



POST-STIMULATION REPORT

Northeast Natural Energy, LLC

Bogges 5H (Stages 1-56)

Marcellus Shale Formation

Monongalia County, WV

Treatment Dates: 8/7/2019 – 8/28/2019

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



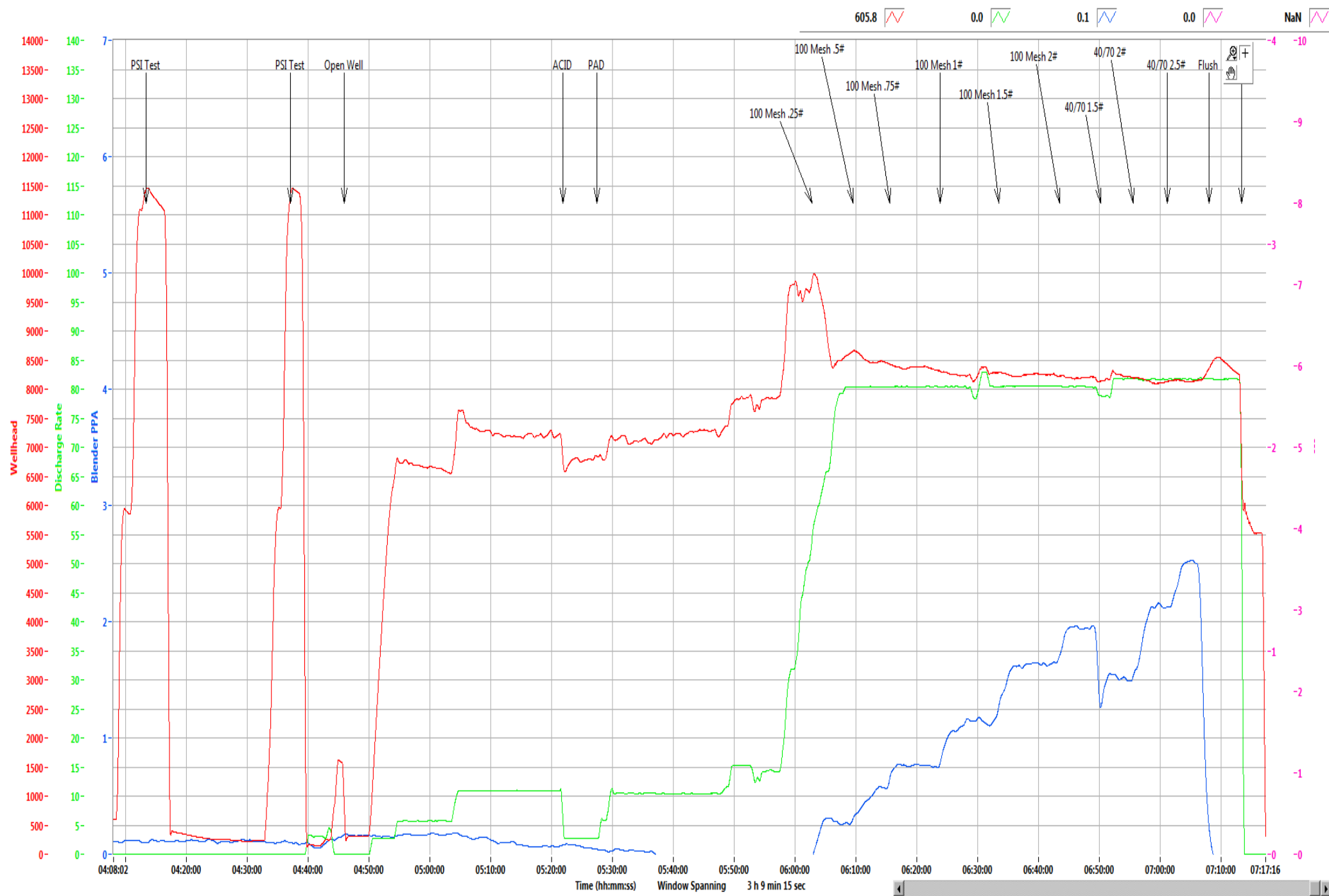
OPERATIONAL SUMMARY

PSC appreciates the opportunity to complete the stimulation of the Boggess 5H well. 56 Stages were completed from August 7th, 2019 to August 28th, 2019. Average treating pressure was 8452 psi at an average rate of 79.4 bpm. Average pump time was 2 hour and 9 minutes. 14,009,020 lbs of 100 mesh sand and 6,842,300 lbs of 40/70 sand was placed for a total of 20,851,320 lbs which is 95% of the designed volume. 92,828 gal of 7.5% HCl was utilized during the stimulation treatment.



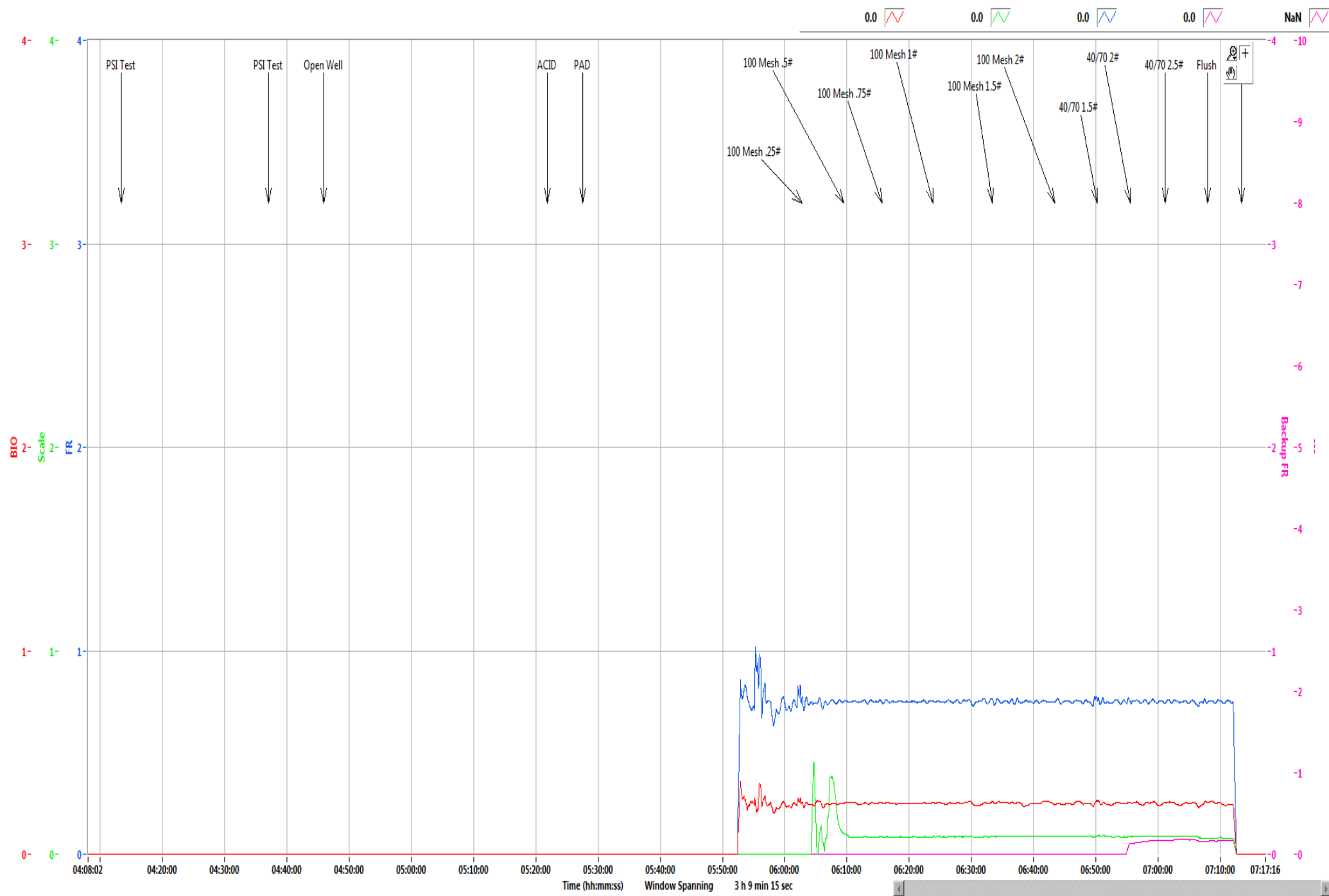
NNE
Boggess 5H
Stage 1
Producers Service Corp.

Post Stage Report
August 7, 2019



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Time (hh:mm:ss) Window Spanning 3 h 9 min 15 sec



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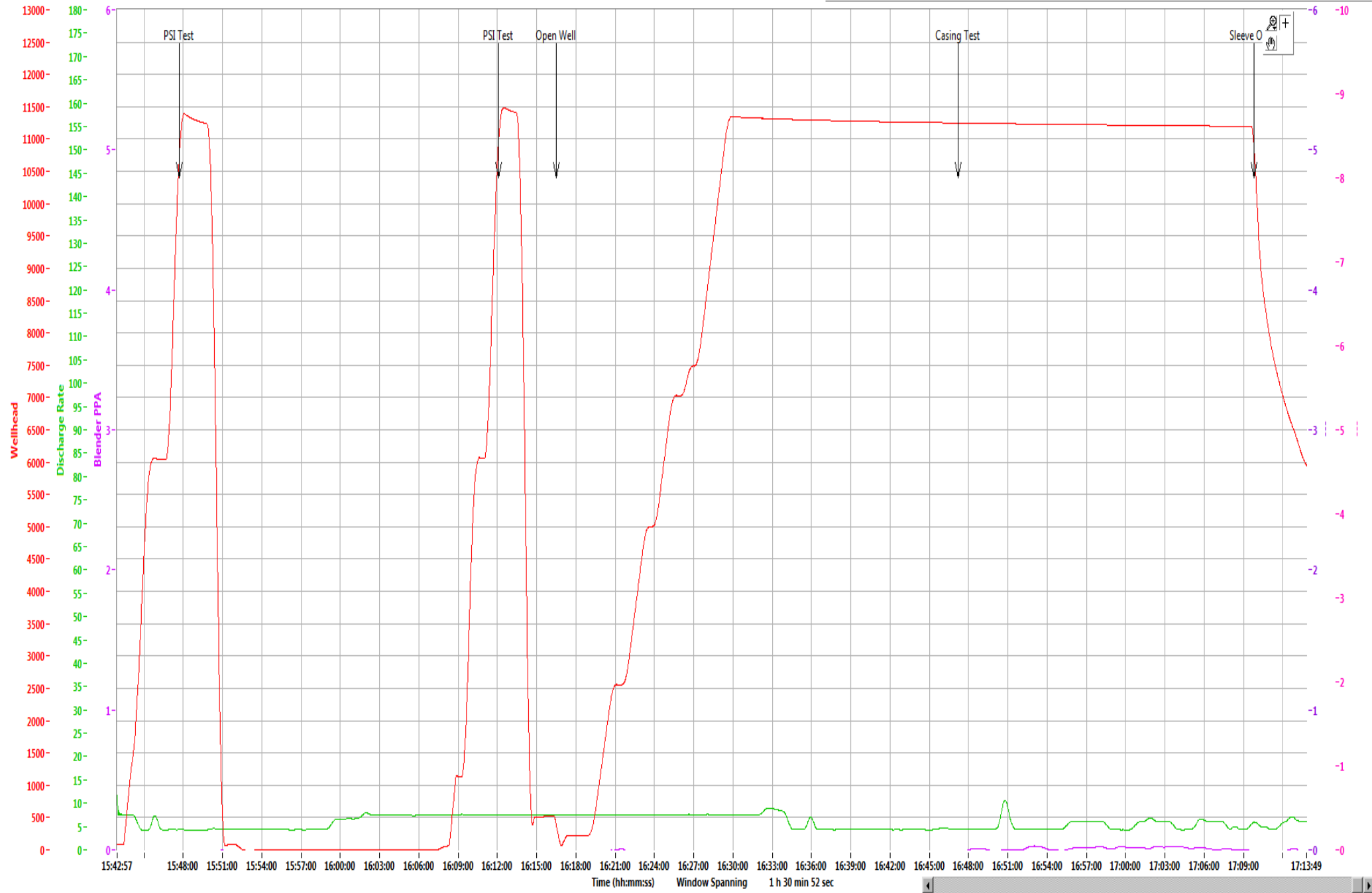
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Boggess Pad 5H

Stage	1
Date:	8/7/19
OWP (psi):	217
Starting Time	4:45 AM
Ending Time	7:13 AM
Pump Time (hr:min)	02:28
Swap Time (hr:min)	02:35
Starting # Pumps	17
Finishing # Pumps	14
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,904
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,277
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	10,070
Displacement (psi)	8,436
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,334
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)	6,195
Acid 7.5% HCL (gal)	3,000
Wireline Pump Down (bbls)	
Pad (bbls)	887
Treatment (bbls)	4,938
Displacement (bbls)	432
(Acid Included)Total Fluid (bbls)	6,266
Dirty Job Total (bbls)	6,445
100 Mesh	178,080
40/70	122,660
Total Proppant (lbs)	300,740
Total Proppant %	75.2%

CHEMICALS

FR 9800	191
DRB-LT	
Biocide	67
Scale	21

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



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

Invoice #: 22857
 Date: 8/7/2019
 Well Name: Bogges 5H
 Stage No.: 1

State: WV
 County: Monongahela
 Operator: Joe/Eck
 PO/AFE: 100345-604

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 60 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	1,780.80	CWT	\$ 5.50	\$ 9,794.40
SAND 40/70	40/70 white	1,226.60	CWT	\$ 5.75	\$ 7,052.95
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	191	GAL	\$ 17.75	\$ 3,390.25
BIOC11219A	Biocide @ 0.25 GPT	67	GAL	\$ 16.00	\$ 1,072.00
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		150.37	TON	\$ 55.00	\$ 8,270.35
DIESEL FUEL	Not eligible for discount	235	GAL	\$ 3.04	\$ 714.40

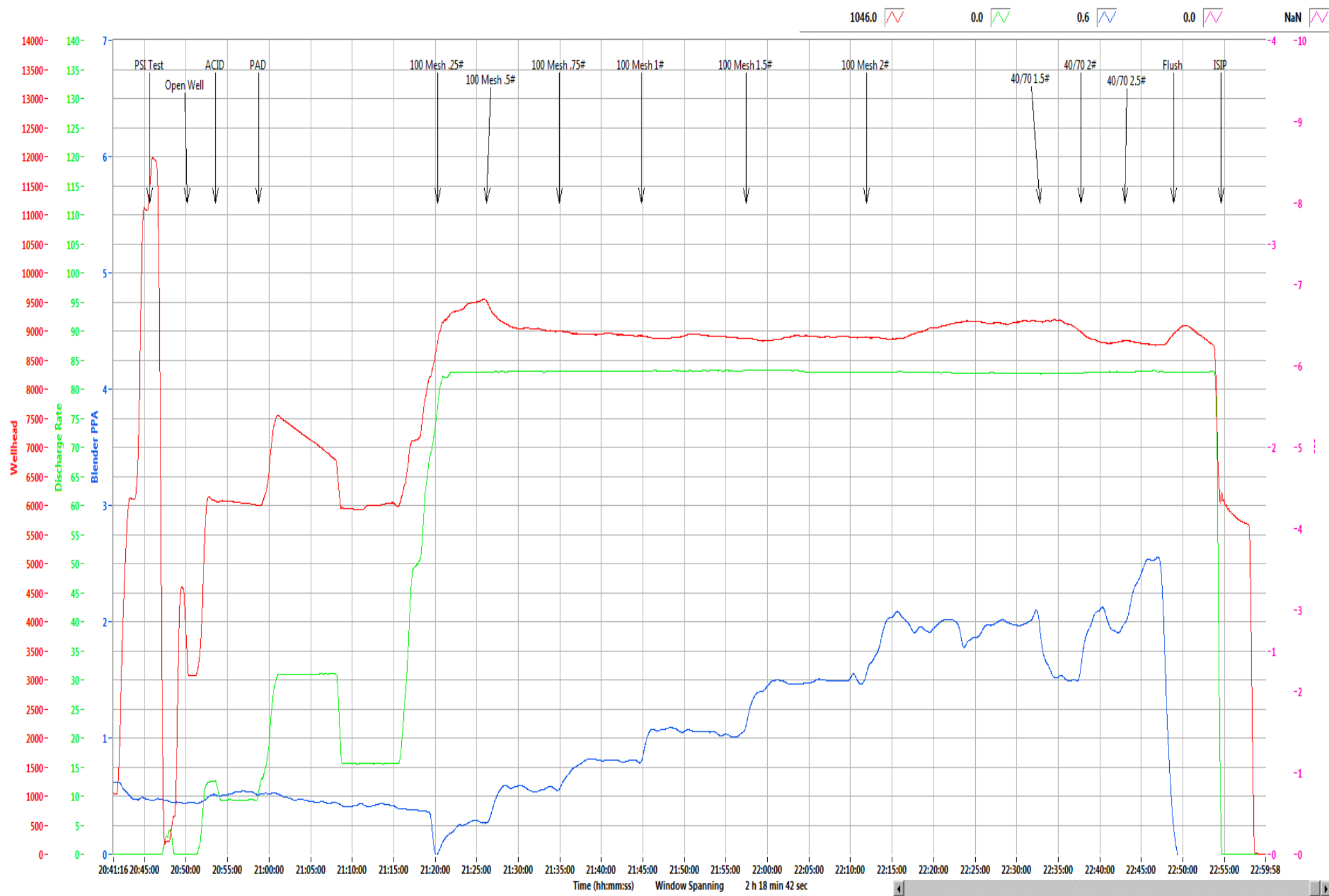
Total No Discount \$ 53,675.95
 25% Discount Applied \$ 13,418.99
 Net Stage Total \$ 40,971.36

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

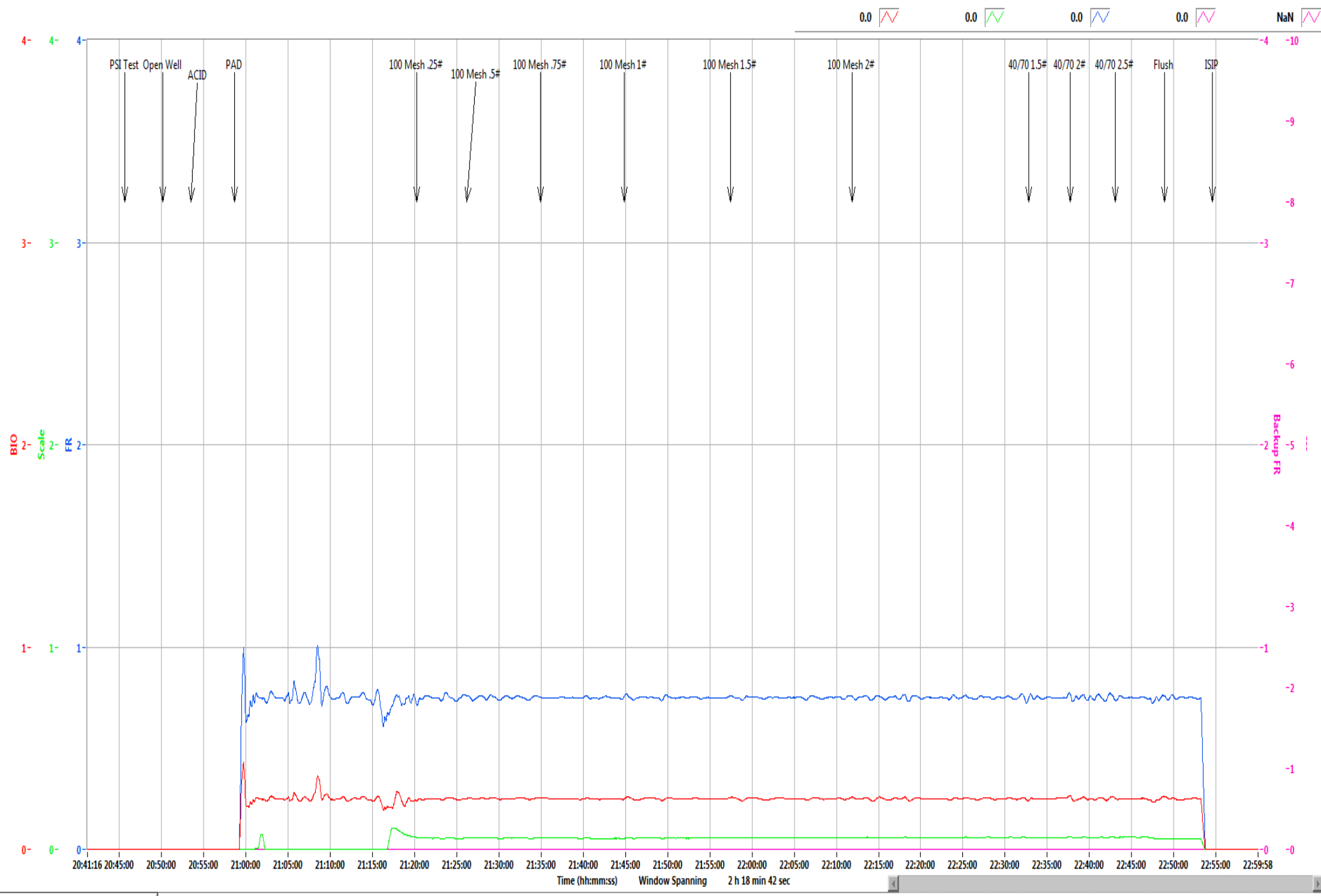


NNE
Boggess 5H
Stage 2
Producers Service Corp.

Post Stage Report
August 7, 2019



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Boggess Pad**5H**

Stage	2
Date:	8/7/19
OWP (psi):	3,072
Starting Time	8:50 PM
Ending Time	10:54 PM
Pump Time (hr:min)	02:04
Swap Time (hr:min)	05:22
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,037
Average Treating Rate (bbl/min)	83
Average Treating Pressure (psi)	8,993
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	9,593
Displacement (psi)	8,936
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,528
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)	8,068
Acid 7.5% HCL (gal)	3,000
Wireline Pump Down (bbls)	914
Pad (bbls)	650
Treatment (bbls)	7,052
Displacement (bbls)	431
(Acid Included)Total Fluid (bbls)	8,139
Dirty Job Total (bbls)	8,487
100 Mesh	300,280
40/70	100,400
Total Proppant (lbs)	400,680
Total Proppant %	100.2%

CHEMICALS

FR 9800	265
DRB-LT	
Biocide	85
Scale	20

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



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

Invoice #: 22859
 Date: 8/7/2019
 Well Name: Bogges 5H
 Stage No.: 2

State: WV
 County: Monongahela
 Operator: Jeremy T/Jeremy M
 PO/AFE: 100345-604

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	3,002.80	CWT	\$ 5.50	\$ 16,515.40
SAND 40/70	40/70 white	1,004.00	CWT	\$ 5.75	\$ 5,773.00
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	265	GAL	\$ 17.75	\$ 4,703.75
BiOC11219A	Biocide @ 0.25 GPT	85	GAL	\$ 16.00	\$ 1,360.00
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		200.34	TON	\$ 55.00	\$ 11,018.70
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 63,450.85
 25% Discount Applied \$ 15,862.71
 Net Stage Total \$ 47,588.14

(Print Name)

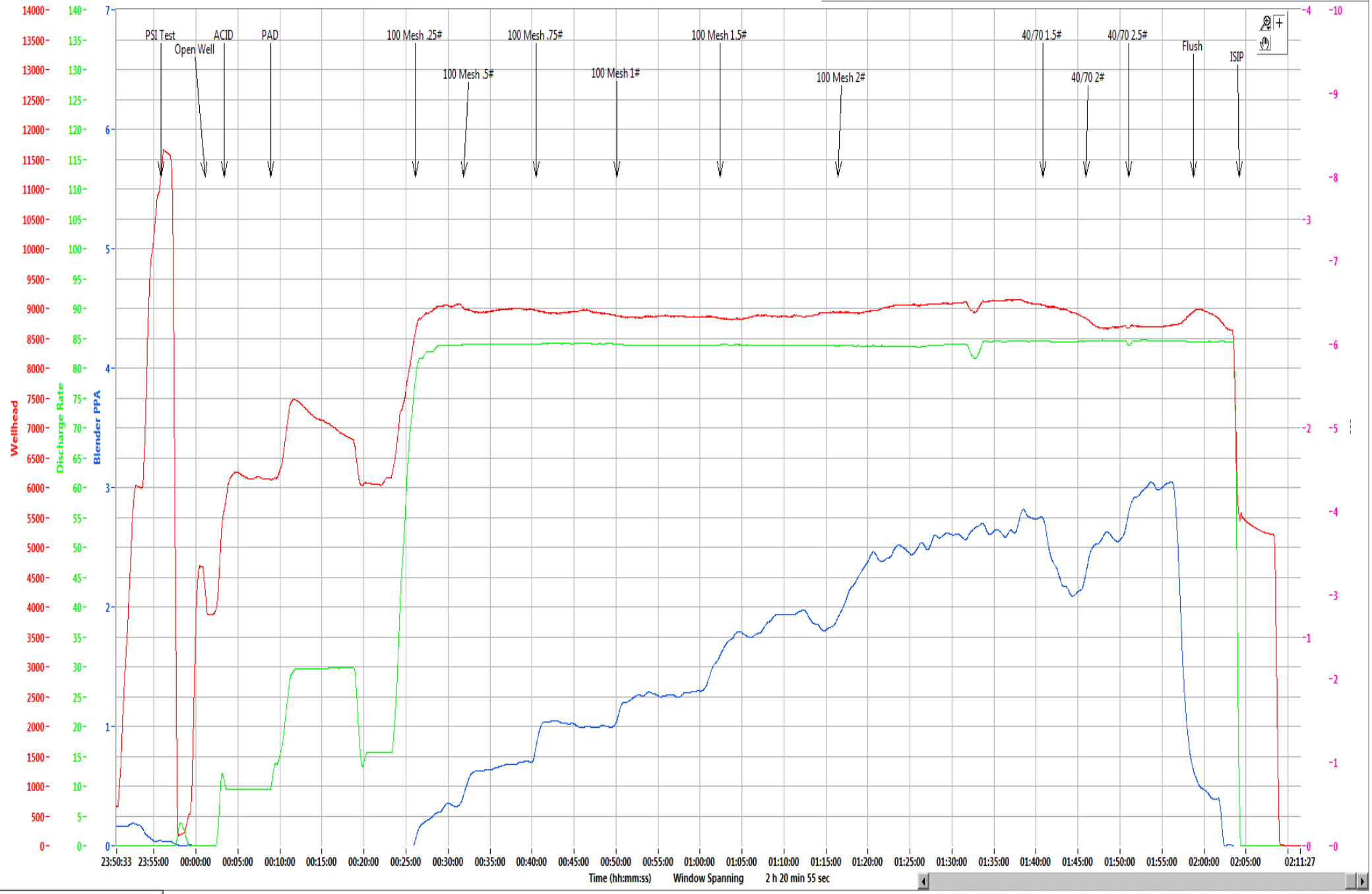
Customer Rep: Rob Cowger

Customer Signature: [Signature]



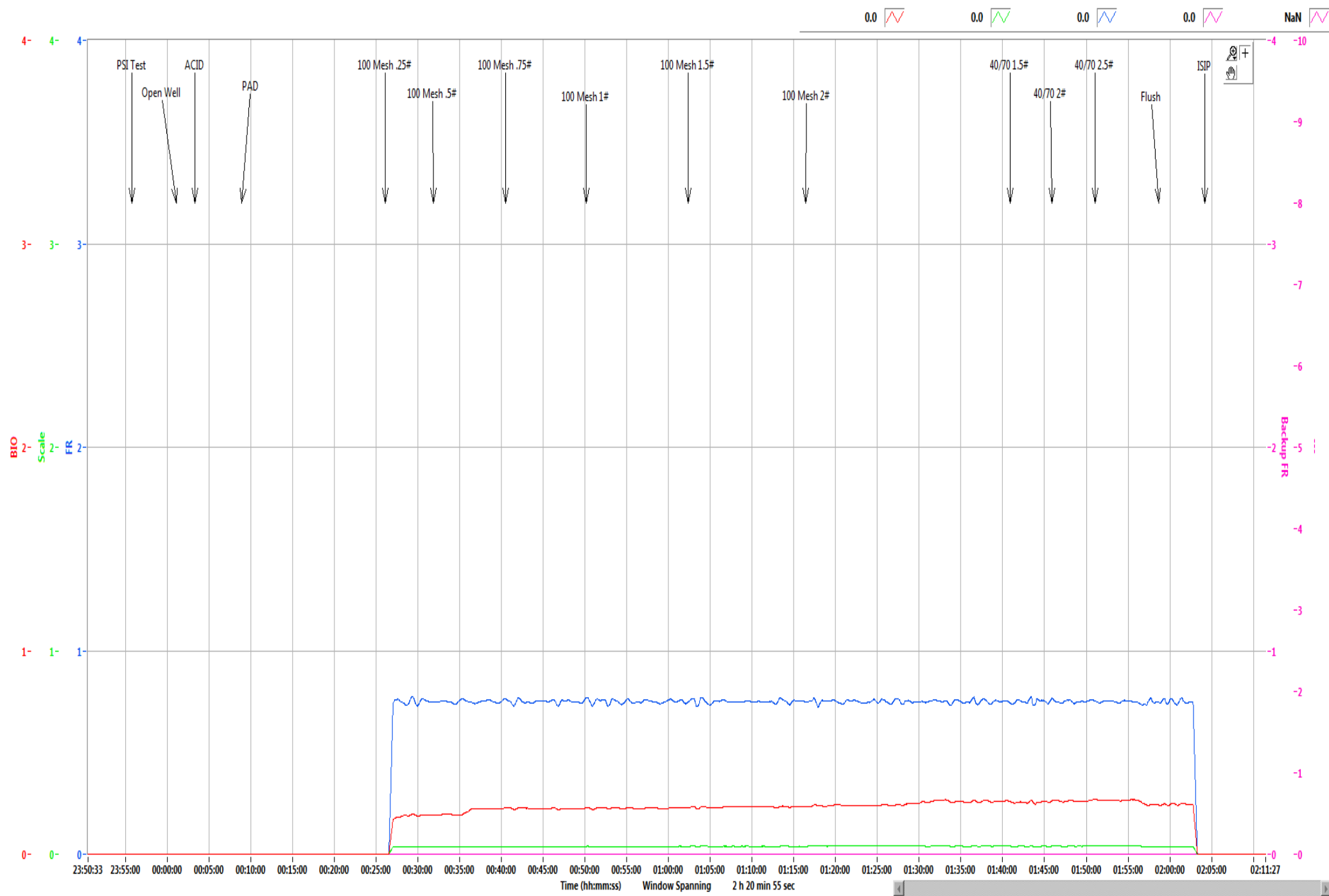
NNE
Bogges 5H
Stage 3
Producers Service Corp.

Post Stage Report
August 9, 2019



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Boguess Pad	5H
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Stage	3
Date:	8/8/19
OWP (psi):	3,872
Starting Time	12:01 AM
Ending Time	2:04 AM
Pump Time (hr:min)	02:03
Swap Time (hr:min)	20:56
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,179
Average Treating Rate (bbl/min)	84
Average Treating Pressure (psi)	8,923
Maximum Treating Rate (bbl/min)	85
Maximum Treating Pressure (psi)	9,216
Displacement (psi)	8,949
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,433
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)	8,395
Acid 7.5% HCL (gal)	3,000
Wireline Pump Down (bbls)	2,977
Pad (bbls)	515
Treatment (bbls)	7,520
Displacement (bbls)	430
(Acid Included)Total Fluid (bbls)	8,466
Dirty Job Total (bbls)	8,754
100 Mesh	300,340
40/70	100,000
Total Proppant (lbs)	400,340
Total Proppant %	100.1%

CHEMICALS

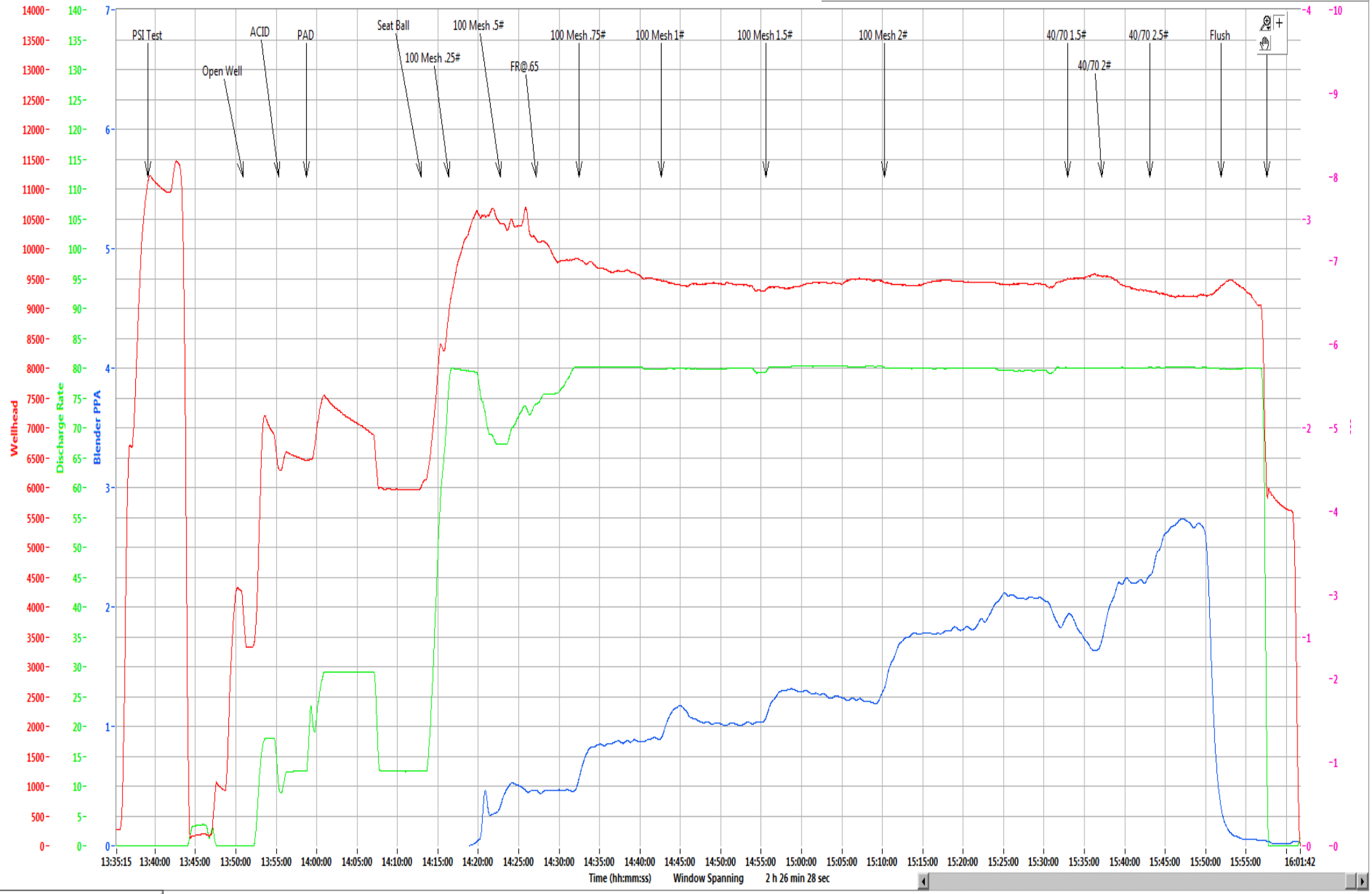
FR 9800	285
DRB-LT	
Biocide	90
Scale	20



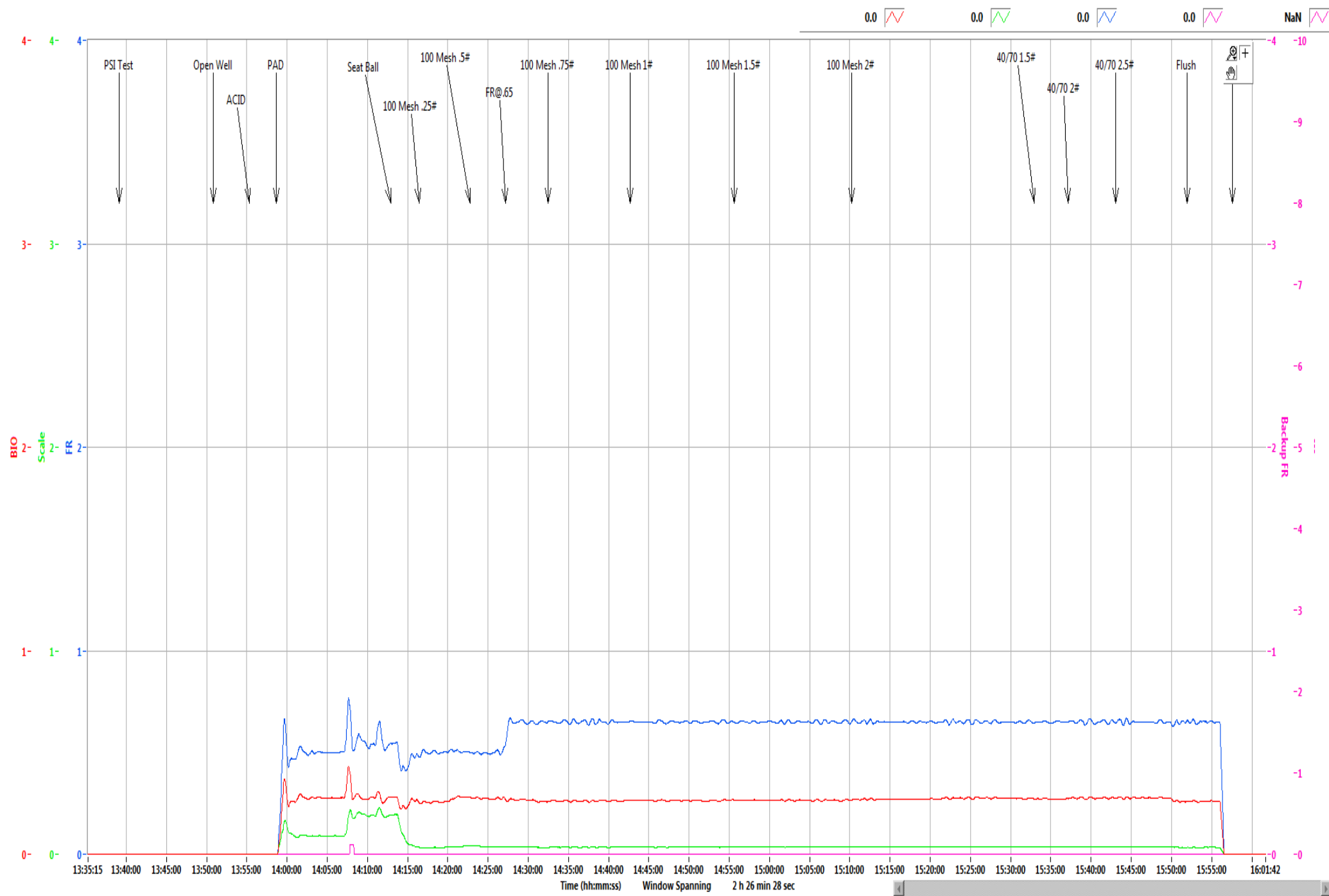
NNE
Bogges 5H
Stage 4
Producers Service Corp.

Post Stage Report
August 9, 2019

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Boguess Pad	5H
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Stage	4
Date:	8/9/19
OWP (psi):	3,318
Starting Time	1:50 PM
Ending Time	3:37 PM
Pump Time (hr:min)	01:47
Swap Time (hr:min)	07:45
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,213
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	9,561
Maximum Treating Rate (bbl/min)	80
Maximum Treating Pressure (psi)	10,877
Displacement (psi)	9,381
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,647
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)	8,214
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	716
Pad (bbls)	589
Treatment (bbls)	7,245
Displacement (bbls)	423
(Acid Included)Total Fluid (bbls)	8,262
Dirty Job Total (bbls)	8,539
100 Mesh	299,900
40/70	106,860
Total Proppant (lbs)	406,760
Total Proppant %	101.7%

CHEMICALS

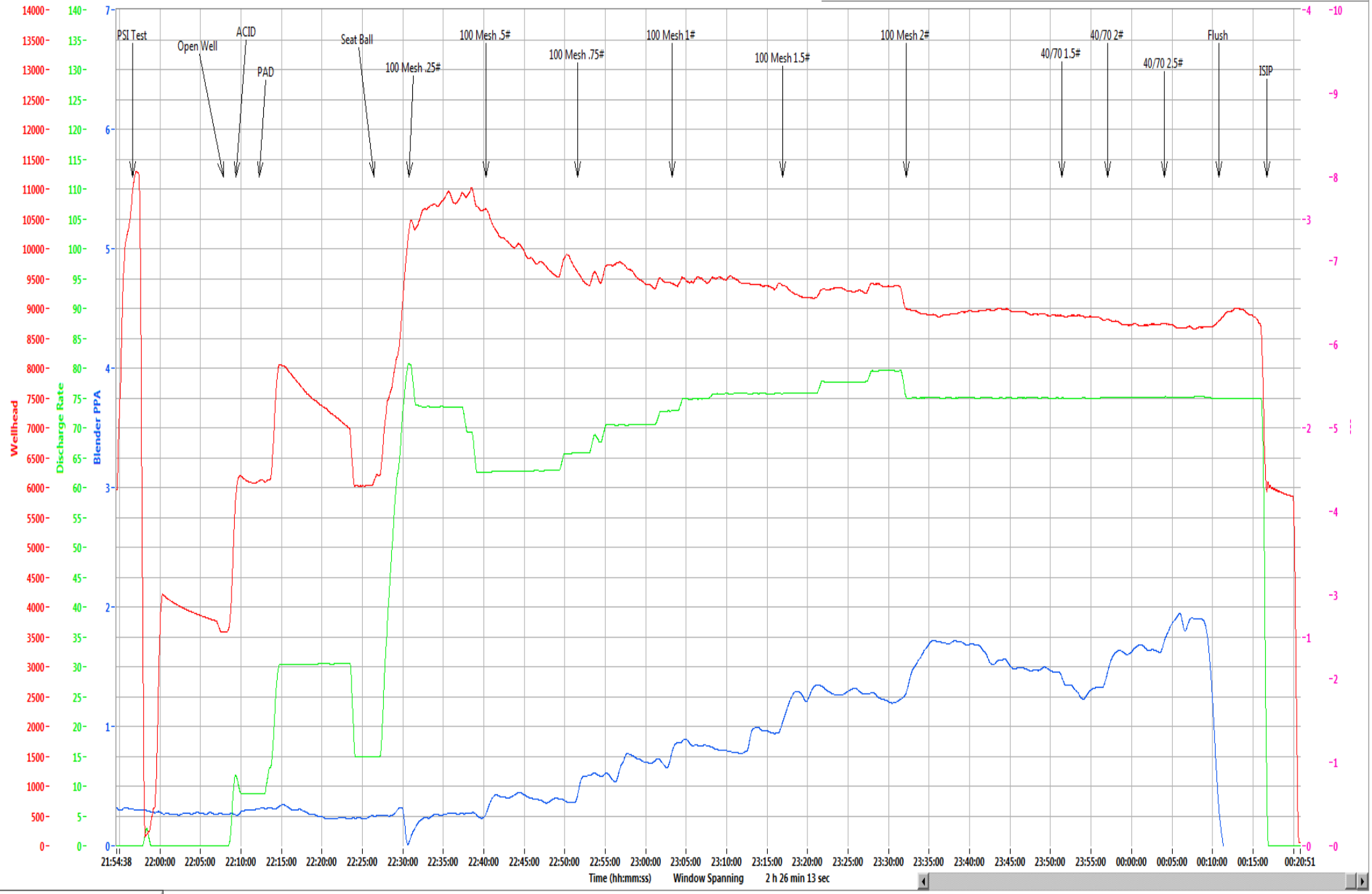
FR 9800	223
DRB-LT	
Biocide	95
Scale	25



NNE
Bogges 5H
Stage 5
Producers Service Corp.

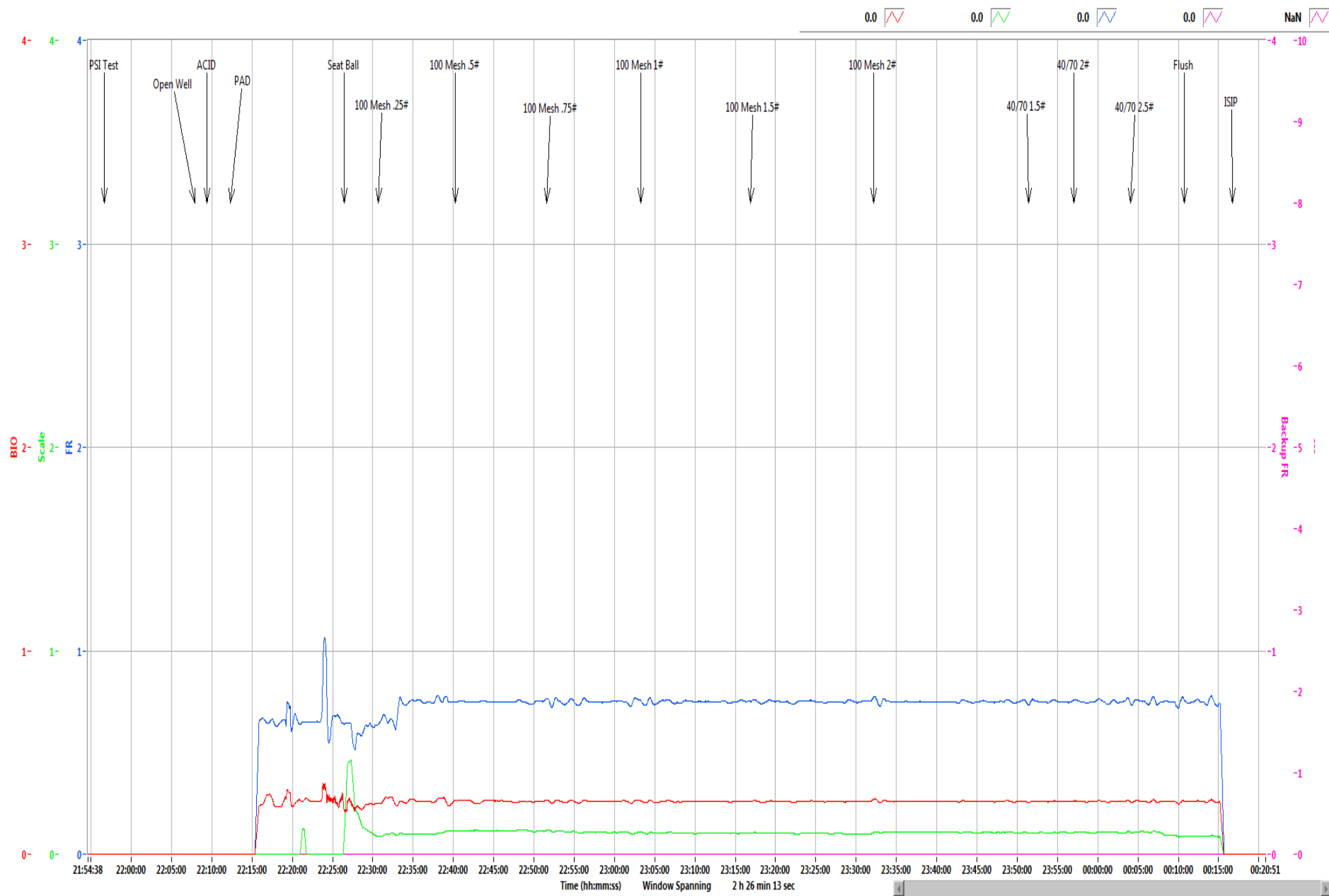
Post Stage Report
August 10, 2019

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Boggess Pad	5H
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Stage	5
Date:	8/9/19
OWP (psi):	3,582
Starting Time	10:07 PM
Ending Time	12:16 AM
Pump Time (hr:min)	02:09
Swap Time (hr:min)	02:01
Starting # Pumps	16
Finishing # Pumps	15
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,211
Average Treating Rate (bbl/min)	73
Average Treating Pressure (psi)	9,374
Maximum Treating Rate (bbl/min)	80
Maximum Treating Pressure (psi)	11,106
Displacement (psi)	8,811
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,033
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)	8,110
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	616
Pad (bbls)	585
Treatment (bbls)	7,133
Displacement (bbls)	426
(Acid Included)Total Fluid (bbls)	8,146
Dirty Job Total (bbls)	8,347
100 Mesh	299,360
40/70	100,640
Total Proppant (lbs)	400,000
Total Proppant %	100.0%

CHEMICALS

FR 9800	255
DRB-LT	
Biocide	86
Scale	19

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



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

Invoice #: 22865
 Date: 8/10/2019
 Well Name: Bogges 5H
 Stage No.: 5

State: WV
 County: Monongahela
 Operator: Stetson/Jeremy
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,993.60	CWT	\$ 5.50	\$ 16,464.80
SAND 40/70	40/70 white	1,006.40	CWT	\$ 5.75	\$ 5,786.80
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	255	GAL	\$ 17.75	\$ 4,526.25
BIOC11219A	Biocide @ 0.25 GPT	86	GAL	\$ 16.00	\$ 1,376.00
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		200	TON	\$ 55.00	\$ 11,000.00
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 61,237.85
 25% Discount Applied \$ 15,309.46
 Net Stage Total \$ 45,928.39

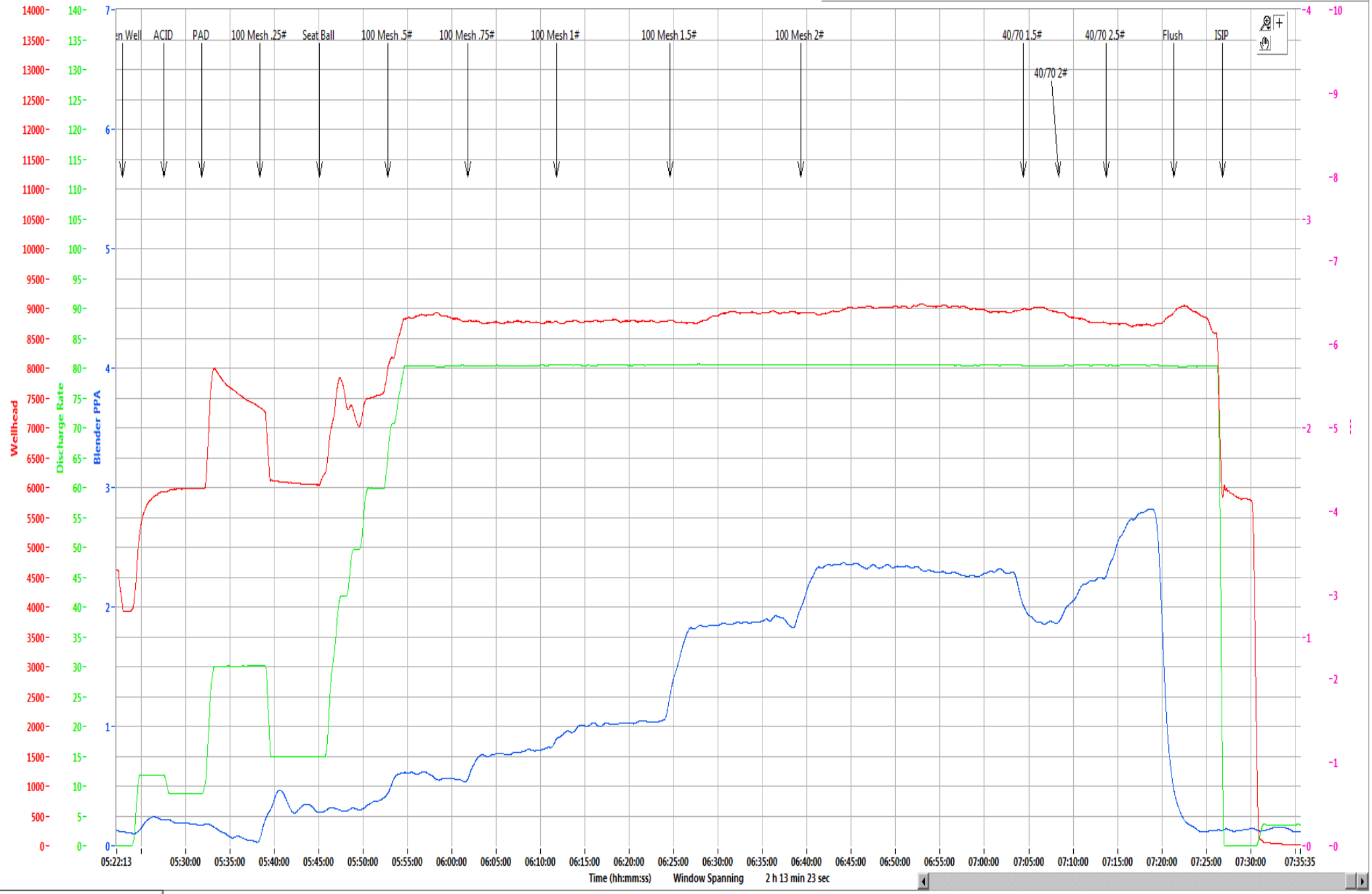
(Print Name) Customer Rep: Rob Cowger Customer Signature: [Signature]



NNE
Bogges 5H
Stage 6
Producers Service Corp.

