



POST-STIMULATION REPORT

Northeast Natural Energy, LLC

Bogges 13H (Stages 1-55)

Marcellus Shale Formation

Monongalia County, WV

Treatment Dates: 09/01/2019 – 09/18/2019

Treatment Type: Slickwater

Service District: Zanesville, OH

Prepared For:

Criss VanGilder

Completions Manager

Northeast Natural Energy, LLC

48 Donley Street, Suite 601

Morgantown, WV 26501

Prepared By:

Cole Bernstiel

District Field Engineer

109 S. Graham St

Zanesville, OH 43701

cbernstiel@producerservicecorp.com

A 100% employee owned company



OPERATIONAL SUMMARY

PSC appreciates the opportunity to complete the stimulation of the Boggess 13H well. 55 Stages were completed from September 1st, 2019 to September 18th, 2019. Average treating pressure was 8,534 psi at an average rate of 83.2 bpm. Average pump time was 1 hour and 53 minutes. 16,394,600 lbs of 100 mesh sand and 5,473,460 lbs of 40/70 sand was placed for a total of 21,868,060 lbs which is 99% of the designed volume. 32,000 gal of 7.5% HCl was utilized during the stimulation treatment.

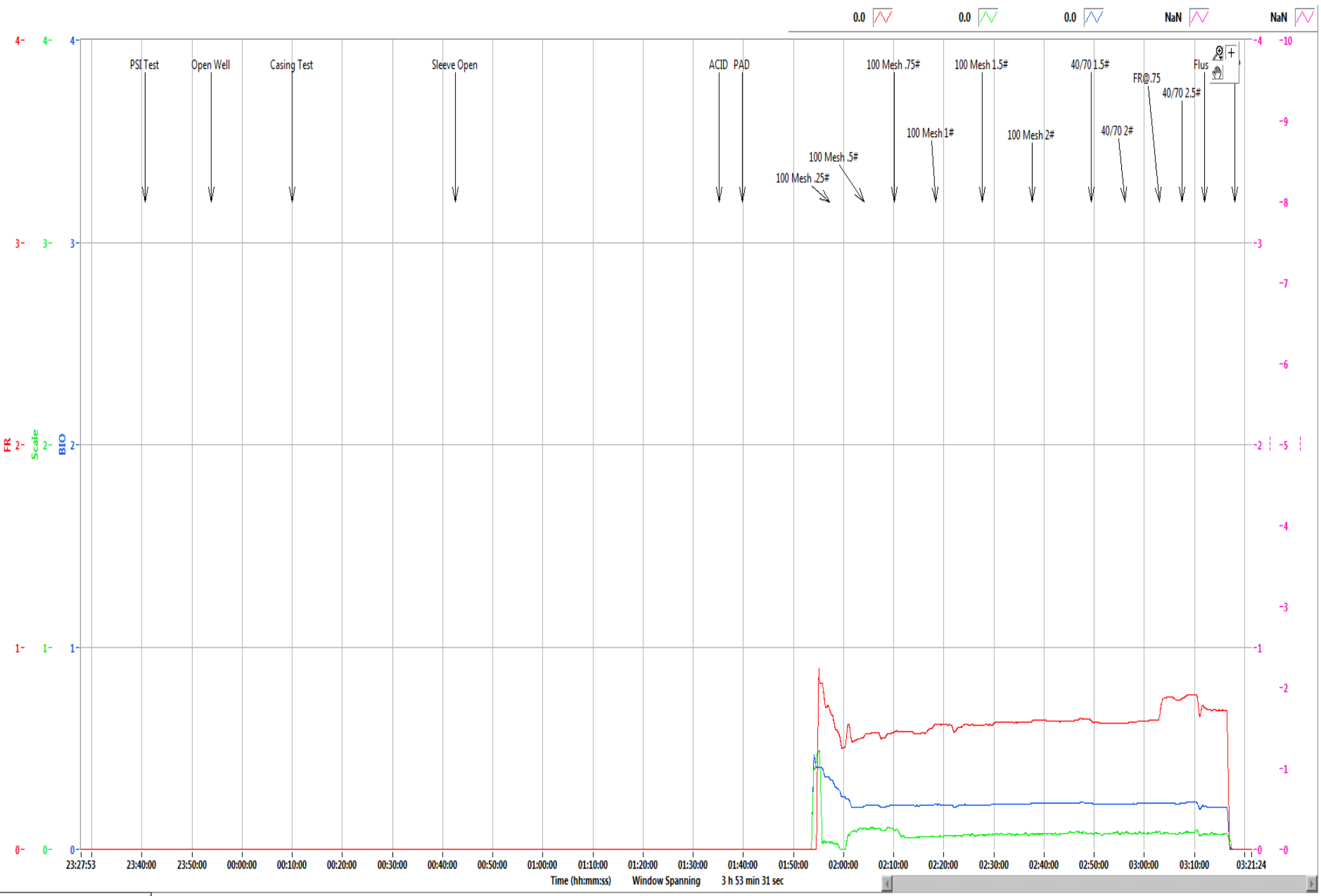


NNE
Boggess 13H
Stage 1
Producers Service Corp.

Post Stage Report
September 2, 2019



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Boggess Pad**13H**

Stage	1
Date:	9/1/19
OWP (psi):	100
Starting Time	11:53 PM
Ending Time	3:18 AM
Pump Time (hr:min)	03:25
Swap Time (hr:min)	02:42
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,683
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	10,264
Displacement (psi)	8,407
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	4,940
Final FG (psi/ft)	1.05
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	6,921
Acid 7.5% HCL (gal)	3,000
Wireline Pump Down (bbls)	
Pad (bbls)	900
Treatment (bbls)	5,634
Displacement (bbls)	453
(Acid Included)Total Fluid (bbls)	6,992
Dirty Job Total (bbls)	7,273
100 Mesh	185,520
40/70	120,480
Total Proppant (lbs)	306,000
Total Proppant %	76.5%

CHEMICALS

FR 9800	161
Biocide	65
Scale	17

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23025
 Date: 9/2/2019
 Well Name: Bogges 13H ✓
 Stage No.: 1 ✓

State: WV
 County: Monongahela
 Operator: Joe/Jamie F/Jamie
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	3000	GAL	\$ 1.25	\$ 3,750.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	6	GAL	\$ 35.00	\$ 210.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	1,855.20	CWT	\$ 5.50	\$ 10,203.60
SAND 40/70	40/70 white	1,204.80	CWT	\$ 5.75	\$ 6,927.60
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	161	GAL	\$ 17.75	\$ 2,857.75
BIOC11219A	Biocide @ 0.25 GPT	65	GAL	\$ 16.00	\$ 1,040.00
SCAL16846A	Scale Control @ 0.05 GPT	17	GAL	\$ 16.00	\$ 272.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		153	TON	\$ 55.00	\$ 8,415.00
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -

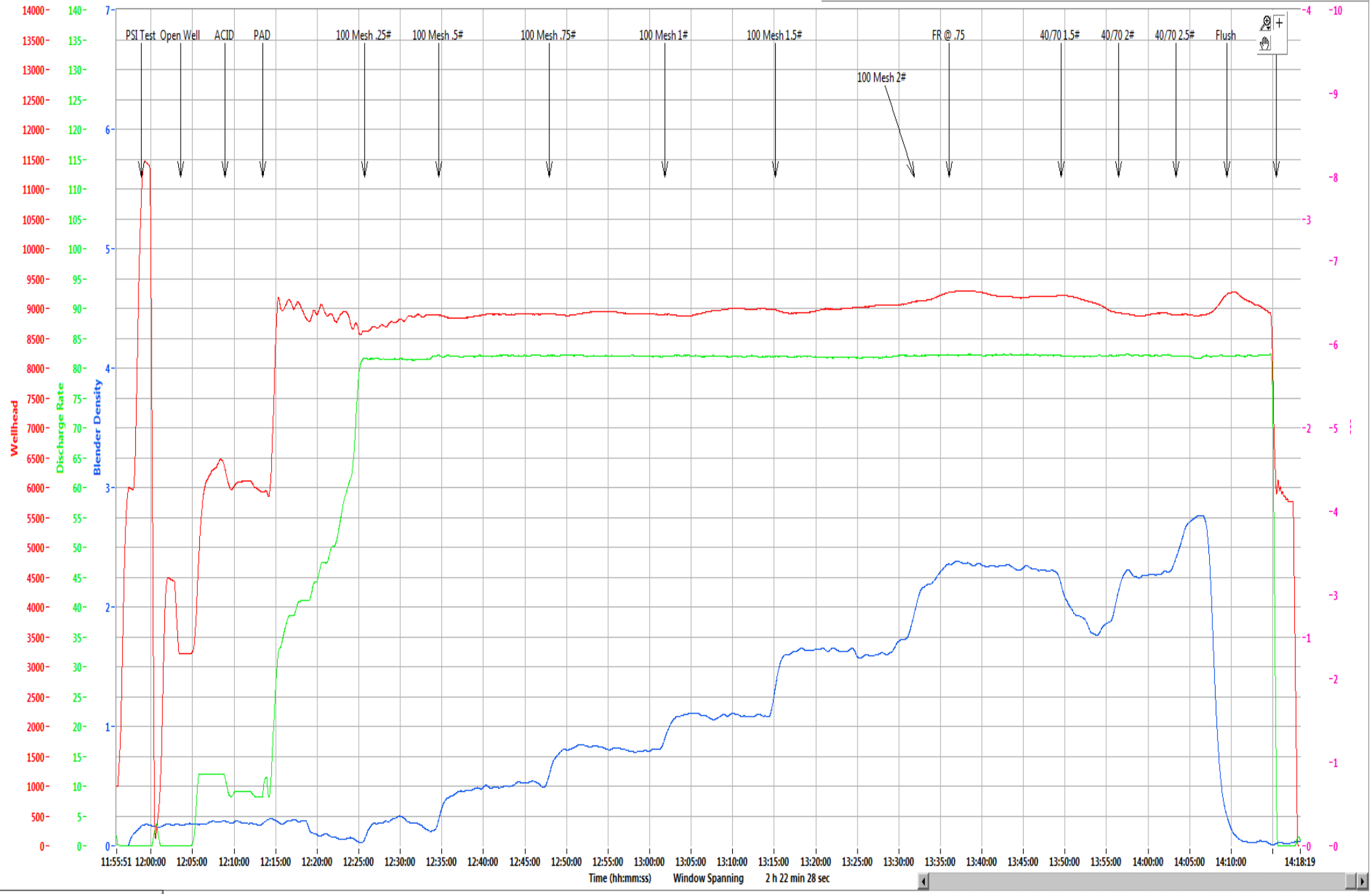
Total No Discount \$ 53,475.95
 25% Discount Applied \$ 13,368.99
 Net Stage Total \$ 40,106.96

(Print Name) Customer Rep: Mike Inna Customer Signature: 



NNE
Boggess 13H
Stage 2
Producers Service Corp.

Post Stage Report
September 2, 2019



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Boggess Pad	13H
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Stage	2
Date:	9/2/19
OWP (psi):	3,209
Starting Time	12:03 PM
Ending Time	2:15 PM
Pump Time (hr:min)	02:12
Swap Time (hr:min)	01:14
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,524
Average Treating Rate (bbl/min)	82
Average Treating Pressure (psi)	8,985
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	9,334
Displacement (psi)	9,267
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,583
Final FG (psi/ft)	1.13
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	9,577
Acid 7.5% HCL (gal)	3,000
Wireline Pump Down (bbls)	627
Pad (bbls)	566
Treatment (bbls)	8,215
Displacement (bbls)	454
(Acid Included)Total Fluid (bbls)	9,648
Dirty Job Total (bbls)	9,609
100 Mesh	300,320
40/70	100,540
Total Proppant (lbs)	400,860
Total Proppant %	100.2%

CHEMICALS

FR 9800	249
Biocide	101
Scale	23

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23027
 Date: 9/2/2019
 Well Name: Bogges 13H
 Stage No.: 2

State: WV
 County: Monongahela
 Operator: Jeremy/Mark
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	3000	GAL	\$ 1.25	\$ 3,750.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	6	GAL	\$ 35.00	\$ 210.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,003.20	CWT	\$ 5.50	\$ 16,517.60
SAND 40/70	40/70 white	1,005.40	CWT	\$ 5.75	\$ 5,781.05
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	249	GAL	\$ 17.75	\$ 4,419.75
BIOC11219A	Biocide @ 0.25 GPT	101	GAL	\$ 16.00	\$ 1,616.00
SCAL16846A	Scale Control @ 0.05 GPT	23	GAL	\$ 16.00	\$ 368.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.43	TON	\$ 55.00	\$ 11,023.65
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -

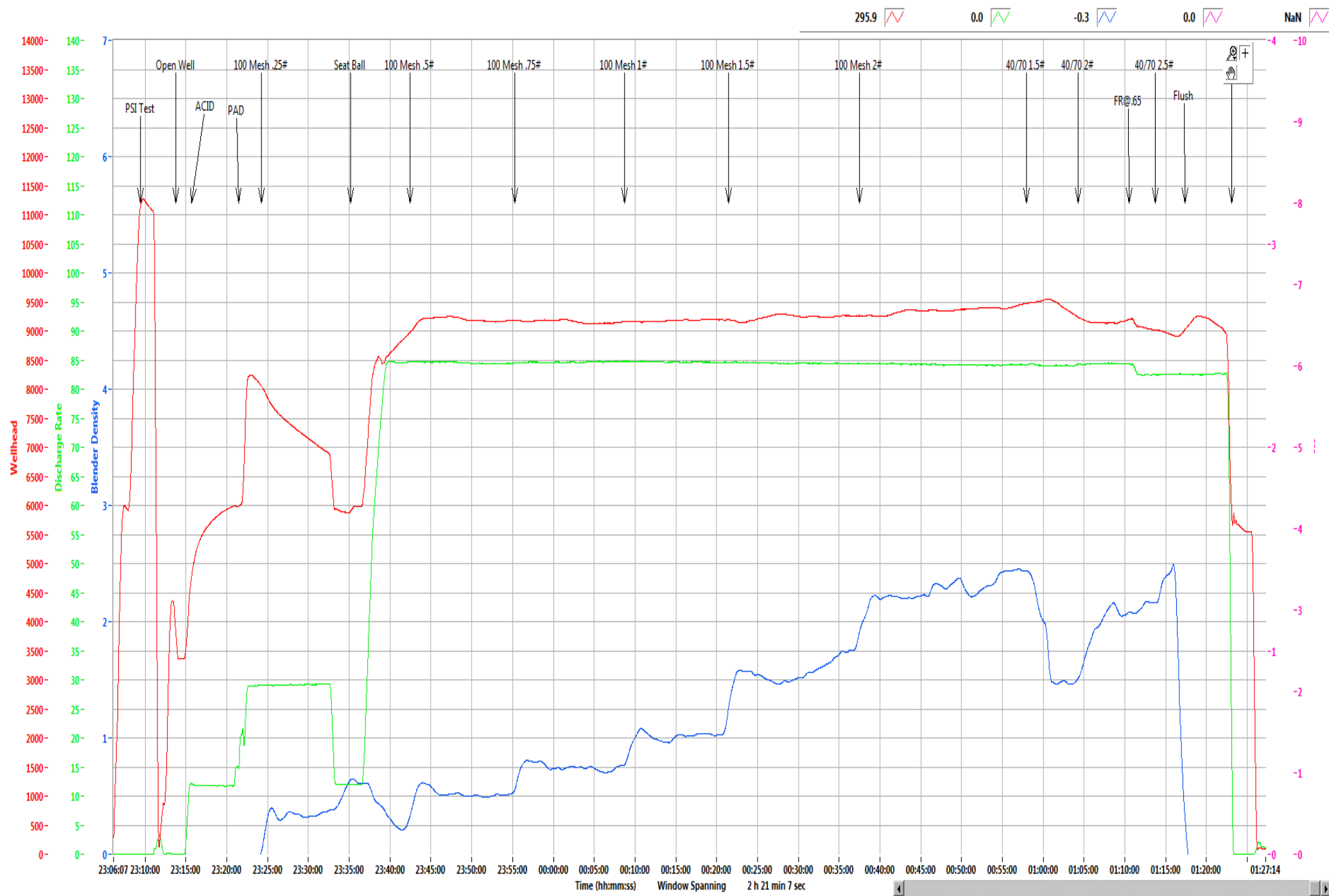
Total No Discount \$ 63,486.05
 25% Discount Applied \$ 15,871.51
 Net Stage Total \$ 47,614.54

(Print Name)
 Customer Rep: _____ Customer Signature: _____



NNE
Boggess 13H
Stage 3
Producers Service Corp.

Post Stage Report
September 3, 2019



Refresh Graph



Refresh Graph

Boggess Pad**13H**

Stage	3
Date:	9/2/19
OWP (psi):	3,370
Starting Time	11:13 PM
Ending Time	1:23 AM
Pump Time (hr:min)	02:10
Swap Time (hr:min)	00:47
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,984
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	9,220
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	9,576
Displacement (psi)	9,160
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,448
Final FG (psi/ft)	1.11
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,880
Acid 7.5% HCL (gal)	3,000
Wireline Pump Down (bbls)	585
Pad (bbls)	159
Treatment (bbls)	8,338
Displacement (bbls)	449
(Acid Included)Total Fluid (bbls)	8,951
Dirty Job Total (bbls)	9,315
100 Mesh	299,760
40/70	100,000
Total Proppant (lbs)	399,760
Total Proppant %	99.9%

CHEMICALS

FR 9800	195
Biocide	95
Scale	19

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23029
 Date: 9/3/2019
 Well Name: Bogges 13H
 Stage No.: 3

State: WV
 County: Monongahela
 Operator: Jamie/Brad
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	3000	GAL	\$ 1.25	\$ 3,750.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	6	GAL	\$ 35.00	\$ 210.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,997.60	CWT	\$ 5.50	\$ 16,486.80
SAND 40/70	40/70 white	1,000.00	CWT	\$ 5.75	\$ 5,750.00
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	195	GAL	\$ 17.75	\$ 3,461.25
BIOC11219A	Biocide @ 0.25 GPT	95	GAL	\$ 16.00	\$ 1,520.00
SCAL16846A	Scale Control @ 0.05 GPT	19	GAL	\$ 16.00	\$ 304.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.88	TON	\$ 55.00	\$ 10,993.40
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -

Total No Discount \$ 62,275.45
 25% Discount Applied \$ 15,568.86
 Net Stage Total \$ 46,706.59

(Print Name) Mike Inman Customer Rep: Mike Inman Customer Signature: [Signature]



NNE
Boggess 13H
Stage 4
Producers Service Corp.

Post Stage Report
September 3, 2019

Bogges Pad 13H

Stage	4
Date:	9/3/19
OWP (psi):	3,884
Starting Time	5:41 AM
Ending Time	7:55 AM
Pump Time (hr:min)	02:14
Swap Time (hr:min)	00:57
Starting # Pumps	17
Finishing # Pumps	14
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,814
Average Treating Rate (bbl/min)	81.0
Average Treating Pressure (psi)	8,761
Maximum Treating Rate (bbl/min)	85.0
Maximum Treating Pressure (psi)	9,123
Displacement (psi)	8,621
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,512
Final FG (psi/ft)	1.12
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

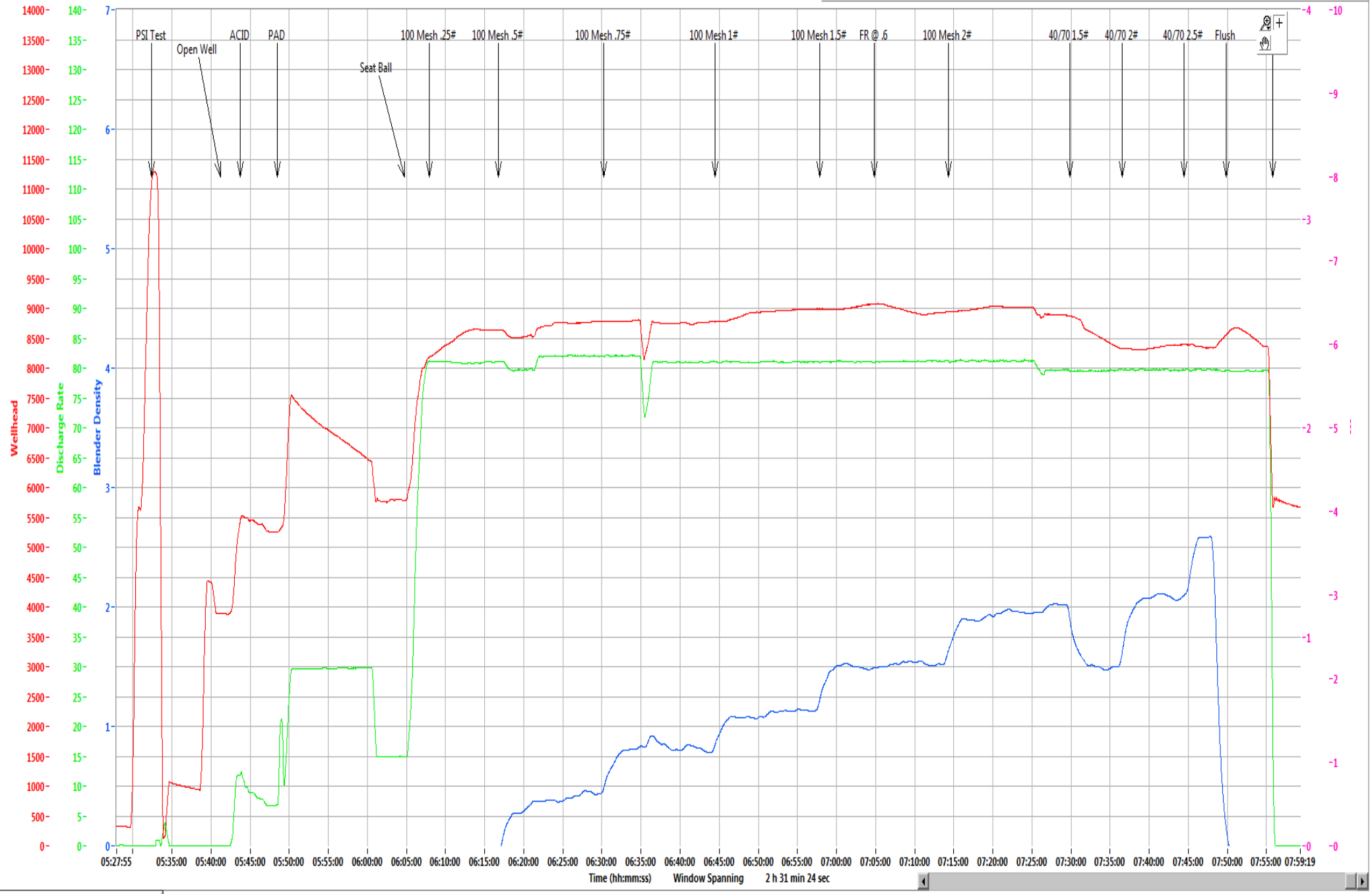
Fluids & Proppant

Slickwater (bbls)	8,903
Acid 7.5% HCL (gal)	3,000
Wireline Pump Down (bbls)	592
Pad (bbls)	590
Treatment (bbls)	7,936
Displacement (bbls)	448
(Acid Included)Total Fluid (bbls)	8,974
Dirty Job Total (bbls)	9,303
100 Mesh	299,500
40/70	99,660
Total Proppant (lbs)	399,160
Total Proppant %	99.8%

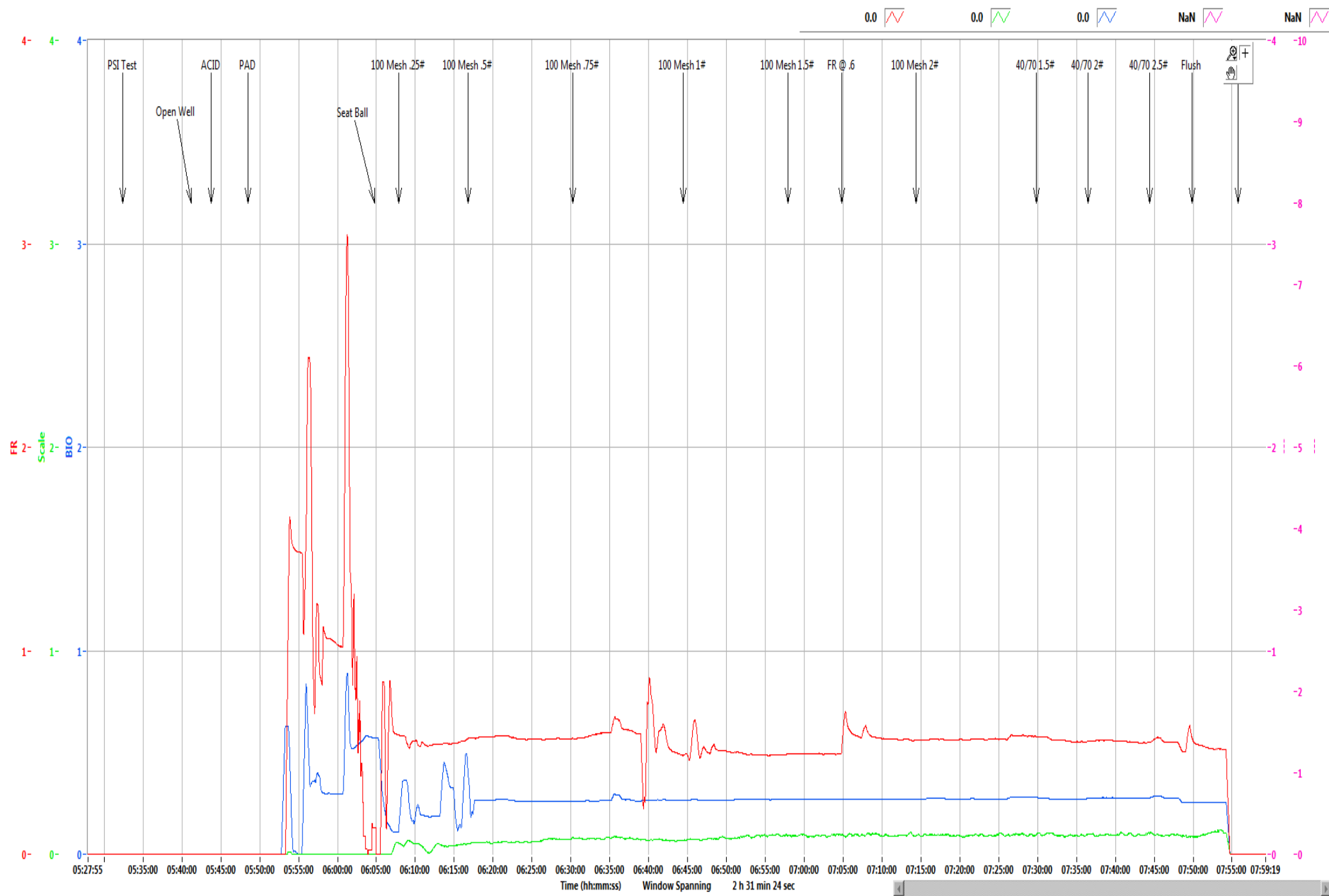
CHEMICALS

FR 9800	211
Biocide	100
Scale	22

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NNE
Boggess 13H
Stage 5
Producers Service Corp.

Post Stage Report
September 3, 2019

Bogges Pad 13H

Stage	5
Date:	9/3/19
OWP (psi):	4,020
Starting Time	1:06 PM
Ending Time	3:20 PM
Pump Time (hr:min)	02:14
Swap Time (hr:min)	01:49
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,091
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,922
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	9,147
Displacement (psi)	9,021
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,773
Final FG (psi/ft)	1.15
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

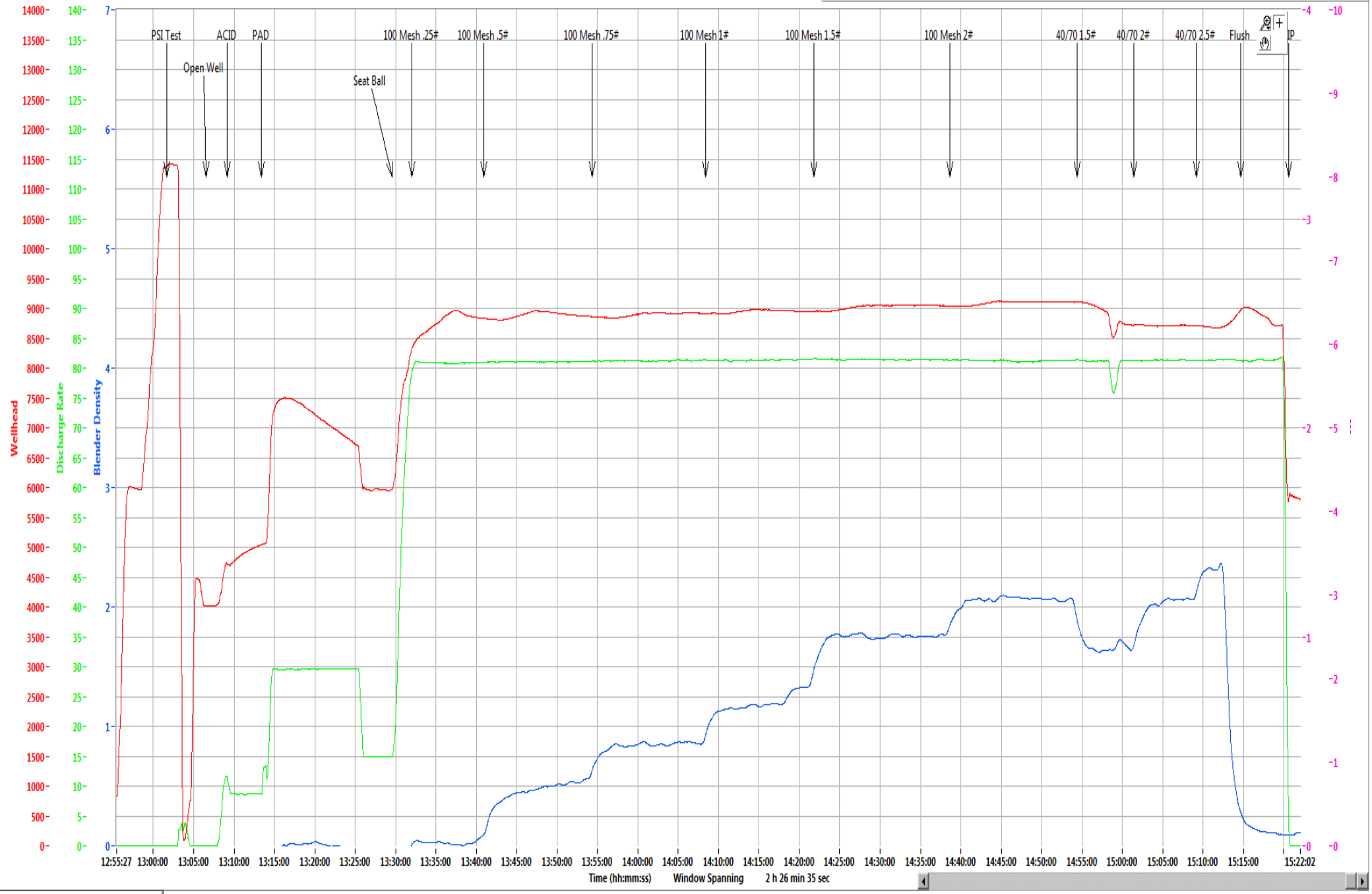
Fluids & Proppant

Slickwater (bbls)	8,965
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	537
Pad (bbls)	550
Treatment (bbls)	8,021
Displacement (bbls)	442
(Acid Included)Total Fluid (bbls)	9,013
Dirty Job Total (bbls)	9,362
100 Mesh	298,180
40/70	99,460
Total Proppant (lbs)	397,640
Total Proppant %	99.4%

CHEMICALS

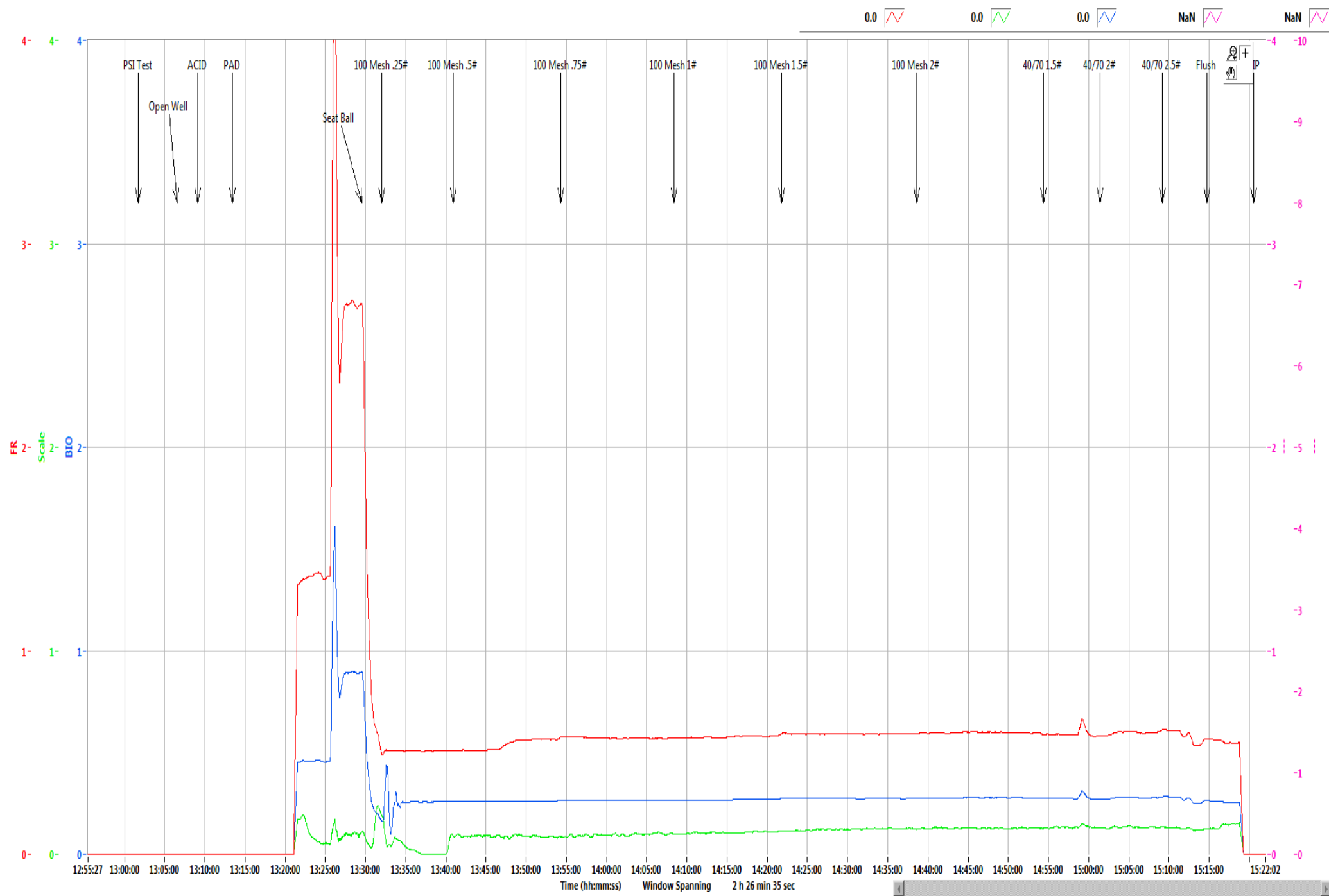
FR 9800	195
Biocide	100
Scale	23

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Time (hh:mm:ss) Window Spanning 2 h 26 min 35 sec

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Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23033
 Date: 9/3/2019
 Well Name: Bogges 13H
 Stage No.: 5

State: WV
 County: Monongahela
 Operator: Jeremy/Mark
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	2000	GAL	\$ 1.25	\$ 2,500.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	4	GAL	\$ 35.00	\$ 140.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,981.80	CWT	\$ 5.50	\$ 16,399.90
SAND 40/70	40/70 white	994.60	CWT	\$ 5.75	\$ 5,718.95
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	195	GAL	\$ 17.75	\$ 3,461.25
BIOC11219A	Biocide @ 0.25 GPT	100	GAL	\$ 16.00	\$ 1,600.00
SCAL16846A	Scale Control @ 0.05 GPT	23	GAL	\$ 16.00	\$ 368.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		198.82	TON	\$ 55.00	\$ 10,935.10
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -

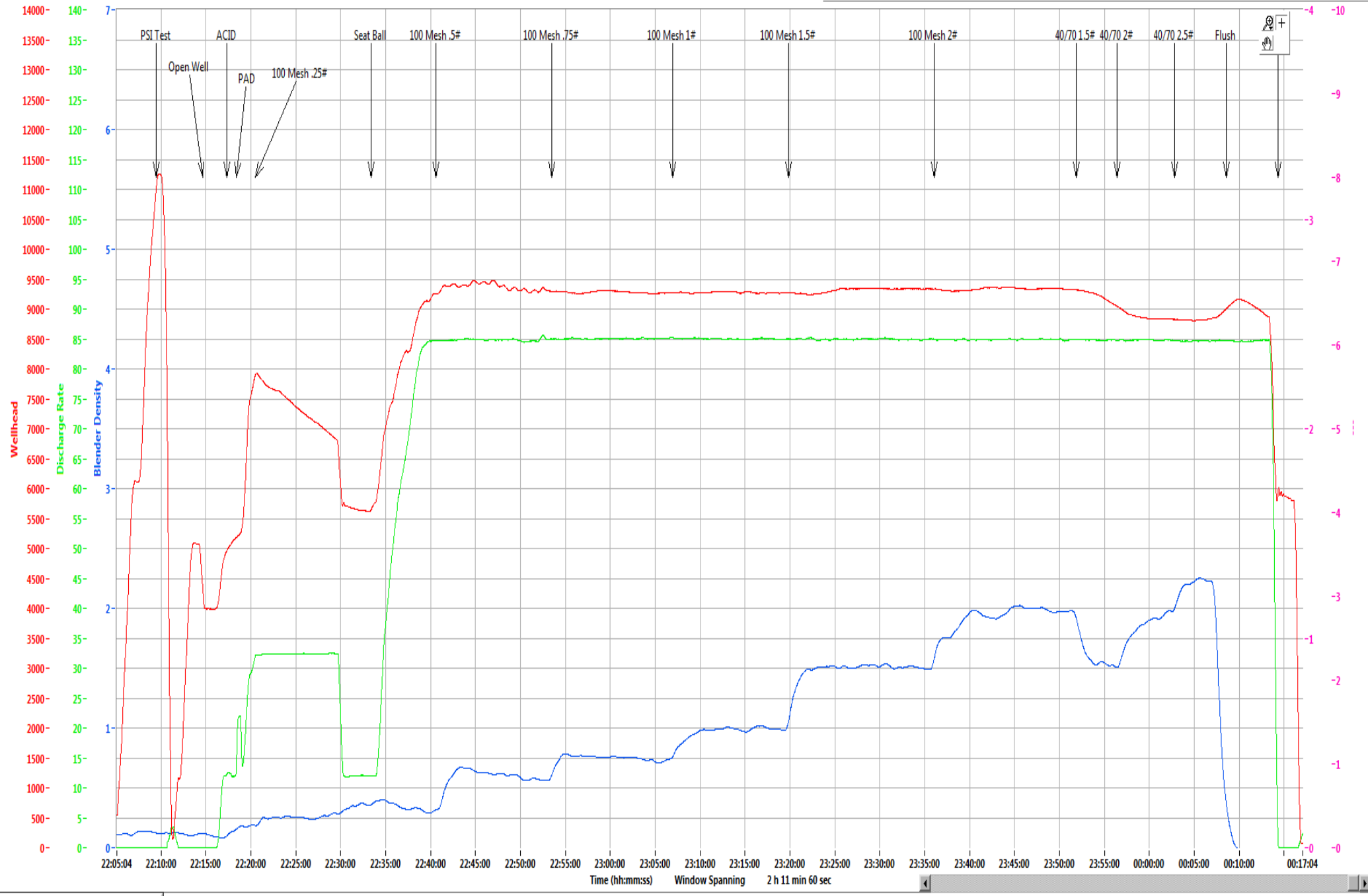
Total No Discount \$ 60,923.20
 25% Discount Applied \$ 15,230.80
 Net Stage Total \$ 45,692.40

(Print Name) Glenn Customer Rep: [Signature] Customer Signature: [Signature]

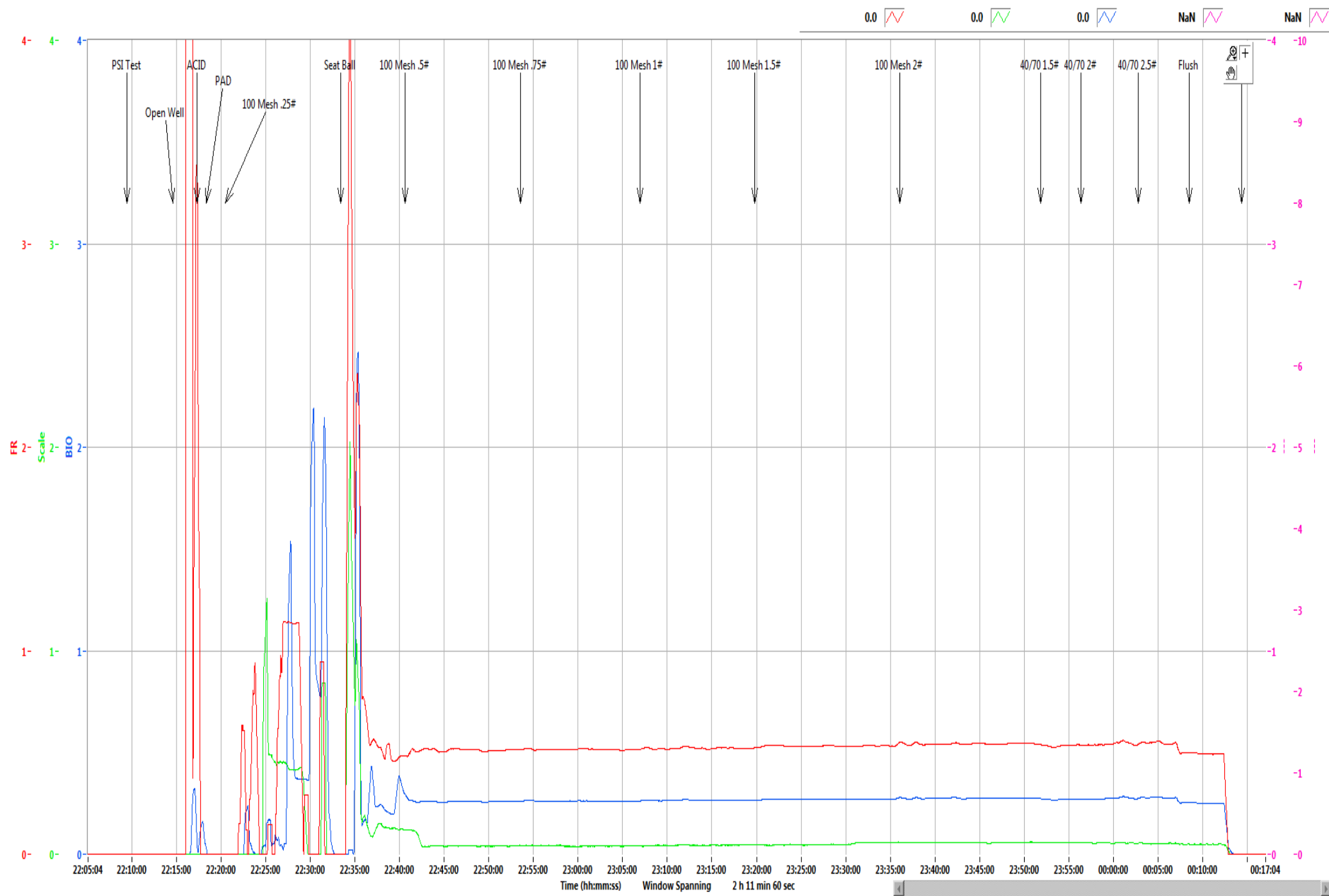


NNE
Boggess 13H
Stage 6
Producers Service Corp.

Post Stage Report
September 4, 2019



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Boggess Pad 13H

Stage	6
Date:	9/3/19
OWP (psi):	4,015
Starting Time	10:14 PM
Ending Time	12:14 AM
Pump Time (hr:min)	02:00
Swap Time (hr:min)	04:00
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,800
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	9,282
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	9,512
Displacement (psi)	9,034
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,973
Final FG (psi/ft)	1.18
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,377
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	517
Pad (bbls)	77
Treatment (bbls)	7,865
Displacement (bbls)	443
(Acid Included)Total Fluid (bbls)	8,389
Dirty Job Total (bbls)	8,763
100 Mesh	300,020
40/70	99,800
Total Proppant (lbs)	399,820
Total Proppant %	100.0%

CHEMICALS

FR 9800	176
Biocide	88
Scale	18

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23035
 Date: 9/4/2019
 Well Name: Bogges 13H
 Stage No.: 6

State: WV
 County: Monongahela
 Operator: Eck/Brad
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	500	GAL	\$ 1.25	\$ 625.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	1	GAL	\$ 35.00	\$ 35.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,000.20	CWT	\$ 5.50	\$ 16,501.10
SAND 40/70	40/70 white	998.00	CWT	\$ 5.75	\$ 5,738.50
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	176	GAL	\$ 17.75	\$ 3,124.00
BIOC11219A	Biocide @ 0.25 GPT	88	GAL	\$ 16.00	\$ 1,408.00
SCAL16846A	Scale Control @ 0.05 GPT	18	GAL	\$ 16.00	\$ 288.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.91	TON	\$ 55.00	\$ 10,995.05
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 58,514.65
 25% Discount Applied \$ 14,628.66
 Net Stage Total \$ 43,885.99

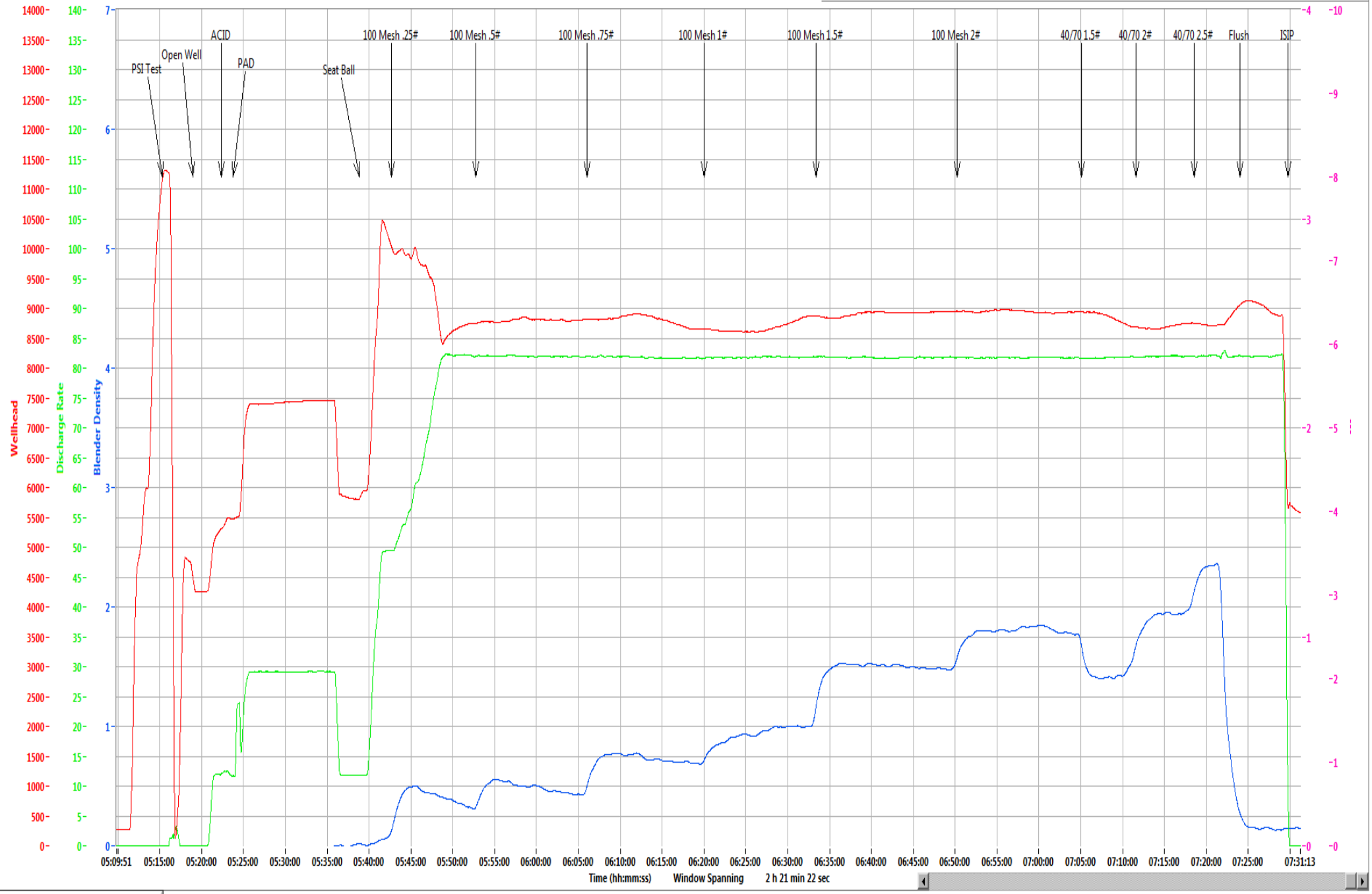
(Print Name) Customer Rep: Mike Innar Customer Signature: [Signature]



NNE
Boggess 13H
Stage 7
Producers Service Corp.

Post Stage Report
September 4, 2019

278.0 0.0 -0.1 0.0 NaN



Time (hh:mm:ss) Window Spanning 2 h 21 min 22 sec

Refresh Graph

Boggess Pad**13H**

Stage	7
Date:	9/4/19
OWP (psi):	4,265
Starting Time	5:18 AM
Ending Time	7:29 AM
Pump Time (hr:min)	02:11
Swap Time (hr:min)	02:11
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

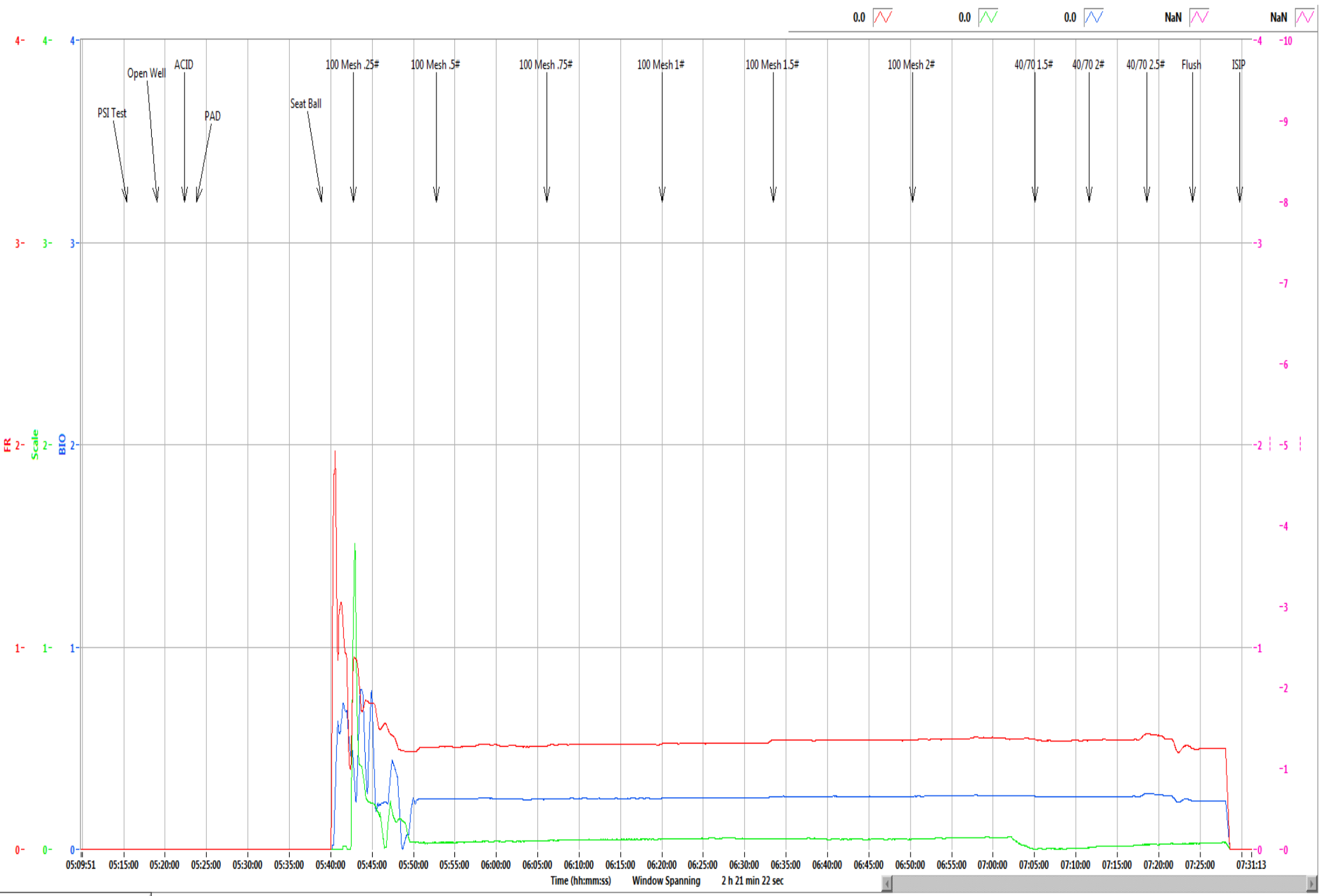
Breakdown Pressure (psi)	5,963
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,862
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	10,089
Displacement (psi)	9,087
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,511
Final FG (psi/ft)	1.12
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,775
Acid 7.5% HCL (gal)	1,000
Wireline Pump Down (bbls)	540
Pad (bbls)	514
Treatment (bbls)	7,848
Displacement (bbls)	437
(Acid Included)Total Fluid (bbls)	8,799
Dirty Job Total (bbls)	9,161
100 Mesh	303,460
40/70	95,700
Total Proppant (lbs)	399,160
Total Proppant %	99.8%

CHEMICALS

FR 9800	187
Biocide	92
Scale	18



Refresh Graph

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23037
 Date: 9/4/2019
 Well Name: Bogges 13H
 Stage No.: 7

State: WV
 County: Monongahela
 Operator: Moon/Mark
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	1000	GAL	\$ 1.25	\$ 1,250.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	2	GAL	\$ 35.00	\$ 70.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,034.60	CWT	\$ 5.50	\$ 16,690.30
SAND 40/70	40/70 white	957.00	CWT	\$ 5.75	\$ 5,502.75
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	187	GAL	\$ 17.75	\$ 3,319.25
BIOC11219A	Biocide @ 0.25 GPT	92	GAL	\$ 16.00	\$ 1,472.00
SCAL16846A	Scale Control @ 0.05 GPT	18	GAL	\$ 16.00	\$ 288.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.58	TON	\$ 55.00	\$ 10,976.90
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

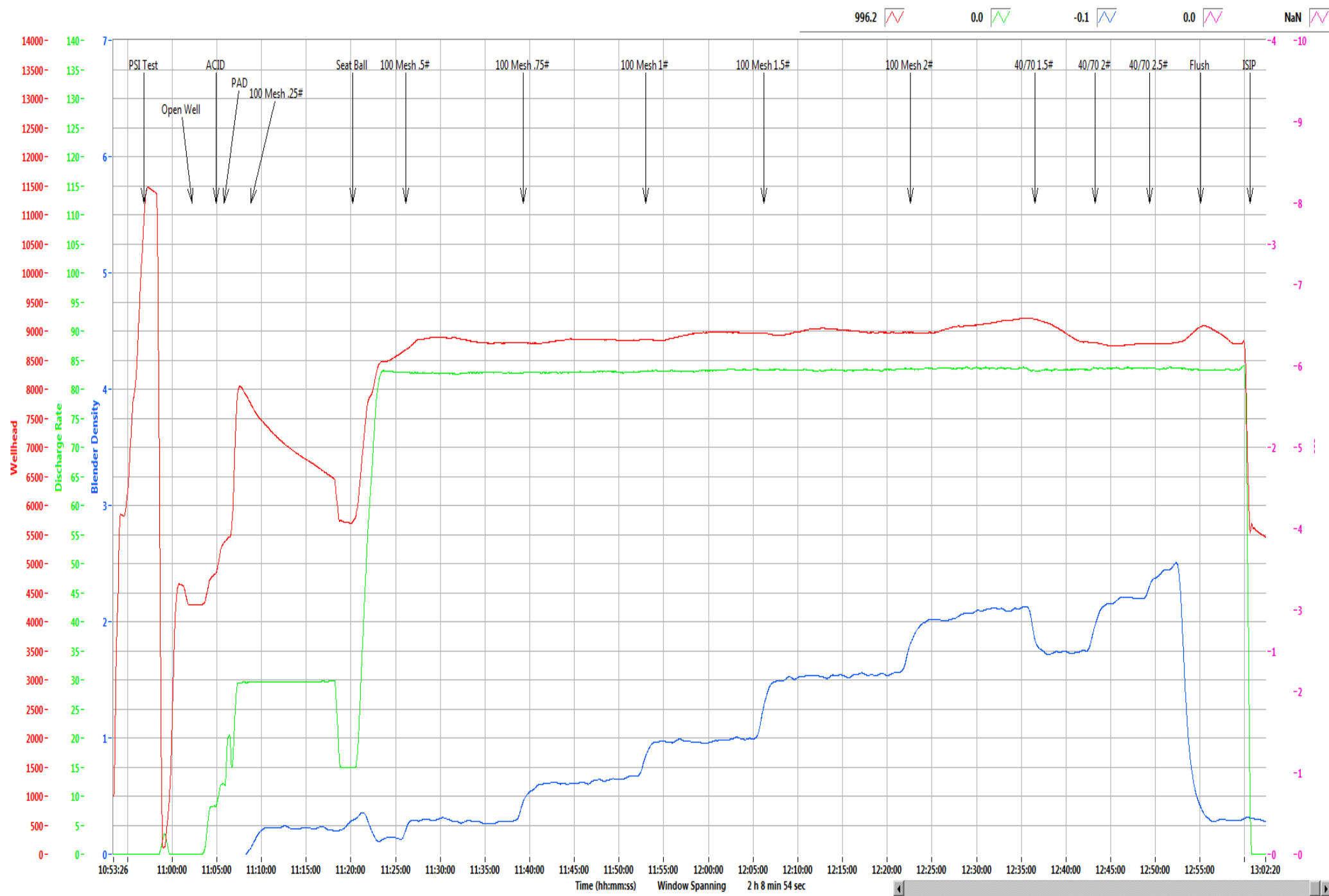
Total No Discount \$ 59,369.20
 25% Discount Applied \$ 14,842.30
 Net Stage Total \$ 44,526.90

(Print Name) Customer Rep: Glenn B... Customer Signature: [Signature]



NNE
Boggess 13H
Stage 8
Producers Service Corp.

