled 72/hour

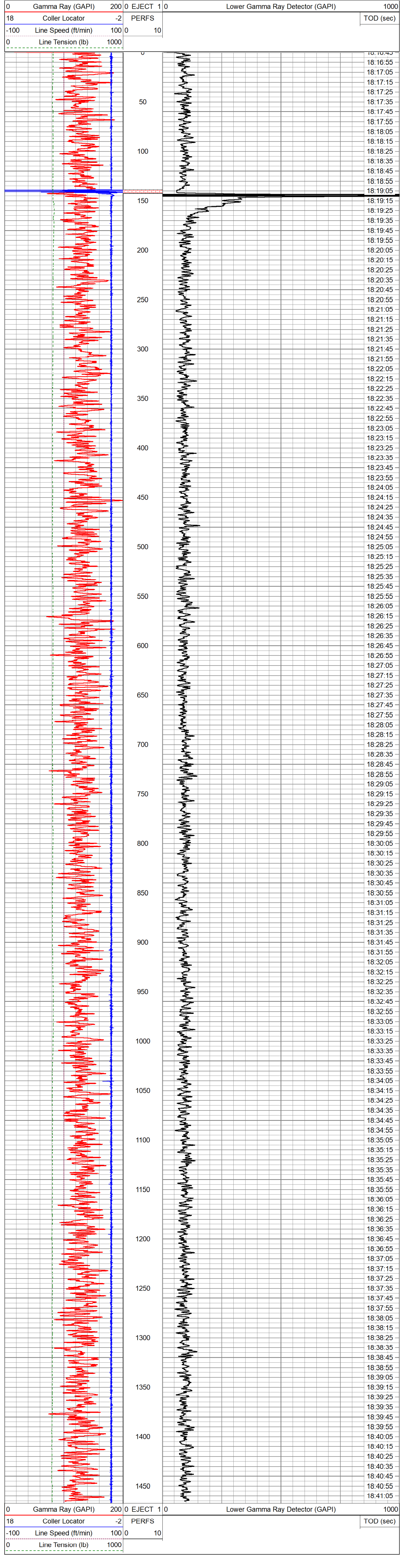


COASTAL WIRELINE SERVICES

EJECTED AT 9730' AT 18:19 FOR TIME DRIVE # 2

UPPER DETECTOR AT 9725' LOWER DETECTOR AT 9741'
INJECTION RATE 300 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run2/pass4
Presentation Format	tracer
Dataset Creation	Mon Apr 08 18:16:45 2019
Charted by	Time scaled 72/hour