Post Stage Report
August 10, 2019

4615.0 0.0 0.1 0.0 NaN



Refresh Graph



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Boguess Pad	5H
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Stage	6
Date:	8/10/19
OWP (psi):	3,919
Starting Time	5:22 AM
Ending Time	7:26 AM
Pump Time (hr:min)	02:04
Swap Time (hr:min)	01:35
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,258
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,874
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	9,179
Displacement (psi)	8,905
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,572
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)	7,953
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	598
Pad (bbls)	192
Treatment (bbls)	7,391
Displacement (bbls)	416
(Acid Included)Total Fluid (bbls)	8,001
Dirty Job Total (bbls)	8,269
100 Mesh	298,680
40/70	105,800
Total Proppant (lbs)	404,480
Total Proppant %	101.1%

CHEMICALS

FR 9800	200
DRB-LT	
Biocide	85
Scale	19

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



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

Invoice #: 22867
 Date: 8/10/2019
 Well Name: Bogges 5H
 Stage No.: 6

State: WV
 County: Monongahela
 Operator: Jamie/Joe
 PO/AFE: 100345-604

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	2,986.80	CWT	\$ 5.50	\$ 16,427.40
SAND 40/70	40/70 white	1,058.00	CWT	\$ 5.75	\$ 6,083.50
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	200	GAL	\$ 17.75	\$ 3,550.00
BIOC11219A	Biocide @ 0.25 GPT	85	GAL	\$ 16.00	\$ 1,360.00
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		202.24	TON	\$ 55.00	\$ 11,123.20
DIESEL FUEL	Not eligible for discount	256	GAL	\$ 3.04	\$ 778.24

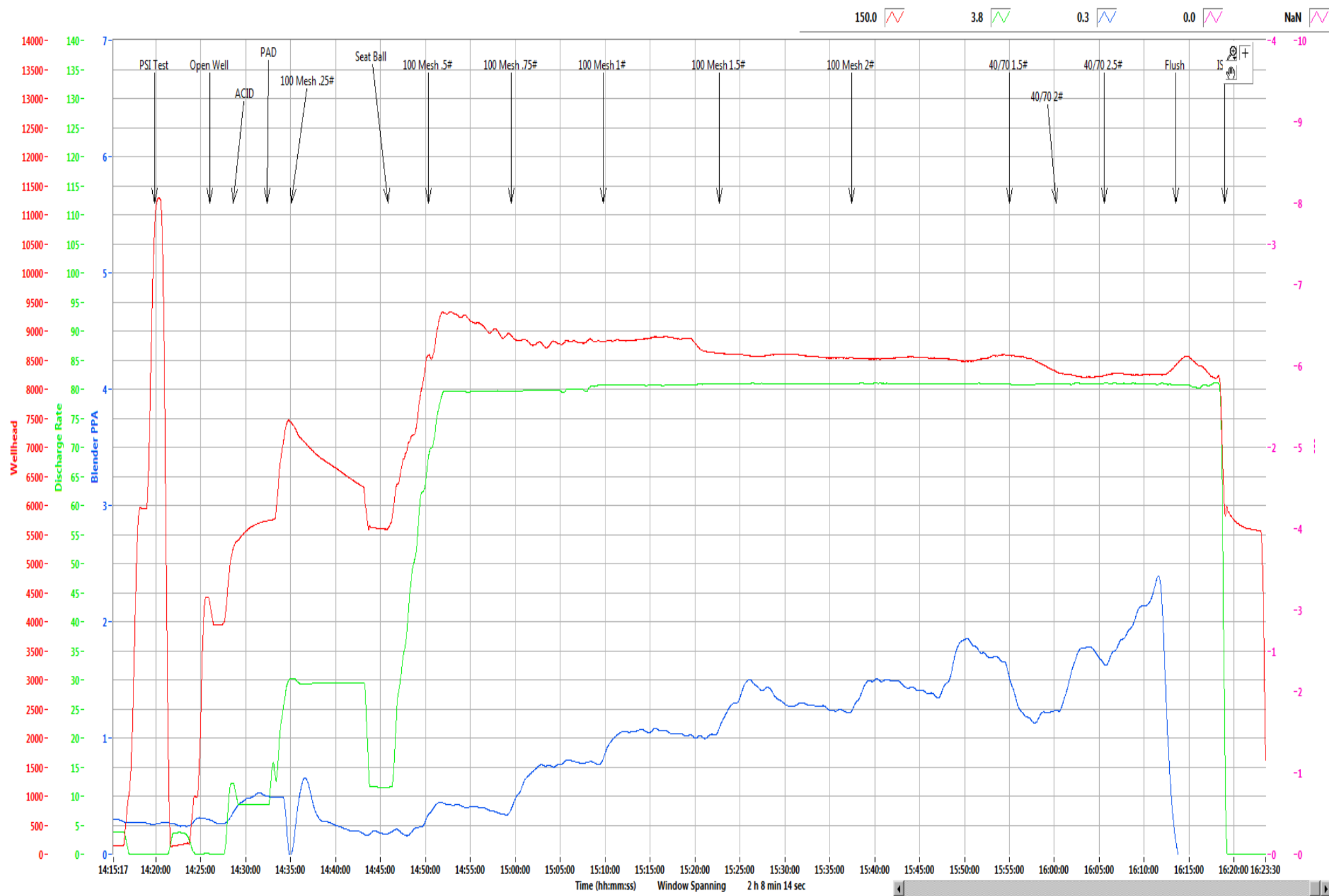
Total No Discount \$ 61,288.10
 25% Discount Applied \$ 15,322.03
 Net Stage Total \$ 46,744.32

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



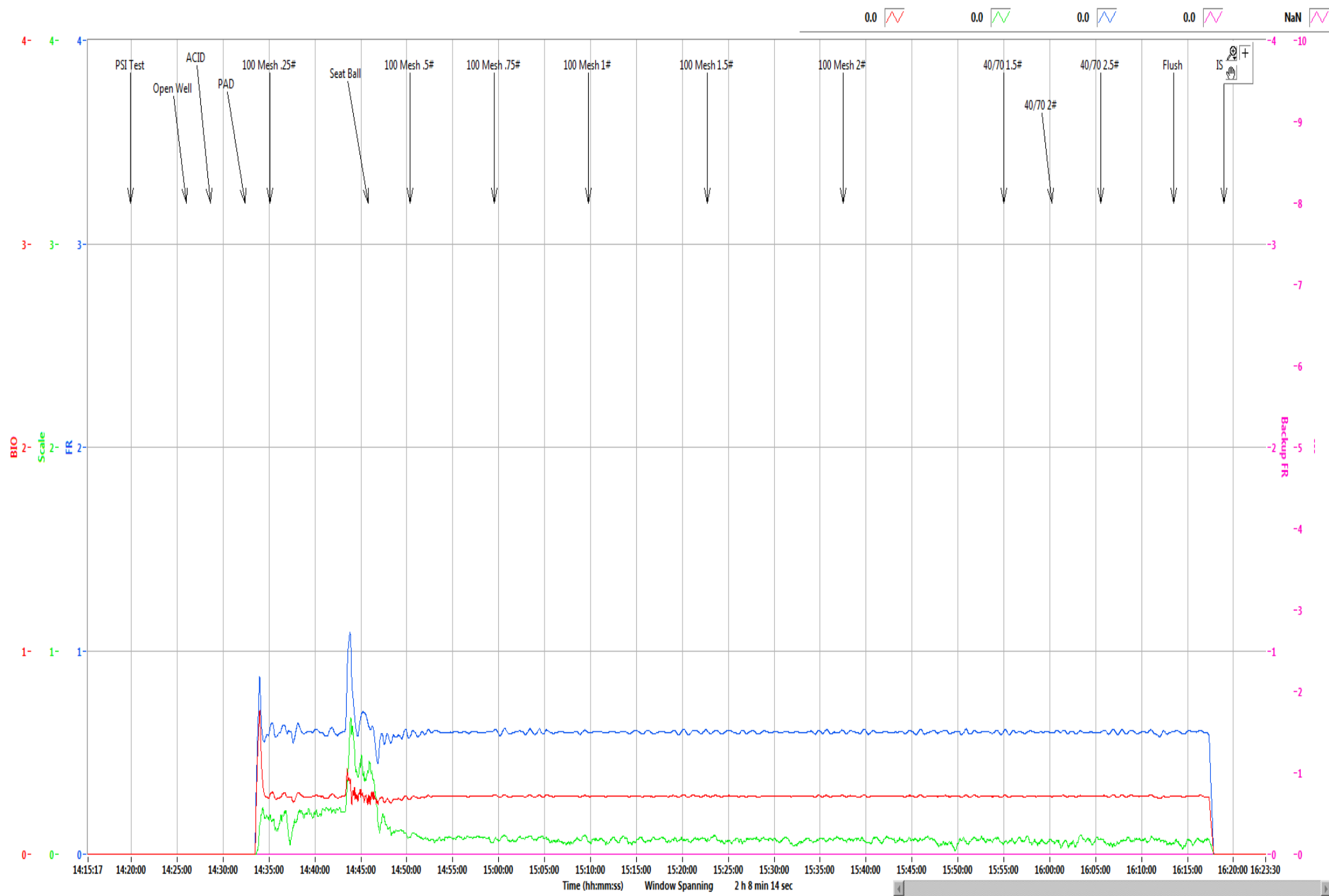
NNE
Bogges 5H
Stage 7
Producers Service Corp.

Post Stage Report
August 10, 2019



150.0 3.8 0.3 0.0 NaN

Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	7
Date:	8/10/19
OWP (psi):	3,935
Starting Time	2:26 PM
Ending Time	4:18 PM
Pump Time (hr:min)	01:52
Swap Time (hr:min)	02:20
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	5,781
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,636
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	9,383
Displacement (psi)	8,432
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,606
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)	7,354
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	1,040
Pad (bbls)	65
Treatment (bbls)	6,913
Displacement (bbls)	415
(Acid Included)Total Fluid (bbls)	7,402
Dirty Job Total (bbls)	7,693
100 Mesh	297,080
40/70	104,440
Total Proppant (lbs)	401,520
Total Proppant %	100.4%

CHEMICALS

FR 9800	185
DRB-LT	
Biocide	80
Scale	19

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



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

Invoice #: 22869
 Date: 8/10/2019
 Well Name: Bogges 5H
 Stage No.: 7

State: WV
 County: Monongahela
 Operator: Jamie/Joe
 PO/AFE: 100345-604

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	2,970.80	CWT	\$ 5.50	\$ 16,339.40
SAND 40/70	40/70 white	1,044.40	CWT	\$ 5.75	\$ 6,005.30
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	185	GAL	\$ 17.75	\$ 3,283.75
BIOC11219A	Biocide @ 0.25 GPT	80	GAL	\$ 16.00	\$ 1,280.00
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		200.76	TON	\$ 55.00	\$ 11,041.80
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 60,694.25
 25% Discount Applied \$ 15,173.56
 Net Stage Total \$ 45,520.69

(Print Name)

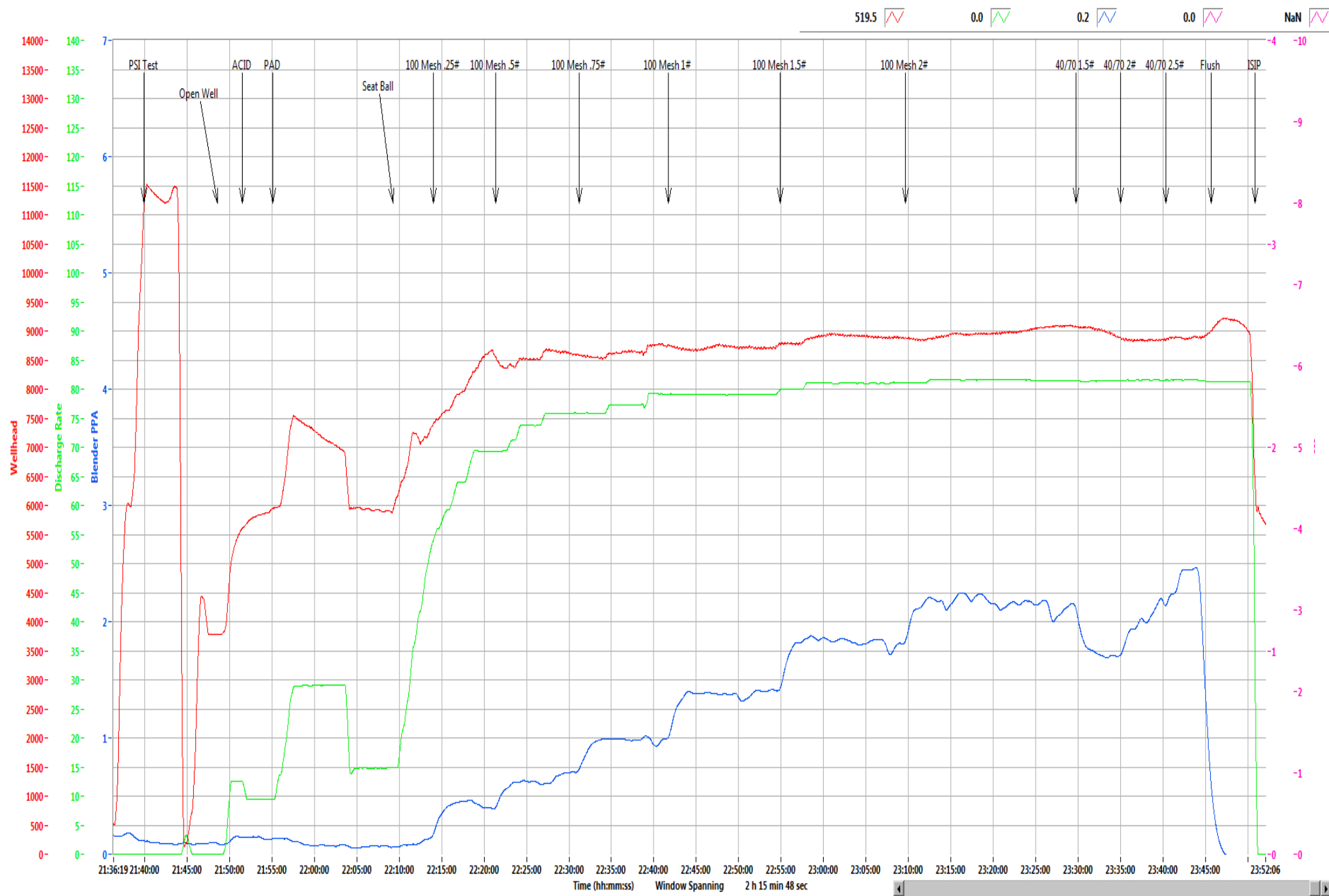
Customer Rep: E. Boone

Customer Signature: E. Boone

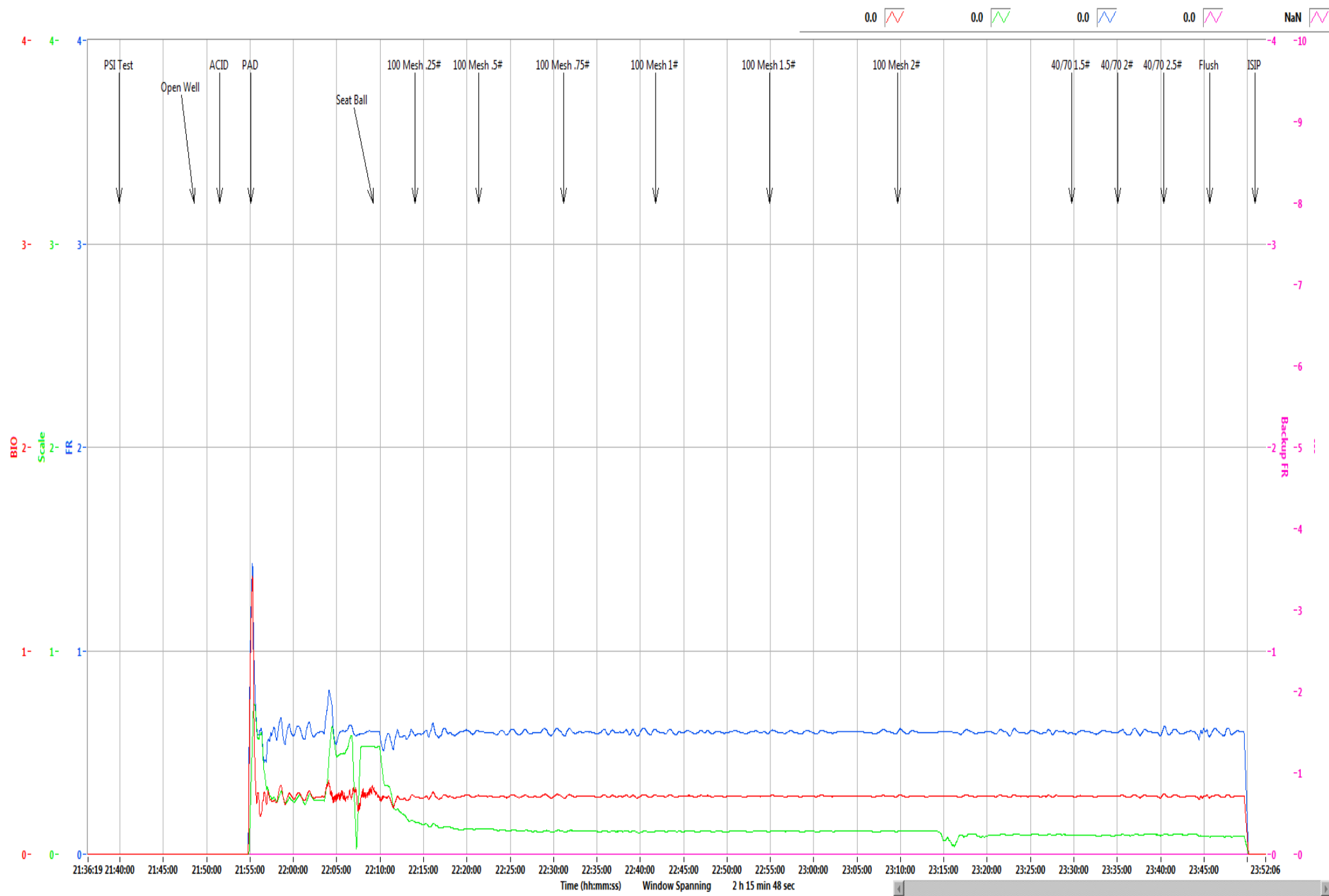


NNE
Boggess 5H
Stage 8
Producers Service Corp.

Post Stage Report
August 10, 2019



Refresh Graph



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Refresh Graph

Time (hh:mm:ss) Window Spanning 2 h 15 min 48 sec

Boggess Pad**5H**

Stage	8
Date:	8/10/19
OWP (psi):	3,778
Starting Time	9:48 PM
Ending Time	11:50 PM
Pump Time (hr:min)	02:02
Swap Time (hr:min)	01:39
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,181
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,803
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	9,314
Displacement (psi)	8,997
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,600
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)	7,796
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	698
Pad (bbls)	495
Treatment (bbls)	6,942
Displacement (bbls)	401
(Acid Included)Total Fluid (bbls)	7,844
Dirty Job Total (bbls)	8,132
100 Mesh	300,580
40/70	99,900
Total Proppant (lbs)	400,480
Total Proppant %	100.1%

CHEMICALS

FR 9800	219
DRB-LT	
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 #: 22871
 Date: 8/10/2019
 Well Name: Bogges 5H
 Stage No.: 8

State: WV
 County: Monongahela
 Operator: Jeremy/Stetson
 PO/AFE: 100345-604

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 60 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	3,005.80	CWT	\$ 5.50	\$ 16,531.90
SAND 40/70	40/70 white	999.00	CWT	\$ 5.75	\$ 5,744.25
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	219	GAL	\$ 17.75	\$ 3,887.25
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 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		200.24	TON	\$ 55.00	\$ 11,013.20
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

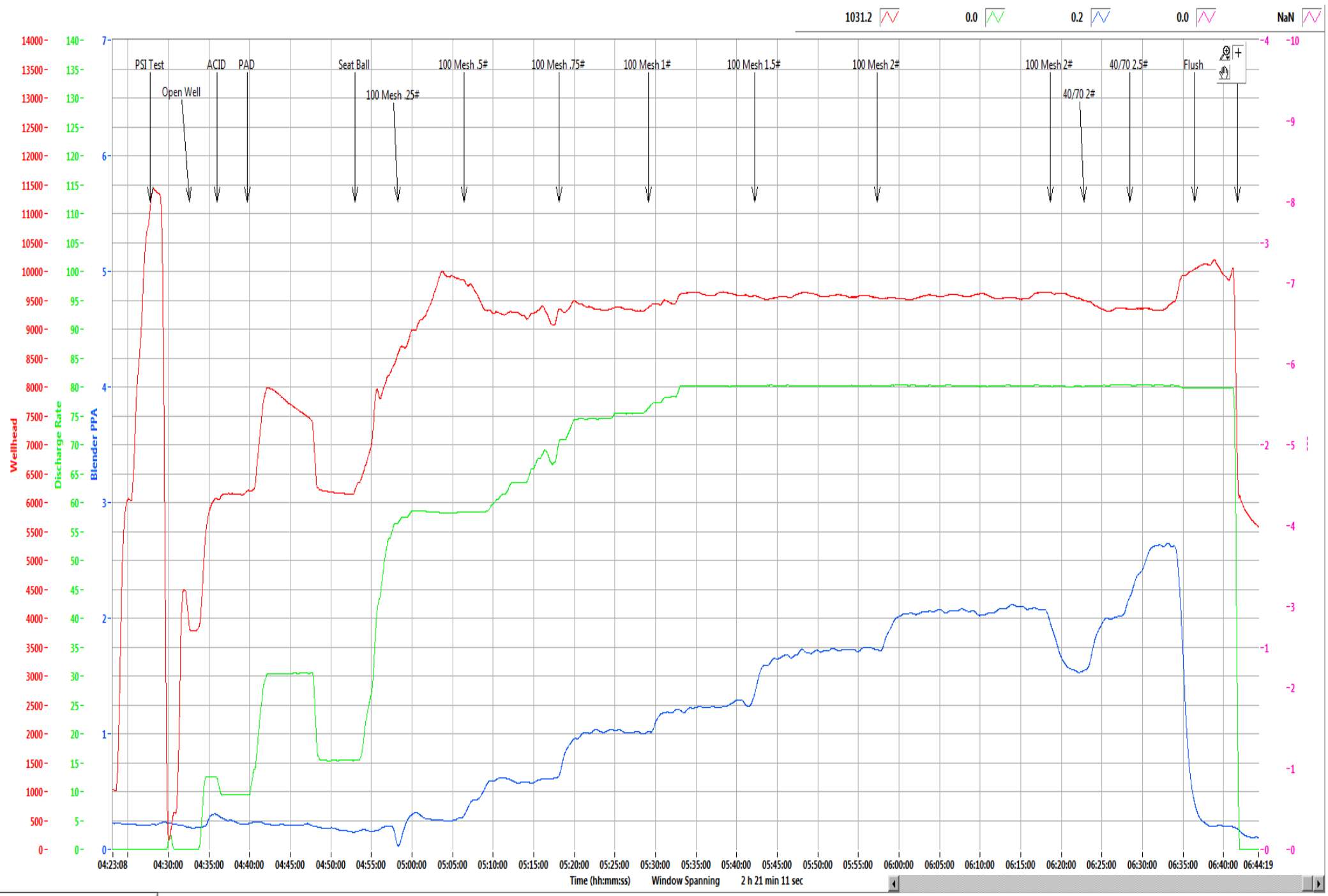
Total No Discount \$ 61,248.60
 25% Discount Applied \$ 15,312.15
 Net Stage Total \$ 45,936.45

(Print Name) Bob Couger Customer Rep: _____ Customer Signature: [Signature]



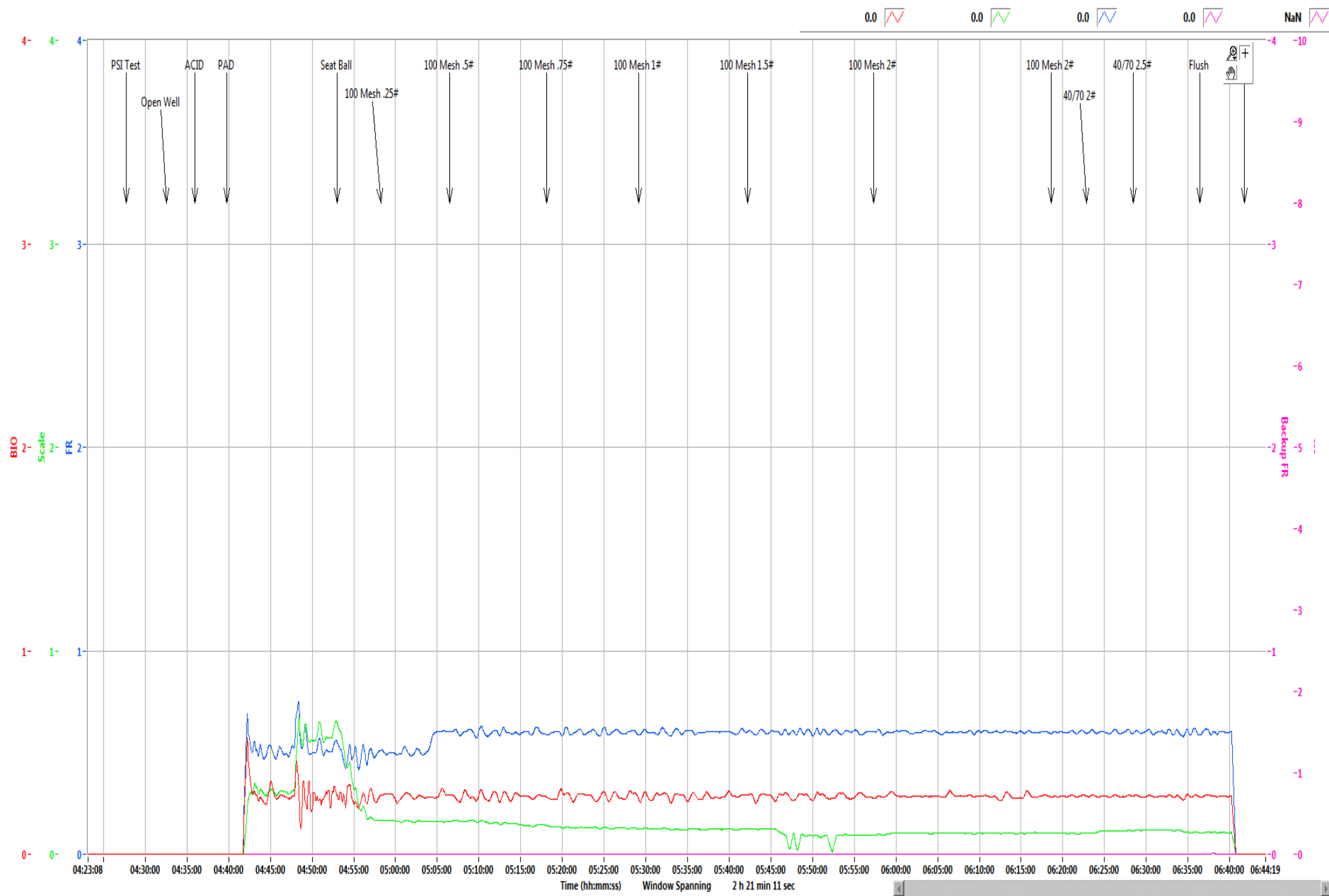
NNE
Boggess 5H
Stage 9
Producers Service Corp.

Post Stage Report
August 11, 2019



Refresh Graph

Time (hh:mm:ss) Window Spanning 2 h 21 min 11 sec



Time (hh:mm:ss) Window Spanning 2 h 21 min 11 sec

Refresh Graph

Boggess Pad**5H**

Stage	9
Date:	8/11/19
OWP (psi):	3,786
Starting Time	4:32 AM
Ending Time	6:41 AM
Pump Time (hr:min)	02:09
Swap Time (hr:min)	01:20
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,384
Average Treating Rate (bbl/min)	76
Average Treating Pressure (psi)	9,484
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	10,144
Displacement (psi)	10,026
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,009
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)	8,043
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	572
Pad (bbls)	523
Treatment (bbls)	7,161
Displacement (bbls)	400
(Acid Included)Total Fluid (bbls)	8,091
Dirty Job Total (bbls)	8,399
100 Mesh	302,360
40/70	106,660
Total Proppant (lbs)	409,020
Total Proppant %	102.3%

CHEMICALS

FR 9800	200
DRB-LT	
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 #: 22873
 Date: 8/11/2019
 Well Name: Bogges 5H
 Stage No.: 9

State: WV
 County: Monongahela
 Operator: Jeremy/Stetson
 PO/AFE: 100345-604

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	3,023.60	CWT	\$ 5.50	\$ 16,629.80
SAND 40/70	40/70 white	1,066.60	CWT	\$ 5.75	\$ 6,132.95
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	200	GAL	\$ 17.75	\$ 3,550.00
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		204.51	TON	\$ 55.00	\$ 11,248.05
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 61,664.80
 25% Discount Applied \$ 15,416.20
 Net Stage Total \$ 46,248.60

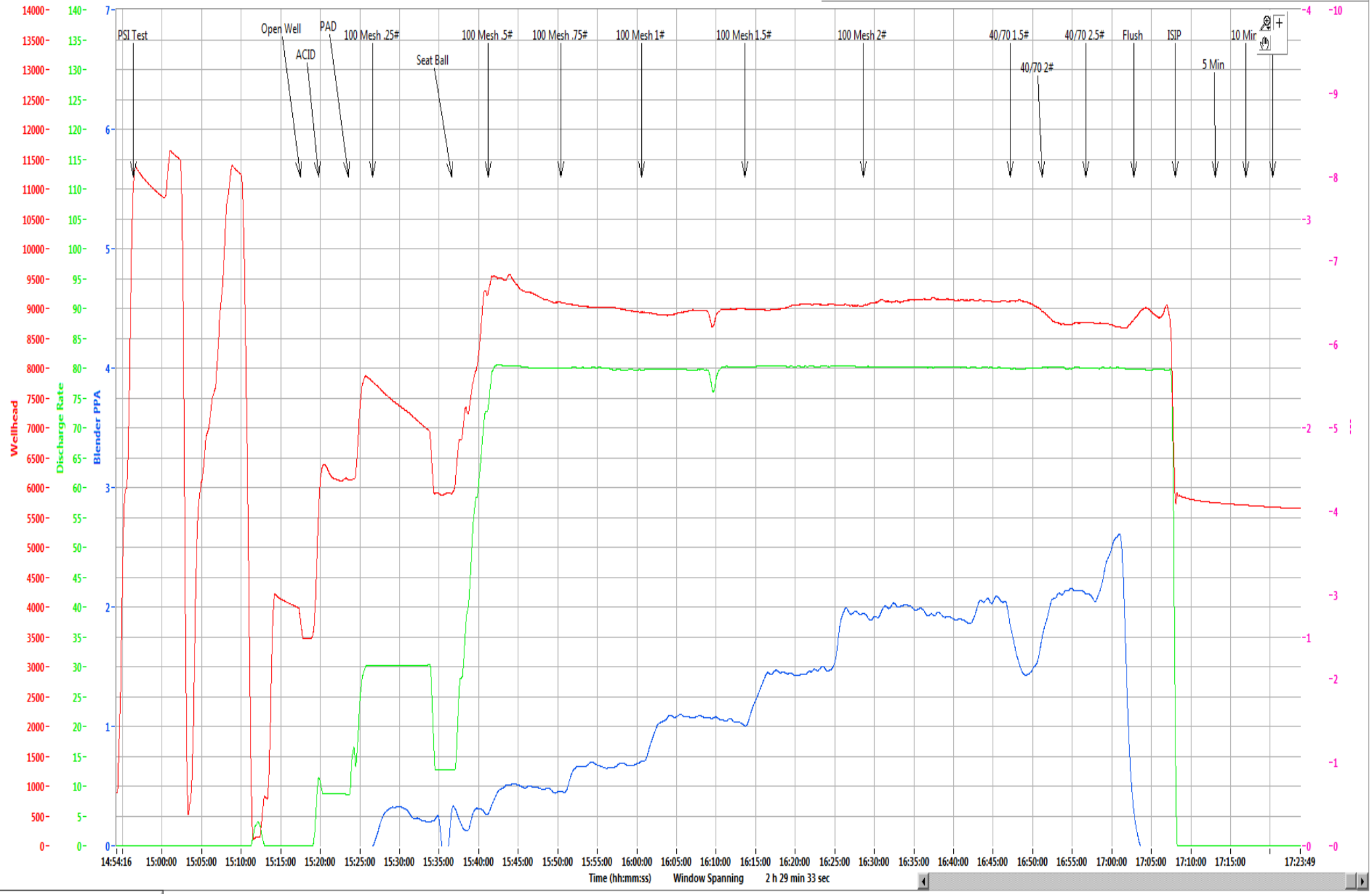
(Print Name) E. Boone Customer Rep: E. Boone Customer Signature: E. Boone



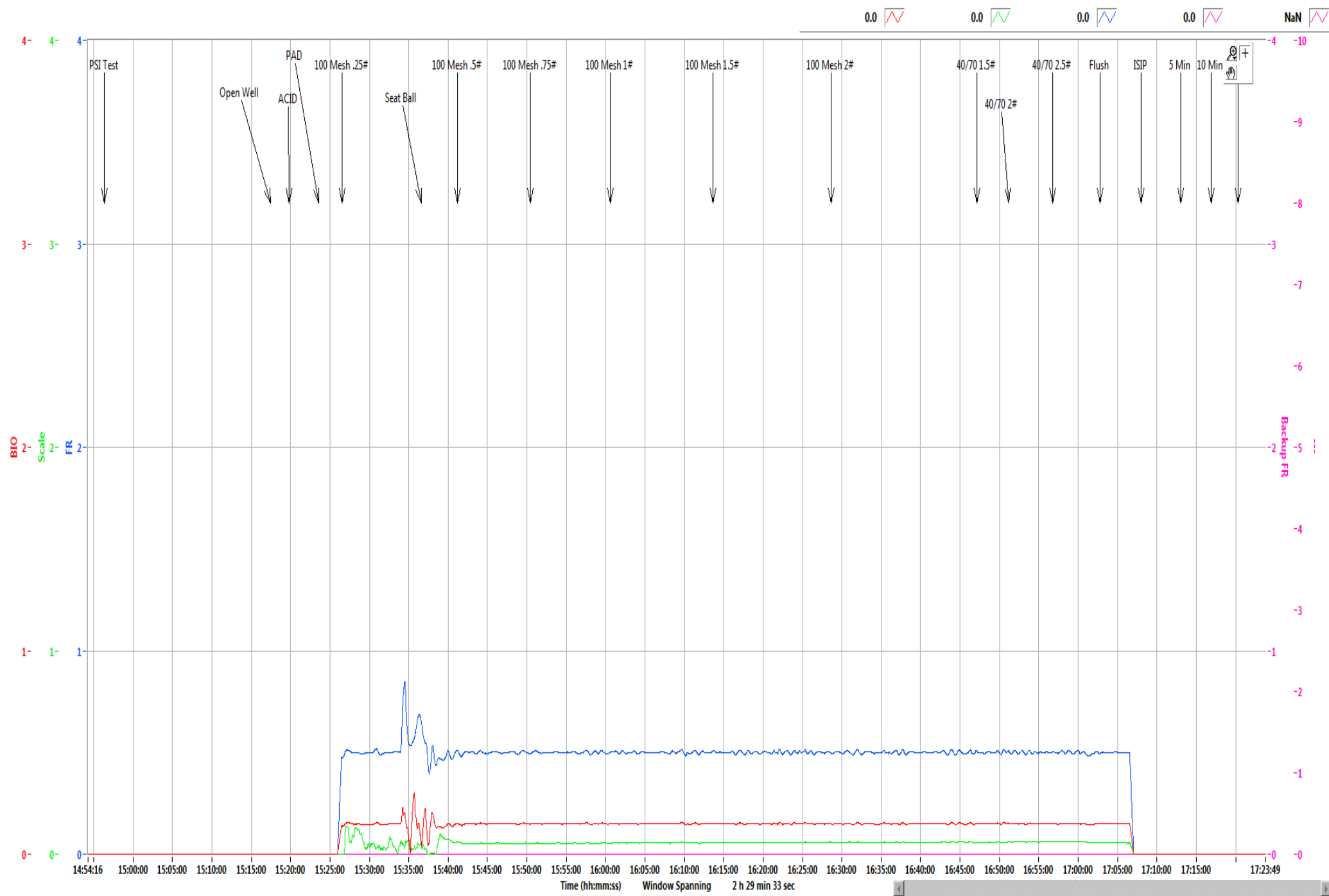
NNE
Boggess 5H
Stage 10
Producers Service Corp.

Post Stage Report
August 11, 2019

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Refresh Graph



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Boggess Pad**5H**

Stage	10
Date:	8/11/19
OWP (psi):	3,475
Starting Time	3:17 PM
Ending Time	5:20 PM
Pump Time (hr:min)	02:03
Swap Time (hr:min)	03:47
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,004
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	9,036
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	9,640
Displacement (psi)	8,870
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,703
Final FG (psi/ft)	1.14
5 Minute Leakoff Pressure (psi)	5,741
5 Minute Leakoff Rate (psi/min)	-8
10 Minute Leakoff Pressure (psi)	5,701
10 Minute Leakoff Rate (psi/min)	0
15 Minute Leakoff Pressure (psi)	5,670
15 Minute Leakoff Rate (psi/min)	2

Fluids & Proppant

Slickwater (bbls)	7,161
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	1,104
Pad (bbls)	74
Treatment (bbls)	6,733
Displacement (bbls)	396
(Acid Included)Total Fluid (bbls)	7,209
Dirty Job Total (bbls)	7,517
100 Mesh	304,980
40/70	100,580
Total Proppant (lbs)	405,560
Total Proppant %	101.4%

CHEMICALS

FR 9800	152
DRB-LT	
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 #: 22875
 Date: 8/11/2019
 Well Name: Bogges 5H
 Stage No.: 10

State: WV
 County: Monongahela
 Operator: Joe/Eck/Austin
 PO/AFE: 100345-604

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	3,049.80	CWT	\$ 5.50	\$ 16,773.90
SAND 40/70	40/70 white	1,005.80	CWT	\$ 5.75	\$ 5,783.35
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	152	GAL	\$ 17.75	\$ 2,698.00
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		202.78	TON	\$ 55.00	\$ 11,152.90
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 60,384.15
 25% Discount Applied \$ 15,096.04
 Net Stage Total \$ 45,288.11

(Print Name)

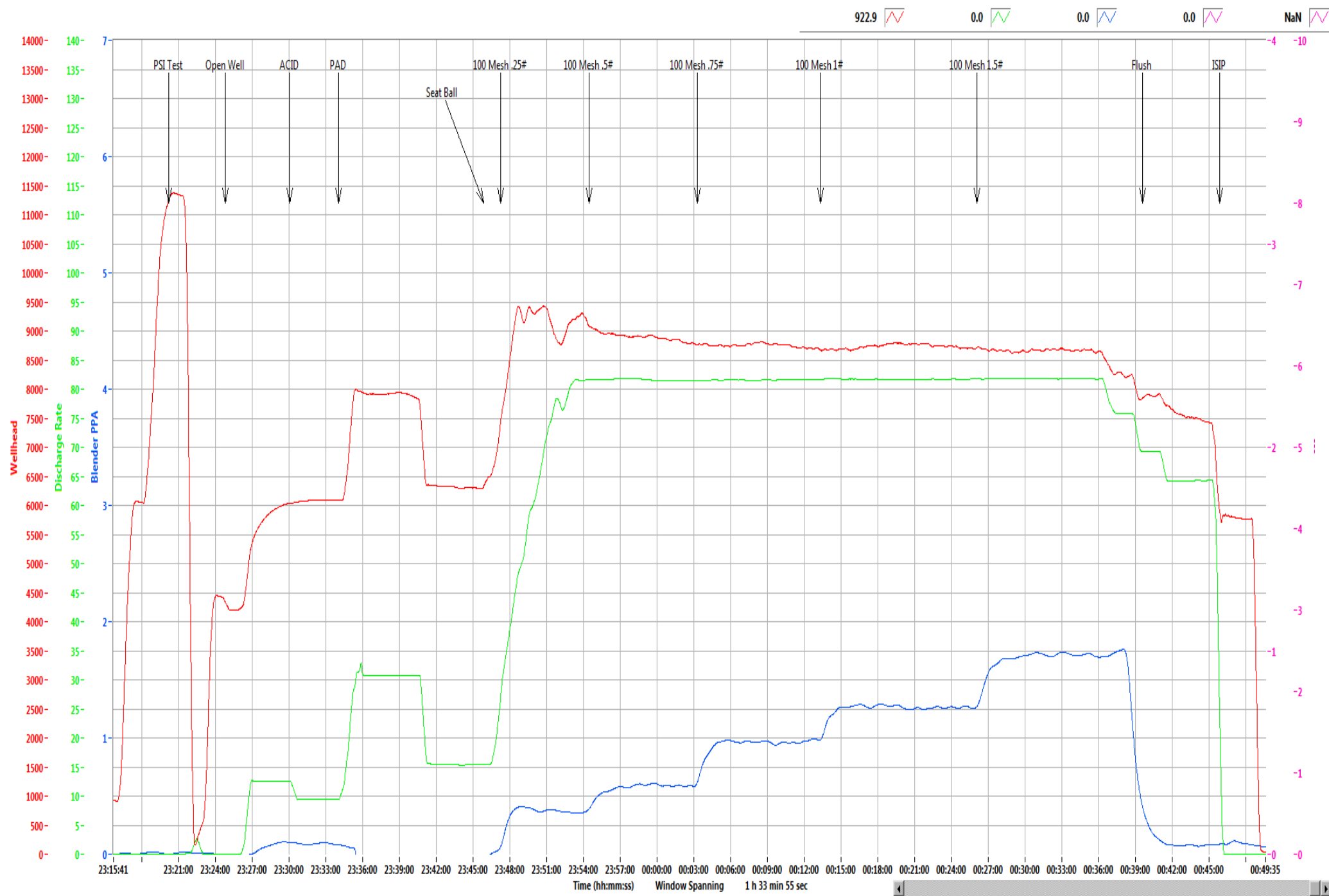
Customer Rep: Rob Cowger

Customer Signature: [Signature]



NNE
Boggess 5H
Stage 11
Producers Service Corp.

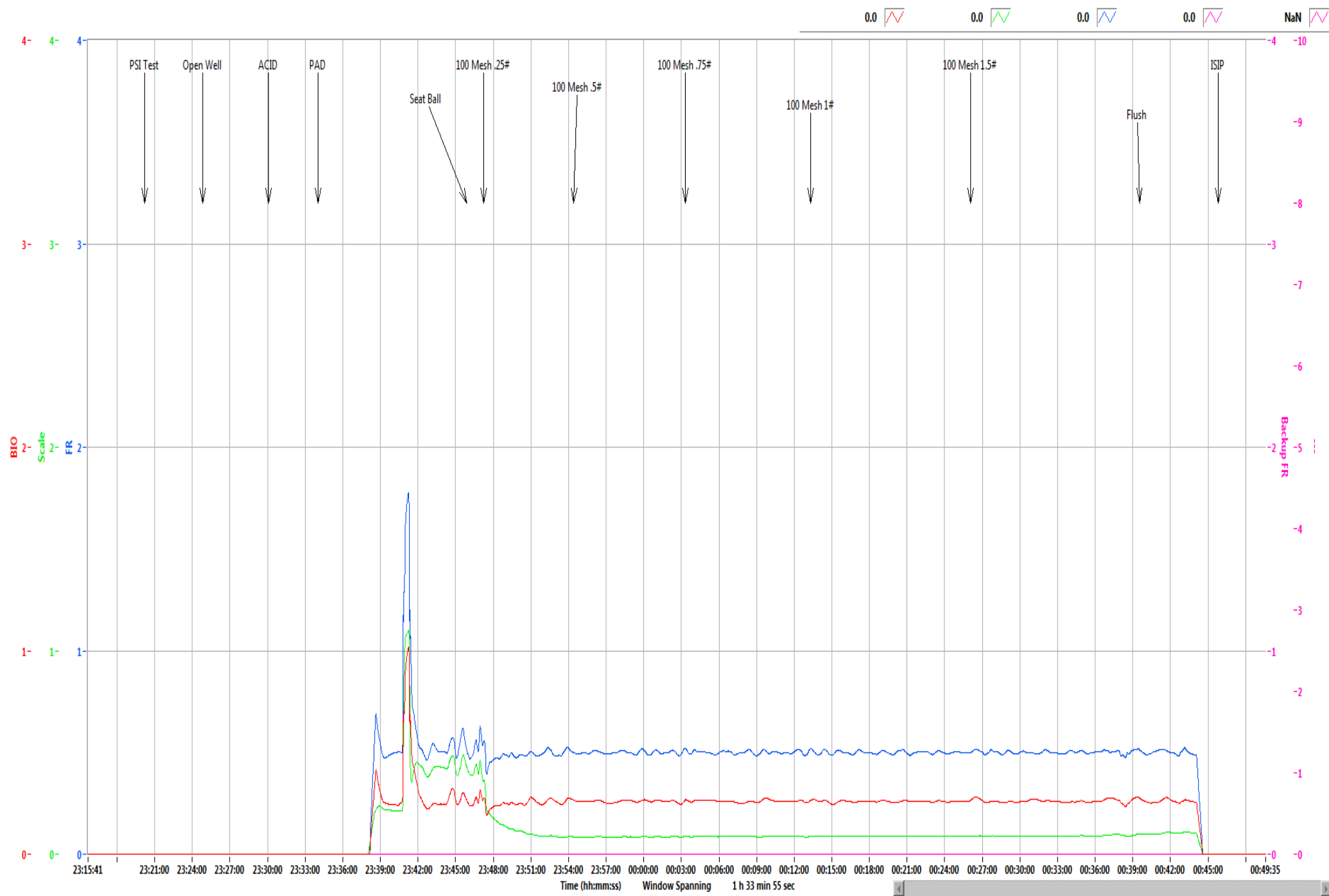
Post Stage Report
August 12, 2019



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Time (hh:mm:ss) Window Spanning 1 h 33 min 55 sec

Refresh Graph



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Boggess Pad**5H**

Stage	11
Date:	8/11/19
OWP (psi):	4,210
Starting Time	11:24 PM
Ending Time	12:45 AM
Pump Time (hr:min)	01:21
Swap Time (hr:min)	01:50
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,546
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,786
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	9,560
Displacement (psi)	7,948
Max Prop Con (lb/gal)	1.50
ShutDown ISIP (psi)	5,668
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)	4,786
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	745
Pad (bbls)	309
Treatment (bbls)	4,122
Displacement (bbls)	400
(Acid Included)Total Fluid (bbls)	4,834
Dirty Job Total (bbls)	4,928
100 Mesh	168,220
40/70	0
Total Proppant (lbs)	168,220
Total Proppant %	42.1%

CHEMICALS

FR 9800	97
DRB-LT	
Biocide	50
Scale	12

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



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

Invoice #: 22877
 Date: 8/12/2019
 Well Name: Bogges 5H
 Stage No.: 11

State: WV
 County: Monongahela
 Operator: Jeremy/Stetson
 PO/AFE: 100345-604

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	1,682.20	CWT	\$ 5.50	\$ 9,252.10
SAND 40/70	40/70 white	0.00	CWT	\$ 5.75	\$ -
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	97	GAL	\$ 17.75	\$ 1,721.75
BIOC11219A	Biocide @ 0.25 GPT	50	GAL	\$ 16.00	\$ 800.00
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		84.11	TON	\$ 55.00	\$ 4,626.05
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

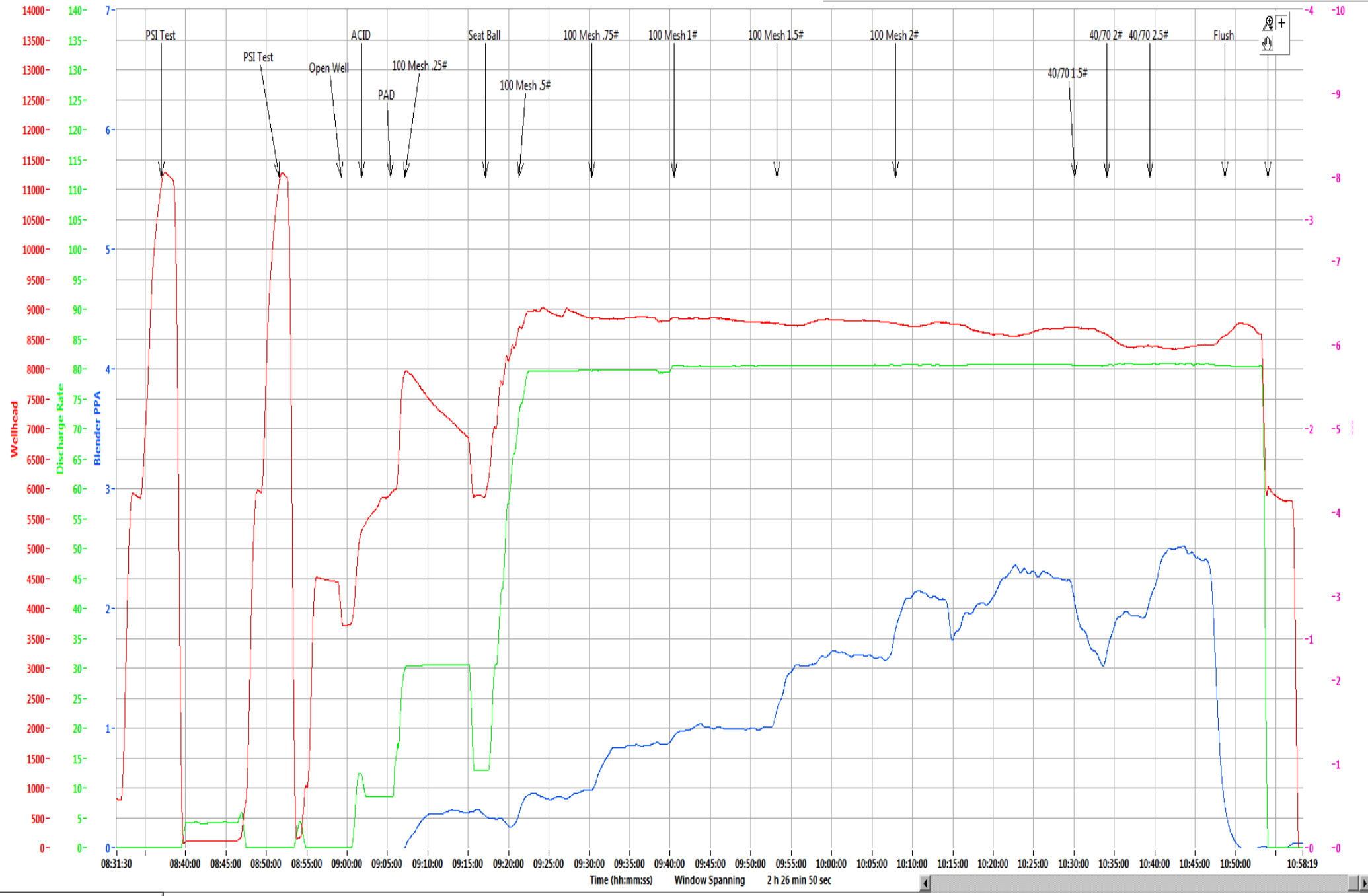
Total No Discount \$ 39,031.90
 25% Discount Applied \$ 9,757.98
 Net Stage Total \$ 29,273.93

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



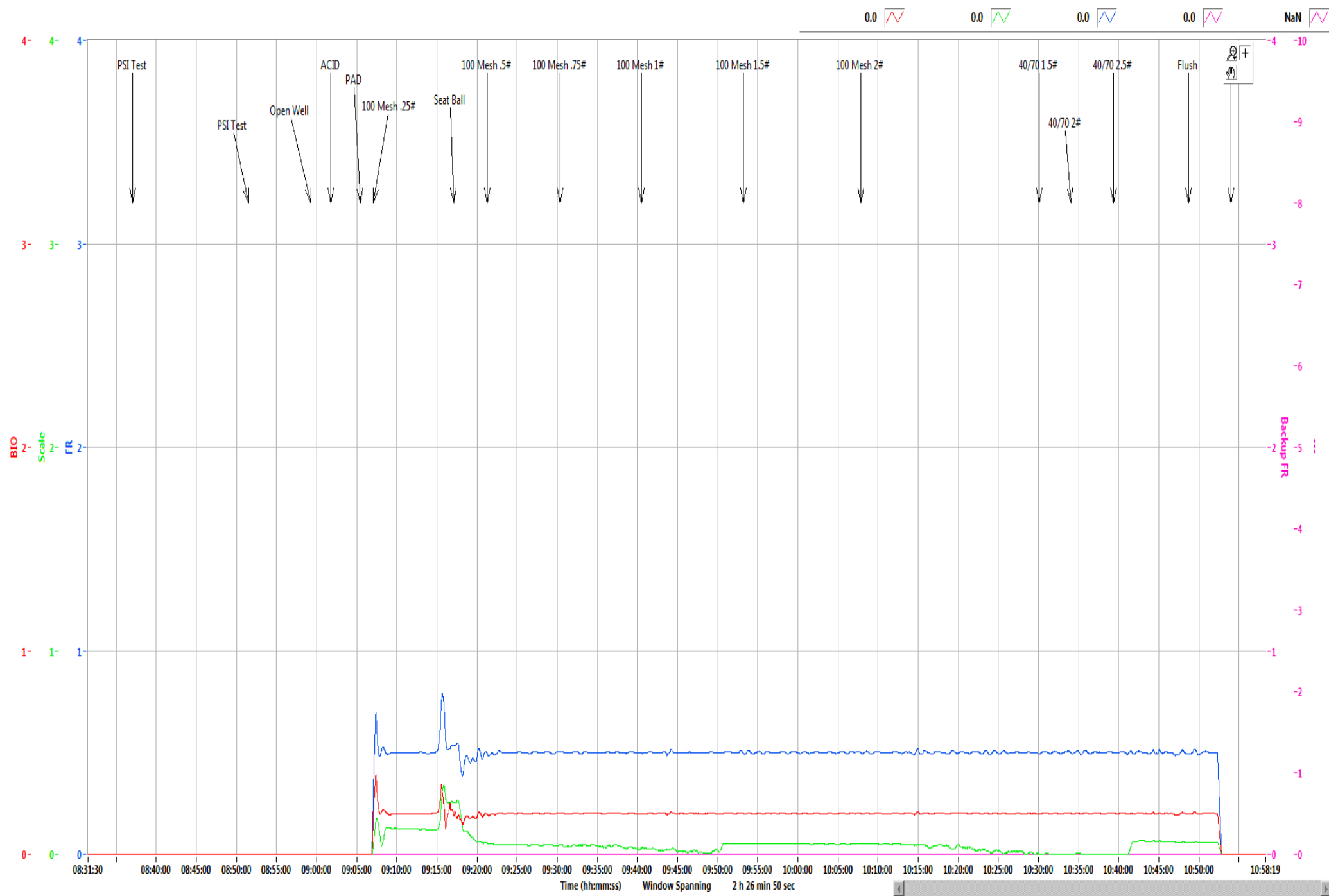
**NNE
Boggess 5H
Stage 12
Producers Service Corp.**

**Post Stage Report
August 12, 2019**



Time (hh:mm:ss) Window Spanning 2 h 26 min 50 sec

Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	12
Date:	8/12/19
OWP (psi):	3,710
Starting Time	8:59 AM
Ending Time	10:53 AM
Pump Time (hr:min)	01:54
Swap Time (hr:min)	02:32
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,170
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,709
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	9,081
Displacement (psi)	8,679
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,852
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)	7,648
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	487
Pad (bbls)	100
Treatment (bbls)	7,206
Displacement (bbls)	383
(Acid Included)Total Fluid (bbls)	7,696
Dirty Job Total (bbls)	7,965
100 Mesh	300,400
40/70	100,220
Total Proppant (lbs)	400,620
Total Proppant %	100.2%

CHEMICALS

FR 9800	160
DRB-LT	
Biocide	70
Scale	16

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



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

Invoice #: 22879
 Date: 8/12/2019
 Well Name: Bogges 5H
 Stage No.: 12

State: WV
 County: Monongahela
 Operator: Eck/Back
 PO/AFE: 100345-604

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	3,004.00	CWT	\$ 5.50	\$ 16,522.00
SAND 40/70	40/70 white	1,002.20	CWT	\$ 5.75	\$ 5,762.65
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	160	GAL	\$ 17.75	\$ 2,840.00
BIOC11219A	Biocide @ 0.25 GPT	70	GAL	\$ 16.00	\$ 1,120.00
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		200.31	TON	\$ 55.00	\$ 11,017.05
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 59,957.70
 25% Discount Applied \$ 14,989.43
 Net Stage Total \$ 44,968.28

(Print Name)
 Customer Rep:

E. Boone

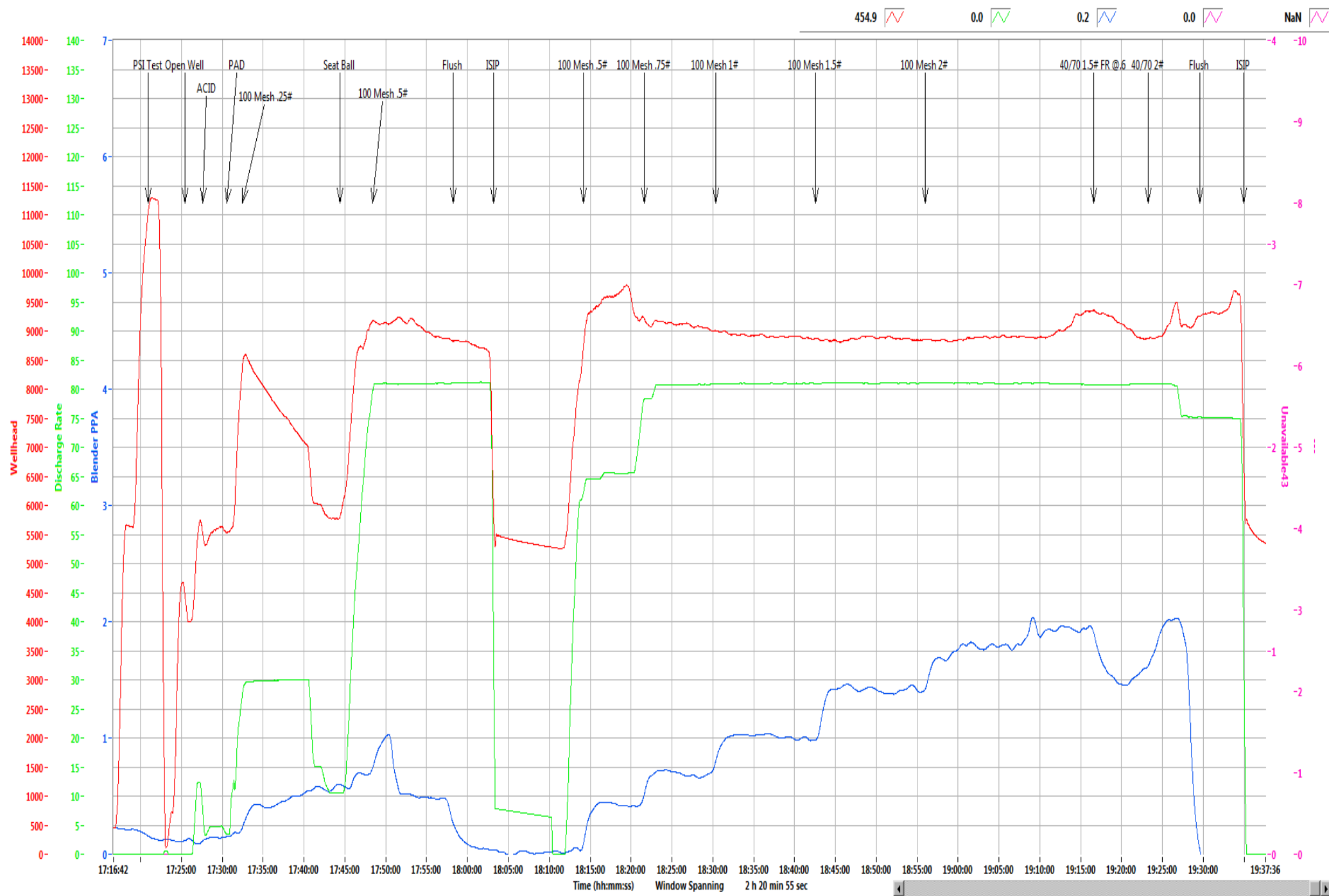
Customer Signature:

E. Boone



NNE
Boggess 5H
Stage 13
Producers Service Corp.