Post Stage Report
September 4, 2019



Refresh Graph

Boggess Pad	13H
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Stage	8
Date:	9/4/19
OWP (psi):	4,285
Starting Time	11:02 AM
Ending Time	1:00 PM
Pump Time (hr:min)	01:58
Swap Time (hr:min)	00:41
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,848
Average Treating Rate (bbl/min)	83
Average Treating Pressure (psi)	8,925
Maximum Treating Rate (bbl/min)	85
Maximum Treating Pressure (psi)	9,249
Displacement (psi)	9,099
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,524
Final FG (psi/ft)	1.12
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,288
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	479
Pad (bbls)	103
Treatment (bbls)	7,762
Displacement (bbls)	435
(Acid Included)Total Fluid (bbls)	8,300
Dirty Job Total (bbls)	8,635
100 Mesh	298,880
40/70	100,460
Total Proppant (lbs)	399,340
Total Proppant %	99.8%

CHEMICALS

FR 9800	180
Biocide	90
Scale	17

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

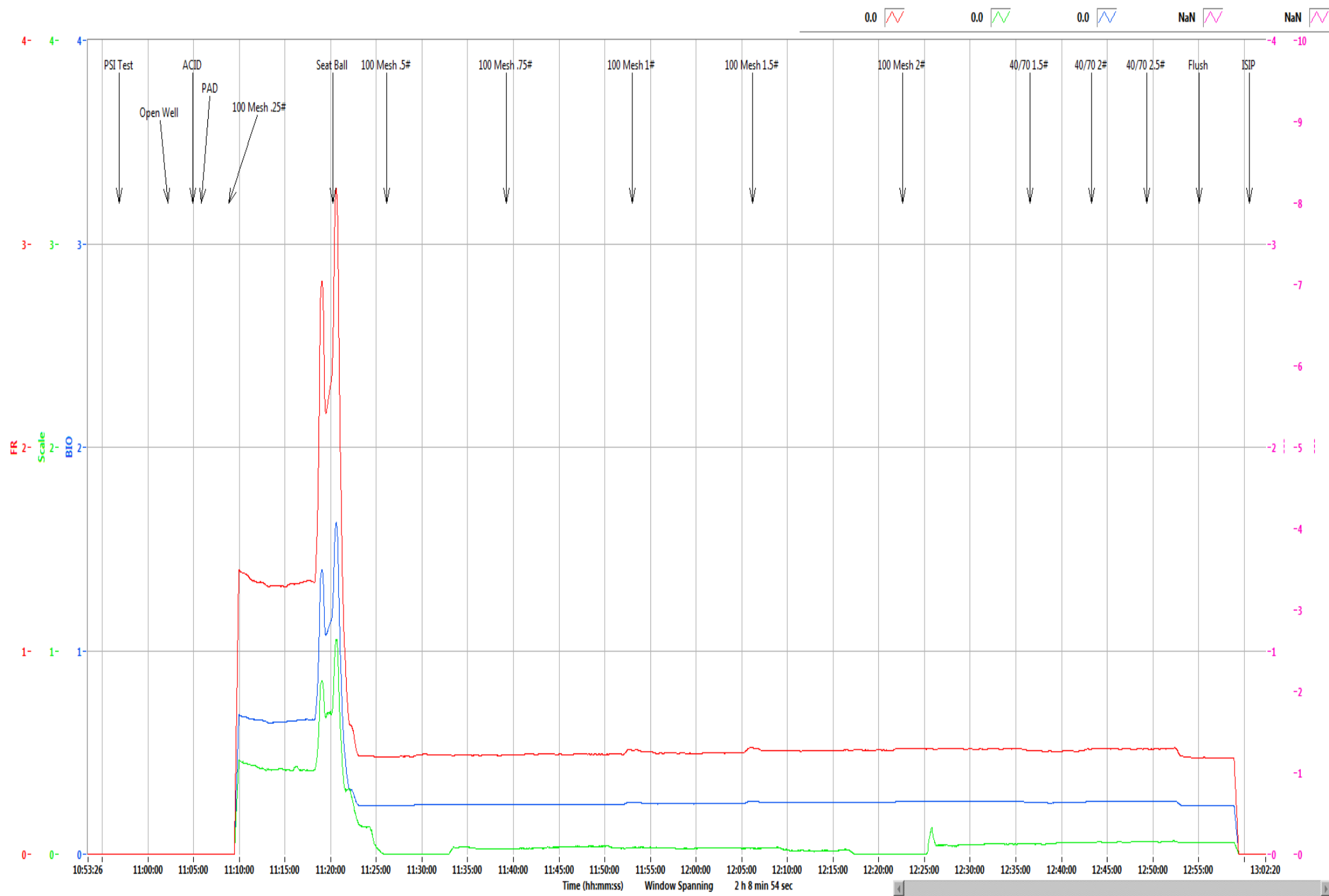
Invoice #: 23039
 Date: 9/4/2019
 Well Name: Boggess 13H
 Stage No.: 8

State: WV
 County: Monongahela
 Operator: Moon/Mark
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	500	GAL	\$ 1.25	\$ 625.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	1	GAL	\$ 35.00	\$ 35.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,988.80	CWT	\$ 5.50	\$ 16,438.40
SAND 40/70	40/70 white	1,004.60	CWT	\$ 5.75	\$ 5,776.45
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	180	GAL	\$ 17.75	\$ 3,195.00
BIOC11219A	Biocide @ 0.25 GPT	90	GAL	\$ 16.00	\$ 1,440.00
SCAL16846A	Scale Control @ 0.05 GPT	17	GAL	\$ 16.00	\$ 272.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.67	TON	\$ 55.00	\$ 10,981.85
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 58,563.70
 25% Discount Applied \$ 14,640.93
 Net Stage Total \$ 43,922.78

(Print Name) Glenn Bond Customer Signature: [Signature]
 Customer Rep: _____



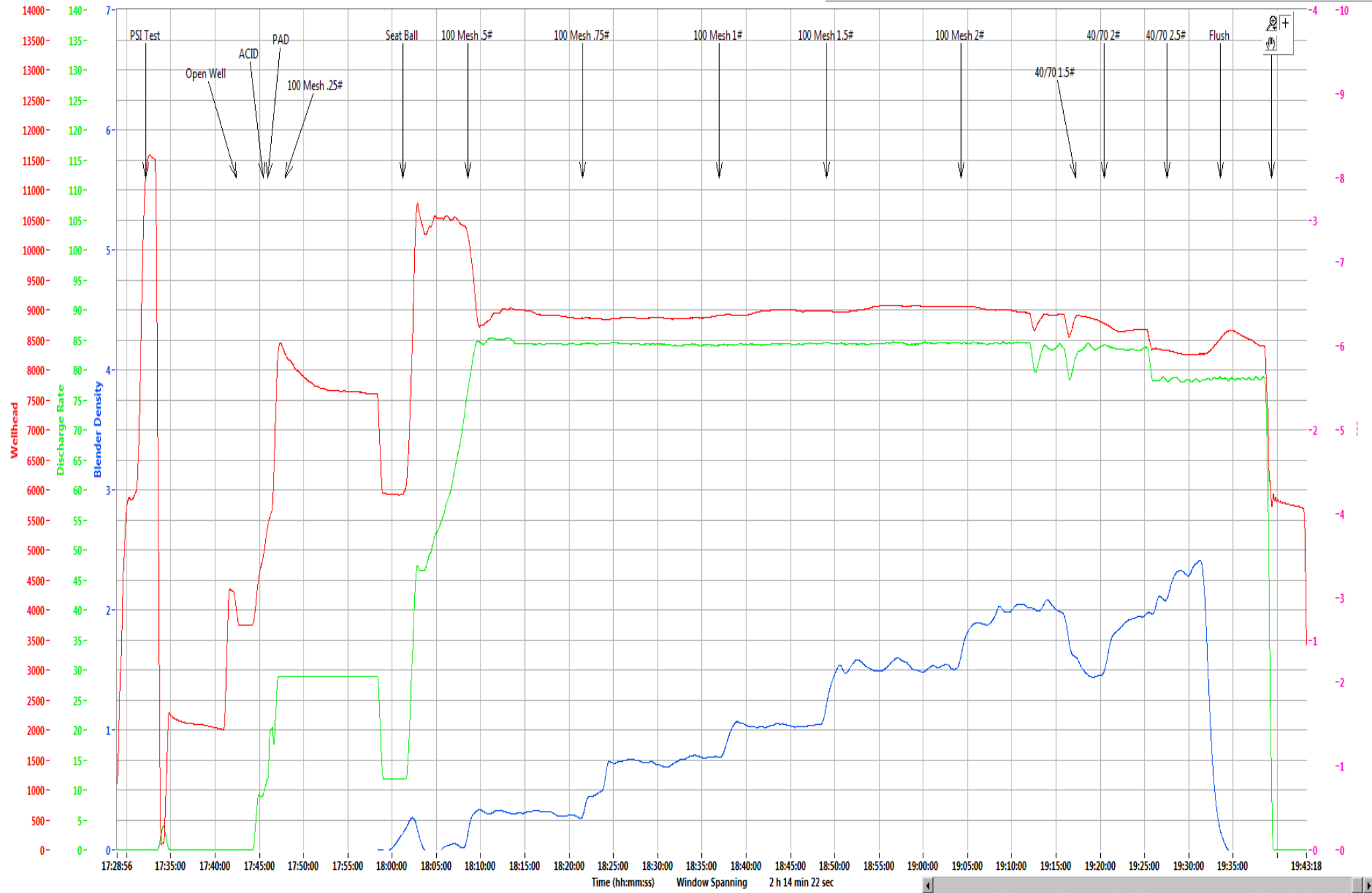
Refresh Graph



NNE
Boggess 13H
Stage 9
Producers Service Corp.

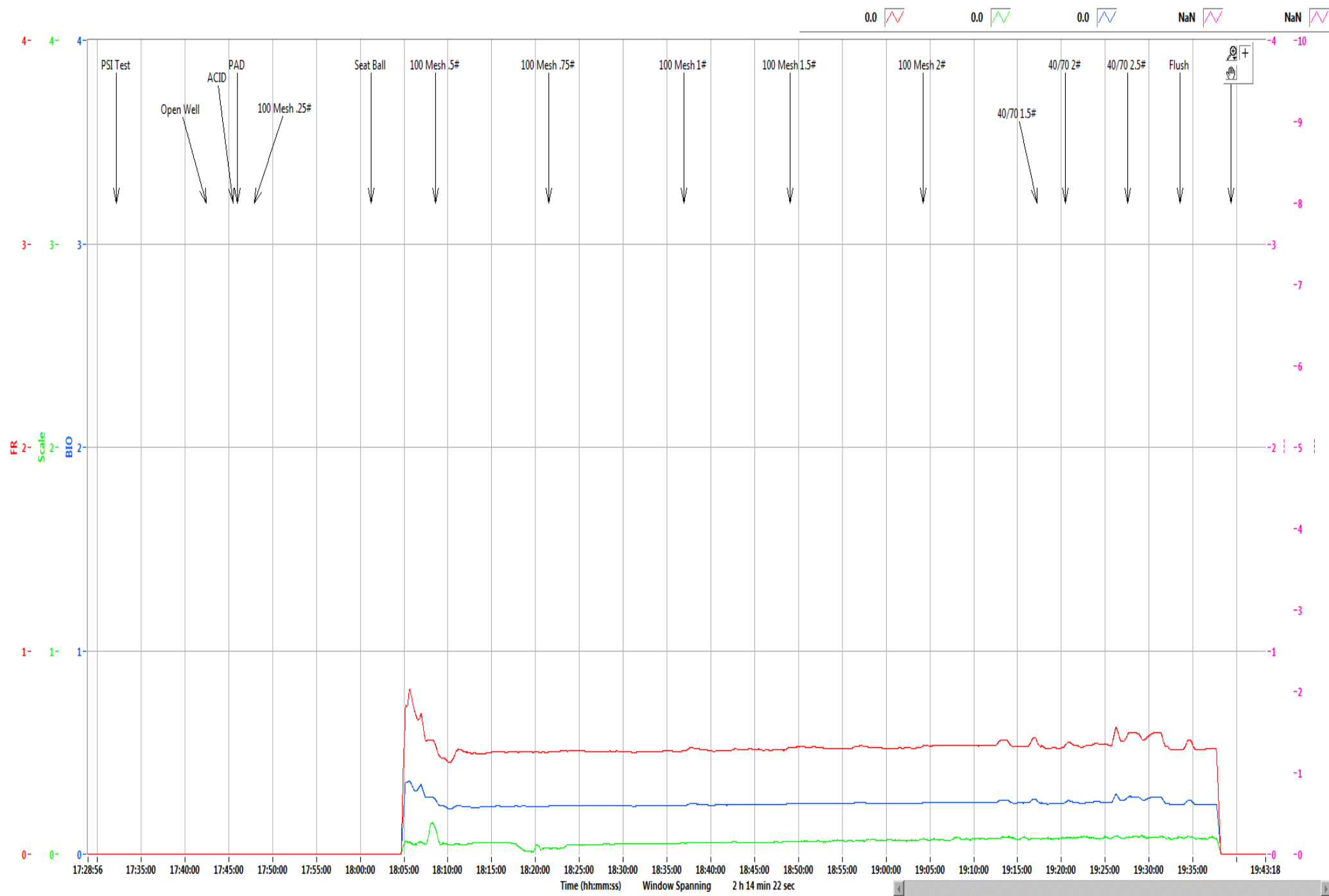
Post Stage Report
September 4, 2019

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Time (hh:mm:ss) Window Spanning 2 h 14 min 22 sec

Refresh Graph



Refresh Graph

Boggess Pad	13H
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Stage	9
Date:	9/4/19
OWP (psi):	3,755
Starting Time	5:42 PM
Ending Time	7:39 PM
Pump Time (hr:min)	01:57
Swap Time (hr:min)	01:36
Starting # Pumps	17
Finishing # Pumps	15
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,099
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	8,881
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	11,055
Displacement (psi)	8,610
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,398
Final FG (psi/ft)	1.11
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,956
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	469
Pad (bbls)	68
Treatment (bbls)	7,471
Displacement (bbls)	418
(Acid Included)Total Fluid (bbls)	7,962
Dirty Job Total (bbls)	8,307
100 Mesh	298,560
40/70	101,240
Total Proppant (lbs)	399,800
Total Proppant %	100.0%

CHEMICALS

FR 9800	165
Biocide	83
Scale	17

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23041
 Date: 9/4/2019
 Well Name: Boggess 13H
 Stage No.: 9

State: WV
 County: Monongahela
 Operator: Jamie/Brad
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,985.60	CWT	\$ 5.50	\$ 16,420.80
SAND 40/70	40/70 white	1,012.40	CWT	\$ 5.75	\$ 5,821.30
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	165	GAL	\$ 17.75	\$ 2,928.75
BIOC11219A	Biocide @ 0.25 GPT	83	GAL	\$ 16.00	\$ 1,328.00
SCAL16846A	Scale Control @ 0.05 GPT	17	GAL	\$ 16.00	\$ 272.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.9	TON	\$ 55.00	\$ 10,994.50
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -
				Total No Discount	\$ 57,895.35
				25% Discount Applied	\$ 14,473.84
				Net Stage Total	\$ 43,421.51

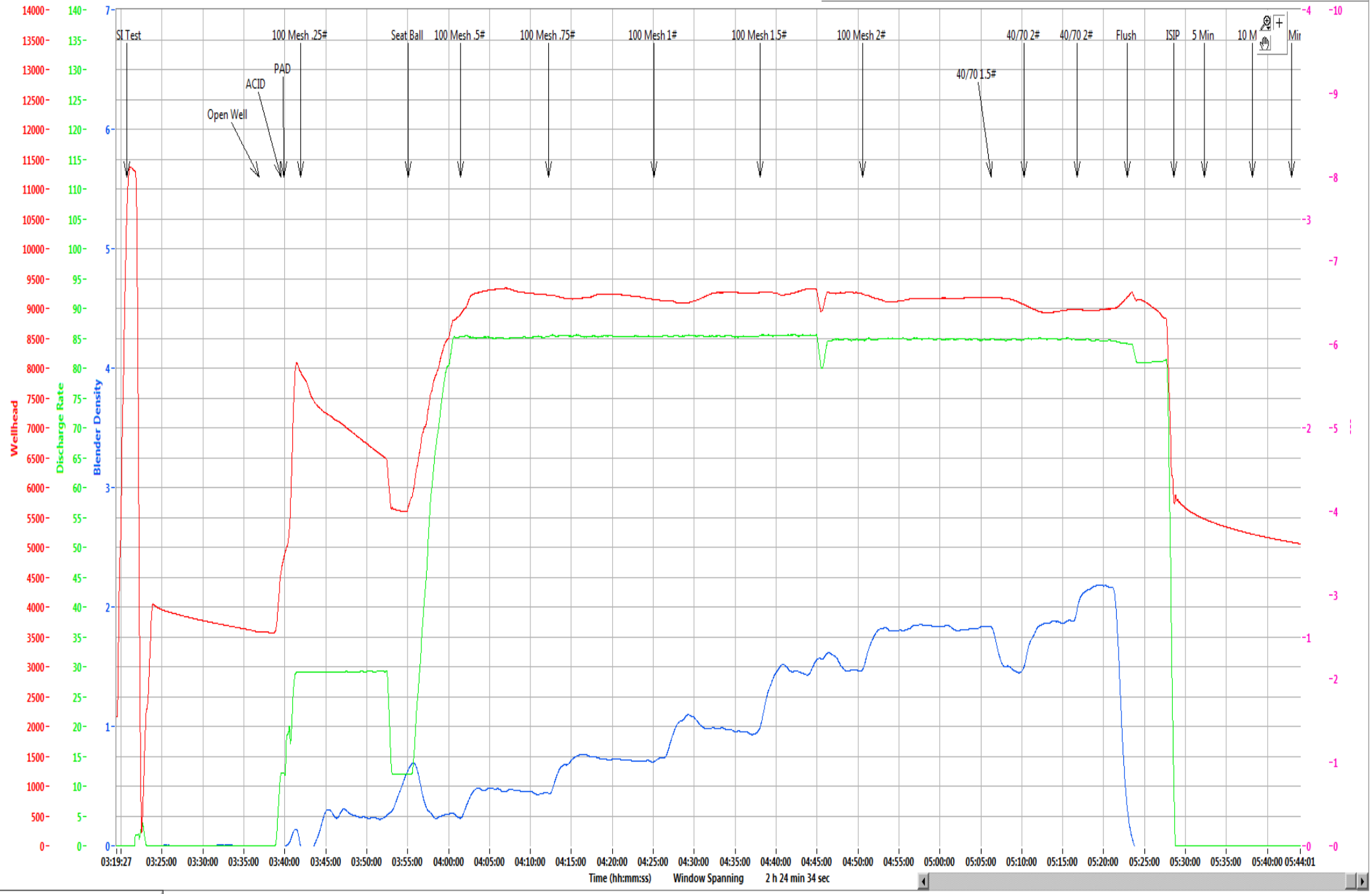
(Print Name) Customer Rep: Mike Immer Customer Signature: [Signature]



NNE
Boggess 13H
Stage 10
Producers Service Corp.

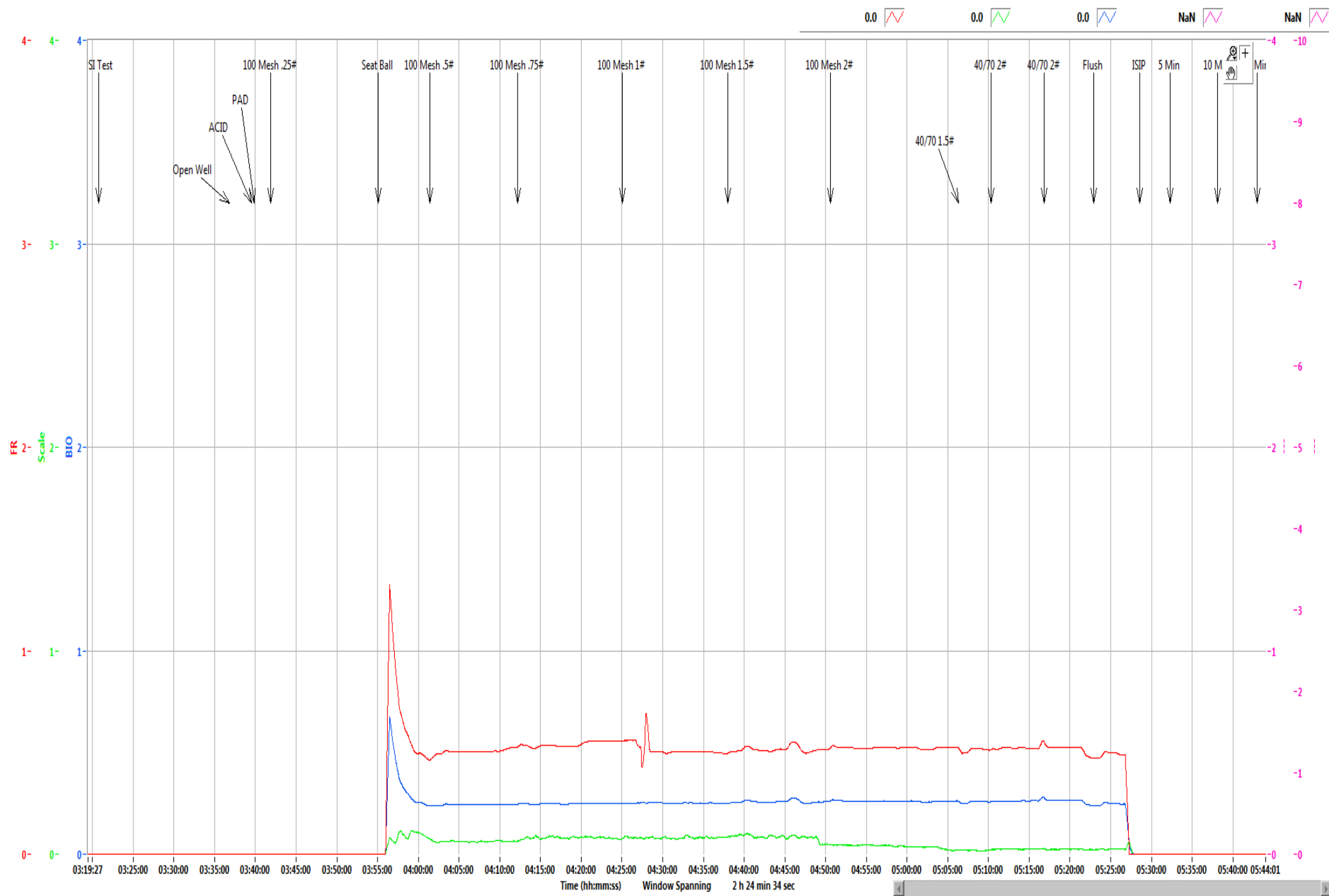
Post Stage Report
September 5, 2019

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Time (hh:mm:ss) Window Spanning 2 h 24 min 34 sec

Refresh Graph



Boggess Pad 13H

Stage	10
Date:	9/5/19
OWP (psi):	3,575
Starting Time	3:36 AM
Ending Time	5:28 AM
Pump Time (hr:min)	01:52
Swap Time (hr:min)	03:43
Starting # Pumps	17
Finishing # Pumps	15
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,864
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	9,176
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	9,358
Displacement (psi)	9,189
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,649
Final FG (psi/ft)	1.14
5 Minute Leakoff Pressure (psi)	5,460
5 Minute Leakoff Rate (psi/min)	38
10 Minute Leakoff Pressure (psi)	5,212
10 Minute Leakoff Rate (psi/min)	44
15 Minute Leakoff Pressure (psi)	5,079
15 Minute Leakoff Rate (psi/min)	38

Fluids & Proppant

Slickwater (bbls)	7,737
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	490
Pad (bbls)	64
Treatment (bbls)	9,125
Displacement (bbls)	418
(Acid Included)Total Fluid (bbls)	7,743
Dirty Job Total (bbls)	8,119
100 Mesh	304,040
40/70	103,040
Total Proppant (lbs)	407,080
Total Proppant %	101.8%

CHEMICALS

FR 9800	171
Biocide	81
Scale	18

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23043
 Date: 9/5/2019
 Well Name: Bogges 13H
 Stage No.: 10

State: WV
 County: Monongahela
 Operator: Jamie/Brad
 PO/AFE: 100429-604

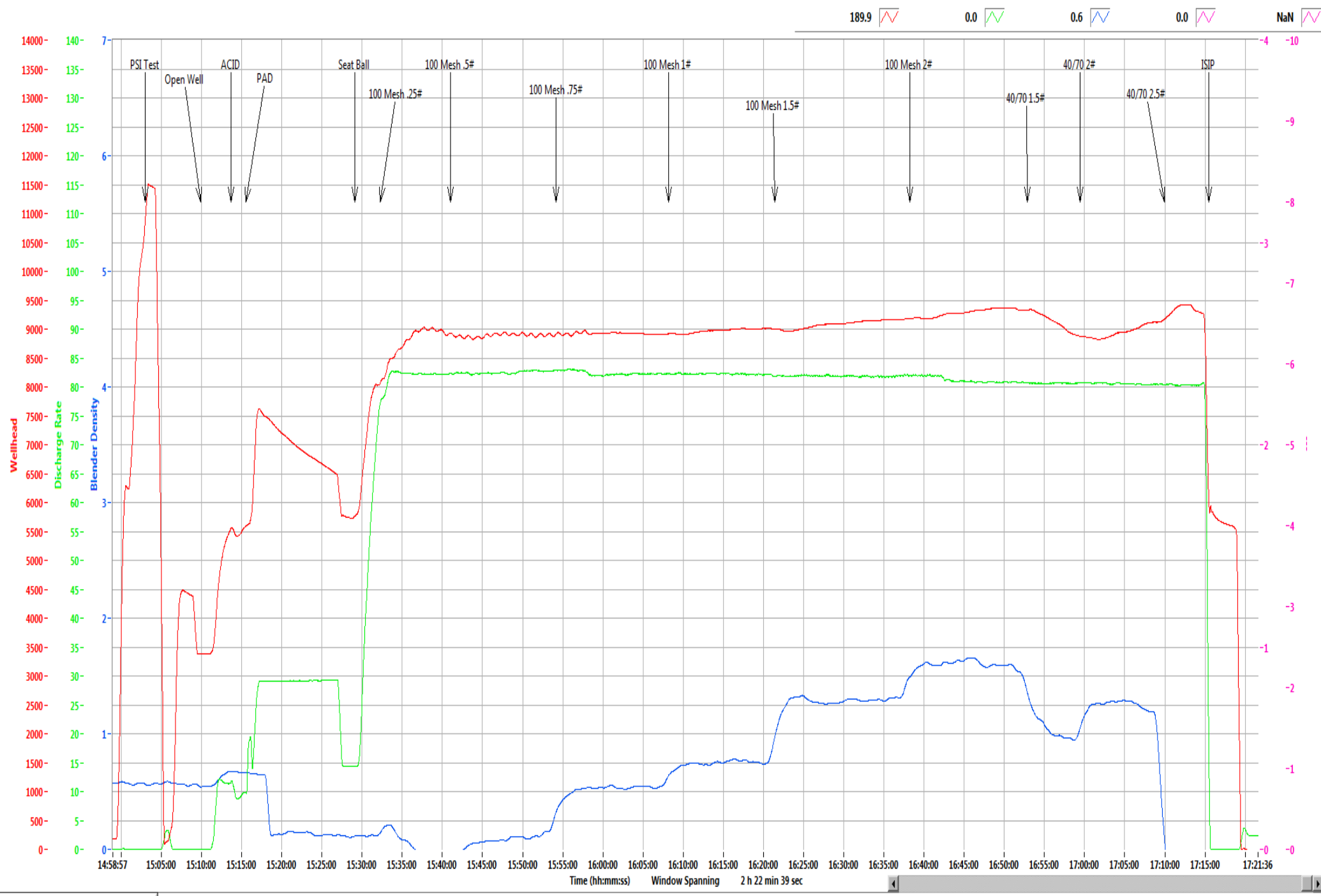
Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,040.40	CWT	\$ 5.50	\$ 16,722.20
SAND 40/70	40/70 white	1,030.40	CWT	\$ 5.75	\$ 5,924.80
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	171	GAL	\$ 17.75	\$ 3,035.25
BIOC11219A	Biocide @ 0.25 GPT	81	GAL	\$ 16.00	\$ 1,296.00
SCAL16846A	Scale Control @ 0.05 GPT	18	GAL	\$ 16.00	\$ 288.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		203.54	TON	\$ 55.00	\$ 11,194.70
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -
				Total No Discount	\$ 58,590.95
				25% Discount Applied	\$ 14,647.74
				Net Stage Total	\$ 43,943.21

(Print Name) Mike James Customer Rep: _____ Customer Signature: 



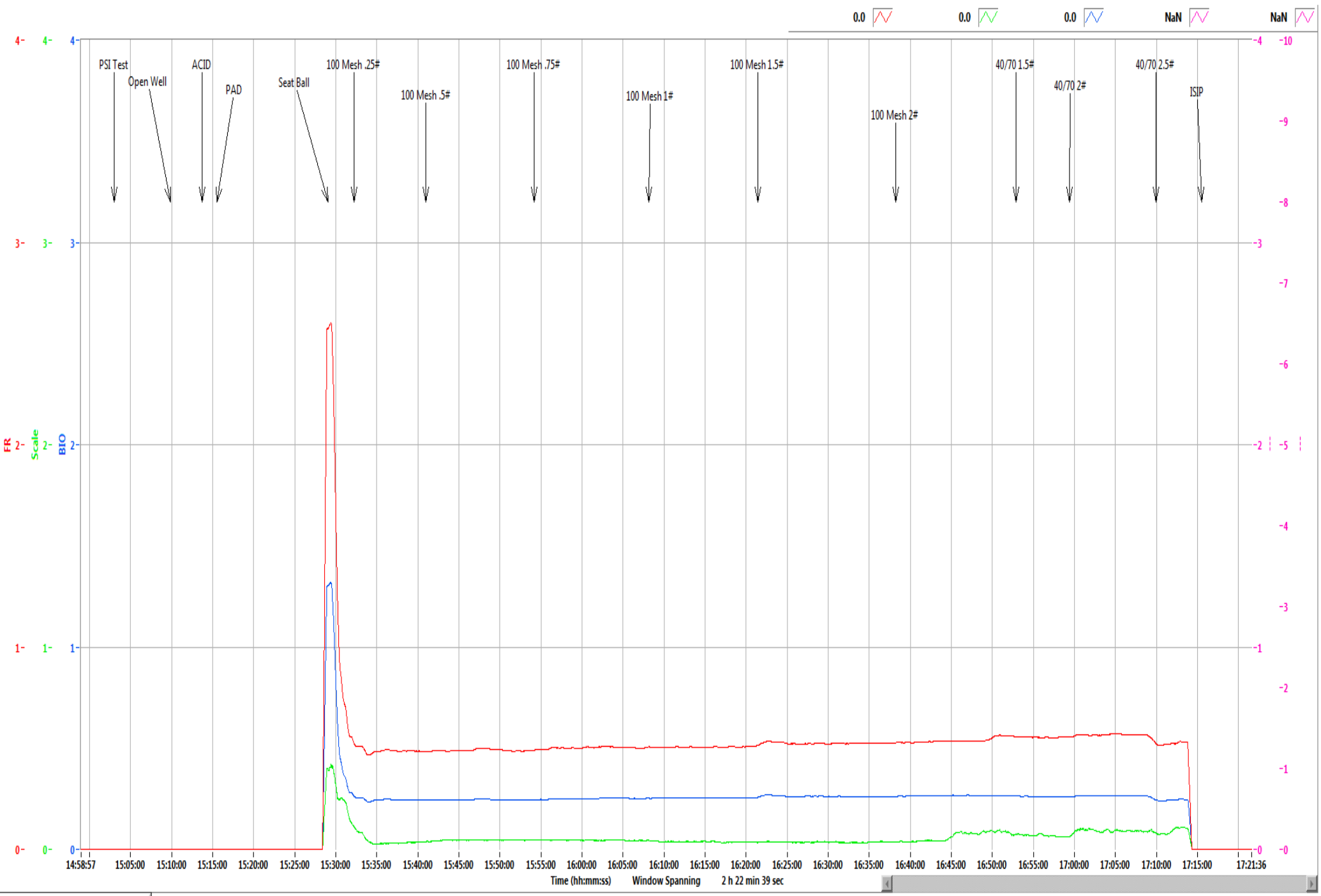
NNE
Boggess 13H
Stage 11
Producers Service Corp.

Post Stage Report
September 5, 2019



Time (hh:mm:ss) Window Spanning 2 h 22 min 39 sec

Refresh Graph



Refresh Graph

Boguess Pad	13H
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Stage	11
Date:	9/5/19
OWP (psi):	3,378
Starting Time	3:09 PM
Ending Time	5:15 PM
Pump Time (hr:min)	02:06
Swap Time (hr:min)	06:05
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,825
Average Treating Rate (bbl/min)	82
Average Treating Pressure (psi)	9,011
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	9,389
Displacement (psi)	9,183
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,726
Final FG (psi/ft)	1.15
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,616
Acid 7.5% HCL (gal)	1,000
Wireline Pump Down (bbls)	446
Pad (bbls)	516
Treatment (bbls)	7,699
Displacement (bbls)	424
(Acid Included)Total Fluid (bbls)	8,640
Dirty Job Total (bbls)	8,982
100 Mesh	305,340
40/70	92,760
Total Proppant (lbs)	398,100
Total Proppant %	99.5%

CHEMICALS

FR 9800	181
Biocide	90
Scale	20

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23045
 Date: 9/5/2019
 Well Name: Boggess 13H
 Stage No.: 11

State: WV
 County: Monongahela
 Operator: Moon/Tilton
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	1000	GAL	\$ 1.25	\$ 1,250.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	2	GAL	\$ 35.00	\$ 70.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,053.40	CWT	\$ 5.50	\$ 16,793.70
SAND 40/70	40/70 white	927.60	CWT	\$ 5.75	\$ 5,333.70
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	181	GAL	\$ 17.75	\$ 3,212.75
BIOC11219A	Biocide @ 0.25 GPT	90	GAL	\$ 16.00	\$ 1,440.00
SCAL16846A	Scale Control @ 0.05 GPT	20	GAL	\$ 16.00	\$ 320.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.05	TON	\$ 55.00	\$ 10,947.75
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 59,167.90
 25% Discount Applied \$ 14,791.98
 Net Stage Total \$ 44,375.93

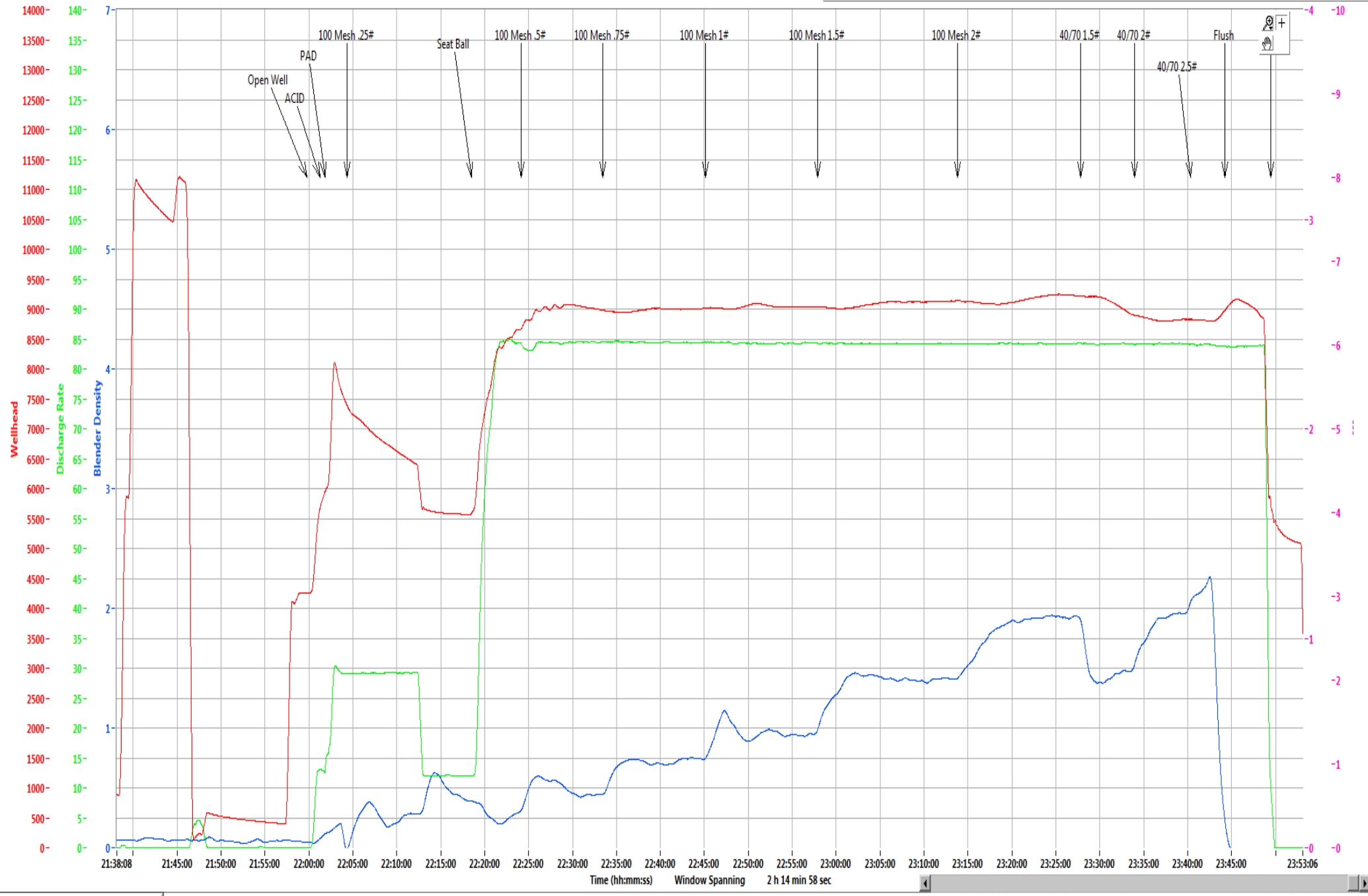
(Print Name) Glenn Boyd Customer Signature: [Signature]
 Customer Rep: _____



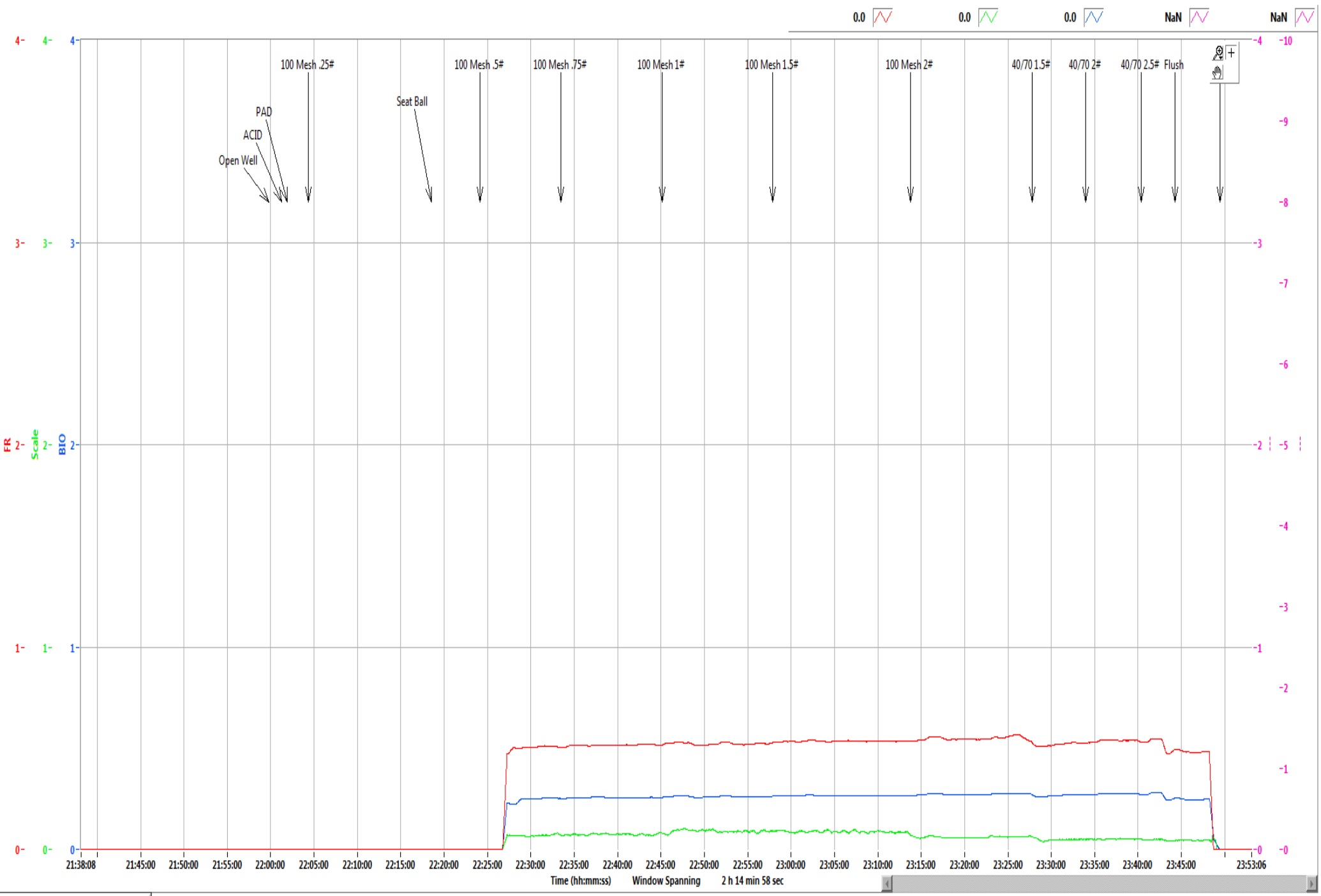
NNE
Boggess 13H
Stage 12
Producers Service Corp.

Post Stage Report
September 5, 2019

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Refresh Graph



Refresh Graph

Boggess Pad	13H
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Stage	12
Date:	9/5/19
OWP (psi):	4,251
Starting Time	9:59 PM
Ending Time	11:49 PM
Pump Time (hr:min)	01:50
Swap Time (hr:min)	01:43
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,708
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	9,028
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	9,282
Displacement (psi)	9,032
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,366
Final FG (psi/ft)	1.10
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,746
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	456
Pad (bbls)	66
Treatment (bbls)	7,375
Displacement (bbls)	404
(Acid Included)Total Fluid (bbls)	7,752
Dirty Job Total (bbls)	8,111
100 Mesh	299,580
40/70	100,160
Total Proppant (lbs)	399,740
Total Proppant %	99.9%

CHEMICALS

FR 9800	171
Biocide	87
Scale	19

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23046
 Date: 9/5/2019
 Well Name: Bogges 13H
 Stage No.: 12

State: WV
 County: Monongahela
 Operator: Brad/Joe/Austin
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,995.80	CWT	\$ 5.50	\$ 16,476.90
SAND 40/70	40/70 white	1,001.60	CWT	\$ 5.75	\$ 5,759.20
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	171	GAL	\$ 17.75	\$ 3,035.25
BIOC11219A	Biocide @ 0.25 GPT	87	GAL	\$ 16.00	\$ 1,392.00
SCAL16846A	Scale Control @ 0.05 GPT	19	GAL	\$ 16.00	\$ 304.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.87	TON	\$ 55.00	\$ 10,992.85
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 58,090.20
 25% Discount Applied \$ 14,522.55
 Net Stage Total \$ 43,567.65

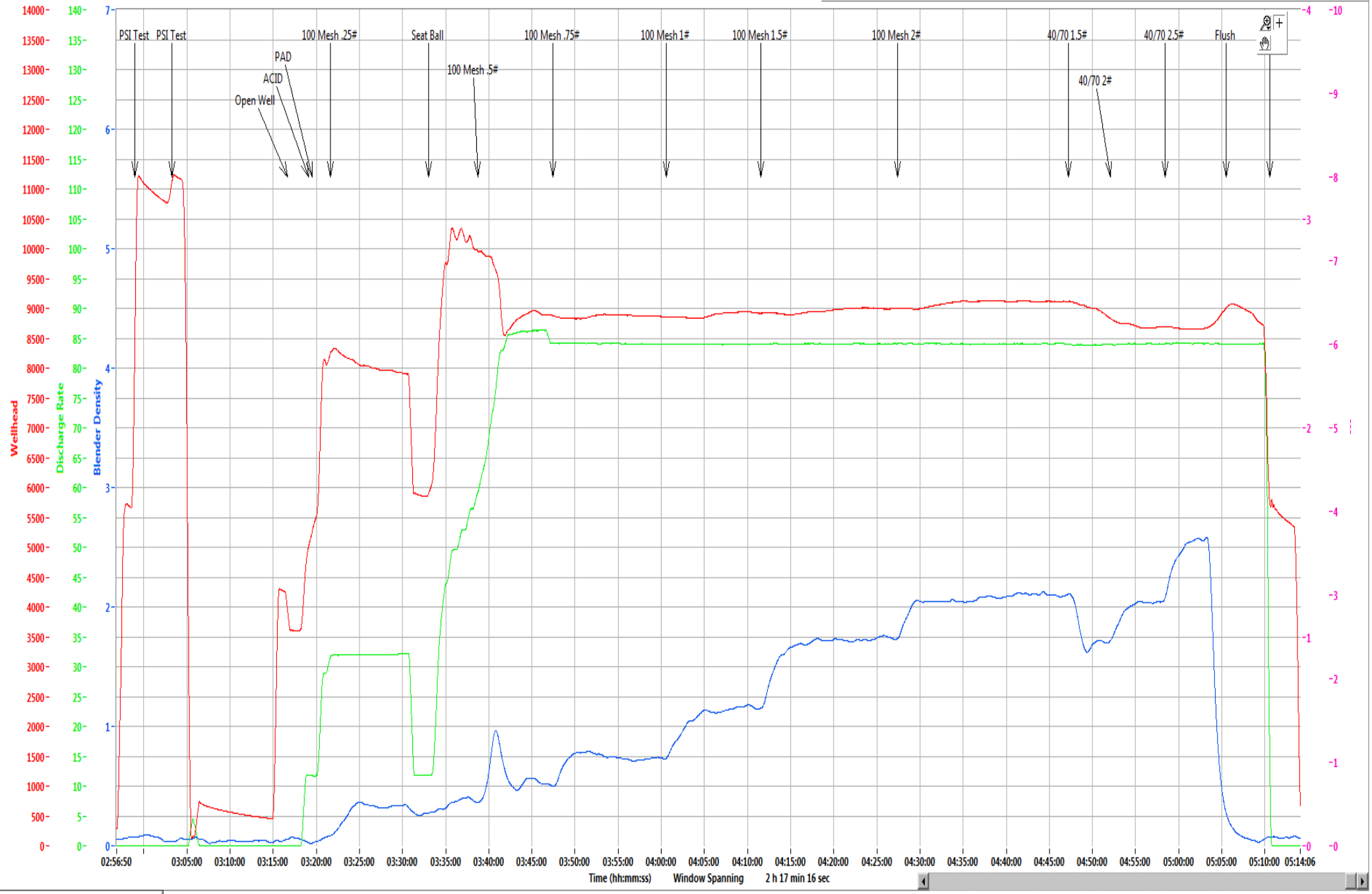
(Print Name) Customer Rep: Mike Inman Customer Signature: 



NNE
Boggess 13H
Stage 13
Producers Service Corp.