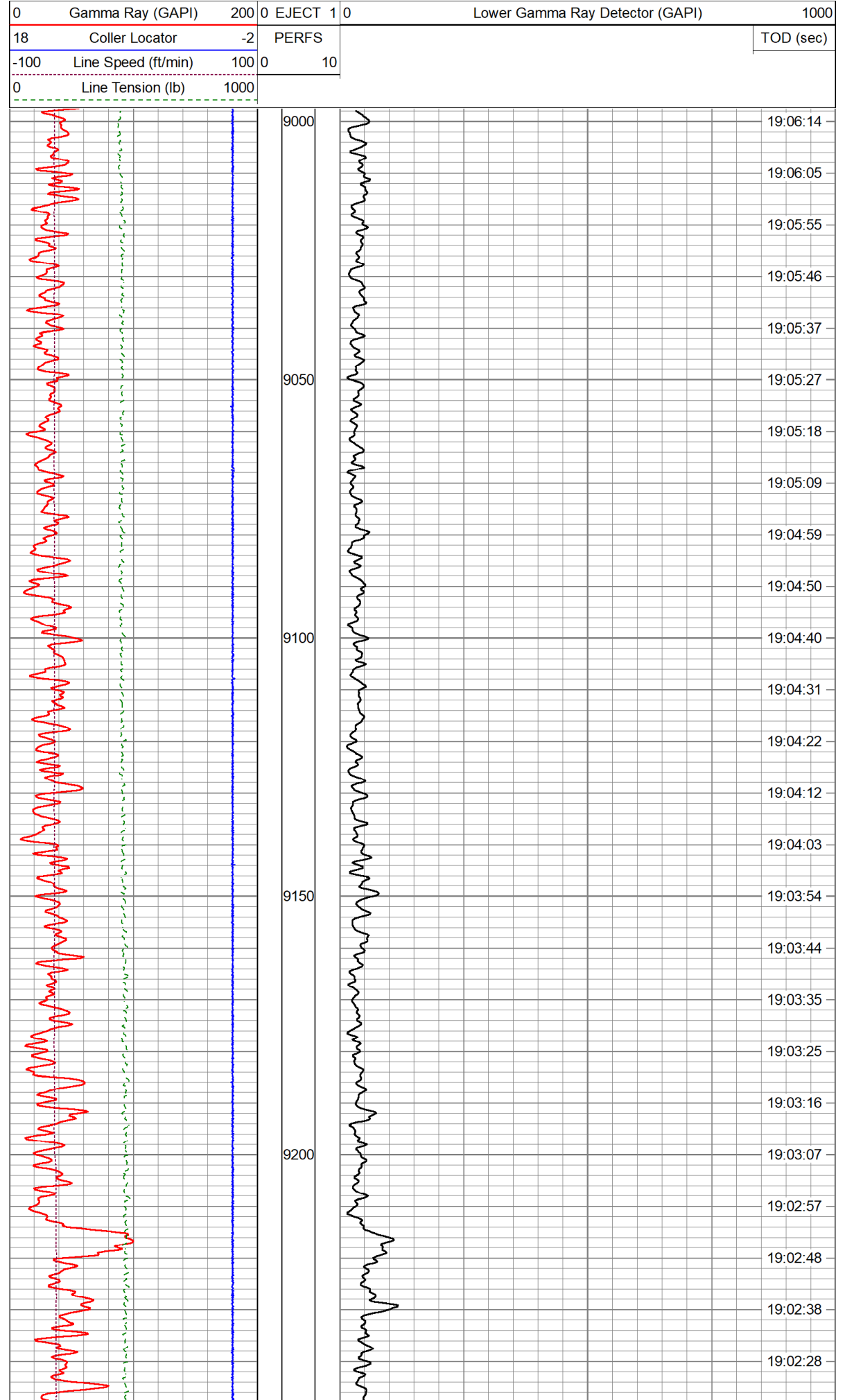


COASTAL WIRELINE SERVICES

POST GAMMA RAY LOG PASS

INJECTION RATE 34 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/pass11
Presentation Format	tracer
Dataset Creation	Mon Apr 08 18:48:16 2019
Charted by	Depth in Feet scaled 1:240



0 Gamma Ray (GAPI) 200	0 EJECT 1	0 Lower Gamma Ray Detector (GAPI) 1000
18 Coller Locator -2	PERFS	TOD (sec)
-100 Line Speed (ft/min) 100	0 10	
0 Line Tension (lb) 1000		

COASTAL WIRELINE SERVICES

POST GAMMA RAY LOG PASS

MERGED PASSES
INJECTION RATE 34 GPM AT 0 PSI

Database File	ddl-5-19.db
Dataset Pathname	run3/_profile4_
Presentation Format	dd5m3-19
Dataset Creation	Thu Apr 11 07:44:48 2019
Charted by	Depth in Feet scaled 1:240

0 Gamma Ray (GAPI) 100	0 Base Gamma Ray (GAPI) 1000
18 CCL -2	0 Post Gamma Ray (GAPI) 1000

0 Gamma Ray (GAPI) 100	0 Base Gamma Ray (GAPI) 1000
18 CCL -2	0 Post Gamma Ray (GAPI) 1000