Post Stage Report
August 12, 2019



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Refresh Graph



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PSI Test
Open Well
ACID
PAD
100 Mesh .25#
Seat Ball
100 Mesh .5#
Flush
ISIP
100 Mesh .5#
100 Mesh .75#
100 Mesh 1#
100 Mesh 1.5#
100 Mesh 2#
40/70 1.5# FR @.6
40/70 2#
Flush
ISIP

BIO 2- Scale FR 2- Backup FR

17:16:42 17:25:00 17:30:00 17:35:00 17:40:00 17:45:00 17:50:00 17:55:00 18:00:00 18:05:00 18:10:00 18:15:00 18:20:00 18:25:00 18:30:00 18:35:00 18:40:00 18:45:00 18:50:00 18:55:00 19:00:00 19:05:00 19:10:00 19:15:00 19:20:00 19:25:00 19:30:00 19:37:36

Time (hh:mm:ss) Window Spanning 2 h 20 min 55 sec

Refresh Graph

Boggess Pad**5H**

Stage	13
Date:	8/12/19
OWP (psi):	4,001
Starting Time	5:25 PM
Ending Time	7:35 PM
Pump Time (hr:min)	02:10
Swap Time (hr:min)	01:50
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,108
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	9,042
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	9,881
Displacement (psi)	9,226
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,799
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)	7,888
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	541
Pad (bbls)	77
Treatment (bbls)	7,506
Displacement (bbls)	389
(Acid Included)Total Fluid (bbls)	7,936
Dirty Job Total (bbls)	8,210
100 Mesh	298,280
40/70	70,020
Total Proppant (lbs)	368,300
Total Proppant %	92.1%

CHEMICALS

FR 9800	175
DRB-LT	
Biocide	84
Scale	19

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



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

Invoice #: 22881
 Date: 8/12/2019
 Well Name: Bogges 5H
 Stage No.: 13

State: WV
 County: Monongahela
 Operator: Eck/Back
 PO/AFE: 100345-604

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	2,982.80	CWT	\$ 5.50	\$ 16,405.40
SAND 40/70	40/70 white	700.20	CWT	\$ 5.75	\$ 4,026.15
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	175	GAL	\$ 17.75	\$ 3,106.25
BIOC11219A	Biocide @ 0.25 GPT	84	GAL	\$ 16.00	\$ 1,344.00
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		184.15	TON	\$ 55.00	\$ 10,128.25
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -
				Total No Discount	\$ 57,754.05
				25% Discount Applied	\$ 14,438.51
				Net Stage Total	\$ 43,315.54

(Print Name)

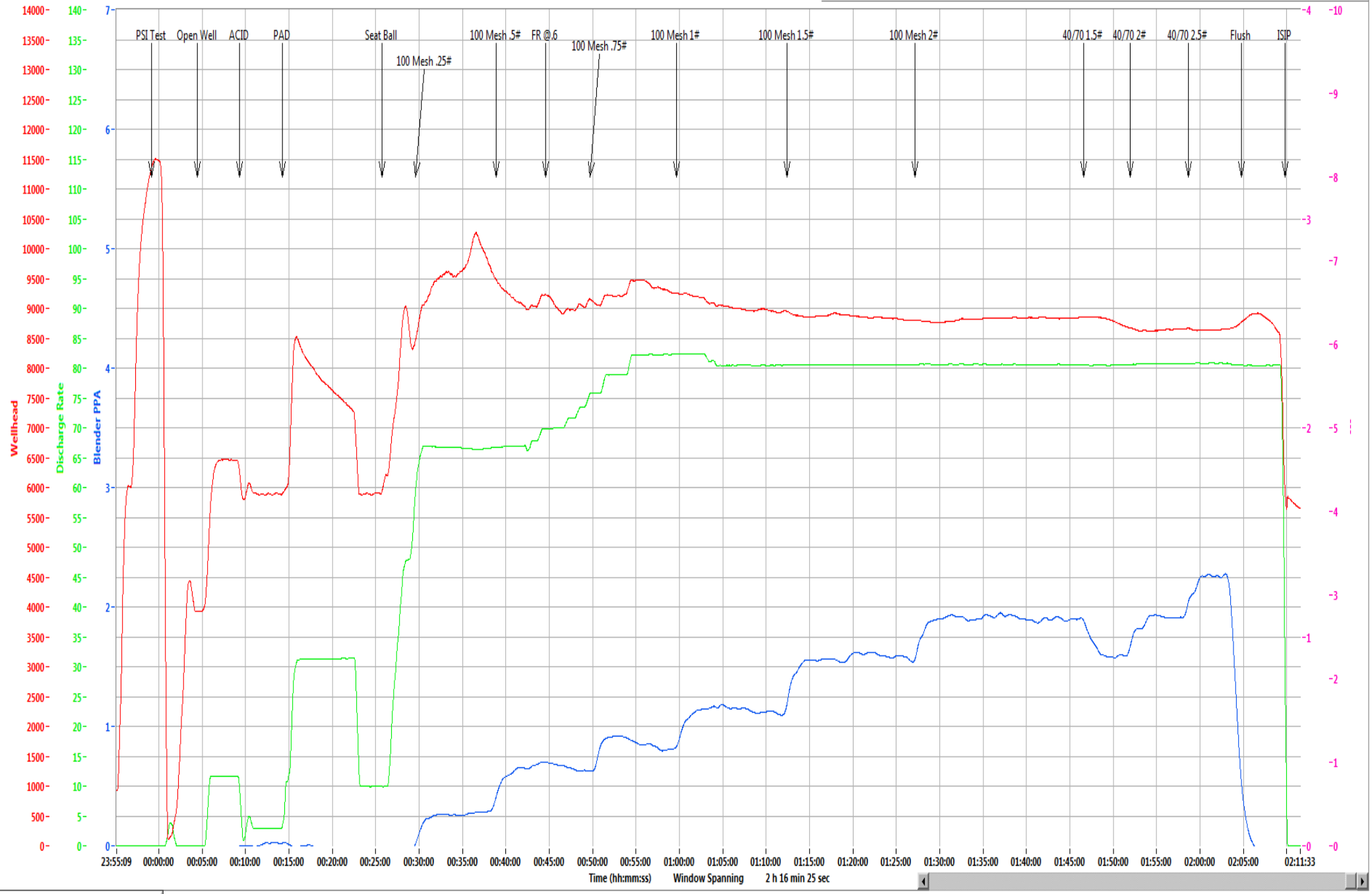
Customer Rep: Rob Cowger

Customer Signature: RA Cowger

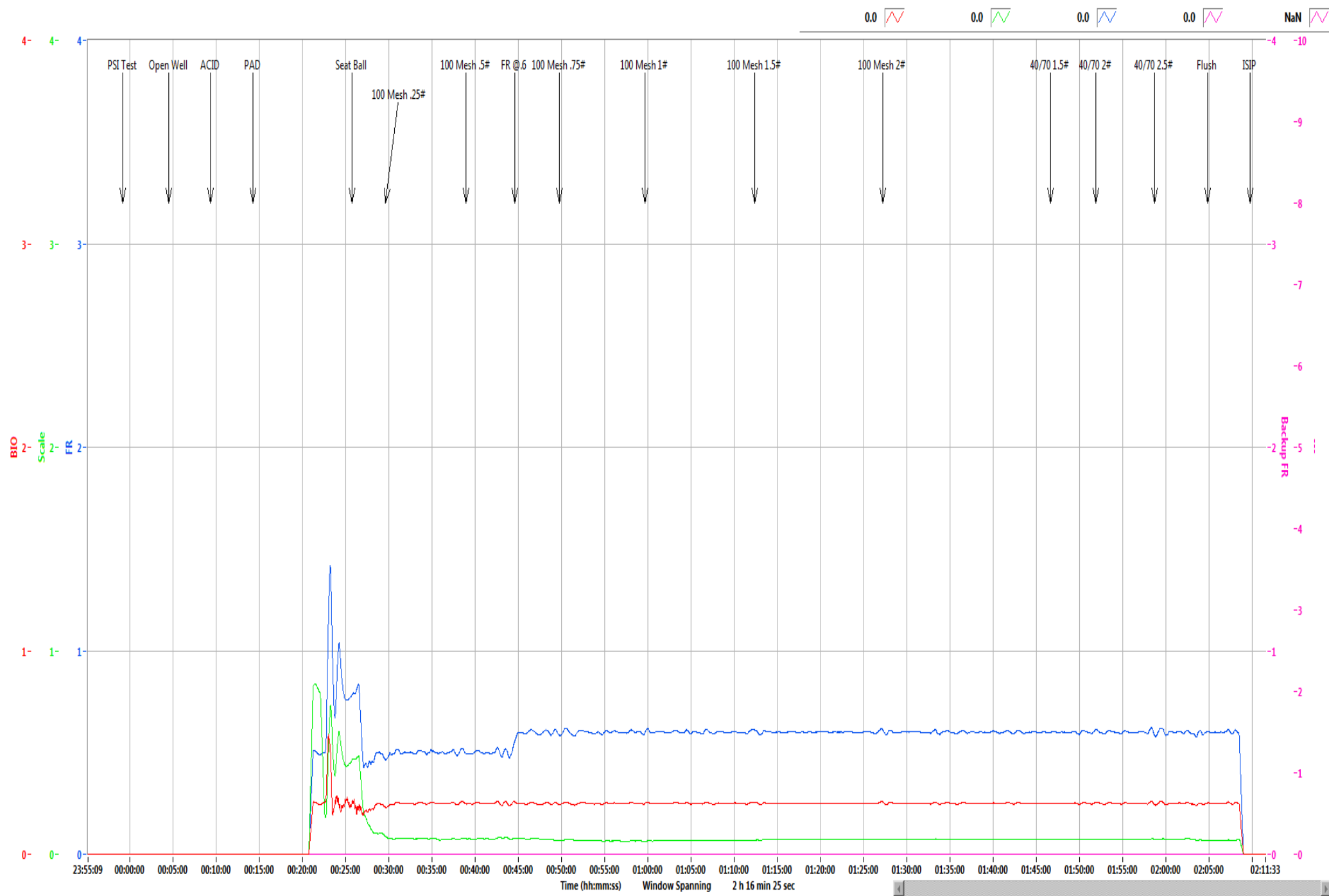


NNE
Boggess 5H
Stage 14
Producers Service Corp.

Post Stage Report
August 13, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	14
Date:	8/13/19
OWP (psi):	3,926
Starting Time	11:59 PM
Ending Time	2:09 AM
Pump Time (hr:min)	02:10
Swap Time (hr:min)	01:10
Starting # Pumps	16
Finishing # Pumps	14
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,234
Average Treating Rate (bbl/min)	78
Average Treating Pressure (psi)	8,992
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	10,365
Displacement (psi)	8,830
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,771
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)	7,924
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	458
Pad (bbls)	425
Treatment (bbls)	716
Displacement (bbls)	381
(Acid Included)Total Fluid (bbls)	7,972
Dirty Job Total (bbls)	8,293
100 Mesh	299,060
40/70	100,620
Total Proppant (lbs)	399,680
Total Proppant %	99.9%

CHEMICALS

FR 9800	195
DRB-LT	
Biocide	85
Scale	20

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



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

Invoice #: 22883
 Date: 8/13/2019
 Well Name: Bogges 5H
 Stage No.: 14

State: WV
 County: Monongahela
 Operator: Stetson/Jeremy M
 PO/AFE: 100345-604

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	2,990.60	CWT	\$ 5.50	\$ 16,448.30
SAND 40/70	40/70 white	1,006.20	CWT	\$ 5.75	\$ 5,785.85
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	195	GAL	\$ 17.75	\$ 3,461.25
BIOC11219A	Biocide @ 0.25 GPT	85	GAL	\$ 16.00	\$ 1,360.00
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		199.84	TON	\$ 55.00	\$ 10,991.20
DIESEL FUEL	Not eligible for discount	389	GAL	\$ 3.04	\$ 1,182.56

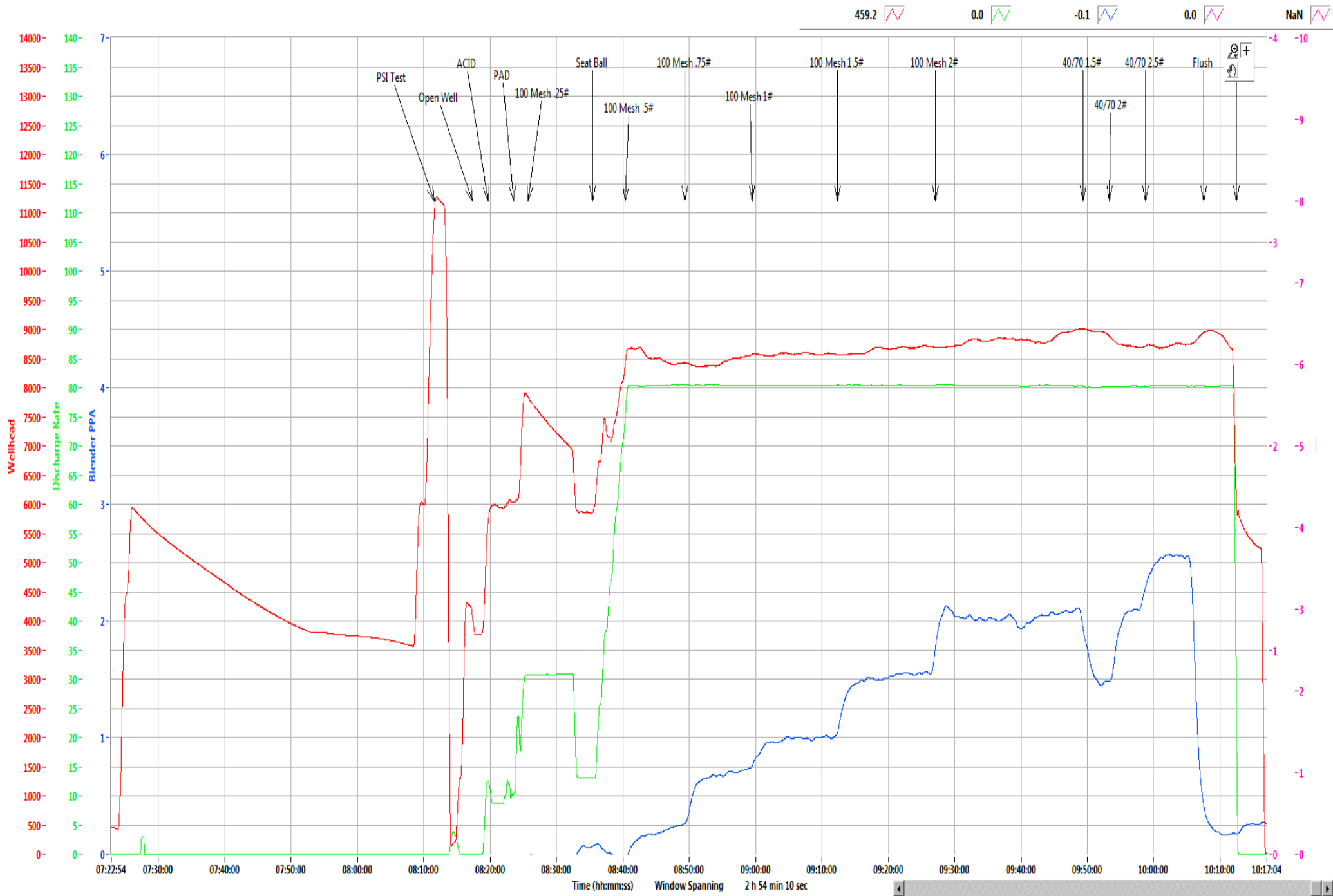
Total No Discount \$ 60,806.40
 25% Discount Applied \$ 15,201.60
 Net Stage Total \$ 46,787.36

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

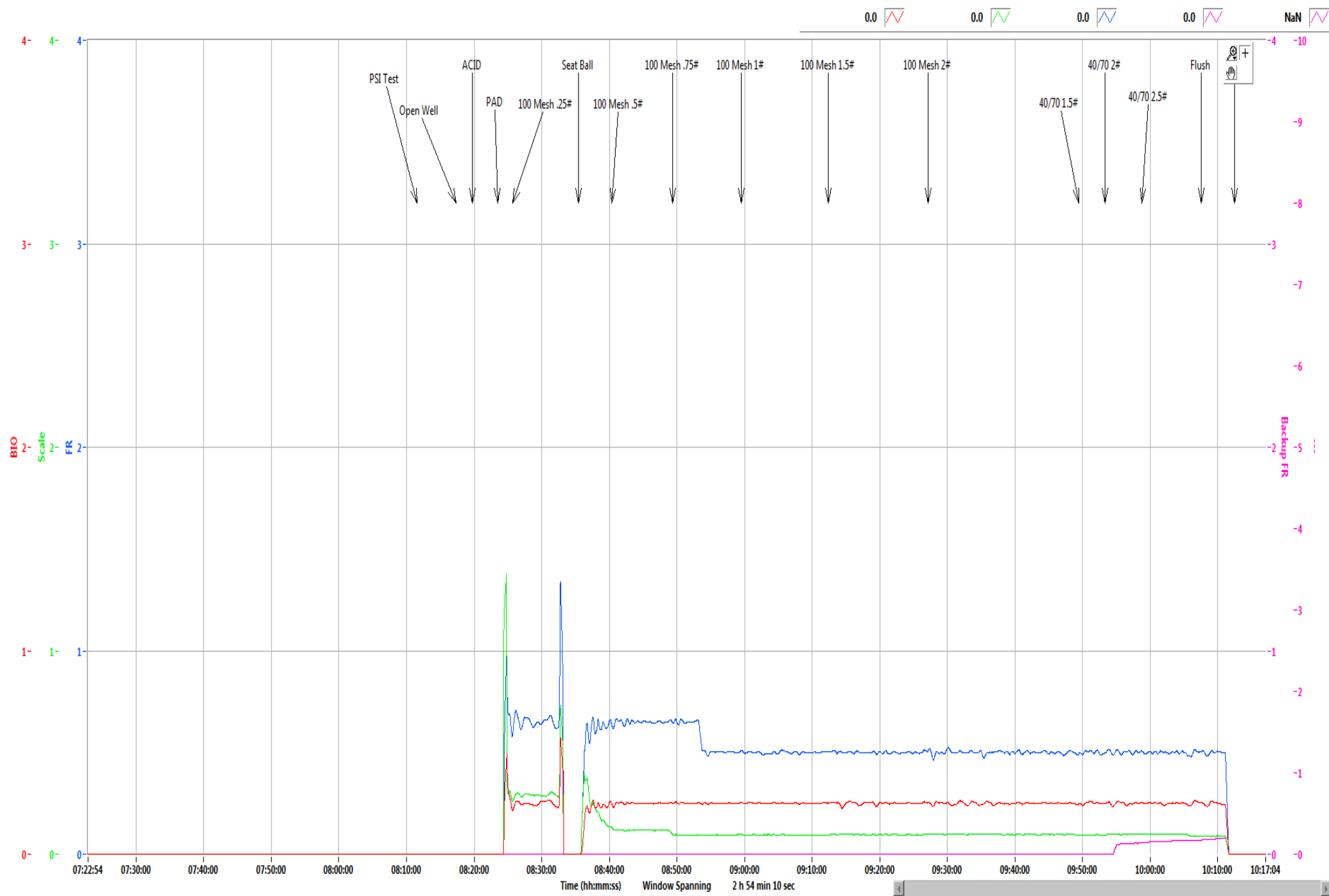


NNE
Boggess 5H
Stage 15
Producers Service Corp.

Post Stage Report
August 13, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	15
Date:	8/13/19
OWP (psi):	3,767
Starting Time	8:17 AM
Ending Time	10:12 AM
Pump Time (hr:min)	01:55
Swap Time (hr:min)	08:17
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,093
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,672
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	9,055
Displacement (psi)	8,960
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,667
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)	7,622
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	634
Pad (bbls)	120
Treatment (bbls)	7,172
Displacement (bbls)	374
(Acid Included)Total Fluid (bbls)	7,670
Dirty Job Total (bbls)	7,967
100 Mesh	300,980
40/70	101,840
Total Proppant (lbs)	402,820
Total Proppant %	100.7%

CHEMICALS

FR 9800	165
DRB-LT	
Biocide	83
Scale	20

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



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

Invoice #: 22885
 Date: 8/13/2019
 Well Name: Bogges 5H
 Stage No.: 15

State: WV
 County: Monongahela
 Operator: Jamie/Brad
 PO/AFE: 100345-604

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	3,009.80	CWT	\$ 5.50	\$ 16,553.90
SAND 40/70	40/70 white	1,018.40	CWT	\$ 5.75	\$ 5,855.80
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	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		201.41	TON	\$ 55.00	\$ 11,077.55
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 60,504.00
 25% Discount Applied \$ 15,126.00
 Net Stage Total \$ 45,378.00

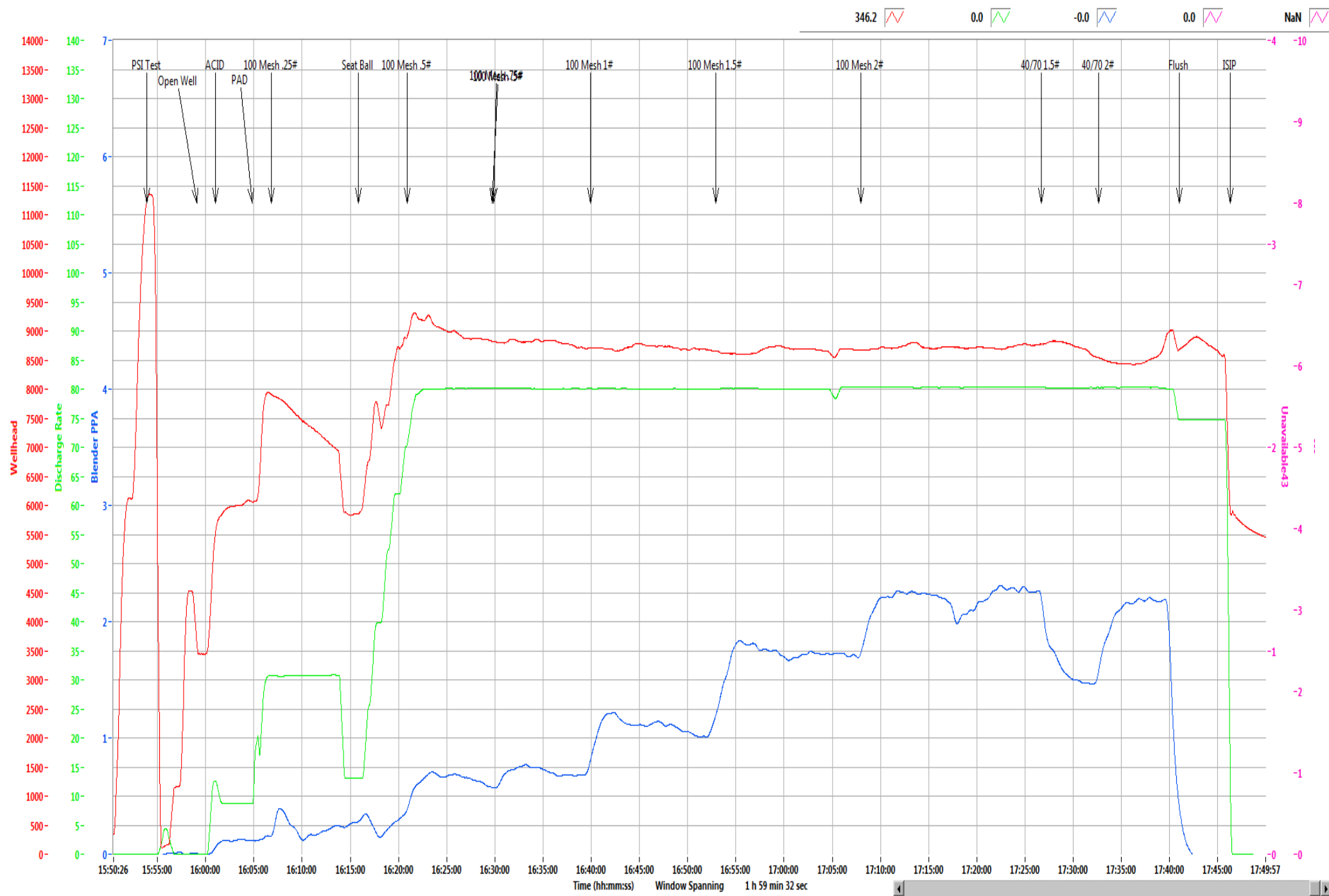
(Print Name) E. Boone
 Customer Rep: E. Boone

Customer Signature: *E. Boone*

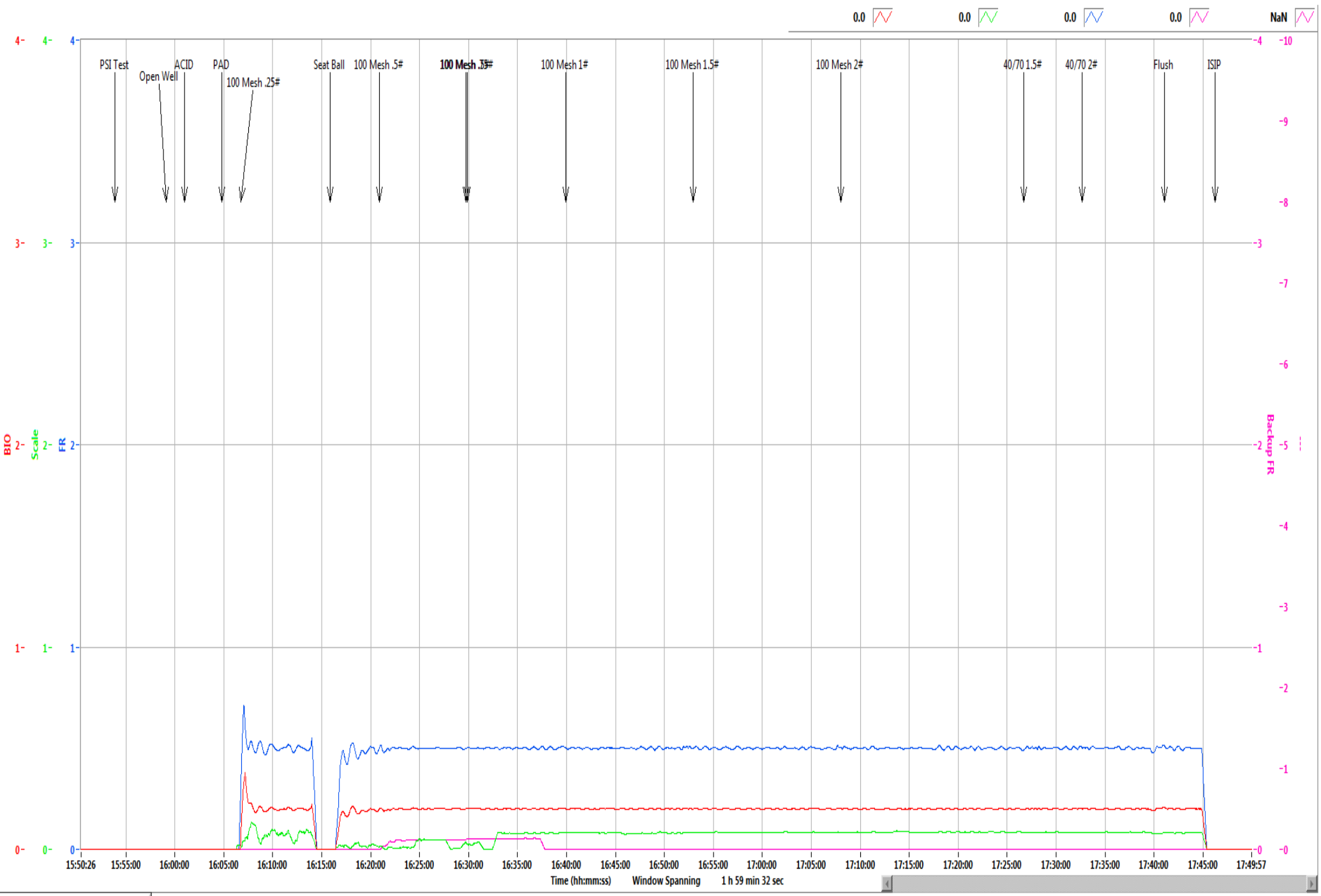


NNE
Boggess 5H
Stage 16
Producers Service Corp.

Post Stage Report
August 13, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	16
Date:	8/13/19
OWP (psi):	3,457
Starting Time	3:59 PM
Ending Time	5:46 PM
Pump Time (hr:min)	01:47
Swap Time (hr:min)	01:35
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	5,984
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,728
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	9,394
Displacement (psi)	8,690
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,729
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)	7,018
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	465
Pad (bbls)	112
Treatment (bbls)	6,638
Displacement (bbls)	369
(Acid Included)Total Fluid (bbls)	7,066
Dirty Job Total (bbls)	7,366
100 Mesh	300,240
40/70	80,060
Total Proppant (lbs)	380,300
Total Proppant %	95.1%

CHEMICALS

FR 9800	148
DRB-LT	
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 #: 22887
 Date: 8/13/2019
 Well Name: Bogges 5H
 Stage No.: 16

State: WV
 County: Monongahela
 Operator: Jamie/Brad
 PO/AFE: 100345-604

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	3,002.40	CWT	\$ 5.50	\$ 16,513.20
SAND 40/70	40/70 white	800.60	CWT	\$ 5.75	\$ 4,603.45
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	148	GAL	\$ 17.75	\$ 2,627.00
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		190.15	TON	\$ 55.00	\$ 10,458.25
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

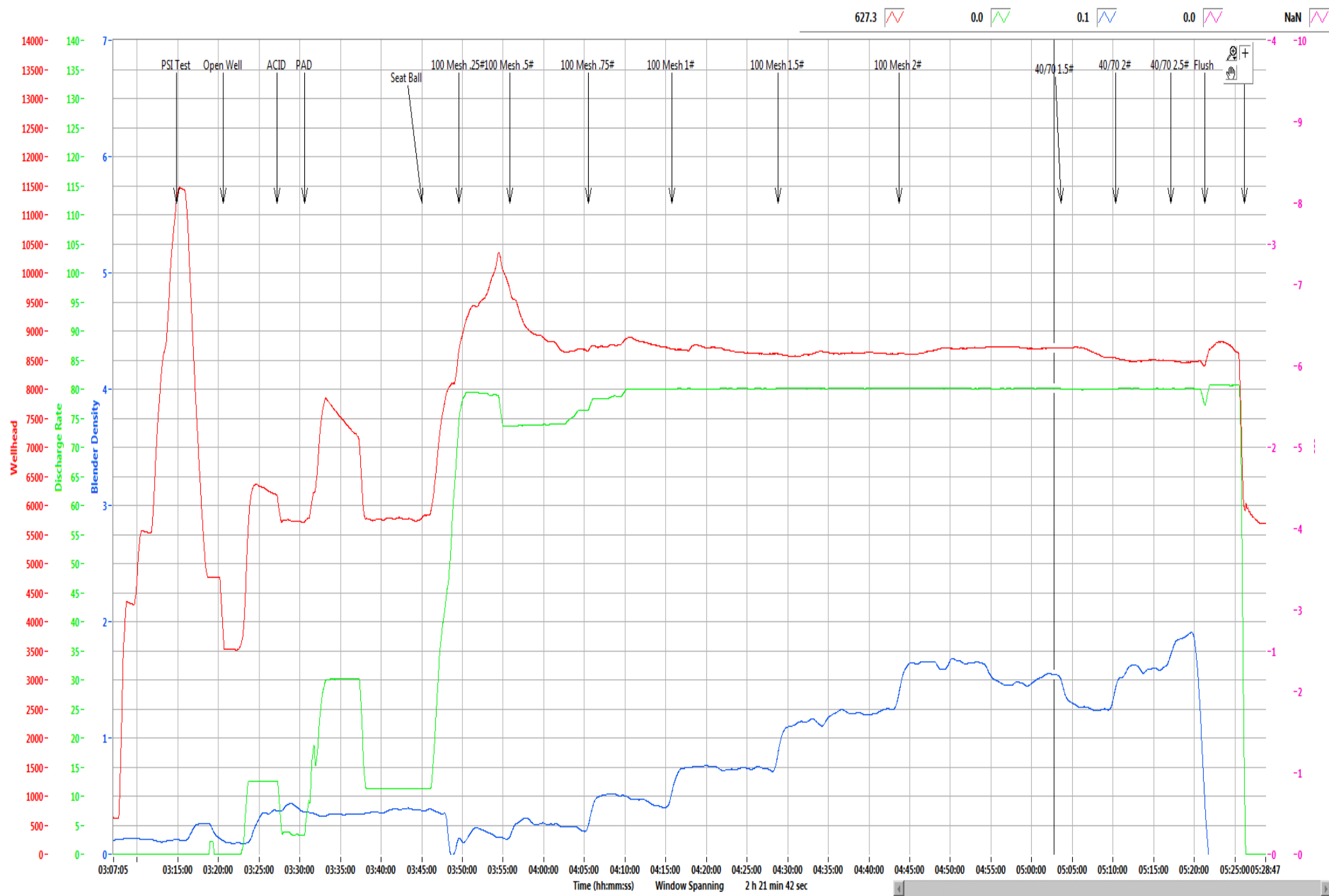
Total No Discount \$ 58,177.90
 25% Discount Applied \$ 14,544.48
 Net Stage Total \$ 43,633.43

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

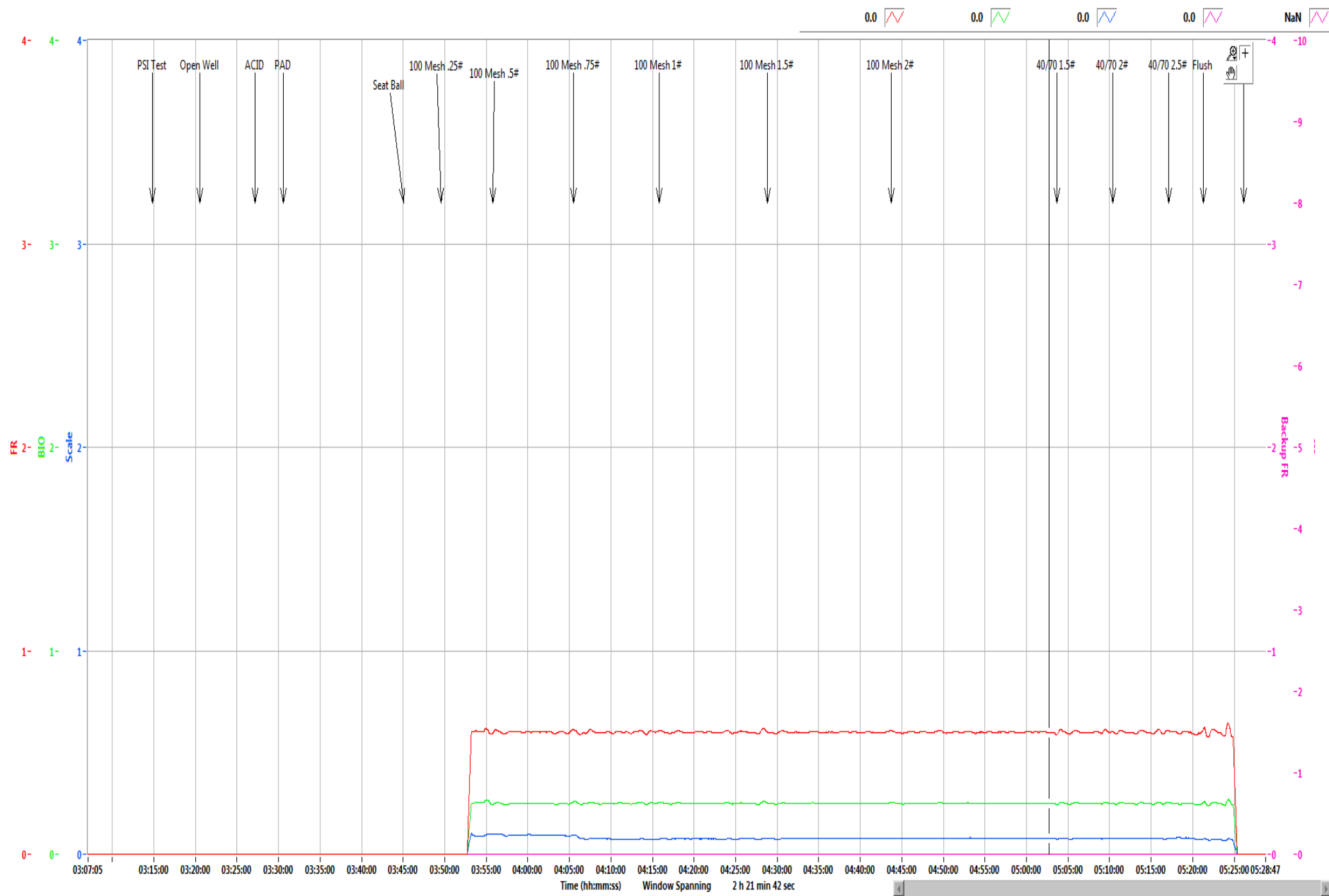


NNE
Bogges 5H
Stage 17
Producers Service Corp.

Post Stage Report
August 14, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	17
Date:	8/14/19
OWP (psi):	3,530
Starting Time	3:20 AM
Ending Time	5:26 AM
Pump Time (hr:min)	02:06
Swap Time (hr:min)	09:34
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	5,866
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,751
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	10,527
Displacement (psi)	8,409
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,072
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)	7,757
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	385
Pad (bbls)	523
Treatment (bbls)	6,915
Displacement (bbls)	361
(Acid Included)Total Fluid (bbls)	7,805
Dirty Job Total (bbls)	8,156
100 Mesh	299,760
40/70	100,140
Total Proppant (lbs)	399,900
Total Proppant %	100.0%

CHEMICALS

FR 9800	196
DRB-LT	
Biocide	81
Scale	17

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



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

Invoice #: 22888
 Date: 8/14/2019
 Well Name: Bogges 5H
 Stage No.: 17

State: WV
 County: Monongahela
 Operator: Stetson/Moon/Kelby
 PO/AFE: 100345-604

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	2,997.60	CWT	\$ 5.50	\$ 16,486.80
SAND 40/70	40/70 white	1,001.40	CWT	\$ 5.75	\$ 5,758.05
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	196	GAL	\$ 17.75	\$ 3,479.00
BIOC11219A	Biocide @ 0.25 GPT	81	GAL	\$ 16.00	\$ 1,296.00
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		199.95	TON	\$ 55.00	\$ 10,997.25
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 60,729.10
 25% Discount Applied \$ 15,182.28
 Net Stage Total \$ 45,546.83

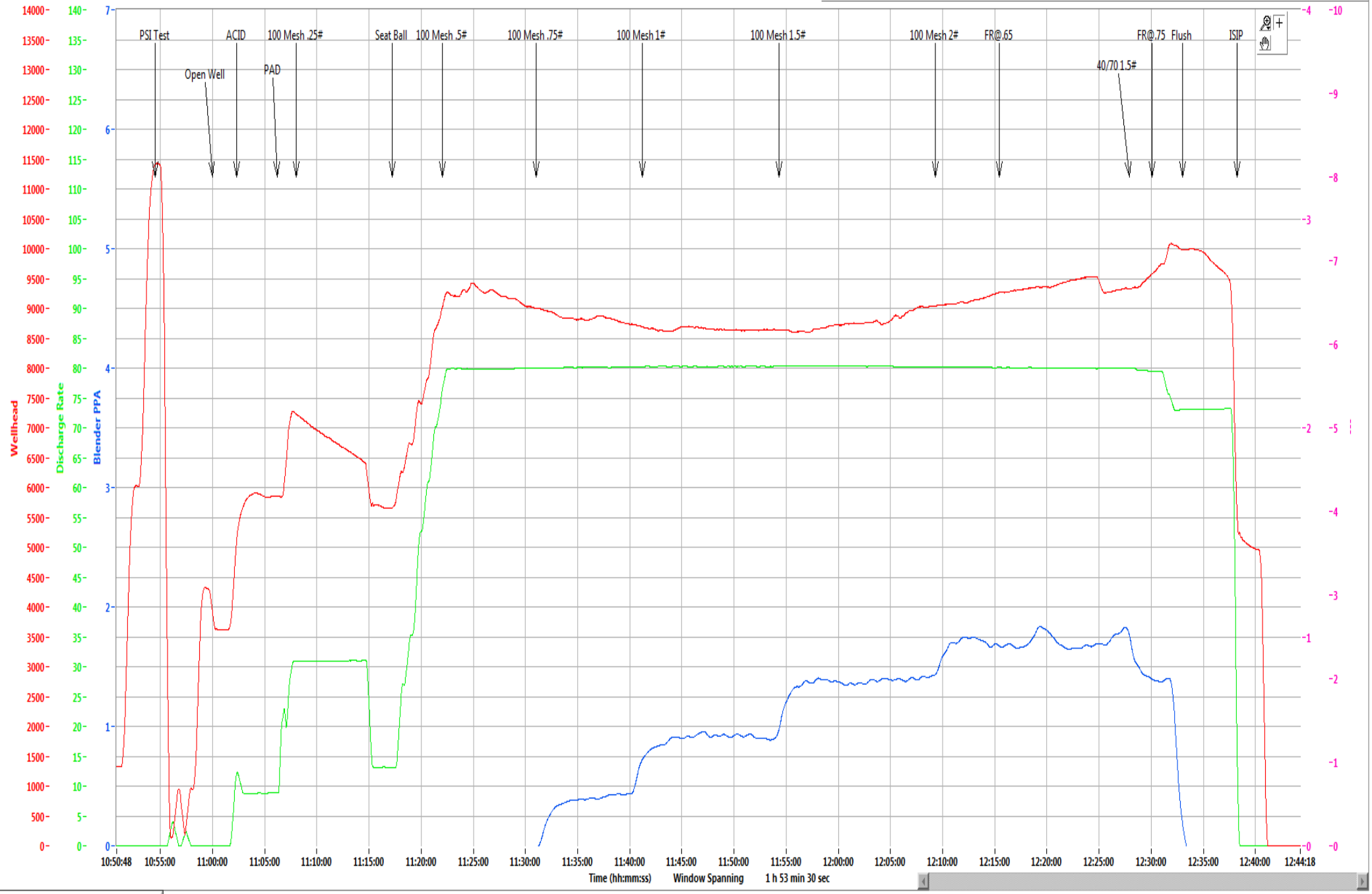
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NNE
Boggess 5H
Stage 18
Producers Service Corp.

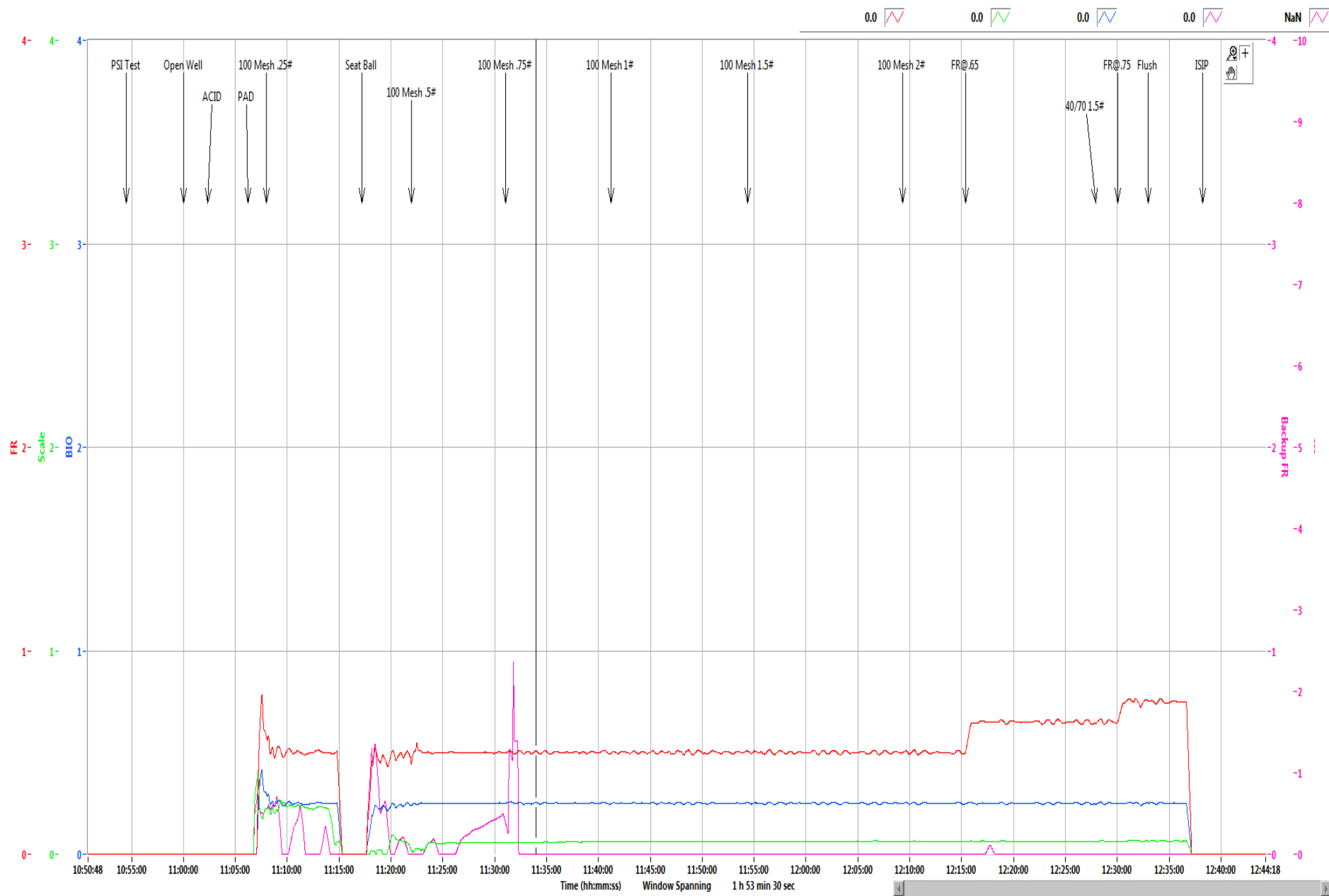
Post Stage Report
August 14, 2019

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Time (hh:mm:ss) Window Spanning 1 h 53 min 30 sec

Refresh Graph



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FR 2-
Scale 2-
BIO 2-

Backup FR

Refresh Graph

Boggess Pad**5H**

Stage	18
Date:	8/14/19
OWP (psi):	3,629
Starting Time	10:59 AM
Ending Time	12:38 PM
Pump Time (hr:min)	01:39
Swap Time (hr:min)	05:33
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	5,777
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	9,056
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	10,151
Displacement (psi)	9,988
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,130
Final FG (psi/ft)	1.07
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)	6,313
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	
Pad (bbls)	106
Treatment (bbls)	5,889
Displacement (bbls)	361
(Acid Included)Total Fluid (bbls)	6,361
Dirty Job Total (bbls)	6,606
100 Mesh	300,280
40/70	25,560
Total Proppant (lbs)	325,840
Total Proppant %	81.5%

CHEMICALS

FR 9800	139
DRB-LT	
Biocide	65
Scale	15

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



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

Invoice #: 22889
 Date: 8/14/2019
 Well Name: Bogges 5H
 Stage No.: 18

State: WV
 County: Monongahela
 Operator: Jamie/Brad/Mark
 PO/AFE: 100345-604

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	3,002.80	CWT	\$ 5.50	\$ 16,515.40
SAND 40/70	40/70 white	255.60	CWT	\$ 5.75	\$ 1,469.70
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	139	GAL	\$ 17.75	\$ 2,467.25
BIOC11219A	Biocide @ 0.25 GPT	65	GAL	\$ 16.00	\$ 1,040.00
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		162.92	TON	\$ 55.00	\$ 8,960.60
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 53,132.95
 25% Discount Applied \$ 13,283.24
 Net Stage Total \$ 39,849.71

(Print Name)
 Customer Rep:

E. Boone

Customer Signature:

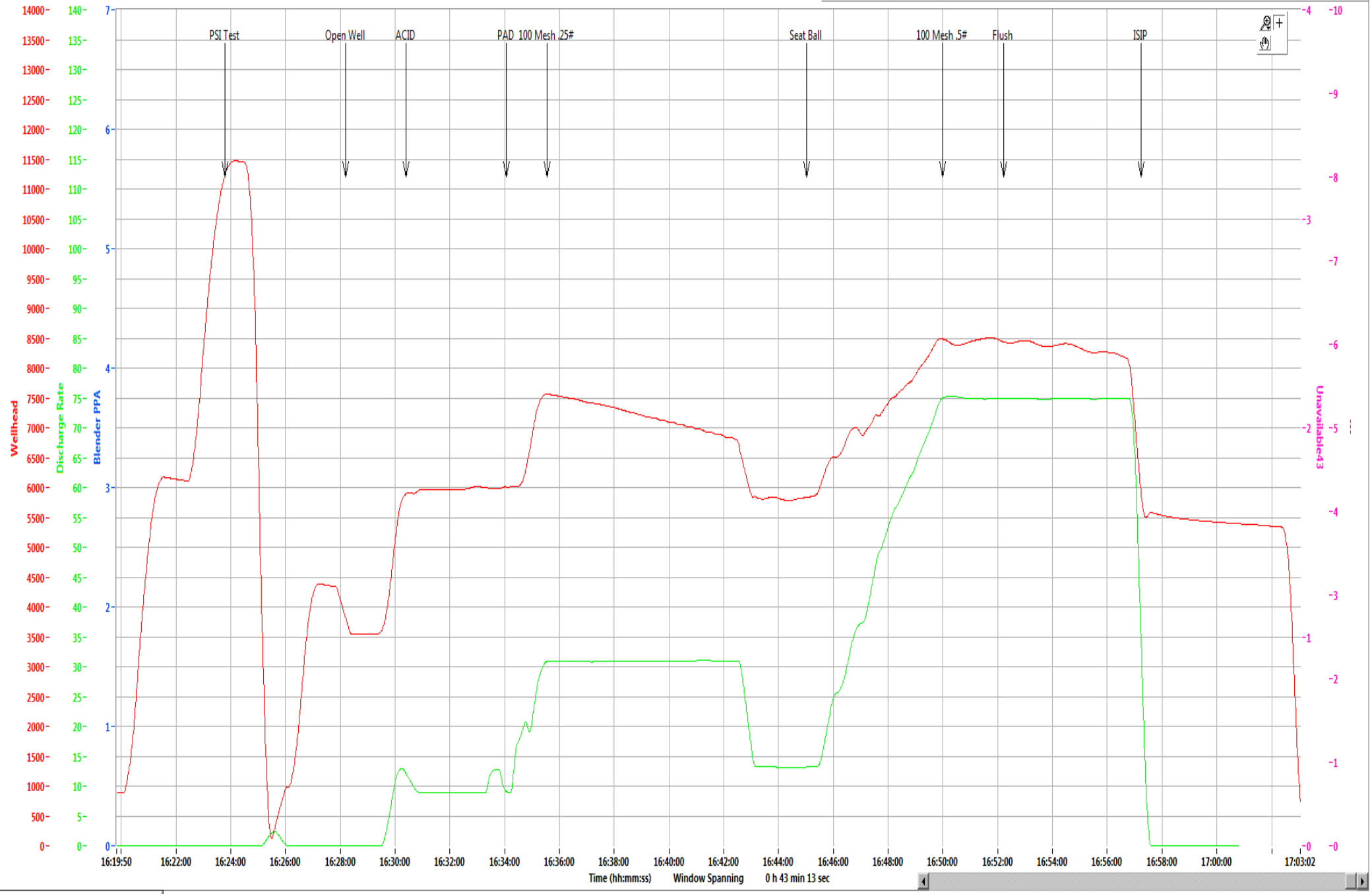
E. Boone



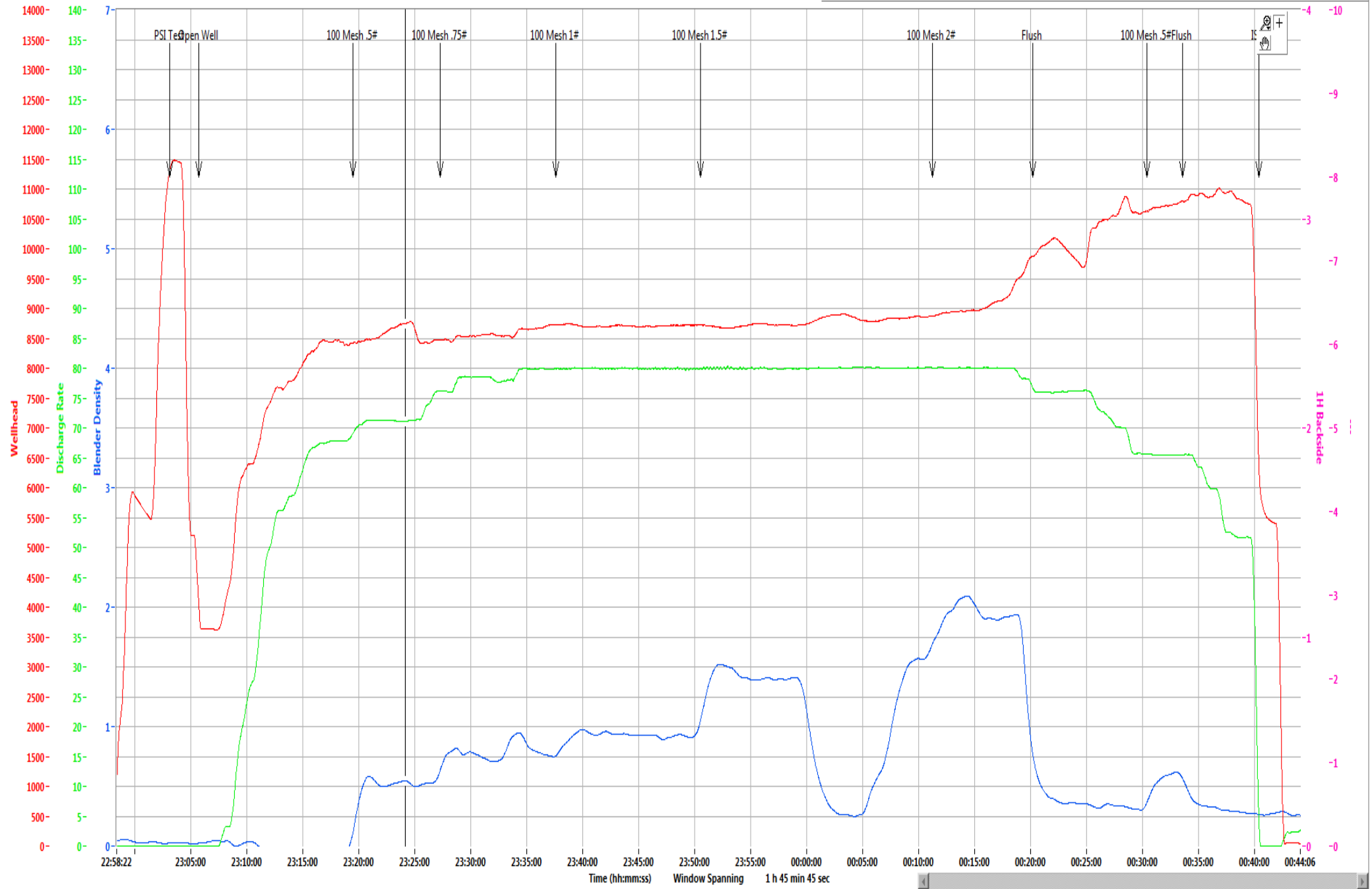
NNE
Bogges 5H
Stage 19
Producers Service Corp.