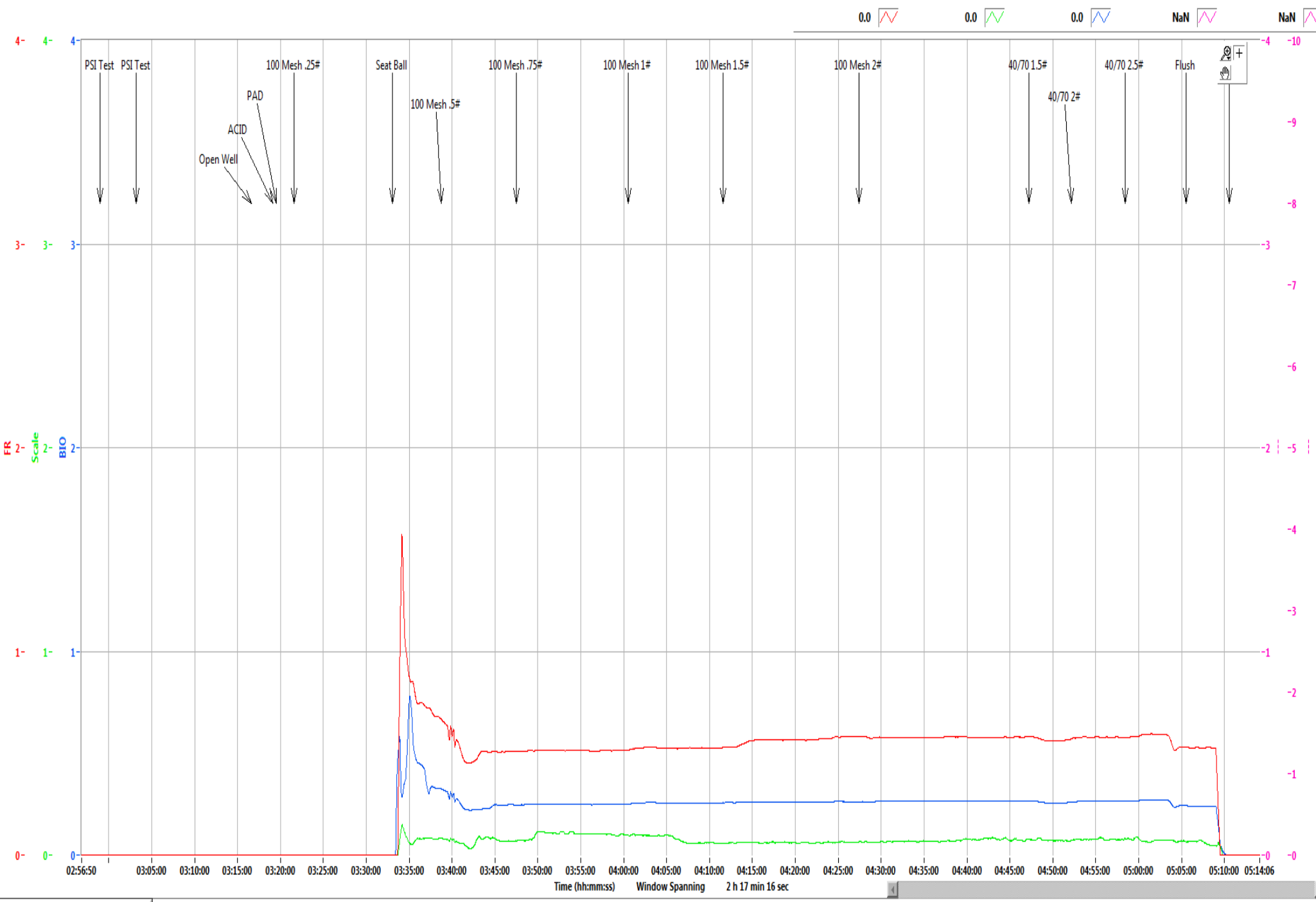
Post Stage Report
September 6, 2019

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Time (hh:mm:ss) Window Spanning 2 h 17 min 16 sec

Refresh Graph



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PSI Test PSI Test
Open Well ACID PAD
100 Mesh .25#
Seat Ball 100 Mesh .5#
100 Mesh .75#
100 Mesh 1#
100 Mesh 1.5#
100 Mesh 2#
40/70 1.5# 40/70 2#
40/70 2.5#
Flush

FR 2-
Scale 2-
BLO 2-

Time (hh:mm:ss) Window Spanning 2 h 17 min 16 sec

Refresh Graph

Boggess Pad**13H**

Stage	13
Date:	9/6/19
OWP (psi):	3,618
Starting Time	3:16 AM
Ending Time	5:10 AM
Pump Time (hr:min)	01:54
Swap Time (hr:min)	00:52
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,059
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	8,927
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	10,439
Displacement (psi)	9,031
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,377
Final FG (psi/ft)	1.10
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,141
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	439
Pad (bbls)	50
Treatment (bbls)	7,696
Displacement (bbls)	402
(Acid Included)Total Fluid (bbls)	8,153
Dirty Job Total (bbls)	8,500
100 Mesh	295,860
40/70	103,580
Total Proppant (lbs)	399,440
Total Proppant %	99.9%

CHEMICALS

FR 9800	170
Biocide	83
Scale	19

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23049
 Date: 9/6/2019
 Well Name: Bogges 13H
 Stage No.: 13

State: WV
 County: Monongahela
 Operator: Brad/Joe/Austin
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,958.60	CWT	\$ 5.50	\$ 16,272.30
SAND 40/70	40/70 white	1,035.80	CWT	\$ 5.75	\$ 5,955.85
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	170	GAL	\$ 17.75	\$ 3,017.50
BIOC11219A	Biocide @ 0.25 GPT	83	GAL	\$ 16.00	\$ 1,328.00
SCAL16846A	Scale Control @ 0.05 GPT	19	GAL	\$ 16.00	\$ 304.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.72	TON	\$ 55.00	\$ 10,984.60
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

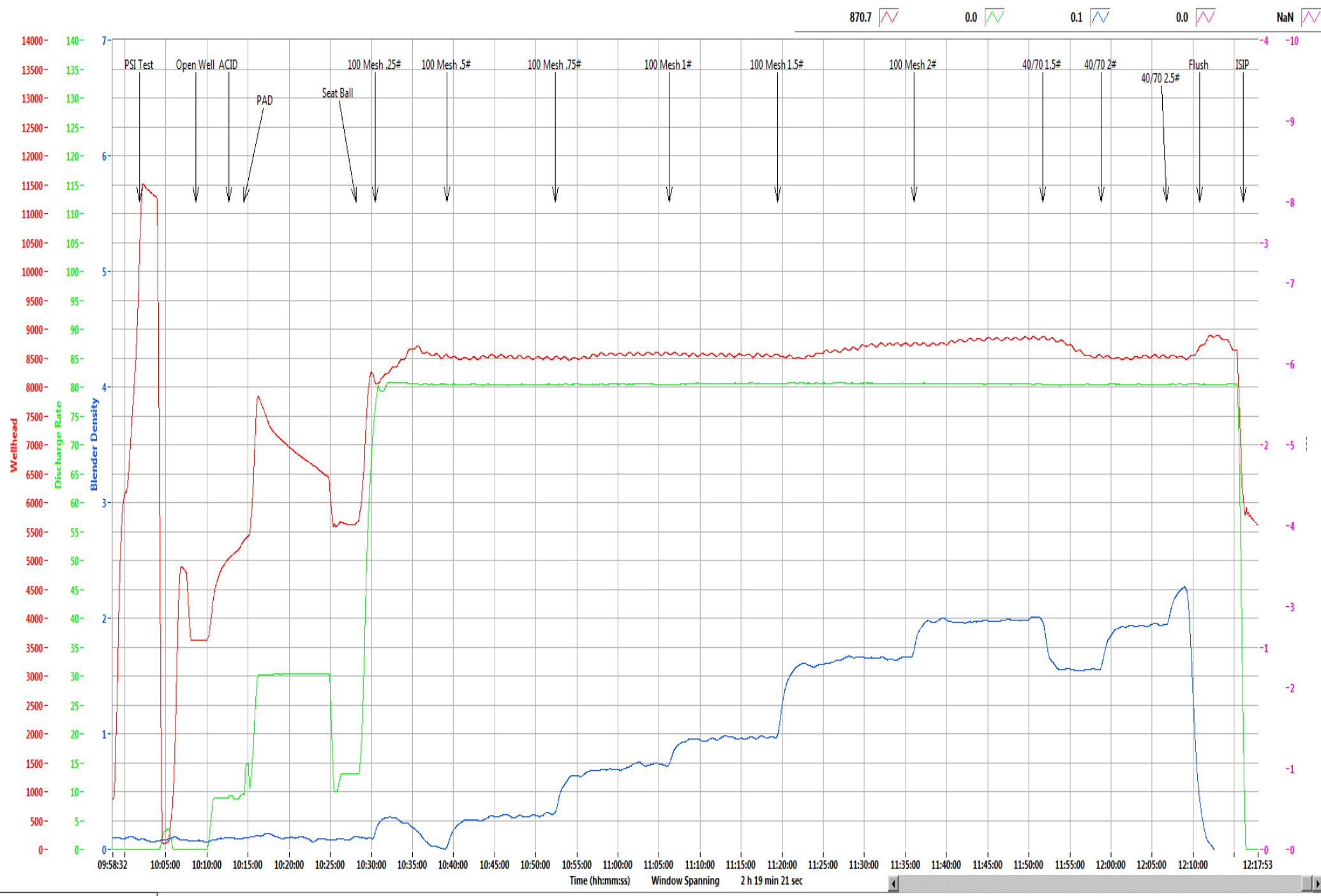
Total No Discount \$ 57,992.25
 25% Discount Applied \$ 14,498.06
 Net Stage Total \$ 43,494.19

(Print Name) Customer Rep: Mike Tamm Customer Signature: 



NNE
Boggess 13H
Stage 14
Producers Service Corp.

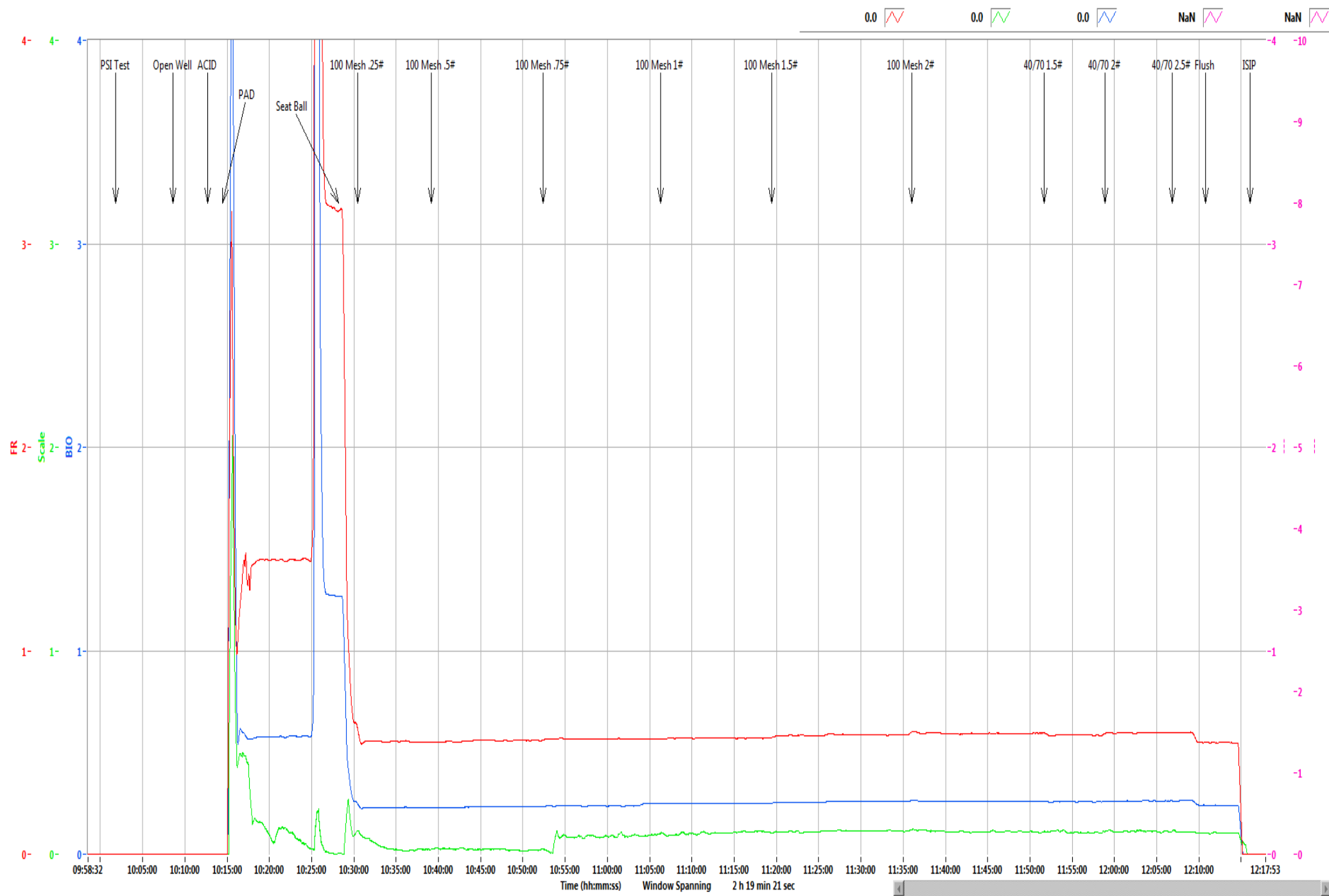
Post Stage Report
September 6, 2019



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Refresh Graph



Refresh Graph

Boggess Pad	13H
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Stage	14
Date:	9/6/19
OWP (psi):	3,609
Starting Time	10:01 AM
Ending Time	12:16 PM
Pump Time (hr:min)	02:15
Swap Time (hr:min)	01:13
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,740
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,595
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	8,936
Displacement (psi)	8,749
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,580
Final FG (psi/ft)	1.25
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,806
Acid 7.5% HCL (gal)	1,000
Wireline Pump Down (bbls)	440
Pad (bbls)	453
Treatment (bbls)	7,964
Displacement (bbls)	398
(Acid Included)Total Fluid (bbls)	8,830
Dirty Job Total (bbls)	9,150
100 Mesh	298,380
40/70	100,880
Total Proppant (lbs)	399,260
Total Proppant %	99.8%

CHEMICALS

FR 9800	191
Biocide	94
Scale	23

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22951
 Date: 9/6/2019
 Well Name: Boggess 13H
 Stage No.: 14

State: WV
 County: Monongahela
 Operator: Jeremy/Jeremy
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	1000	GAL	\$ 1.25	\$ 1,250.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	2	GAL	\$ 35.00	\$ 70.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,983.80	CWT	\$ 5.50	\$ 16,410.90
SAND 40/70	40/70 white	1,008.80	CWT	\$ 5.75	\$ 5,800.60
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	191	GAL	\$ 17.75	\$ 3,390.25
BIOC11219A	Biocide @ 0.25 GPT	94	GAL	\$ 16.00	\$ 1,504.00
SCAL16846A	Scale Control @ 0.05 GPT	23	GAL	\$ 16.00	\$ 368.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.63	TON	\$ 55.00	\$ 10,979.65
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 59,573.40
 25% Discount Applied \$ 14,893.35
 Net Stage Total \$ 44,680.05

(Print Name)
 Customer Rep:

G Bayl

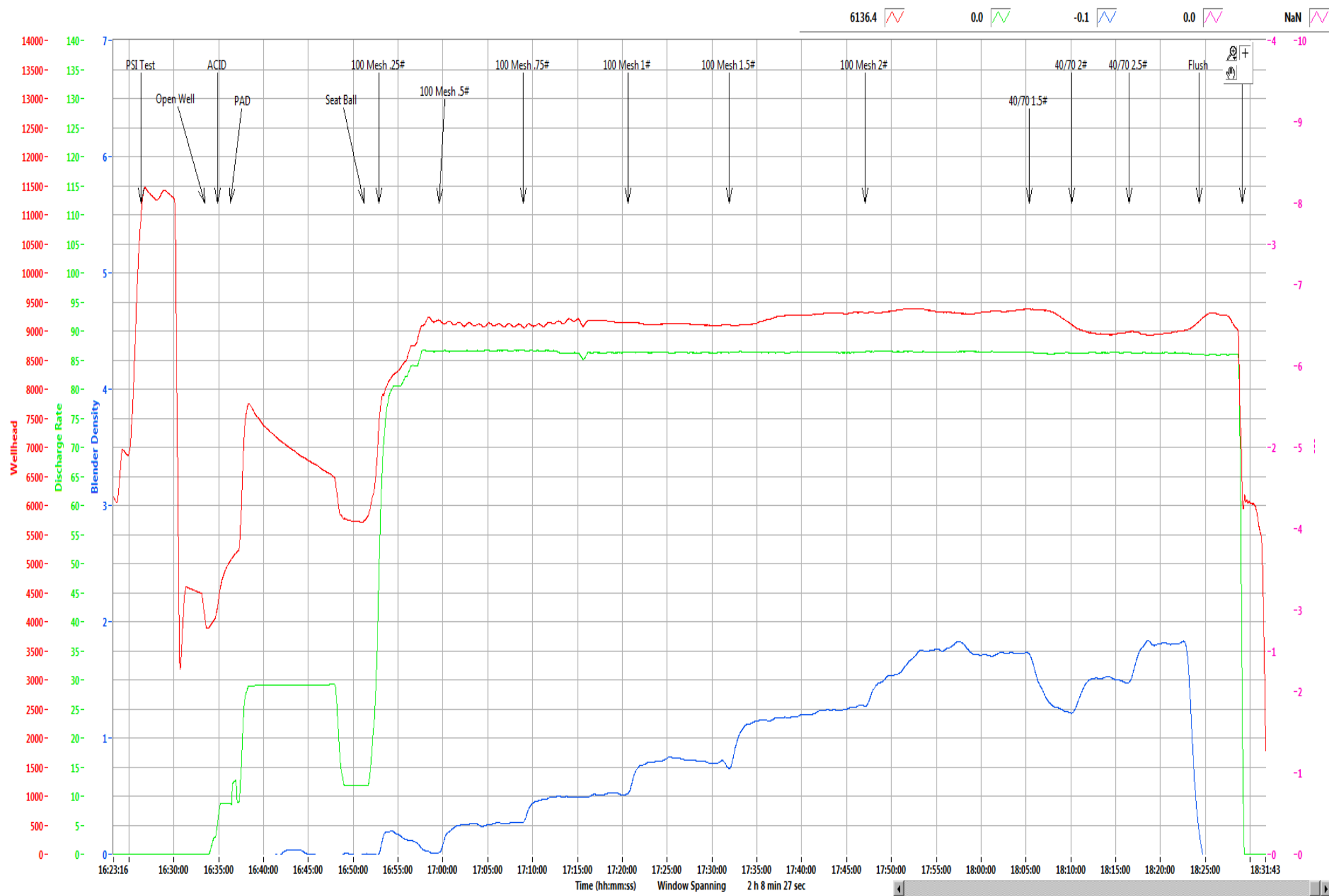
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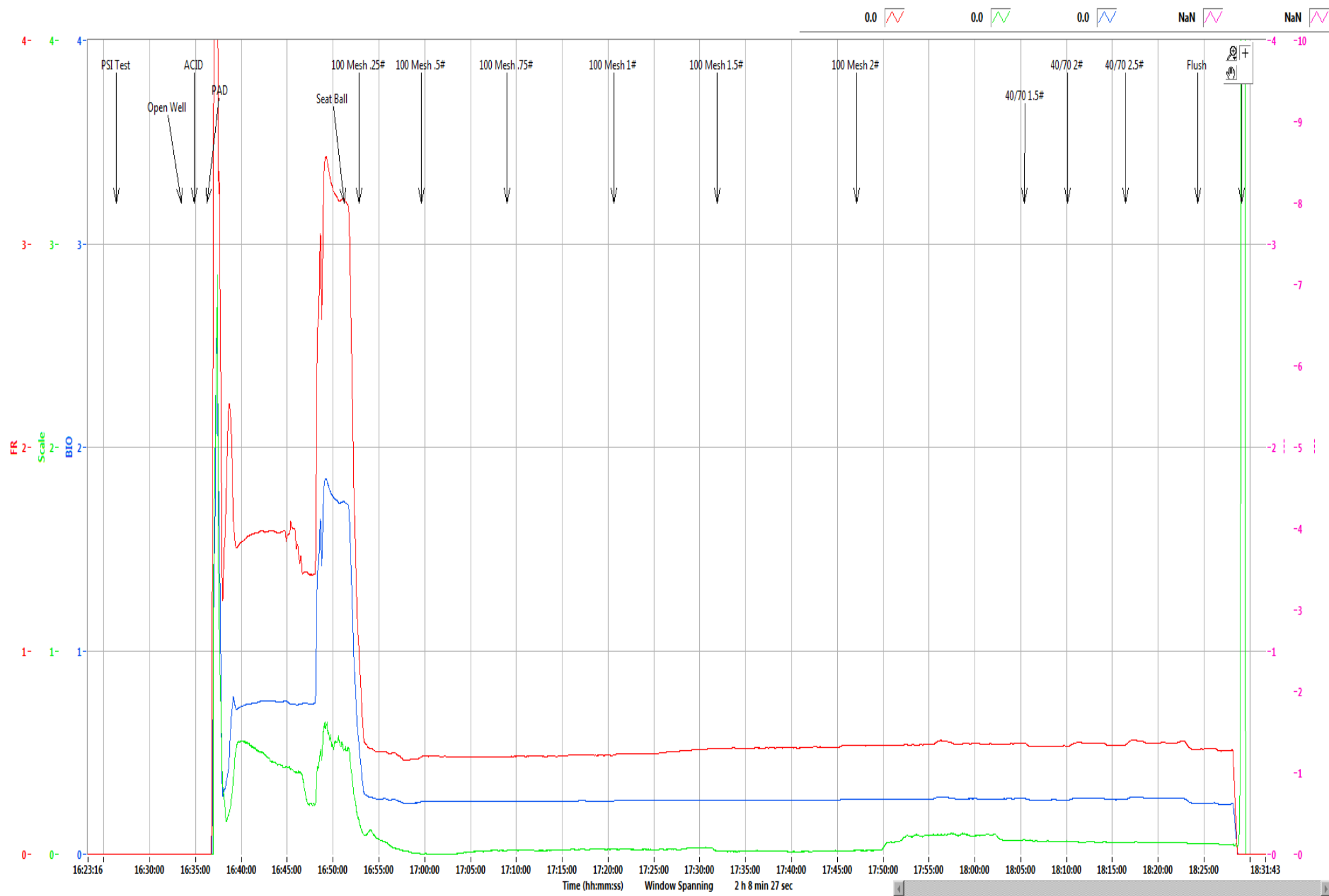
NNE
Boggess 13H
Stage 15
Producers Service Corp.

Post Stage Report
September 6, 2019



Refresh Graph

Time (hh:mm:ss) Window Spanning 2 h 8 min 27 sec



Refresh Graph

Boggess Pad	13H
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Stage	15
Date:	9/6/19
OWP (psi):	3,896
Starting Time	4:26 PM
Ending Time	6:29 PM
Pump Time (hr:min)	02:03
Swap Time (hr:min)	01:16
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,812
Average Treating Rate (bbl/min)	86
Average Treating Pressure (psi)	9,186
Maximum Treating Rate (bbl/min)	88
Maximum Treating Pressure (psi)	9,425
Displacement (psi)	9,230
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,897
Final FG (psi/ft)	1.17
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,530
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	432
Pad (bbls)	410
Treatment (bbls)	7,711
Displacement (bbls)	400
(Acid Included)Total Fluid (bbls)	8,542
Dirty Job Total (bbls)	8,881
100 Mesh	299,240
40/70	104,860
Total Proppant (lbs)	404,100
Total Proppant %	101.0%

CHEMICALS

FR 9800	180
Biocide	90
Scale	18

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22953
 Date: 9/6/2019
 Well Name: Boggess 13H
 Stage No.: 15

State: WV
 County: Monongahela
 Operator: Austin/Brad/Joe
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	500	GAL	\$ 1.25	\$ 625.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	1	GAL	\$ 35.00	\$ 35.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,992.40	CWT	\$ 5.50	\$ 16,458.20
SAND 40/70	40/70 white	1,048.60	CWT	\$ 5.75	\$ 6,029.45
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	180	GAL	\$ 17.75	\$ 3,195.00
BIOC11219A	Biocide @ 0.25 GPT	90	GAL	\$ 16.00	\$ 1,440.00
SCAL16846A	Scale Control @ 0.05 GPT	18	GAL	\$ 16.00	\$ 288.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		202.05	TON	\$ 55.00	\$ 11,112.75
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

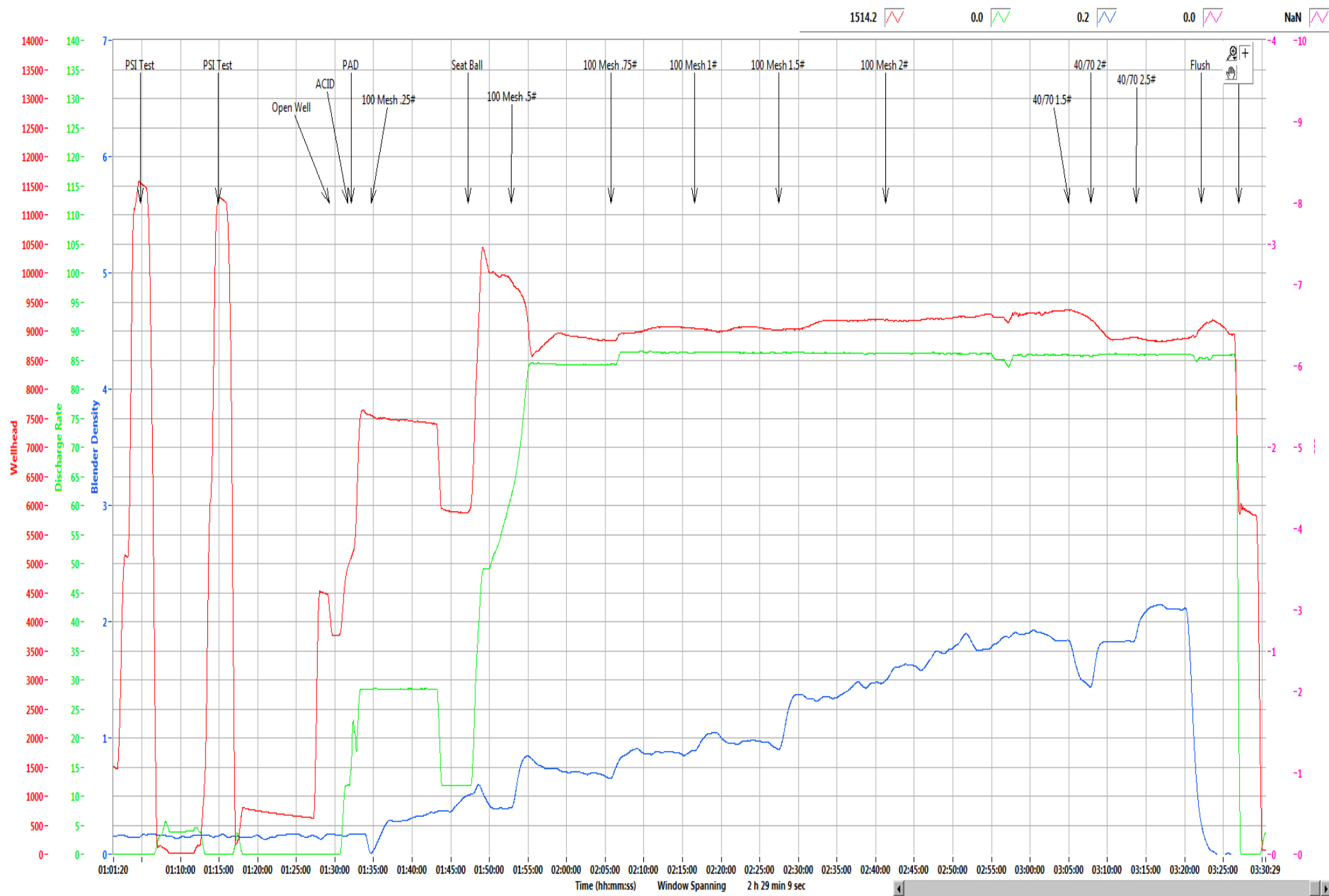
Total No Discount \$ 58,983.40
 25% Discount Applied \$ 14,745.85
 Net Stage Total \$ 44,237.55

(Print Name) MIKE Inman Customer Signature: 



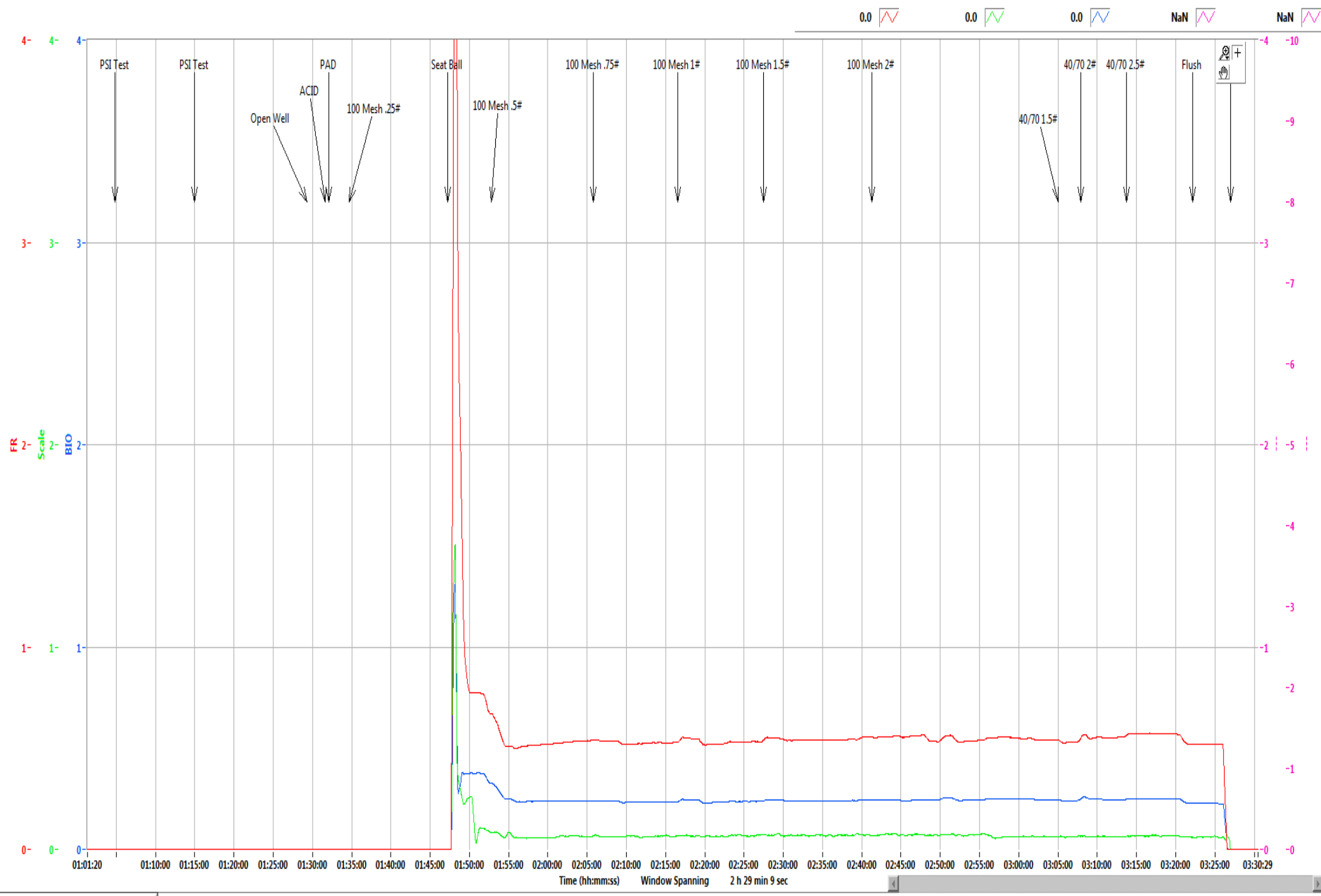
NNE
Boggess 13H
Stage 16
Producers Service Corp.

Post Stage Report
September 7, 2019



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Refresh Graph



Refresh Graph

Bogges Pad**13H**

Stage	16
Date:	9/7/19
OWP (psi):	3,751
Starting Time	1:29 AM
Ending Time	3:26 AM
Pump Time (hr:min)	01:57
Swap Time (hr:min)	02:31
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,984
Average Treating Rate (bbl/min)	86
Average Treating Pressure (psi)	9,071
Maximum Treating Rate (bbl/min)	87
Maximum Treating Pressure (psi)	10,536
Displacement (psi)	9,071
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,374
Final FG (psi/ft)	1.10
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,462
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	425
Pad (bbls)	87
Treatment (bbls)	7,980
Displacement (bbls)	394
(Acid Included)Total Fluid (bbls)	8,468
Dirty Job Total (bbls)	8,804
100 Mesh	304,460
40/70	97,980
Total Proppant (lbs)	402,440
Total Proppant %	100.6%

CHEMICALS

FR 9800	175
Biocide	85
Scale	17

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22955
 Date: 9/7/2019
 Well Name: Bogges 13H
 Stage No.: 16

State: WV
 County: Monongahela
 Operator: Austin/Brad/Joe
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,044.60	CWT	\$ 5.50	\$ 16,745.30
SAND 40/70	40/70 white	979.80	CWT	\$ 5.75	\$ 5,633.85
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	175	GAL	\$ 17.75	\$ 3,106.25
BIOC11219A	Biocide @ 0.25 GPT	85	GAL	\$ 16.00	\$ 1,360.00
SCAL16846A	Scale Control @ 0.05 GPT	17	GAL	\$ 16.00	\$ 272.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		201.22	TON	\$ 55.00	\$ 11,067.10
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

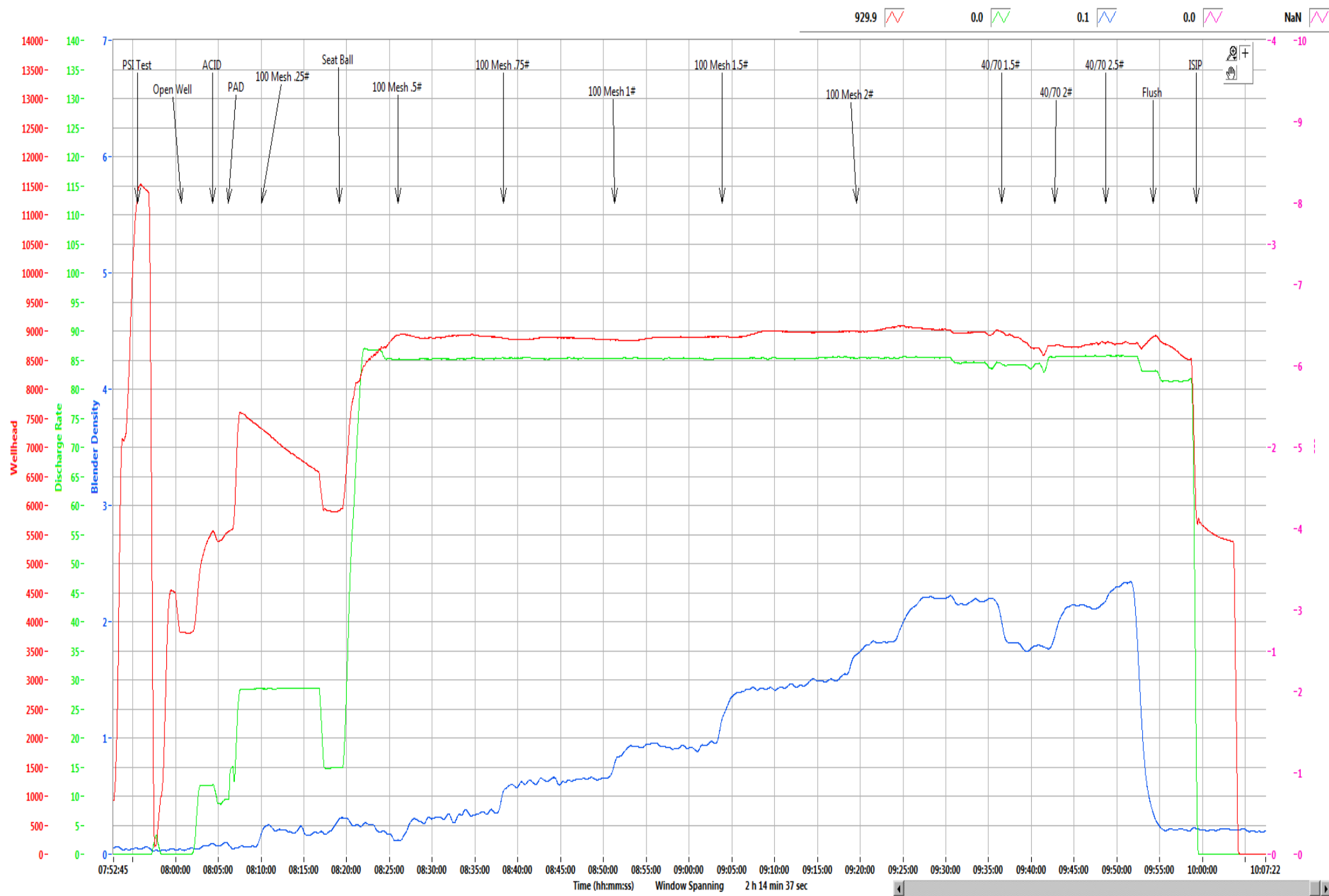
Total No Discount \$ 58,314.50
 25% Discount Applied \$ 14,578.63
 Net Stage Total \$ 43,735.88

(Print Name) MIKE Inman Customer Rep: _____ Customer Signature: 

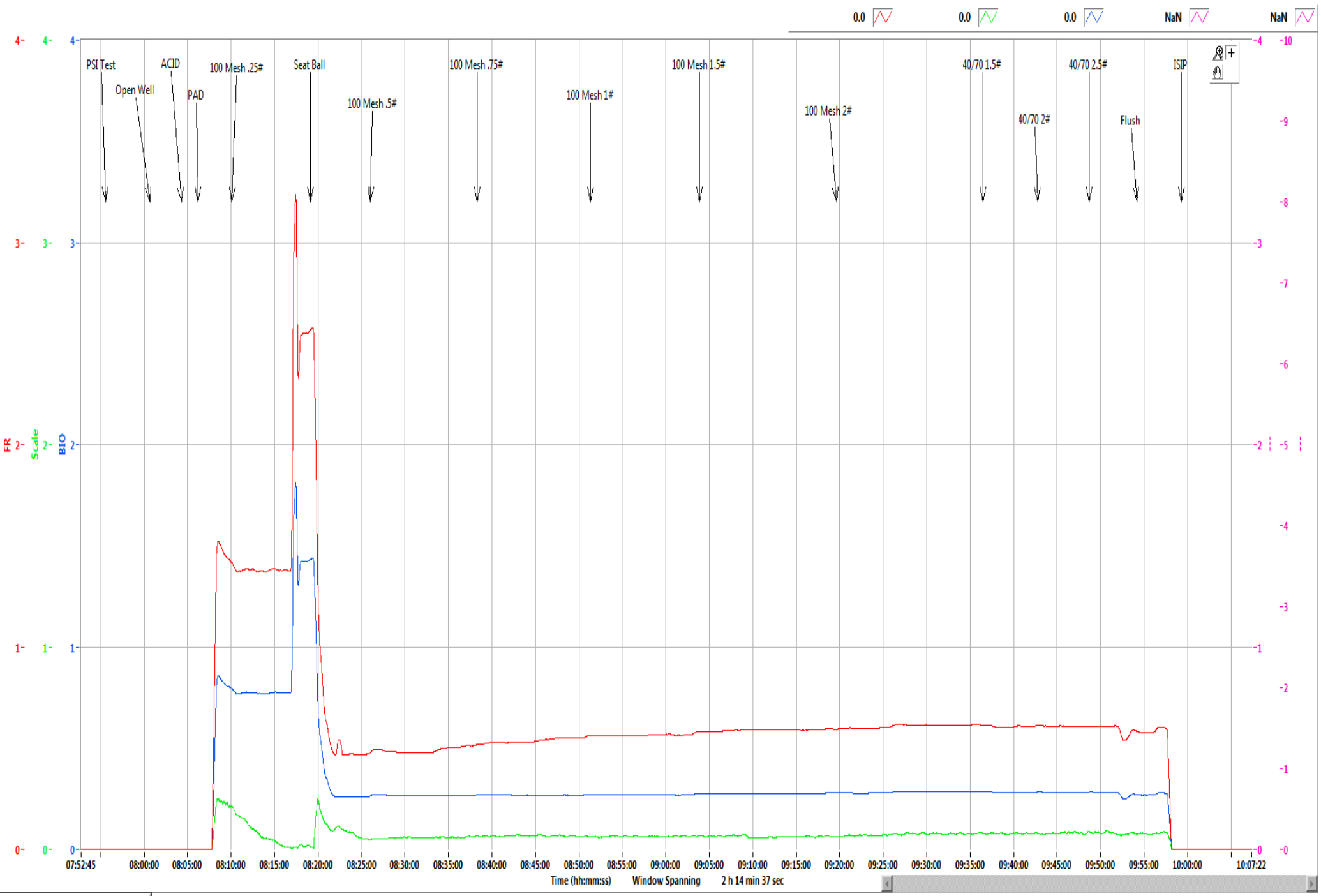


NNE
Boggess 13H
Stage 17
Producers Service Corp.

Post Stage Report
September 7, 2019



Refresh Graph



Refresh Graph

Bogges Pad**13H**

Stage	17
Date:	9/7/19
OWP (psi):	3,813
Starting Time	8:00 AM
Ending Time	9:59 AM
Pump Time (hr:min)	01:59
Swap Time (hr:min)	01:03
Starting # Pumps	17
Finishing # Pumps	15
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,958
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	8,905
Maximum Treating Rate (bbl/min)	87
Maximum Treating Pressure (psi)	9,148
Displacement (psi)	8,932
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,547
Final FG (psi/ft)	1.12
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,534
Acid 7.5% HCL (gal)	1,000
Wireline Pump Down (bbls)	417
Pad (bbls)	99
Treatment (bbls)	8,070
Displacement (bbls)	389
(Acid Included)Total Fluid (bbls)	8,558
Dirty Job Total (bbls)	8,924
100 Mesh	299,520
40/70	99,360
Total Proppant (lbs)	398,880
Total Proppant %	99.7%

CHEMICALS

FR 9800	181
Biocide	90
Scale	20

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501




Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22957
 Date: 9/7/2019
 Well Name: Boggess 13H
 Stage No.: 17

State: WV
 County: Monongahela
 Operator: Moon/Tilton
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	1000	GAL	\$ 1.25	\$ 1,250.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	2	GAL	\$ 35.00	\$ 70.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,995.20	CWT	\$ 5.50	\$ 16,473.60
SAND 40/70	40/70 white	993.60	CWT	\$ 5.75	\$ 5,713.20
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	181	GAL	\$ 17.75	\$ 3,212.75
BIOC11219A	Biocide @ 0.25 GPT	90	GAL	\$ 16.00	\$ 1,440.00
SCAL16846A	Scale Control @ 0.05 GPT	20	GAL	\$ 16.00	\$ 320.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.44	TON	\$ 55.00	\$ 10,969.20
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 59,248.75
 25% Discount Applied \$ 14,812.19
 Net Stage Total \$ 44,436.56

(Print Name) Customer Rep: Glenn Boyl Customer Signature: 

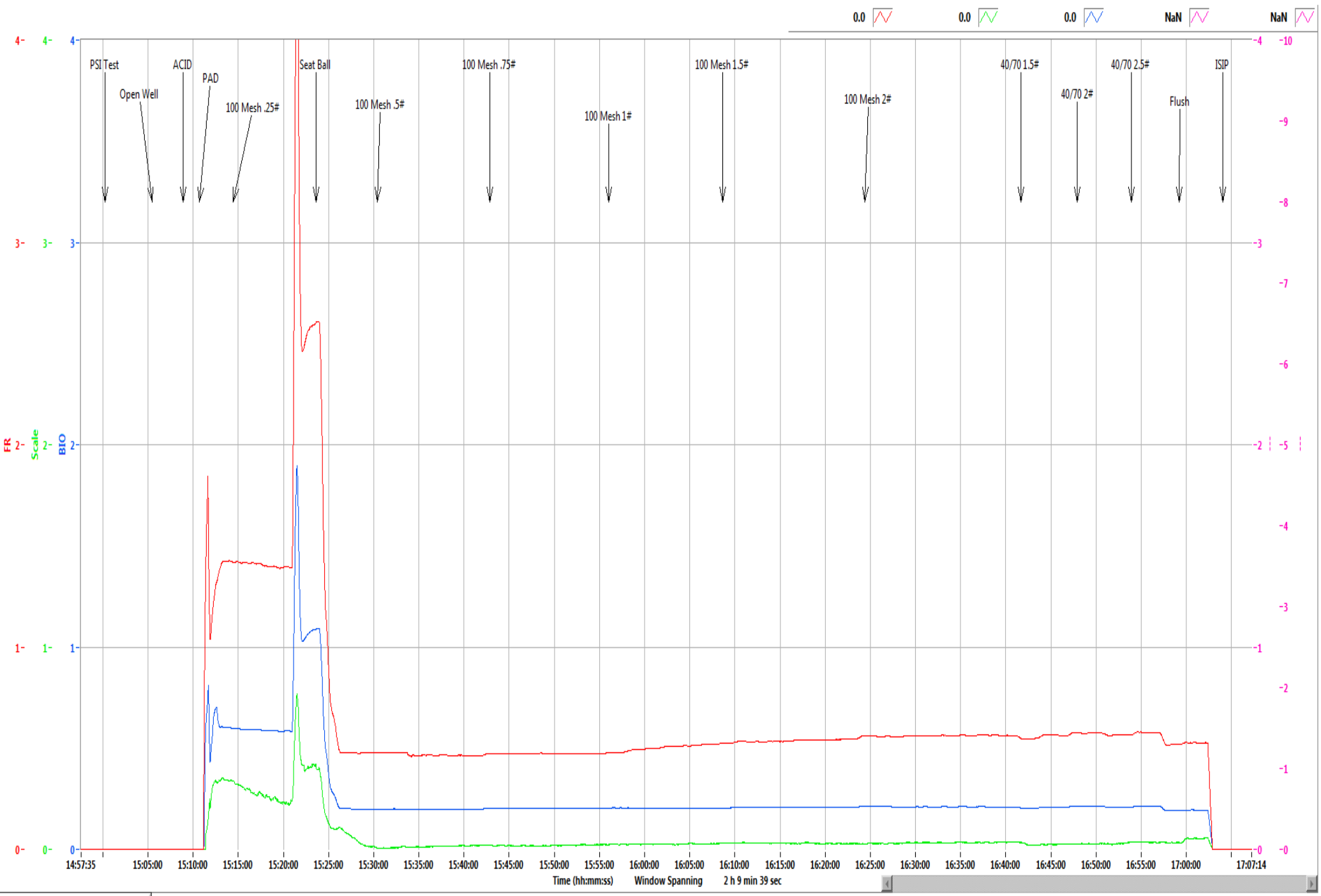


NNE
Boggess 13H
Stage 18
Producers Service Corp.

Post Stage Report
September 7, 2019



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Boggess Pad**13H**

Stage	18
Date:	9/7/19
OWP (psi):	3,657
Starting Time	3:05 PM
Ending Time	5:04 PM
Pump Time (hr:min)	01:59
Swap Time (hr:min)	01:03
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,882
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	9,012
Maximum Treating Rate (bbl/min)	85
Maximum Treating Pressure (psi)	9,238
Displacement (psi)	9,058
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,617
Final FG (psi/ft)	1.13
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,525
Acid 7.5% HCL (gal)	1,000
Wireline Pump Down (bbls)	352
Pad (bbls)	98
Treatment (bbls)	8,067
Displacement (bbls)	384
(Acid Included)Total Fluid (bbls)	8,549
Dirty Job Total (bbls)	8,878
100 Mesh	297,980
40/70	101,040
Total Proppant (lbs)	399,020
Total Proppant %	99.8%

CHEMICALS

FR 9800	180
Biocide	90
Scale	20

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22959
 Date: 9/7/2019
 Well Name: Bogges 13H
 Stage No.: 18

State: WV
 County: Monongahela
 Operator: Moon/Tilton
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	1000	GAL	\$ 1.25	\$ 1,250.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	2	GAL	\$ 35.00	\$ 70.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,979.80	CWT	\$ 5.50	\$ 16,388.90
SAND 40/70	40/70 white	1,010.40	CWT	\$ 5.75	\$ 5,809.80
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	180	GAL	\$ 17.75	\$ 3,195.00
BIOC11219A	Biocide @ 0.25 GPT	90	GAL	\$ 16.00	\$ 1,440.00
SCAL16846A	Scale Control @ 0.05 GPT	20	GAL	\$ 16.00	\$ 320.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.51	TON	\$ 55.00	\$ 10,973.05
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 59,246.75
 25% Discount Applied \$ 14,811.69
 Net Stage Total \$ 44,435.06

(Print Name)

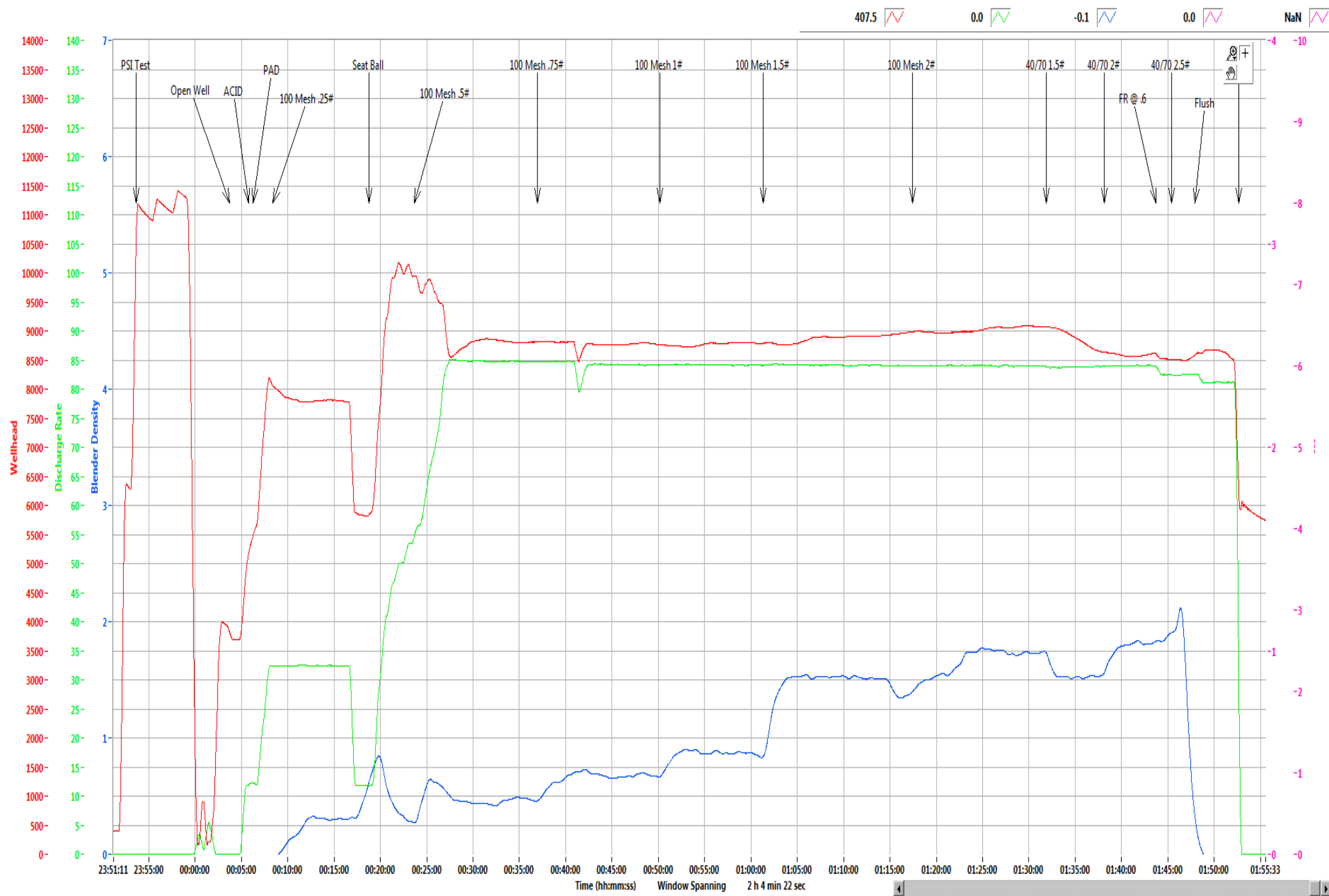
Customer Rep: G. Bond

Customer Signature: [Signature]



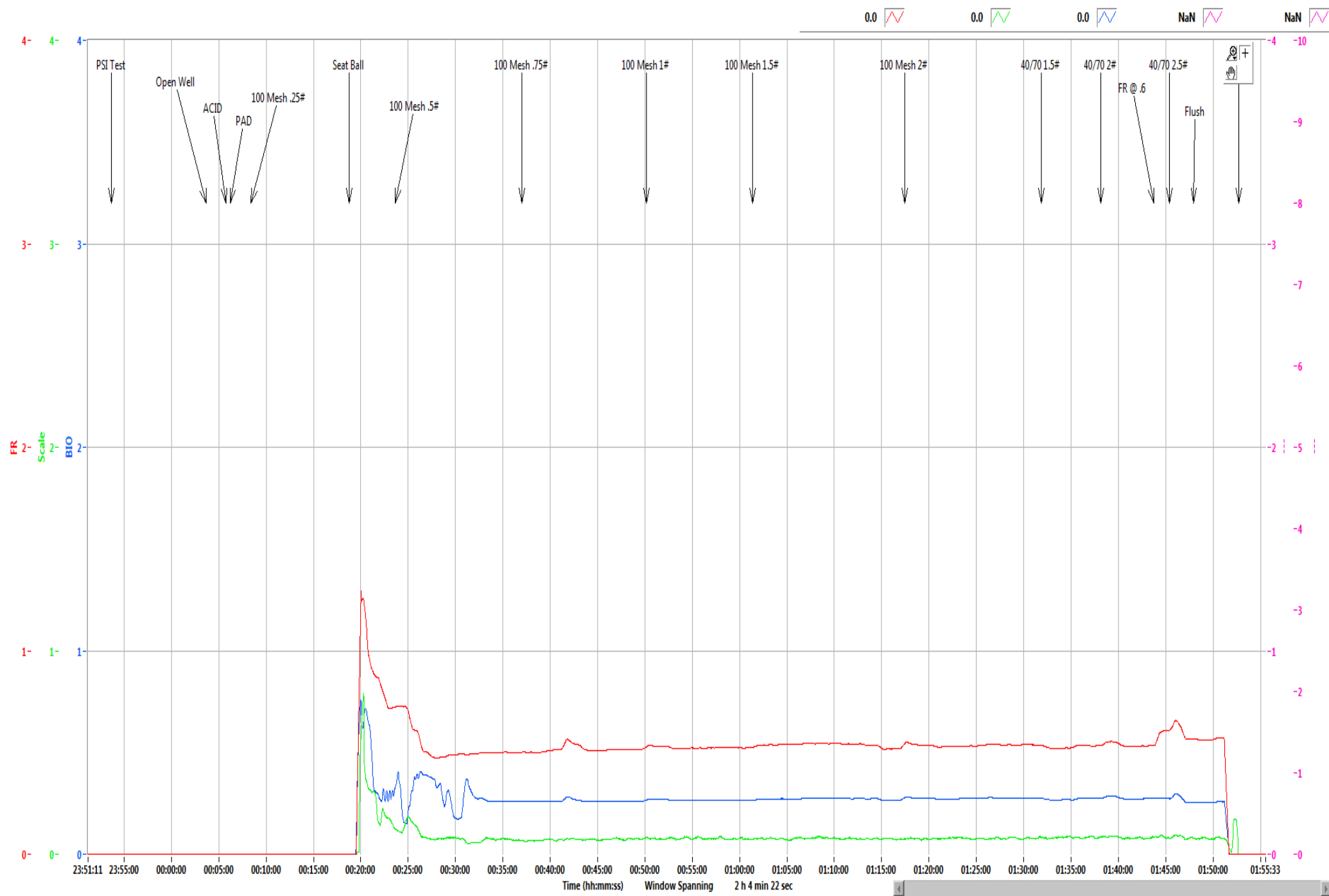
NNE
Boggess 13H
Stage 19
Producers Service Corp.