Post Stage Report
August 15, 2019

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Refresh Graph



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Boggess Pad**5H**

Stage	19
Date:	8/14/19
OWP (psi):	3,545
Starting Time	4:28 PM
Ending Time	12:40 AM
Pump Time (hr:min)	08:12
Swap Time (hr:min)	03:50
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	5,907
Average Treating Rate (bbl/min)	77
Average Treating Pressure (psi)	9,080
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	11,077
Displacement (psi)	10,817
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,775
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)	7,566
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	424
Pad (bbls)	98
Treatment (bbls)	7,499
Displacement (bbls)	352
(Acid Included)Total Fluid (bbls)	7,614
Dirty Job Total (bbls)	7,778
100 Mesh	199,920
40/70	
Total Proppant (lbs)	199,920
Total Proppant %	50.0%

CHEMICALS

FR 9800	171
DRB-LT	
Biocide	80
Scale	18

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



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

Invoice #: 22890
 Date: 8/15/2019
 Well Name: Bogges 5H
 Stage No.: 19

State: WV
 County: Monongahela
 Operator: Stetson/Moon/Kelby
 PO/AFE: 100345-604

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	1,999.20	CWT	\$ 5.50	\$ 10,995.60
SAND 40/70	40/70 white	0.00	CWT	\$ 5.75	\$ -
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	171	GAL	\$ 17.75	\$ 3,035.25
BIOC11219A	Biocide @ 0.25 GPT	80	GAL	\$ 16.00	\$ 1,280.00
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		99.96	TON	\$ 55.00	\$ 5,497.80
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 43,536.65
 25% Discount Applied \$ 10,884.16
 Net Stage Total \$ 32,652.49

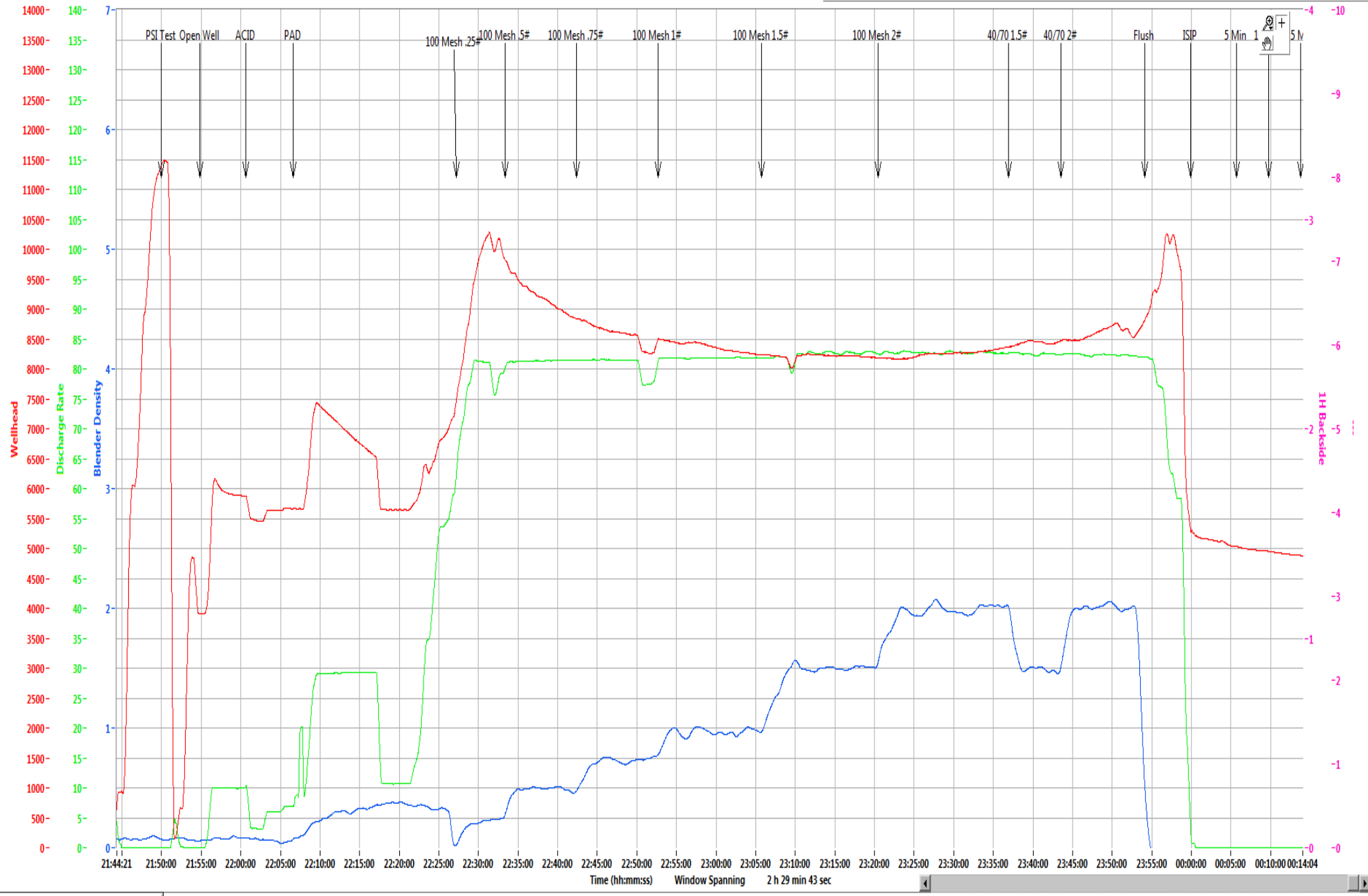
(Print Name) Rob Cowger Customer Rep: Rob Cowger Customer Signature: [Signature]



NNE
Boggess 5H
Stage 20
Producers Service Corp.

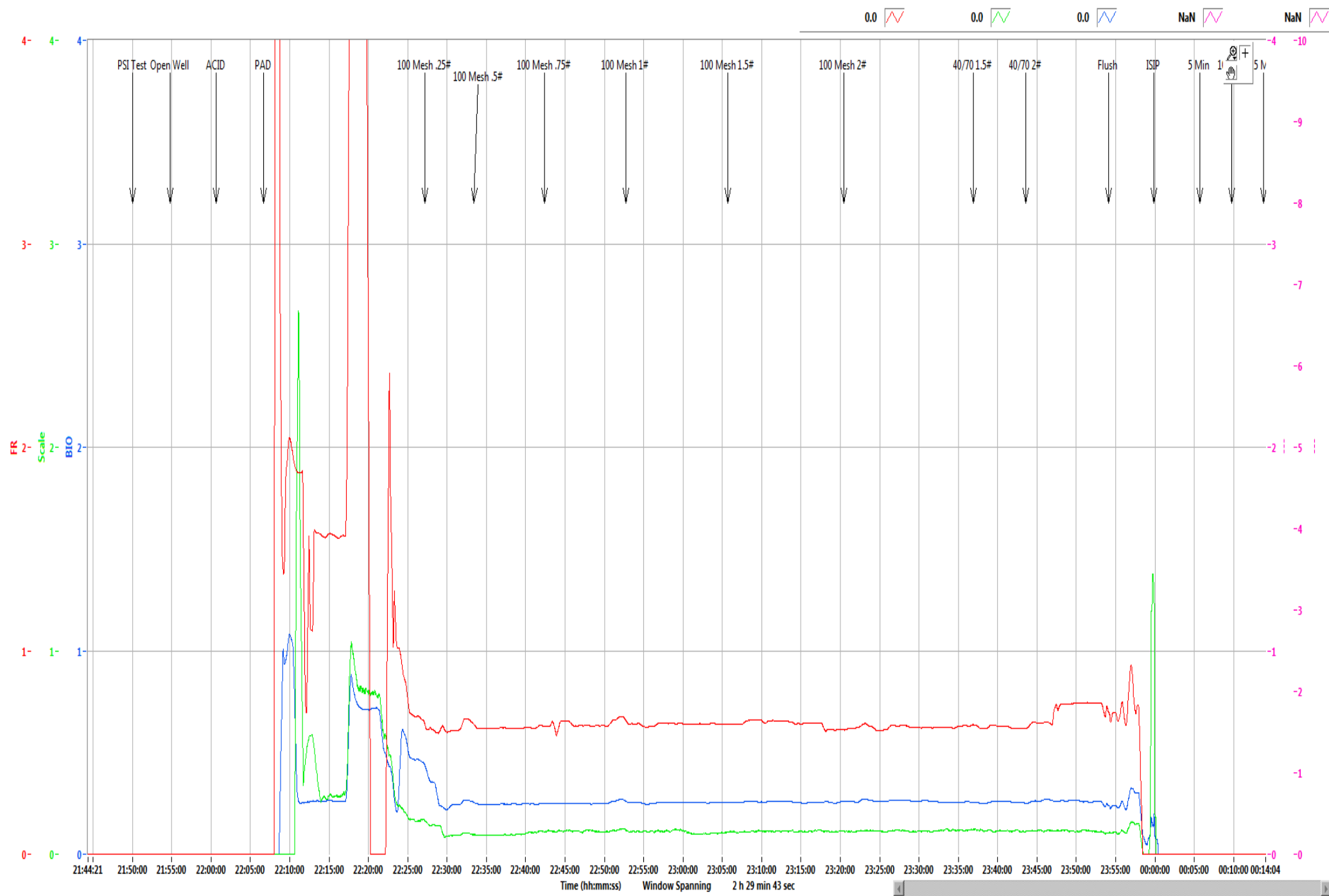
Post Stage Report
August 16, 2019

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Boggess Pad**5H**

Stage	20
Date:	8/15/19
OWP (psi):	3,905
Starting Time	9:54 PM
Ending Time	11:59 PM
Pump Time (hr:min)	02:05
Swap Time (hr:min)	06:48
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,557
Average Treating Rate (bbl/min)	82
Average Treating Pressure (psi)	8,548
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	10,369
Displacement (psi)	8,847
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,340
Final FG (psi/ft)	1.10
5 Minute Leakoff Pressure (psi)	5,032
5 Minute Leakoff Rate (psi/min)	62
10 Minute Leakoff Pressure (psi)	4,948
10 Minute Leakoff Rate (psi/min)	39
15 Minute Leakoff Pressure (psi)	4,878
15 Minute Leakoff Rate (psi/min)	31

Fluids & Proppant

Slickwater (bbls)	7,546
Acid 7.5% HCL (gal)	4,600
Wireline Pump Down (bbls)	490
Pad (bbls)	634
Treatment (bbls)	6,669
Displacement (bbls)	348
(Acid Included)Total Fluid (bbls)	7,656
Dirty Job Total (bbls)	8,090
100 Mesh	300,340
40/70	104,120
Total Proppant (lbs)	404,460
Total Proppant %	101.1%

CHEMICALS

FR 9800	195
DRB-LT	
Biocide	79
Scale	16

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



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

Invoice #: 22893
 Date: 8/16/2019
 Well Name: Bogges 5H
 Stage No.: 20

State: WV
 County: Monongahela
 Operator: Tilton/Kelby
 PO/AFE: 100345-604

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	4600	GAL	\$ 1.25	\$ 5,750.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	9.2	GAL	\$ 35.00	\$ 322.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	3,003.40	CWT	\$ 5.50	\$ 16,518.70
SAND 40/70	40/70 white	1,041.20	CWT	\$ 5.75	\$ 5,986.90
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	195	GAL	\$ 17.75	\$ 3,461.25
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		202.23	TON	\$ 55.00	\$ 11,122.65
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

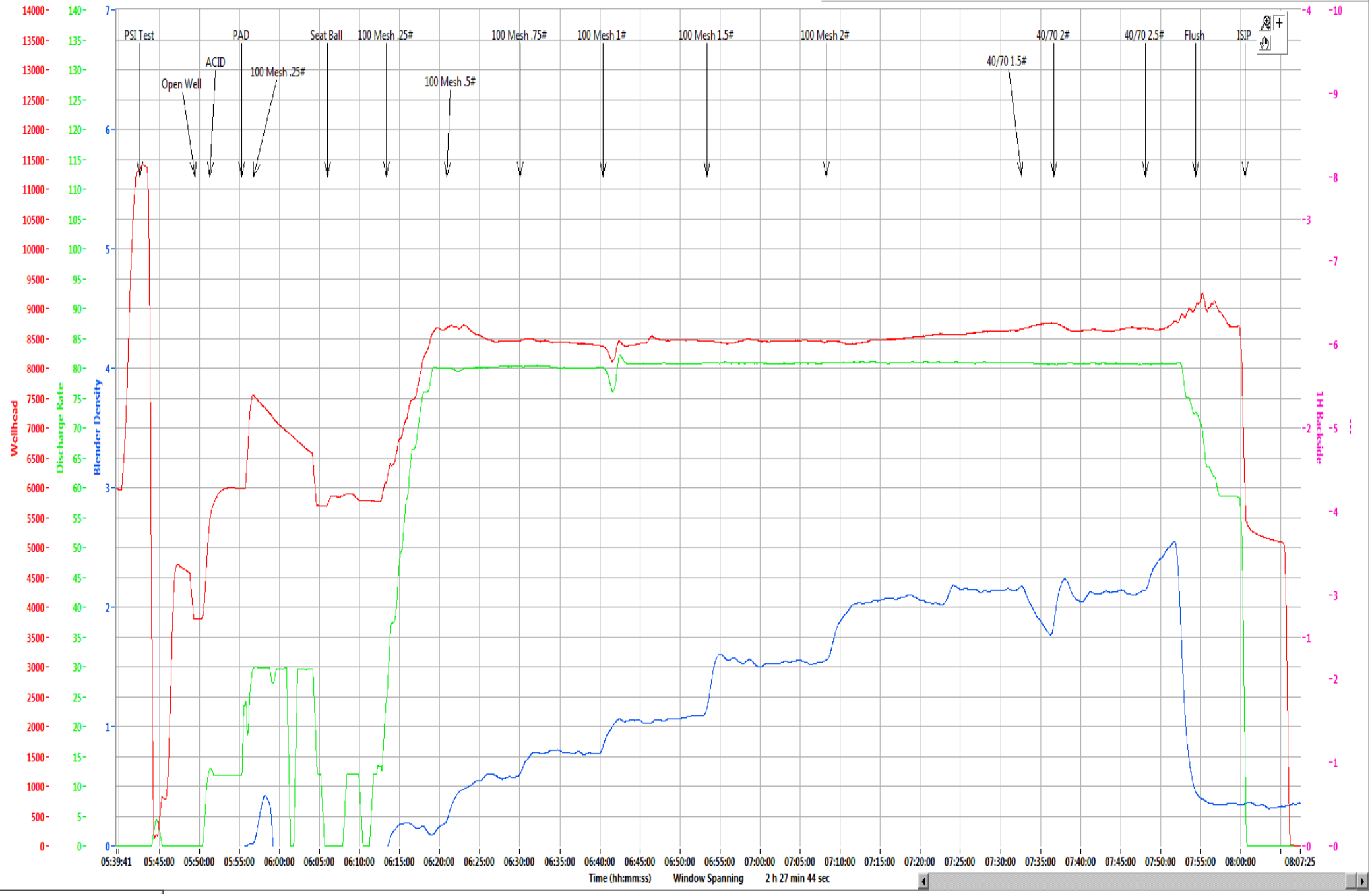
Total No Discount \$ 64,461.50
 25% Discount Applied \$ 16,120.38
 Net Stage Total \$ 48,361.13

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



NNE
Boggess 5H
Stage 21
Producers Service Corp.

Post Stage Report
August 16, 2019



Time (hh:mm:ss) Window Spanning 2 h 27 min 44 sec

Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	21
Date:	8/16/19
OWP (psi):	3,798
Starting Time	5:42 AM
Ending Time	8:00 AM
Pump Time (hr:min)	02:18
Swap Time (hr:min)	01:17
Starting # Pumps	17
Finishing # Pumps	15
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	5,880
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,524
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	9,065
Displacement (psi)	9,150
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,262
Final FG (psi/ft)	1.09
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)	8,244
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	362
Pad (bbls)	95
Treatment (bbls)	7,849
Displacement (bbls)	348
(Acid Included)Total Fluid (bbls)	8,292
Dirty Job Total (bbls)	8,729
100 Mesh	300,060
40/70	100,100
Total Proppant (lbs)	400,160
Total Proppant %	100.0%

CHEMICALS

FR 9800	201
DRB-LT	
Biocide	122
Scale	31

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



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

Invoice #: 22895
 Date: 8/16/2019
 Well Name: Bogges 5H
 Stage No.: 21

State: WV
 County: Monongahela
 Operator: Eck/Dunn/Joe
 PO/AFE: 100345-604

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	3,000.60	CWT	\$ 5.50	\$ 16,503.30
SAND 40/70	40/70 white	1,001.00	CWT	\$ 5.75	\$ 5,755.75
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	201	GAL	\$ 17.75	\$ 3,567.75
BIOC11219A	Biocide @ 0.25 GPT	122	GAL	\$ 16.00	\$ 1,952.00
SCAL16846A	Scale Control @ 0.05 GPT	31	GAL	\$ 16.00	\$ 496.00
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		200.08	TON	\$ 55.00	\$ 11,004.40
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 61,719.20
 25% Discount Applied \$ 15,429.80
 Net Stage Total \$ 46,289.40

(Print Name)
 Customer Rep:

E. Boone

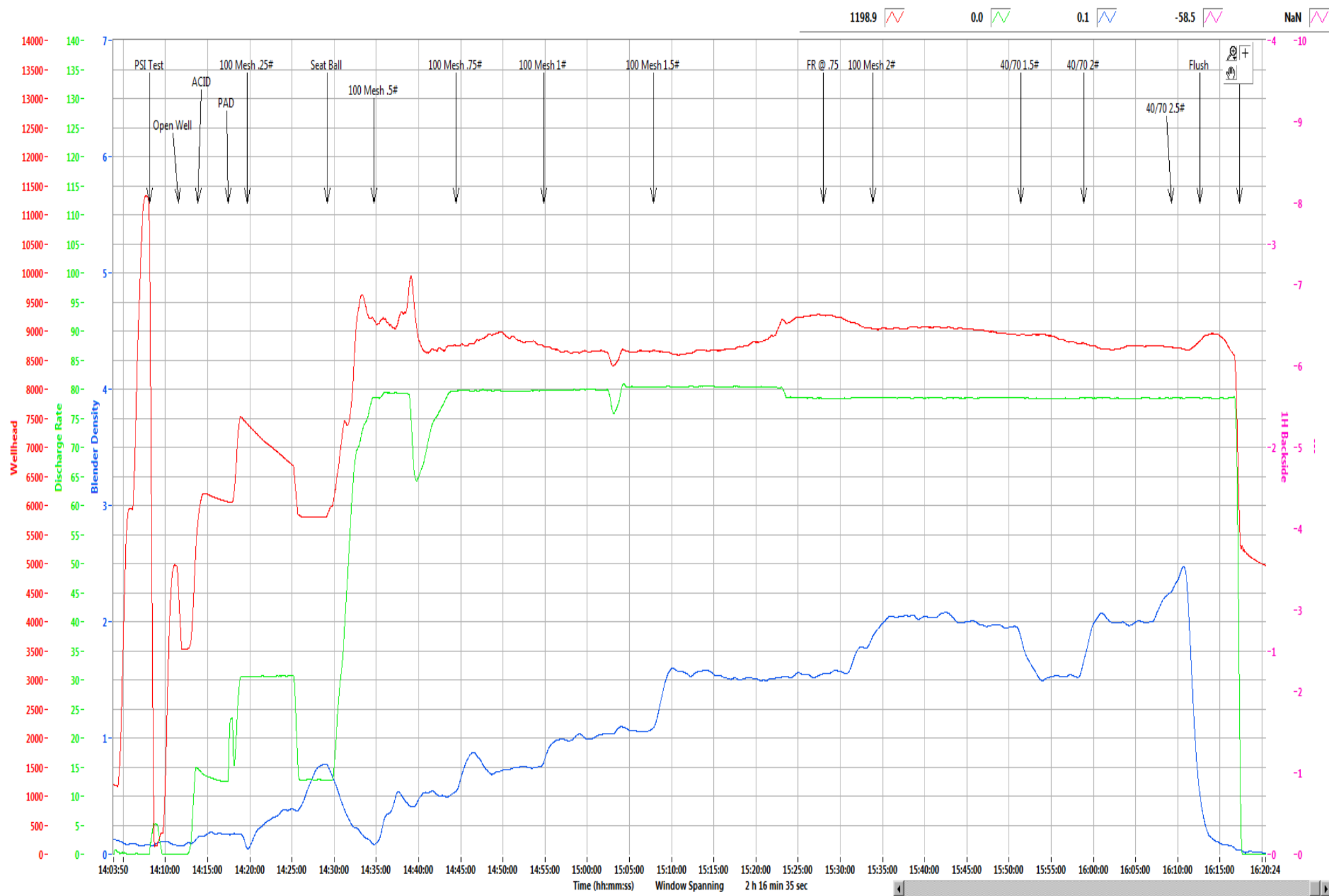
Customer Signature:

E. Boone



NNE
Boggess 5H
Stage 22
Producers Service Corp.

Post Stage Report
August 16, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	22
Date:	8/16/19
OWP (psi):	3,521
Starting Time	2:11 PM
Ending Time	4:17 PM
Pump Time (hr:min)	02:06
Swap Time (hr:min)	02:08
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,458
Average Treating Rate (bbl/min)	78
Average Treating Pressure (psi)	8,873
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	10,302
Displacement (psi)	8,846
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)	8,207
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	395
Pad (bbls)	118
Treatment (bbls)	7,792
Displacement (bbls)	340
(Acid Included)Total Fluid (bbls)	8,255
Dirty Job Total (bbls)	8,692
100 Mesh	300,200
40/70	99,520
Total Proppant (lbs)	399,720
Total Proppant %	99.9%

CHEMICALS

FR 9800	246
DRB-LT	
Biocide	94
Scale	32

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



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

Invoice #: 22897
 Date: 8/16/2019
 Well Name: Bogges 5H
 Stage No.: 22

State: WV
 County: Monongahela
 Operator: Eck/Dunn/Joel
 PO/AFE: 100345-604

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	3,002.00	CWT	\$ 5.50	\$ 16,511.00
SAND 40/70	40/70 white	995.20	CWT	\$ 5.75	\$ 5,722.40
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	246	GAL	\$ 17.75	\$ 4,366.50
BIOC11219A	Biocide @ 0.25 GPT	94	GAL	\$ 16.00	\$ 1,504.00
SCAL16846A	Scale Control @ 0.05 GPT	32	GAL	\$ 16.00	\$ 512.00
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		199.86	TON	\$ 55.00	\$ 10,992.30
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 62,048.20
 25% Discount Applied \$ 15,512.05
 Net Stage Total \$ 46,536.15

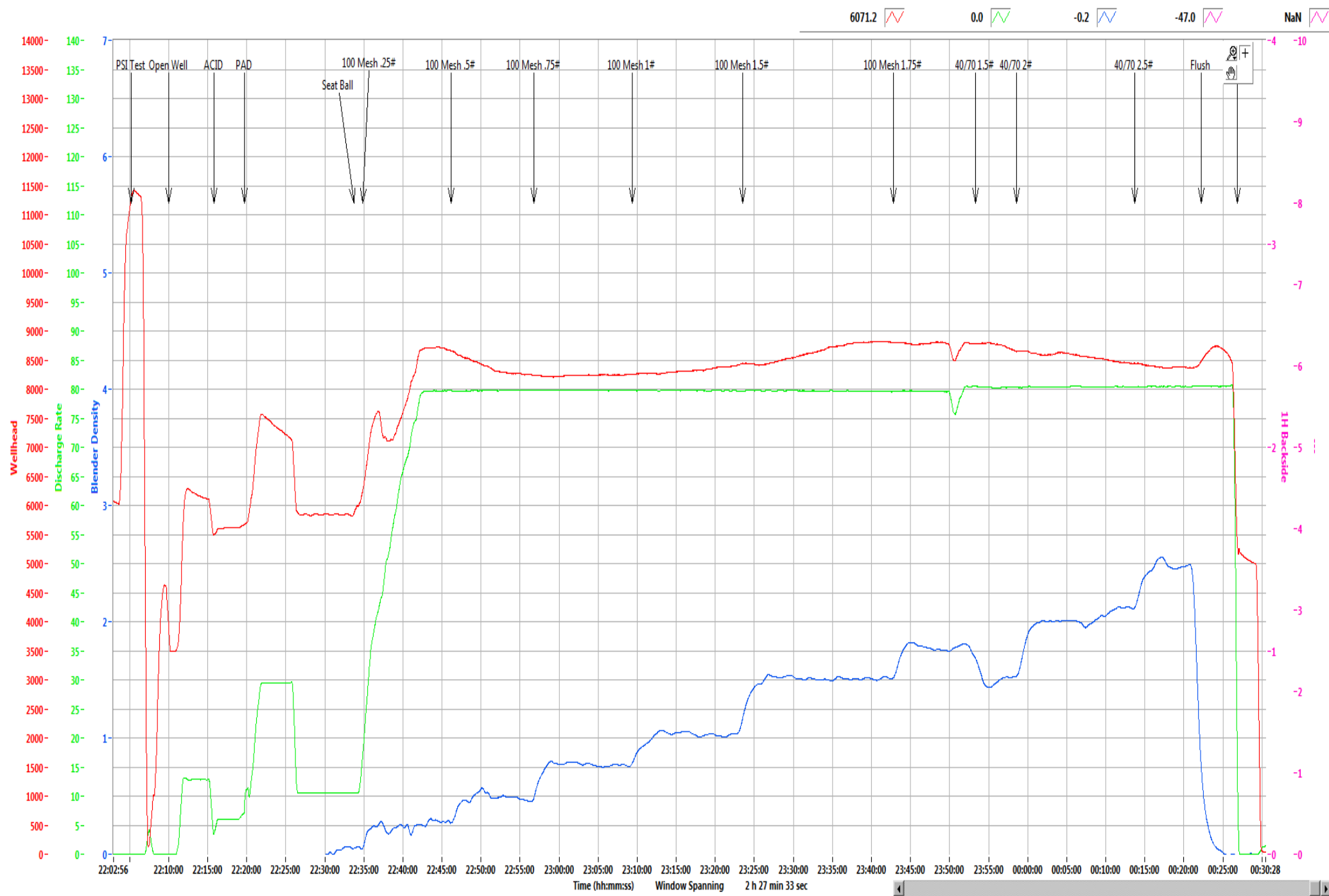
(Print Name)
 Customer Rep: E. Deane

Customer Signature: [Signature]



NNE
Boggess 5H
Stage 23
Producers Service Corp.

Post Stage Report
August 17, 2019



Refresh Graph

Time (hh:mm:ss) Window Spanning 2 h 27 min 33 sec



Refresh Graph

Boggess Pad**5H**

Stage	23
Date:	8/16/19
OWP (psi):	3,494
Starting Time	10:10 PM
Ending Time	12:26 AM
Pump Time (hr:min)	02:16
Swap Time (hr:min)	01:09
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,006
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,453
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	8,878
Displacement (psi)	8,517
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,330
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)	9,027
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	348
Pad (bbls)	339
Treatment (bbls)	8,002
Displacement (bbls)	338
(Acid Included)Total Fluid (bbls)	9,075
Dirty Job Total (bbls)	8,684
100 Mesh	240,000
40/70	159,840
Total Proppant (lbs)	399,840
Total Proppant %	100.0%

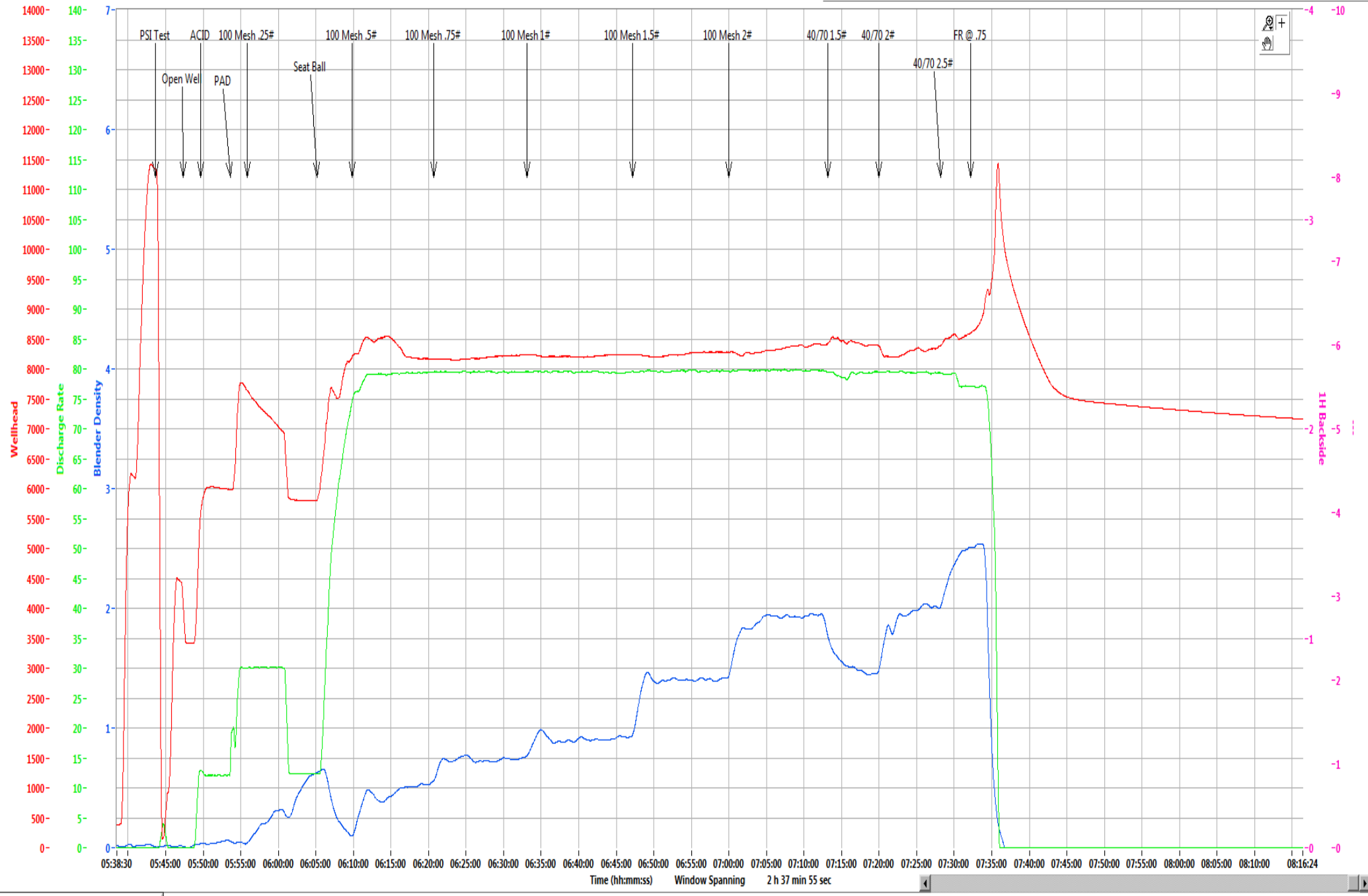
CHEMICALS

FR 9800	237
DRB-LT	
Biocide	91
Scale	18

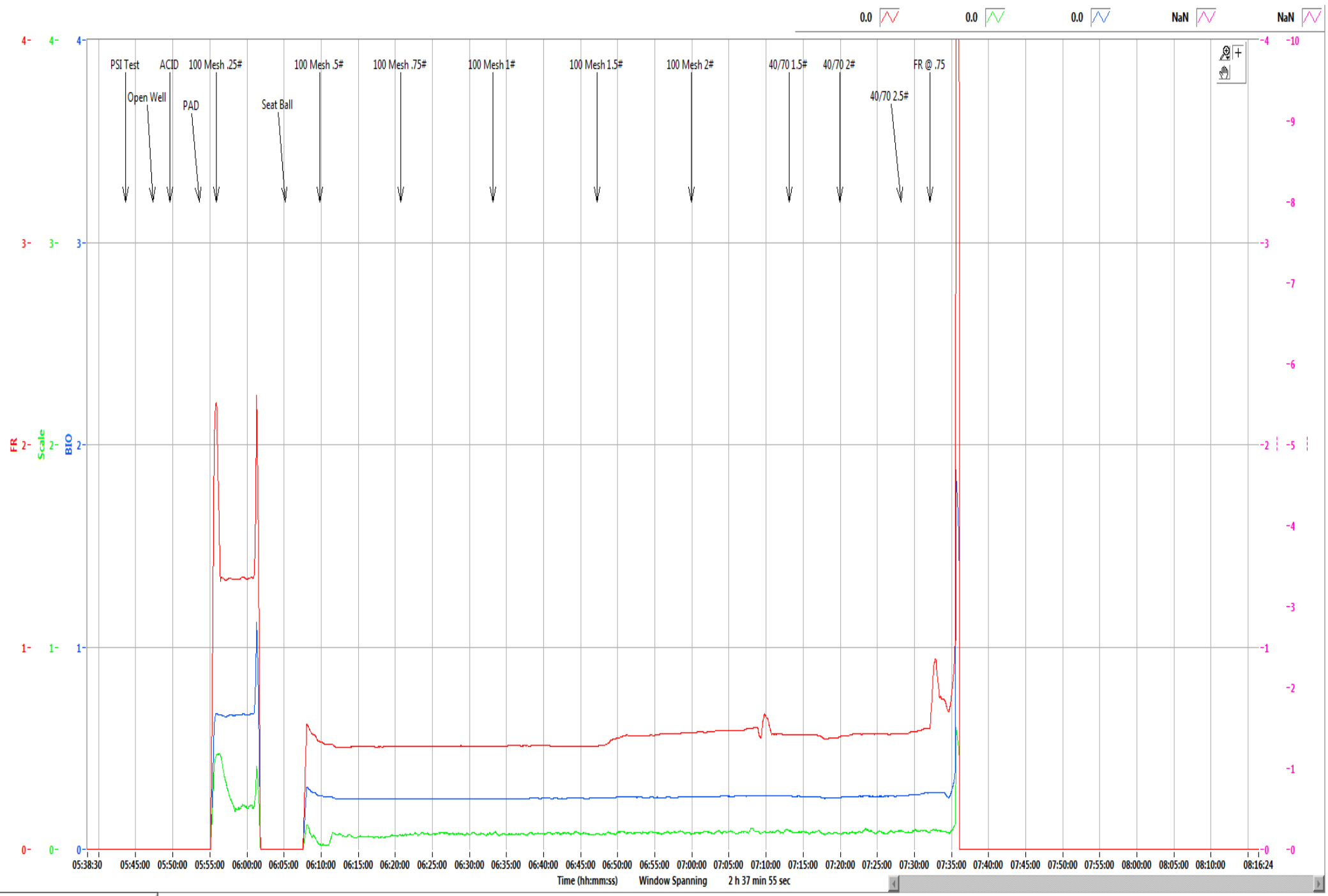


NNE
Boggess 5H
Stage 24
Producers Service Corp.

Post Stage Report
August 17, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	24
Date:	8/17/19
OWP (psi):	3,405
Starting Time	5:47 AM
Ending Time	7:32 AM
Pump Time (hr:min)	01:45
Swap Time (hr:min)	01:23
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,046
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,301
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	12,157
Displacement (psi)	
Max Prop Con (lb/gal)	2.50
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)	6,904
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	672
Pad (bbls)	62
Treatment (bbls)	6,890
Displacement (bbls)	
(Acid Included)Total Fluid (bbls)	6,952
Dirty Job Total (bbls)	7,346
100 Mesh	240,140
40/70	136,360
Total Proppant (lbs)	376,500
Total Proppant %	94.1%

CHEMICALS

FR 9800	175
DRB-LT	
Biocide	82
Scale	18

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



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

Invoice #: 22901
 Date: 8/17/2019
 Well Name: Bogges 5H
 Stage No.: 24

State: WV
 County: Monongahela
 Operator: Joe/Austin
 PO/AFE: 100345-604

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	2,401.40	CWT	\$ 5.50	\$ 13,207.70
SAND 40/70	40/70 white	1,363.60	CWT	\$ 5.75	\$ 7,840.70
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	175	GAL	\$ 17.75	\$ 3,106.25
BIOC11219A	Biocide @ 0.25 GPT	82	GAL	\$ 16.00	\$ 1,312.00
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		188.25	TON	\$ 55.00	\$ 10,353.75
DIESEL FUEL	Not eligible for discount	171	GAL	\$ 3.04	\$ 519.84

Total No Discount \$ 58,548.40
 25% Discount Applied \$ 14,637.10
 Net Stage Total \$ 44,431.14

(Print Name)

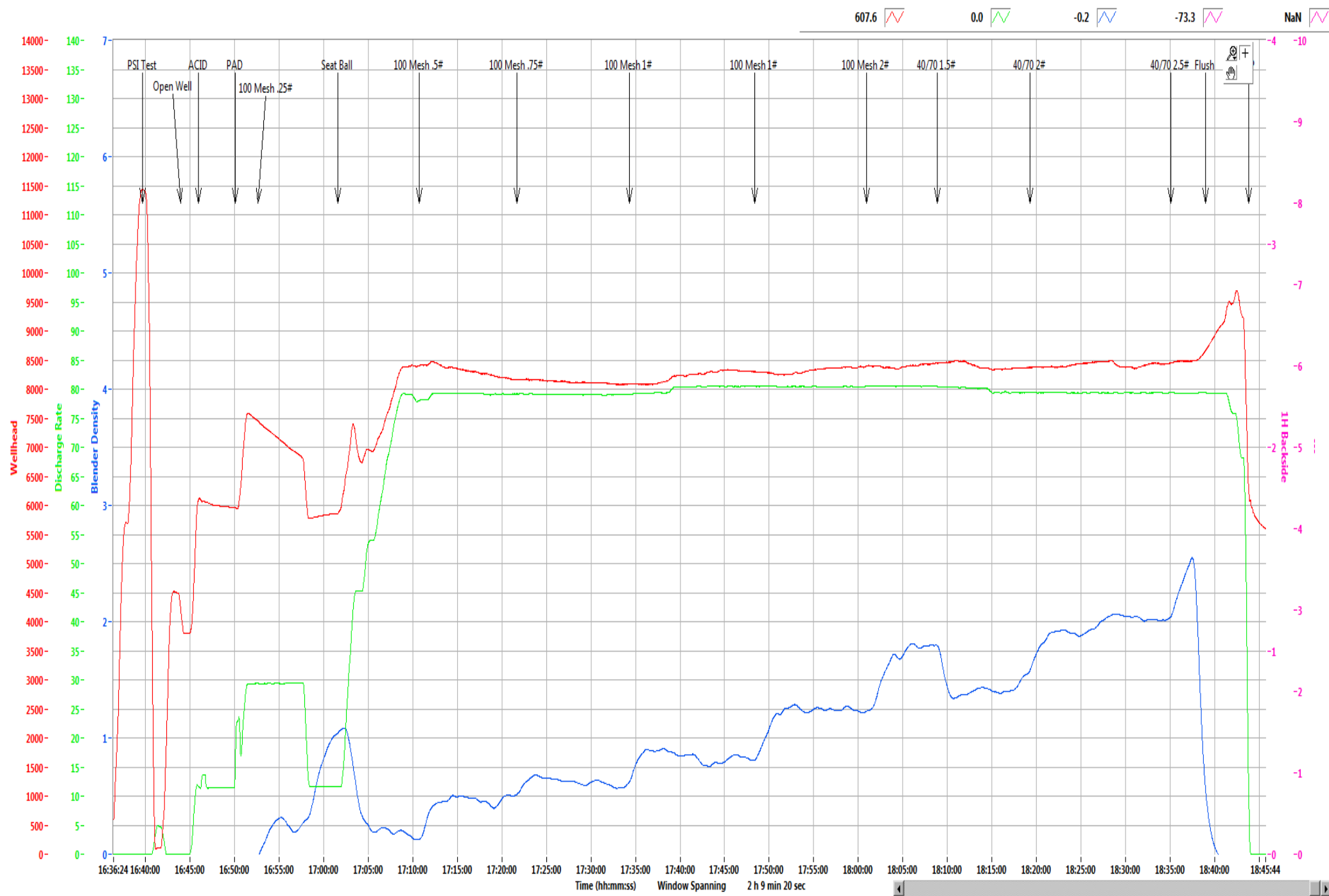
Customer Rep: E. Boone

Customer Signature: E. Boone



NNE
Boggess 5H
Stage 25
Producers Service Corp.

Post Stage Report
August 17, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	25
Date:	8/17/19
OWP (psi):	3,803
Starting Time	4:43 PM
Ending Time	6:43 PM
Pump Time (hr:min)	02:00
Swap Time (hr:min)	01:54
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,026
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,312
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	9,879
Displacement (psi)	8,727
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	6,226
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)	8,136
Acid 7.5% HCL (gal)	4,000
Wireline Pump Down (bbls)	516
Pad (bbls)	124
Treatment (bbls)	7,340
Displacement (bbls)	331
(Acid Included)Total Fluid (bbls)	8,231
Dirty Job Total (bbls)	7,799
100 Mesh	240,440
40/70	160,940
Total Proppant (lbs)	401,380
Total Proppant %	100.3%

CHEMICALS

FR 9800	179
DRB-LT	
Biocide	81
Scale	16

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



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

Invoice #: 22903
 Date: 8/17/2019
 Well Name: Bogges 5H
 Stage No.: 25

State: WV
 County: Monongahela
 Operator: Tilton/Kelby
 PO/AFE: 100345-604

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	4000	GAL	\$ 1.25	\$ 5,000.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	8	GAL	\$ 35.00	\$ 280.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,404.40	CWT	\$ 5.50	\$ 13,224.20
SAND 40/70	40/70 white	1,609.40	CWT	\$ 5.75	\$ 9,254.05
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	179	GAL	\$ 17.75	\$ 3,177.25
BIOC11219A	Biocide @ 0.25 GPT	81	GAL	\$ 16.00	\$ 1,296.00
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		200.69	TON	\$ 55.00	\$ 11,037.95
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 63,325.45
 25% Discount Applied \$ 15,831.36
 Net Stage Total \$ 47,494.09

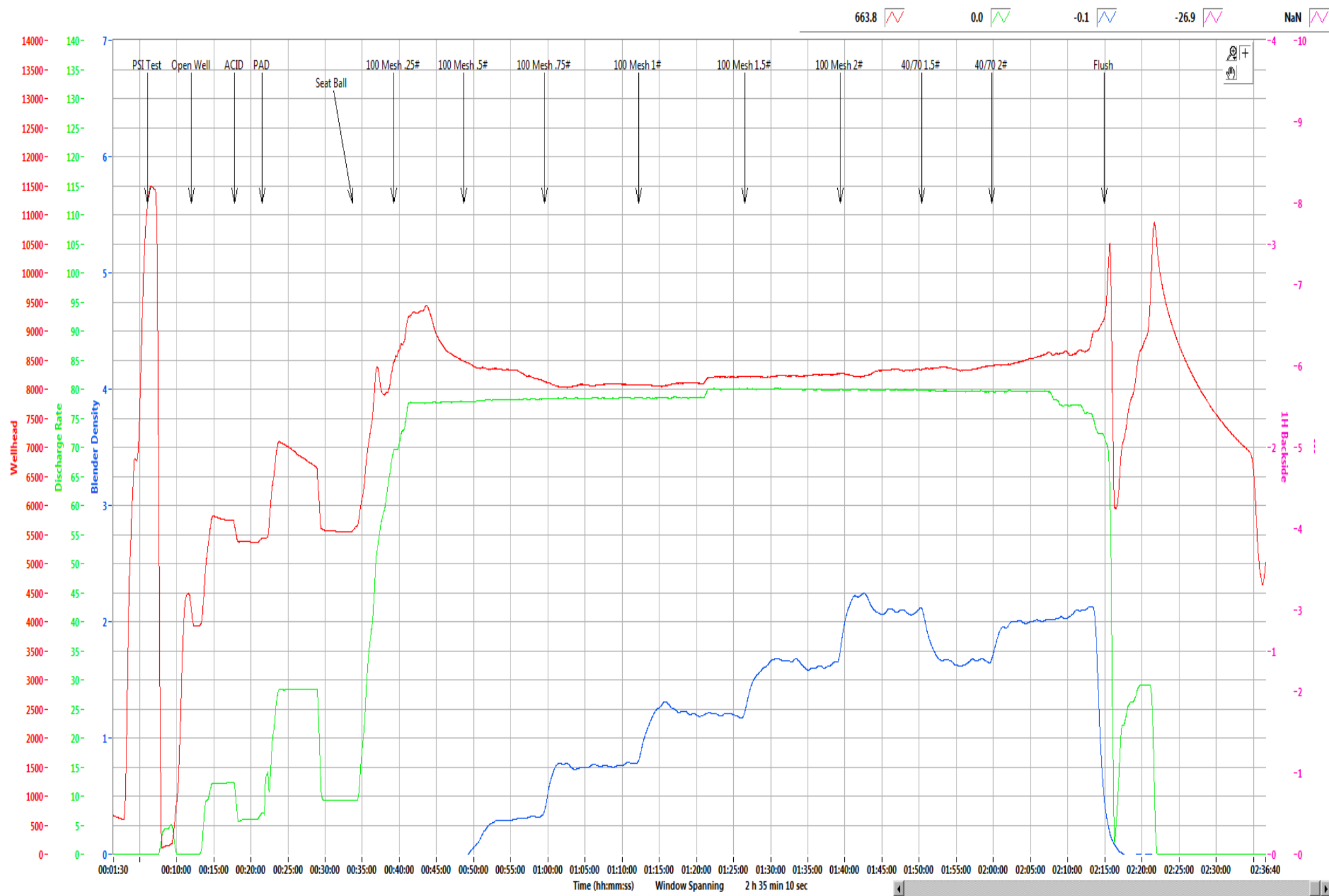
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 Customer Rep: Rob Cowger

Customer Signature: [Signature]

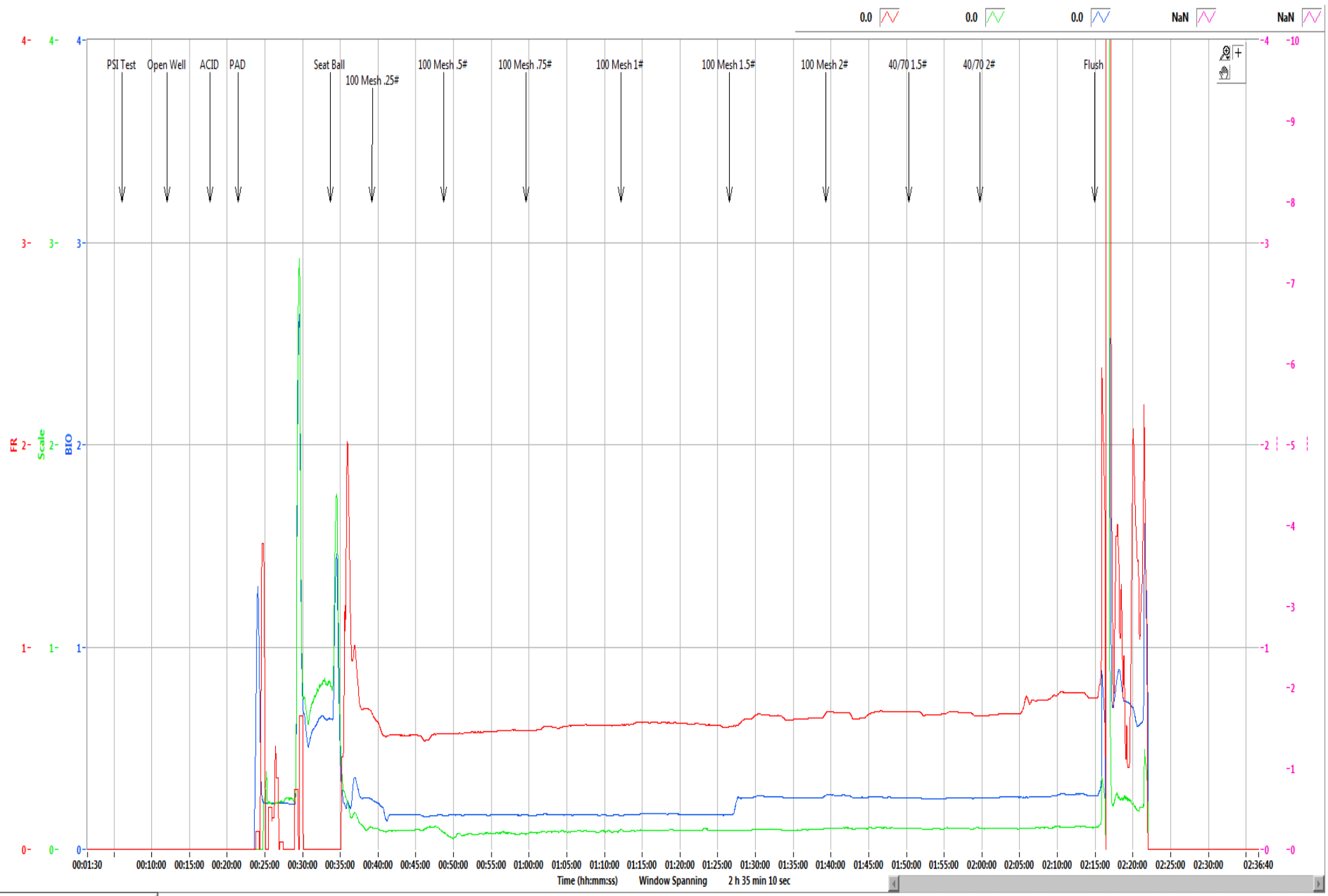


NNE
Boggess 5H
Stage 26
Producers Service Corp.

Post Stage Report
August 18, 2019



Refresh Graph



Boggess Pad**5H**

Stage	26
Date:	8/17/19
OWP (psi):	3,930
Starting Time	12:12 AM
Ending Time	2:40 AM
Pump Time (hr:min)	02:28
Swap Time (hr:min)	01:19
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	5,640
Average Treating Rate (bbl/min)	77
Average Treating Pressure (psi)	8,320
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	11,171
Displacement (psi)	9,373
Max Prop Con (lb/gal)	2.00
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)	8,227
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	345
Pad (bbls)	538
Treatment (bbls)	7,137
Displacement (bbls)	180
(Acid Included)Total Fluid (bbls)	8,263
Dirty Job Total (bbls)	7,860
100 Mesh	240,480
40/70	130,860
Total Proppant (lbs)	371,340
Total Proppant %	92.8%

CHEMICALS

FR 9800	203
DRB-LT	
Biocide	82
Scale	16

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



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

Invoice #: 22905
 Date: 8/18/2019
 Well Name: Bogges 5H
 Stage No.: 26

State: WV
 County: Monongahela
 Operator: Tilton/Kelby
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,404.80	CWT	\$ 5.50	\$ 13,226.40
SAND 40/70	40/70 white	1,308.60	CWT	\$ 5.75	\$ 7,524.45
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	203	GAL	\$ 17.75	\$ 3,603.25
BIOC11219A	Biocide @ 0.25 GPT	82	GAL	\$ 16.00	\$ 1,312.00
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		185.67	TON	\$ 55.00	\$ 10,211.85
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 57,913.95
 25% Discount Applied \$ 14,478.49
 Net Stage Total \$ 43,435.46

(Print Name)

Customer Rep: Rob Cowser

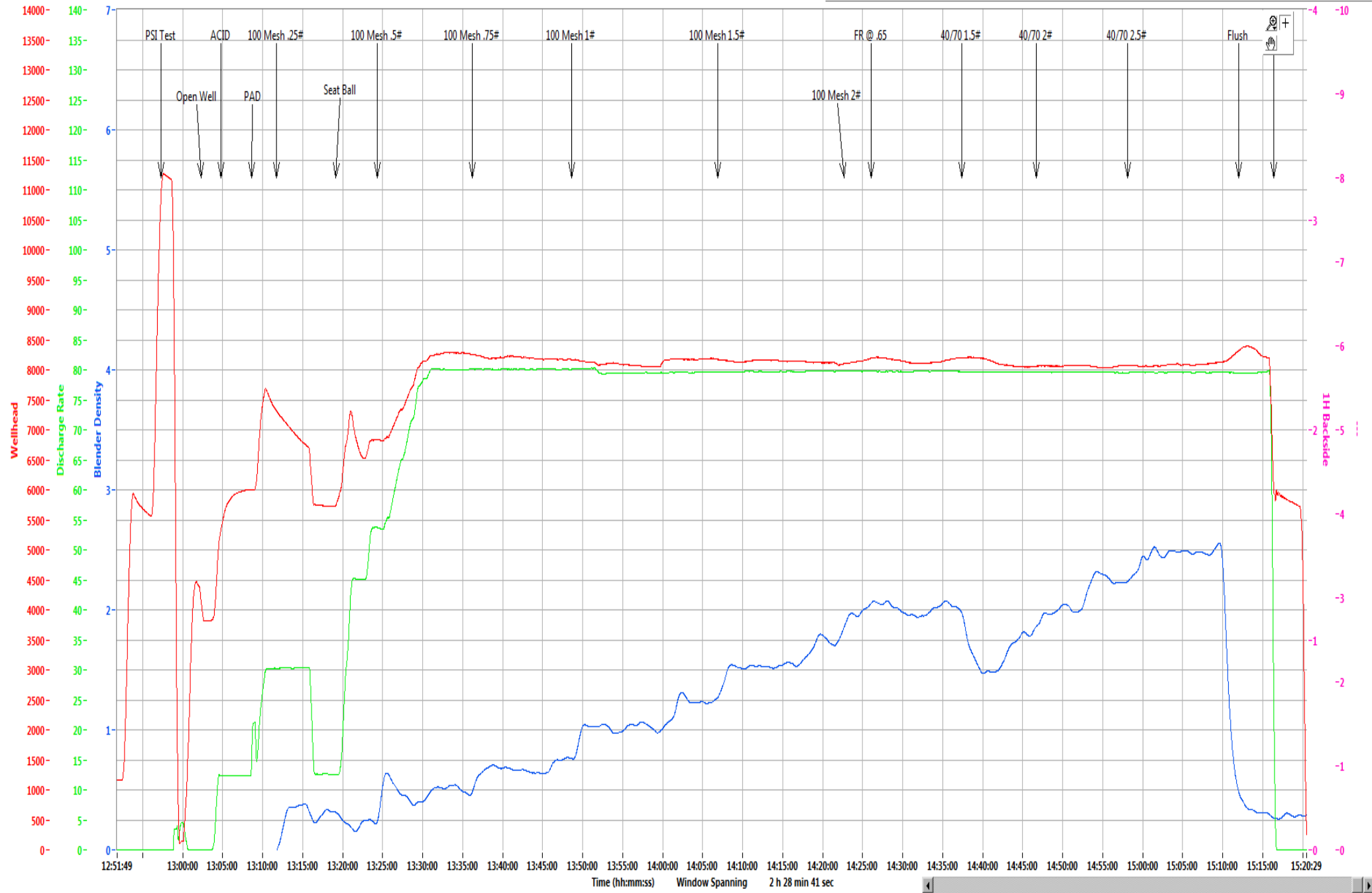
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NNE
Boggess 5H
Stage 27
Producers Service Corp.

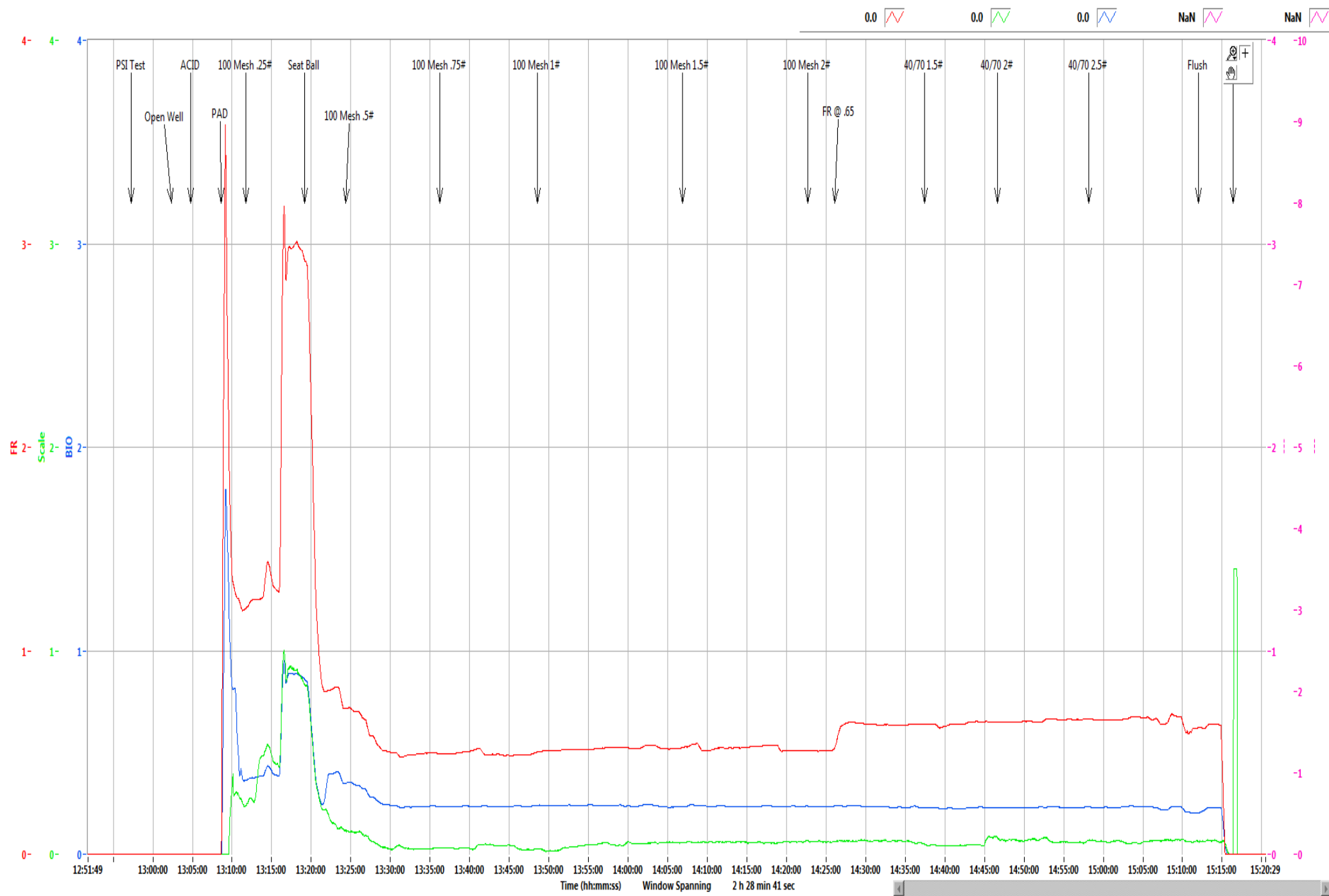
Post Stage Report
August 18, 2019

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Boggess Pad**5H**

Stage	27
Date:	8/18/19
OWP (psi):	3,833
Starting Time	1:02 PM
Ending Time	3:16 PM
Pump Time (hr:min)	02:14
Swap Time (hr:min)	02:22
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	5,927
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,135
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	8,328
Displacement (psi)	8,376
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,623
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)	8,889
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	413
Pad (bbls)	144
Treatment (bbls)	8,467
Displacement (bbls)	320
(Acid Included)Total Fluid (bbls)	8,937
Dirty Job Total (bbls)	9,346
100 Mesh	240,020
40/70	159,980
Total Proppant (lbs)	400,000
Total Proppant %	100.0%

CHEMICALS

FR 9800	215
DRB-LT	
Biocide	95
Scale	22

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



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

Invoice #: 22907
 Date: 8/18/2019
 Well Name: Bogges 5H
 Stage No.: 27

State: WV
 County: Monongahela
 Operator: Joe/Brad
 PO/AFE: 100345-604

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	2,400.20	CWT	\$ 5.50	\$ 13,201.10
SAND 40/70	40/70 white	1,599.80	CWT	\$ 5.75	\$ 9,198.85
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	215	GAL	\$ 17.75	\$ 3,816.25
BIOC11219A	Biocide @ 0.25 GPT	95	GAL	\$ 16.00	\$ 1,520.00
SCAL16846A	Scale Control @ 0.05 GPT	22	GAL	\$ 16.00	\$ 352.00
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 \$ 61,528.20
 25% Discount Applied \$ 15,382.05
 Net Stage Total \$ 46,146.15

(Print Name)

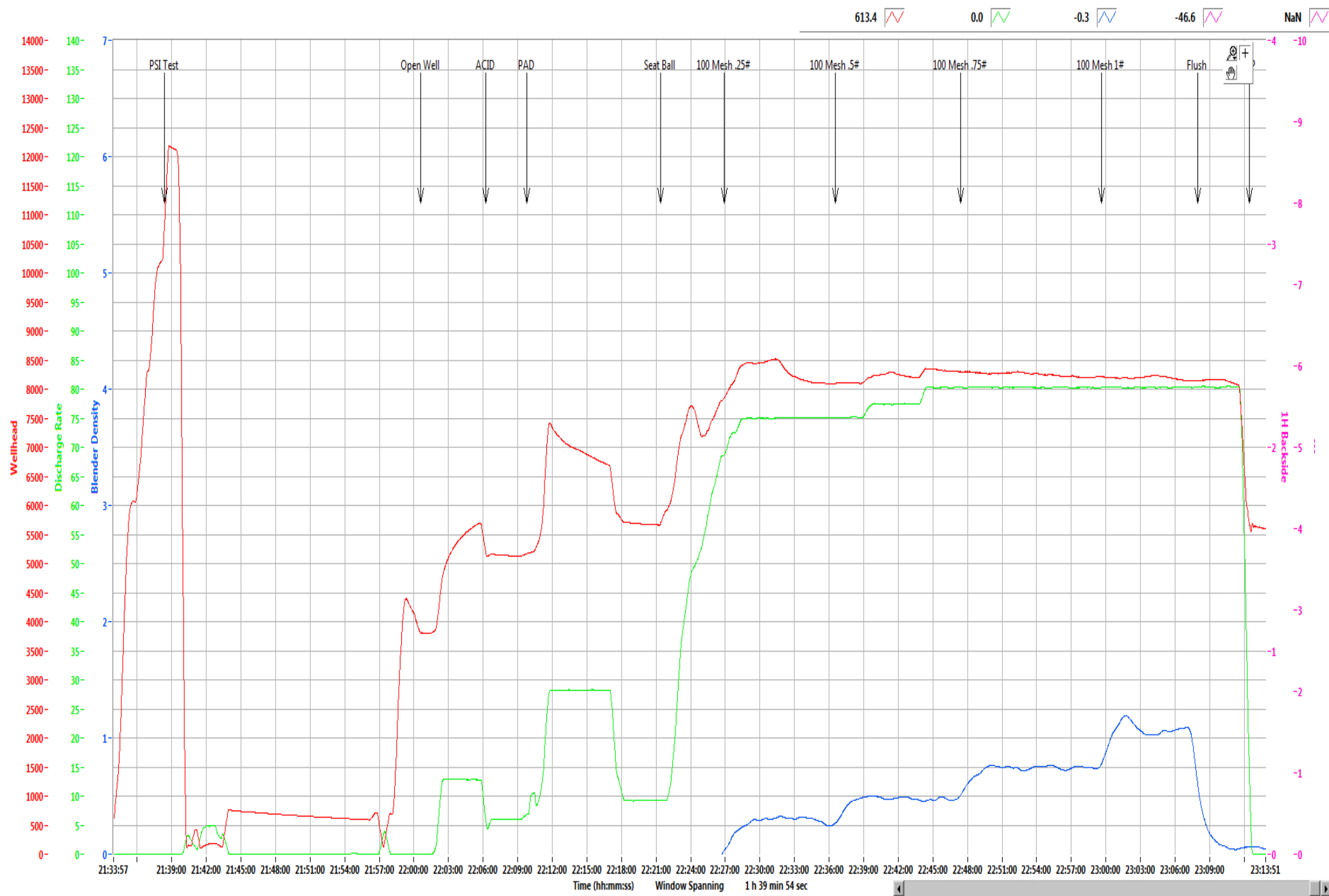
Customer Rep: E Boone

Customer Signature: [Signature]



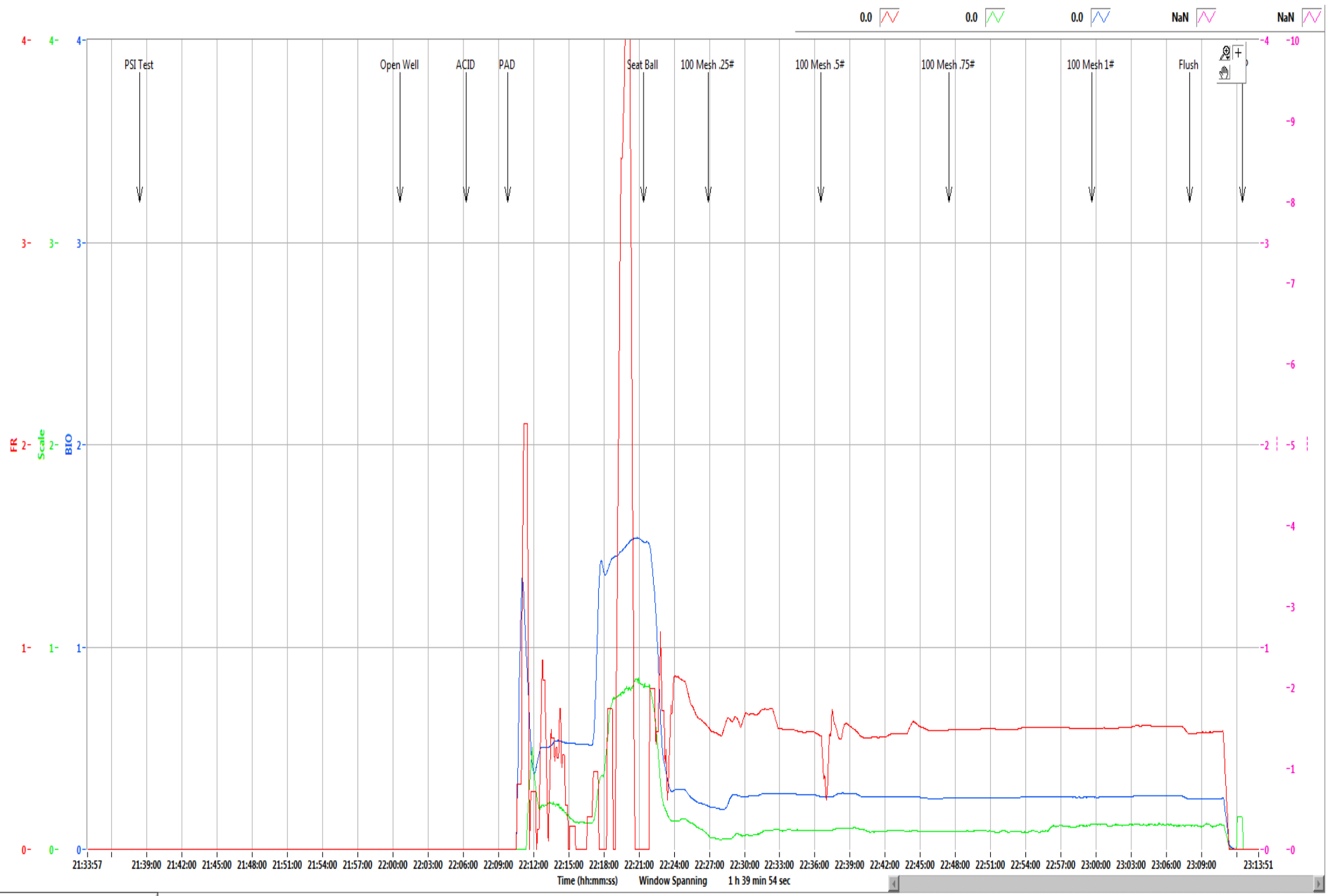
NNE
Boggess 5H
Stage 28
Producers Service Corp.

Post Stage Report
August 18, 2019



Refresh Graph

Time (hh:mm:ss) Window Spanning 1 h 39 min 54 sec



Refresh Graph

Boggess Pad	5H
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Stage	28
Date:	8/18/19
OWP (psi):	3,802
Starting Time	10:00 PM
Ending Time	11:12 PM
Pump Time (hr:min)	01:12
Swap Time (hr:min)	01:38
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	5,940
Average Treating Rate (bbl/min)	78
Average Treating Pressure (psi)	8,223
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	8,566
Displacement (psi)	8,172
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,760
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)	3,975
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	332
Pad (bbls)	538
Treatment (bbls)	3,690
Displacement (bbls)	313
(Acid Included)Total Fluid (bbls)	4,023
Dirty Job Total (bbls)	4,080
100 Mesh	68,080
40/70	
Total Proppant (lbs)	68,080
Total Proppant %	17.0%

CHEMICALS

FR 9800	101
DRB-LT	
Biocide	42
Scale	8

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



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

Invoice #: 22909
 Date: 8/18/2019
 Well Name: Bogges 5H
 Stage No.: 28

State: WV
 County: Monongahela
 Operator: Kelby/Tilton
 PO/AFE: 100345-604

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	680.80	CWT	\$ 5.50	\$ 3,744.40
SAND 40/70	40/70 white	0.00	CWT	\$ 5.75	\$ -
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	101	GAL	\$ 17.75	\$ 1,792.75
BIOC11219A	Biocide @ 0.25 GPT	42	GAL	\$ 16.00	\$ 672.00
SCAL16846A	Scale Control @ 0.05 GPT	8	GAL	\$ 16.00	\$ 128.00
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		34.04	TON	\$ 55.00	\$ 1,872.20
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 30,649.35
 25% Discount Applied \$ 7,662.34
 Net Stage Total \$ 22,987.01

(Print Name)
 Customer Rep: Rob Louger

Customer Signature: [Handwritten Signature]

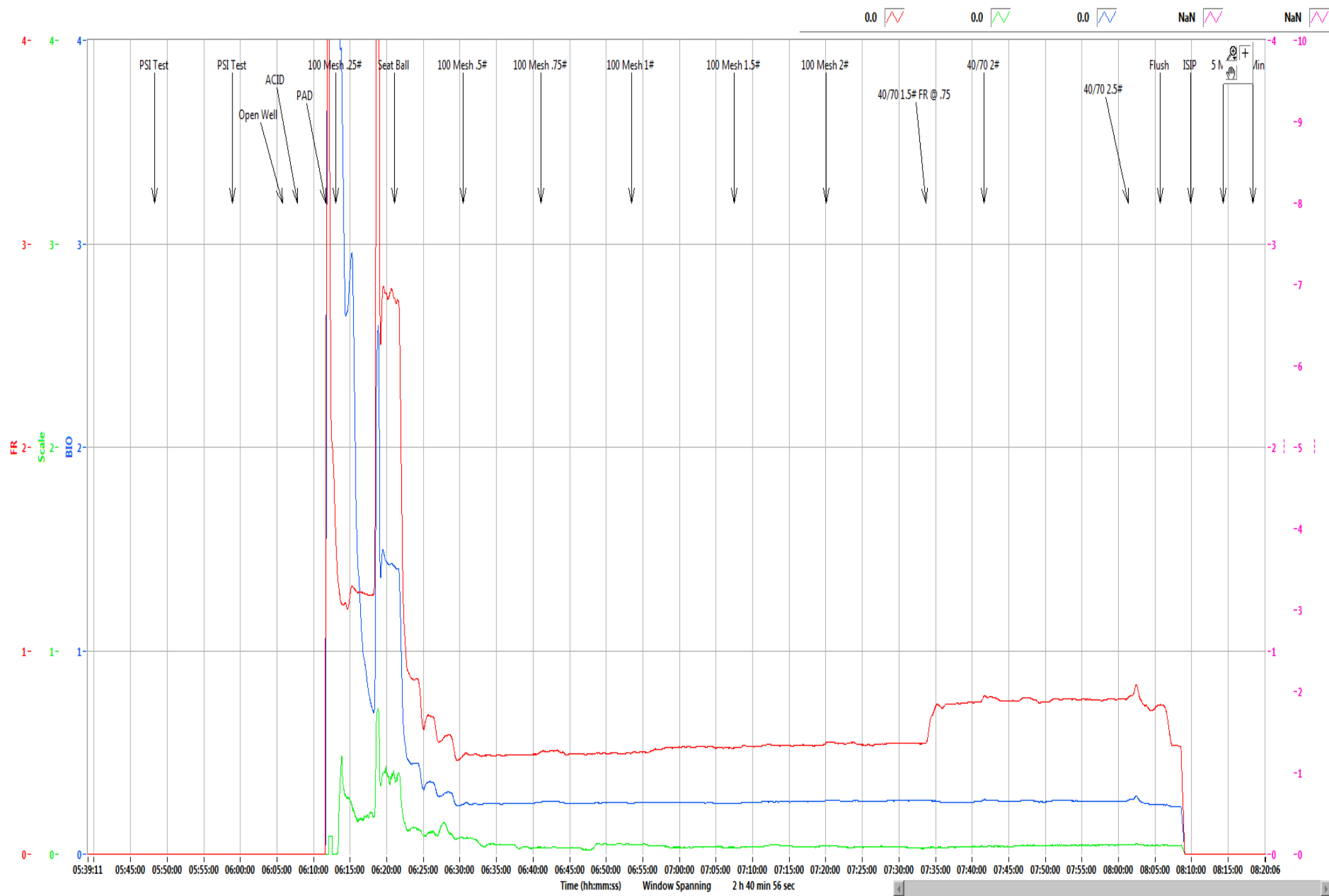


NNE
Boggess 5H
Stage 30
Producers Service Corp.

Post Stage Report
August 19, 2019



Refresh Graph



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BIO 2-

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-1 -1
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Refresh Graph

Boggess Pad**5H**

Stage	30
Date:	8/19/19
OWP (psi):	3,918
Starting Time	6:05 AM
Ending Time	8:09 AM
Pump Time (hr:min)	02:04
Swap Time (hr:min)	01:41
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,473
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,293
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	8,863
Displacement (psi)	8,359
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,365
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)	8,269
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	607
Pad (bbls)	30
Treatment (bbls)	7,983
Displacement (bbls)	299
(Acid Included)Total Fluid (bbls)	8,317
Dirty Job Total (bbls)	8,747
100 Mesh	242,280
40/70	162,120
Total Proppant (lbs)	404,400
Total Proppant %	101.1%

CHEMICALS

FR 9800	211
DRB-LT	
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 #: 22911
 Date: 8/19/2019
 Well Name: Bogges 5H
 Stage No.: 30

State: WV
 County: Monongahela
 Operator: Joe/Stetson
 PO/AFE: 100345-604

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	2,422.80	CWT	\$ 5.50	\$ 13,325.40
SAND 40/70	40/70 white	1,621.20	CWT	\$ 5.75	\$ 9,321.90
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	211	GAL	\$ 17.75	\$ 3,745.25
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		202.2	TON	\$ 55.00	\$ 11,121.00
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 61,713.55
 25% Discount Applied \$ 15,428.39
 Net Stage Total \$ 46,285.16

(Print Name)
 Customer Rep:

E. Boone

Customer Signature:

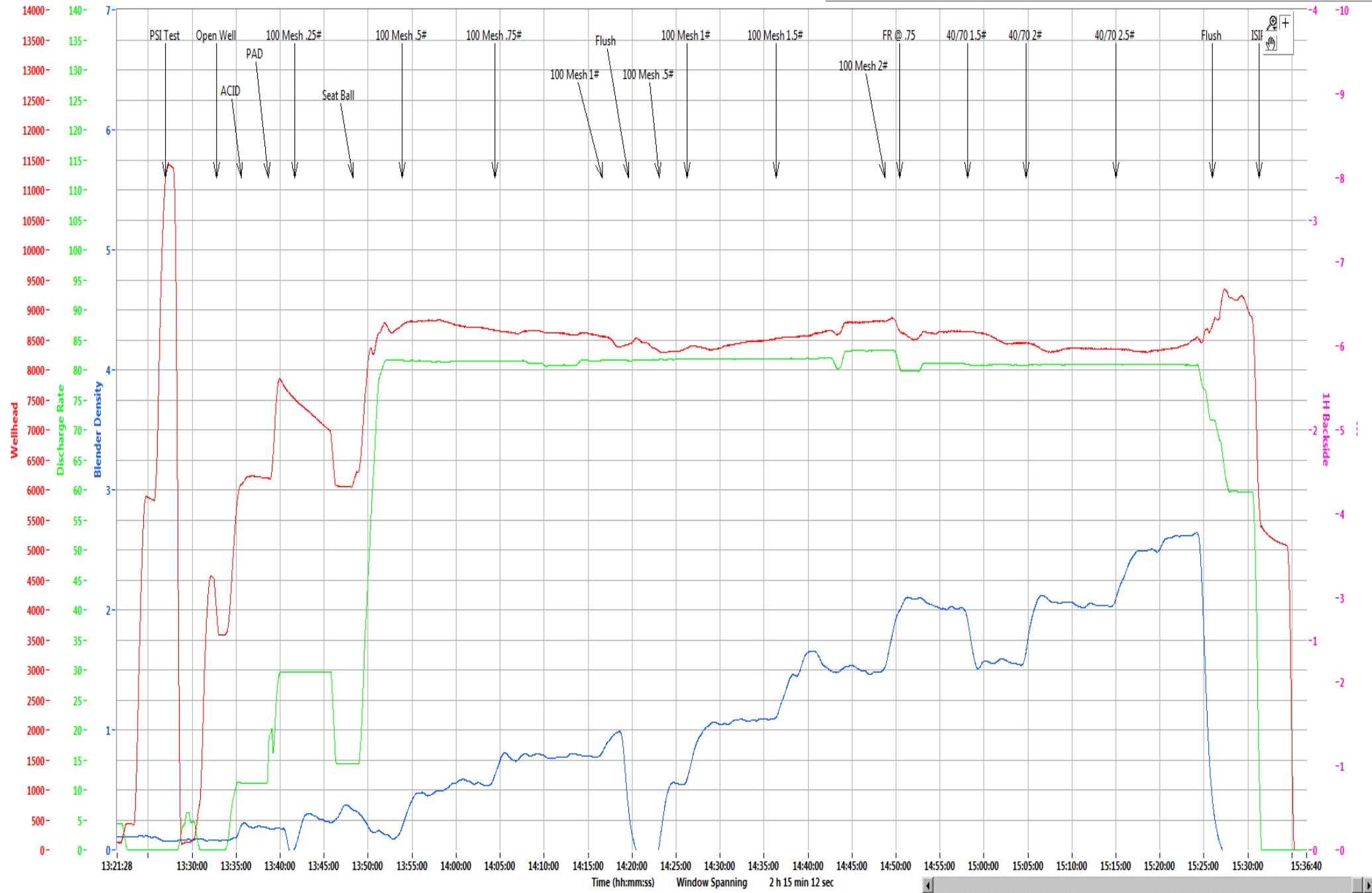
E. Boone



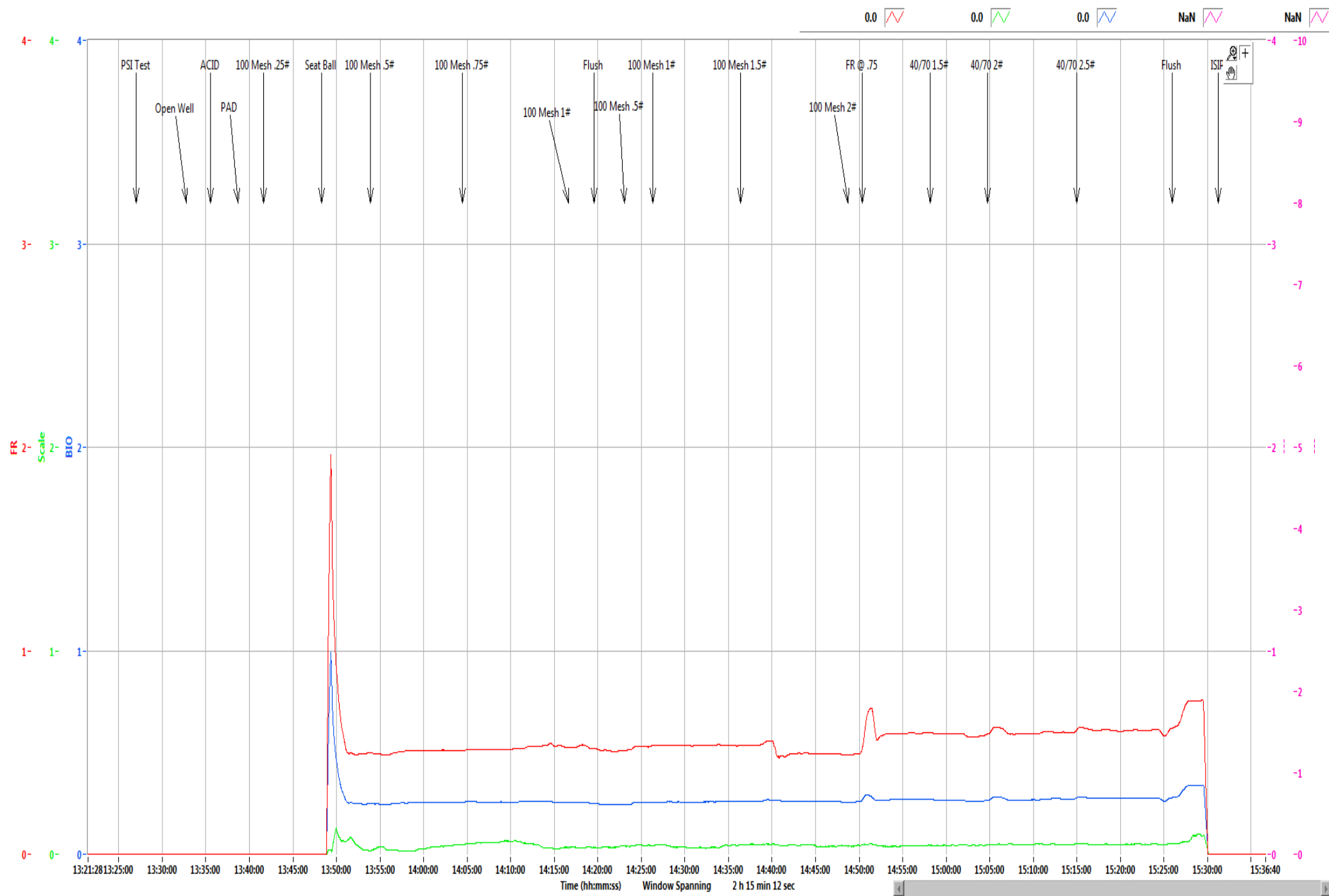
NNE
Boggess 5H
Stage 31
Producers Service Corp.

Post Stage Report
August 19, 2019

118.4 4.3 0.1 -82.0 NaN



Refresh Graph



0.0 0.0 0.0 NaN NaN

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

13:21:28 13:25:00 13:30:00 13:35:00 13:40:00 13:45:00 13:50:00 13:55:00 14:00:00 14:05:00 14:10:00 14:15:00 14:20:00 14:25:00 14:30:00 14:35:00 14:40:00 14:45:00 14:50:00 14:55:00 15:00:00 15:05:00 15:10:00 15:15:00 15:20:00 15:25:00 15:30:00 15:36:40

Boggess Pad**5H**

Stage	31
Date:	8/19/19
OWP (psi):	3,583
Starting Time	1:32 PM
Ending Time	3:31 PM
Pump Time (hr:min)	01:59
Swap Time (hr:min)	01:30
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,351
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,543
Maximum Treating Rate (bbl/min)	84
Maximum Treating Pressure (psi)	9,474
Displacement (psi)	8,843
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)	7,980
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	318
Pad (bbls)	82
Treatment (bbls)	7,628
Displacement (bbls)	299
(Acid Included)Total Fluid (bbls)	8,016
Dirty Job Total (bbls)	8,424
100 Mesh	240,380
40/70	156,660
Total Proppant (lbs)	397,040
Total Proppant %	99.3%

CHEMICALS

FR 9800	190
DRB-LT	
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 #: 22913
 Date: 8/19/2019
 Well Name: Bogges 5H
 Stage No.: 31

State: WV
 County: Monongahela
 Operator: Joe/Stetson
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,403.80	CWT	\$ 5.50	\$ 13,220.90
SAND 40/70	40/70 white	1,566.60	CWT	\$ 5.75	\$ 9,007.95
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	190	GAL	\$ 17.75	\$ 3,372.50
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		198.52	TON	\$ 55.00	\$ 10,918.60
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 59,995.95
 25% Discount Applied \$ 14,998.99
 Net Stage Total \$ 44,996.96

(Print Name)
 Customer Rep:

E. Boone

Customer Signature:

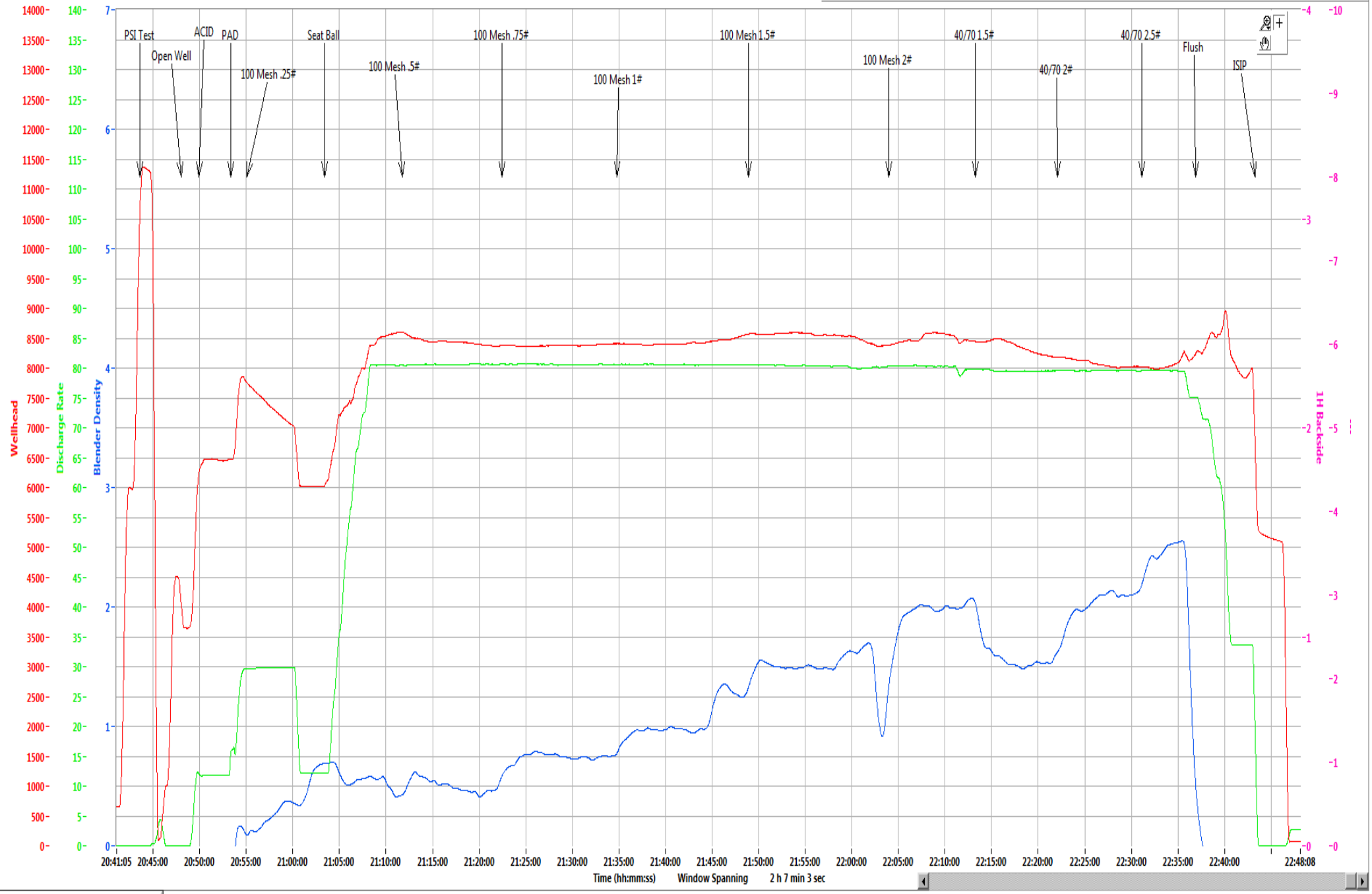
J. Boone



NNE
Boggess 5H
Stage 32
Producers Service Corp.

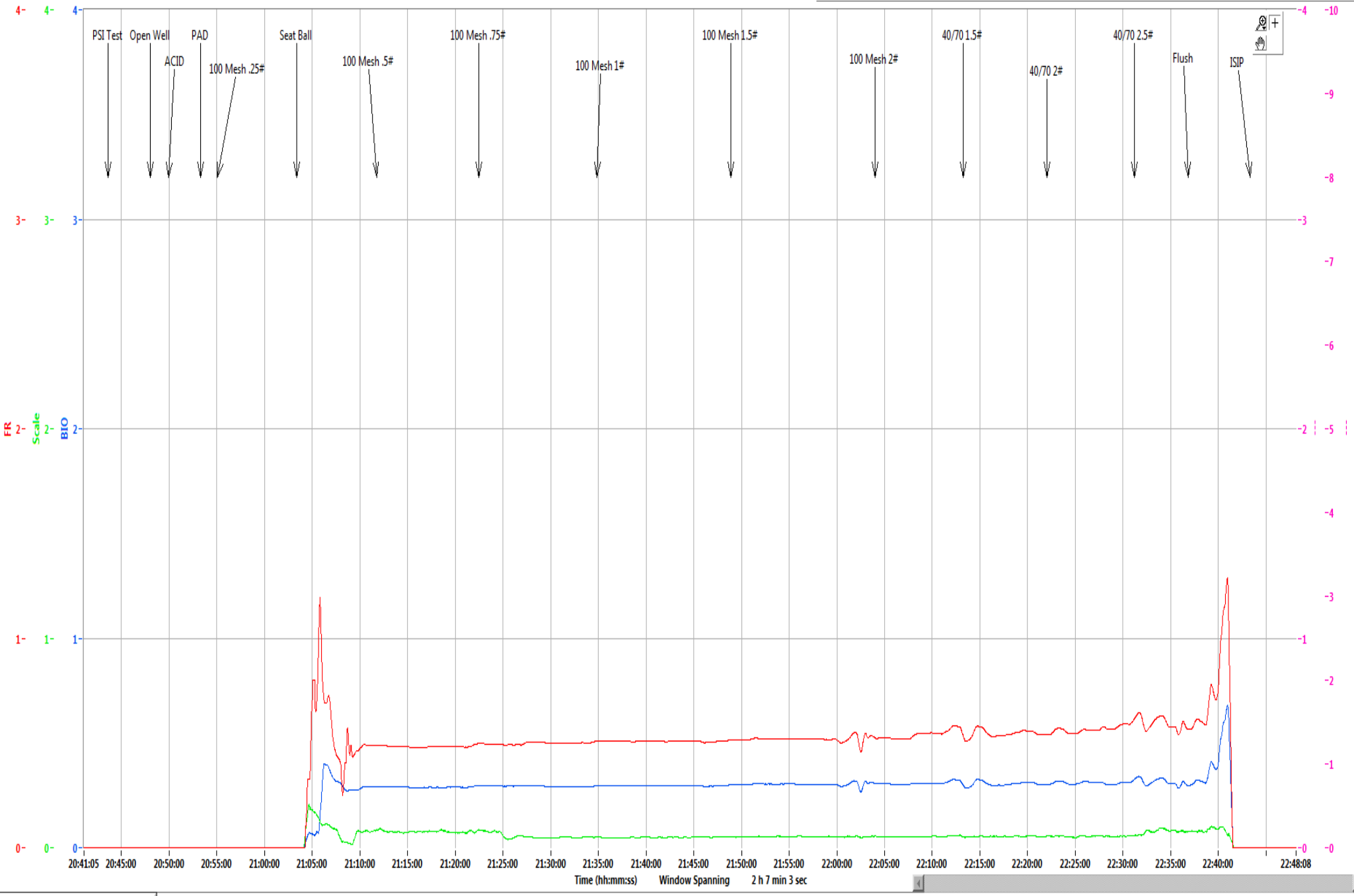
Post Stage Report
August 19, 2019

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Refresh Graph

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Refresh Graph

Boggess Pad**5H**

Stage	32
Date:	8/19/19
OWP (psi):	3,646
Starting Time	8:48 PM
Ending Time	10:43 PM
Pump Time (hr:min)	01:55
Swap Time (hr:min)	01:28
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,192
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,387
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	9,168
Displacement (psi)	8,260
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,341
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)	7,473
Acid 7.5% HCL (gal)	2,000
Wireline Pump Down (bbls)	330
Pad (bbls)	45
Treatment (bbls)	7,161
Displacement (bbls)	315
(Acid Included)Total Fluid (bbls)	7,521
Dirty Job Total (bbls)	7,971
100 Mesh	243,700
40/70	150,380
Total Proppant (lbs)	394,080
Total Proppant %	98.5%

CHEMICALS

FR 9800	155
DRB-LT	
Biocide	79
Scale	16

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



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

Invoice #: 22915
 Date: 8/19/2019
 Well Name: Bogges 5H
 Stage No.: 32

State: WV
 County: Monongahela
 Operator: Jeremy/Eck
 PO/AFE: 100345-604

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	2,437.00	CWT	\$ 5.50	\$ 13,403.50
SAND 40/70	40/70 white	1,503.80	CWT	\$ 5.75	\$ 8,646.85
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	155	GAL	\$ 17.75	\$ 2,751.25
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		197.04	TON	\$ 55.00	\$ 10,837.20
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

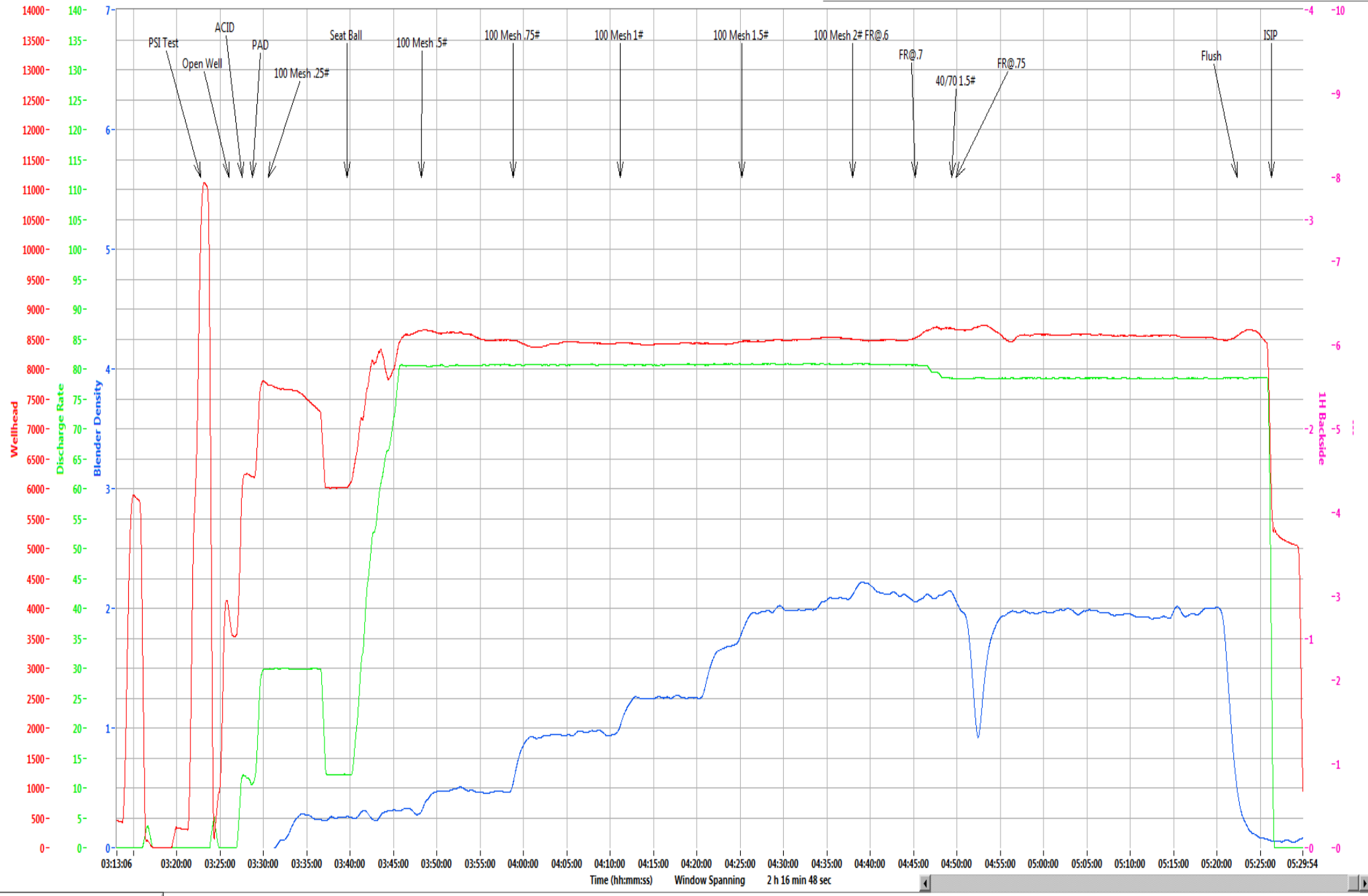
Total No Discount \$ 59,598.80
 25% Discount Applied \$ 14,899.70
 Net Stage Total \$ 44,699.10

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



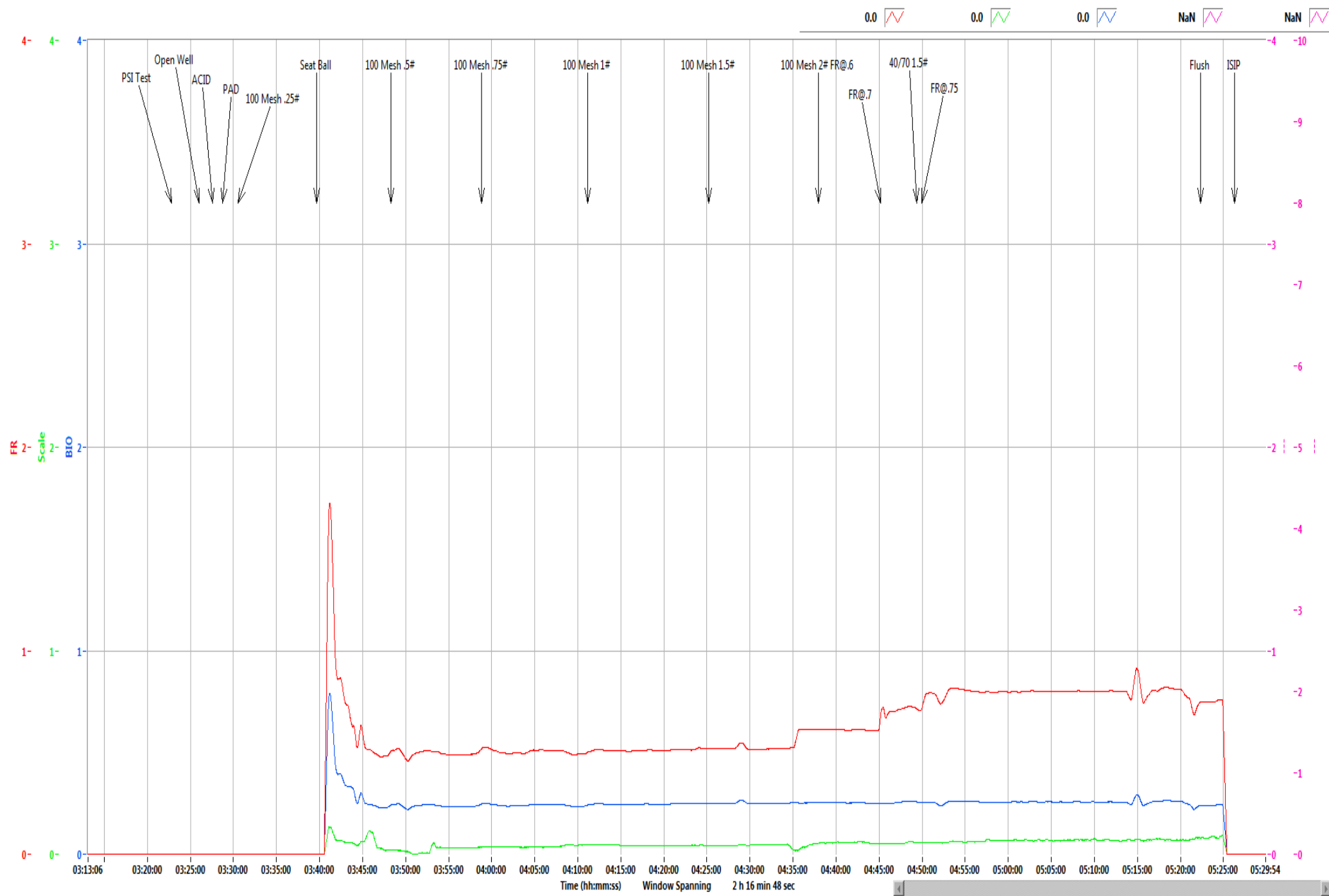
NNE
Boggess 5H
Stage 33
Producers Service Corp.

Post Stage Report
August 20, 2019



Time (hh:mm:ss) Window Spanning 2 h 16 min 48 sec

Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	33
Date:	8/20/19
OWP (psi):	3,543
Starting Time	3:26 AM
Ending Time	5:26 AM
Pump Time (hr:min)	02:00
Swap Time (hr:min)	01:17
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,148
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,513
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	8,780
Displacement (psi)	8,548
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,098
Final FG (psi/ft)	1.07
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)	8,147
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	299
Pad (bbls)	49
Treatment (bbls)	7,820
Displacement (bbls)	289
(Acid Included)Total Fluid (bbls)	8,159
Dirty Job Total (bbls)	8,592
100 Mesh	230,740
40/70	170,000
Total Proppant (lbs)	400,740
Total Proppant %	100.2%

CHEMICALS

FR 9800	220
DRB-LT	
Biocide	87
Scale	18

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



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

Invoice #: 22917
 Date: 8/20/2019
 Well Name: Bogges 5H
 Stage No.: 33

State: WV
 County: Monongahela
 Operator: Jeremy/Eck
 PO/AFE: 100345-604

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	2,307.40	CWT	\$ 5.50	\$ 12,690.70
SAND 40/70	40/70 white	1,700.00	CWT	\$ 5.75	\$ 9,775.00
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	220	GAL	\$ 17.75	\$ 3,905.00
BIOC11219A	Biocide @ 0.25 GPT	87	GAL	\$ 16.00	\$ 1,392.00
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		200.37	TON	\$ 55.00	\$ 11,020.35
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 59,531.05
 25% Discount Applied \$ 14,882.76
 Net Stage Total \$ 44,648.29

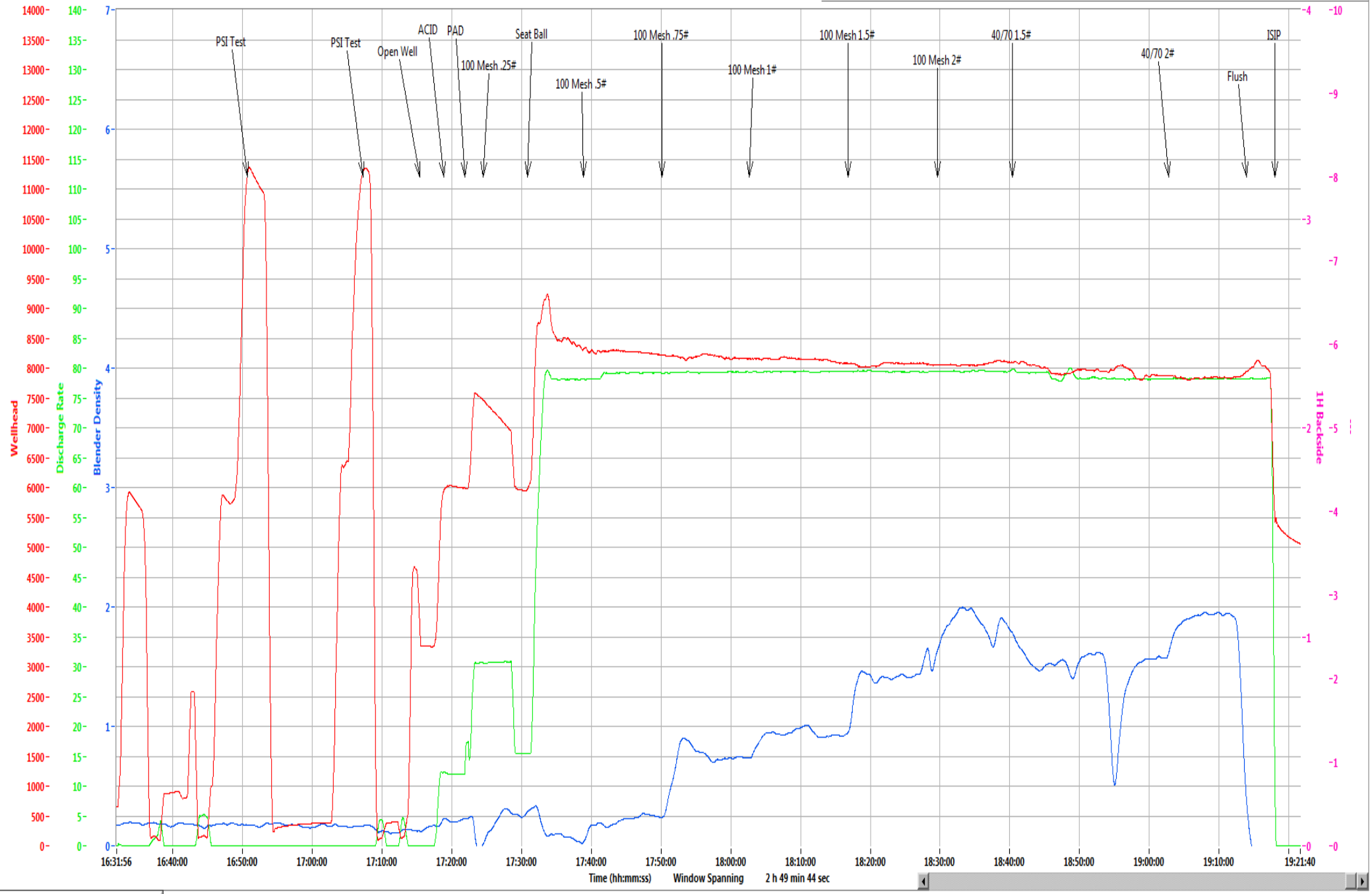
(Print Name) Customer Rep: Rob Cowen Customer Signature: [Signature]



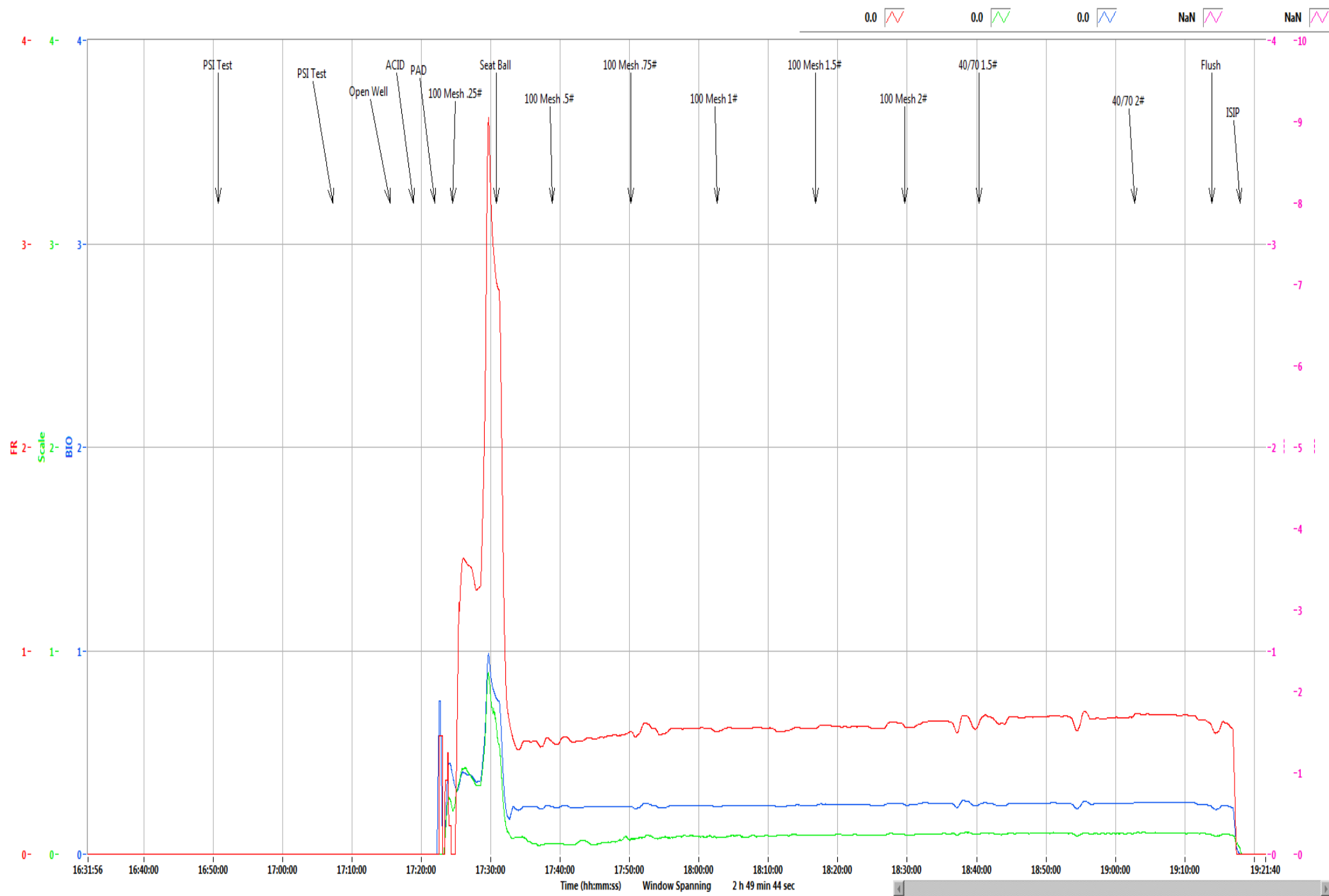
NNE
Boggess 5H
Stage 34
Producers Service Corp.