Post Stage Report
September 8, 2019



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Refresh Graph



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Boggess Pad**13H**

Stage	19
Date:	9/7/19
OWP (psi):	3,682
Starting Time	12:03 AM
Ending Time	1:52 AM
Pump Time (hr:min)	01:49
Swap Time (hr:min)	02:09
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,944
Average Treating Rate (bbl/min)	83
Average Treating Pressure (psi)	8,897
Maximum Treating Rate (bbl/min)	85
Maximum Treating Pressure (psi)	10,232
Displacement (psi)	8,598
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,921
Final FG (psi/ft)	1.17
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,761
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	396
Pad (bbls)	53
Treatment (bbls)	7,335
Displacement (bbls)	374
(Acid Included)Total Fluid (bbls)	7,767
Dirty Job Total (bbls)	8,105
100 Mesh	298,780
40/70	95,270
Total Proppant (lbs)	394,050
Total Proppant %	98.5%

CHEMICALS

FR 9800	162
Biocide	82
Scale	19

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22961
 Date: 9/8/2019
 Well Name: Bogges 13H
 Stage No.: 19

State: WV
 County: Monongahela
 Operator: Brad/Austin
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,987.80	CWT	\$ 5.50	\$ 16,432.90
SAND 40/70	40/70 white	952.70	CWT	\$ 5.75	\$ 5,478.03
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	162	GAL	\$ 17.75	\$ 2,875.50
BIOC11219A	Biocide @ 0.25 GPT	82	GAL	\$ 16.00	\$ 1,312.00
SCAL16846A	Scale Control @ 0.05 GPT	19	GAL	\$ 16.00	\$ 304.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		197.025	TON	\$ 55.00	\$ 10,836.38
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -
Total No Discount					\$ 57,368.80
25% Discount Applied					\$ 14,342.20
Net Stage Total					\$ 43,026.60

(Print Name)

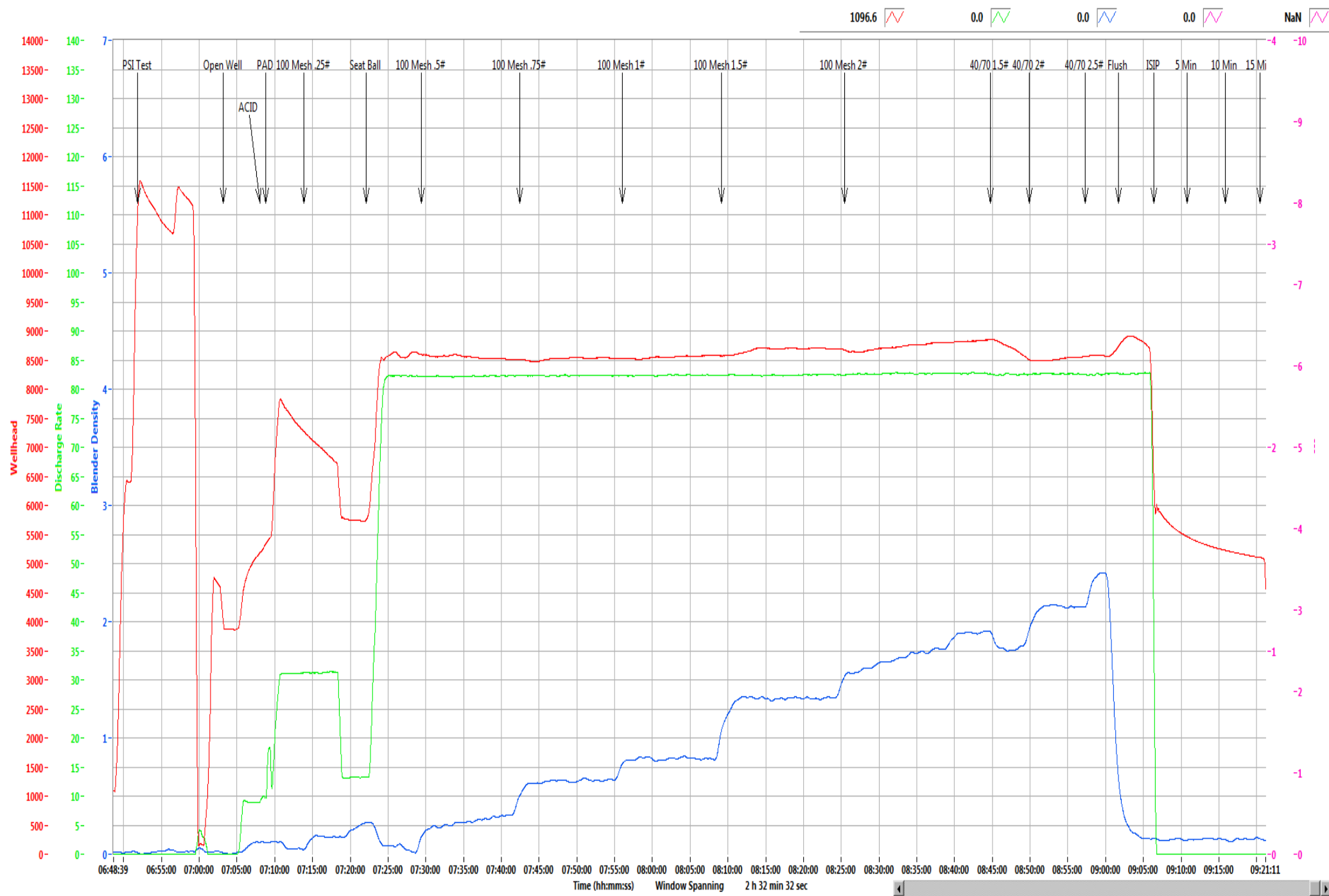
Customer Rep: Rob Cowan

Customer Signature: Brad/Austin



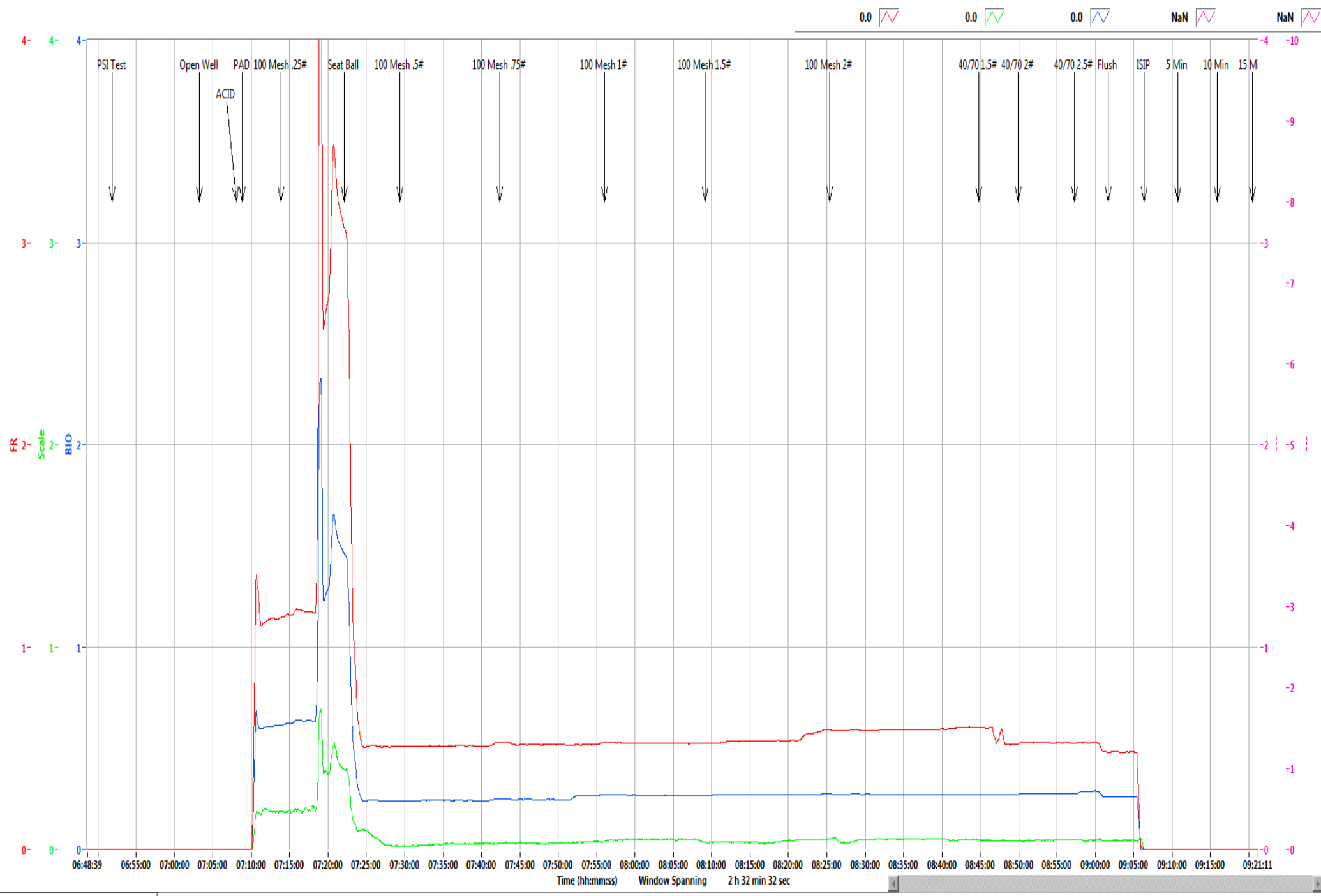
NNE
Boggess 13H
Stage 20
Producers Service Corp.

Post Stage Report
September 8, 2019



Time (hh:mm:ss) Window Spanning 2 h 32 min 32 sec

Refresh Graph



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Boggress Pad	13H
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Stage	20
Date:	9/8/19
OWP (psi):	3,870
Starting Time	6:51 AM
Ending Time	9:21 AM
Pump Time (hr:min)	02:30
Swap Time (hr:min)	01:18
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,866
Average Treating Rate (bbl/min)	82
Average Treating Pressure (psi)	8,617
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	8,935
Displacement (psi)	8,763
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,468
Final FG (psi/ft)	1.24
5 Minute Leakoff Pressure (psi)	5,449
5 Minute Leakoff Rate (psi/min)	204
10 Minute Leakoff Pressure (psi)	5,219
10 Minute Leakoff Rate (psi/min)	125
15 Minute Leakoff Pressure (psi)	5,102
15 Minute Leakoff Rate (psi/min)	91

Fluids & Proppant

Slickwater (bbls)	8,612
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	409
Pad (bbls)	144
Treatment (bbls)	8,102
Displacement (bbls)	372
(Acid Included)Total Fluid (bbls)	8,624
Dirty Job Total (bbls)	8,977
100 Mesh	301,680
40/70	99,460
Total Proppant (lbs)	401,140
Total Proppant %	100.3%

CHEMICALS

FR 9800	184
Biocide	96
Scale	21

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22963
 Date: 9/8/2019
 Well Name: Boggess 13H
 Stage No.: 20

State: WV
 County: Monongahela
 Operator: Jeremy T/Jeremy M
 PO/AFE: 100429-604

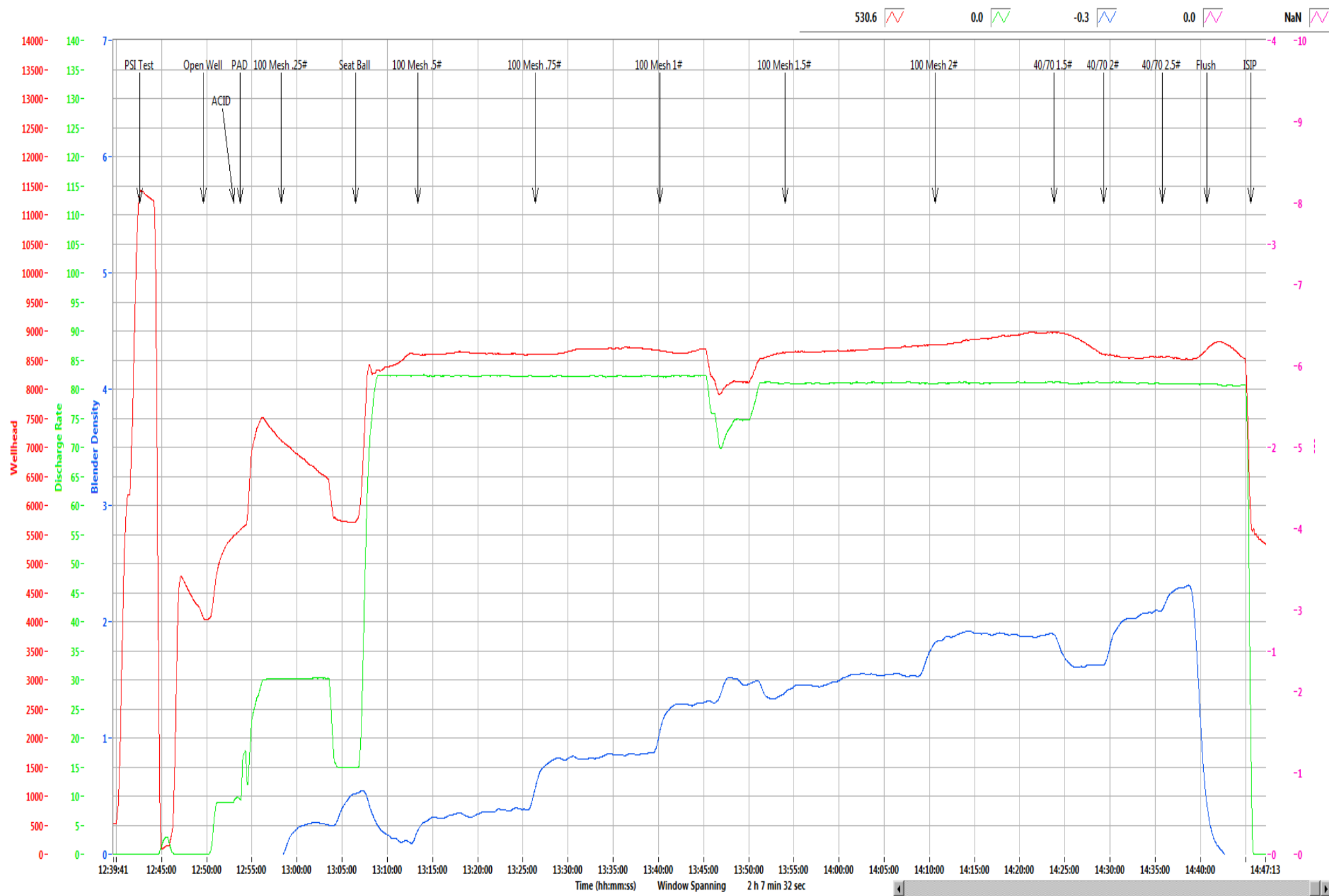
Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	500	GAL	\$ 1.25	\$ 625.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	1	GAL	\$ 35.00	\$ 35.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,016.80	CWT	\$ 5.50	\$ 16,592.40
SAND 40/70	40/70 white	994.60	CWT	\$ 5.75	\$ 5,718.95
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	184	GAL	\$ 17.75	\$ 3,266.00
BIOC11219A	Biocide @ 0.25 GPT	96	GAL	\$ 16.00	\$ 1,536.00
SCAL16846A	Scale Control @ 0.05 GPT	21	GAL	\$ 16.00	\$ 336.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.57	TON	\$ 55.00	\$ 11,031.35
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -
Total No Discount					\$ 58,940.70
25% Discount Applied					\$ 14,735.18
Net Stage Total					\$ 44,205.53

(Print Name) Customer Rep: Glenn Boyd Customer Signature: [Signature]

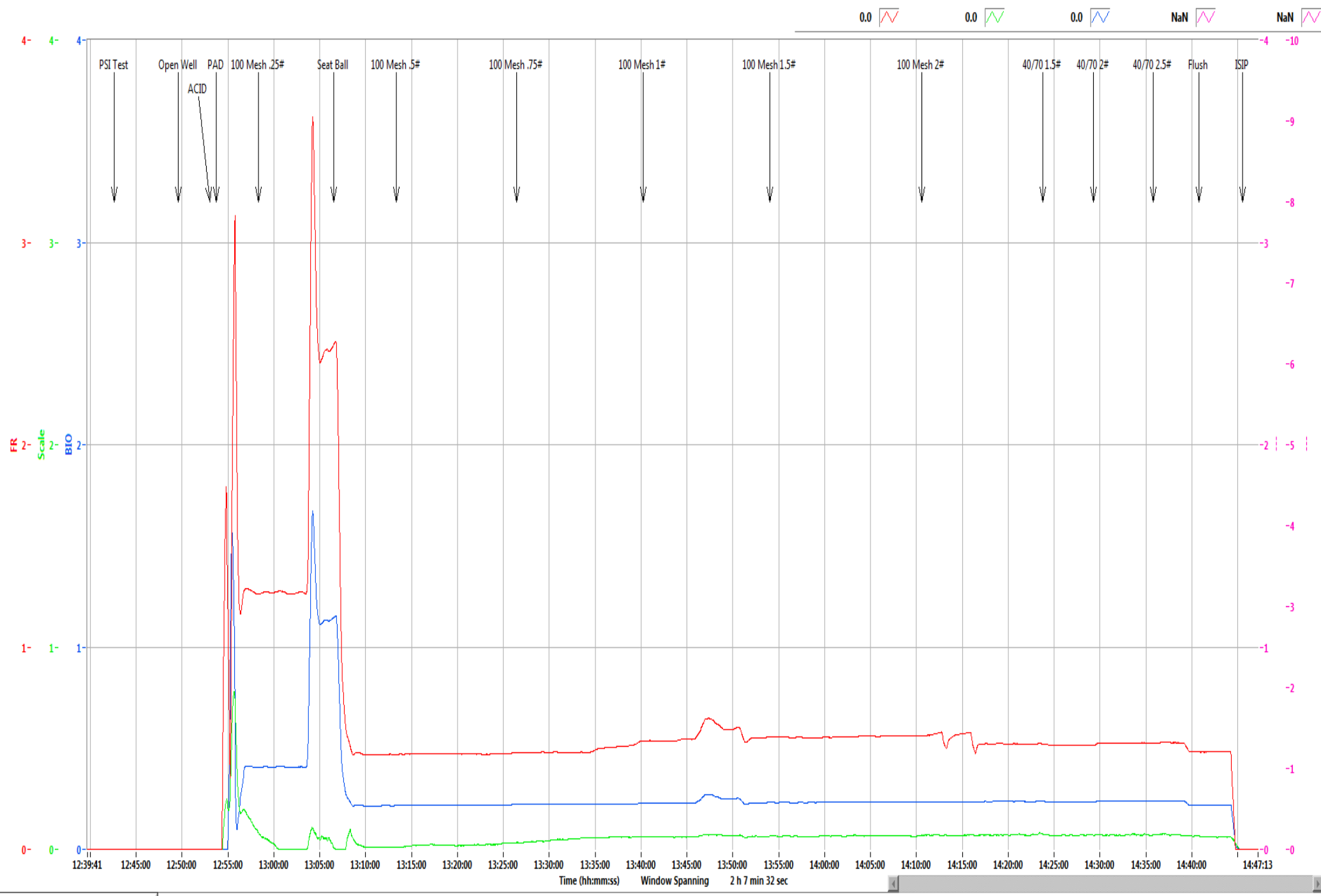


NNE
Boggess 13H
Stage 21
Producers Service Corp.

Post Stage Report
September 8, 2019



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Boggess Pad**13H**

Stage	21
Date:	9/8/19
OWP (psi):	4,043
Starting Time	12:42 PM
Ending Time	2:45 PM
Pump Time (hr:min)	02:03
Swap Time (hr:min)	00:28
Starting # Pumps	16
Finishing # Pumps	15
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,824
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,640
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	9,033
Displacement (psi)	8,739
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,027
Final FG (psi/ft)	1.18
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,078
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	380
Pad (bbls)	122
Treatment (bbls)	7,598
Displacement (bbls)	363
(Acid Included)Total Fluid (bbls)	8,090
Dirty Job Total (bbls)	8,433
100 Mesh	304,600
40/70	94,720
Total Proppant (lbs)	399,320
Total Proppant %	99.8%

CHEMICALS

FR 9800	170
Biocide	84
Scale	18

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22965
 Date: 9/8/2019
 Well Name: Bogges 13H
 Stage No.: 21

State: WV
 County: Monongahela
 Operator: Jeremy T/Jeremy M
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	500	GAL	\$ 1.25	\$ 625.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	1	GAL	\$ 35.00	\$ 35.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,046.00	CWT	\$ 5.50	\$ 16,753.00
SAND 40/70	40/70 white	947.20	CWT	\$ 5.75	\$ 5,446.40
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	170	GAL	\$ 17.75	\$ 3,017.50
BIOC11219A	Biocide @ 0.25 GPT	84	GAL	\$ 16.00	\$ 1,344.00
SCAL16846A	Scale Control @ 0.05 GPT	18	GAL	\$ 16.00	\$ 288.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.66	TON	\$ 55.00	\$ 10,981.30
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 58,290.20
 25% Discount Applied \$ 14,572.55
 Net Stage Total \$ 43,717.65

(Print Name)
 Customer Rep: OBart

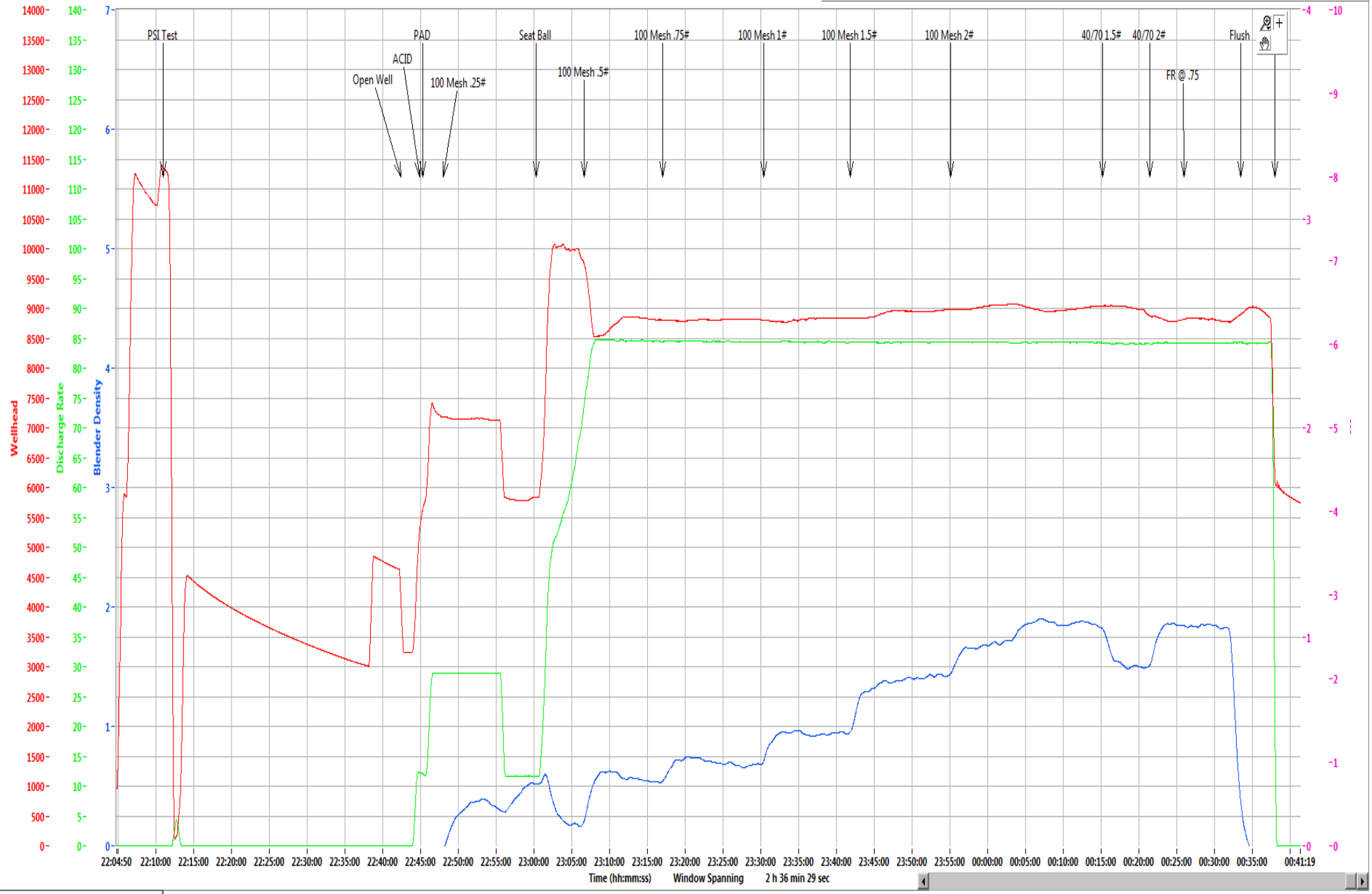
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NNE
Boggess 13H
Stage 22
Producers Service Corp.

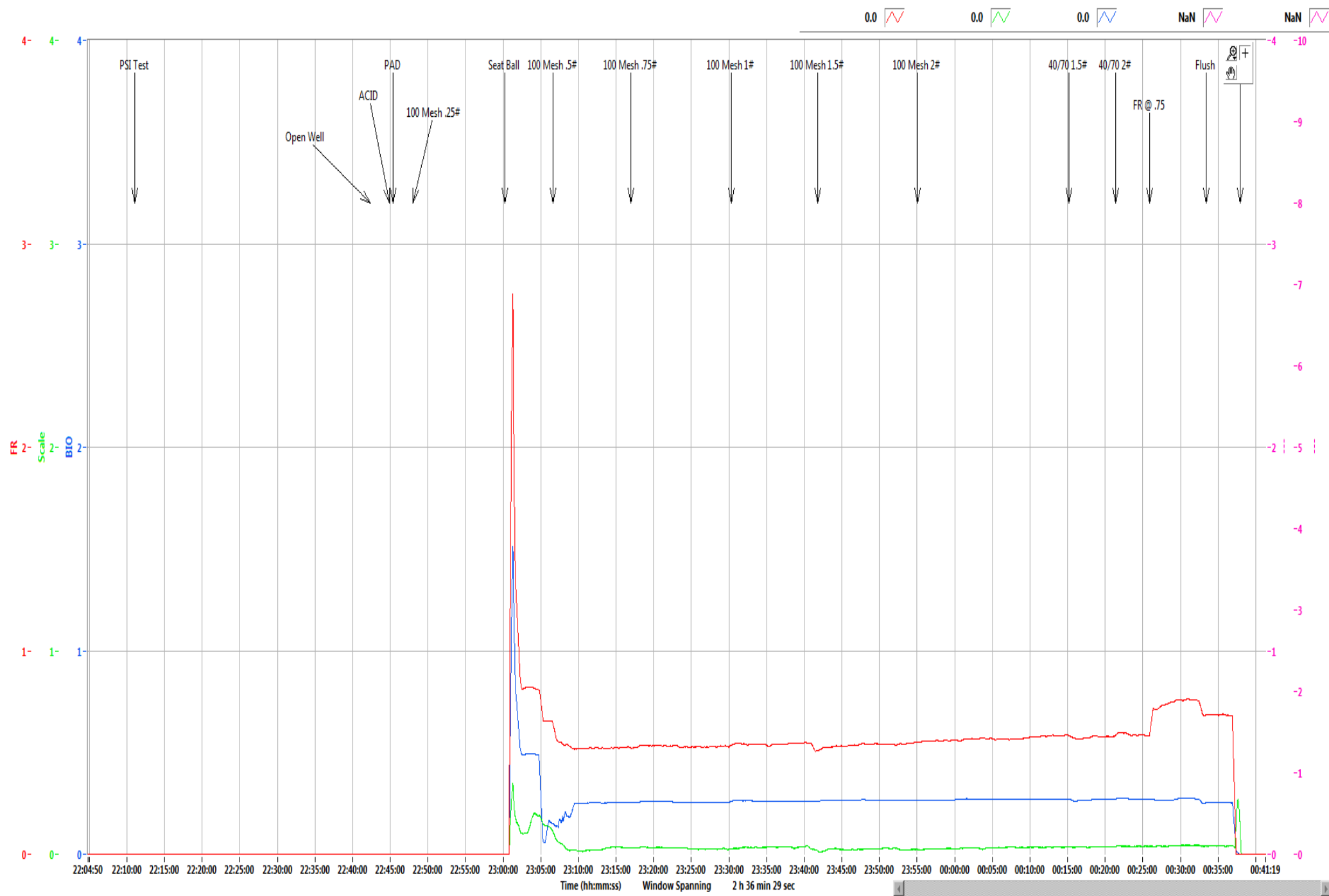
Post Stage Report
September 9, 2019

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Time (hh:mm:ss) Window Spanning 2 h 36 min 29 sec

Refresh Graph



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FR 2-
Scale 2-
BIO 2-

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-3 -7
-2 -5
-1 -1
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Time (hh:mm:ss) Window Spanning 2 h 36 min 29 sec

Refresh Graph

Boggess Pad**13H**

Stage	22
Date:	9/8/19
OWP (psi):	3,220
Starting Time	10:42 PM
Ending Time	12:37 AM
Pump Time (hr:min)	01:55
Swap Time (hr:min)	00:56
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,853
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	8,887
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	10,157
Displacement (psi)	8,913
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,631
Final FG (psi/ft)	1.14
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,116
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	355
Pad (bbls)	82
Treatment (bbls)	7,669
Displacement (bbls)	365
(Acid Included)Total Fluid (bbls)	8,122
Dirty Job Total (bbls)	8,444
100 Mesh	301,440
40/70	100,240
Total Proppant (lbs)	401,680
Total Proppant %	100.4%

CHEMICALS

FR 9800	185
Biocide	84
Scale	12

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22967
 Date: 9/9/2019
 Well Name: Boggess 13H
 Stage No.: 22

State: WV
 County: Monongahela
 Operator: Brad/Austin
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,014.40	CWT	\$ 5.50	\$ 16,579.20
SAND 40/70	40/70 white	1,002.40	CWT	\$ 5.75	\$ 5,763.80
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	185	GAL	\$ 17.75	\$ 3,283.75
BIOC11219A	Biocide @ 0.25 GPT	84	GAL	\$ 16.00	\$ 1,344.00
SCAL16846A	Scale Control @ 0.05 GPT	12	GAL	\$ 16.00	\$ 192.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.84	TON	\$ 55.00	\$ 11,046.20
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 58,338.95
 25% Discount Applied \$ 14,584.74
 Net Stage Total \$ 43,754.21

(Print Name)

Customer Rep: Rob Casper

Customer Signature: Rob Casper

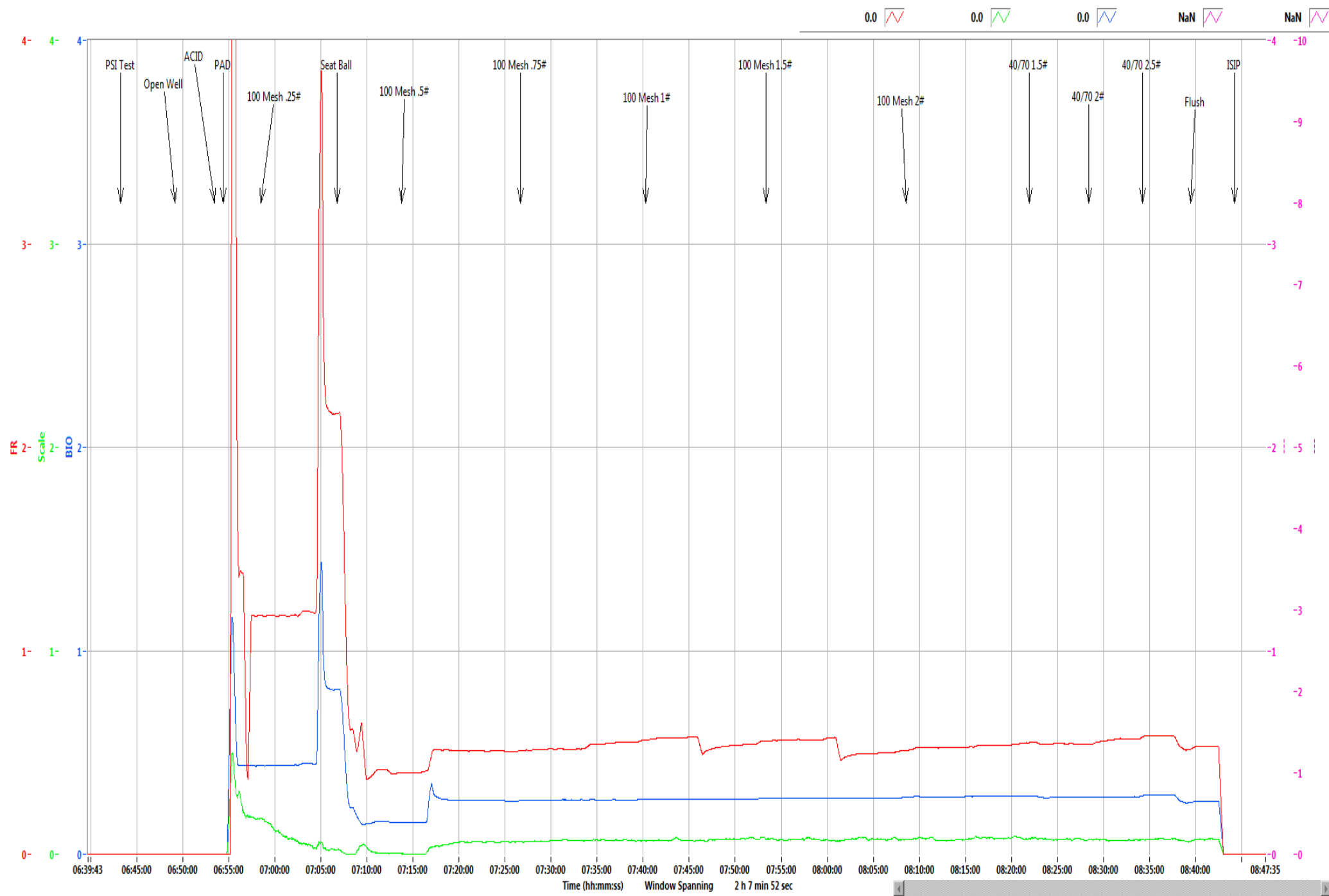


NNE
Boggess 13H
Stage 23
Producers Service Corp.

Post Stage Report
September 9, 2019



Refresh Graph



Refresh Graph

Boggess Pad**13H**

Stage	23
Date:	9/9/19
OWP (psi):	3,578
Starting Time	6:43 AM
Ending Time	8:44 AM
Pump Time (hr:min)	02:01
Swap Time (hr:min)	02:30
Starting # Pumps	15
Finishing # Pumps	14
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,918
Average Treating Rate (bbl/min)	82
Average Treating Pressure (psi)	8,672
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	9,181
Displacement (psi)	9,072
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,841
Final FG (psi/ft)	1.16
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,030
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	340
Pad (bbls)	105
Treatment (bbls)	7,573
Displacement (bbls)	366
(Acid Included)Total Fluid (bbls)	8,042
Dirty Job Total (bbls)	8,358
100 Mesh	304,060
40/70	97,300
Total Proppant (lbs)	401,360
Total Proppant %	100.3%

CHEMICALS

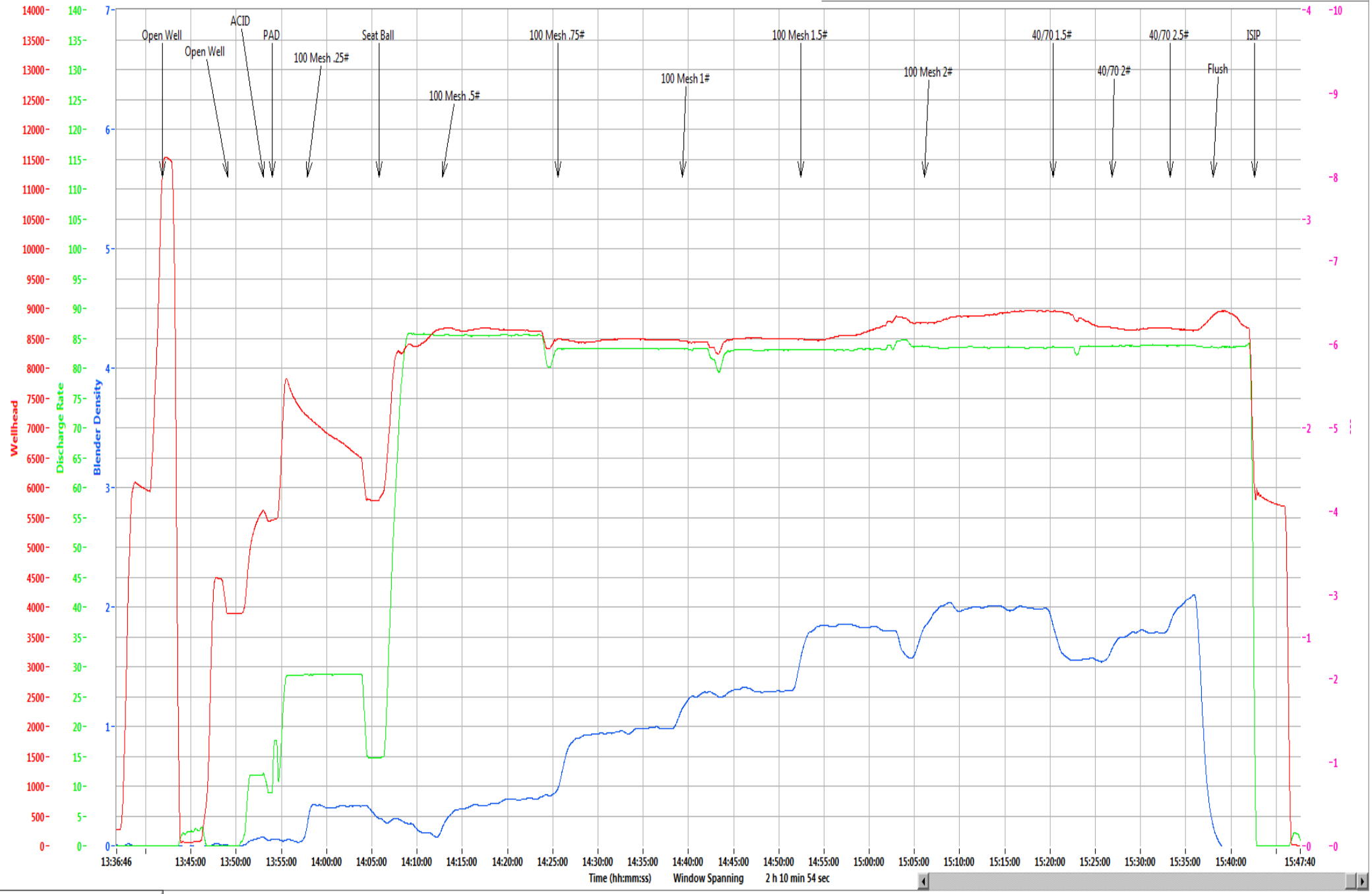
FR 9800	169
Biocide	85
Scale	20



NNE
Boggess 13H
Stage 24
Producers Service Corp.

Post Stage Report
September 9, 2019

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Refresh Graph



Refresh Graph

Bogges Pad	13H
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Stage	24
Date:	9/9/19
OWP (psi):	3,885
Starting Time	1:49 PM
Ending Time	3:42 PM
Pump Time (hr:min)	01:53
Swap Time (hr:min)	02:11
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,938
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	8,625
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	9,019
Displacement (psi)	8,895
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,617
Final FG (psi/ft)	1.13
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	8,016
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	354
Pad (bbls)	100
Treatment (bbls)	7,564
Displacement (bbls)	364
(Acid Included)Total Fluid (bbls)	8,028
Dirty Job Total (bbls)	8,371
100 Mesh	301,640
40/70	98,360
Total Proppant (lbs)	400,000
Total Proppant %	100.0%

CHEMICALS

FR 9800	168
Biocide	84
Scale	20

Northeast Natural Energy
48 Donley Street, Ste 601
Morgantown, WV 26501



Producers Service Corp
109 S. Graham St.
Zanesville, OH 43701

Invoice #: 22971
Date: 9/9/2019
Well Name: Boggess 13H
Stage No.: 24

State: WV
County: Monongahela
Operator: Moon/Tilton
PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	500	GAL	\$ 1.25	\$ 625.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	1	GAL	\$ 35.00	\$ 35.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,016.40	CWT	\$ 5.50	\$ 16,590.20
SAND 40/70	40/70 white	983.60	CWT	\$ 5.75	\$ 5,655.70
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	168	GAL	\$ 17.75	\$ 2,982.00
BIOC11219A	Biocide @ 0.25 GPT	84	GAL	\$ 16.00	\$ 1,344.00
SCAL16846A	Scale Control @ 0.05 GPT	20	GAL	\$ 16.00	\$ 320.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200	TON	\$ 55.00	\$ 11,000.00
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -
				Total No Discount	\$ 58,351.90
				25% Discount Applied	\$ 14,587.98
				Net Stage Total	\$ 43,763.93

(Print Name)
Customer Rep:

G. Ban

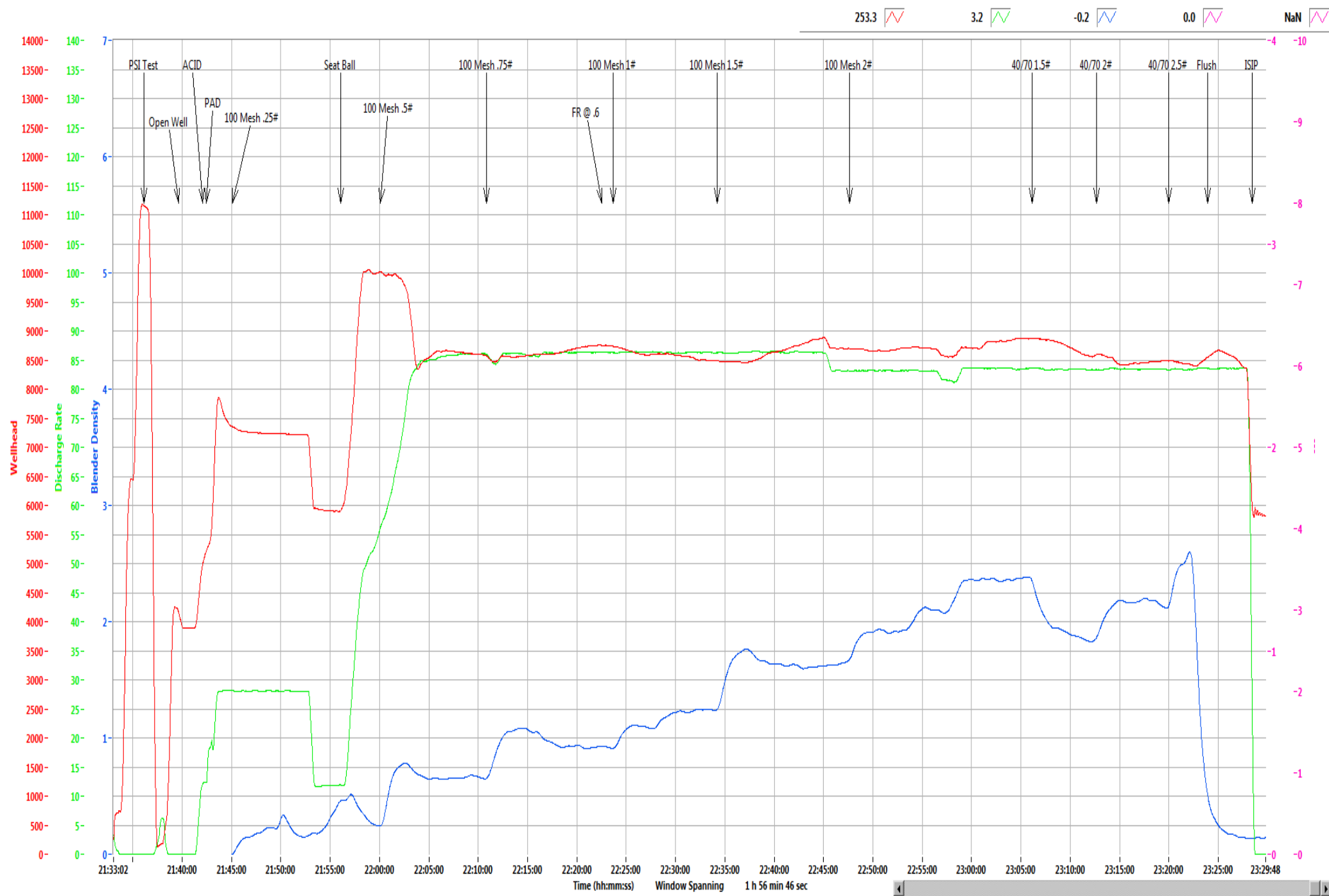
Customer Signature:

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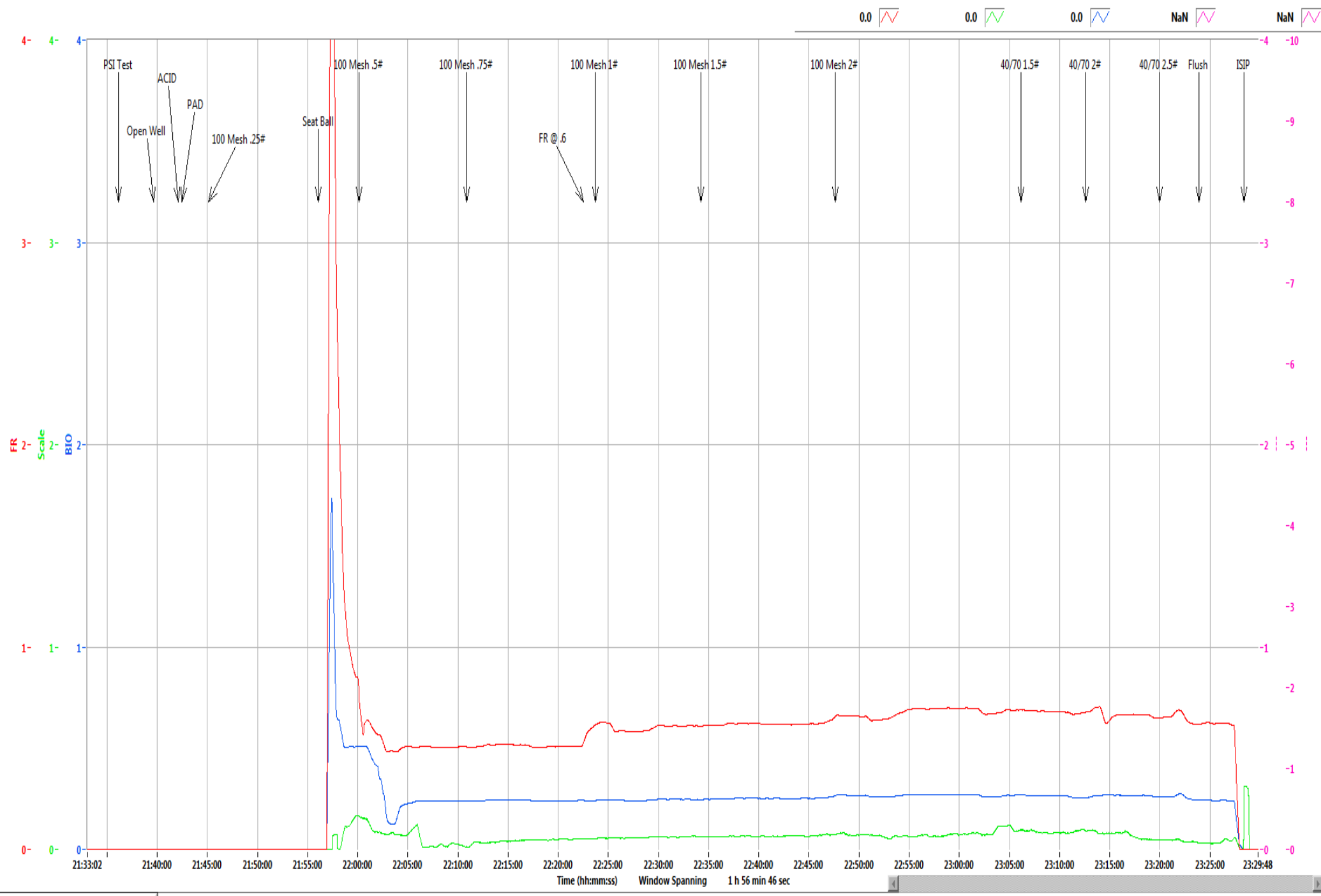
NNE
Boggess 13H
Stage 25
Producers Service Corp.

Post Stage Report
September 9, 2019



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Refresh Graph



Refresh Graph

Boggess Pad**13H**

Stage	25
Date:	9/9/19
OWP (psi):	3,882
Starting Time	9:39 PM
Ending Time	11:28 PM
Pump Time (hr:min)	01:49
Swap Time (hr:min)	03:03
Starting # Pumps	17
Finishing # Pumps	15
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,106
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	8,632
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	10,128
Displacement (psi)	8,576
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,418
Final FG (psi/ft)	1.11
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,561
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	339
Pad (bbls)	66
Treatment (bbls)	7,142
Displacement (bbls)	355
(Acid Included)Total Fluid (bbls)	7,567
Dirty Job Total (bbls)	7,907
100 Mesh	300,160
40/70	100,400
Total Proppant (lbs)	400,560
Total Proppant %	100.1%

CHEMICALS

FR 9800	192
Biocide	81
Scale	20

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22973
 Date: 9/9/2019
 Well Name: Bogges 13H
 Stage No.: 25

State: WV
 County: Monongahela
 Operator: Stetson/Dunn
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,001.60	CWT	\$ 5.50	\$ 16,508.80
SAND 40/70	40/70 white	1,004.00	CWT	\$ 5.75	\$ 5,773.00
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	192	GAL	\$ 17.75	\$ 3,408.00
BIOC11219A	Biocide @ 0.25 GPT	81	GAL	\$ 16.00	\$ 1,296.00
SCAL16846A	Scale Control @ 0.05 GPT	20	GAL	\$ 16.00	\$ 320.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.28	TON	\$ 55.00	\$ 11,015.40
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 58,451.20
 25% Discount Applied \$ 14,612.80
 Net Stage Total \$ 43,838.40

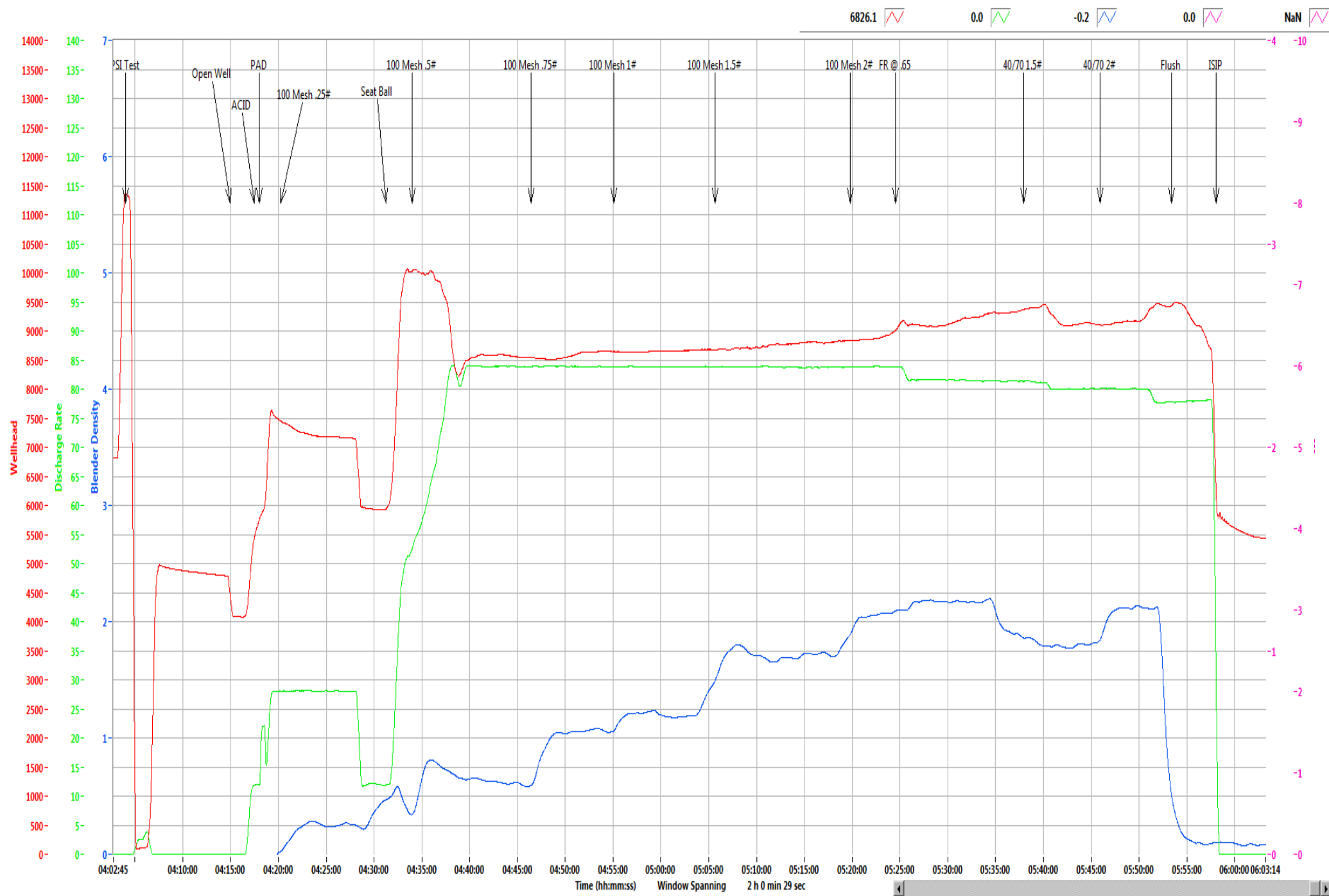
(Print Name)
 Customer Rep: Rob Gwye

Customer Signature: [Signature]

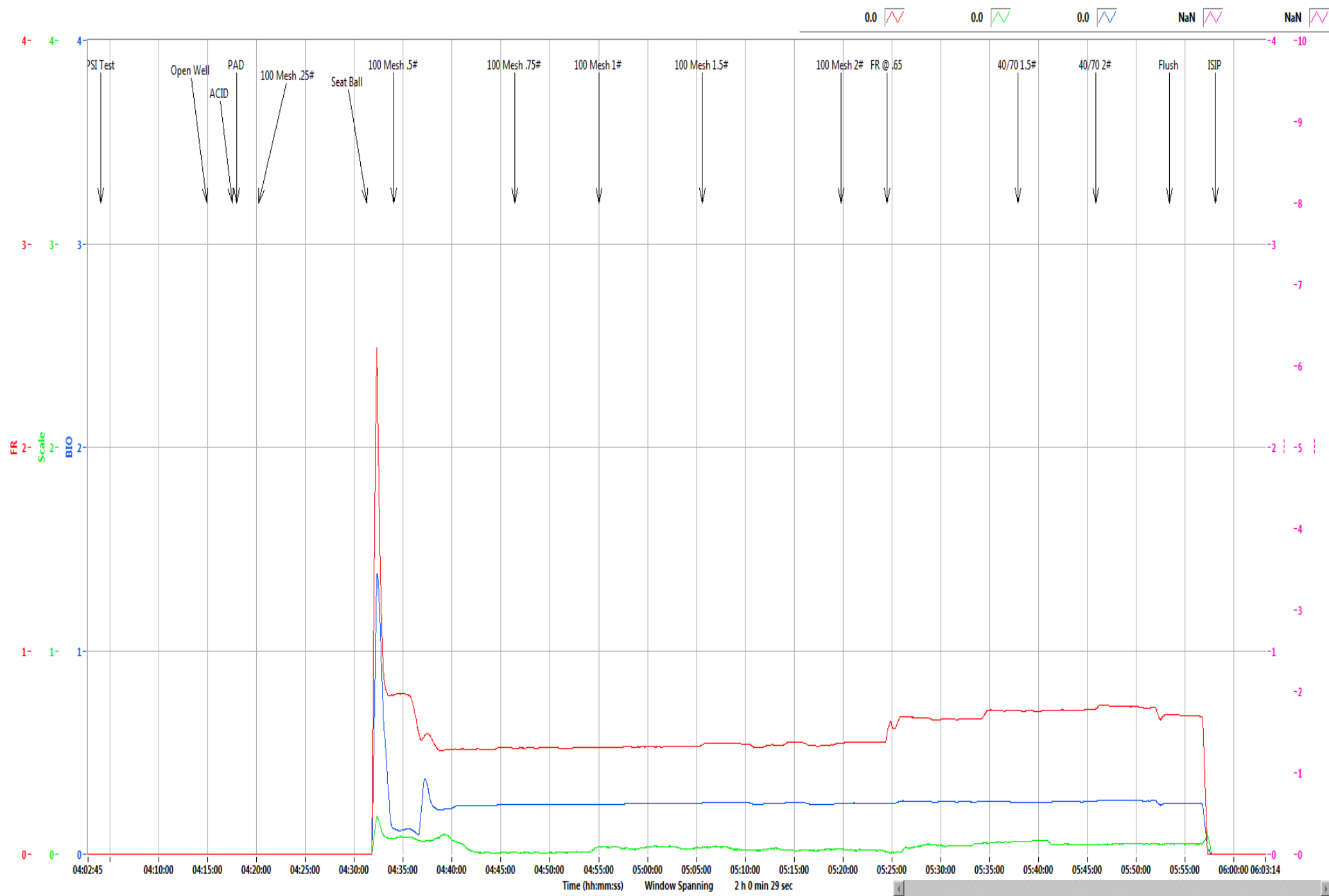


NNE
Boggess 13H
Stage 26
Producers Service Corp.