Post Stage Report
August 20, 2019

656.2 0.0 0.2 -55.5 NaN



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Boggess Pad**5H**

Stage	34
Date:	8/20/19
OWP (psi):	3,340
Starting Time	5:15 PM
Ending Time	7:17 PM
Pump Time (hr:min)	02:02
Swap Time (hr:min)	07:44
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,083
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,086
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	9,401
Displacement (psi)	7,969
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)	8,184
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	1,280
Pad (bbls)	63
Treatment (bbls)	7,865
Displacement (bbls)	292
(Acid Included)Total Fluid (bbls)	8,220
Dirty Job Total (bbls)	8,626
100 Mesh	239,800
40/70	159,800
Total Proppant (lbs)	399,600
Total Proppant %	99.9%

CHEMICALS

FR 9800	210
DRB-LT	
Biocide	85
Scale	19

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



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

Invoice #: 22919
 Date: 8/20/2019
 Well Name: Bogges 5H
 Stage No.: 34

State: WV
 County: Monongahela
 Operator: Stetson/Joe
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,398.00	CWT	\$ 5.50	\$ 13,189.00
SAND 40/70	40/70 white	1,598.00	CWT	\$ 5.75	\$ 9,188.50
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	210	GAL	\$ 17.75	\$ 3,727.50
BIOC11219A	Biocide @ 0.25 GPT	85	GAL	\$ 16.00	\$ 1,360.00
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		199.8	TON	\$ 55.00	\$ 10,989.00
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 60,538.00
 25% Discount Applied \$ 15,134.50
 Net Stage Total \$ 45,403.50

(Print Name)

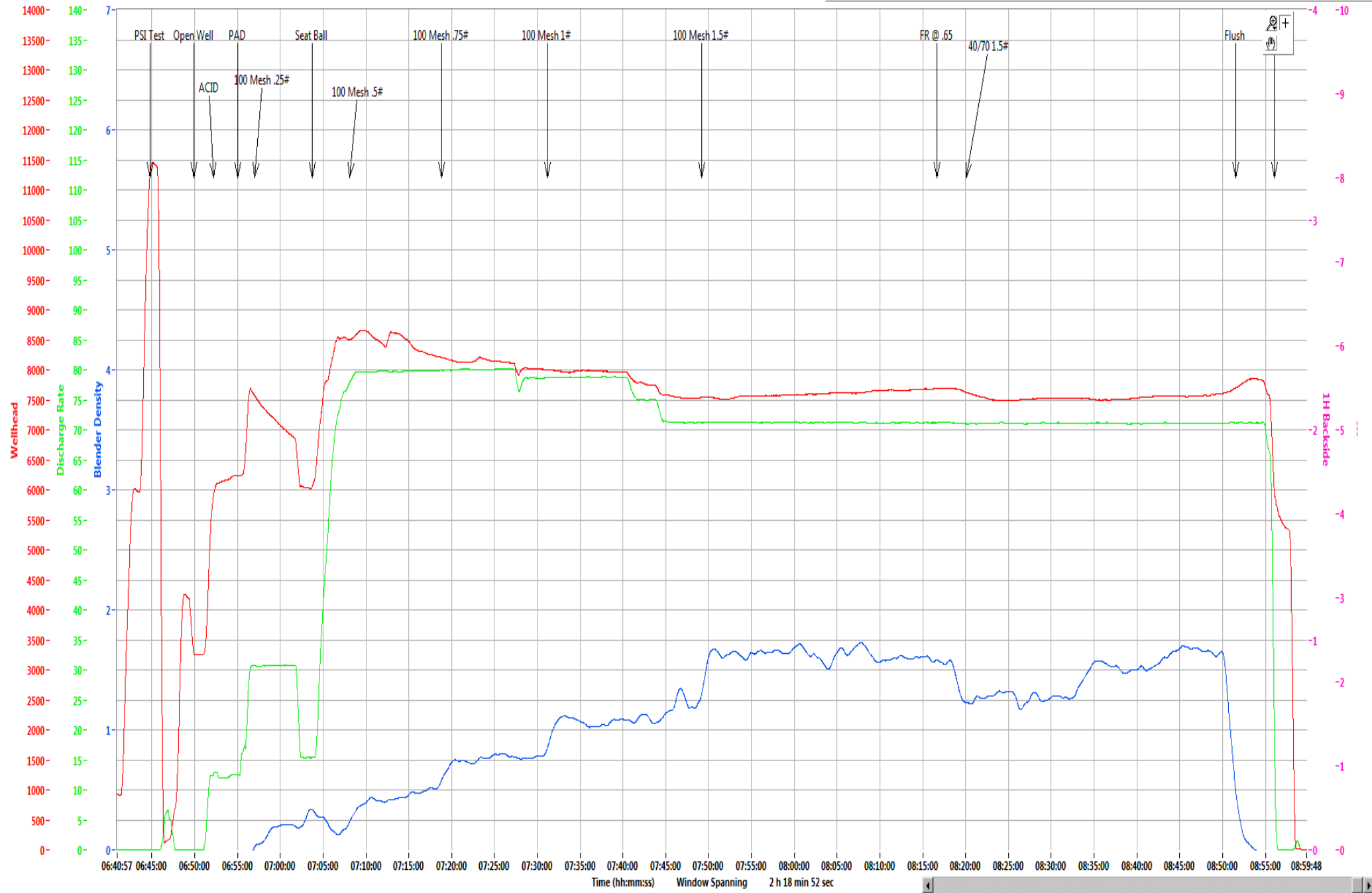
Customer Rep: Rob Cowger

Customer Signature: [Signature]



NNE
Bogges 5H
Stage 35
Producers Service Corp.

Post Stage Report
August 21, 2019



Refresh Graph



Refresh Graph

Bogges Pad	5H
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Stage	35
Date:	8/21/19
OWP (psi):	3,249
Starting Time	6:49 AM
Ending Time	8:56 AM
Pump Time (hr:min)	02:07
Swap Time (hr:min)	02:05
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,250
Average Treating Rate (bbl/min)	74
Average Treating Pressure (psi)	7,771
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	8,720
Displacement (psi)	7,674
Max Prop Con (lb/gal)	1.50
ShutDown ISIP (psi)	5,937
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)	8,036
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	239
Pad (bbls)	47
Treatment (bbls)	7,734
Displacement (bbls)	287
(Acid Included)Total Fluid (bbls)	8,072
Dirty Job Total (bbls)	8,458
100 Mesh	234,720
40/70	112,520
Total Proppant (lbs)	347,240
Total Proppant %	86.8%

CHEMICALS

FR 9800	150
DRB-LT	
Biocide	86
Scale	32

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



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

Invoice #: 22921
 Date: 8/21/2019
 Well Name: Bogges 5H
 Stage No.: 35

State: WV
 County: Monongahela
 Operator: Stetson/Austin/Joe
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,347.20	CWT	\$ 5.50	\$ 12,909.60
SAND 40/70	40/70 white	1,125.20	CWT	\$ 5.75	\$ 6,469.90
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	150	GAL	\$ 17.75	\$ 2,662.50
BIOC11219A	Biocide @ 0.25 GPT	86	GAL	\$ 16.00	\$ 1,376.00
SCAL16846A	Scale Control @ 0.05 GPT	32	GAL	\$ 16.00	\$ 512.00
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		173.62	TON	\$ 55.00	\$ 9,549.10
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 55,259.10
 25% Discount Applied \$ 13,814.78
 Net Stage Total \$ 41,444.33

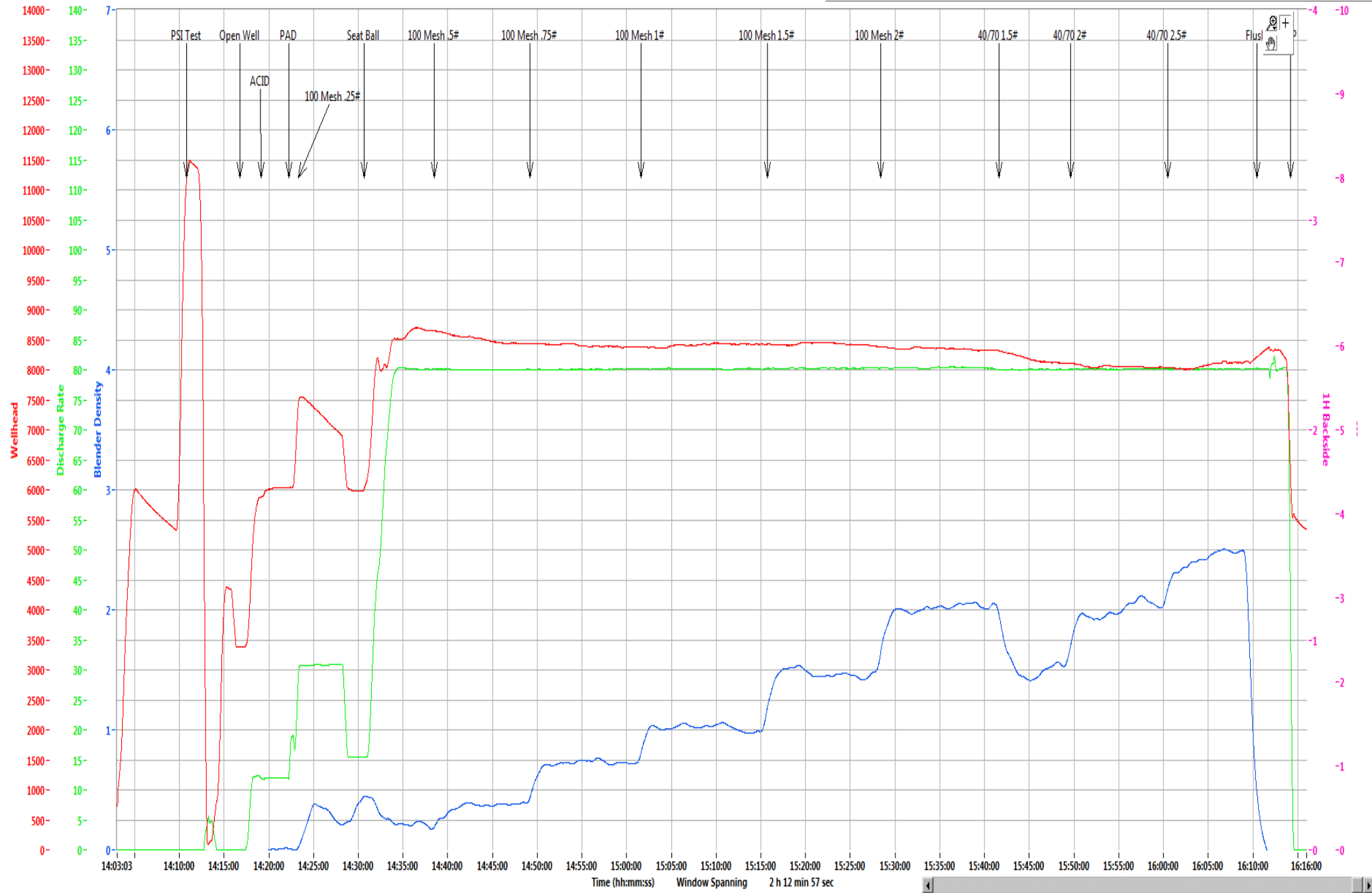
(Print Name) E. Boone Customer Rep: _____ Customer Signature: E. Boone



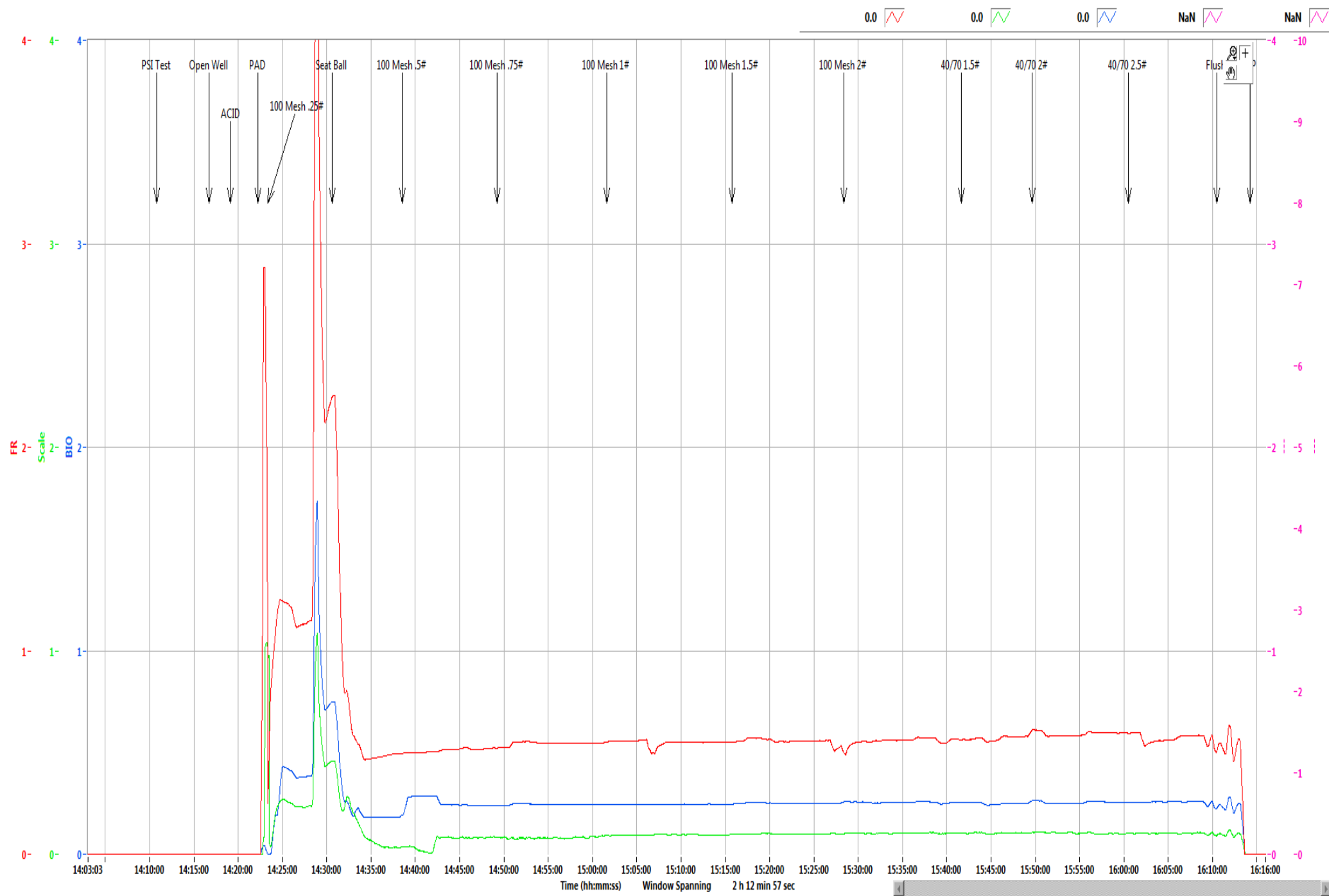
NNE
Boggess 5H
Stage 36
Producers Service Corp.

Post Stage Report
August 21, 2019

719.1 0.0 -0.1 -69.1 NaN



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	36
Date:	8/21/19
OWP (psi):	3,379
Starting Time	2:16 PM
Ending Time	4:14 PM
Pump Time (hr:min)	01:58
Swap Time (hr:min)	01:42
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,209
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,331
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	8,748
Displacement (psi)	8,232
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,548
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)	7,986
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	198
Pad (bbls)	77
Treatment (bbls)	7,659
Displacement (bbls)	280
(Acid Included)Total Fluid (bbls)	8,022
Dirty Job Total (bbls)	8,458
100 Mesh	240,980
40/70	159,980
Total Proppant (lbs)	400,960
Total Proppant %	100.2%

CHEMICALS

FR 9800	170
DRB-LT	
Biocide	70
Scale	19

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



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

Invoice #: 22923
 Date: 8/21/2019
 Well Name: Bogges 5H
 Stage No.: 36

State: WV
 County: Monongahela
 Operator: Stetson/Austin/Joe
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,409.80	CWT	\$ 5.50	\$ 13,253.90
SAND 40/70	40/70 white	1,599.80	CWT	\$ 5.75	\$ 9,198.85
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	170	GAL	\$ 17.75	\$ 3,017.50
BIOC11219A	Biocide @ 0.25 GPT	70	GAL	\$ 16.00	\$ 1,120.00
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		200.48	TON	\$ 55.00	\$ 11,026.40
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 59,700.65
 25% Discount Applied \$ 14,925.16
 Net Stage Total \$ 44,775.49

(Print Name)
 Customer Rep:

E. Boone

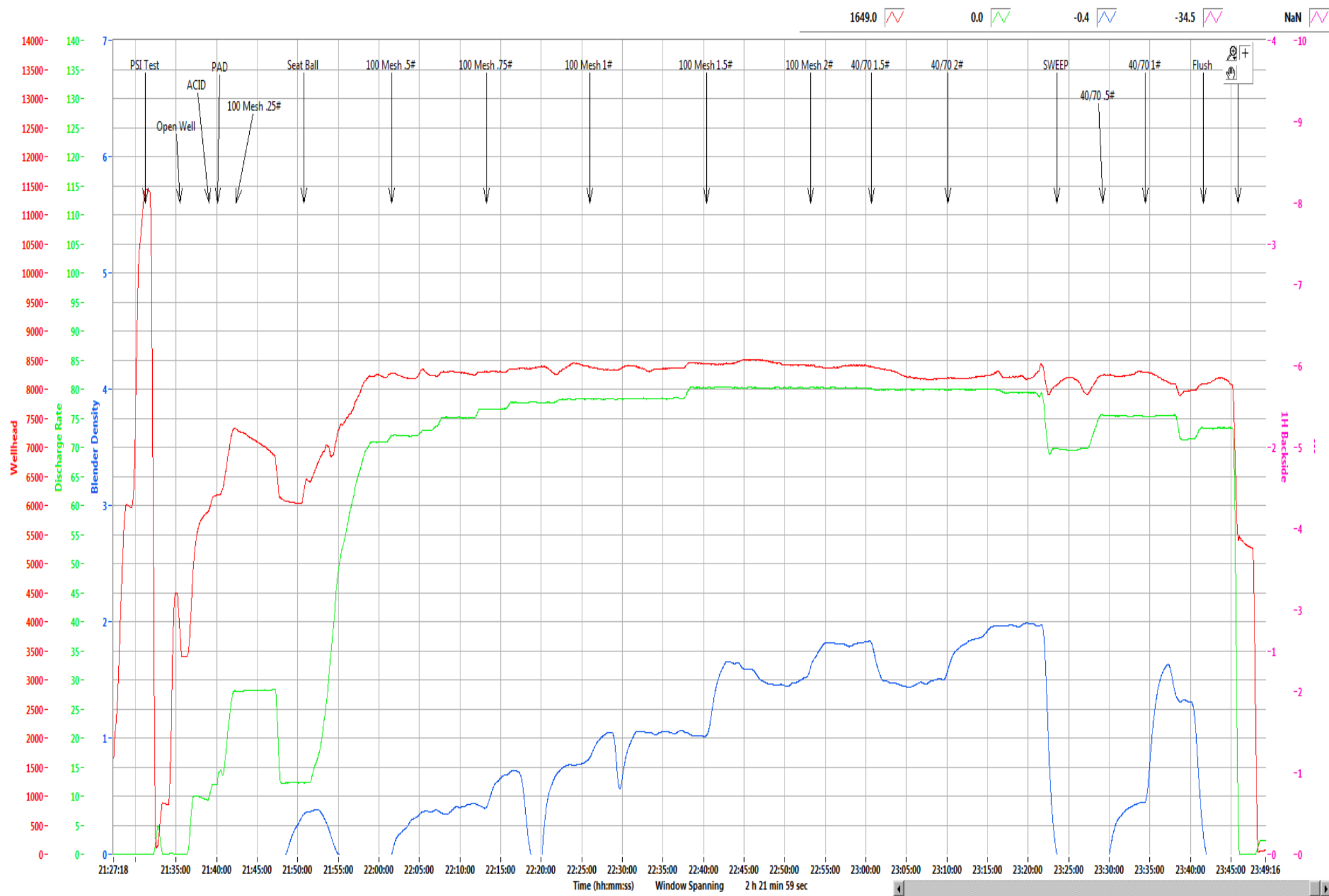
Customer Signature:

E. Boone



NNE
Boggess 5H
Stage 37
Producers Service Corp.

Post Stage Report
August 22, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	37
Date:	8/21/19
OWP (psi):	3,399
Starting Time	9:35 PM
Ending Time	11:45 PM
Pump Time (hr:min)	02:10
Swap Time (hr:min)	01:23
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,496
Average Treating Rate (bbl/min)	77
Average Treating Pressure (psi)	8,283
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	8,643
Displacement (psi)	8,041
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,415
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)	8,399
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	186
Pad (bbls)	49
Treatment (bbls)	8,085
Displacement (bbls)	277
(Acid Included)Total Fluid (bbls)	8,411
Dirty Job Total (bbls)	8,838
100 Mesh	240,180
40/70	160,080
Total Proppant (lbs)	400,260
Total Proppant %	100.1%

CHEMICALS

FR 9800	190
DRB-LT	
Biocide	89
Scale	19

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



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

Invoice #: 22925
 Date: 8/21/2019
 Well Name: Boggess 5H
 Stage No.: 37

State: WV
 County: Monongahela
 Operator: Eck/Tilton/Kelby
 PO/AFE: 100345-604

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	2,401.80	CWT	\$ 5.50	\$ 13,209.90
SAND 40/70	40/70 white	1,600.80	CWT	\$ 5.75	\$ 9,204.60
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	190	GAL	\$ 17.75	\$ 3,372.50
BIOC11219A	Biocide @ 0.25 GPT	89	GAL	\$ 16.00	\$ 1,424.00
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		200.13	TON	\$ 55.00	\$ 11,007.15
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

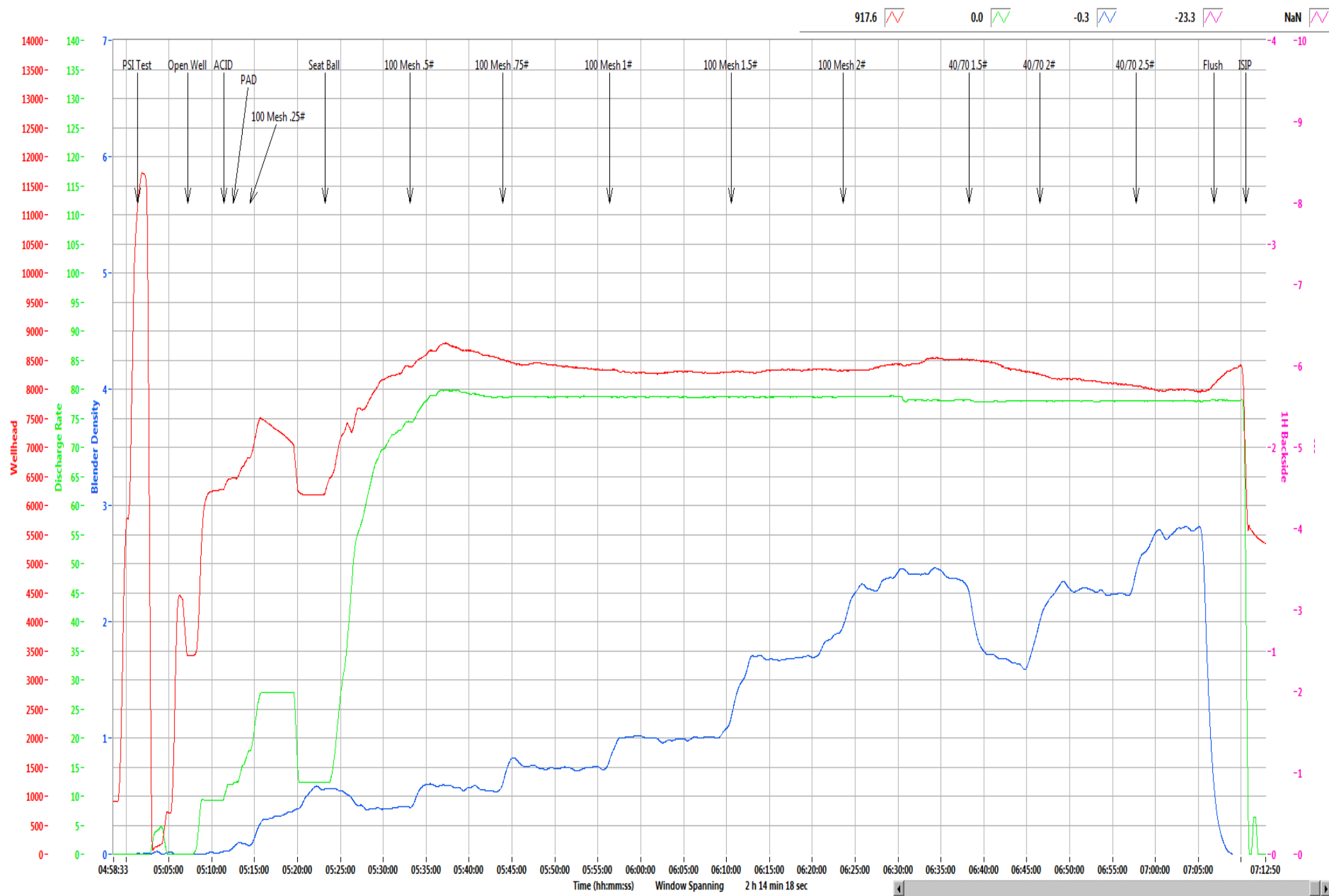
Total No Discount \$ 58,982.15
 25% Discount Applied \$ 14,745.54
 Net Stage Total \$ 44,236.61

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



NNE
Bogges 5H
Stage 38
Producers Service Corp.

Post Stage Report
August 22, 2019



Refresh Graph



Refresh Graph

Boggess Pad	5H
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Stage	38
Date:	8/22/19
OWP (psi):	3,414
Starting Time	5:07 AM
Ending Time	7:10 AM
Pump Time (hr:min)	02:03
Swap Time (hr:min)	01:30
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,512
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	9,330
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	8,838
Displacement (psi)	8,158
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,561
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)	7,970
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	194
Pad (bbls)	32
Treatment (bbls)	7,675
Displacement (bbls)	270
(Acid Included)Total Fluid (bbls)	7,982
Dirty Job Total (bbls)	8,422
100 Mesh	242,380
40/70	157,760
Total Proppant (lbs)	400,140
Total Proppant %	100.0%

CHEMICALS

FR 9800	169
DRB-LT	
Biocide	86
Scale	19

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



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

Invoice #: 22927
 Date: 8/22/2019
 Well Name: Bogges 5H
 Stage No.: 38

State: WV
 County: Monongahela
 Operator: Eck/Tilton/Kelby
 PO/AFE: 100345-604

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	2,423.80	CWT	\$ 5.50	\$ 13,330.90
SAND 40/70	40/70 white	1,577.60	CWT	\$ 5.75	\$ 9,071.20
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	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		200.07	TON	\$ 55.00	\$ 11,003.85
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -

Total No Discount \$ 58,545.70
 25% Discount Applied \$ 14,636.43
 Net Stage Total \$ 43,909.28

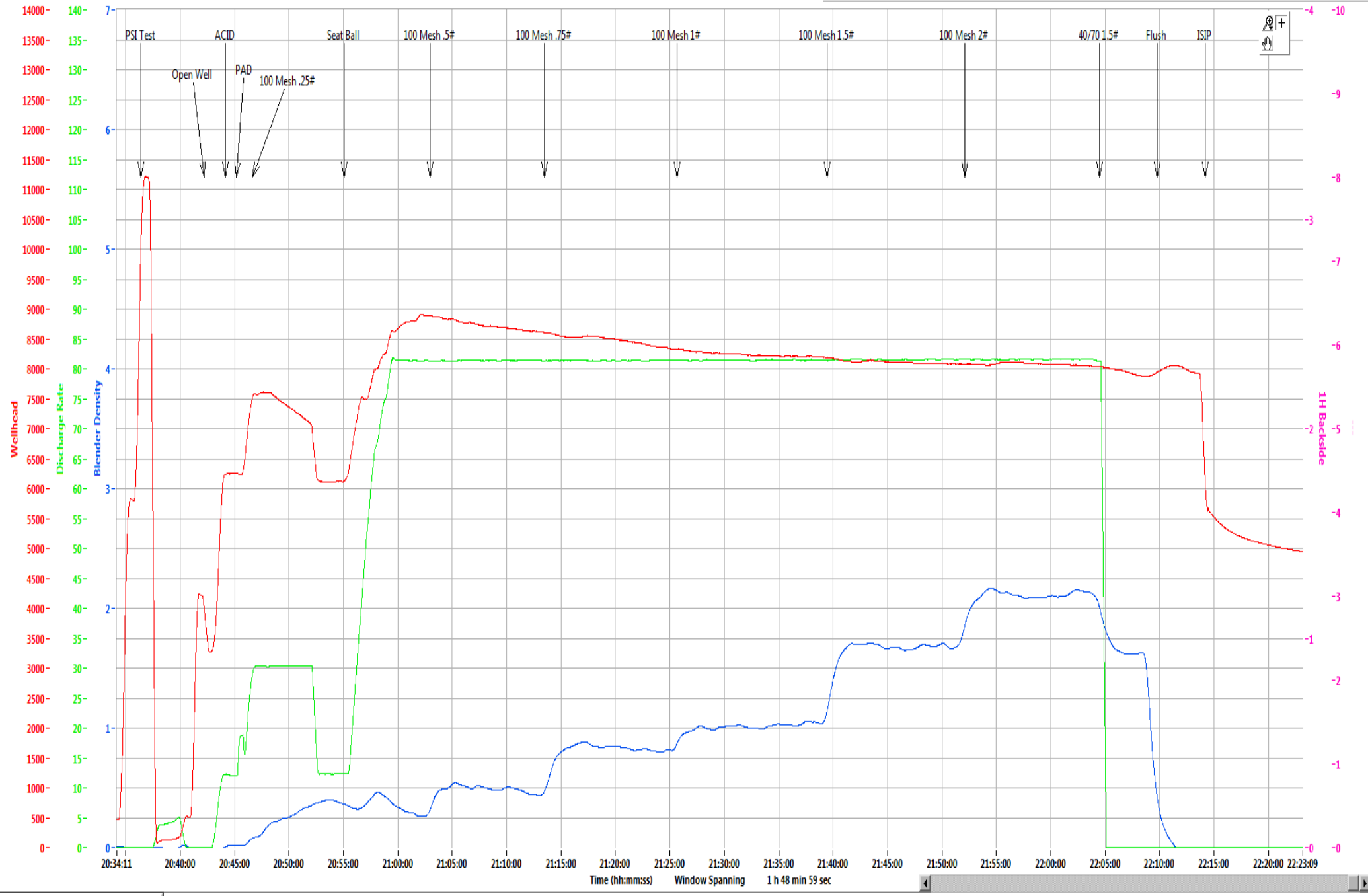
(Print Name)
 Customer Rep: Rob Crow

Customer Signature: [Signature]



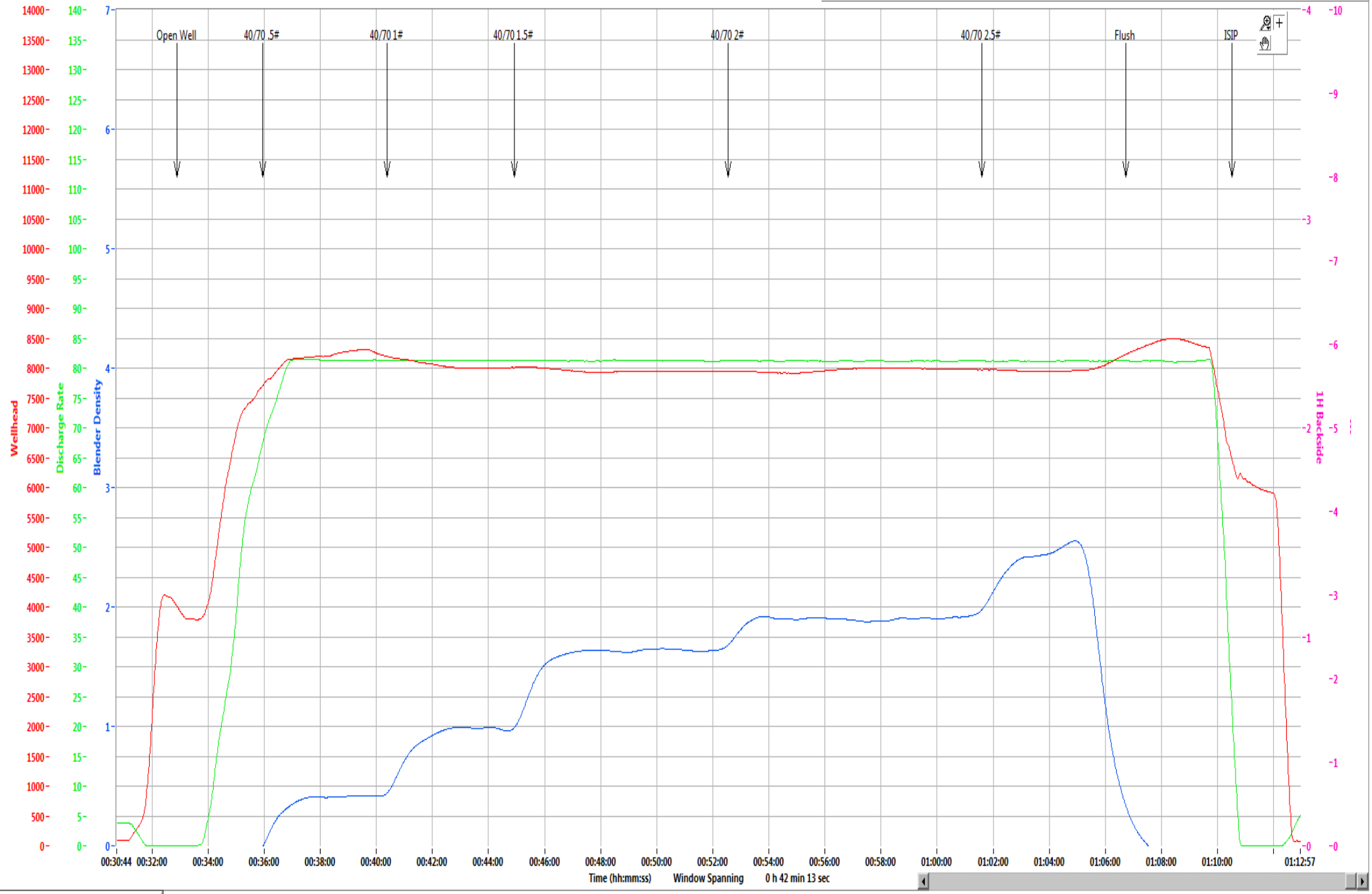
NNE
Boggess 5H
Stage 39
Producers Service Corp.

Post Stage Report
August 23, 2019



Refresh Graph

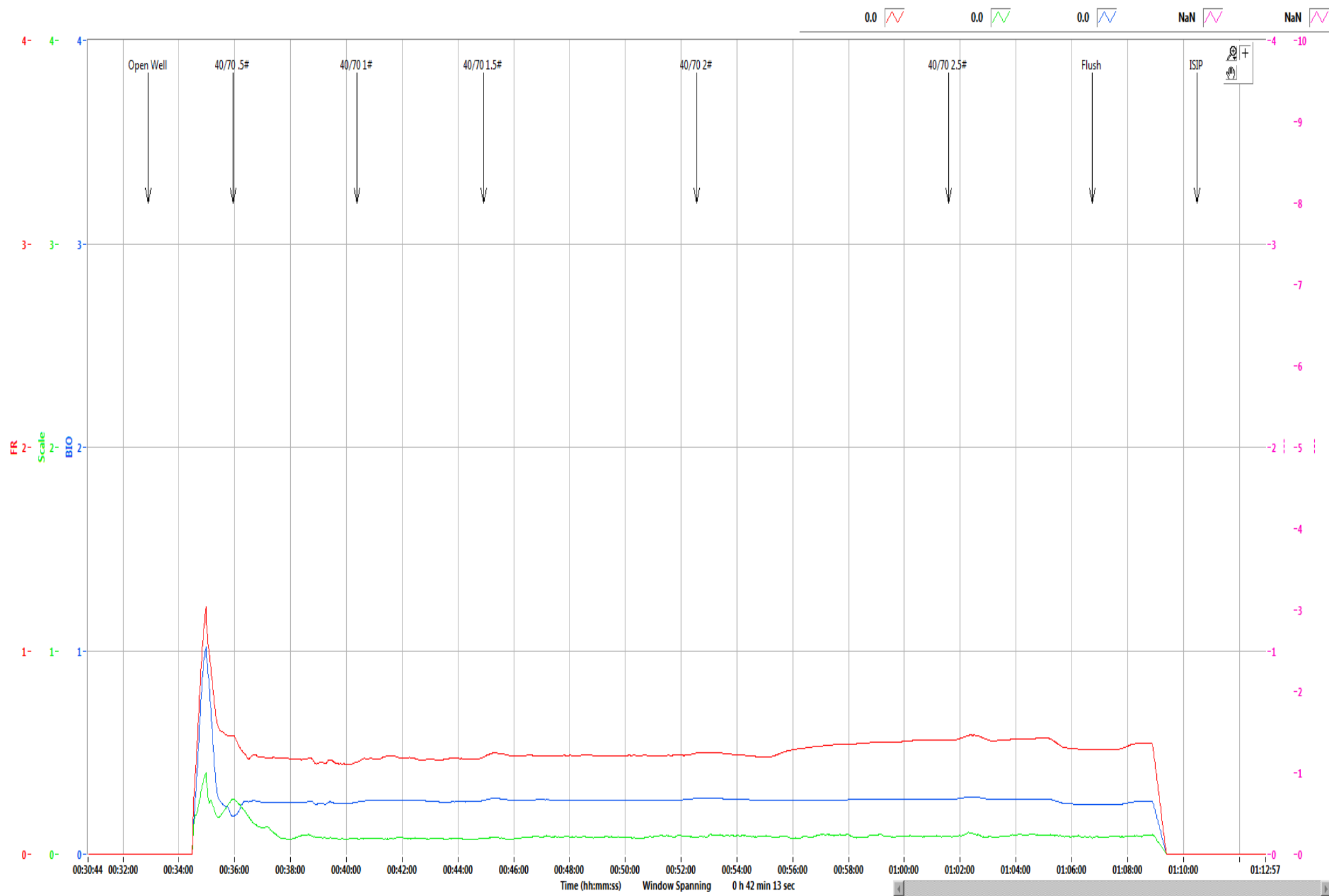
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Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	39
Date:	8/22/19
OWP (psi):	3,289
Starting Time	8:42 PM
Ending Time	1:10 AM
Pump Time (hr:min)	04:28
Swap Time (hr:min)	03:38
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,288
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,025
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	8,531
Displacement (psi)	8,263
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,945
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)	8,908
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	249
Pad (bbls)	55
Treatment (bbls)	7,925
Displacement (bbls)	269
(Acid Included)Total Fluid (bbls)	8,920
Dirty Job Total (bbls)	9,657
100 Mesh	235,120
40/70	163,240
Total Proppant (lbs)	398,360
Total Proppant %	99.6%

CHEMICALS

FR 9800	
DRB-LT	
Biocide	
Scale	

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



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

Invoice #: 22930
 Date: 8/23/2019
 Well Name: Bogges 5H
 Stage No.: 39

State: WV
 County: Monongahela
 Operator: Eck/Kelby
 PO/AFE: 100345-604

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	2,351.20	CWT	\$ 5.50	\$ 12,931.60
SAND 40/70	40/70 white	1,632.40	CWT	\$ 5.75	\$ 9,386.30
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	190	GAL	\$ 17.75	\$ 3,372.50
BIOC11219A	Biocide @ 0.25 GPT	100	GAL	\$ 16.00	\$ 1,600.00
SCAL16846A	Scale Control @ 0.05 GPT	25	GAL	\$ 16.00	\$ 400.00
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		199.18	TON	\$ 55.00	\$ 10,954.90
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -

Total No Discount \$ 59,105.30
 25% Discount Applied \$ 14,776.33
 Net Stage Total \$ 44,328.98

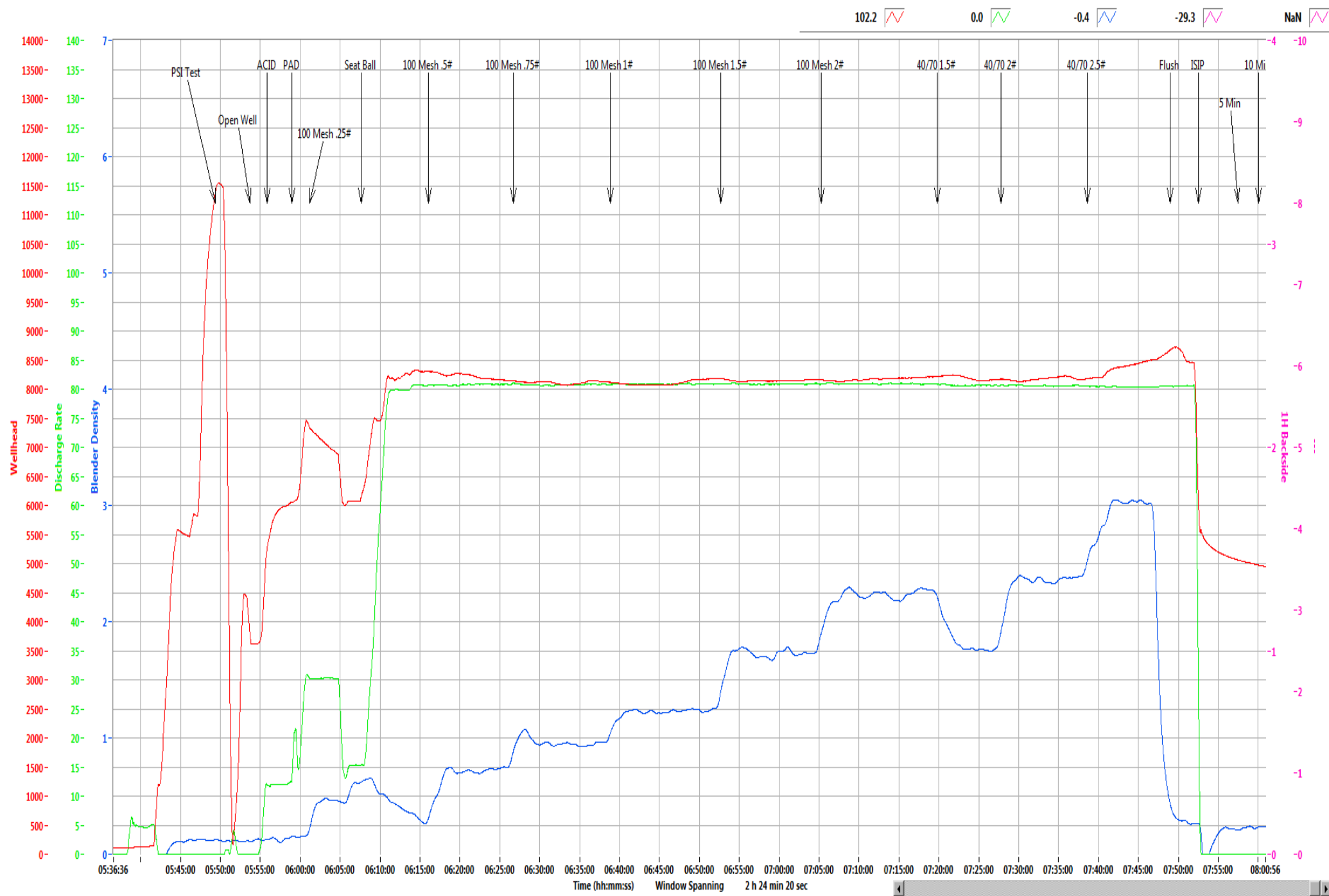
*****Scale used for upstream injection*****

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

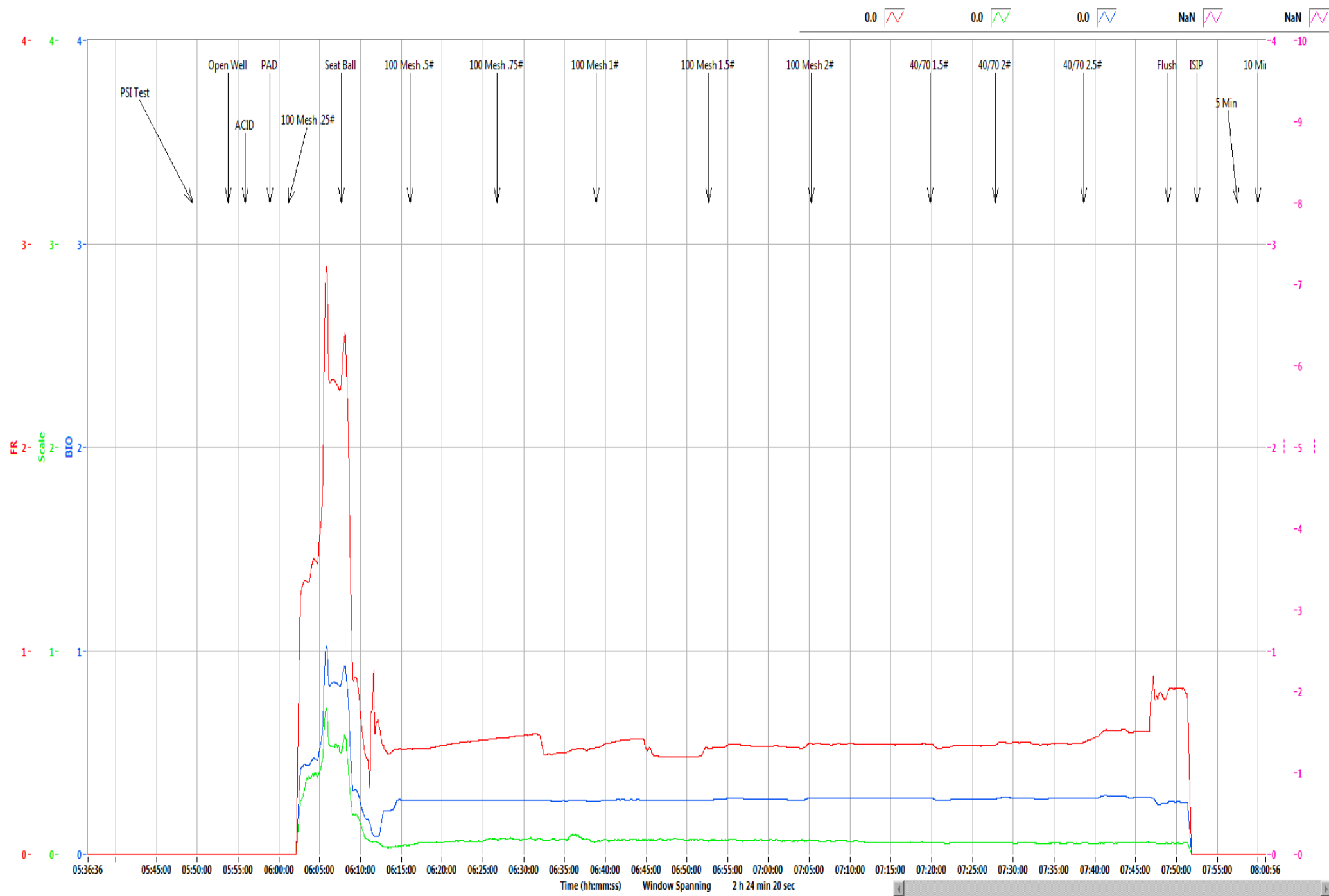


NNE
Boggess 5h
Stage 40
Producers Service Corp.

Post Stage Report
August 23, 2019



Refresh Graph



Boggess Pad	5h
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Stage	40
Date:	8/23/19
OWP (psi):	3,620
Starting Time	5:53 AM
Ending Time	8:07 AM
Pump Time (hr:min)	02:14
Swap Time (hr:min)	01:46
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,348
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,180
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	8,765
Displacement (psi)	8,715
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,660
Final FG (psi/ft)	1.14
5 Minute Leakoff Pressure (psi)	5,053
5 Minute Leakoff Rate (psi/min)	121
10 Minute Leakoff Pressure (psi)	4,968
10 Minute Leakoff Rate (psi/min)	69
15 Minute Leakoff Pressure (psi)	4,781
15 Minute Leakoff Rate (psi/min)	59

Fluids & Proppant

Slickwater (bbls)	8,131
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	422
Pad (bbls)	49
Treatment (bbls)	8,665
Displacement (bbls)	262
(Acid Included)Total Fluid (bbls)	8,167
Dirty Job Total (bbls)	8,583
100 Mesh	240,460
40/70	158,920
Total Proppant (lbs)	399,380
Total Proppant %	99.8%

CHEMICALS

FR 9800	209
Biocide	96
Scale	23

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



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

Invoice #: 22932
 Date: 8/23/2019
 Well Name: Bogges 5h
 Stage No.: 40

State: WV
 County: Monongahela
 Operator: Stetson/Jeremy
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,404.60	CWT	\$ 5.50	\$ 13,225.30
SAND 40/70	40/70 white	1,589.20	CWT	\$ 5.75	\$ 9,137.90
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	209	GAL	\$ 17.75	\$ 3,709.75
BIOC11219A	Biocide @ 0.25 GPT	96	GAL	\$ 16.00	\$ 1,536.00
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		199.69	TON	\$ 55.00	\$ 10,982.95
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -

Total No Discount \$ 60,691.90
 25% Discount Applied \$ 15,172.98
 Net Stage Total \$ 45,518.93

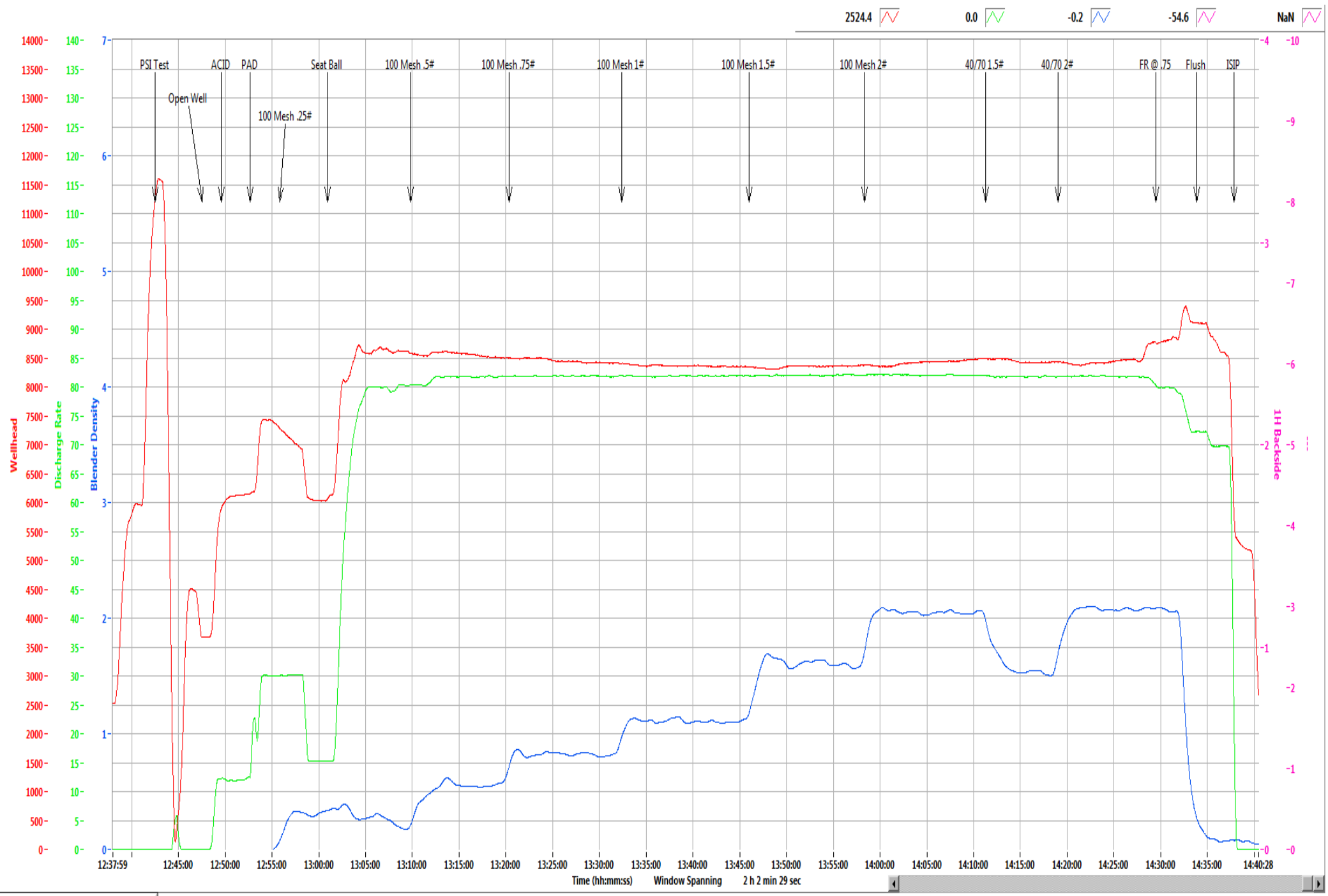
*****Scale used for upstream injection*****

(Print Name) Kevin Hyde Customer Rep: _____ Customer Signature: [Signature]

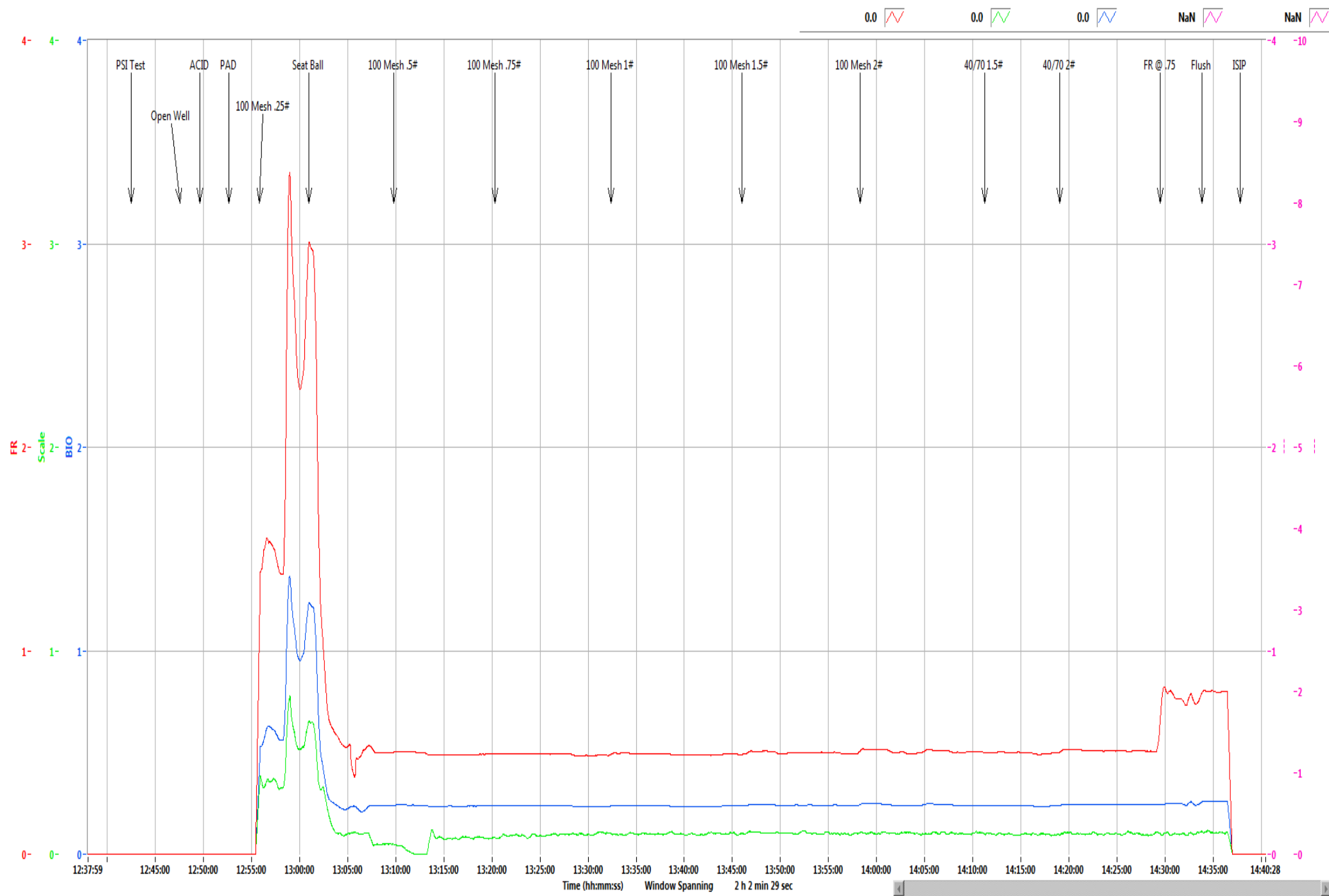


NNE
Boggess 5H
Stage 41
Producers Service Corp.