Post Stage Report
September 10, 2019



Refresh Graph



Refresh Graph

Bogges Pad	13H
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Stage	26
Date:	9/10/19
OWP (psi):	4,085
Starting Time	4:15 AM
Ending Time	5:58 AM
Pump Time (hr:min)	01:43
Swap Time (hr:min)	00:32
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,070
Average Treating Rate (bbl/min)	83
Average Treating Pressure (psi)	8,892
Maximum Treating Rate (bbl/min)	85
Maximum Treating Pressure (psi)	10,133
Displacement (psi)	9,498
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	6,271
Final FG (psi/ft)	1.21
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	6,971
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	317
Pad (bbls)	58
Treatment (bbls)	6,572
Displacement (bbls)	339
(Acid Included)Total Fluid (bbls)	6,977
Dirty Job Total (bbls)	7,292
100 Mesh	299,840
40/70	24,660
Total Proppant (lbs)	324,500
Total Proppant %	81.1%

CHEMICALS

FR 9800	160
Biocide	71
Scale	15

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22975
 Date: 9/10/2019
 Well Name: Boggess 13H
 Stage No.: 26

State: WV
 County: Monongahela
 Operator: Stetson/Dunn
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,998.40	CWT	\$ 5.50	\$ 16,491.20
SAND 40/70	40/70 white	620.60	CWT	\$ 5.75	\$ 3,568.45
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	160	GAL	\$ 17.75	\$ 2,840.00
BIOC11219A	Biocide @ 0.25 GPT	71	GAL	\$ 16.00	\$ 1,136.00
SCAL16846A	Scale Control @ 0.05 GPT	15	GAL	\$ 16.00	\$ 240.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		180.95	TON	\$ 55.00	\$ 9,952.25
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 54,357.90
 25% Discount Applied \$ 13,589.48
 Net Stage Total \$ 40,768.43

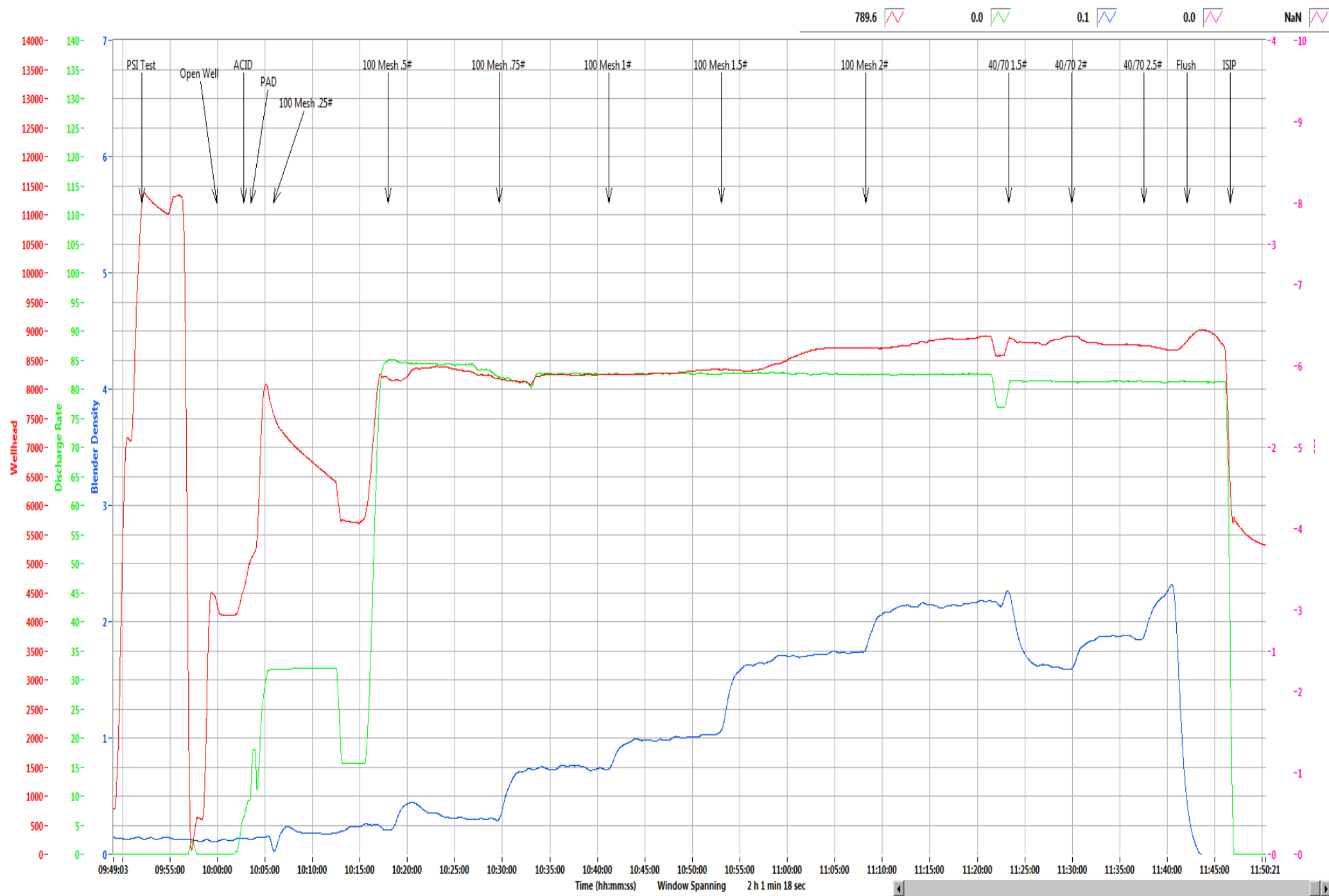
(Print Name) Customer Rep: Rob Gwinn

Customer Signature: [Signature]

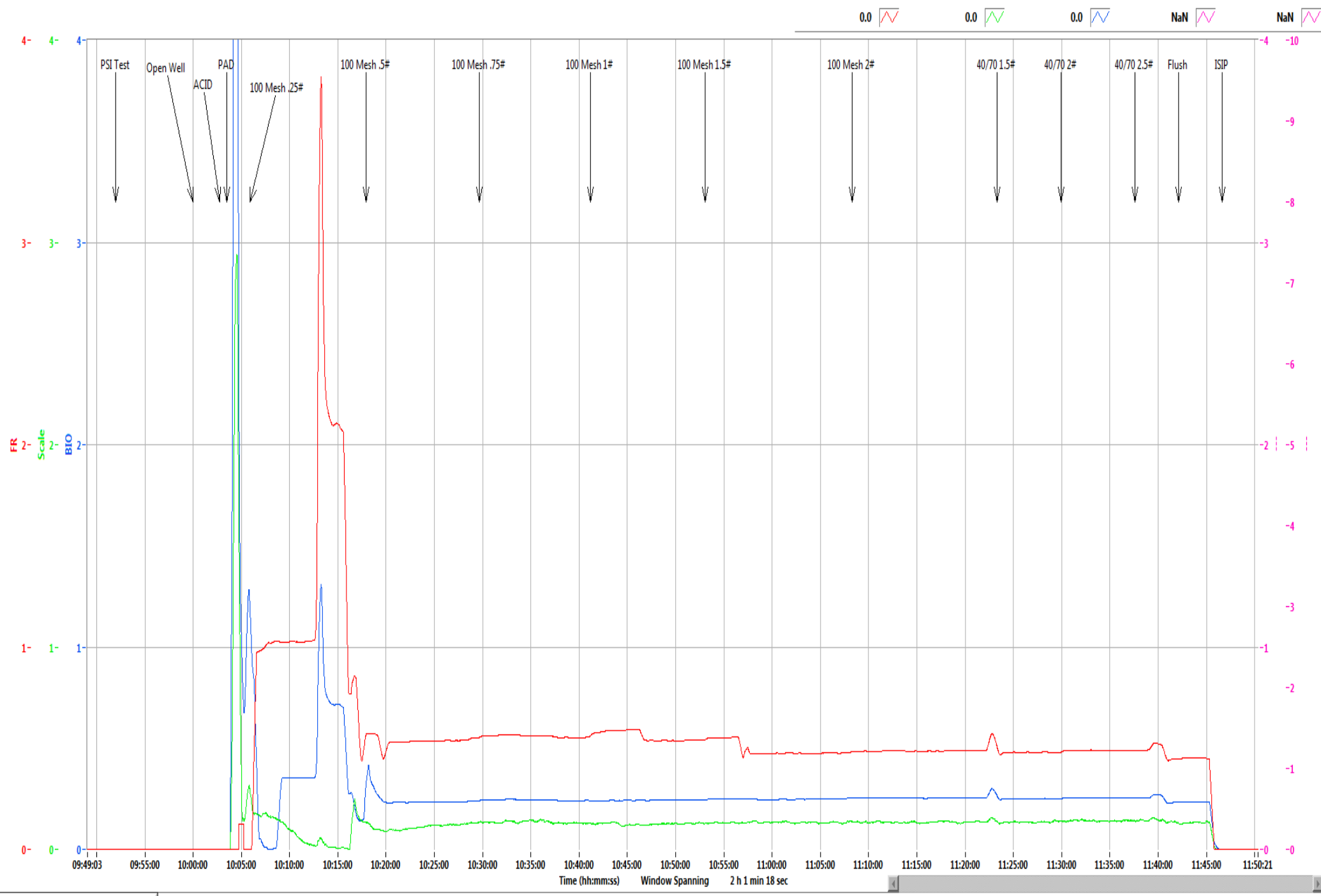


NNE
Boggess 13H
Stage 27
Producers Service Corp.

Post Stage Report
September 10, 2019



Refresh Graph



Refresh Graph

Boggess Pad**13H**

Stage	27
Date:	9/10/19
OWP (psi):	4,122
Starting Time	9:51 AM
Ending Time	11:46 AM
Pump Time (hr:min)	01:55
Swap Time (hr:min)	01:06
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,790
Average Treating Rate (bbl/min)	82
Average Treating Pressure (psi)	8,515
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	9,036
Displacement (psi)	8,880
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,998
Final FG (psi/ft)	1.18
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,454
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	308
Pad (bbls)	58
Treatment (bbls)	7,053
Displacement (bbls)	343
(Acid Included)Total Fluid (bbls)	7,460
Dirty Job Total (bbls)	7,819
100 Mesh	297,060
40/70	102,960
Total Proppant (lbs)	400,020
Total Proppant %	100.0%

CHEMICALS

FR 9800	158
Biocide	78
Scale	17

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22977
 Date: 9/10/2019
 Well Name: Bogges 13H
 Stage No.: 27

State: WV
 County: Monongahela
 Operator: Jeremy T/Jeremy M
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,970.60	CWT	\$ 5.50	\$ 16,338.30
SAND 40/70	40/70 white	1,029.60	CWT	\$ 5.75	\$ 5,920.20
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	158	GAL	\$ 17.75	\$ 2,804.50
BIOC11219A	Biocide @ 0.25 GPT	78	GAL	\$ 16.00	\$ 1,248.00
SCAL16846A	Scale Control @ 0.05 GPT	17	GAL	\$ 16.00	\$ 272.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.01	TON	\$ 55.00	\$ 11,000.55
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

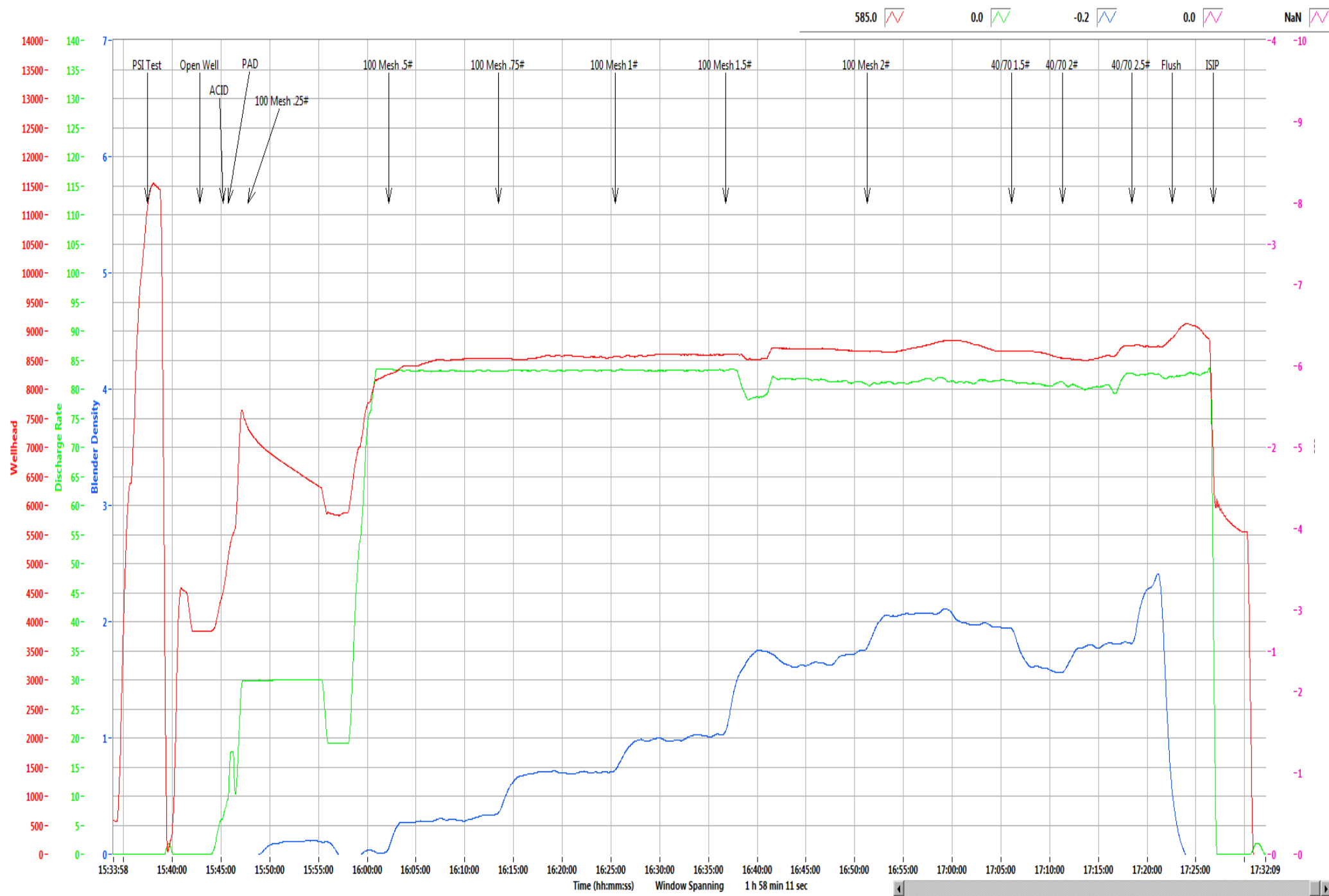
Total No Discount \$ 57,713.55
 25% Discount Applied \$ 14,428.39
 Net Stage Total \$ 43,285.16

(Print Name) E. Bone Customer Rep: E. Bone Customer Signature: E. Bone



NNE
Boggess 13H
Stage 28
Producers Service Corp.

Post Stage Report
September 10, 2019



Refresh Graph



Refresh Graph

Bogges Pad**13H**

Stage	28
Date:	9/10/19
OWP (psi):	3,833
Starting Time	3:37 PM
Ending Time	5:26 PM
Pump Time (hr:min)	01:49
Swap Time (hr:min)	00:52
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,906
Average Treating Rate (bbl/min)	82
Average Treating Pressure (psi)	8,598
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	8,942
Displacement (psi)	8,899
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,730
Final FG (psi/ft)	1.27
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,350
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	313
Pad (bbls)	47
Treatment (bbls)	6,954
Displacement (bbls)	340
(Acid Included)Total Fluid (bbls)	7,356
Dirty Job Total (bbls)	7,548
100 Mesh	304,200
40/70	91,420
Total Proppant (lbs)	395,620
Total Proppant %	98.9%

CHEMICALS

FR 9800	154
Biocide	78
Scale	18

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22979
 Date: 9/10/2019
 Well Name: Bogges 13H
 Stage No.: 28

State: WV
 County: Monongahela
 Operator: Jeremy T/Jeremy M
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,042.00	CWT	\$ 5.50	\$ 16,731.00
SAND 40/70	40/70 white	914.20	CWT	\$ 5.75	\$ 5,256.65
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	154	GAL	\$ 17.75	\$ 2,733.50
BIOC11219A	Biocide @ 0.25 GPT	78	GAL	\$ 16.00	\$ 1,248.00
SCAL16846A	Scale Control @ 0.05 GPT	18	GAL	\$ 16.00	\$ 288.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		197.81	TON	\$ 55.00	\$ 10,879.55
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

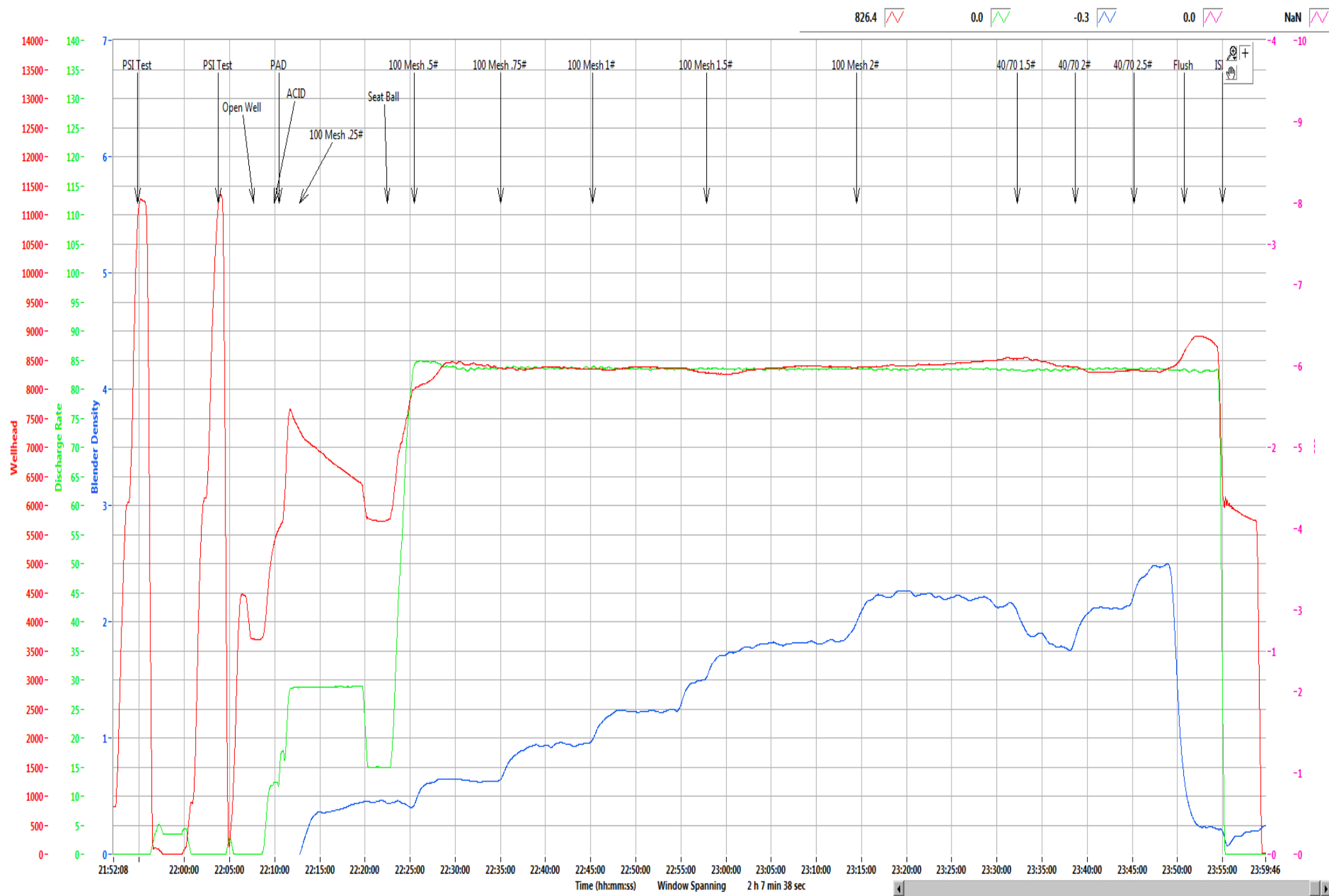
Total No Discount \$ 57,266.70
 25% Discount Applied \$ 14,316.68
 Net Stage Total \$ 42,950.03

(Print Name) E. Boone Customer Rep: _____ Customer Signature: E. Boone



NNE
Boggess 13H
Stage 29
Producers Service Corp.

Post Stage Report
September 11, 2019



Refresh Graph

Time (hh:mm:ss) Window Spanning 2 h 7 min 38 sec



Refresh Graph

Bogges Pad	13H
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Stage	29
Date:	9/10/19
OWP (psi):	3,698
Starting Time	10:03 PM
Ending Time	11:54 PM
Pump Time (hr:min)	01:51
Swap Time (hr:min)	01:02
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,797
Average Treating Rate (bbl/min)	83
Average Treating Pressure (psi)	8,388
Maximum Treating Rate (bbl/min)	85
Maximum Treating Pressure (psi)	8,934
Displacement (psi)	8,725
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,225
Final FG (psi/ft)	1.21
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,566
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	291
Pad (bbls)	61
Treatment (bbls)	7,178
Displacement (bbls)	328
(Acid Included)Total Fluid (bbls)	7,572
Dirty Job Total (bbls)	7,935
100 Mesh	300,080
40/70	100,350
Total Proppant (lbs)	400,430
Total Proppant %	100.1%

CHEMICALS

FR 9800	165
Biocide	83
Scale	16

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22981
 Date: 9/11/2019
 Well Name: Bogges 13H
 Stage No.: 29

State: WV
 County: Monongahela
 Operator: Stetson/Austin
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,000.80	CWT	\$ 5.50	\$ 16,504.40
SAND 40/70	40/70 white	1,003.50	CWT	\$ 5.75	\$ 5,770.13
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	165	GAL	\$ 17.75	\$ 2,928.75
BIOC11219A	Biocide @ 0.25 GPT	83	GAL	\$ 16.00	\$ 1,328.00
SCAL16846A	Scale Control @ 0.05 GPT	16	GAL	\$ 16.00	\$ 256.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.215	TON	\$ 55.00	\$ 11,011.83
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,929.10
 25% Discount Applied \$ 14,482.28
 Net Stage Total \$ 43,446.83

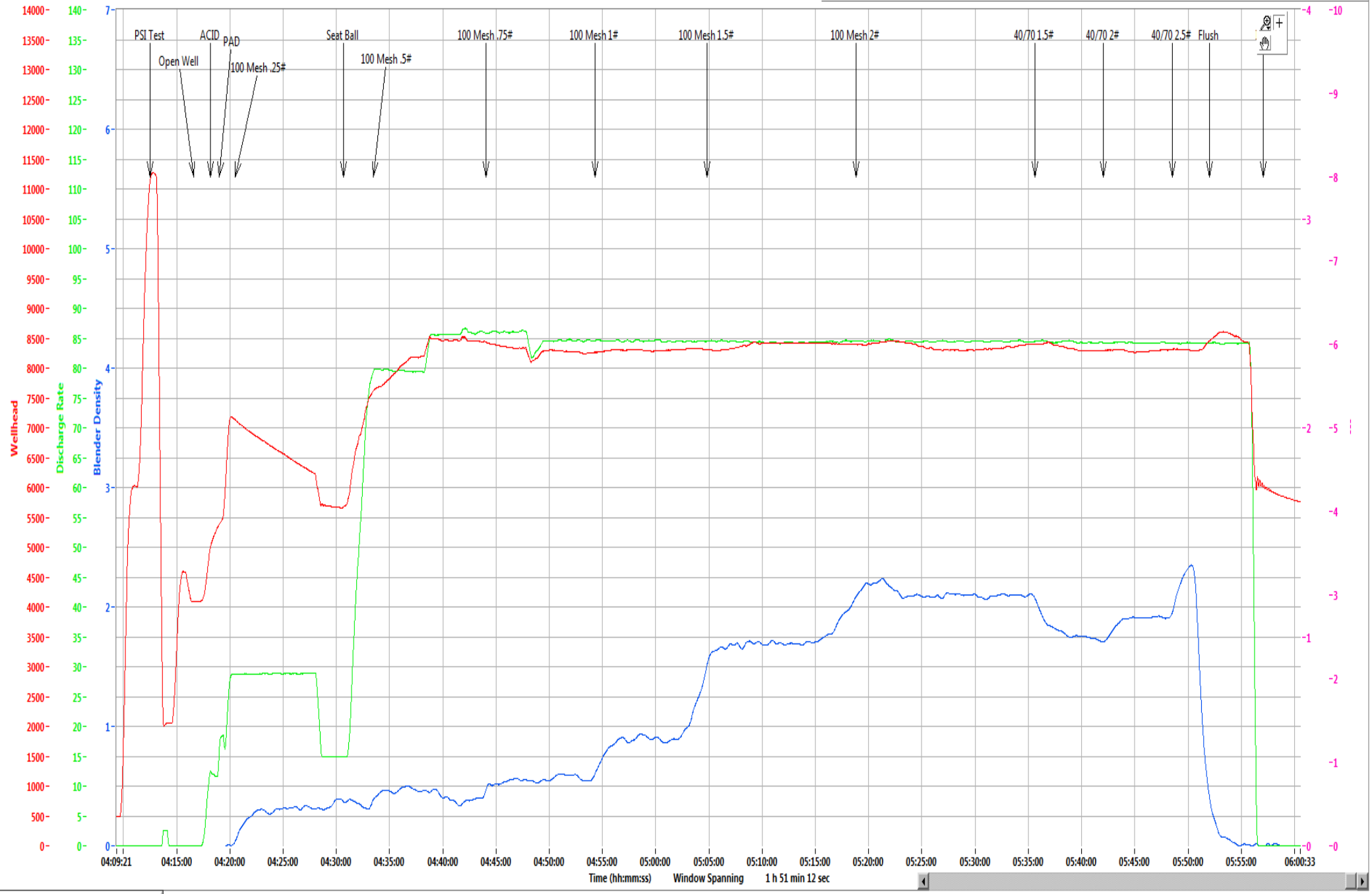
(Print Name) Rob Cowger Customer Rep: _____ Customer Signature: [Signature]



NNE
Boggess 13H
Stage 30
Producers Service Corp.

Post Stage Report
September 11, 2019

491.2 0.0 -0.0 0.0 NaN



Refresh Graph



Refresh Graph

Boggress Pad	13H
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Stage	30
Date:	9/11/19
OWP (psi):	4,093
Starting Time	4:16 AM
Ending Time	
Pump Time (hr:min)	
Swap Time (hr:min)	00:50
Starting # Pumps	
Finishing # Pumps	
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,756
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	8,347
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	8,667
Displacement (psi)	6,730
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,902
Final FG (psi/ft)	1.17
5 Minute Leakoff Pressure (psi)	5,835
5 Minute Leakoff Rate (psi/min)	13
10 Minute Leakoff Pressure (psi)	5,720
10 Minute Leakoff Rate (psi/min)	18
15 Minute Leakoff Pressure (psi)	5,680
15 Minute Leakoff Rate (psi/min)	15

Fluids & Proppant

Slickwater (bbls)	7,060
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	241
Pad (bbls)	39
Treatment (bbls)	6,408
Displacement (bbls)	332
(Acid Included)Total Fluid (bbls)	7,066
Dirty Job Total (bbls)	7,415
100 Mesh	300,360
40/70	104,380
Total Proppant (lbs)	404,740
Total Proppant %	101.2%

CHEMICALS

FR 9800	148
Biocide	74
Scale	15

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22982
 Date: 9/11/2019
 Well Name: Boggess 13H
 Stage No.: 30

State: WV
 County: Monongahela
 Operator: Stetson/Austin
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,003.60	CWT	\$ 5.50	\$ 16,519.80
SAND 40/70	40/70 white	1,043.80	CWT	\$ 5.75	\$ 6,001.85
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	148	GAL	\$ 17.75	\$ 2,627.00
BIOC11219A	Biocide @ 0.25 GPT	74	GAL	\$ 16.00	\$ 1,184.00
SCAL16846A	Scale Control @ 0.05 GPT	15	GAL	\$ 16.00	\$ 240.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		202.37	TON	\$ 55.00	\$ 11,130.35
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,833.00
 25% Discount Applied \$ 14,458.25
 Net Stage Total \$ 43,374.75

(Print Name)

Customer Rep: Rob Lawson

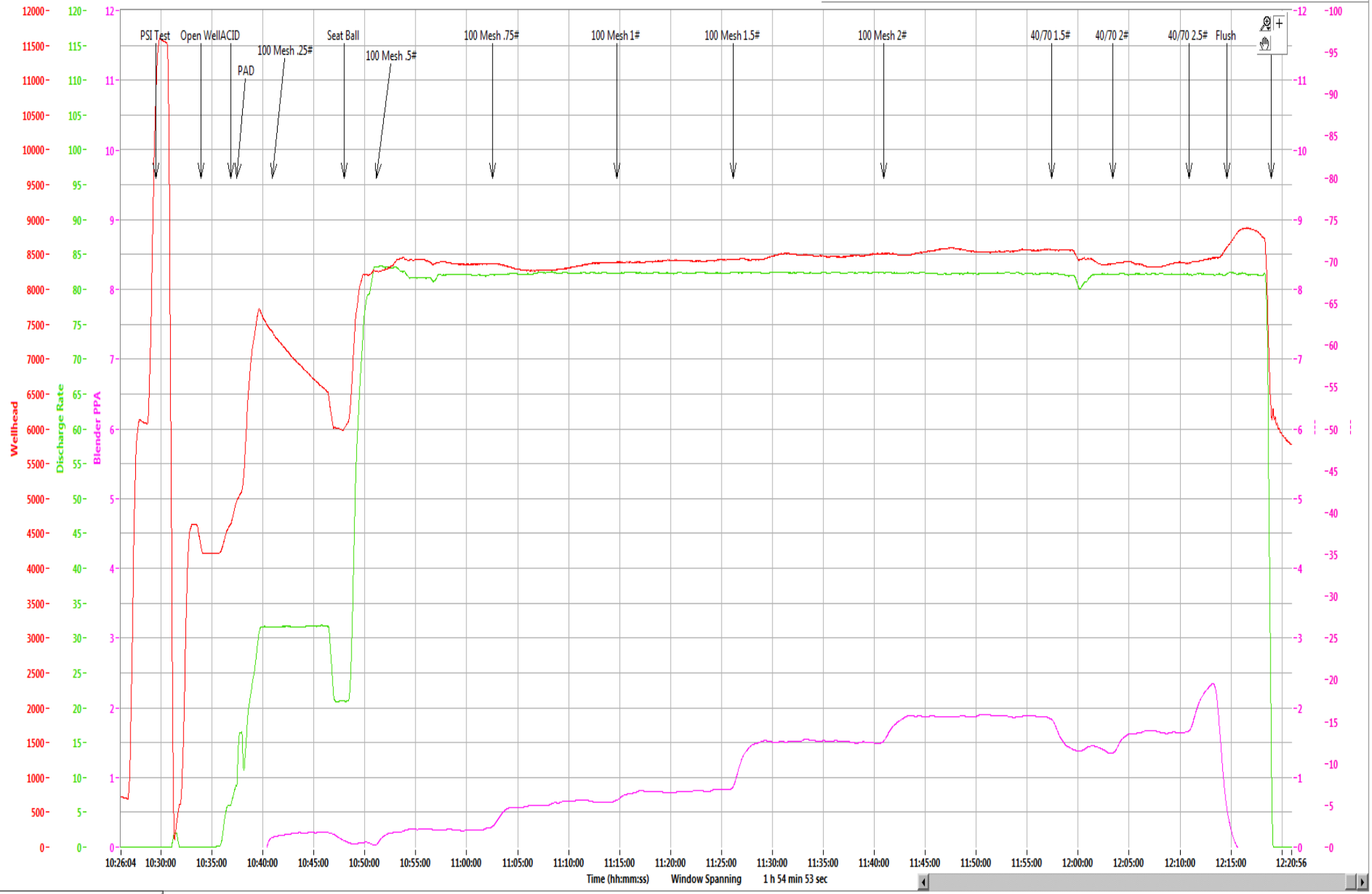
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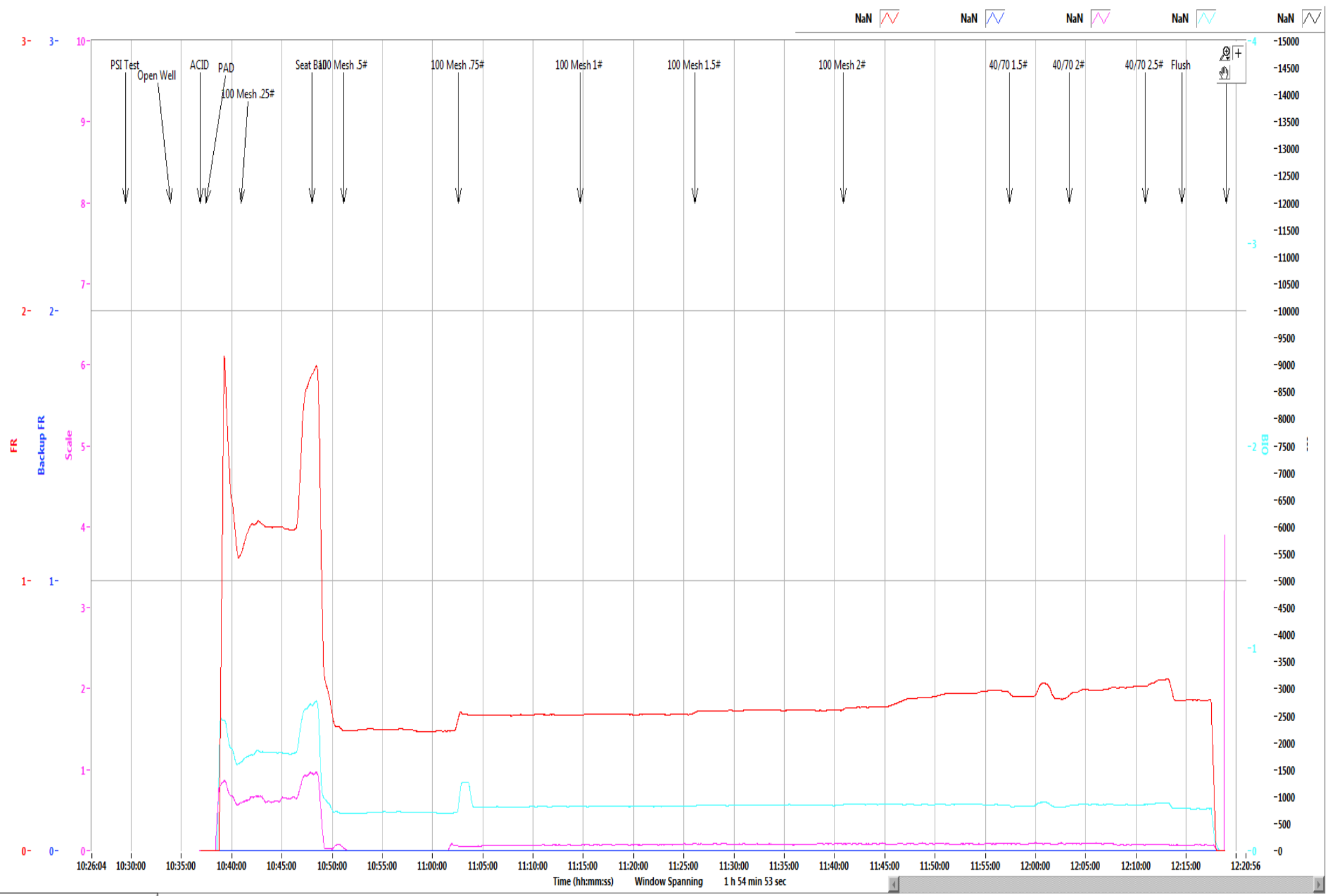
NNE
Boggess 13H
Stage 31
Producers Service Corp.

Post Stage Report
September 11, 2019

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Refresh Graph



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Boggess Pad	13H
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Stage	31
Date:	9/11/19
OWP (psi):	4,212
Starting Time	10:34 AM
Ending Time	12:18 PM
Pump Time (hr:min)	01:44
Swap Time (hr:min)	01:08
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,107
Average Treating Rate (bbl/min)	82
Average Treating Pressure (psi)	8,431
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	8,641
Displacement (psi)	8,626
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	6,099
Final FG (psi/ft)	1.19
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,326
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	294
Pad (bbls)	97
Treatment (bbls)	6,933
Displacement (bbls)	329
(Acid Included)Total Fluid (bbls)	7,332
Dirty Job Total (bbls)	7,696
100 Mesh	301,820
40/70	98,280
Total Proppant (lbs)	400,100
Total Proppant %	100.0%

CHEMICALS

FR 9800	153
Biocide	76
Scale	15

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22985
 Date: 9/11/2019
 Well Name: Bogges 13H
 Stage No.: 31

State: WV
 County: Monongahela
 Operator: Kelby/Jeremy
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,018.20	CWT	\$ 5.50	\$ 16,600.10
SAND 40/70	40/70 white	982.80	CWT	\$ 5.75	\$ 5,651.10
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	153	GAL	\$ 17.75	\$ 2,715.75
BIOC11219A	Biocide @ 0.25 GPT	76	GAL	\$ 16.00	\$ 1,216.00
SCAL16846A	Scale Control @ 0.05 GPT	15	GAL	\$ 16.00	\$ 240.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.05	TON	\$ 55.00	\$ 11,002.75
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,555.70
 25% Discount Applied \$ 14,388.93
 Net Stage Total \$ 43,166.78

(Print Name)
 Customer Rep:

E. Boone

Customer Signature:

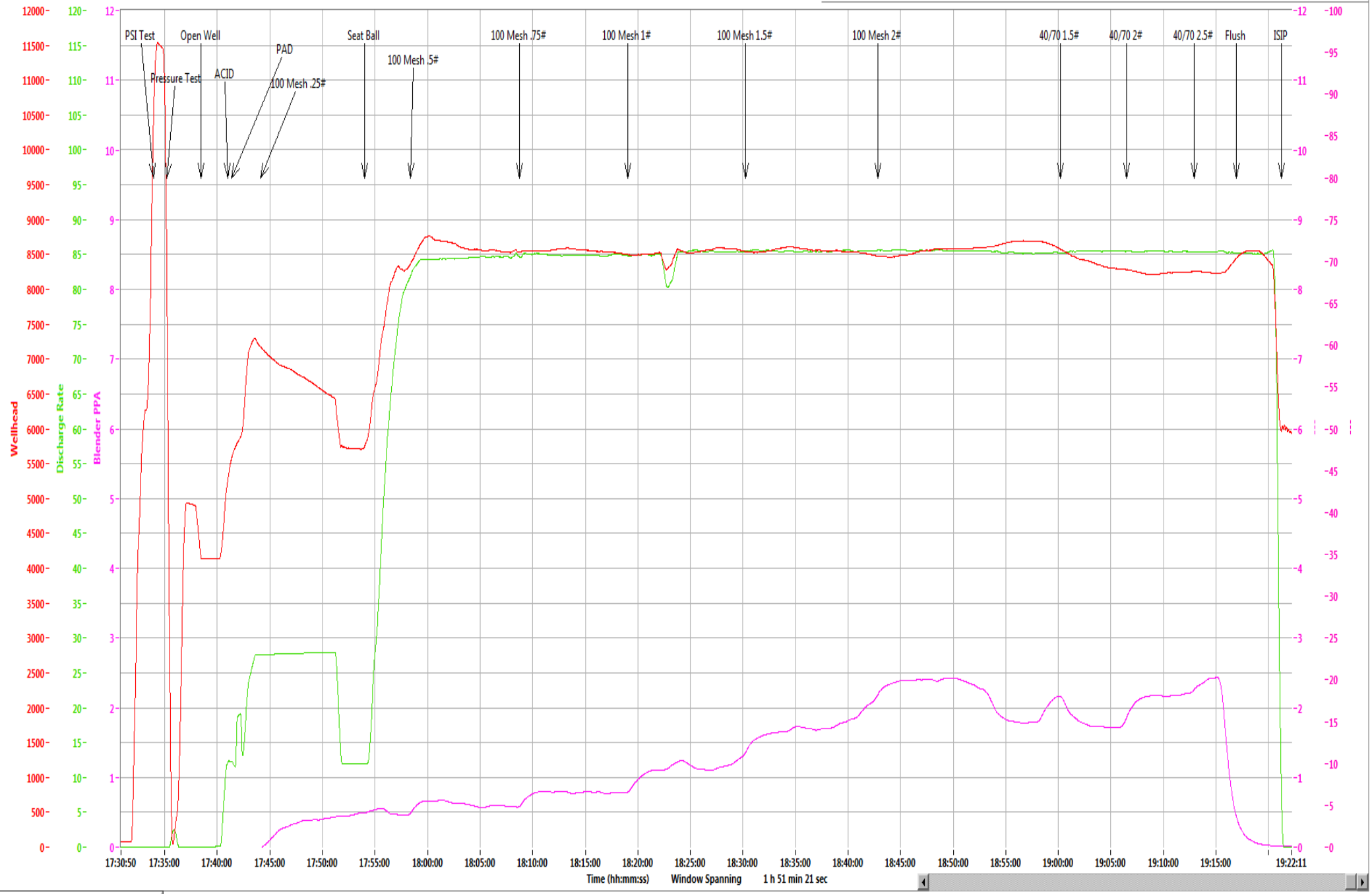
E. Boone



NNE
Boggess 13H
Stage 32
Producers Service Corp.

Post Stage Report
September 11, 2019

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Time (hh:mm:ss) Window Spanning 1 h 51 min 21 sec

Refresh Graph



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Bogges Pad	13H
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Stage	32
Date:	9/11/19
OWP (psi):	4,133
Starting Time	5:38 PM
Ending Time	7:21 PM
Pump Time (hr:min)	01:43
Swap Time (hr:min)	01:02
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,919
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	8,616
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	8,802
Displacement (psi)	8,483
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,790
Final FG (psi/ft)	1.15
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,215
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	311
Pad (bbls)	76
Treatment (bbls)	6,833
Displacement (bbls)	323
(Acid Included)Total Fluid (bbls)	7,221
Dirty Job Total (bbls)	7,571
100 Mesh	300,080
40/70	99,660
Total Proppant (lbs)	399,740
Total Proppant %	99.9%

CHEMICALS

FR 9800	159
Biocide	81
Scale	19

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22987
 Date: 9/11/2019
 Well Name: Boggess 13H
 Stage No.: 32

State: WV
 County: Monongahela
 Operator: Stetson/Dunn/David
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,000.80	CWT	\$ 5.50	\$ 16,504.40
SAND 40/70	40/70 white	996.60	CWT	\$ 5.75	\$ 5,730.45
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	159	GAL	\$ 17.75	\$ 2,822.25
BIOC11219A	Biocide @ 0.25 GPT	81	GAL	\$ 16.00	\$ 1,296.00
SCAL16846A	Scale Control @ 0.05 GPT	19	GAL	\$ 16.00	\$ 304.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.87	TON	\$ 55.00	\$ 10,992.85
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,779.95
 25% Discount Applied \$ 14,444.99
 Net Stage Total \$ 43,334.96

(Print Name) Customer Rep: Rob Cowger Customer Signature: [Signature]



NNE
Boggess 13H
Stage 33
Producers Service Corp.

Post Stage Report
September 12, 2019



Refresh Graph



Refresh Graph

Boggess Pad**13H**

Stage	33
Date:	9/11/19
OWP (psi):	4,472
Starting Time	10:37 PM
Ending Time	12:25 AM
Pump Time (hr:min)	01:48
Swap Time (hr:min)	00:46
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	5,904
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	8,474
Maximum Treating Rate (bbl/min)	85
Maximum Treating Pressure (psi)	8,638
Displacement (psi)	8,579
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	6,012
Final FG (psi/ft)	1.18
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,775
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	277
Pad (bbls)	51
Treatment (bbls)	7,406
Displacement (bbls)	316
(Acid Included)Total Fluid (bbls)	7,781
Dirty Job Total (bbls)	8,133
100 Mesh	291,800
40/70	105,800
Total Proppant (lbs)	397,600
Total Proppant %	99.4%

CHEMICALS

FR 9800	169
Biocide	86
Scale	20

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22989
 Date: 9/12/2019
 Well Name: Boggess 13H
 Stage No.: 33

State: WV
 County: Monongahela
 Operator: Stetson/Dunn/David
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,918.00	CWT	\$ 5.50	\$ 16,049.00
SAND 40/70	40/70 white	1,058.00	CWT	\$ 5.75	\$ 6,083.50
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	169	GAL	\$ 17.75	\$ 2,999.75
BIOC11219A	Biocide @ 0.25 GPT	86	GAL	\$ 16.00	\$ 1,376.00
SCAL16846A	Scale Control @ 0.05 GPT	20	GAL	\$ 16.00	\$ 320.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		198.8	TON	\$ 55.00	\$ 10,934.00
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,892.25
 25% Discount Applied \$ 14,473.06
 Net Stage Total \$ 43,419.19

(Print Name)
 Customer Rep:

RACASGA

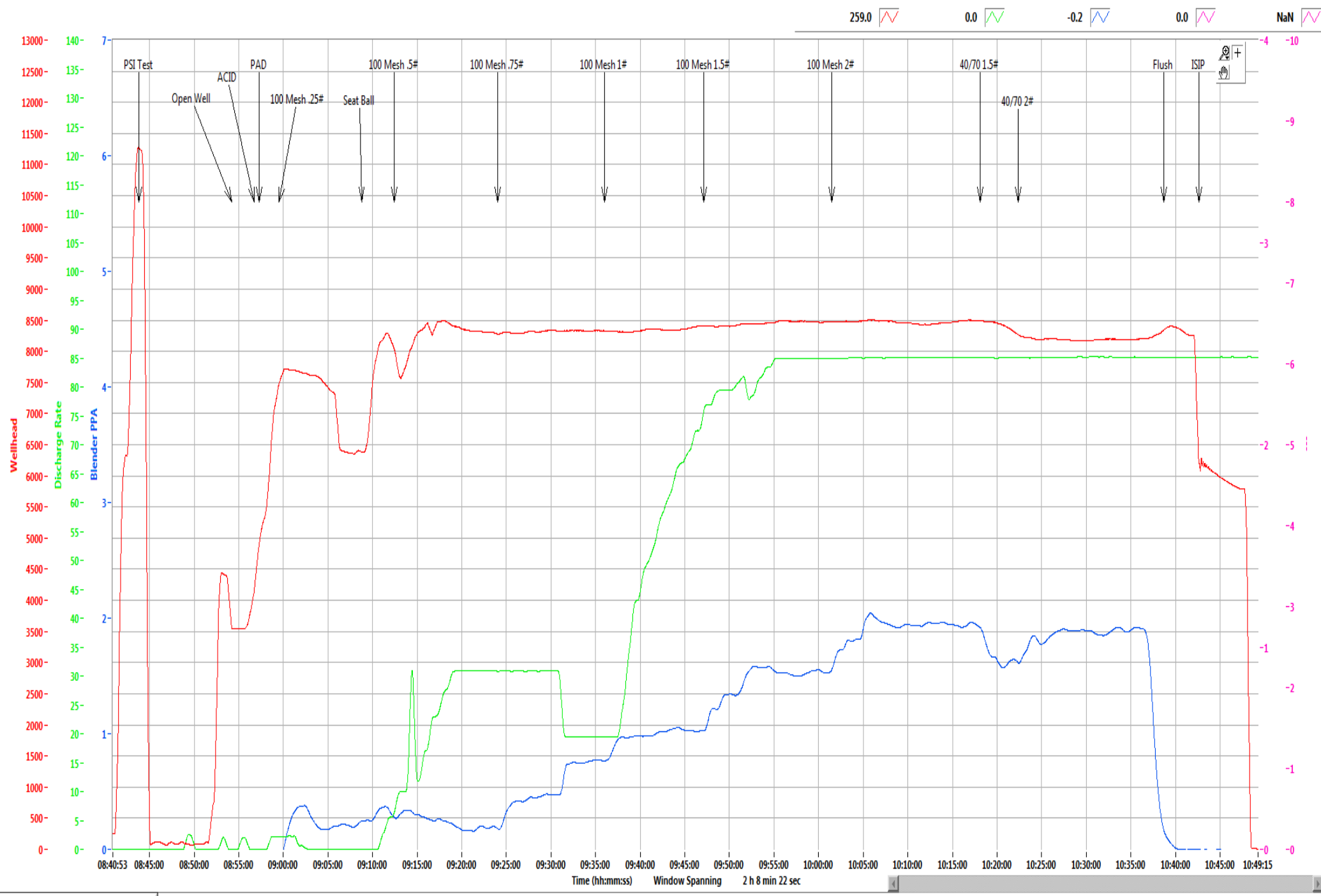
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RACASGA

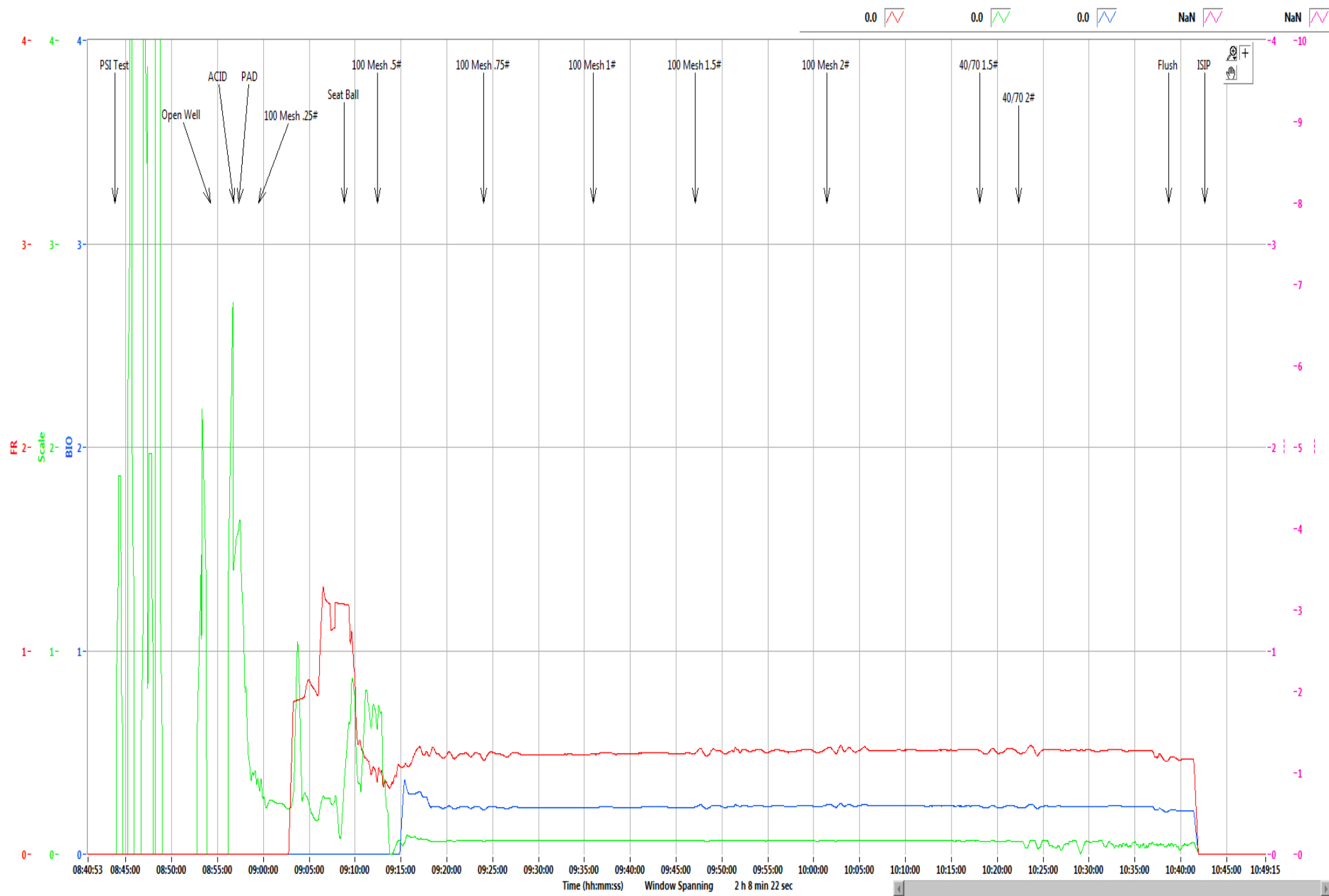


NNE
Boggess 13H
Stage 34
Producers Service Corp.

Post Stage Report
September 12, 2019



Refresh Graph



Refresh Graph

Bogges Pad	13H
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Stage	34
Date:	9/12/19
OWP (psi):	3,542
Starting Time	8:54 AM
Ending Time	10:42 AM
Pump Time (hr:min)	01:48
Swap Time (hr:min)	02:21
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,450
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	8,361
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	8,558
Displacement (psi)	8,386
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,874
Final FG (psi/ft)	1.17
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,691
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	275
Pad (bbls)	65
Treatment (bbls)	7,316
Displacement (bbls)	310
(Acid Included)Total Fluid (bbls)	7,697
Dirty Job Total (bbls)	8,093
100 Mesh	294,460
40/70	104,340
Total Proppant (lbs)	398,800
Total Proppant %	99.7%

CHEMICALS

FR 9800	160
Biocide	80
Scale	16

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22991
 Date: 9/12/2019
 Well Name: Boggess 13H
 Stage No.: 34

State: WV
 County: Monongahela
 Operator: Brad/Kelby
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,944.60	CWT	\$ 5.50	\$ 16,195.30
SAND 40/70	40/70 white	1,043.40	CWT	\$ 5.75	\$ 5,999.55
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	160	GAL	\$ 17.75	\$ 2,840.00
BIOC11219A	Biocide @ 0.25 GPT	80	GAL	\$ 16.00	\$ 1,280.00
SCAL16846A	Scale Control @ 0.05 GPT	16	GAL	\$ 16.00	\$ 256.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.4	TON	\$ 55.00	\$ 10,967.00
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,667.85
 25% Discount Applied \$ 14,416.96
 Net Stage Total \$ 43,250.89

(Print Name)
 Customer Rep:

E. Boone

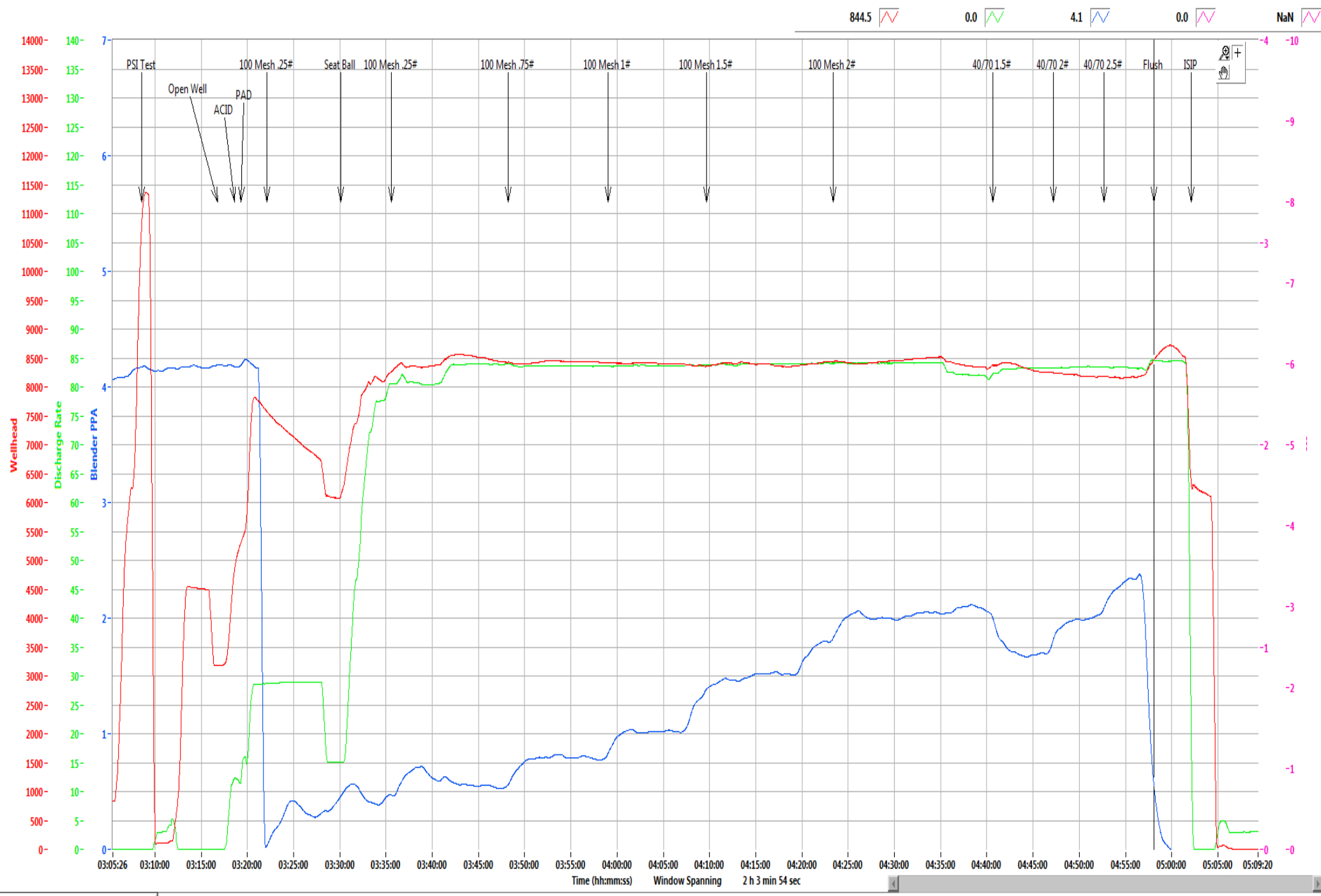
Customer Signature:

E. Boone

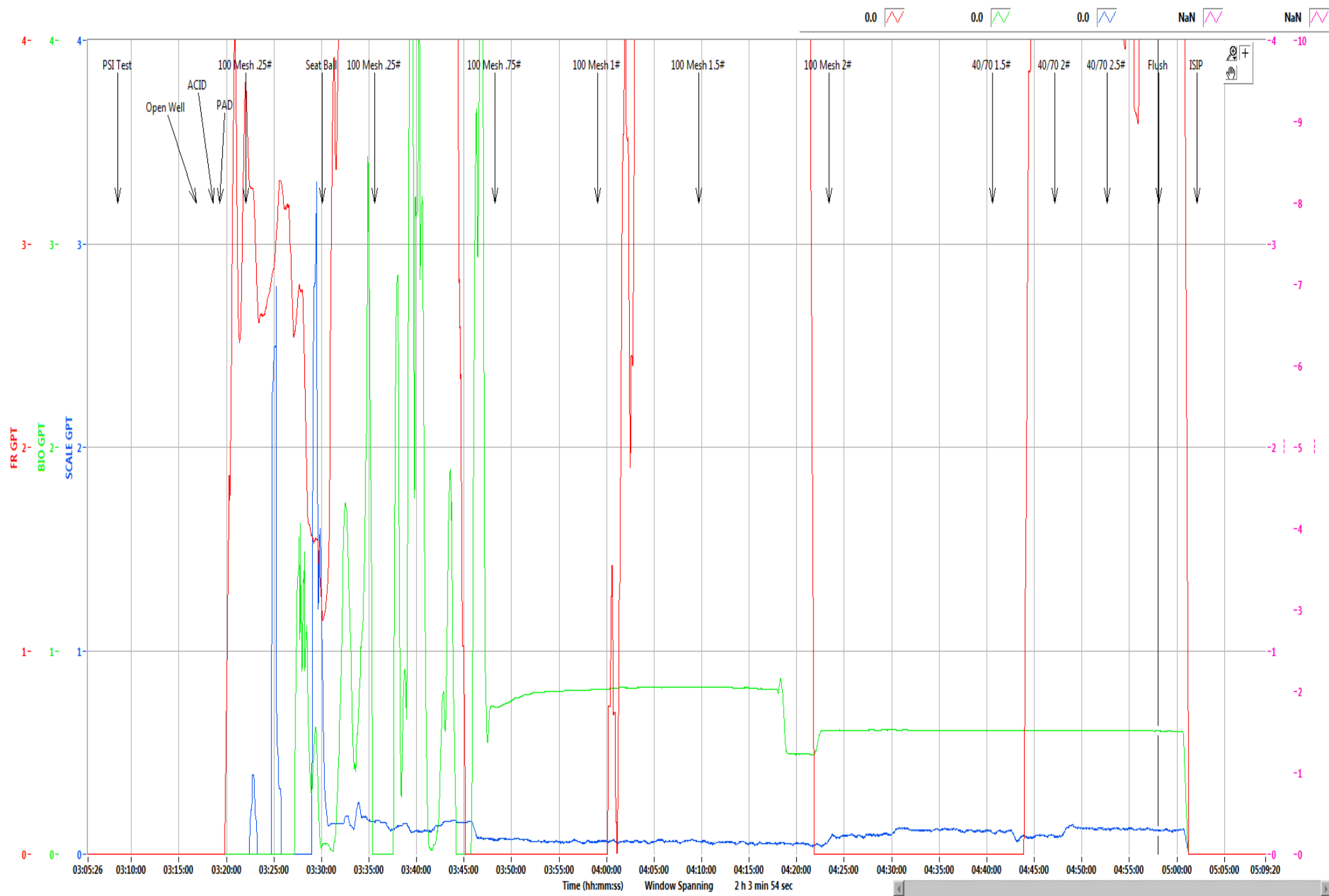


NNE
Boggess 13H
Stage 35
Producers Service Corp.

Post Stage Report
September 13, 2019



Refresh Graph



Refresh Graph

Bogges Pad	13H
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Stage	35
Date:	9/13/19
OWP (psi):	3,187
Starting Time	3:16 AM
Ending Time	5:02 AM
Pump Time (hr:min)	01:46
Swap Time (hr:min)	11:07
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,394
Average Treating Rate (bbl/min)	83
Average Treating Pressure (psi)	8,384
Maximum Treating Rate (bbl/min)	85
Maximum Treating Pressure (psi)	8,587
Displacement (psi)	7,835
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,430
Final FG (psi/ft)	1.23
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,406
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	244
Pad (bbls)	69
Treatment (bbls)	7,766
Displacement (bbls)	307
(Acid Included)Total Fluid (bbls)	7,412
Dirty Job Total (bbls)	7,835
100 Mesh	304,160
40/70	100,360
Total Proppant (lbs)	404,520
Total Proppant %	101.1%

CHEMICALS

FR 9800	154
Biocide	75
Scale	14

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22993
 Date: 9/13/2019
 Well Name: Bogges 13H
 Stage No.: 35

State: WV
 County: Monongahela
 Operator: Brad/Kelby
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,041.60	CWT	\$ 5.50	\$ 16,728.80
SAND 40/70	40/70 white	1,003.60	CWT	\$ 5.75	\$ 5,770.70
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	154	GAL	\$ 17.75	\$ 2,733.50
BIOC11219A	Biocide @ 0.25 GPT	75	GAL	\$ 16.00	\$ 1,200.00
SCAL16846A	Scale Control @ 0.05 GPT	14	GAL	\$ 16.00	\$ 224.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		202.26	TON	\$ 55.00	\$ 11,124.30
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,911.30
 25% Discount Applied \$ 14,477.83
 Net Stage Total \$ 43,433.48

(Print Name)

Customer Rep: Rob Cowger

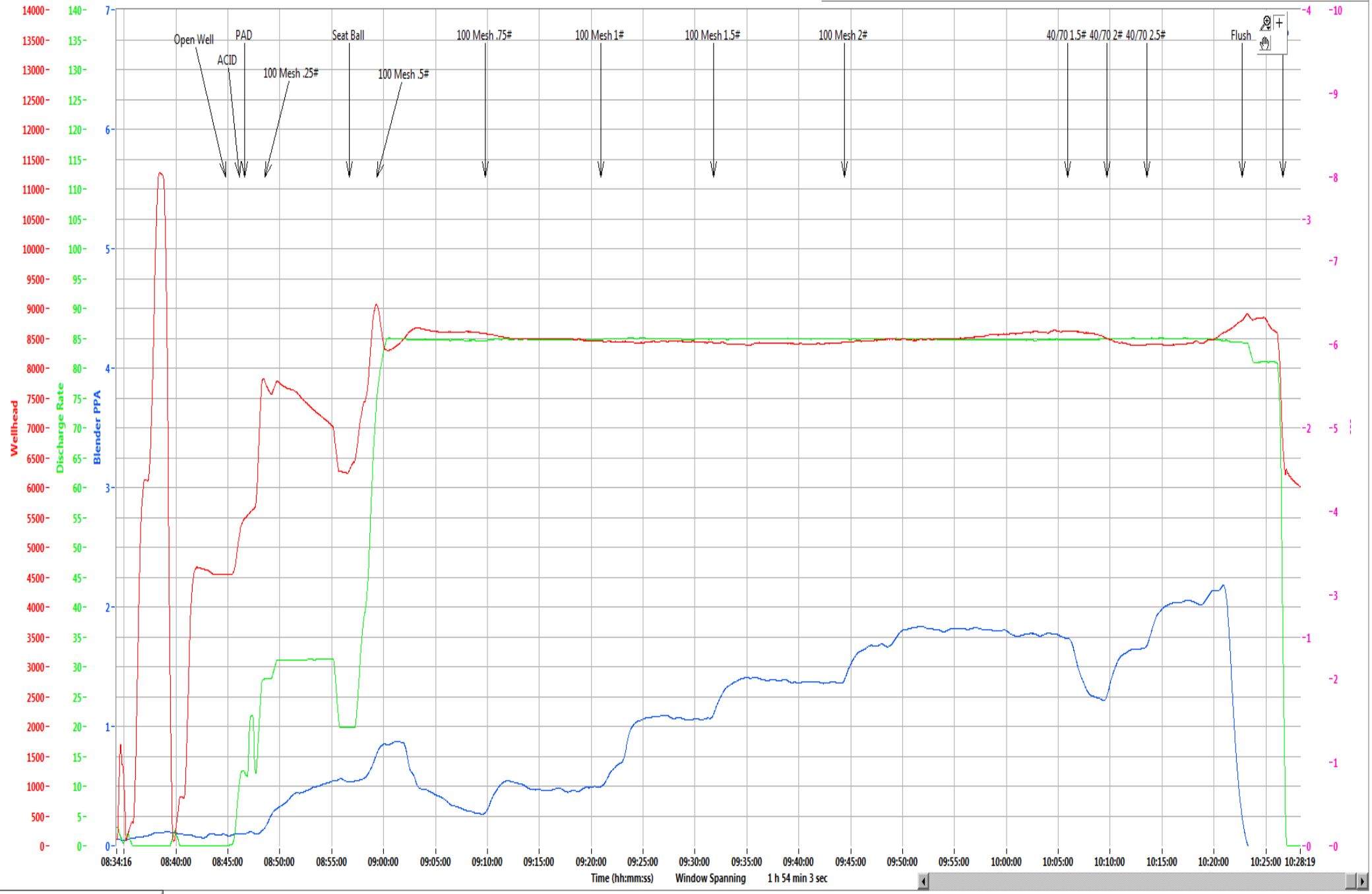
Customer Signature: RA Cowger



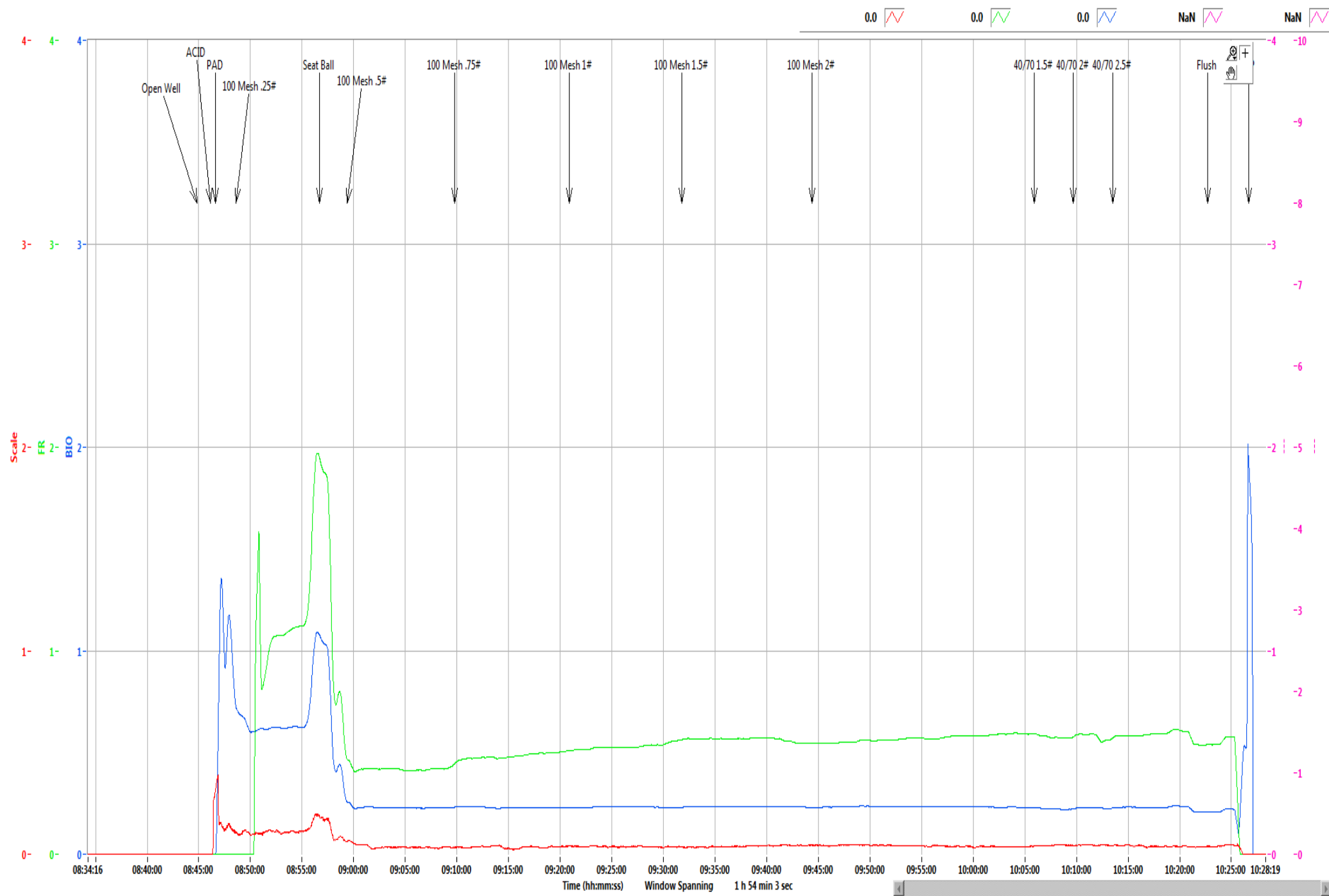
NNE
Boggess 13H
Stage 36
Producers Service Corp.

Post Stage Report
September 13, 2019

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Refresh Graph



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Bogges Pad	13H
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Stage	36
Date:	9/13/19
OWP (psi):	4,538
Starting Time	8:44 AM
Ending Time	10:26 AM
Pump Time (hr:min)	01:42
Swap Time (hr:min)	00:58
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,442
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	8,485
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	8,711
Displacement (psi)	8,826
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,150
Final FG (psi/ft)	1.20
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,382
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	270
Pad (bbls)	54
Treatment (bbls)	7,024
Displacement (bbls)	305
(Acid Included)Total Fluid (bbls)	7,388
Dirty Job Total (bbls)	7,794
100 Mesh	305,300
40/70	95,100
Total Proppant (lbs)	400,400
Total Proppant %	100.1%

CHEMICALS

FR 9800	153
Biocide	76
Scale	15

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22995
 Date: 9/13/2019
 Well Name: Bogges 13H
 Stage No.: 36

State: WV
 County: Monongahela
 Operator: Brad/Kelby
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,053.00	CWT	\$ 5.50	\$ 16,791.50
SAND 40/70	40/70 white	951.00	CWT	\$ 5.75	\$ 5,468.25
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	153	GAL	\$ 17.75	\$ 2,715.75
BIOC11219A	Biocide @ 0.25 GPT	76	GAL	\$ 16.00	\$ 1,216.00
SCAL16846A	Scale Control @ 0.05 GPT	15	GAL	\$ 16.00	\$ 240.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.2	TON	\$ 55.00	\$ 11,011.00
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,572.50
 25% Discount Applied \$ 14,393.13
 Net Stage Total \$ 43,179.38

(Print Name)
 Customer Rep:

E. Boone

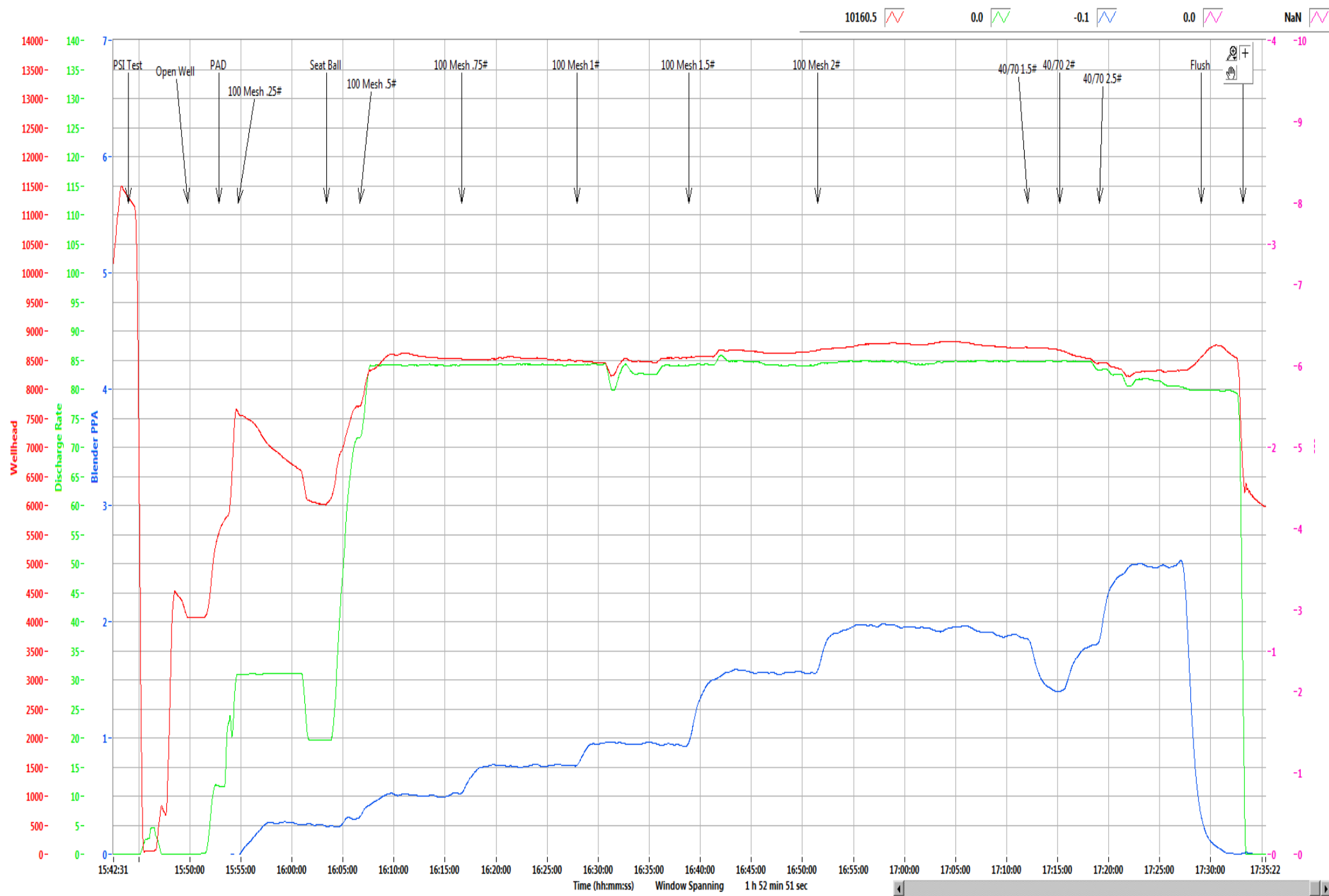
Customer Signature:

E. Boone



NNE
Boggess 13H
Stage 37
Producers Service Corp.

Post Stage Report
September 13, 2019



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Bogges Pad	13H
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Stage	37
Date:	9/13/19
OWP (psi):	4,079
Starting Time	3:49 PM
Ending Time	5:33 PM
Pump Time (hr:min)	01:44
Swap Time (hr:min)	02:26
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,165
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	8,616
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	8,845
Displacement (psi)	8,566
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,972
Final FG (psi/ft)	1.18
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,291
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	240
Pad (bbls)	55
Treatment (bbls)	6,939
Displacement (bbls)	297
(Acid Included)Total Fluid (bbls)	7,297
Dirty Job Total (bbls)	7,692
100 Mesh	300,380
40/70	100,193
Total Proppant (lbs)	400,573
Total Proppant %	100.1%

CHEMICALS

FR 9800	152
Biocide	76
Scale	15

Northeast Natural Energy
48 Donley Street, Ste 601
Morgantown, WV 26501



Producers Service Corp
109 S. Graham St.
Zanesville, OH 43701

Invoice #: 22997
Date: 9/13/2019
Well Name: Bogges 13H
Stage No.: 37

State: WV
County: Monongahela
Operator: Brad/Kelby
PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,003.80	CWT	\$ 5.50	\$ 16,520.90
SAND 40/70	40/70 white	1,001.93	CWT	\$ 5.75	\$ 5,761.10
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	152	GAL	\$ 17.75	\$ 2,698.00
BIOC11219A	Biocide @ 0.25 GPT	76	GAL	\$ 16.00	\$ 1,216.00
SCAL16846A	Scale Control @ 0.05 GPT	15	GAL	\$ 16.00	\$ 240.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.2865	TON	\$ 55.00	\$ 11,015.76
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -
				Total No Discount	\$ 57,581.76
				25% Discount Applied	\$ 14,395.44
				Net Stage Total	\$ 43,186.32

(Print Name)
Customer Rep:

E. Boone

Customer Signature:

E. Boone



NNE
Boggess 13H
Stage 38
Producers Service Corp.

Post Stage Report
September 13, 2019



Refresh Graph



Refresh Graph

Bogges Pad	13H
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Stage	38
Date:	9/13/19
OWP (psi):	4,342
Starting Time	9:31 PM
Ending Time	
Pump Time (hr:min)	
Swap Time (hr:min)	01:07
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,016
Average Treating Rate (bbl/min)	82
Average Treating Pressure (psi)	8,397
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	8,666
Displacement (psi)	8,419
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	6,196
Final FG (psi/ft)	1.21
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	6,778
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	225
Pad (bbls)	61
Treatment (bbls)	6,723
Displacement (bbls)	289
(Acid Included)Total Fluid (bbls)	6,784
Dirty Job Total (bbls)	7,221
100 Mesh	299,960
40/70	103,940
Total Proppant (lbs)	403,900
Total Proppant %	101.0%

CHEMICALS

FR 9800	146
Biocide	78
Scale	19

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 22999
 Date: 9/13/2019
 Well Name: Boggess 13H
 Stage No.: 38

State: WV
 County: Monongahela
 Operator: Stetson/David
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,999.60	CWT	\$ 5.50	\$ 16,497.80
SAND 40/70	40/70 white	1,039.40	CWT	\$ 5.75	\$ 5,976.55
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	146	GAL	\$ 17.75	\$ 2,591.50
BIOC11219A	Biocide @ 0.25 GPT	78	GAL	\$ 16.00	\$ 1,248.00
SCAL16846A	Scale Control @ 0.05 GPT	19	GAL	\$ 16.00	\$ 304.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		201.95	TON	\$ 55.00	\$ 11,107.25
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,855.10
 25% Discount Applied \$ 14,463.78
 Net Stage Total \$ 43,391.33

(Print Name)
 Customer Rep:

Rob Cowg

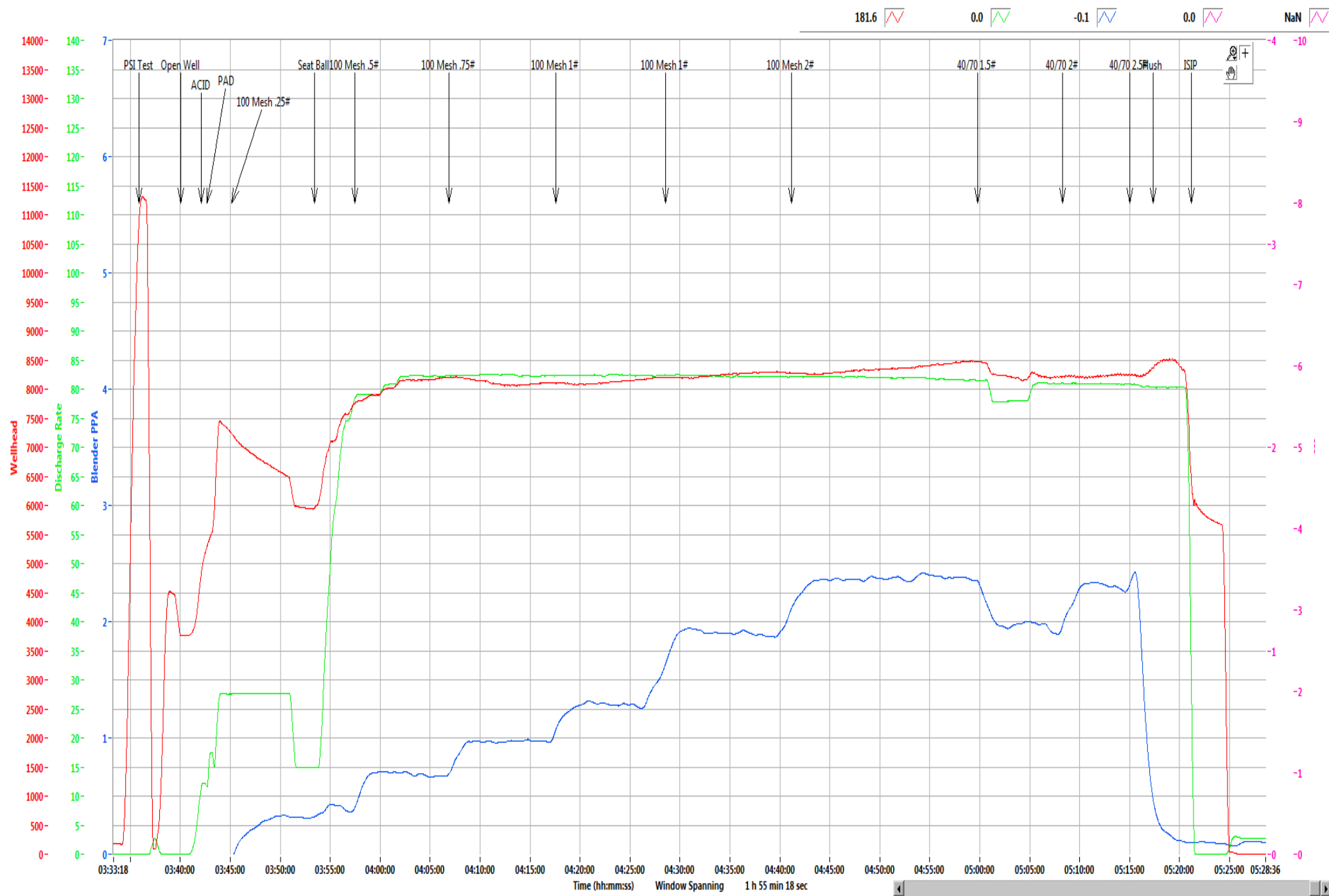
Customer Signature:

Rob Cowg



NNE
Boggess 13H
Stage 39
Producers Service Corp.

Post Stage Report
September 14, 2019



Refresh Graph



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Bogges Pad	13H
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Stage	39
Date:	9/14/19
OWP (psi):	3,764
Starting Time	3:40 AM
Ending Time	5:21 AM
Pump Time (hr:min)	01:41
Swap Time (hr:min)	03:40
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,061
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,214
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	8,533
Displacement (psi)	5,390
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,736
Final FG (psi/ft)	1.15
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	6,898
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	220
Pad (bbls)	59
Treatment (bbls)	7,293
Displacement (bbls)	285
(Acid Included)Total Fluid (bbls)	6,904
Dirty Job Total (bbls)	7,355
100 Mesh	297,880
40/70	100,360
Total Proppant (lbs)	398,240
Total Proppant %	99.6%

CHEMICALS

FR 9800	153
Biocide	78
Scale	18

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23051
 Date: 9/14/2019
 Well Name: Bogges 13H
 Stage No.: 39

State: WV
 County: Monongahela
 Operator: Stetson/David
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,978.80	CWT	\$ 5.50	\$ 16,383.40
SAND 40/70	40/70 white	1,003.60	CWT	\$ 5.75	\$ 5,770.70
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	153	GAL	\$ 17.75	\$ 2,715.75
BIOC11219A	Biocide @ 0.25 GPT	78	GAL	\$ 16.00	\$ 1,248.00
SCAL16846A	Scale Control @ 0.05 GPT	18	GAL	\$ 16.00	\$ 288.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.12	TON	\$ 55.00	\$ 10,951.60
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,487.45
 25% Discount Applied \$ 14,371.86
 Net Stage Total \$ 43,115.59

(Print Name)
 Customer Rep:

Rob Cowger

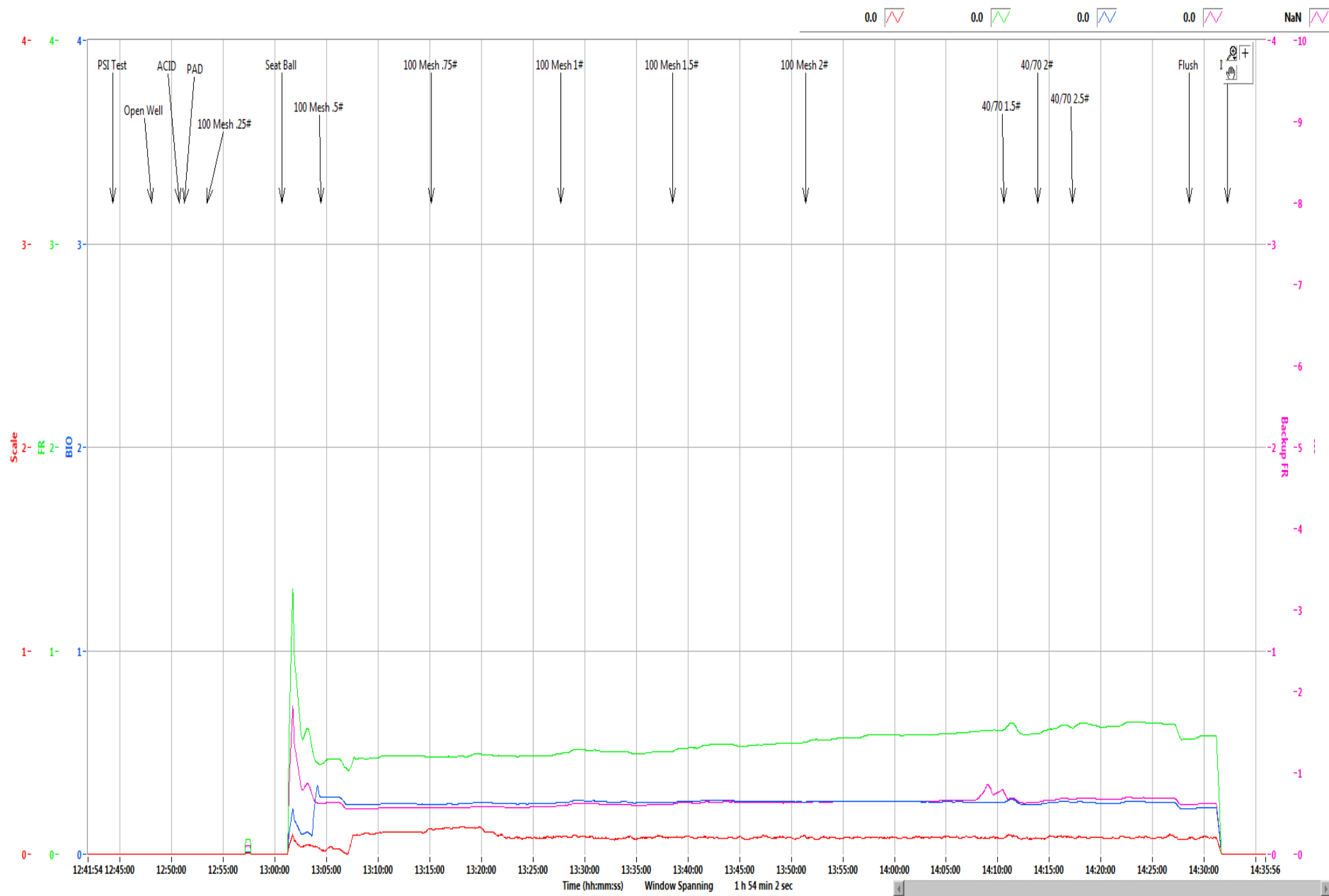
Customer Signature:

R. Alawyer

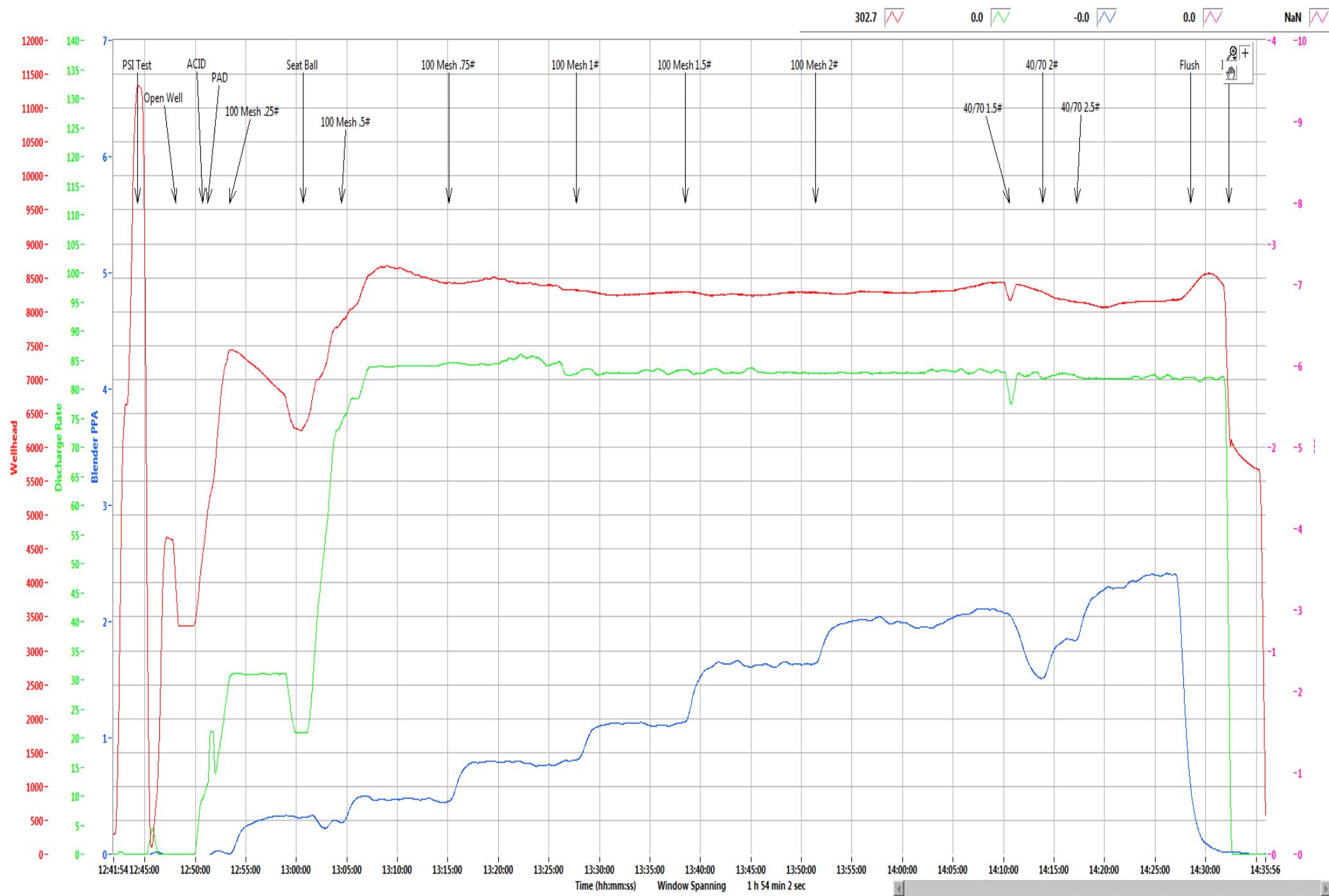


NNE
Boggess 13H
Stage 40
Producers Service Corp.

Post Stage Report
September 14, 2019



Refresh Graph



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NNE Boggess Pad

13H

Stage	40
Date:	9/14/19
OWP (psi):	3,387
Starting Time	12:48 PM
Ending Time	2:32 PM
Pump Time (hr:min)	01:44
Swap Time (hr:min)	02:56
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,439
Average Treating Rate (bbl/min)	83
Average Treating Pressure (psi)	8,313
Maximum Treating Rate (bbl/min)	87
Maximum Treating Pressure (psi)	8,726
Displacement (psi)	8,369
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,999
Final FG (psi/ft)	1.18
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,305
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	208
Pad (bbls)	62
Treatment (bbls)	6,960
Displacement (bbls)	285
(Acid Included)Total Fluid (bbls)	7,311
Dirty Job Total (bbls)	7,724
100 Mesh	299,980
40/70	100,460
Total Proppant (lbs)	400,440
Total Proppant %	100.1%

CHEMICALS

FR 9800	155
Biocide	77
Scale	16

Northeast Natural Energy
48 Donley Street, Ste 601
Morgantown, WV 26501



Producers Service Corp
109 S. Graham St.
Zanesville, OH 43701

Invoice #: 23053
Date: 9/14/2019
Well Name: Bogges 13H
Stage No.: 40

State: WV
County: Monongahela
Operator: Brad/Kelby
PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4KI INHIBITOR	inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,999.80	CWT	\$ 5.50	\$ 16,498.90
SAND 40/70	40/70 white	1,004.60	CWT	\$ 5.75	\$ 5,776.45
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	155	GAL	\$ 17.75	\$ 2,751.25
BIOC11219A	Biocide @ 0.25 GPT	77	GAL	\$ 16.00	\$ 1,232.00
SCAL16846A	Scale Control @ 0.05 GPT	16	GAL	\$ 16.00	\$ 256.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.22	TON	\$ 55.00	\$ 11,012.10
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,656.70
25% Discount Applied \$ 14,414.18
Net Stage Total \$ 43,242.53

(Print Name)
Customer Rep:

E. Boone

Customer Signature:

E. Boone

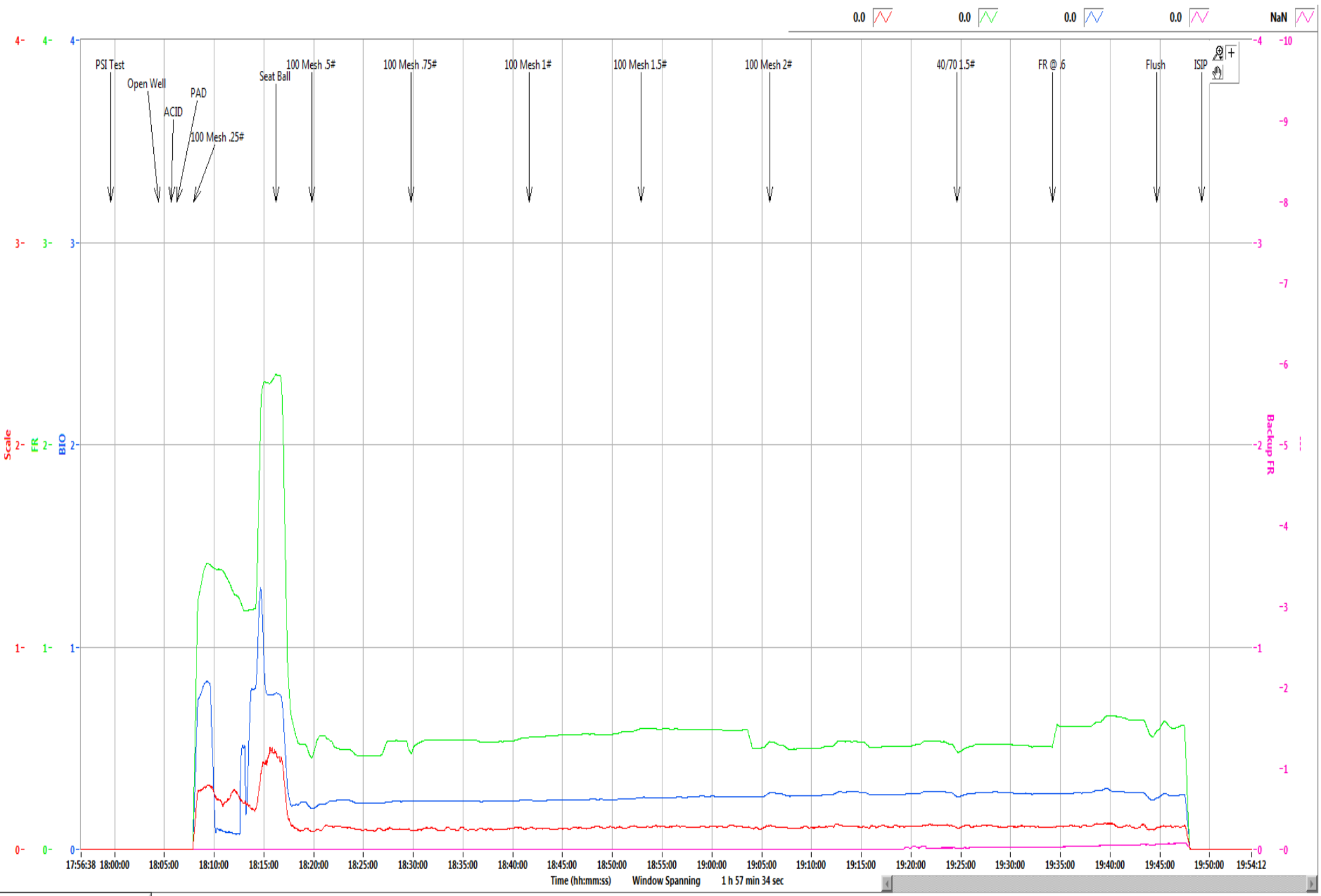


NNE
Boggess 13H
Stage 41
Producers Service Corp.

Post Stage Report
September 14, 2019



Refresh Graph



Refresh Graph

NNE Boggess Pad

13H

Stage	41
Date:	9/14/19
OWP (psi):	3,713
Starting Time	6:04 PM
Ending Time	7:49 PM
Pump Time (hr:min)	01:45
Swap Time (hr:min)	01:06
Starting # Pumps	16
Finishing # Pumps	14
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,178
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,030
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	8,720
Displacement (psi)	6,130
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	6,156
Final FG (psi/ft)	1.20
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	6,997
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	215
Pad (bbls)	38
Treatment (bbls)	6,965
Displacement (bbls)	279
(Acid Included)Total Fluid (bbls)	7,003
Dirty Job Total (bbls)	7,459
100 Mesh	303,120
40/70	100,020
Total Proppant (lbs)	403,140
Total Proppant %	100.8%

CHEMICALS

FR 9800	173
Biocide	77
Scale	18

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23055
 Date: 9/14/2019
 Well Name: Bogges 13H
 Stage No.: 41

State: WV
 County: Monongahela
 Operator: Brad/Kelby
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,031.20	CWT	\$ 5.50	\$ 16,671.60
SAND 40/70	40/70 white	1,000.20	CWT	\$ 5.75	\$ 5,751.15
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	173	GAL	\$ 17.75	\$ 3,070.75
BIOC11219A	Biocide @ 0.25 GPT	77	GAL	\$ 16.00	\$ 1,232.00
SCAL16846A	Scale Control @ 0.05 GPT	18	GAL	\$ 16.00	\$ 288.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		201.57	TON	\$ 55.00	\$ 11,086.35
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 58,229.85
 25% Discount Applied \$ 14,557.46
 Net Stage Total \$ 43,672.39

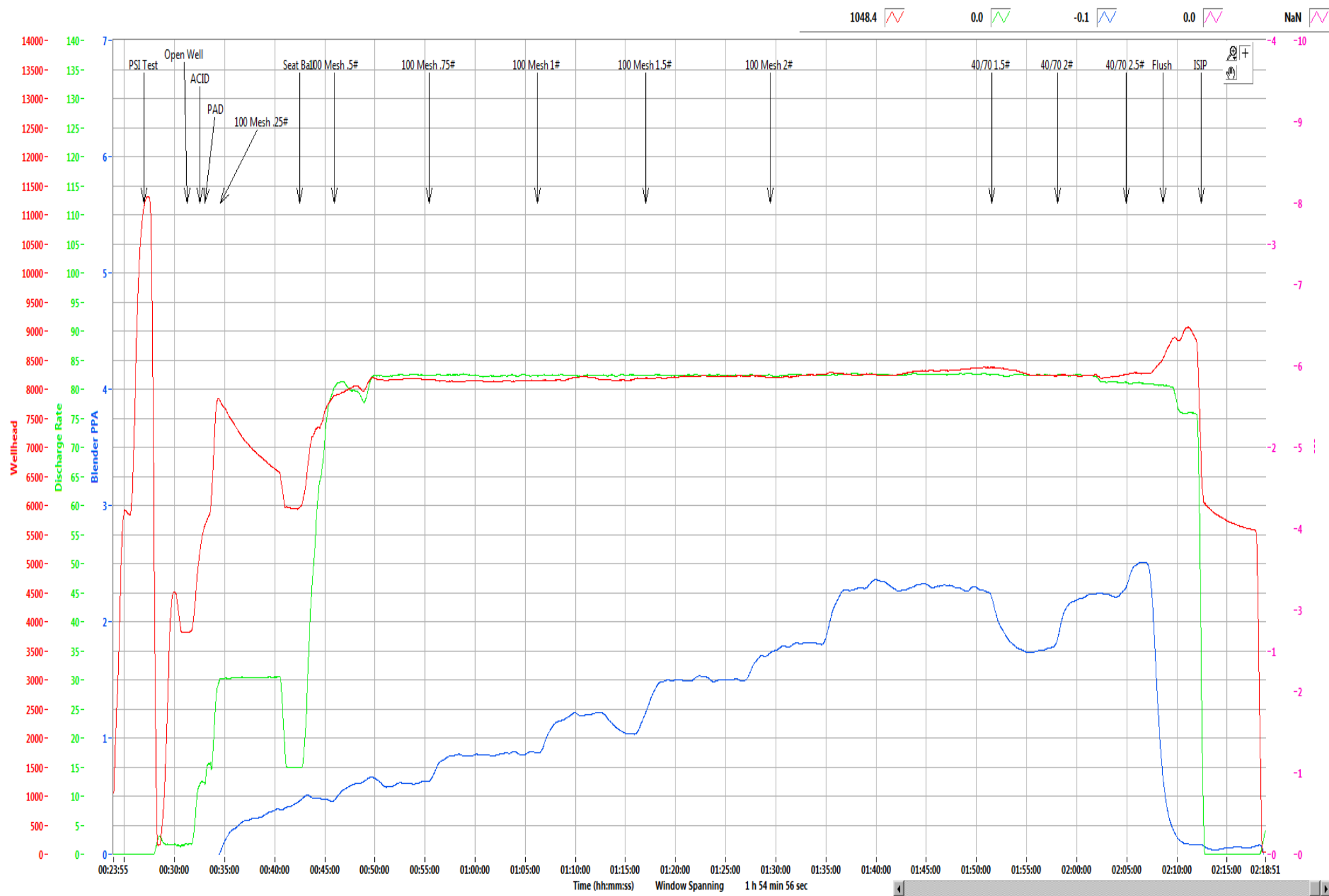
(Print Name)
 Customer Rep: Rob Gouge

Customer Signature: [Signature]

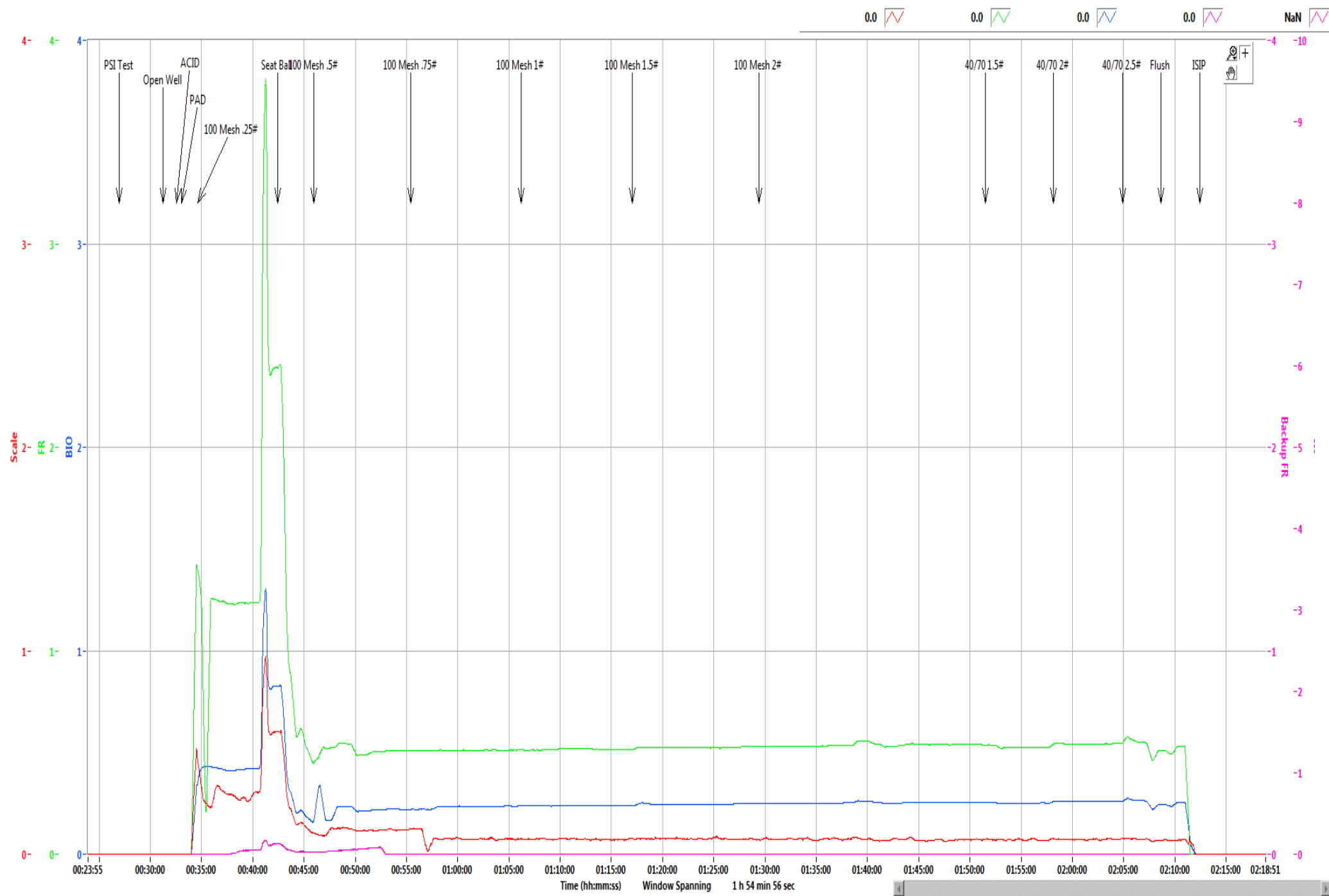


NNE
Boggess 13H
Stage 42
Producers Service Corp.

Post Stage Report
September 15, 2019



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Time (hh:mm:ss) Window Spanning 1 h 54 min 56 sec

NNE Boggess Pad

13H

Stage	42
Date:	9/15/19
OWP (psi):	3,812
Starting Time	12:31 AM
Ending Time	2:12 AM
Pump Time (hr:min)	01:41
Swap Time (hr:min)	01:28
Starting # Pumps	16
Finishing # Pumps	15
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,070
Average Treating Rate (bbl/min)	82
Average Treating Pressure (psi)	8,211
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	9,092
Displacement (psi)	5,753
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,169
Final FG (psi/ft)	1.20
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,084
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	200
Pad (bbls)	50
Treatment (bbls)	6,840
Displacement (bbls)	270
(Acid Included)Total Fluid (bbls)	7,090
Dirty Job Total (bbls)	7,530
100 Mesh	298,380
40/70	100,360
Total Proppant (lbs)	398,740
Total Proppant %	99.7%

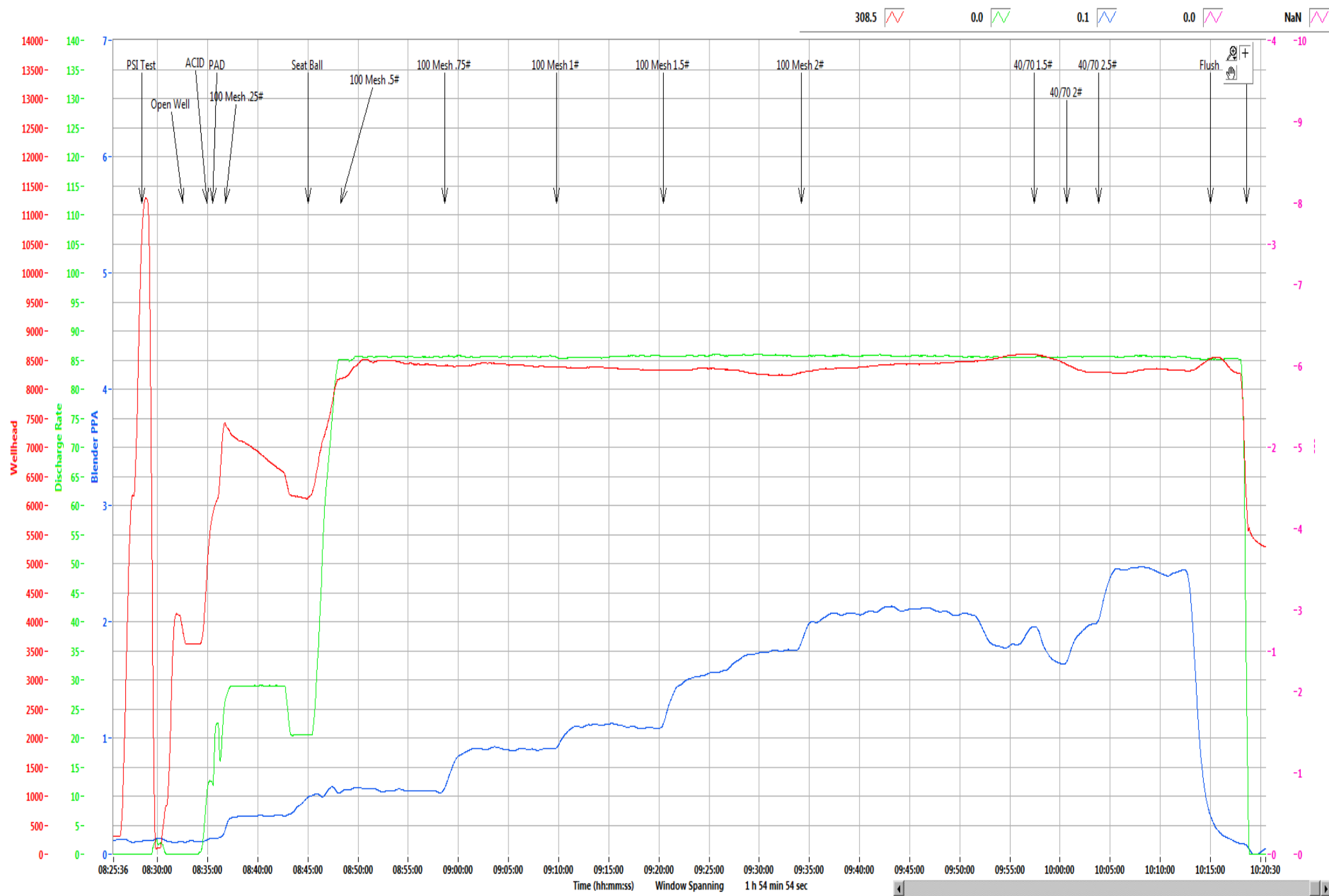
CHEMICALS

FR 9800	149
Biocide	73
Scale	15



NNE
Boggess 13H
Stage 43
Producers Service Corp.