Post Stage Report
August 23, 2019



Refresh Graph



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

Refresh Graph

Boggess Pad**5H**

Stage	41
Date:	8/23/19
OWP (psi):	3,671
Starting Time	12:47 PM
Ending Time	2:37 PM
Pump Time (hr:min)	01:50
Swap Time (hr:min)	01:20
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,151
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,477
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	9,479
Displacement (psi)	9,054
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,425
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)	7,595
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	169
Pad (bbls)	89
Treatment (bbls)	7,283
Displacement (bbls)	254
(Acid Included)Total Fluid (bbls)	7,631
Dirty Job Total (bbls)	7,978
100 Mesh	240,920
40/70	114,040
Total Proppant (lbs)	354,960
Total Proppant %	88.7%

CHEMICALS

FR 9800	183
Biocide	84
Scale	22

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



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

Invoice #: 22934
 Date: 8/23/2019
 Well Name: Bogges 5H
 Stage No.: 41

State: WV
 County: Monongahela
 Operator: Stetson/Jeremy
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,409.20	CWT	\$ 5.50	\$ 13,250.60
SAND 40/70	40/70 white	1,140.40	CWT	\$ 5.75	\$ 6,557.30
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	183	GAL	\$ 17.75	\$ 3,248.25
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		177.48	TON	\$ 55.00	\$ 9,761.40
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -

Total No Discount \$ 56,261.55
 25% Discount Applied \$ 14,065.39
 Net Stage Total \$ 42,196.16

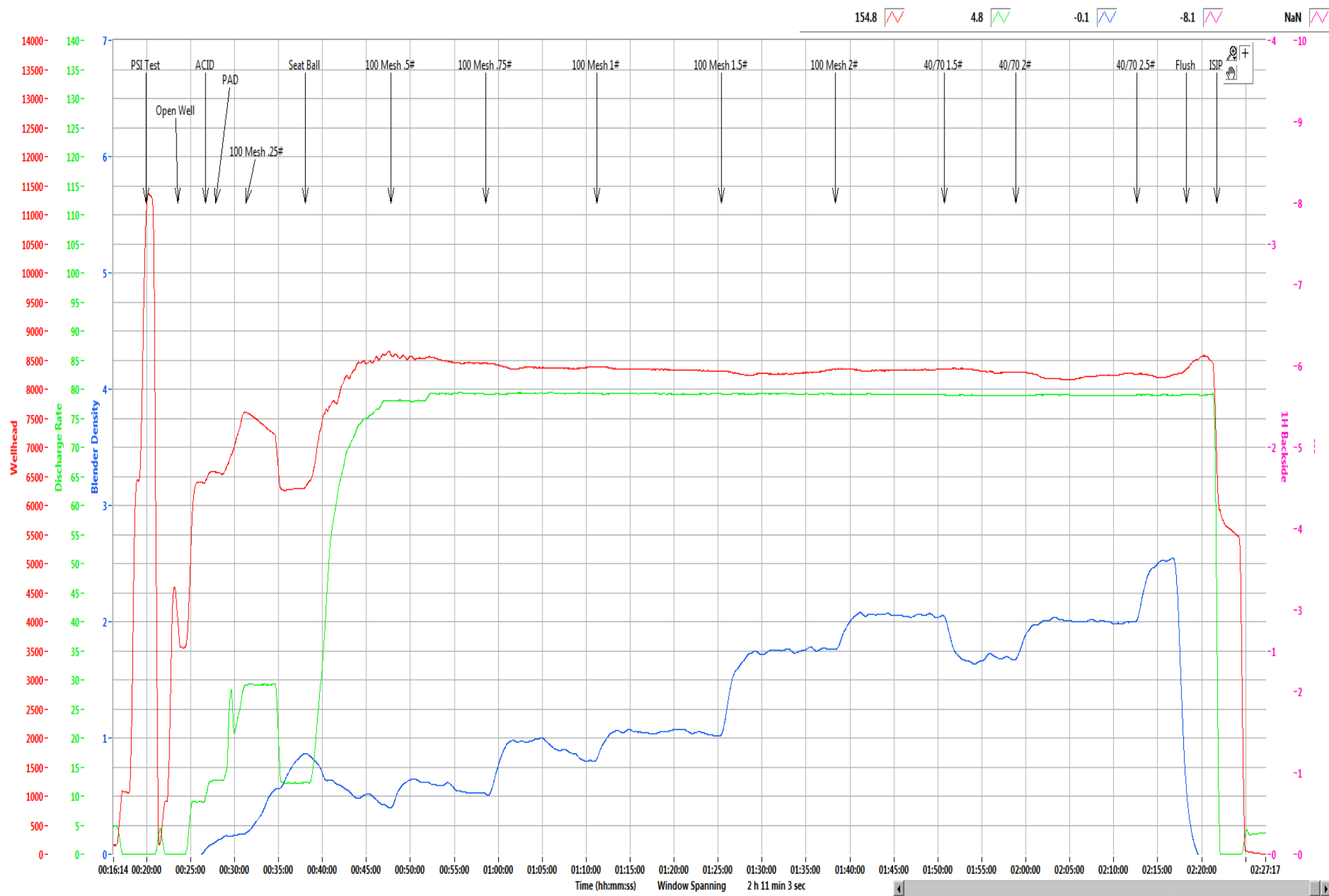
*****Scale used for upstream injection*****

(Print Name) Kevin Hodson Customer Rep: [Signature] Customer Signature: [Signature]

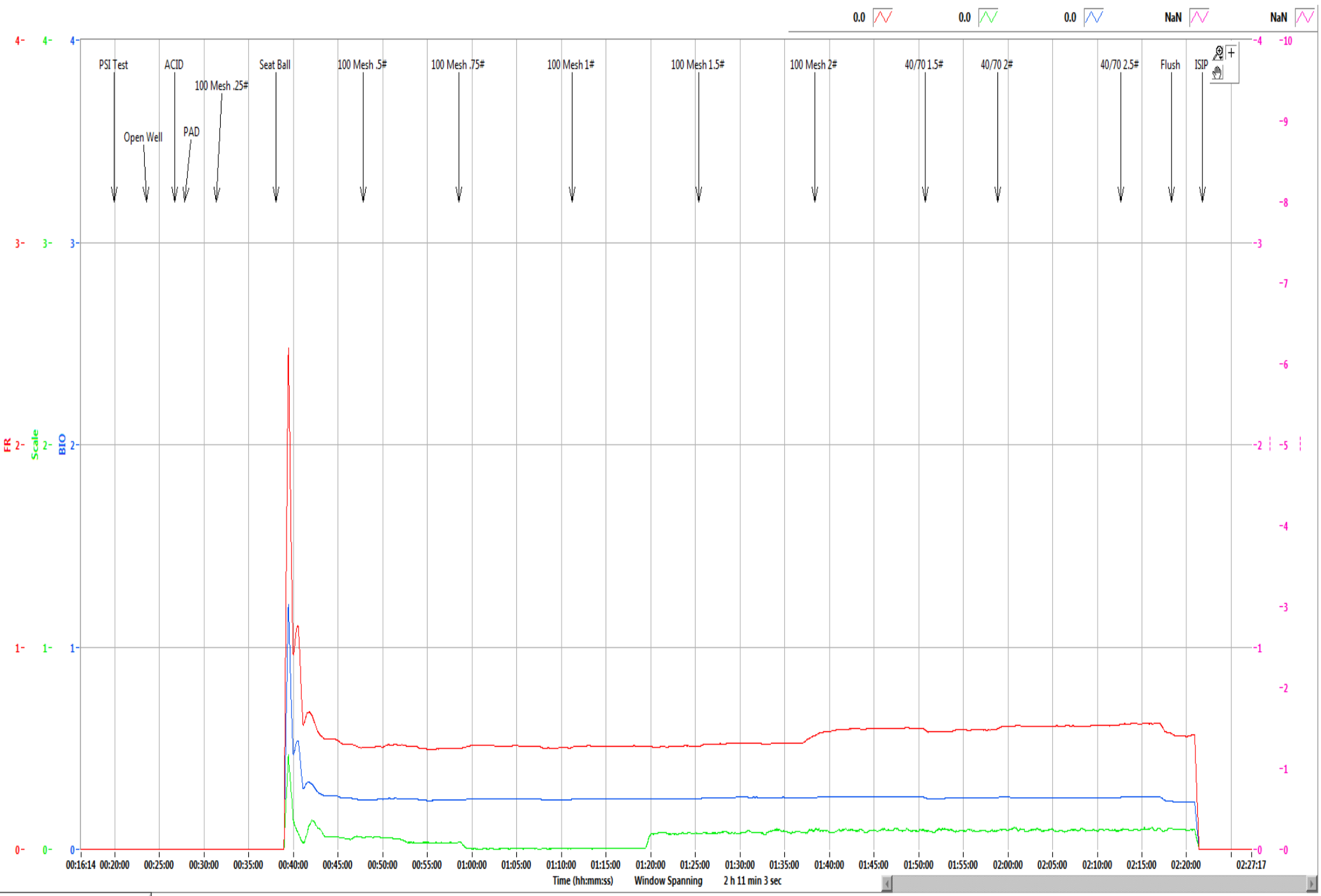


NNE
Boggess 5H
Stage 42
Producers Service Corp.

Post Stage Report
August 24, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	42
Date:	8/23/19
OWP (psi):	3,568
Starting Time	12:23 AM
Ending Time	2:21 AM
Pump Time (hr:min)	01:58
Swap Time (hr:min)	06:26
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,435
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,331
Maximum Treating Rate (bbl/min)	80
Maximum Treating Pressure (psi)	8,701
Displacement (psi)	8,368
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,928
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)	7,822
Acid 7.5% HCL (gal)	728
Wireline Pump Down (bbls)	1,378
Pad (bbls)	74
Treatment (bbls)	7,507
Displacement (bbls)	252
(Acid Included)Total Fluid (bbls)	7,839
Dirty Job Total (bbls)	8,242
100 Mesh	240,240
40/70	160,340
Total Proppant (lbs)	400,580
Total Proppant %	100.1%

CHEMICALS

FR 9800	176
Biocide	82
Scale	20

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



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

Invoice #: 22936
 Date: 8/24/2019
 Well Name: Bogges 5H
 Stage No.: 42

State: WV
 County: Monongahela
 Operator: Eck/Kelby
 PO/AFE: 100345-604

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	728	GAL	\$ 1.25	\$ 910.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	1.456	GAL	\$ 35.00	\$ 50.96
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,402.40	CWT	\$ 5.50	\$ 13,213.20
SAND 40/70	40/70 white	1,603.40	CWT	\$ 5.75	\$ 9,219.55
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	176	GAL	\$ 17.75	\$ 3,124.00
BIOC11219A	Biocide @ 0.25 GPT	82	GAL	\$ 16.00	\$ 1,312.00
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		200.29	TON	\$ 55.00	\$ 11,015.95
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -

Total No Discount \$ 58,965.66
 25% Discount Applied \$ 14,741.42
 Net Stage Total \$ 44,224.25

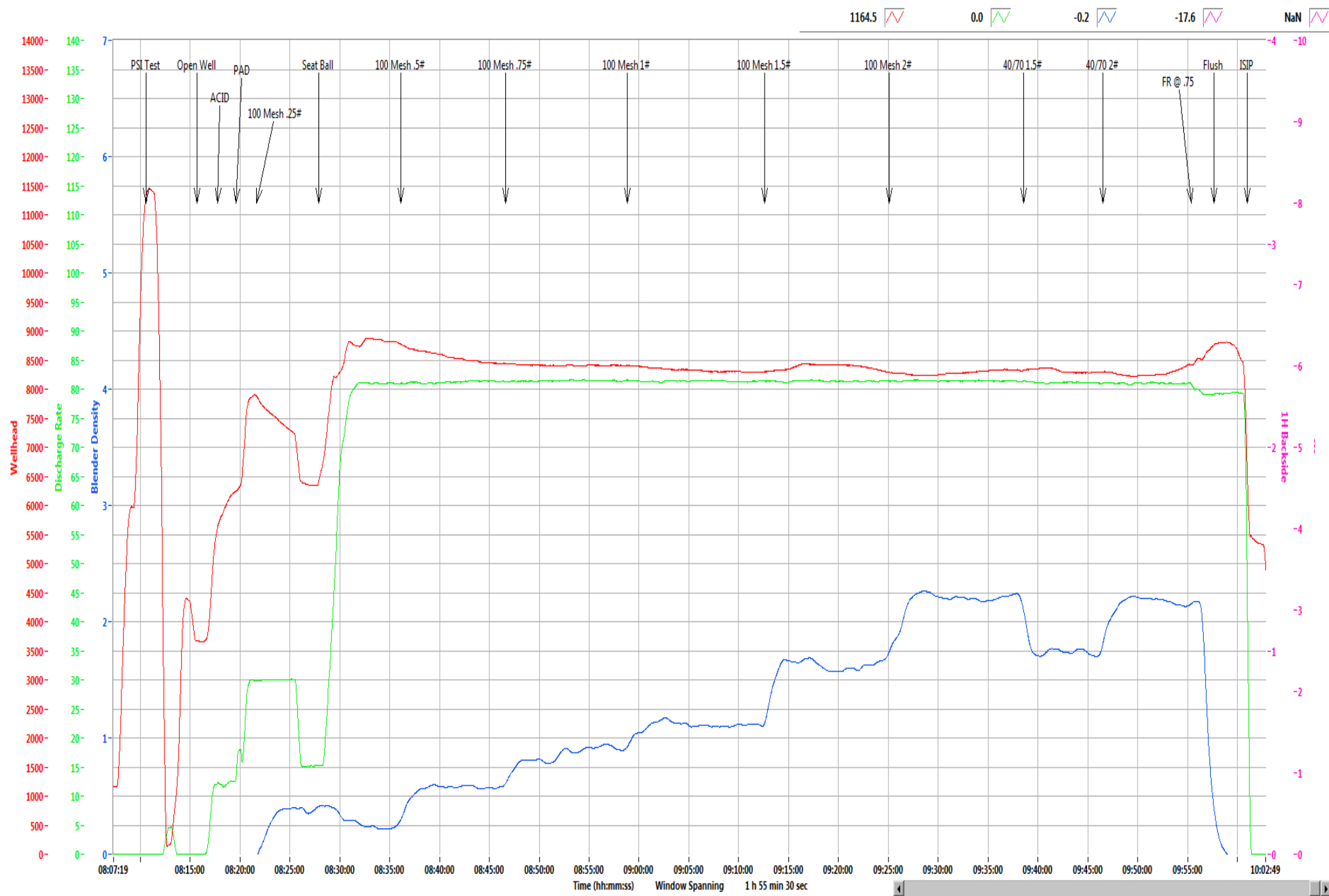
*****Scale used for upstream injection*****

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



NNE
Boggess 5H
Stage 43
Producers Service Corp.

Post Stage Report
August 24, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	43
Date:	8/24/19
OWP (psi):	3,662
Starting Time	8:10 AM
Ending Time	10:00 AM
Pump Time (hr:min)	01:50
Swap Time (hr:min)	01:27
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,742
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	8,400
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	8,917
Displacement (psi)	8,800
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,382
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)	7,292
Acid 7.5% HCL (gal)	1,000
Wireline Pump Down (bbls)	190
Pad (bbls)	52
Treatment (bbls)	7,008
Displacement (bbls)	252
(Acid Included)Total Fluid (bbls)	7,316
Dirty Job Total (bbls)	7,685
100 Mesh	240,080
40/70	107,580
Total Proppant (lbs)	347,660
Total Proppant %	86.9%

CHEMICALS

FR 9800	158
Biocide	80
Scale	20

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



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

Invoice #: 22938
 Date: 8/24/2019
 Well Name: Bogges 5H
 Stage No.: 43

State: WV
 County: Monongahela
 Operator: Stetson/Jeremy M
 PO/AFE: 100345-604

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	2,400.80	CWT	\$ 5.50	\$ 13,204.40
SAND 40/70	40/70 white	1,075.80	CWT	\$ 5.75	\$ 6,185.85
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	158	GAL	\$ 17.75	\$ 2,804.50
BIOC11219A	Biocide @ 0.25 GPT	80	GAL	\$ 16.00	\$ 1,280.00
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		173.83	TON	\$ 55.00	\$ 9,560.65
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -

Total No Discount \$ 54,475.40
 25% Discount Applied \$ 13,618.85
 Net Stage Total \$ 40,856.55

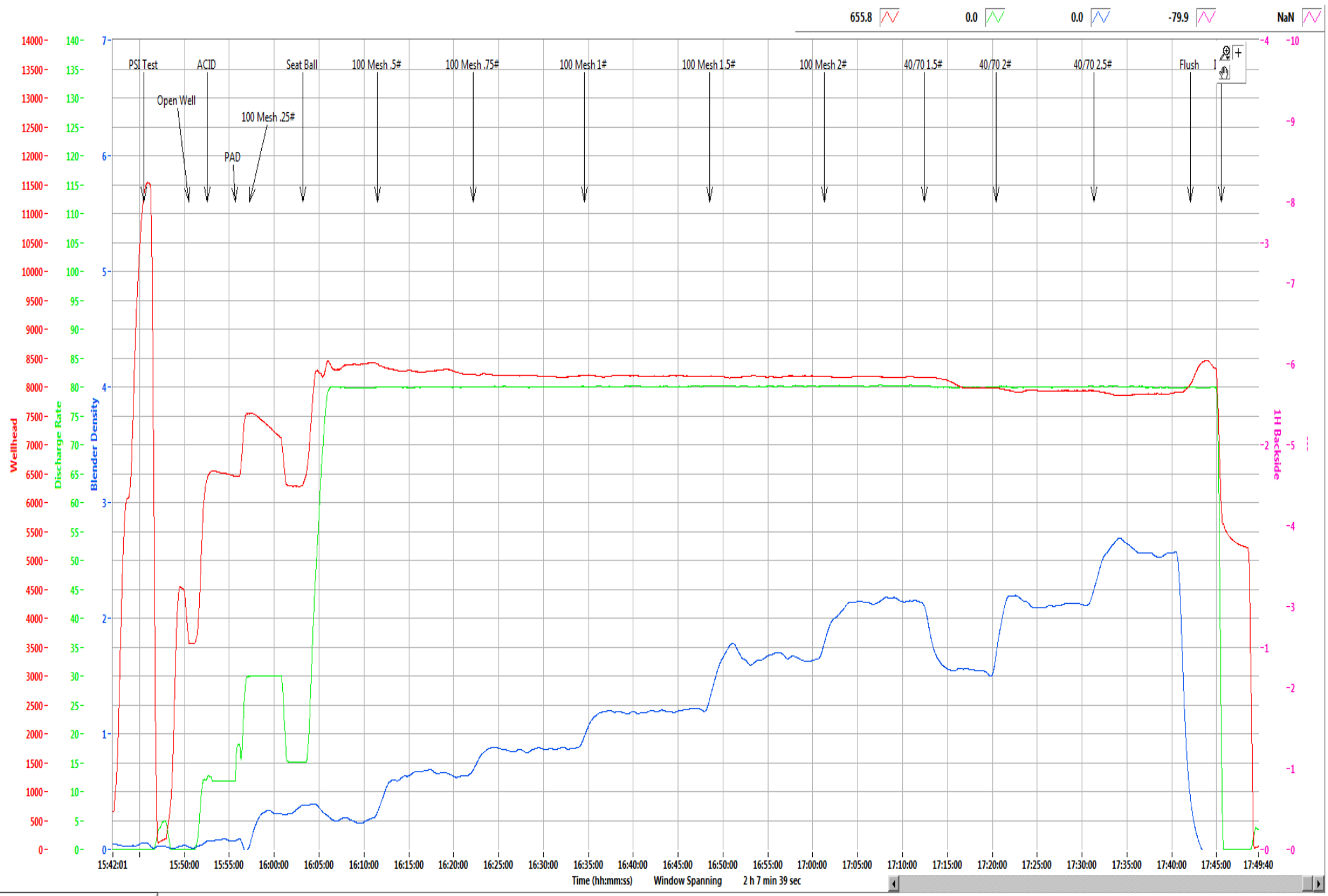
*****Scale used for upstream injection*****

(Print Name) Kevin Hudson Customer Rep: Kevin Hudson Customer Signature: Kevin Hudson



NNE
Boggess 5H
Stage 44
Producers Service Corp.

Post Stage Report
August 24, 2019



Refresh Graph



Boggess Pad**5H**

Stage	44
Date:	8/24/19
OWP (psi):	3,561
Starting Time	3:45 PM
Ending Time	5:45 PM
Pump Time (hr:min)	02:00
Swap Time (hr:min)	01:18
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,557
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,126
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	8,538
Displacement (psi)	8,122
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,661
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)	7,862
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	165
Pad (bbls)	38
Treatment (bbls)	7,608
Displacement (bbls)	8,122
(Acid Included)Total Fluid (bbls)	7,898
Dirty Job Total (bbls)	8,310
100 Mesh	240,420
40/70	161,060
Total Proppant (lbs)	401,480
Total Proppant %	100.4%

CHEMICALS

FR 9800	165
Biocide	92
Scale	18

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



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

Invoice #: 22940
 Date: 8/24/2019
 Well Name: Boggess 5H
 Stage No.: 44

State: WV
 County: Monongahela
 Operator: Eck/Kelby
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,404.20	CWT	\$ 5.50	\$ 13,223.10
SAND 40/70	40/70 white	1,610.60	CWT	\$ 5.75	\$ 9,260.95
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	165	GAL	\$ 17.75	\$ 2,928.75
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 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		200.74	TON	\$ 55.00	\$ 11,040.70
DIESEL FUEL	Not eligible for discount	0	GAL	\$ 3.04	\$ -

Total No Discount \$ 59,993.50
 25% Discount Applied \$ 14,998.38
 Net Stage Total \$ 44,995.13

*****Scale used for upstream injection*****

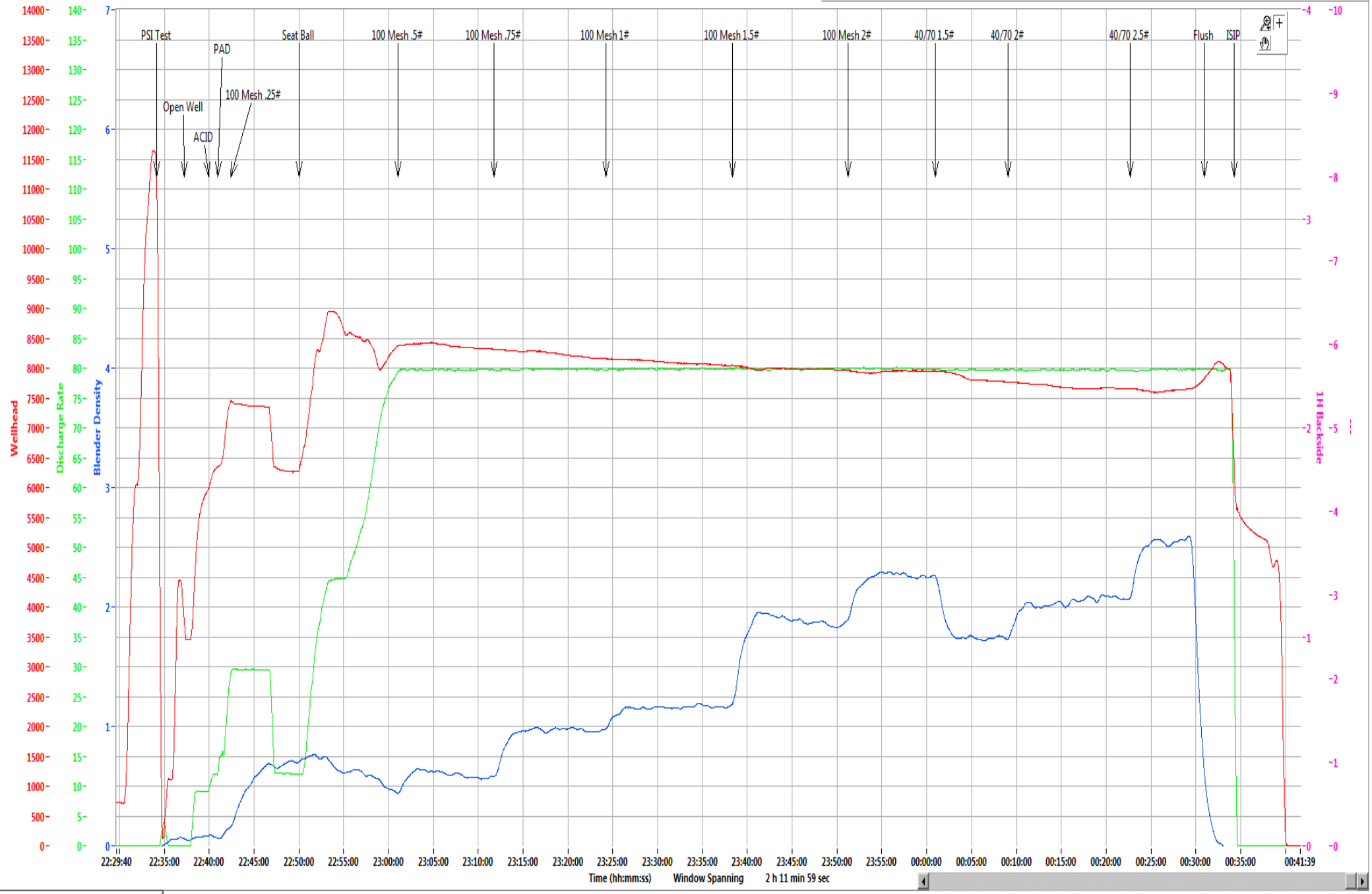
(Print Name) Customer Rep: Rob Cowger Customer Signature: [Signature]



NNE
Boggess 5H
Stage 45
Producers Service Corp.

Post Stage Report
August 25, 2019

722.1 0.0 -0.4 -19.4 NaN



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	45
Date:	8/24/19
OWP (psi):	3,455
Starting Time	10:37 PM
Ending Time	12:34 AM
Pump Time (hr:min)	01:57
Swap Time (hr:min)	01:23
Starting # Pumps	16
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,618
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,006
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	8,981
Displacement (psi)	7,870
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,668
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)	7,754
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	174
Pad (bbls)	63
Treatment (bbls)	7,457
Displacement (bbls)	240
(Acid Included)Total Fluid (bbls)	7,766
Dirty Job Total (bbls)	8,210
100 Mesh	240,800
40/70	160,480
Total Proppant (lbs)	401,280
Total Proppant %	100.3%

CHEMICALS

FR 9800	170
Biocide	85
Scale	16

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



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

Invoice #: 22942
 Date: 8/25/2019
 Well Name: Bogges 5H
 Stage No.: 45

State: WV
 County: Monongahela
 Operator: Eck/Kelby
 PO/AFE: 100345-604

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	2,408.00	CWT	\$ 5.50	\$ 13,244.00
SAND 40/70	40/70 white	1,604.80	CWT	\$ 5.75	\$ 9,227.60
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	170	GAL	\$ 17.75	\$ 3,017.50
BIOC11219A	Biocide @ 0.25 GPT	85	GAL	\$ 16.00	\$ 1,360.00
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		200.64	TON	\$ 55.00	\$ 11,035.20
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 58,600.30
 25% Discount Applied \$ 14,650.08
 Net Stage Total \$ 43,950.23

*****Scale used for upstream injection*****

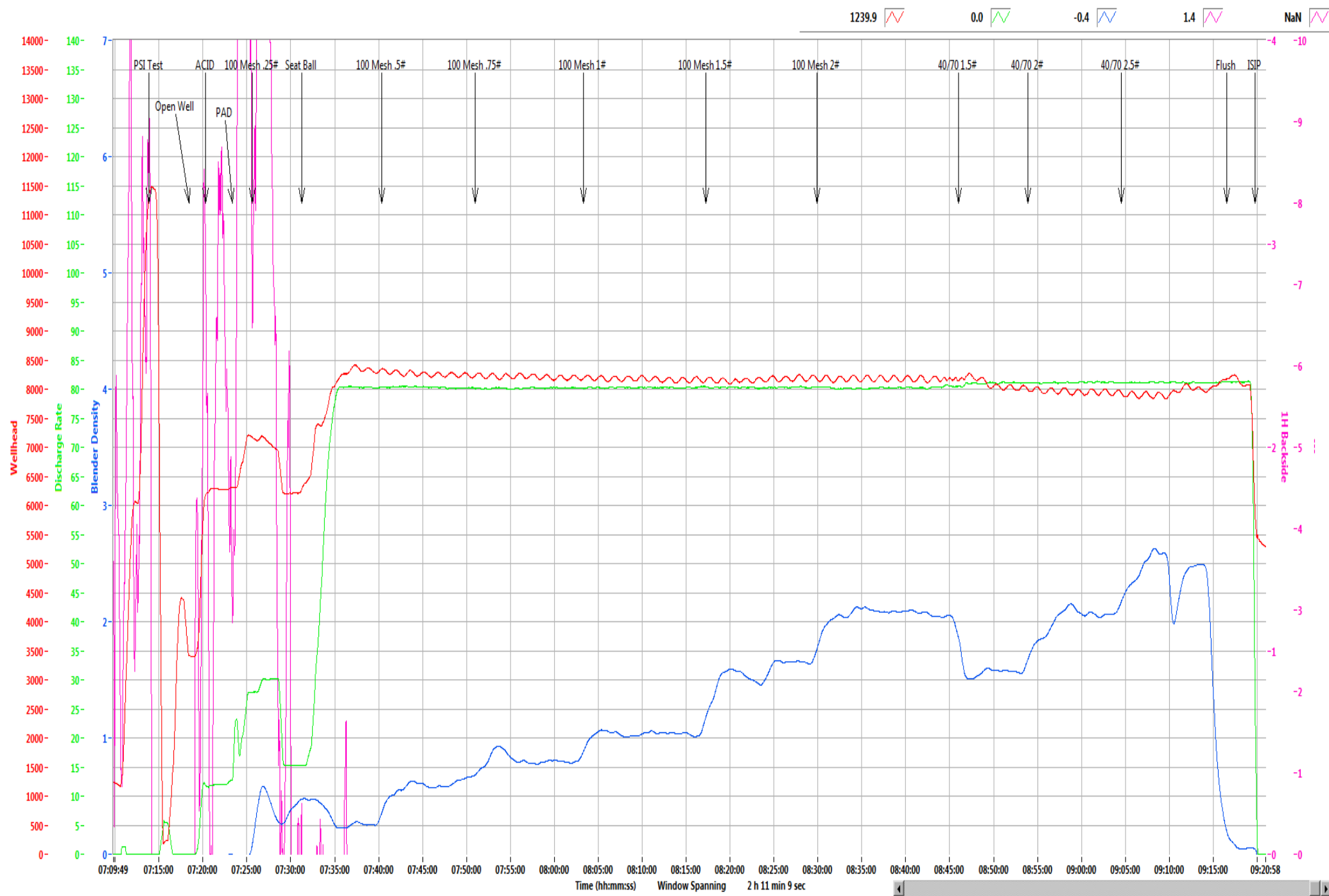
(Print Name)
 Customer Rep: Rob Casper

Customer Signature: [Signature]

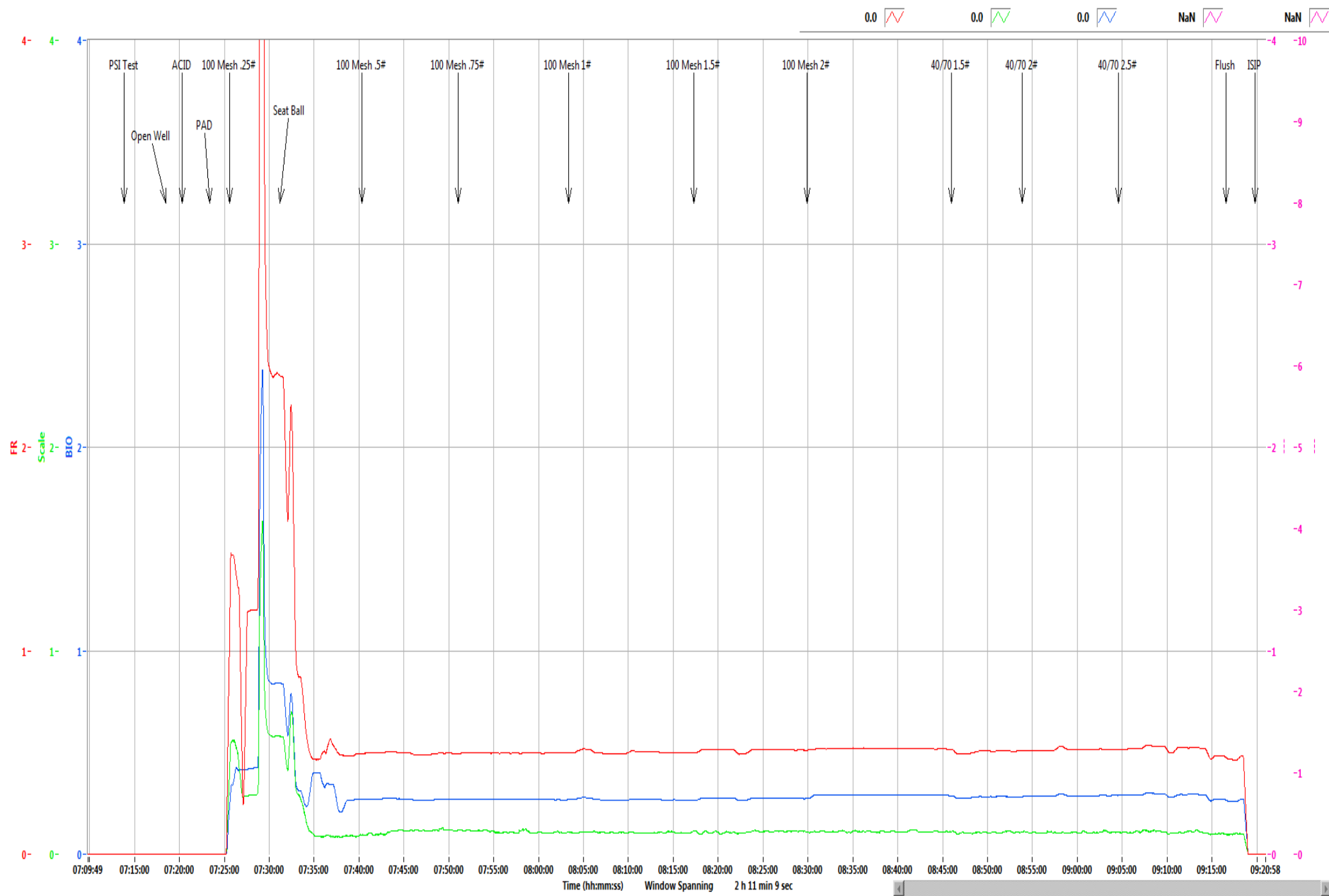


NNE
Boggess 5H
Stage 46
Producers Service Corp.

Post Stage Report
August 25, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	46
Date:	8/25/19
OWP (psi):	3,405
Starting Time	7:18 AM
Ending Time	9:19 AM
Pump Time (hr:min)	02:01
Swap Time (hr:min)	01:45
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,429
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	8,155
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	8,445
Displacement (psi)	8,159
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,465
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)	8,327
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	286
Pad (bbls)	49
Treatment (bbls)	8,073
Displacement (bbls)	235
(Acid Included)Total Fluid (bbls)	8,363
Dirty Job Total (bbls)	8,811
100 Mesh	245,980
40/70	154,880
Total Proppant (lbs)	400,860
Total Proppant %	100.2%

CHEMICALS

FR 9800	182
Biocide	92
Scale	21

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



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

Invoice #: 22944
 Date: 8/25/2019
 Well Name: Bogges 5H
 Stage No.: 46

State: WV
 County: Monongahela
 Operator: Stetson/Moon
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,459.80	CWT	\$ 5.50	\$ 13,528.90
SAND 40/70	40/70 white	1,548.80	CWT	\$ 5.75	\$ 8,905.60
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	182	GAL	\$ 17.75	\$ 3,230.50
BIOC11219A	Biocide @ 0.25 GPT	92	GAL	\$ 16.00	\$ 1,472.00
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		200.43	TON	\$ 55.00	\$ 11,023.65
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 60,276.65
 25% Discount Applied \$ 15,069.16
 Net Stage Total \$ 45,207.49

*****Scale used for upstream injection*****

(Print Name) Kevin Holden Customer Rep: Kevin Holden Customer Signature: [Signature]



NNE
Bogges 5H
Stage 47
Producers Service Corp.

Post Stage Report
August 25, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	47
Date:	8/25/19
OWP (psi):	3,442
Starting Time	2:18 PM
Ending Time	4:17 PM
Pump Time (hr:min)	01:59
Swap Time (hr:min)	01:23
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,240
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	7,978
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	8,195
Displacement (psi)	7,846
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,518
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)	8,186
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	123
Pad (bbls)	73
Treatment (bbls)	7,912
Displacement (bbls)	231
(Acid Included)Total Fluid (bbls)	8,222
Dirty Job Total (bbls)	8,681
100 Mesh	236,160
40/70	160,040
Total Proppant (lbs)	396,200
Total Proppant %	99.1%

CHEMICALS

FR 9800	181
Biocide	90
Scale	22

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



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

Invoice #: 22946
 Date: 8/25/2019
 Well Name: Bogges 5H
 Stage No.: 47

State: WV
 County: Monongahela
 Operator: Stetson/Moon
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,361.60	CWT	\$ 5.50	\$ 12,988.80
SAND 40/70	40/70 white	1,600.40	CWT	\$ 5.75	\$ 9,202.30
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	22	GAL	\$ 16.00	\$ 352.00
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		198.1	TON	\$ 55.00	\$ 10,895.50
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 59,871.35
 25% Discount Applied \$ 14,967.84
 Net Stage Total \$ 44,903.51

*****Scale used for upstream injection*****

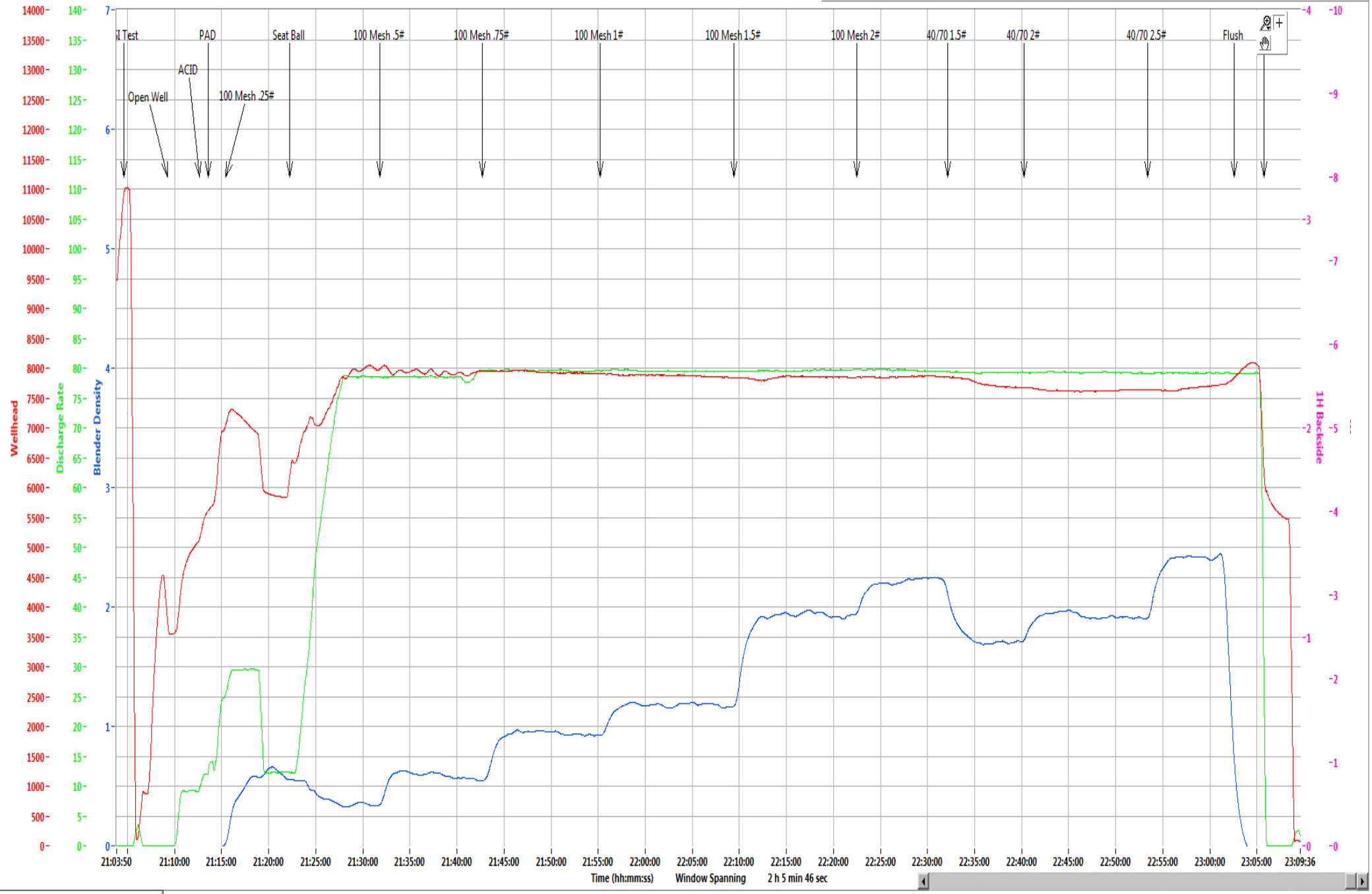
(Print Name) Kevin Hudson Customer Signature: [Signature]
 Customer Rep: _____



NNE
Boggess 5H
Stage 48
Producers Service Corp.

Post Stage Report
August 25, 2019

9469.2 0.0 -0.1 -97.8 NaN



Refresh Graph



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Boggess Pad**5H**

Stage	48
Date:	8/25/19
OWP (psi):	3,555
Starting Time	9:09 PM
Ending Time	11:05 PM
Pump Time (hr:min)	01:56
Swap Time (hr:min)	01:22
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,444
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	7,831
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	8,084
Displacement (psi)	7,865
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,821
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)	7,775
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	116
Pad (bbls)	35
Treatment (bbls)	7,522
Displacement (bbls)	225
(Acid Included)Total Fluid (bbls)	7,787
Dirty Job Total (bbls)	8,084
100 Mesh	237,480
40/70	157,680
Total Proppant (lbs)	395,160
Total Proppant %	98.8%

CHEMICALS

FR 9800	170
Biocide	83
Scale	18

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



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

Invoice #: 22948
 Date: 8/25/2019
 Well Name: Bogges 5H
 Stage No.: 48

State: WV
 County: Monongahela
 Operator: Eck/Kelsby
 PO/AFE: 100345-604

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	2,374.80	CWT	\$ 5.50	\$ 13,061.40
SAND 40/70	40/70 white	1,576.80	CWT	\$ 5.75	\$ 9,066.60
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	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		197.58	TON	\$ 55.00	\$ 10,866.90
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 58,088.40
 25% Discount Applied \$ 14,522.10
 Net Stage Total \$ 43,566.30

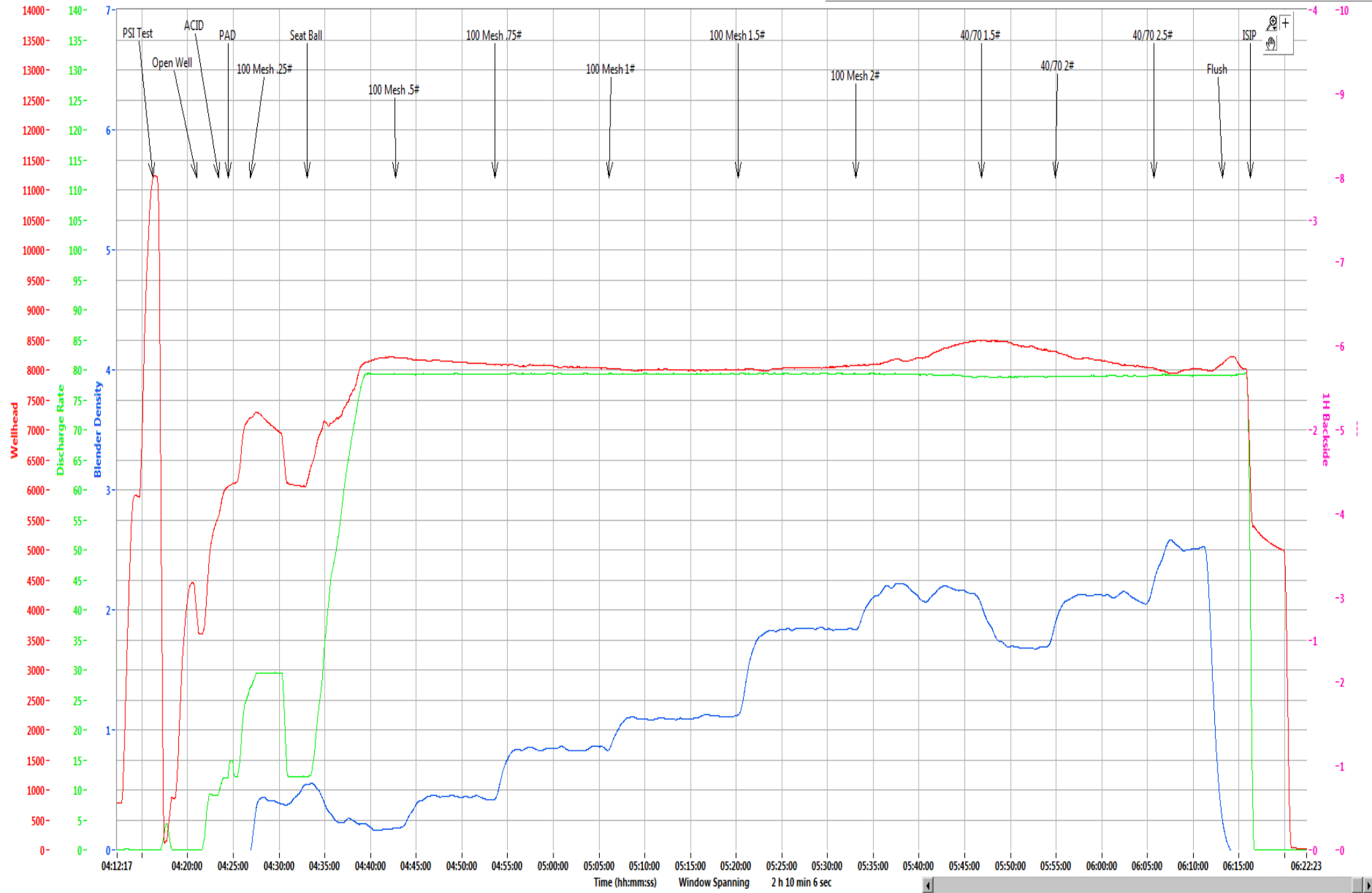
*****Scale used for upstream injection*****

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

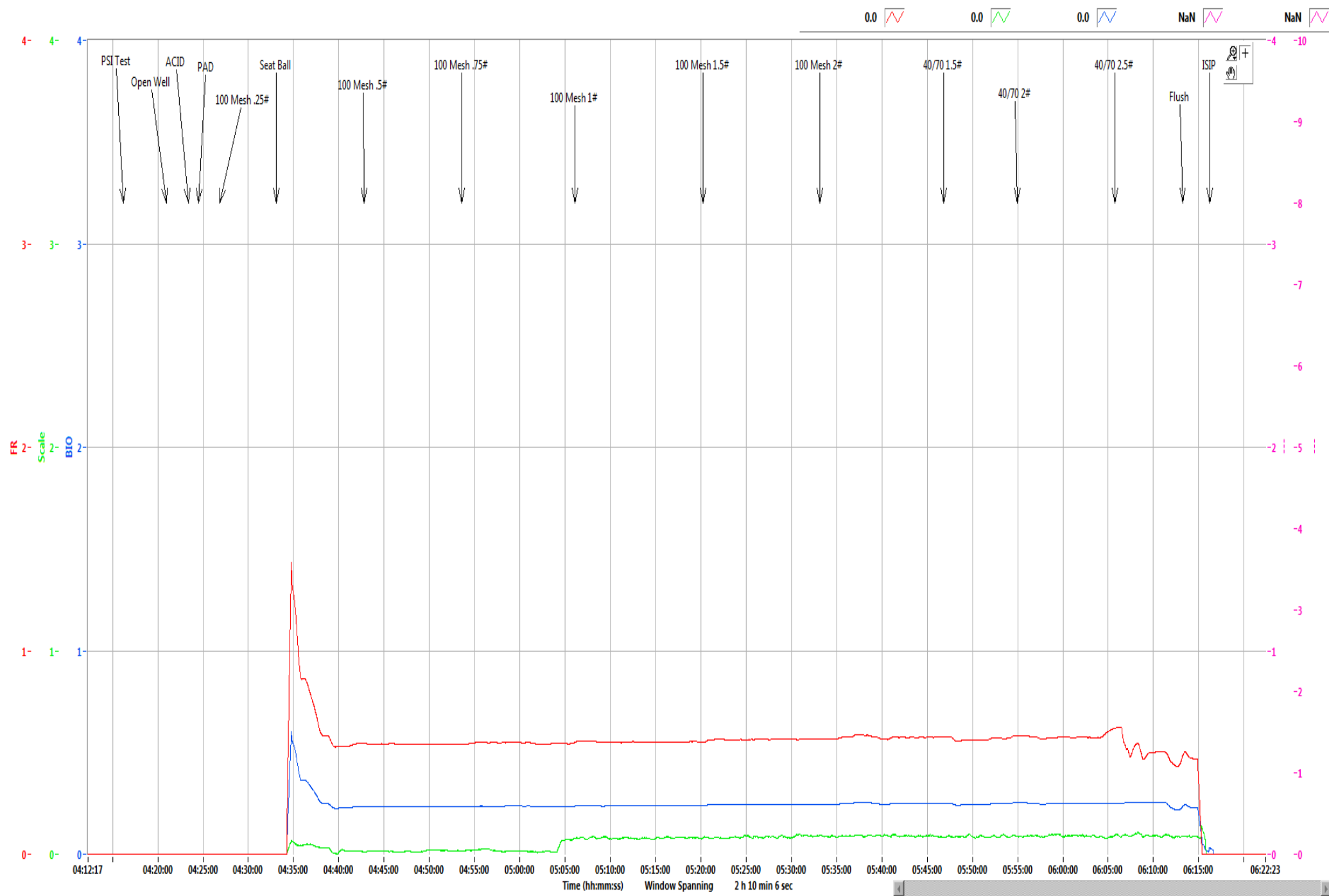


NNE
Boggess 5H
Stage 49
Producers Service Corp.

Post Stage Report
August 26, 2019



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Boggess Pad**5H**

Stage	49
Date:	8/26/19
OWP (psi):	3,600
Starting Time	4:21 AM
Ending Time	6:16 AM
Pump Time (hr:min)	01:55
Swap Time (hr:min)	04:21
Starting # Pumps	17
Finishing # Pumps	16
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,388
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,123
Maximum Treating Rate (bbl/min)	80
Maximum Treating Pressure (psi)	8,553
Displacement (psi)	8,154
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,299
Final FG (psi/ft)	1.09
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)	7,768
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	302
Pad (bbls)	43
Treatment (bbls)	7,511
Displacement (bbls)	226
(Acid Included)Total Fluid (bbls)	7,780
Dirty Job Total (bbls)	8,183
100 Mesh	244,960
40/70	159,900
Total Proppant (lbs)	404,860
Total Proppant %	101.2%

CHEMICALS

FR 9800	163
Biocide	82
Scale	16

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



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

Invoice #: 23000
 Date: 8/26/2019
 Well Name: Boggees 5H
 Stage No.: 49

State: WV
 County: Monongahela
 Operator: Eck/Kelsby
 PO/AFE: 100345-604

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	2,449.60	CWT	\$ 5.50	\$ 13,472.80
SAND 40/70	40/70 white	1,599.00	CWT	\$ 5.75	\$ 9,194.25
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	163	GAL	\$ 17.75	\$ 2,893.25
BIOC11219A	Biocide @ 0.25 GPT	82	GAL	\$ 16.00	\$ 1,312.00
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		202.43	TON	\$ 55.00	\$ 11,133.65
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 58,721.95
 25% Discount Applied \$ 14,680.49
 Net Stage Total \$ 44,041.46

*****Scale used for upstream injection*****

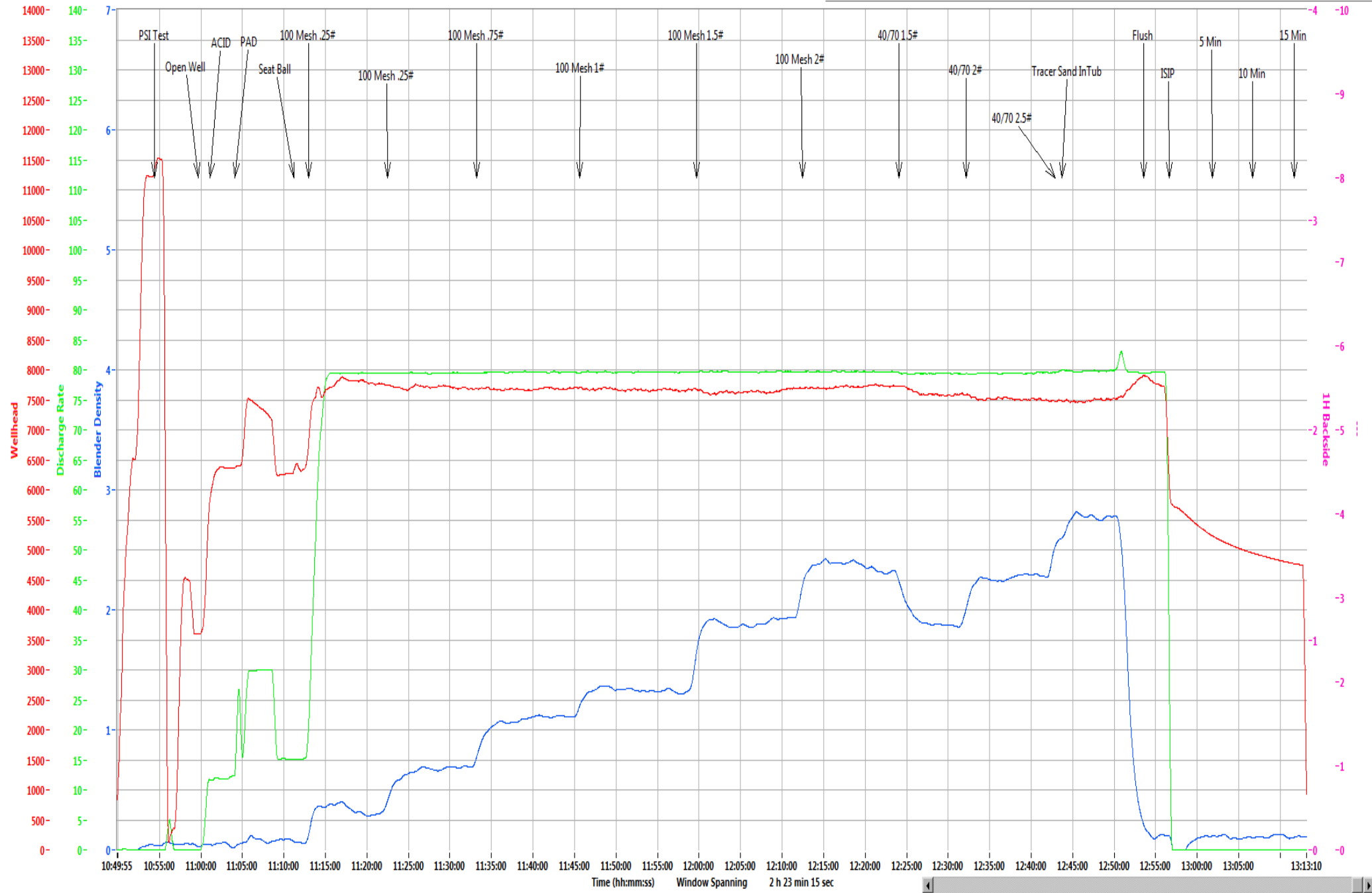
(Print Name) Karin Hudson Customer Signature: [Signature]



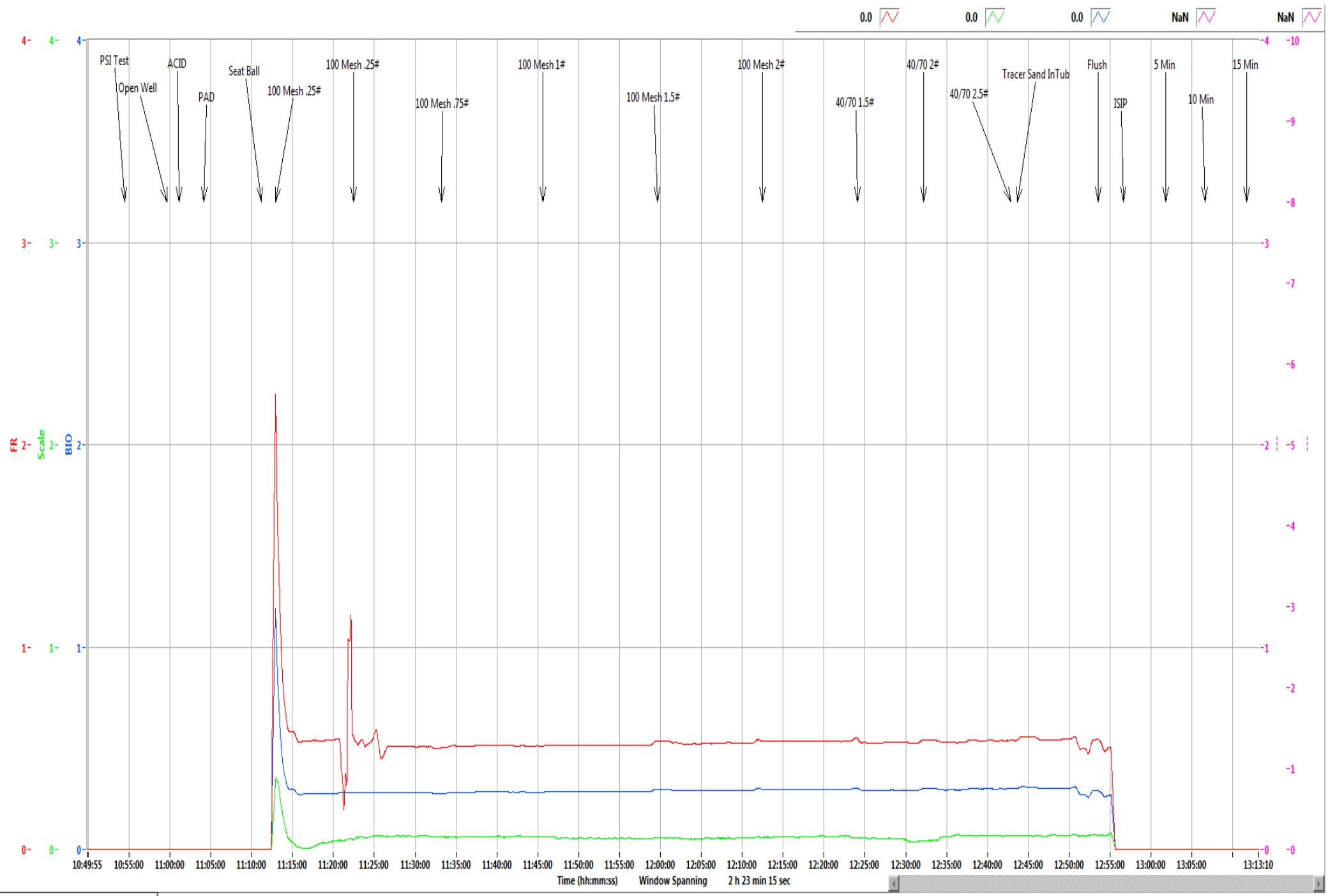
NNE
Boggess 5H
Stage 50
Producers Service Corp.