Post Stage Report
September 15, 2019



Refresh Graph



0.0 0.0 0.0 0.0 NaN

Refresh Graph

NNE Boggess Pad

13H

Stage	43
Date:	9/15/19
OWP (psi):	3,609
Starting Time	8:28 AM
Ending Time	10:18 AM
Pump Time (hr:min)	01:50
Swap Time (hr:min)	01:59
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,210
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	8,391
Maximum Treating Rate (bbl/min)	87
Maximum Treating Pressure (psi)	8,638
Displacement (psi)	8,508
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,720
Final FG (psi/ft)	1.15
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,736
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	181
Pad (bbls)	40
Treatment (bbls)	7,419
Displacement (bbls)	277
(Acid Included)Total Fluid (bbls)	7,742
Dirty Job Total (bbls)	8,157
100 Mesh	299,280
40/70	102,420
Total Proppant (lbs)	401,700
Total Proppant %	100.4%

CHEMICALS

FR 9800	160
Biocide	80
Scale	16

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23059
 Date: 9/15/2019
 Well Name: Bogges 13H
 Stage No.: 43

State: WV
 County: Monongahela
 Operator: Kelby/Brad
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,992.80	CWT	\$ 5.50	\$ 16,460.40
SAND 40/70	40/70 white	1,024.20	CWT	\$ 5.75	\$ 5,889.15
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	160	GAL	\$ 17.75	\$ 2,840.00
BIOC11219A	Biocide @ 0.25 GPT	80	GAL	\$ 16.00	\$ 1,280.00
SCAL16846A	Scale Control @ 0.05 GPT	16	GAL	\$ 16.00	\$ 256.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.85	TON	\$ 55.00	\$ 11,046.75
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,902.30
 25% Discount Applied \$ 14,475.58
 Net Stage Total \$ 43,426.73

(Print Name)
 Customer Rep:

E. Boone

Customer Signature:

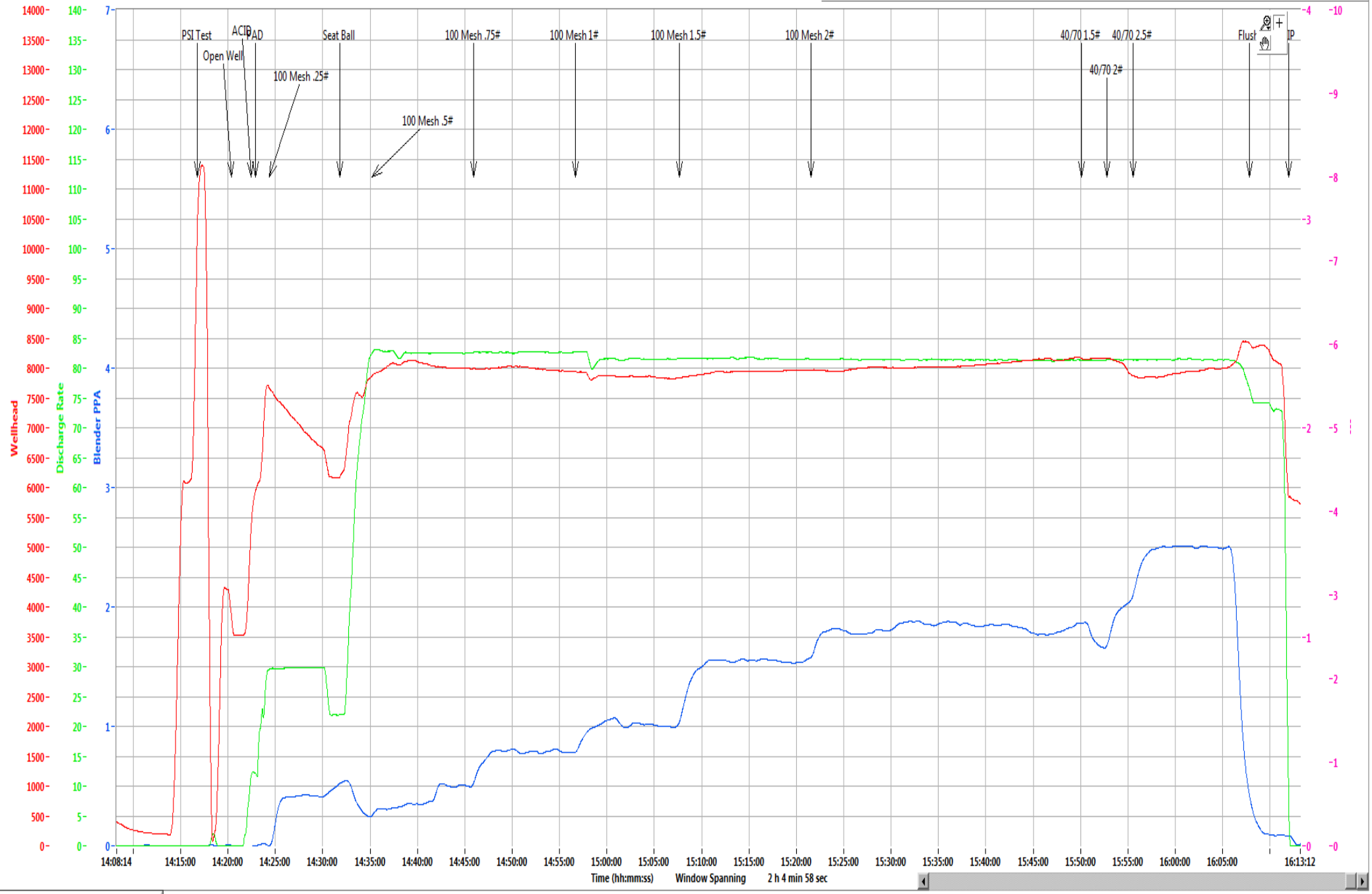
E. Boone



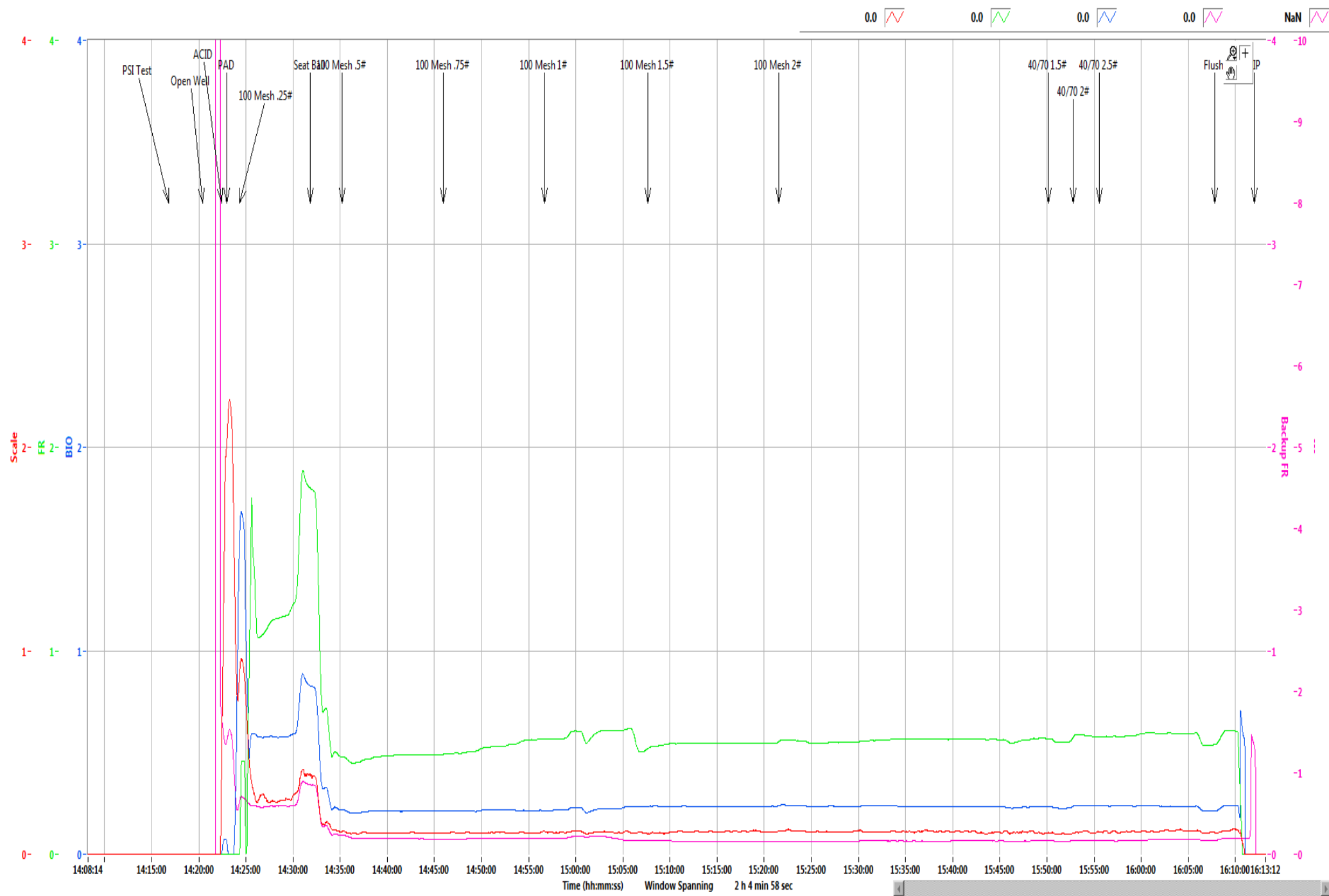
NNE
Boggess 13H
Stage 44
Producers Service Corp.

Post Stage Report
September 15, 2019

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Refresh Graph



Refresh Graph

NNE Boggess Pad

13H

Stage	44
Date:	9/15/19
OWP (psi):	3,531
Starting Time	2:20 PM
Ending Time	4:12 PM
Pump Time (hr:min)	01:52
Swap Time (hr:min)	01:03
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,353
Average Treating Rate (bbl/min)	82
Average Treating Pressure (psi)	7,986
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	8,205
Displacement (psi)	8,286
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,802
Final FG (psi/ft)	1.16
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,856
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	170
Pad (bbls)	50
Treatment (bbls)	7,535
Displacement (bbls)	272
(Acid Included)Total Fluid (bbls)	7,862
Dirty Job Total (bbls)	8,302
100 Mesh	300,040
40/70	100,180
Total Proppant (lbs)	400,220
Total Proppant %	100.1%

CHEMICALS

FR 9800	162
Biocide	80
Scale	15

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23061
 Date: 9/15/2019
 Well Name: Bogges 13H
 Stage No.: 44

State: WV
 County: Monongahela
 Operator: Kelby/Brad
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,000.40	CWT	\$ 5.50	\$ 16,502.20
SAND 40/70	40/70 white	1,001.80	CWT	\$ 5.75	\$ 5,760.35
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	162	GAL	\$ 17.75	\$ 2,875.50
BIOC11219A	Biocide @ 0.25 GPT	80	GAL	\$ 16.00	\$ 1,280.00
SCAL16846A	Scale Control @ 0.05 GPT	15	GAL	\$ 16.00	\$ 240.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.11	TON	\$ 55.00	\$ 11,006.05
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,794.10
 25% Discount Applied \$ 14,448.53
 Net Stage Total \$ 43,345.58

(Print Name)
 Customer Rep:

E. Bone

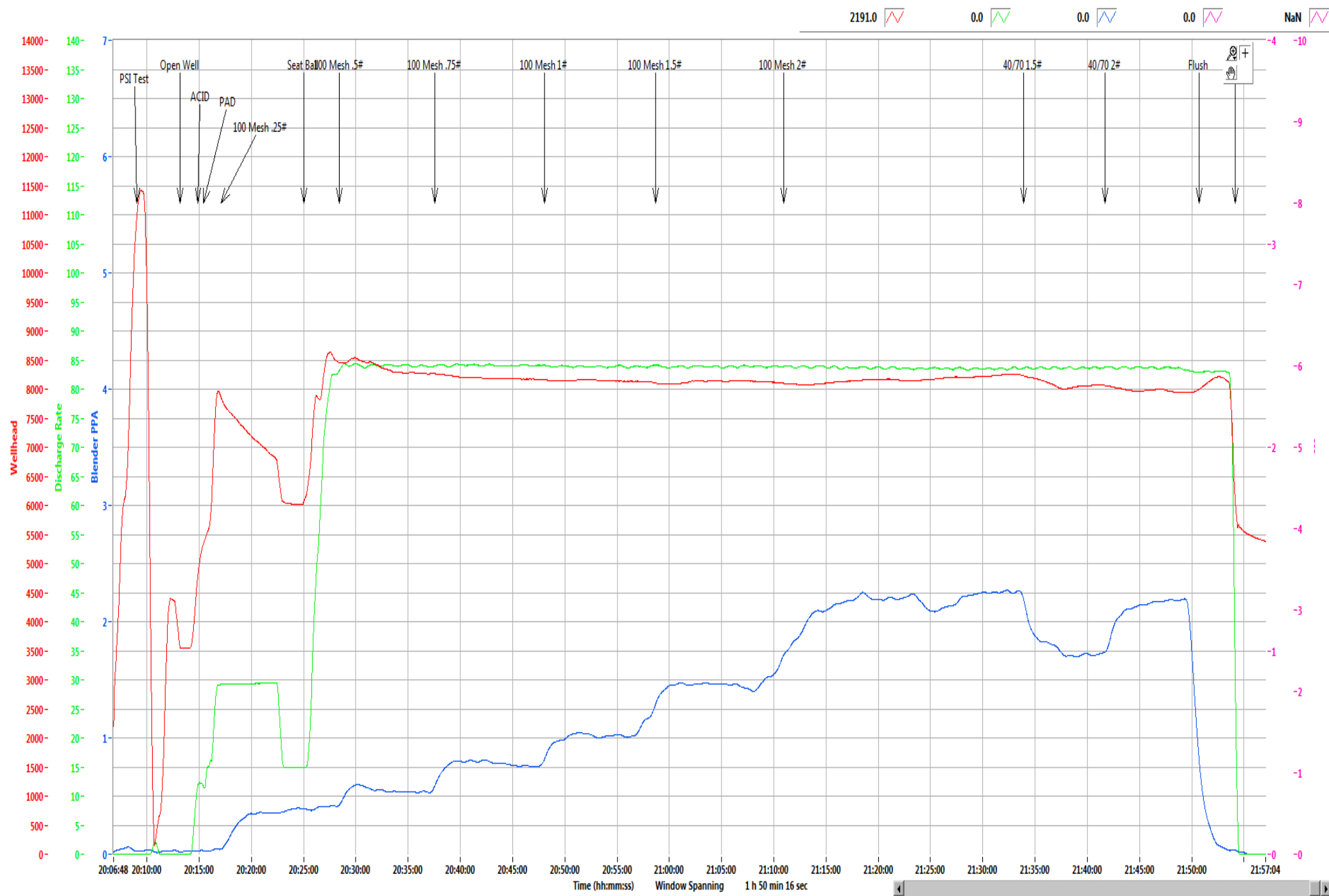
Customer Signature:

E. Bone

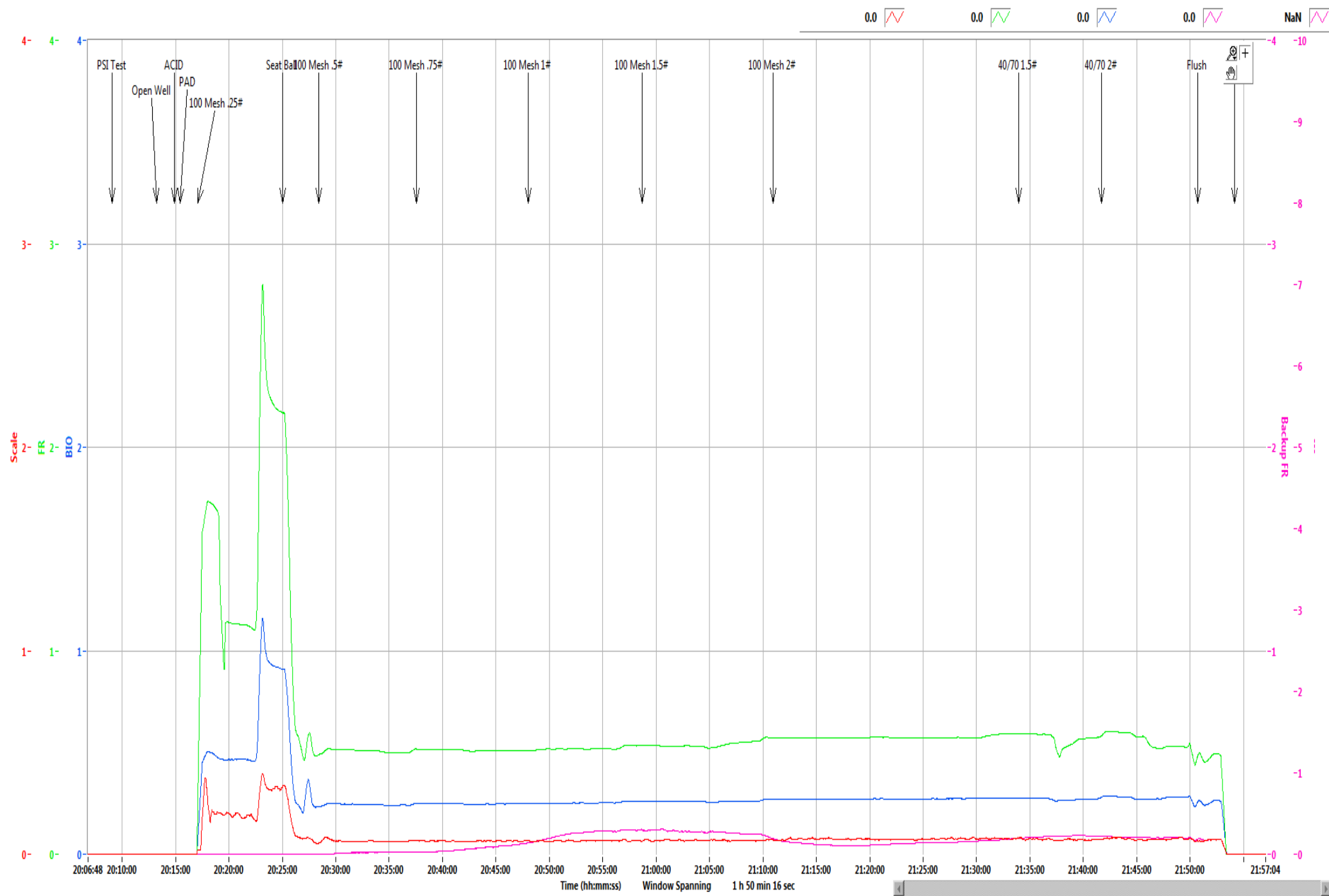


NNE
Boggess 13H
Stage 45
Producers Service Corp.

Post Stage Report
September 15, 2019



Refresh Graph



Refresh Graph

NNE Boggess Pad

13H

Stage	45
Date:	9/15/19
OWP (psi):	3,543
Starting Time	8:13 PM
Ending Time	9:54 PM
Pump Time (hr:min)	01:41
Swap Time (hr:min)	01:14
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,307
Average Treating Rate (bbl/min)	83
Average Treating Pressure (psi)	8,155
Maximum Treating Rate (bbl/min)	85
Maximum Treating Pressure (psi)	8,795
Displacement (psi)	8,026
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,675
Final FG (psi/ft)	1.14
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,185
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	171
Pad (bbls)	38
Treatment (bbls)	6,941
Displacement (bbls)	263
(Acid Included)Total Fluid (bbls)	7,191
Dirty Job Total (bbls)	7,617
100 Mesh	298,840
40/70	100,500
Total Proppant (lbs)	399,340
Total Proppant %	99.8%

CHEMICALS

FR 9800	157
Biocide	78
Scale	17

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23063
 Date: 9/15/2019
 Well Name: Bogges 13H
 Stage No.: 45

State: WV
 County: Monongahela
 Operator: Stetson/David
 PO/AFE: 100429-604

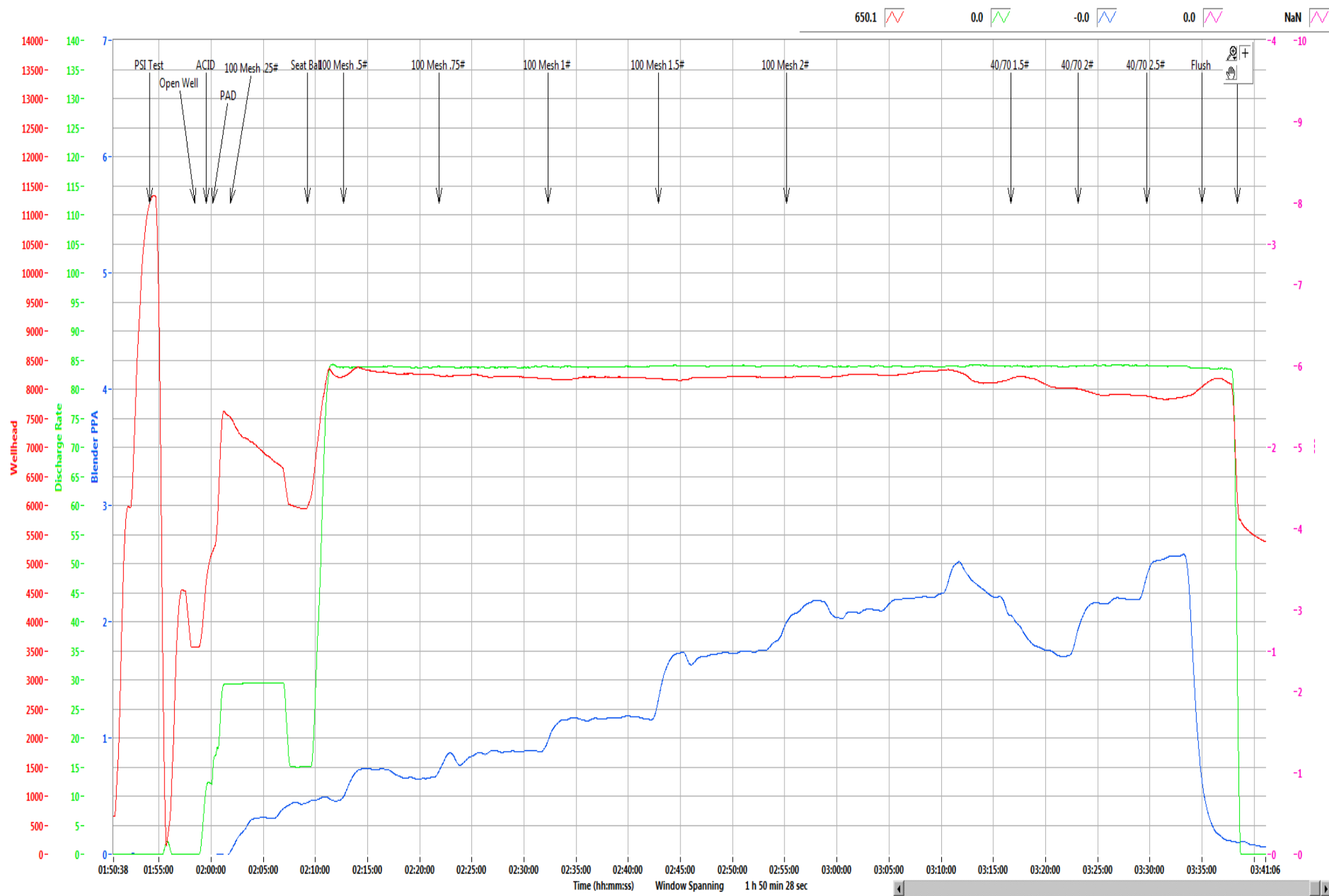
Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,988.40	CWT	\$ 5.50	\$ 16,436.20
SAND 40/70	40/70 white	1,005.00	CWT	\$ 5.75	\$ 5,778.75
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	157	GAL	\$ 17.75	\$ 2,786.75
BIOC11219A	Biocide @ 0.25 GPT	78	GAL	\$ 16.00	\$ 1,248.00
SCAL16846A	Scale Control @ 0.05 GPT	17	GAL	\$ 16.00	\$ 272.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.67	TON	\$ 55.00	\$ 10,981.85
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -
Total No Discount					\$ 57,633.55
25% Discount Applied					\$ 14,408.39
Net Stage Total					\$ 43,225.16

(Print Name) Customer Rep: Rob Lawson Customer Signature: [Signature]

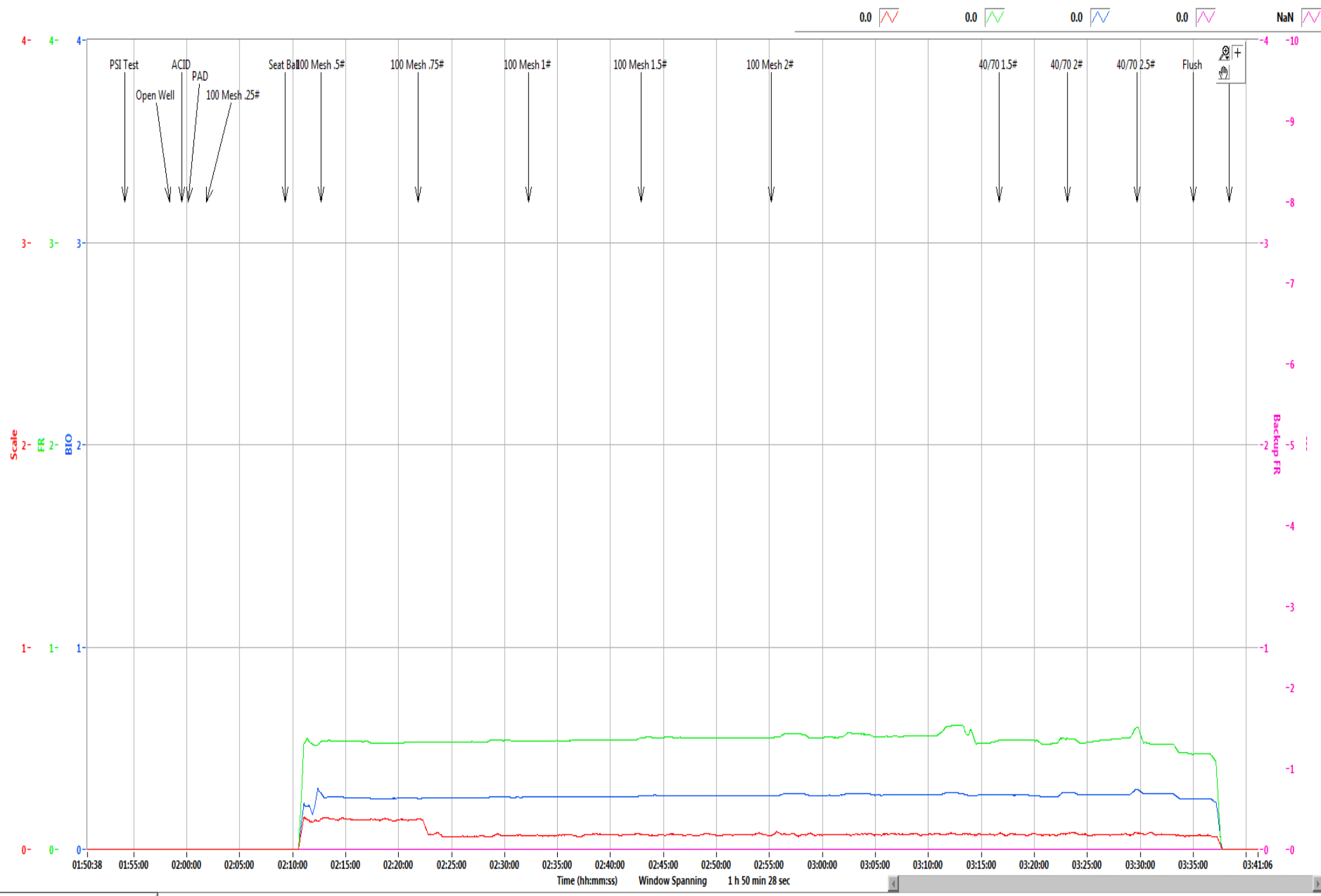


NNE
Boggess 13H
Stage 46
Producers Service Corp.

Post Stage Report
September 16, 2019



Refresh Graph



Refresh Graph

NNE Boggess Pad

13H

Stage	46
Date:	9/16/19
OWP (psi):	3,557
Starting Time	1:58 AM
Ending Time	3:38 AM
Pump Time (hr:min)	01:40
Swap Time (hr:min)	01:42
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,240
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	8,167
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	8,414
Displacement (psi)	8,068
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,714
Final FG (psi/ft)	1.15
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,194
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	152
Pad (bbls)	45
Treatment (bbls)	6,950
Displacement (bbls)	254
(Acid Included)Total Fluid (bbls)	7,200
Dirty Job Total (bbls)	7,657
100 Mesh	299,500
40/70	106,000
Total Proppant (lbs)	405,500
Total Proppant %	101.4%

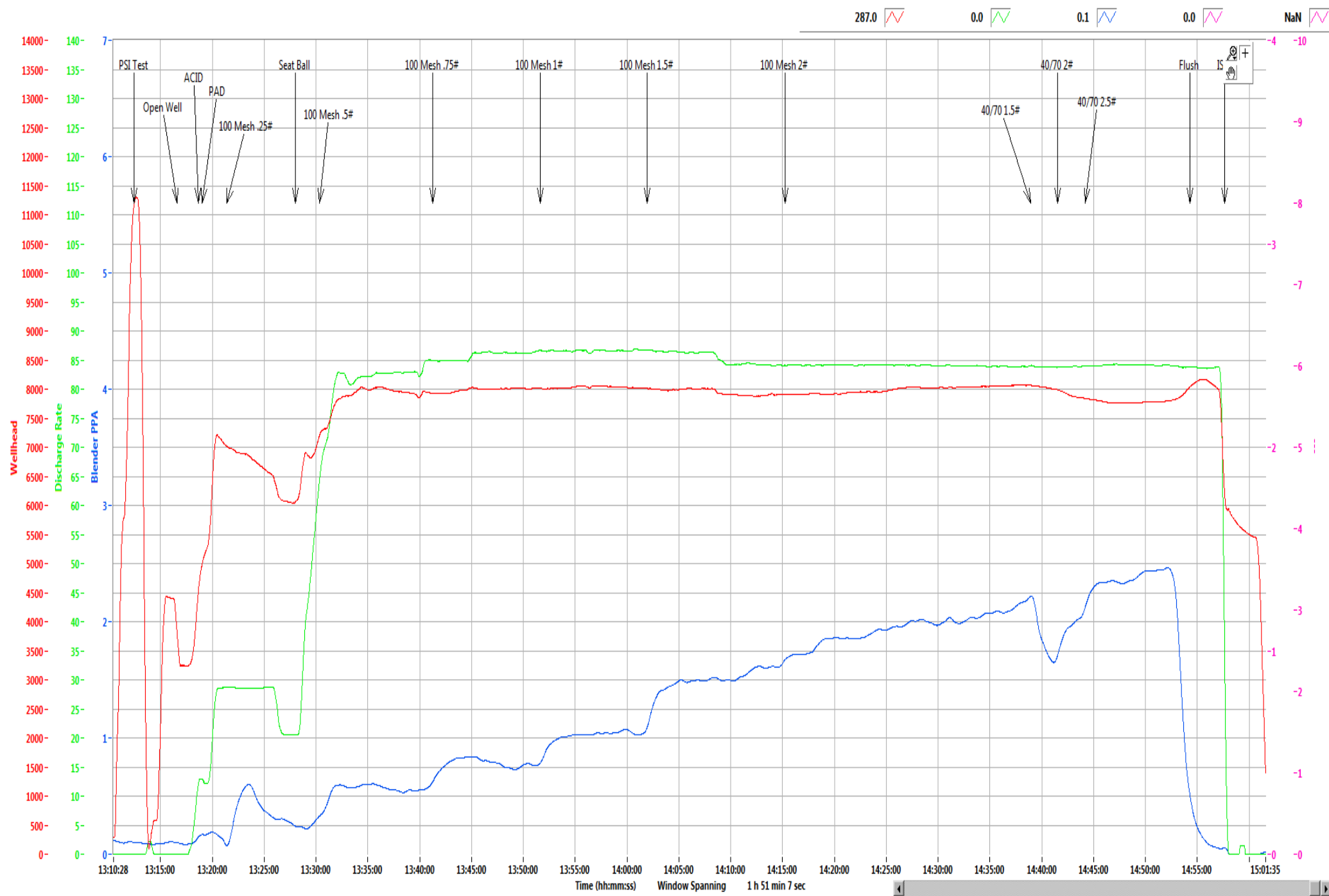
CHEMICALS

FR 9800	159
Biocide	81
Scale	19



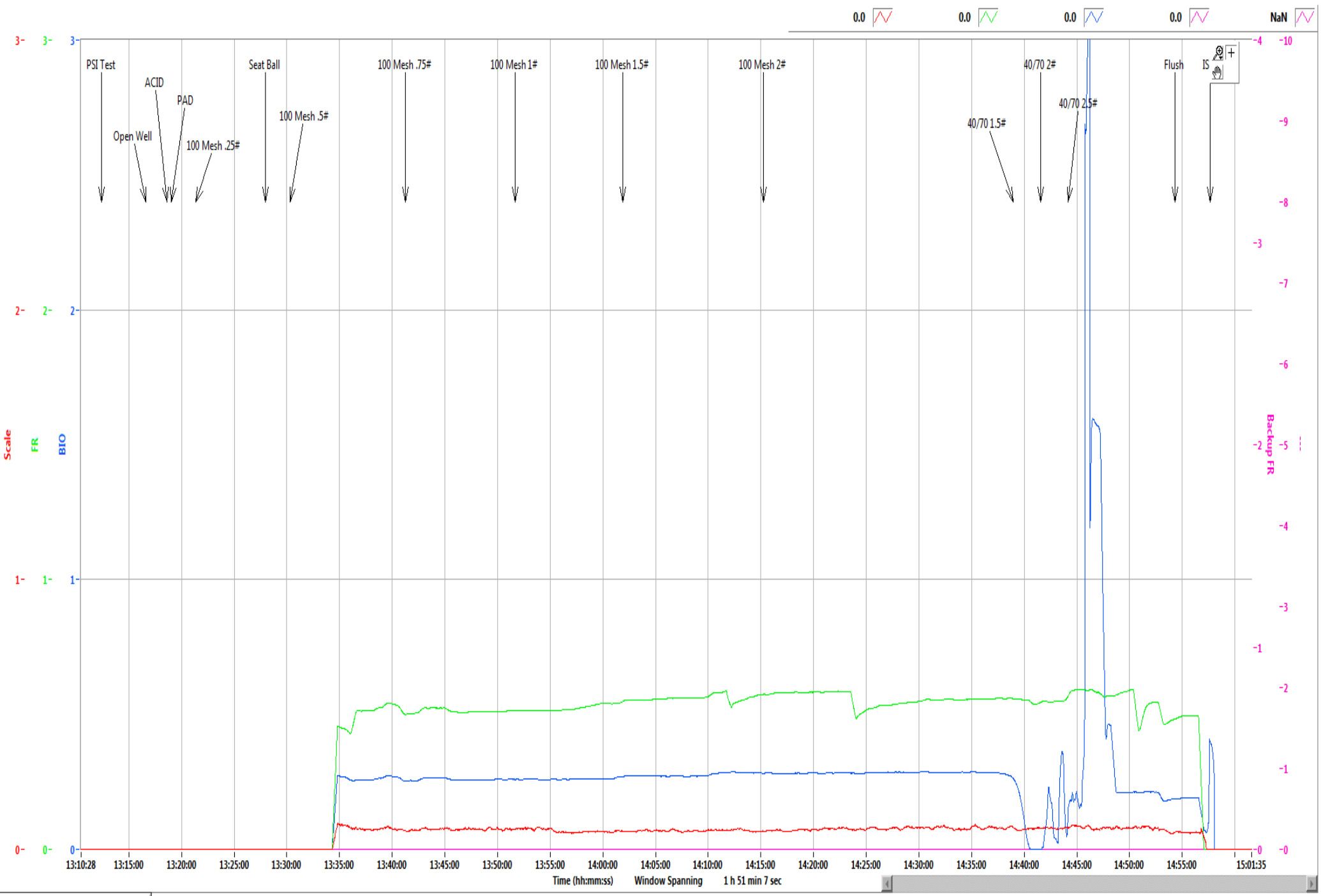
NNE
Boggess 13H
Stage 47
Producers Service Corp.

Post Stage Report
September 16, 2019



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Refresh Graph



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NNE Boggess Pad

13H

Stage	47
Date:	9/16/19
OWP (psi):	3,230
Starting Time	1:16 PM
Ending Time	2:57 PM
Pump Time (hr:min)	01:41
Swap Time (hr:min)	02:33
Starting # Pumps	16
Finishing # Pumps	15
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,184
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	7,962
Maximum Treating Rate (bbl/min)	88
Maximum Treating Pressure (psi)	8,123
Displacement (psi)	8,059
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,948
Final FG (psi/ft)	1.17
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,257
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	150
Pad (bbls)	69
Treatment (bbls)	6,937
Displacement (bbls)	251
(Acid Included)Total Fluid (bbls)	7,263
Dirty Job Total (bbls)	7,696
100 Mesh	300,880
40/70	99,340
Total Proppant (lbs)	400,220
Total Proppant %	100.1%

CHEMICALS

FR 9800	153
Biocide	78
Scale	16

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23067
 Date: 9/16/2019
 Well Name: Bogges 13H
 Stage No.: 47

State: WV
 County: Monongahela
 Operator: Austin/Brad
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,008.80	CWT	\$ 5.50	\$ 16,548.40
SAND 40/70	40/70 white	993.40	CWT	\$ 5.75	\$ 5,712.05
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	153	GAL	\$ 17.75	\$ 2,715.75
BIOC11219A	Biocide @ 0.25 GPT	78	GAL	\$ 16.00	\$ 1,248.00
SCAL16846A	Scale Control @ 0.05 GPT	16	GAL	\$ 16.00	\$ 256.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.11	TON	\$ 55.00	\$ 11,006.05
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,616.25
 25% Discount Applied \$ 14,404.06
 Net Stage Total \$ 43,212.19

(Print Name)
 Customer Rep:

E. Boone

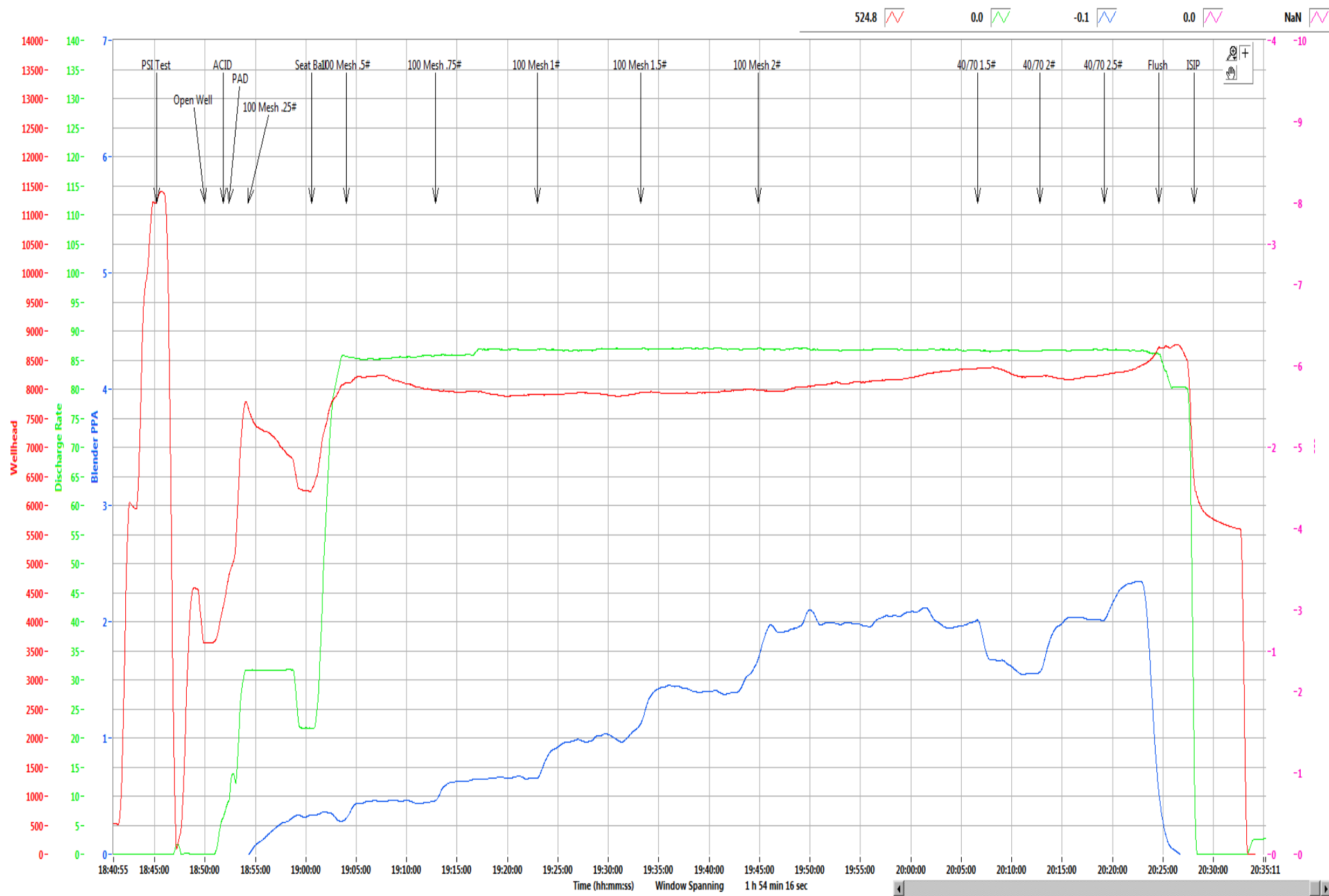
Customer Signature:

E. Boone

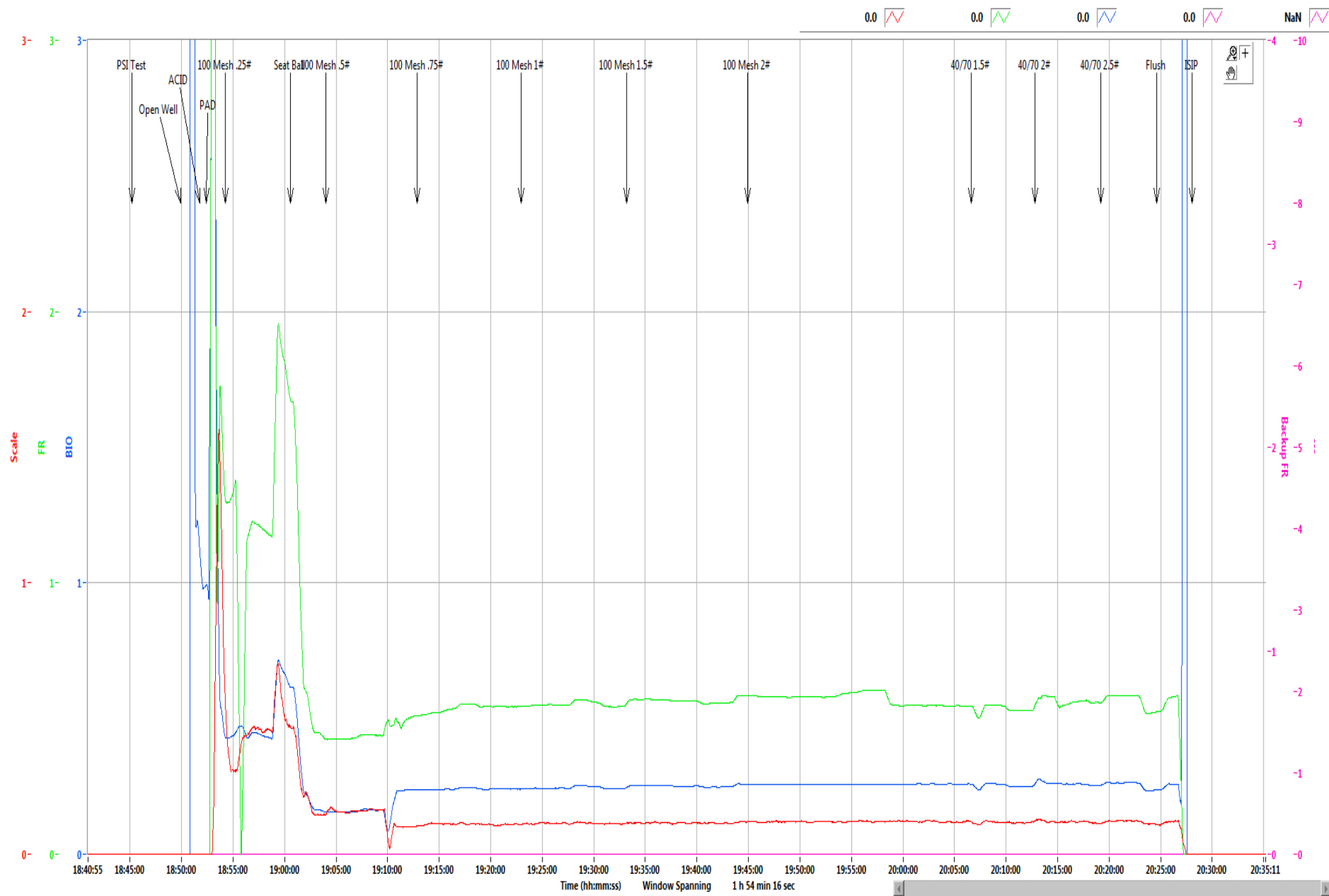


NNE
Boggess 13H
Stage 48
Producers Service Corp.

Post Stage Report
September 16, 2019



Refresh Graph



Refresh Graph

Time (hh:mm:ss) Window Spanning 1 h 54 min 16 sec

NNE Boggess Pad

13H

Stage	48
Date:	9/16/19
OWP (psi):	3,640
Starting Time	6:49 PM
Ending Time	8:28 PM
Pump Time (hr:min)	01:39
Swap Time (hr:min)	00:40
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,419
Average Treating Rate (bbl/min)	86
Average Treating Pressure (psi)	8,097
Maximum Treating Rate (bbl/min)	88
Maximum Treating Pressure (psi)	8,800
Displacement (psi)	8,734
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,374
Final FG (psi/ft)	1.23
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,275
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	148
Pad (bbls)	42
Treatment (bbls)	7,031
Displacement (bbls)	246
(Acid Included)Total Fluid (bbls)	7,281
Dirty Job Total (bbls)	7,728
100 Mesh	294,260
40/70	106,120
Total Proppant (lbs)	400,380
Total Proppant %	100.1%

CHEMICALS

FR 9800	157
Biocide	81
Scale	20

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23069
 Date: 9/16/2019
 Well Name: Bogges 13H
 Stage No.: 48

State: WV
 County: Monongahela
 Operator: Tilton/David
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,942.60	CWT	\$ 5.50	\$ 16,184.30
SAND 40/70	40/70 white	1,061.20	CWT	\$ 5.75	\$ 6,101.90
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	157	GAL	\$ 17.75	\$ 2,786.75
BIOC11219A	Biocide @ 0.25 GPT	81	GAL	\$ 16.00	\$ 1,296.00
SCAL16846A	Scale Control @ 0.05 GPT	20	GAL	\$ 16.00	\$ 320.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.19	TON	\$ 55.00	\$ 11,010.45
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,829.40
 25% Discount Applied \$ 14,457.35
 Net Stage Total \$ 43,372.05

(Print Name)

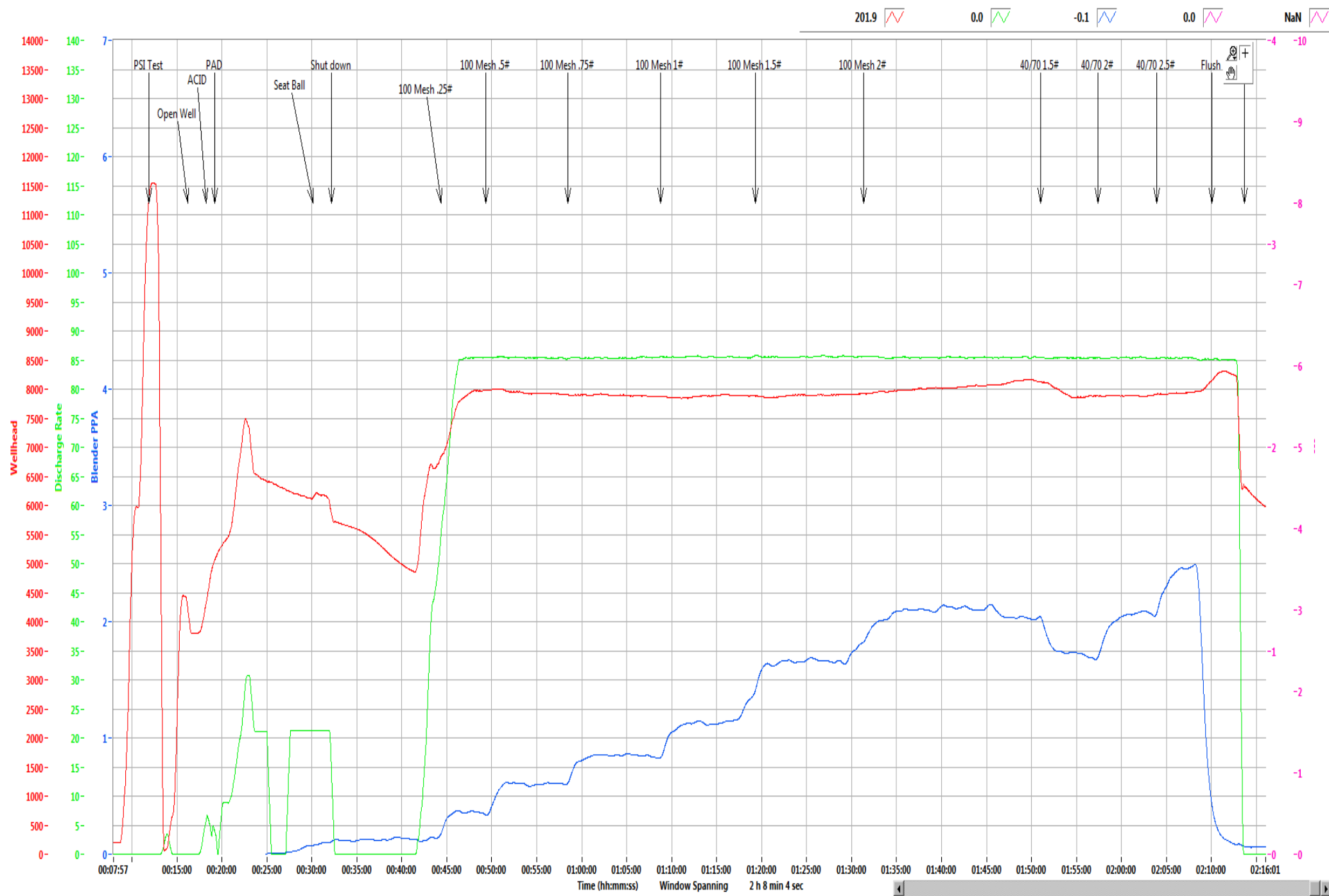
Customer Rep: Rob Cowger

Customer Signature: [Signature]



NNE
Boggess 13H
Stage 49
Producers Service Corp.