Post Stage Report
August 26, 2019

837.7 0.0 -0.1 -64.9 NaN



Refresh Graph



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Boggess Pad**5H**

Stage	50
Date:	8/26/19
OWP (psi):	3,591
Starting Time	10:59 AM
Ending Time	12:56 PM
Pump Time (hr:min)	01:57
Swap Time (hr:min)	01:14
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,539
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	7,657
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	7,948
Displacement (psi)	7,878
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,818
Final FG (psi/ft)	1.16
5 Minute Leakoff Pressure (psi)	5,221
5 Minute Leakoff Rate (psi/min)	119
10 Minute Leakoff Pressure (psi)	4,939
10 Minute Leakoff Rate (psi/min)	88
15 Minute Leakoff Pressure (psi)	4,762
15 Minute Leakoff Rate (psi/min)	70

Fluids & Proppant

Slickwater (bbls)	7,977
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	119
Pad (bbls)	194
Treatment (bbls)	7,596
Displacement (bbls)	222
(Acid Included)Total Fluid (bbls)	8,013
Dirty Job Total (bbls)	8,430
100 Mesh	240,420
40/70	160,100
Total Proppant (lbs)	400,520
Total Proppant %	100.1%

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 #: 23002
 Date: 8/26/2019
 Well Name: Bogges 5H
 Stage No.: 50

State: WV
 County: Monongahela
 Operator: Moon/Tilton
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,404.20	CWT	\$ 5.50	\$ 13,223.10
SAND 40/70	40/70 white	1,601.00	CWT	\$ 5.75	\$ 9,205.75
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		200.26	TON	\$ 55.00	\$ 11,014.30
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 59,869.15
 25% Discount Applied \$ 14,967.29
 Net Stage Total \$ 44,901.86

*****Scale used for upstream injection*****

(Print Name) Kevin Hooda Customer Rep: Kevin Hooda Customer Signature: [Signature]

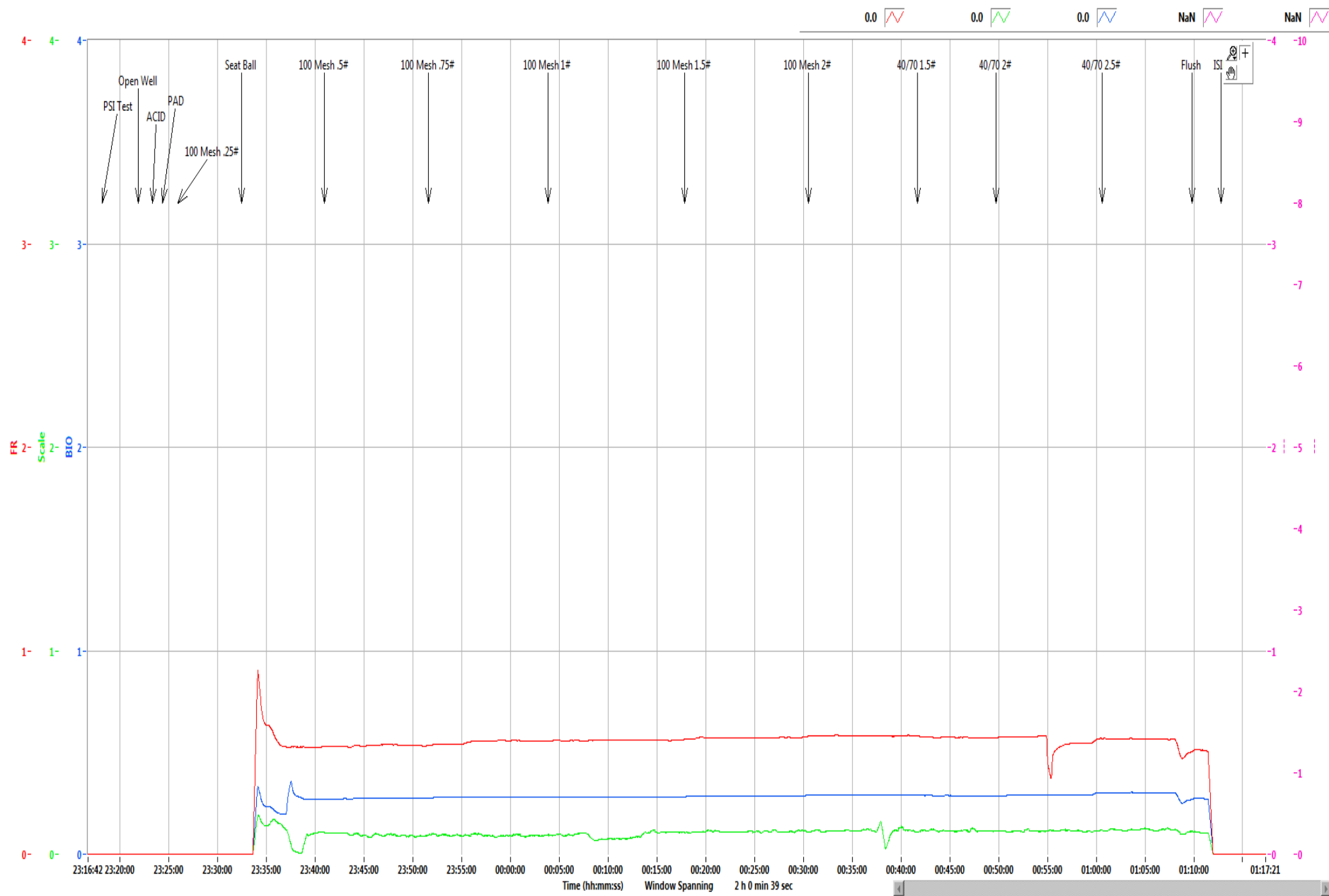


NNE
Bogges 5H
Stage 51
Producers Service Corp.

Post Stage Report
August 27, 2019



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Boggess Pad**5H**

Stage	51
Date:	8/26/19
OWP (psi):	3,438
Starting Time	11:21 PM
Ending Time	1:12 AM
Pump Time (hr:min)	01:51
Swap Time (hr:min)	01:09
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,617
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	7,901
Maximum Treating Rate (bbl/min)	82
Maximum Treating Pressure (psi)	9,966
Displacement (psi)	7,842
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,300
Final FG (psi/ft)	1.09
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)	7,712
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	62
Pad (bbls)	64
Treatment (bbls)	7,441
Displacement (bbls)	214
(Acid Included)Total Fluid (bbls)	7,724
Dirty Job Total (bbls)	8,173
100 Mesh	244,360
40/70	160,060
Total Proppant (lbs)	404,420
Total Proppant %	101.1%

CHEMICALS

FR 9800	170
Biocide	85
Scale	20

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



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

Invoice #: 23004
 Date: 8/27/2019
 Well Name: Bogges 5H
 Stage No.: 51

State: WV
 County: Monongahela
 Operator: Brad/Joe/Dunny
 PO/AFE: 100345-604

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	2,443.60	CWT	\$ 5.50	\$ 13,439.80
SAND 40/70	40/70 white	1,600.60	CWT	\$ 5.75	\$ 9,203.45
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	170	GAL	\$ 17.75	\$ 3,017.50
BIOC11219A	Biocide @ 0.25 GPT	85	GAL	\$ 16.00	\$ 1,360.00
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		202.21	TON	\$ 55.00	\$ 11,121.55
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

Total No Discount \$ 58,922.30
 25% Discount Applied \$ 14,730.58
 Net Stage Total \$ 44,191.73

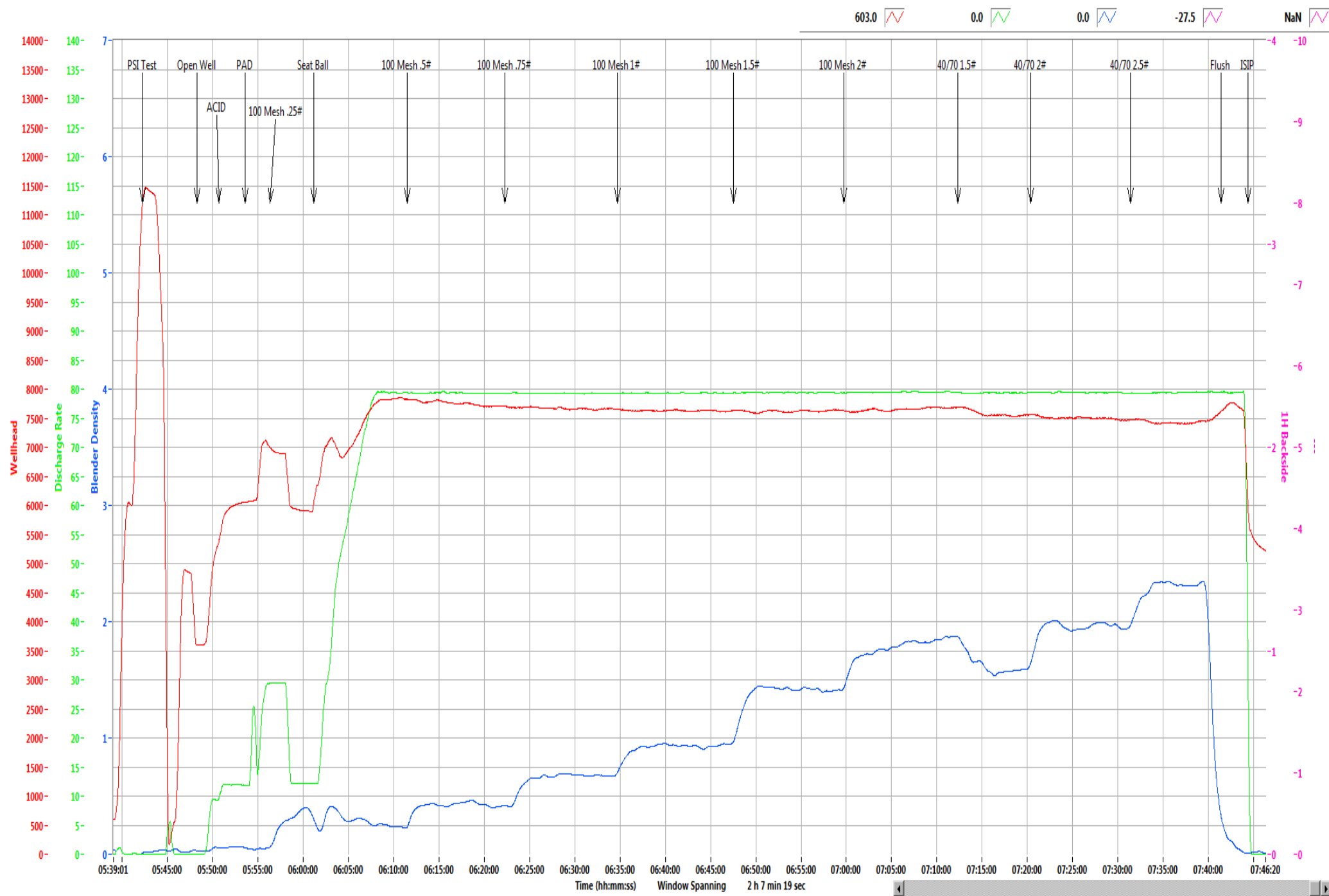
*****Scale used for upstream injection*****

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

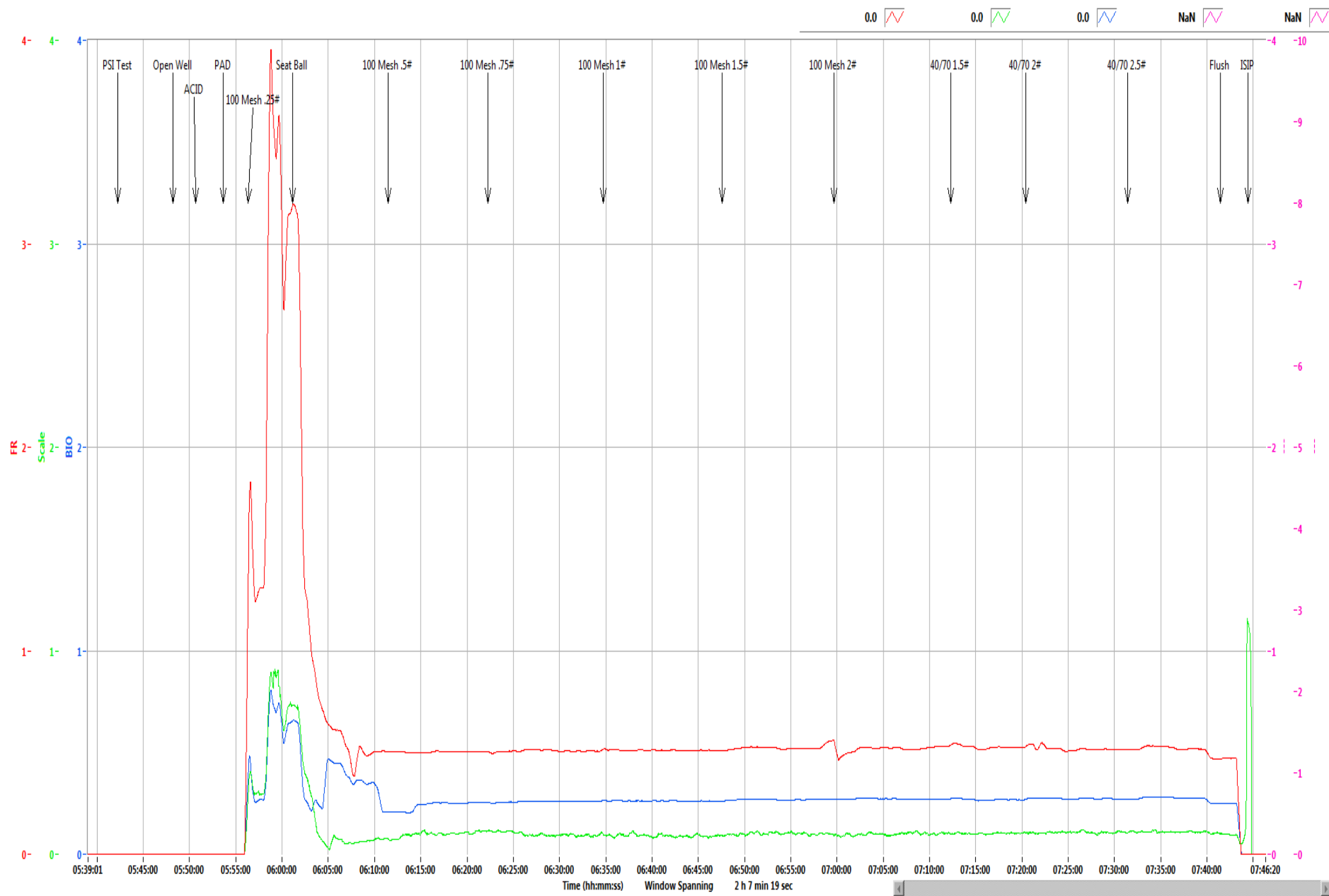


NNE
Boggess 5H
Stage 52
Producers Service Corp.

Post Stage Report
August 27, 2019



Refresh Graph



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Boggess Pad**5H**

Stage	52
Date:	8/27/19
OWP (psi):	3,599
Starting Time	5:42 AM
Ending Time	7:44 AM
Pump Time (hr:min)	02:02
Swap Time (hr:min)	01:03
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,464
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	7,627
Maximum Treating Rate (bbl/min)	80
Maximum Treating Pressure (psi)	7,933
Displacement (psi)	7,655
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,744
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)	7,741
Acid 7.5% HCL (gal)	1,500
Wireline Pump Down (bbls)	54
Pad (bbls)	62
Treatment (bbls)	7,518
Displacement (bbls)	208
(Acid Included)Total Fluid (bbls)	7,777
Dirty Job Total (bbls)	8,189
100 Mesh	240,100
40/70	160,360
Total Proppant (lbs)	400,460
Total Proppant %	100.1%

CHEMICALS

FR 9800	167
Biocide	82
Scale	20

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



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

Invoice #: 23006
 Date: 8/27/2019
 Well Name: Bogges 5H
 Stage No.: 52

State: WV
 County: Monongahela
 Operator: Jeremy T/Jeremy M
 PO/AFE: 100345-604

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	1500	GAL	\$ 1.25	\$ 1,875.00
4N1 INHIBITOR	Inhibitor @ 2 gal/1000	3	GAL	\$ 35.00	\$ 105.00
ACID DELIVERY	Includes Chemicals	2	HR	\$ 100.00	\$ 200.00
SAND 80/100	80/100 white	2,401.00	CWT	\$ 5.50	\$ 13,205.50
SAND 40/70	40/70 white	1,603.60	CWT	\$ 5.75	\$ 9,220.70
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	167	GAL	\$ 17.75	\$ 2,964.25
BIOC11219A	Biocide @ 0.25 GPT	82	GAL	\$ 16.00	\$ 1,312.00
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		200.23	TON	\$ 55.00	\$ 11,012.65
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

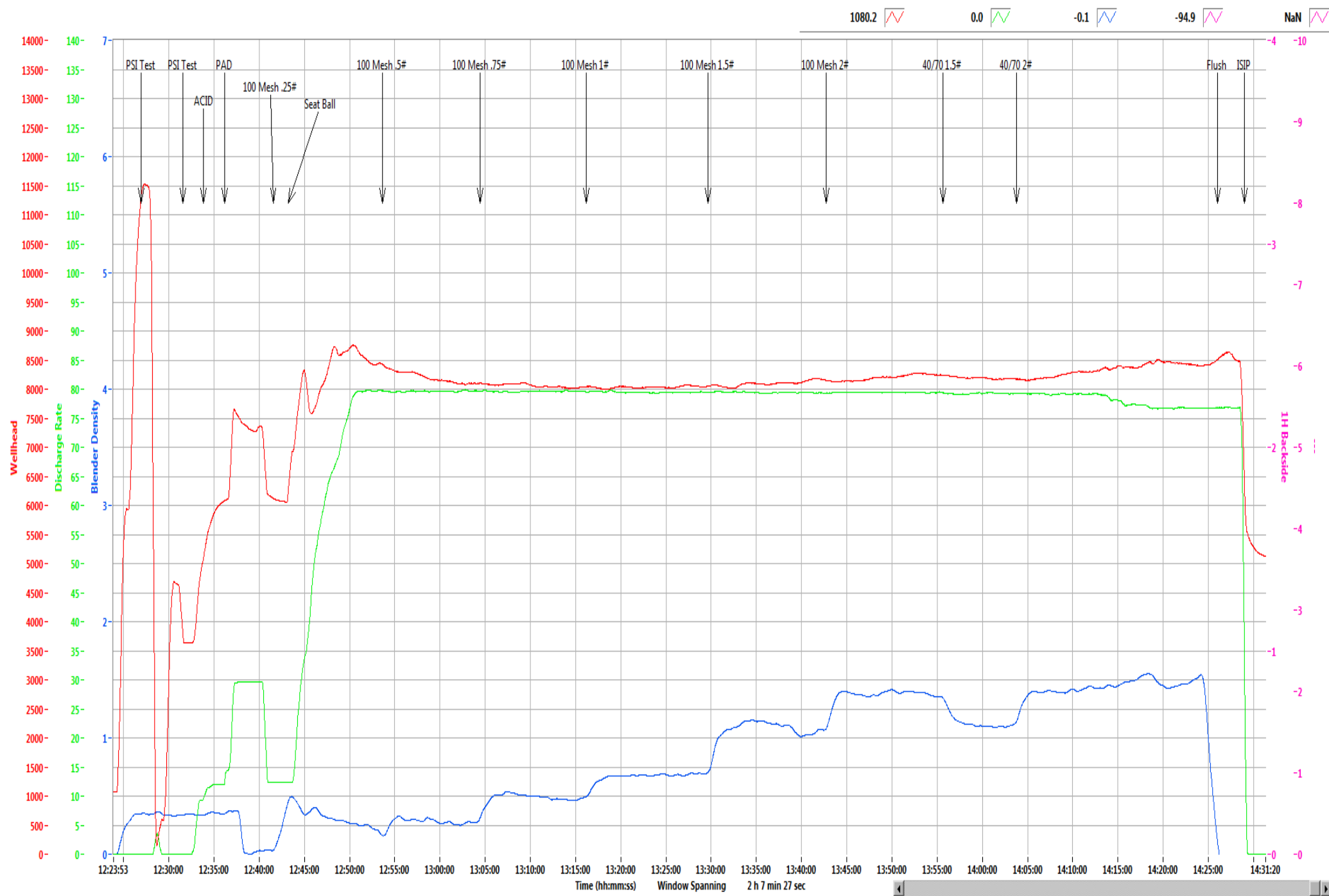
Total No Discount \$ 59,815.10
 25% Discount Applied \$ 14,953.78
 Net Stage Total \$ 44,861.33

(Print Name) Kevin Hudson Customer Signature: [Signature]
 Customer Rep: Kevin Hudson

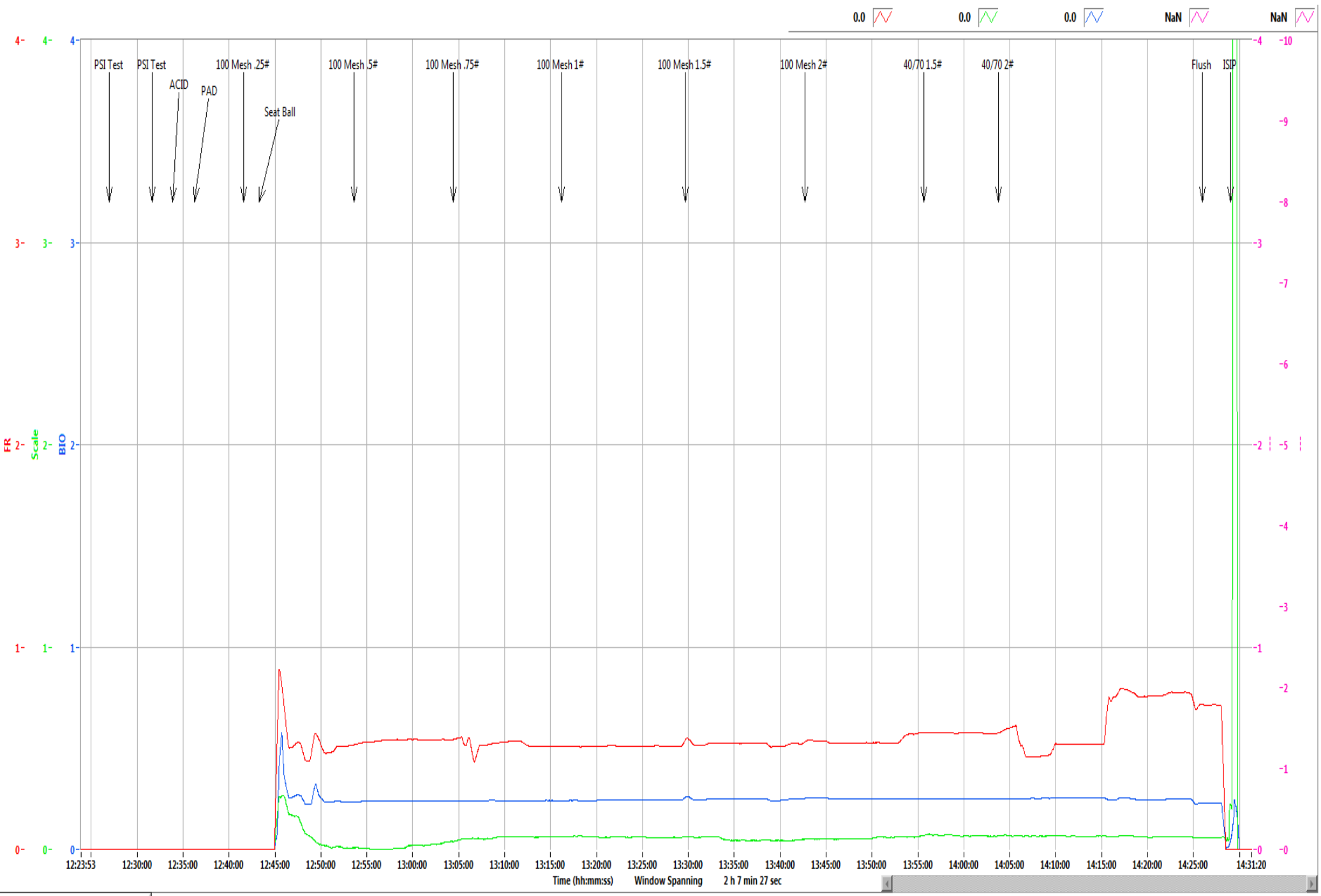


NNE
Boggess 5H
Stage 53
Producers Service Corp.

Post Stage Report
August 27, 2019



Refresh Graph



Refresh Graph

Boggess Pad**5H**

Stage	53
Date:	8/27/19
OWP (psi):	3,631
Starting Time	12:26 PM
Ending Time	2:28 PM
Pump Time (hr:min)	02:02
Swap Time (hr:min)	01:15
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	7,039
Average Treating Rate (bbl/min)	79
Average Treating Pressure (psi)	8,195
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	8,823
Displacement (psi)	8,523
Max Prop Con (lb/gal)	2.00
ShutDown ISIP (psi)	5,582
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)	7,888
Acid 7.5% HCL (gal)	1,000
Wireline Pump Down (bbls)	77
Pad (bbls)	129
Treatment (bbls)	7,573
Displacement (bbls)	206
(Acid Included)Total Fluid (bbls)	7,912
Dirty Job Total (bbls)	8,345
100 Mesh	240,300
40/70	159,060
Total Proppant (lbs)	399,360
Total Proppant %	99.8%

CHEMICALS

FR 9800	178
Biocide	83
Scale	22

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



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

Invoice #: 23008
 Date: 8/27/2019
 Well Name: Bogges 5H
 Stage No.: 53

State: WV
 County: Monongahela
 Operator: Jeremy T/Jeremy M
 PO/AFE: 100345-604

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	2,403.00	CWT	\$ 5.50	\$ 13,216.50
SAND 40/70	40/70 white	1,590.60	CWT	\$ 5.75	\$ 9,145.95
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	178	GAL	\$ 17.75	\$ 3,159.50
BIOC11219A	Biocide @ 0.25 GPT	83	GAL	\$ 16.00	\$ 1,328.00
SCAL16846A	Scale Control @ 0.05 GPT	22	GAL	\$ 16.00	\$ 352.00
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		199.68	TON	\$ 55.00	\$ 10,982.40
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

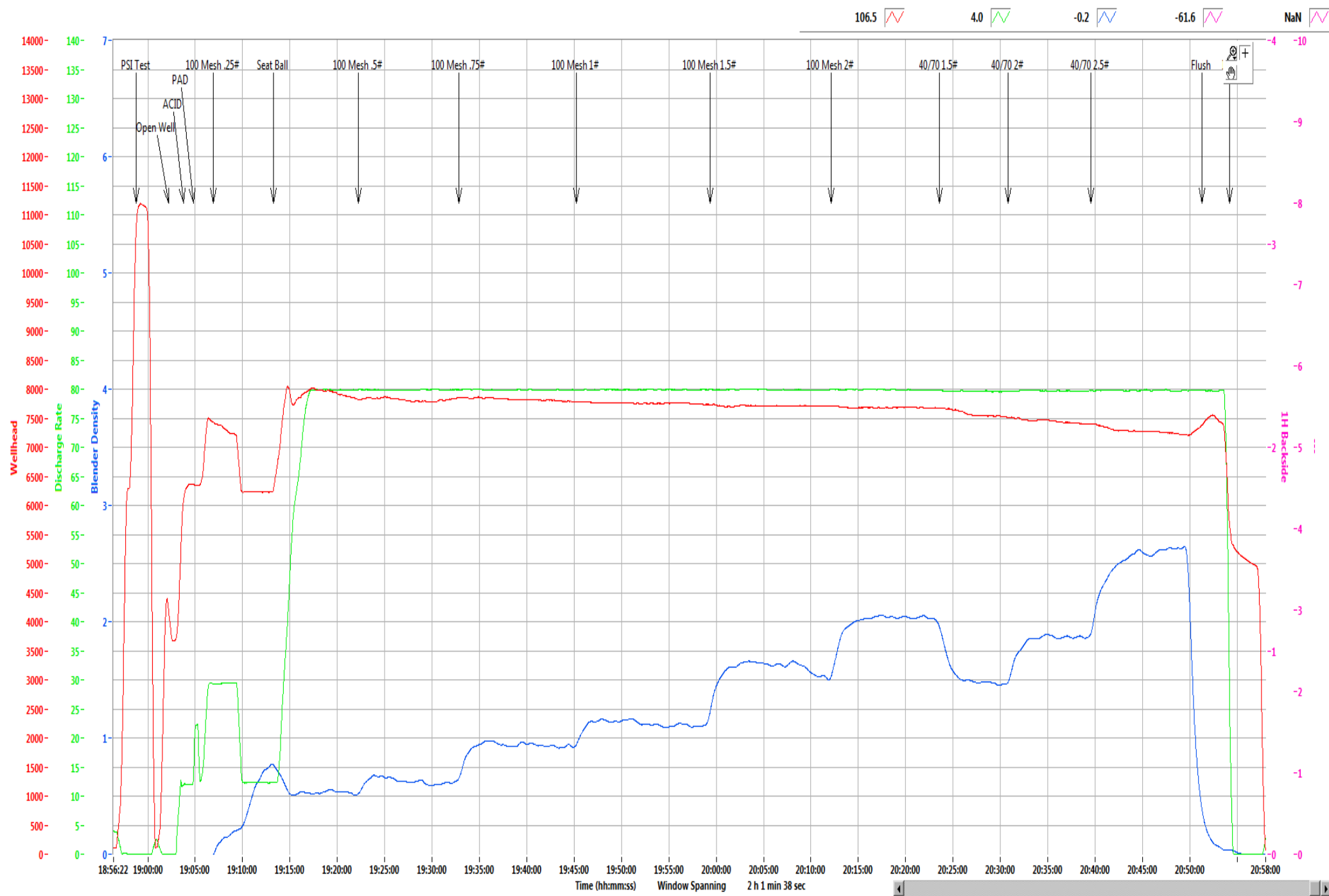
Total No Discount \$ 59,304.35
 25% Discount Applied \$ 14,826.09
 Net Stage Total \$ 44,478.26

(Print Name) Kevin Hudson Customer Signature: [Signature]

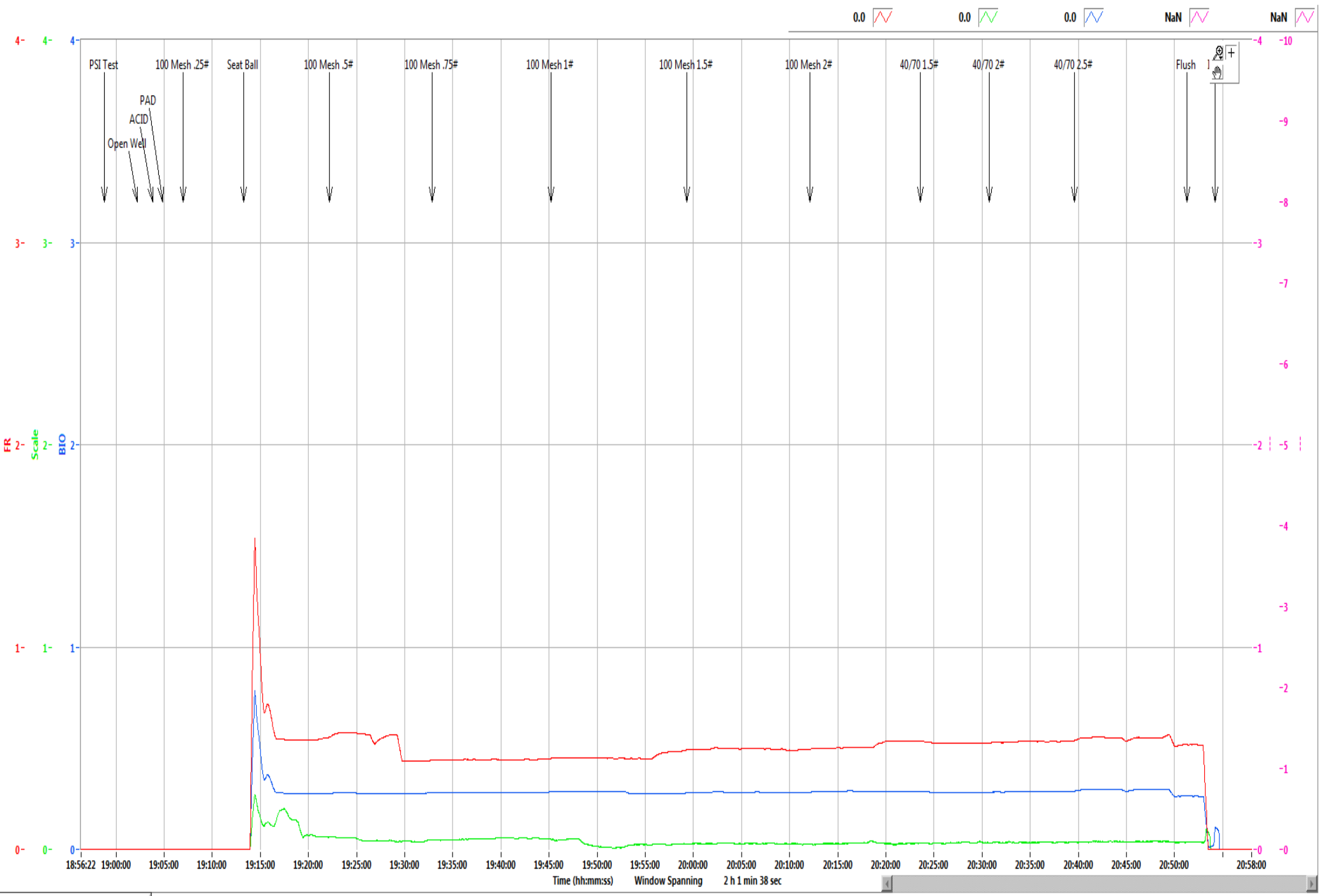


NNE
Boggess 5H
Stage 54
Producers Service Corp.

Post Stage Report
August 27, 2019



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Boggess Pad**5H**

Stage	54
Date:	8/27/19
OWP (psi):	3,680
Starting Time	7:02 PM
Ending Time	8:54 PM
Pump Time (hr:min)	01:52
Swap Time (hr:min)	01:27
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	6,780
Average Treating Rate (bbl/min)	80
Average Treating Pressure (psi)	7,702
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	8,260
Displacement (psi)	7,422
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)	7,675
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	66
Pad (bbls)	50
Treatment (bbls)	7,432
Displacement (bbls)	199
(Acid Included)Total Fluid (bbls)	7,687
Dirty Job Total (bbls)	8,118
100 Mesh	244,440
40/70	155,220
Total Proppant (lbs)	399,660
Total Proppant %	99.9%

CHEMICALS

FR 9800	170
Biocide	90
Scale	19

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



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

Invoice #: 23010
 Date: 8/27/2019
 Well Name: Bogges 5H
 Stage No.: 54

State: WV
 County: Monongahela
 Operator: Joe/Austin
 PO/AFE: 100345-604

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	2,444.40	CWT	\$ 5.50	\$ 13,444.20
SAND 40/70	40/70 white	1,552.20	CWT	\$ 5.75	\$ 8,925.15
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	170	GAL	\$ 17.75	\$ 3,017.50
BIOC11219A	Biocide @ 0.25 GPT	90	GAL	\$ 16.00	\$ 1,440.00
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		199.83	TON	\$ 55.00	\$ 10,990.65
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -

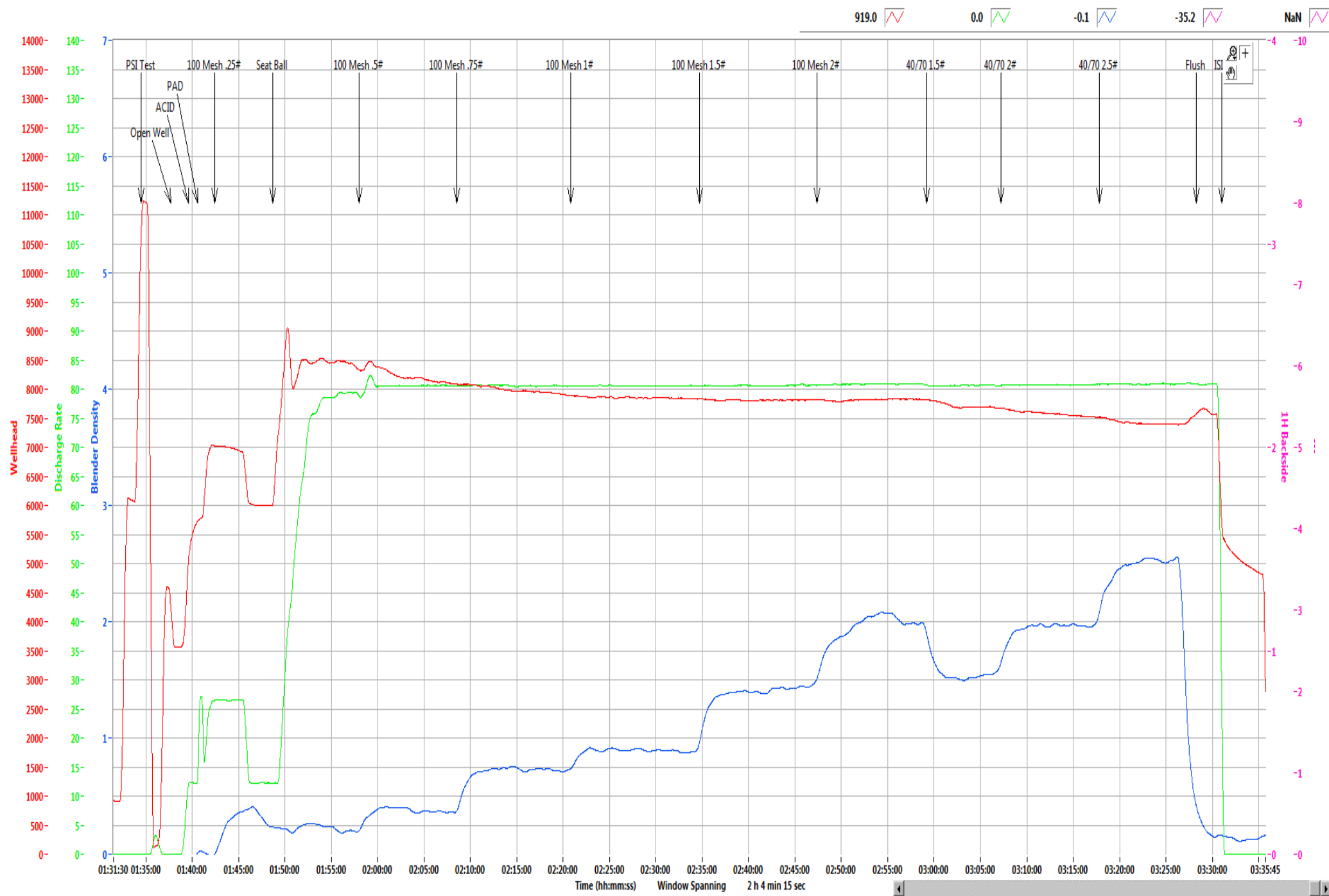
Total No Discount \$ 58,581.50
 25% Discount Applied \$ 14,645.38
 Net Stage Total \$ 43,936.13

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

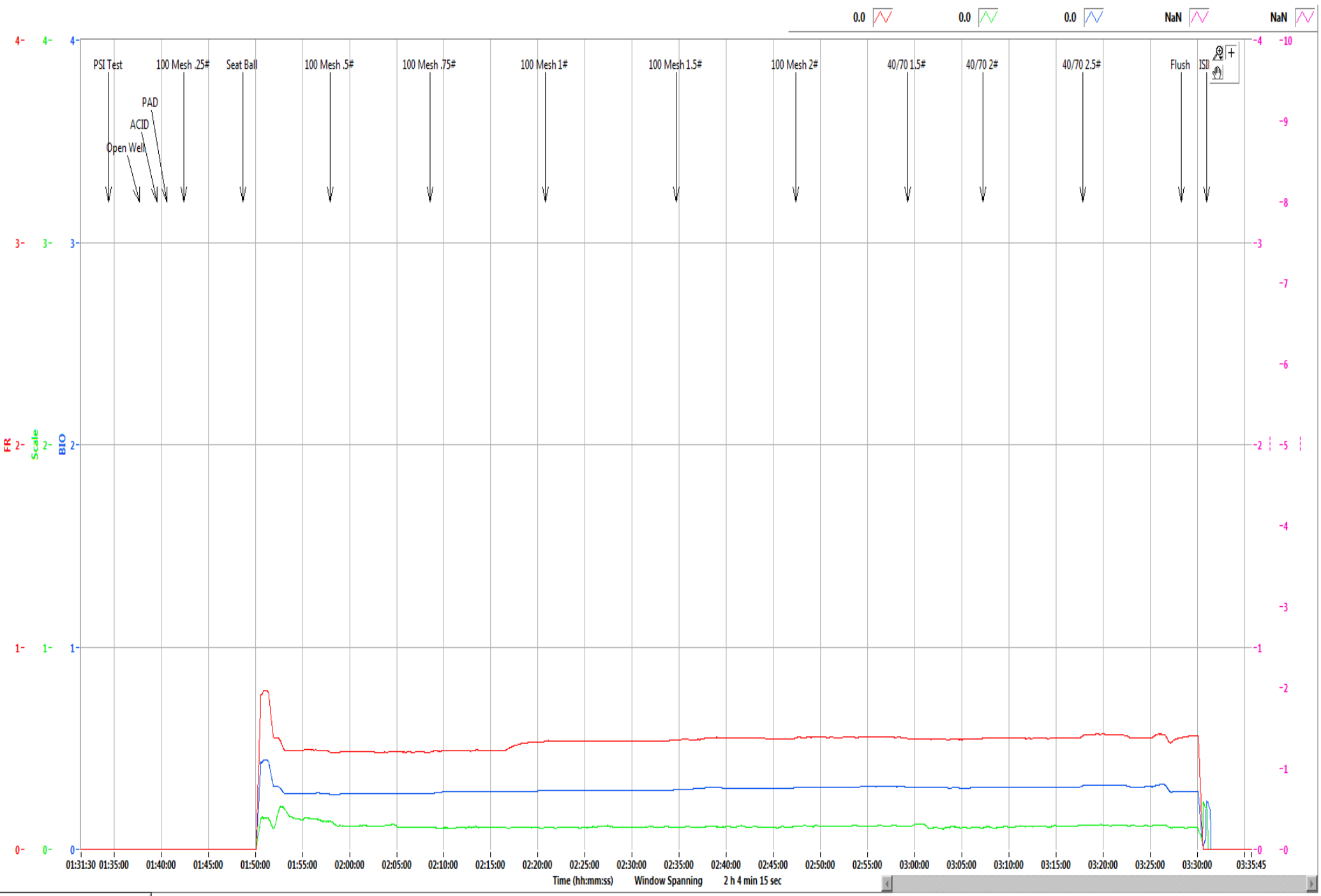


NNE
Boggess 5H
Stage 55
Producers Service Corp.

Post Stage Report
August 28, 2019



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Boggess Pad**5H**

Stage	55
Date:	8/28/19
OWP (psi):	3,564
Starting Time	1:37 AM
Ending Time	3:30 AM
Pump Time (hr:min)	01:53
Swap Time (hr:min)	01:09
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	7,270
Average Treating Rate (bbl/min)	81
Average Treating Pressure (psi)	7,270
Maximum Treating Rate (bbl/min)	83
Maximum Treating Pressure (psi)	9,339
Displacement (psi)	7,593
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,422
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)	7,838
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	34
Pad (bbls)	41
Treatment (bbls)	7,612
Displacement (bbls)	191
(Acid Included)Total Fluid (bbls)	7,850
Dirty Job Total (bbls)	8,270
100 Mesh	242,500
40/70	161,440
Total Proppant (lbs)	403,940
Total Proppant %	101.0%

CHEMICALS

FR 9800	172
Biocide	87
Scale	20

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



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

Invoice #: 23012
 Date: 8/28/2019
 Well Name: Bogges 5H
 Stage No.: 55

State: WV
 County: Monongahela
 Operator: Joe/Austin
 PO/AFE: 100345-604

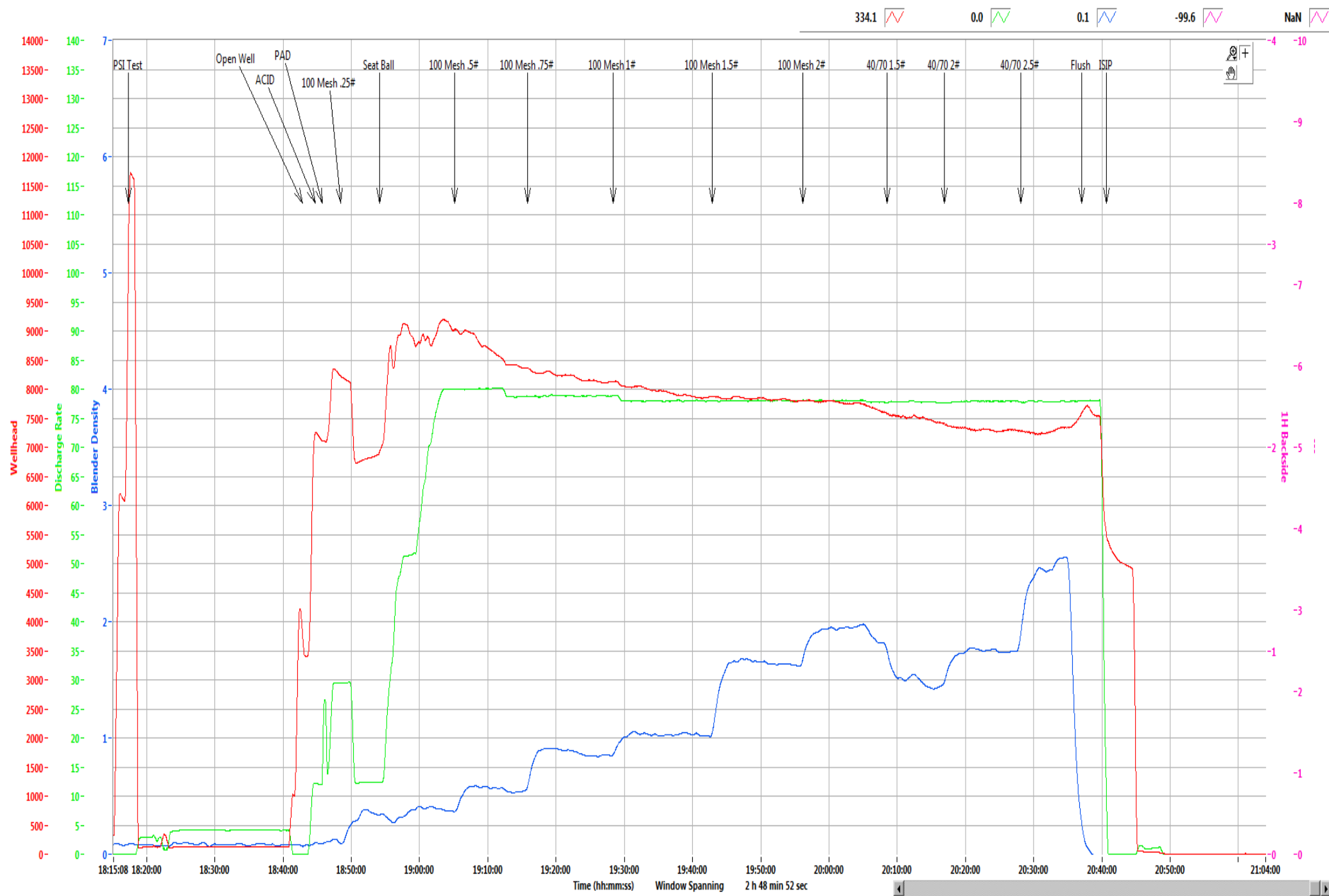
Description	Notes	Amount	Units of Sale	Unit Cost	Total Cost
FLUID PUMP CHARGE OVER 3000 PSI PER HHP PER HR	Fixed each stage @ 80 BPM max	1	EA	\$ 15,000.00	\$ 15,000.00
BLENDER CHARGE 80 BPM		1	EA	\$ 2,500.00	\$ 2,500.00
BLENDER CHARGE STAND BY BLENDER	NO CHARGE	0	EA	\$ 1,000.00	\$ -
HC ACID 7.5%	Iron 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	2,425.00	CWT	\$ 5.50	\$ 13,337.50
SAND 40/70	40/70 white	1,614.40	CWT	\$ 5.75	\$ 9,282.80
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	172	GAL	\$ 17.75	\$ 3,053.00
BIOC11219A	Biocide @ 0.25 GPT	87	GAL	\$ 16.00	\$ 1,392.00
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		201.97	TON	\$ 55.00	\$ 11,108.35
DIESEL FUEL	Not eligible for discount		GAL	\$ 3.04	\$ -
				Total No Discount	\$ 58,953.65
				25% Discount Applied	\$ 14,738.41
				Net Stage Total	\$ 44,215.24

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

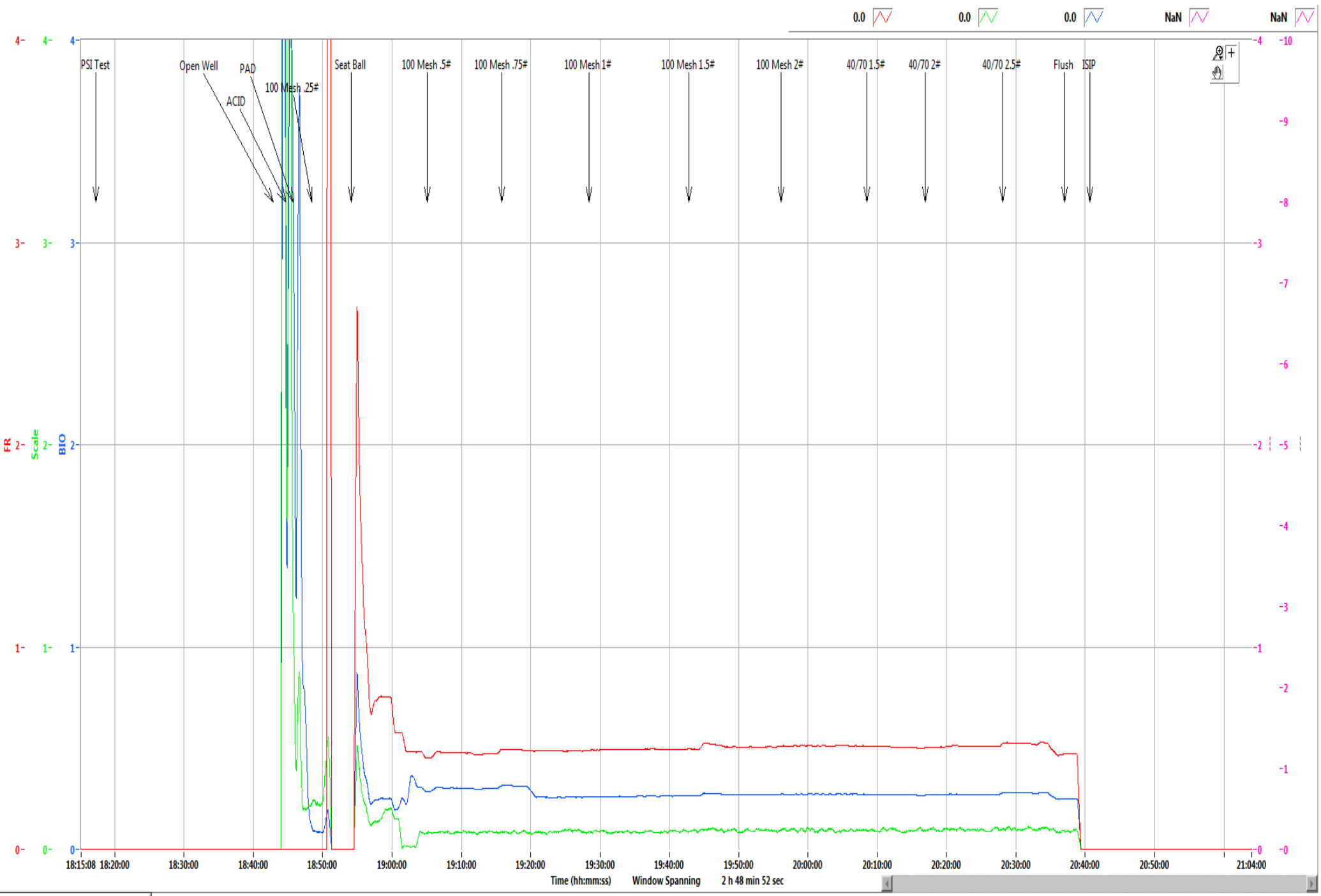


NNE
Boggess 5H
Stage 56
Producers Service Corp.

Post Stage Report
August 28, 2019



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Boggess Pad**5H**

Stage	56
Date:	8/28/19
OWP (psi):	3,414
Starting Time	6:42 PM
Ending Time	8:40 PM
Pump Time (hr:min)	01:58
Swap Time (hr:min)	11:15
Starting # Pumps	17
Finishing # Pumps	17
TVD (ft)	8,035

Pressures & Rates

Breakdown Pressure (psi)	7,157
Average Treating Rate (bbl/min)	78
Average Treating Pressure (psi)	7,891
Maximum Treating Rate (bbl/min)	81
Maximum Treating Pressure (psi)	9,254
Displacement (psi)	7,673
Max Prop Con (lb/gal)	2.50
ShutDown ISIP (psi)	5,433
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)	7,787
Acid 7.5% HCL (gal)	500
Wireline Pump Down (bbls)	795
Pad (bbls)	69
Treatment (bbls)	7,492
Displacement (bbls)	233
(Acid Included)Total Fluid (bbls)	7,799
Dirty Job Total (bbls)	8,248
100 Mesh	240,580
40/70	160,480
Total Proppant (lbs)	401,060
Total Proppant %	100.3%

CHEMICALS

FR 9800	169
Biocide	90
Scale	19

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



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

Invoice #: 23014
 Date: 8/28/2019
 Well Name: Bogges 5H
 Stage No.: 56

State: WV
 County: Monongahela
 Operator: Joe/Brad
 PO/AFE: 100345-604

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	2,405.80	✓ CWT	\$ 5.50	\$ 13,231.90
SAND 40/70	40/70 white	1,604.80	✓ CWT	\$ 5.75	\$ 9,227.60
StimSTREAM FR 9800	Friction Reducer @ 0.5 GPT	169	✓ GAL	\$ 17.75	\$ 2,999.75
BIOC11219A	Biocide @ 0.25 GPT	90	✓ GAL	\$ 16.00	\$ 1,440.00
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		200.53	TON	\$ 55.00	\$ 11,029.15
DIESEL FUEL	Not eligible for discount	92	GAL	\$ 3.04	\$ 279.68

Total No Discount \$ 58,692.40
 25% Discount Applied \$ 14,673.10
 Net Stage Total \$ 44,298.98

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