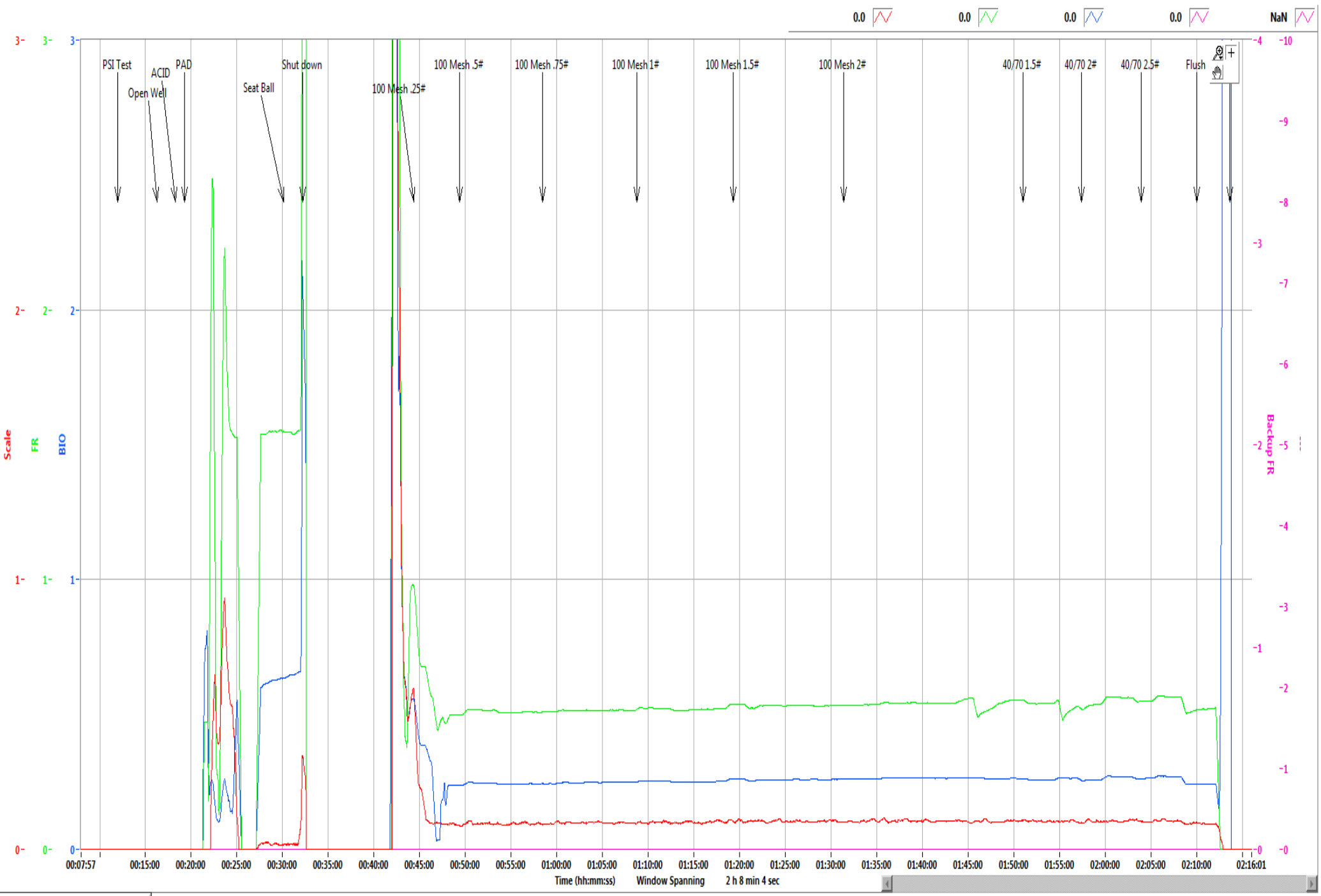
Post Stage Report
September 17, 2019



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NNE Boggess Pad

13H

Stage	49
Date:	9/17/19
OWP (psi):	3,815
Starting Time	12:16 AM
Ending Time	2:13 AM
Pump Time (hr:min)	01:57
Swap Time (hr:min)	01:18
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,257
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	7,941
Maximum Treating Rate (bbl/min)	87
Maximum Treating Pressure (psi)	8,331
Displacement (psi)	8,149
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,234
Final FG (psi/ft)	1.21
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,394
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	123
Pad (bbls)	298
Treatment (bbls)	7,102
Displacement (bbls)	246
(Acid Included)Total Fluid (bbls)	7,400
Dirty Job Total (bbls)	7,853
100 Mesh	295,280
40/70	107,980
Total Proppant (lbs)	403,260
Total Proppant %	100.8%

CHEMICALS

FR 9800	153
Biocide	76
Scale	15

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23071
 Date: 9/17/2019
 Well Name: Bogges 13H
 Stage No.: 49

State: WV
 County: Monongahela
 Operator: Tilton/David
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,952.80	CWT	\$ 5.50	\$ 16,240.40
SAND 40/70	40/70 white	1,079.80	CWT	\$ 5.75	\$ 6,208.85
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	153	GAL	\$ 17.75	\$ 2,715.75
BIOC11219A	Biocide @ 0.25 GPT	76	GAL	\$ 16.00	\$ 1,216.00
SCAL16846A	Scale Control @ 0.05 GPT	15	GAL	\$ 16.00	\$ 240.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		201.63	TON	\$ 55.00	\$ 11,089.65
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,840.65
 25% Discount Applied \$ 14,460.16
 Net Stage Total \$ 43,380.49

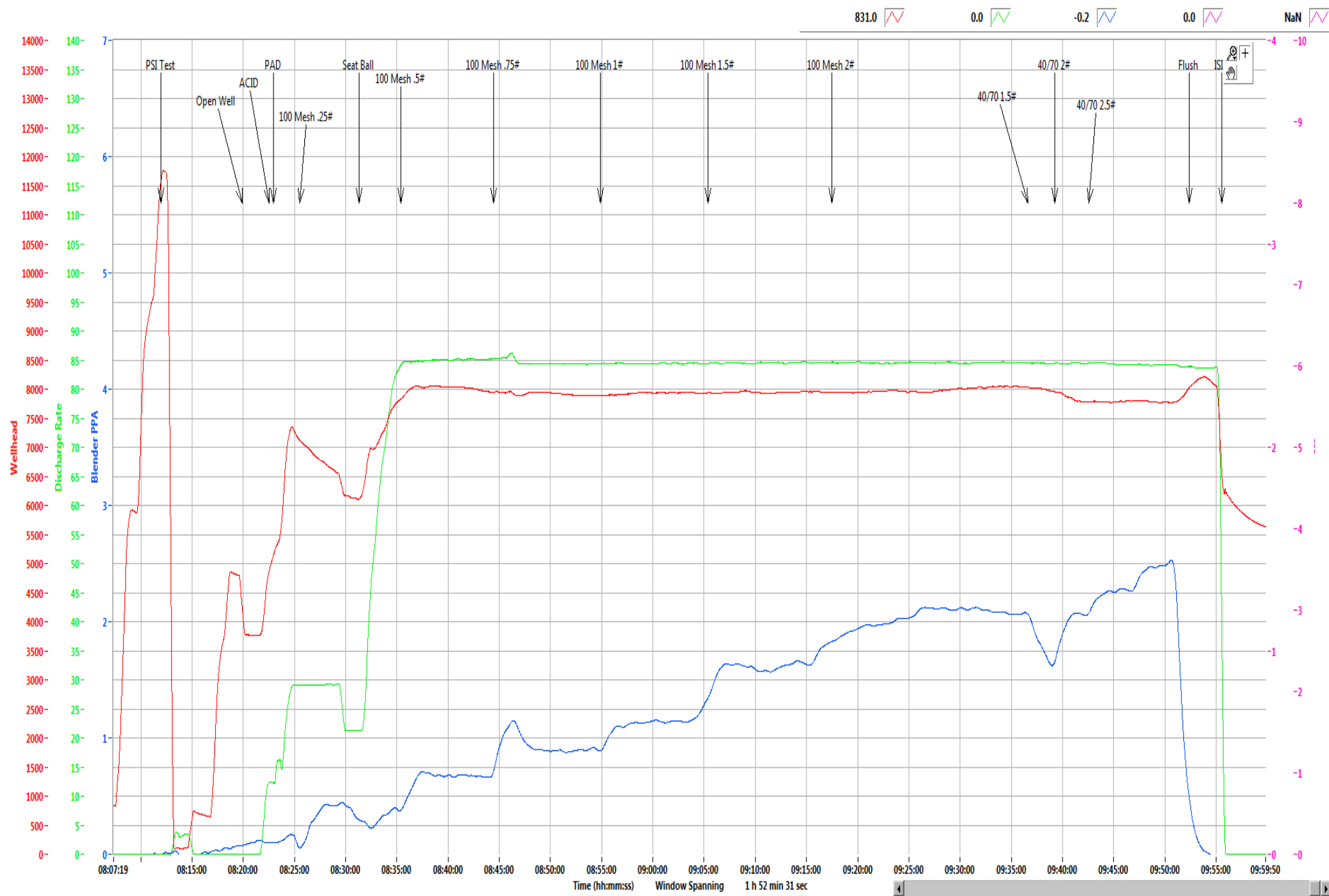
(Print Name)
 Customer Rep: Rob Cowger

Customer Signature: Rob Cowger



NNE
Boggess 13H
Stage 50
Producers Service Corp.

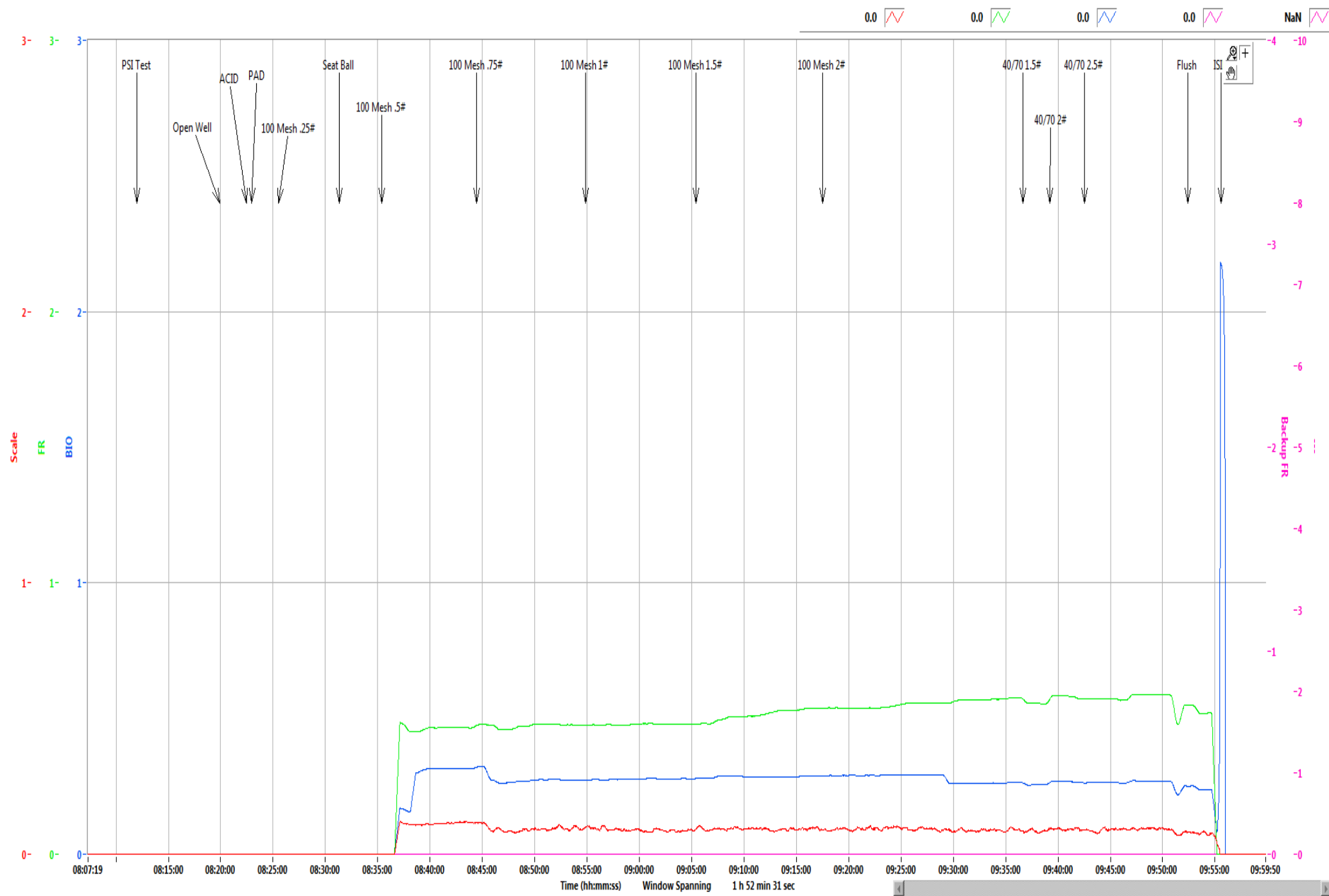
Post Stage Report
September 17, 2019



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Refresh Graph

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NNE Boggess Pad

13H

Stage	50
Date:	9/17/19
OWP (psi):	3,776
Starting Time	8:19 AM
Ending Time	9:55 AM
Pump Time (hr:min)	01:36
Swap Time (hr:min)	01:30
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,260
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	7,940
Maximum Treating Rate (bbl/min)	87
Maximum Treating Pressure (psi)	8,100
Displacement (psi)	8,056
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,123
Final FG (psi/ft)	1.20
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	6,843
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	284
Pad (bbls)	77
Treatment (bbls)	6,521
Displacement (bbls)	245
(Acid Included)Total Fluid (bbls)	6,849
Dirty Job Total (bbls)	7,308
100 Mesh	301,000
40/70	100,040
Total Proppant (lbs)	401,040
Total Proppant %	100.3%

CHEMICALS

FR 9800	140
Biocide	68
Scale	13

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23073
 Date: 9/17/2019
 Well Name: Bogges 13H
 Stage No.: 50

State: WV
 County: Monongahela
 Operator: Brad/Austin
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,010.00	CWT	\$ 5.50	\$ 16,555.00
SAND 40/70	40/70 white	1,000.40	CWT	\$ 5.75	\$ 5,752.30
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	140	GAL	\$ 17.75	\$ 2,485.00
BIOC11219A	Biocide @ 0.25 GPT	68	GAL	\$ 16.00	\$ 1,088.00
SCAL16846A	Scale Control @ 0.05 GPT	13	GAL	\$ 16.00	\$ 208.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.52	TON	\$ 55.00	\$ 11,028.60
DIESEL FUEL	Not eligible for discount	150	GAL	\$ 3.04	\$ 456.00

Total No Discount \$ 57,246.90
 25% Discount Applied \$ 14,311.73
 Net Stage Total \$ 43,391.18

(Print Name)
 Customer Rep:

E. Boone

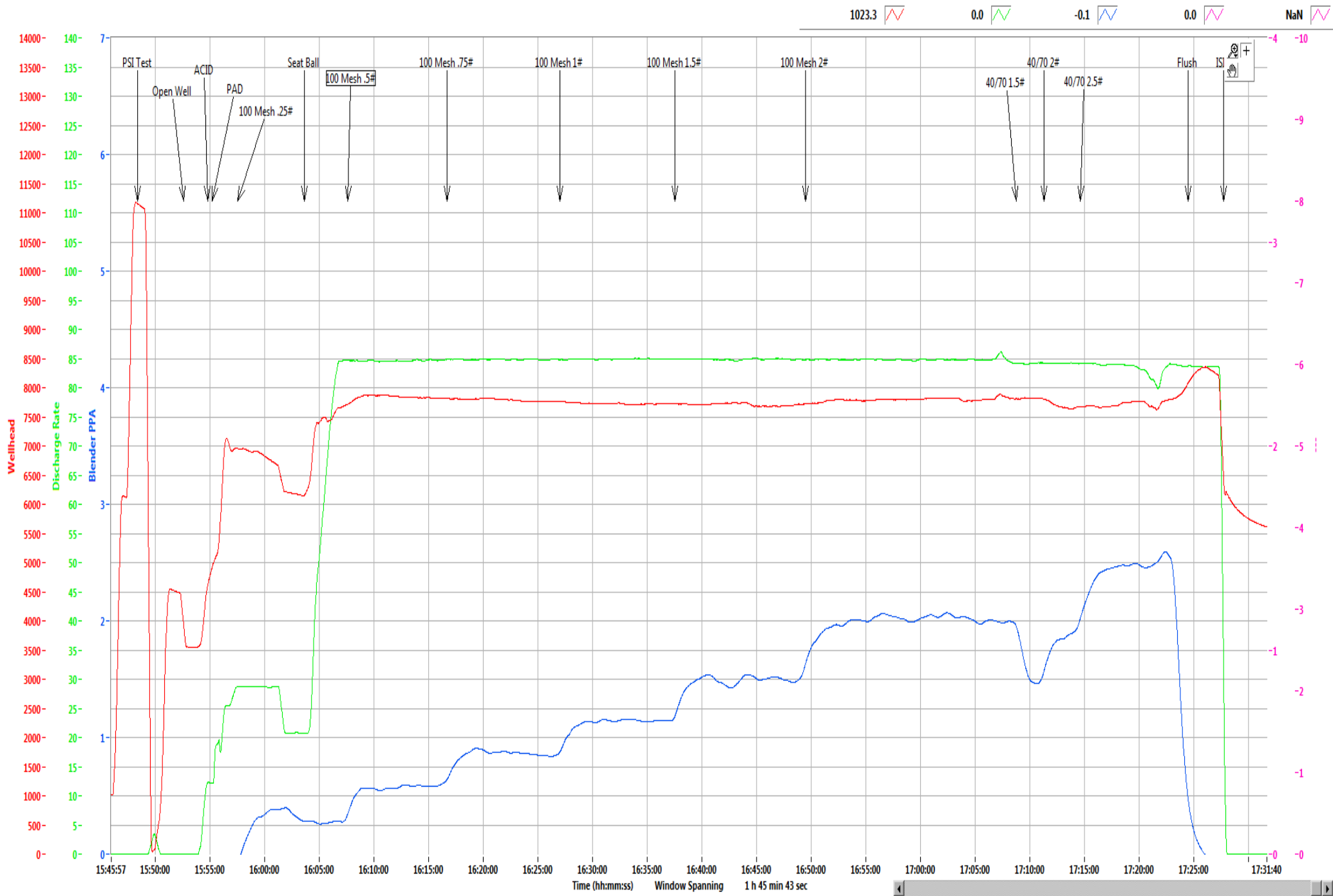
Customer Signature:

E. Boone



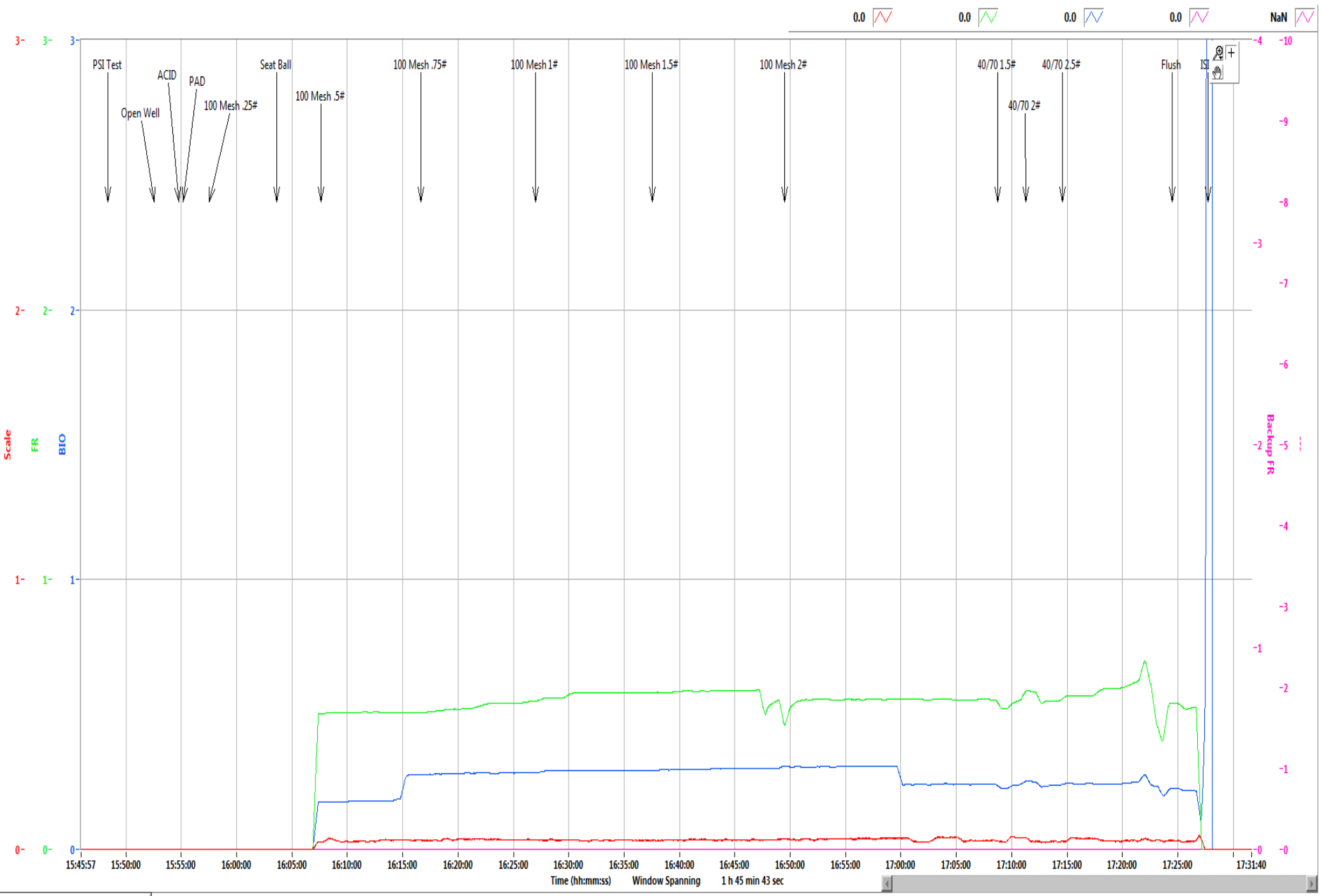
NNE
Boggess 13H
Stage 51
Producers Service Corp.

Post Stage Report
September 17, 2019



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Refresh Graph



Refresh Graph

NNE Boggess Pad

13H

Stage	51
Date:	9/17/19
OWP (psi):	3,566
Starting Time	3:52 PM
Ending Time	5:27 PM
Pump Time (hr:min)	01:35
Swap Time (hr:min)	03:19
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,360
Average Treating Rate (bbl/min)	85
Average Treating Pressure (psi)	7,762
Maximum Treating Rate (bbl/min)	87
Maximum Treating Pressure (psi)	7,968
Displacement (psi)	8,173
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,066
Final FG (psi/ft)	1.19
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	6,852
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	127
Pad (bbls)	69
Treatment (bbls)	6,532
Displacement (bbls)	250
(Acid Included)Total Fluid (bbls)	6,858
Dirty Job Total (bbls)	7,307
100 Mesh	299,840
40/70	100,400
Total Proppant (lbs)	400,240
Total Proppant %	100.1%

CHEMICALS

FR 9800	140
Biocide	70
Scale	12

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23075
 Date: 9/17/2019
 Well Name: Bogges 13H
 Stage No.: 51

State: WV
 County: Monongahela
 Operator: Brad/Austin
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,998.40	CWT	\$ 5.50	\$ 16,491.20
SAND 40/70	40/70 white	1,004.00	CWT	\$ 5.75	\$ 5,773.00
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	140	GAL	\$ 17.75	\$ 2,485.00
BIOC11219A	Biocide @ 0.25 GPT	70	GAL	\$ 16.00	\$ 1,120.00
SCAL16846A	Scale Control @ 0.05 GPT	12	GAL	\$ 16.00	\$ 192.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.12	TON	\$ 55.00	\$ 11,006.60
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,197.80
 25% Discount Applied \$ 14,299.45
 Net Stage Total \$ 42,898.35

(Print Name)
 Customer Rep:

E. Boone

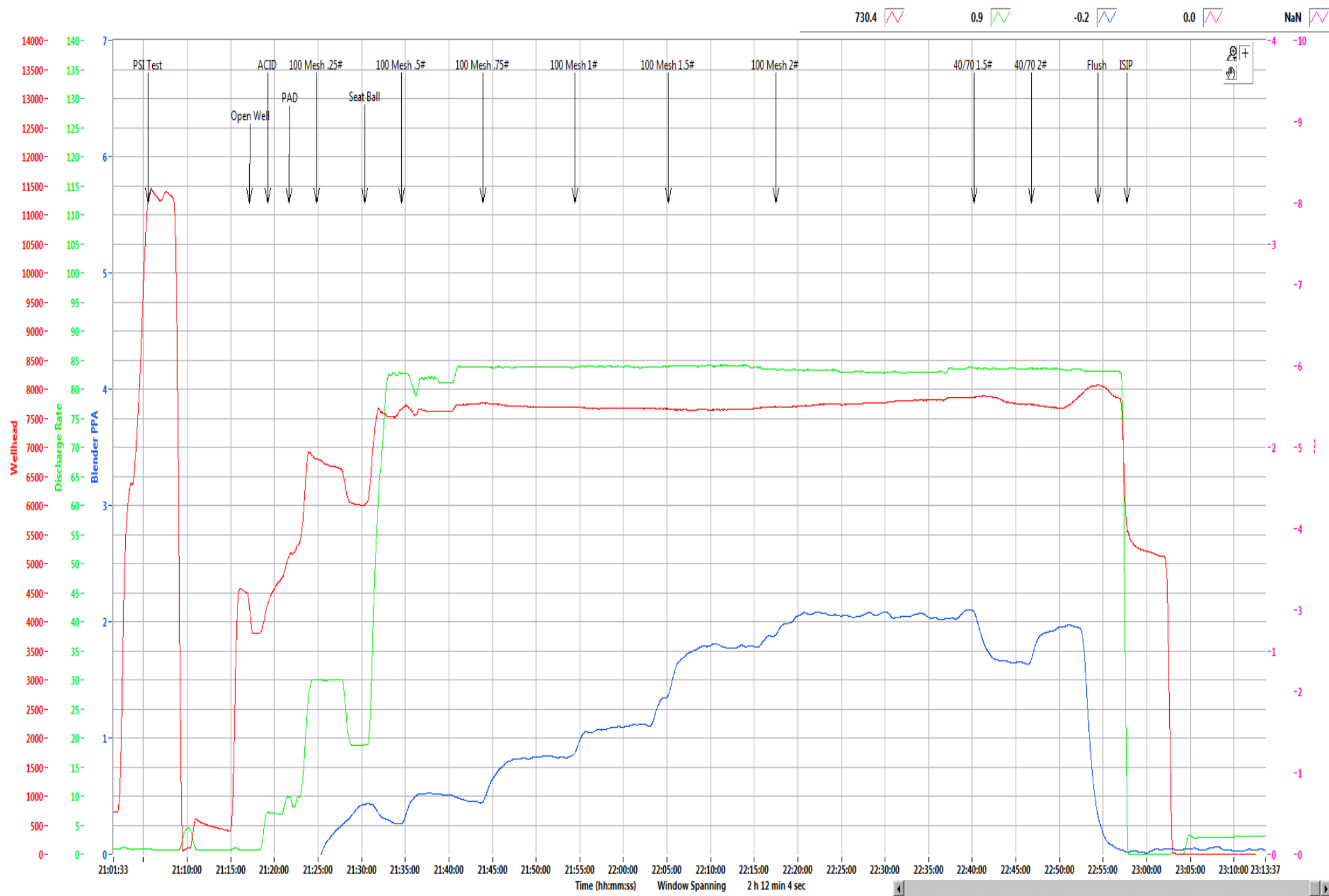
Customer Signature:

E. Boone

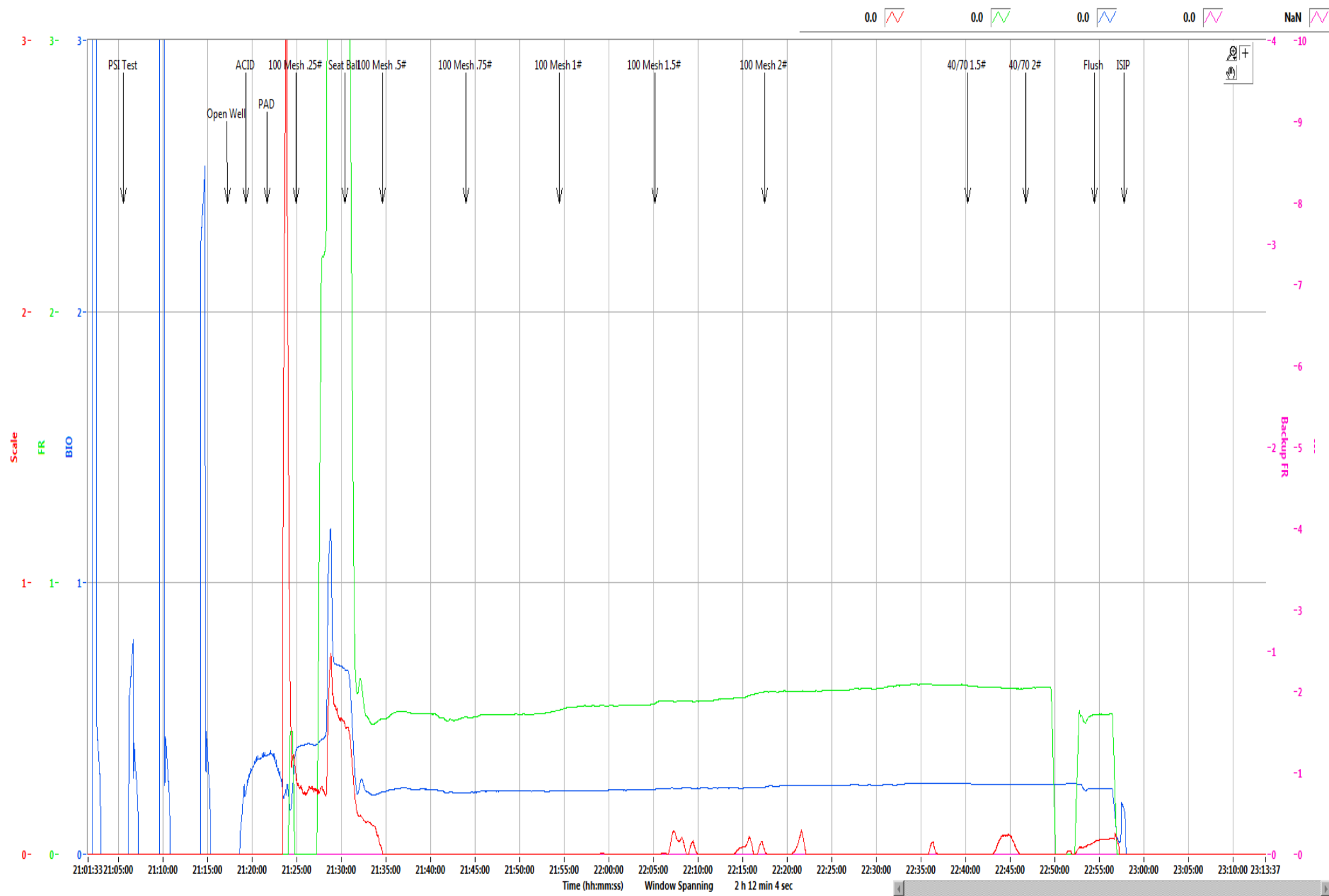


NNE
Boggess 13H
Stage 52
Producers Service Corp.

Post Stage Report
September 18, 2019



Refresh Graph



Refresh Graph

**NNE
Boggess Pad****13H**

Stage	52
Date:	9/17/19
OWP (psi):	3,819
Starting Time	9:17 PM
Ending Time	10:57 PM
Pump Time (hr:min)	01:40
Swap Time (hr:min)	00:47
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,030

Pressures & Rates

Breakdown Pressure (psi)	6,115
Average Treating Rate (bbl/min)	83
Average Treating Pressure (psi)	7,717
Maximum Treating Rate (bbl/min)	85
Maximum Treating Pressure (psi)	7,910
Displacement (psi)	232
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,499
Final FG (psi/ft)	1.11
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	6,981
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	98
Pad (bbls)	60
Treatment (bbls)	6,689
Displacement (bbls)	232
(Acid Included)Total Fluid (bbls)	6,987
Dirty Job Total (bbls)	7,453
100 Mesh	311,120
40/70	67,880
Total Proppant (lbs)	379,000
Total Proppant %	94.8%

CHEMICALS

FR 9800	146
Biocide	73
Scale	14

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23077
 Date: 9/18/2019
 Well Name: Bogges 13H
 Stage No.: 52

State: WV
 County: Monongahela
 Operator: Brad/Austin
 PO/AFE: 100344-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,111.00	CWT	\$ 5.50	\$ 17,110.50
SAND 40/70	40/70 white	679.00	CWT	\$ 5.75	\$ 3,904.25
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	146	GAL	\$ 17.75	\$ 2,591.50
BIOC11219A	Biocide @ 0.25 GPT	73	GAL	\$ 16.00	\$ 1,168.00
SCAL16846A	Scale Control @ 0.05 GPT	14	GAL	\$ 16.00	\$ 224.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		189.5	TON	\$ 55.00	\$ 10,422.50
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 55,550.75
 25% Discount Applied \$ 13,887.69
 Net Stage Total \$ 41,663.06

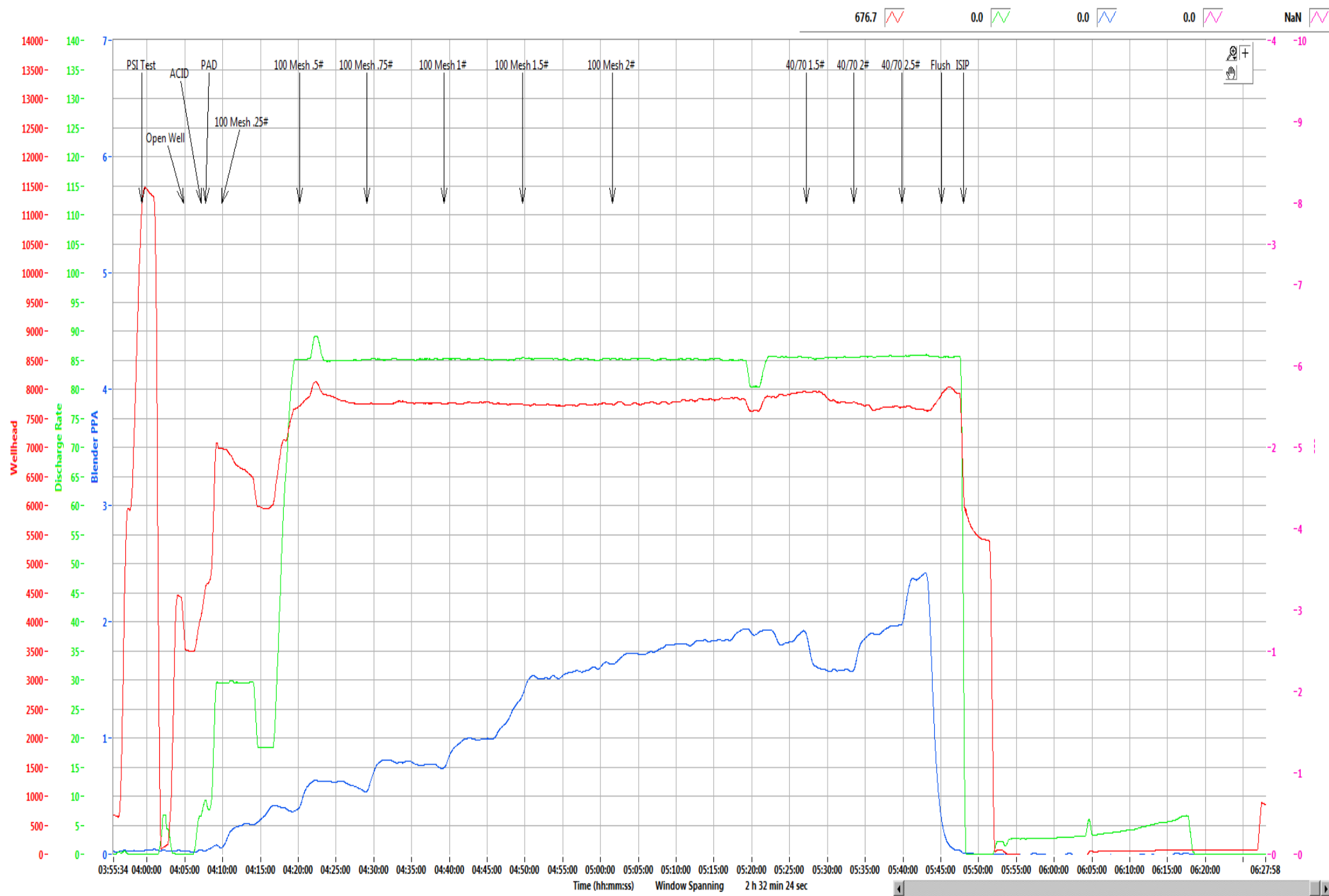
(Print Name)
 Customer Rep: E. Beane

Customer Signature: E. Beane



NNE
Boggess 13H
Stage 53
Producers Service Corp.

Post Stage Report
September 18, 2019



Refresh Graph



PSI Test
ACID
Open Well
PAD
100 Mesh .25#

100 Mesh .5#
100 Mesh .75#
100 Mesh 1#
100 Mesh 1.5#
100 Mesh 2#

40/70 1.5#
40/70 2#
40/70 2.5#
Flush
ISIP



Refresh Graph

NNE Boggess Pad

13H

Stage	54
Date:	9/18/19
OWP (psi):	3,633
Starting Time	9:19 AM
Ending Time	
Pump Time (hr:min)	
Swap Time (hr:min)	
Starting # Pumps	17
Finishing # Pumps	
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,178
Average Treating Rate (bbl/min)	
Average Treating Pressure (psi)	
Maximum Treating Rate (bbl/min)	
Maximum Treating Pressure (psi)	
Displacement (psi)	
Max Prop Con (lb/gal)	
ShutDown ISIP (psi)	
Final FG (psi/ft)	
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	105
Pad (bbls)	61
Treatment (bbls)	
Displacement (bbls)	
(Acid Included)Total Fluid (bbls)	
Dirty Job Total (bbls)	
100 Mesh	
40/70	
Total Proppant (lbs)	
Total Proppant %	

CHEMICALS

FR 9800	
Biocide	
Scale	

Northeast Natural Energy
 48 Donley Street, Ste 801
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23079
 Date: 9/18/2019
 Well Name: Bogges 13H
 Stage No.: 53

State: WV
 County: Monongahela
 Operator: Brad/Austin
 PO/AFE: 100344-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,000.00	CWT	\$ 5.50	\$ 16,500.00
SAND 40/70	40/70 white	1,009.00	CWT	\$ 5.75	\$ 5,801.75
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	158	GAL	\$ 17.75	\$ 2,804.50
BIOC11219A	Biocide @ 0.25 GPT	79	GAL	\$ 16.00	\$ 1,264.00
SCAL16846A	Scale Control @ 0.05 GPT	16	GAL	\$ 16.00	\$ 256.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.45	TON	\$ 55.00	\$ 11,024.75
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,781.00
 25% Discount Applied \$ 14,445.25
 Net Stage Total \$ 43,335.75

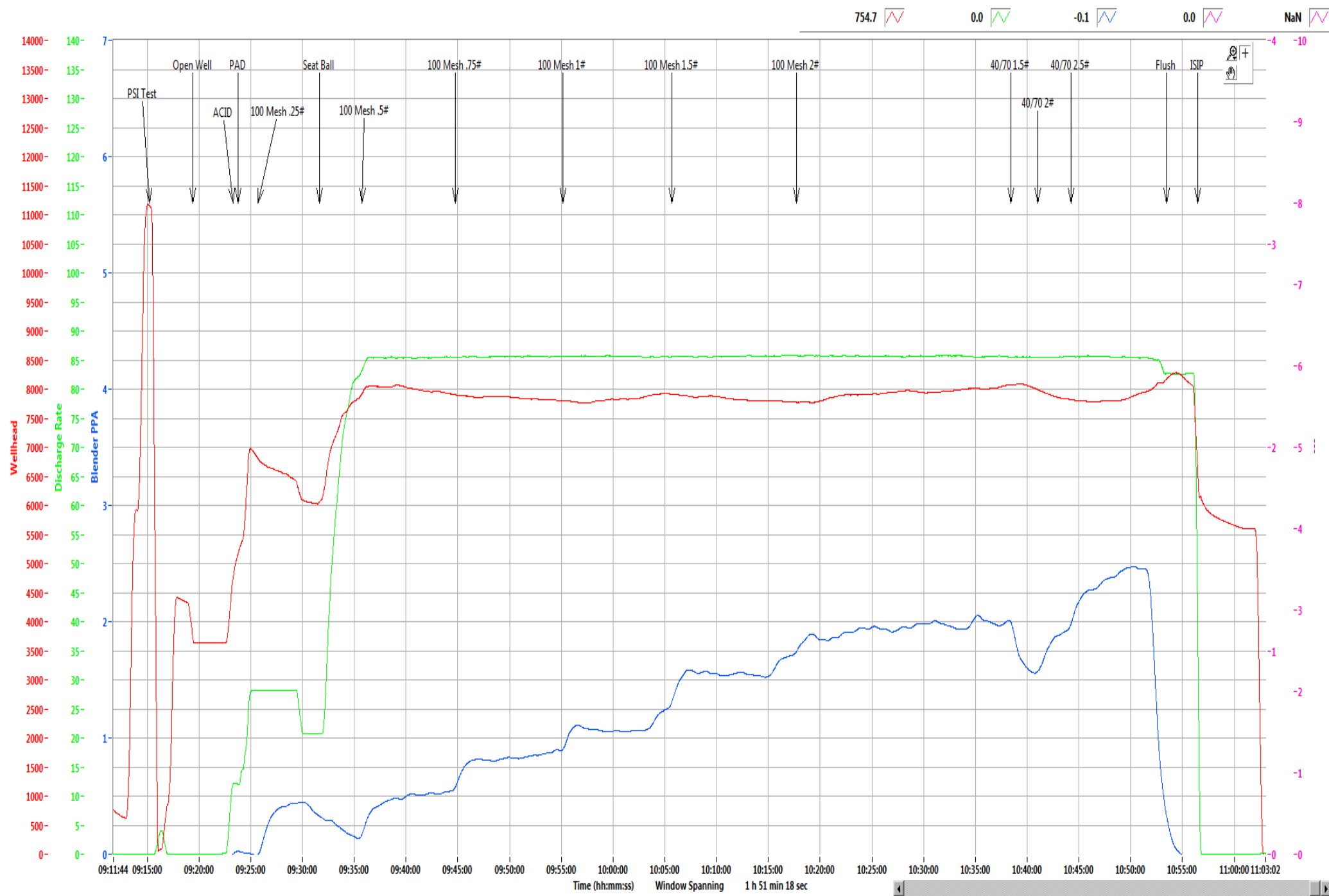
(Print Name)
 Customer Rep: E. Boone

Customer Signature: [Signature]

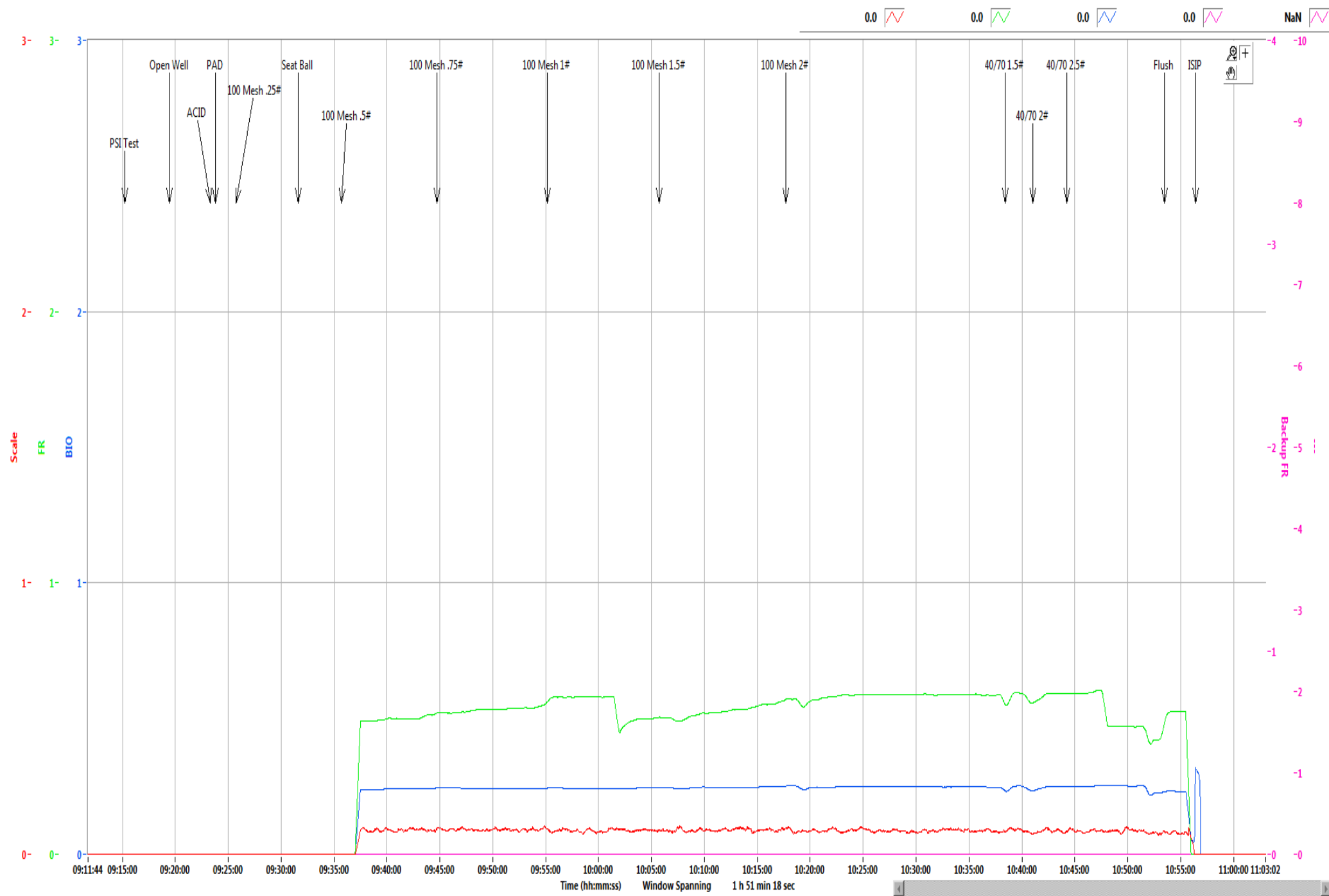


NNE
Boggess 13H
Stage 54
Producers Service Corp.

Post Stage Report
September 18, 2019



Refresh Graph



Refresh Graph

NNE Boggess Pad

13H

Stage	54
Date:	9/18/19
OWP (psi):	3,633
Starting Time	9:19 AM
Ending Time	10:56 AM
Pump Time (hr:min)	01:37
Swap Time (hr:min)	
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,178
Average Treating Rate (bbl/min)	86
Average Treating Pressure (psi)	7,897
Maximum Treating Rate (bbl/min)	87
Maximum Treating Pressure (psi)	8,292
Displacement (psi)	8,217
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,146
Final FG (psi/ft)	
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	6,893
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	105
Pad (bbls)	61
Treatment (bbls)	6,610
Displacement (bbls)	224
(Acid Included)Total Fluid (bbls)	6,899
Dirty Job Total (bbls)	7,352
100 Mesh	299,320
40/70	100,800
Total Proppant (lbs)	400,120
Total Proppant %	100.0%

CHEMICALS

FR 9800	144
Biocide	72
Scale	14

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23081
 Date: 9/18/2019
 Well Name: Bogges 13H
 Stage No.: 54

State: WV
 County: Monongahela
 Operator: Brad/Austin
 PO/AFE: 100429-604

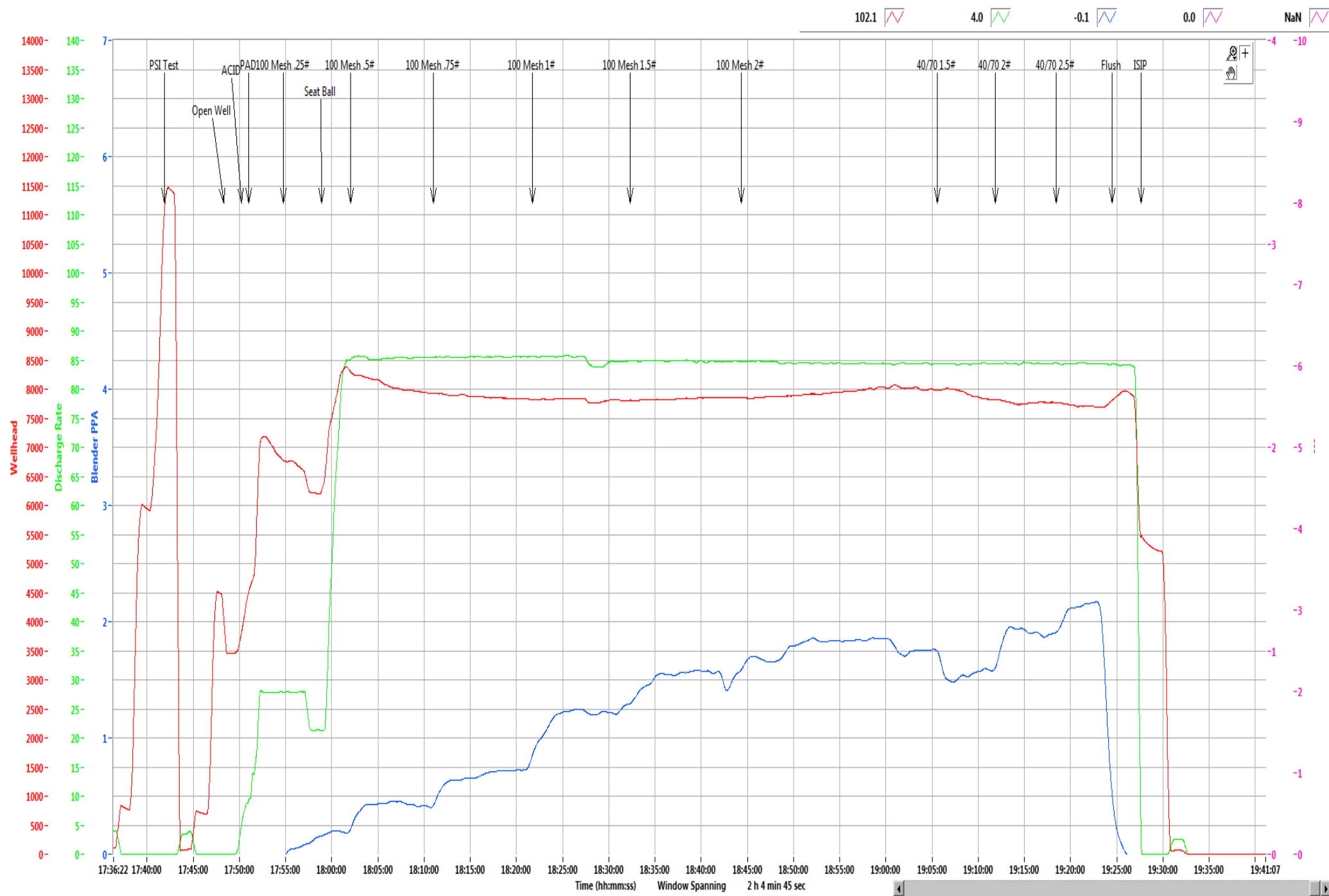
Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,993.00	CWT	\$ 5.50	\$ 16,461.50
SAND 40/70	40/70 white	1,008.00	CWT	\$ 5.75	\$ 5,796.00
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	144	GAL	\$ 17.75	\$ 2,556.00
BIOC11219A	Biocide @ 0.25 GPT	72	GAL	\$ 16.00	\$ 1,152.00
SCAL16846A	Scale Control @ 0.05 GPT	14	GAL	\$ 16.00	\$ 224.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		200.05	TON	\$ 55.00	\$ 11,002.75
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -
Total No Discount					\$ 57,322.25
25% Discount Applied					\$ 14,330.56
Net Stage Total					\$ 42,991.69

(Print Name) E. Boone Customer Rep: _____ Customer Signature: E. Boone

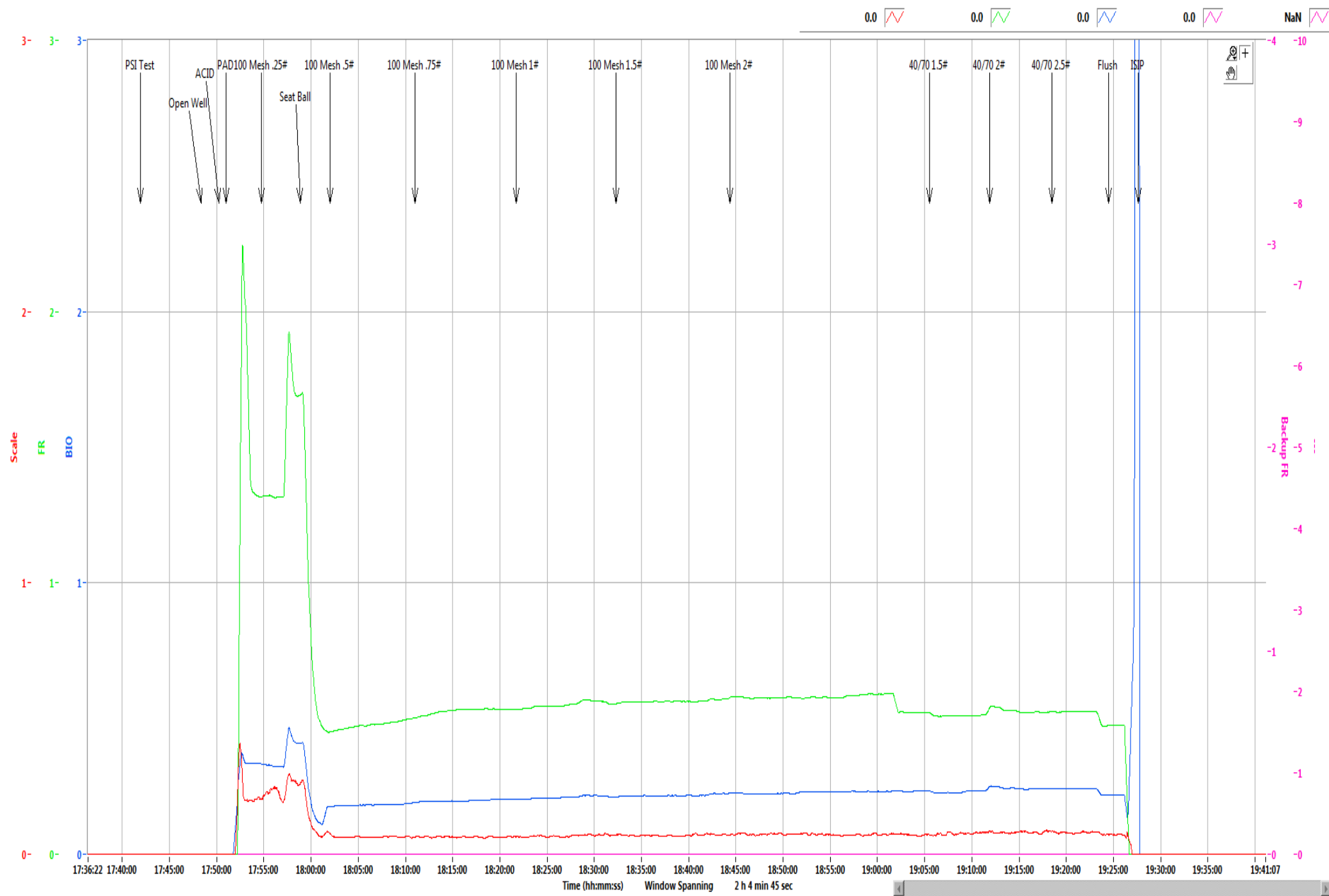


NNE
Boggess 13H
Stage 55
Producers Service Corp.

Post Stage Report
September 18, 2019



Refresh Graph



Refresh Graph

NNE Boggess Pad

13H

Stage	55
Date:	9/18/19
OWP (psi):	3,446
Starting Time	5:48 PM
Ending Time	7:27 PM
Pump Time (hr:min)	01:39
Swap Time (hr:min)	04:21
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,020

Pressures & Rates

Breakdown Pressure (psi)	6,509
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	7,889
Maximum Treating Rate (bbl/min)	86
Maximum Treating Pressure (psi)	8,449
Displacement (psi)	7,843
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,388
Final FG (psi/ft)	1.10
5 Minute Leakoff Pressure (psi)	
5 Minute Leakoff Rate (psi/min)	
10 Minute Leakoff Pressure (psi)	
10 Minute Leakoff Rate (psi/min)	
15 Minute Leakoff Pressure (psi)	
15 Minute Leakoff Rate (psi/min)	

Fluids & Proppant

Slickwater (bbls)	7,209
Acid 7.5% HCL (gal)	250
Wireline Pump Down (bbls)	112
Pad (bbls)	92
Treatment (bbls)	6,897
Displacement (bbls)	218
(Acid Included)Total Fluid (bbls)	7,215
Dirty Job Total (bbls)	7,682
100 Mesh	295,380
40/70	104,100
Total Proppant (lbs)	399,480
Total Proppant %	99.9%

CHEMICALS

FR 9800	151
Biocide	76
Scale	16

Northeast Natural Energy
 48 Donley Street, Ste 601
 Morgantown, WV 26501



Producers Service Corp
 109 S. Graham St.
 Zanesville, OH 43701

Invoice #: 23083
 Date: 9/18/2019
 Well Name: Bogges 13H
 Stage No.: 55

State: WV
 County: Monongahela
 Operator: tilton/nial
 PO/AFE: 100429-604

Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron Control Acid	250	GAL	\$ 1.25	\$ 312.50
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	0.5	GAL	\$ 35.00	\$ 17.50
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,953.00	CWT	\$ 5.50	\$ 16,241.50
SAND 40/70	40/70 white	1,041.00	CWT	\$ 5.75	\$ 5,985.75
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	151	GAL	\$ 17.75	\$ 2,680.25
BIOC11219A	Biocide @ 0.25 GPT	76	GAL	\$ 16.00	\$ 1,216.00
SCAL16846A	Scale Control @ 0.05 GPT	16	GAL	\$ 16.00	\$ 256.00
HIGH PRESSURE MANIFOLD		1	STAGE	\$ 1,500.00	\$ 1,500.00
N2 PRESSURE RELIEF VALVE		1	STAGE	\$ 200.00	\$ 200.00
HIGH PRESSURE DENSIOMETER		1	STAGE	\$ 400.00	\$ 400.00
COMMAND CENTER		0	STAGE	\$ 1,500.00	\$ -
PUMP DOWN FOR PERFORATING		0	STAGE	\$ 1,500.00	\$ -
ARROWS UP SYSTEM		199.7	TON	\$ 55.00	\$ 10,983.50
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -
				Total No Discount	\$ 57,493.00
				25% Discount Applied	\$ 14,373.25
				Net Stage Total	\$ 43,119.75

(Print Name)

Customer Rep: [Signature]

Customer Signature: [Signature]