

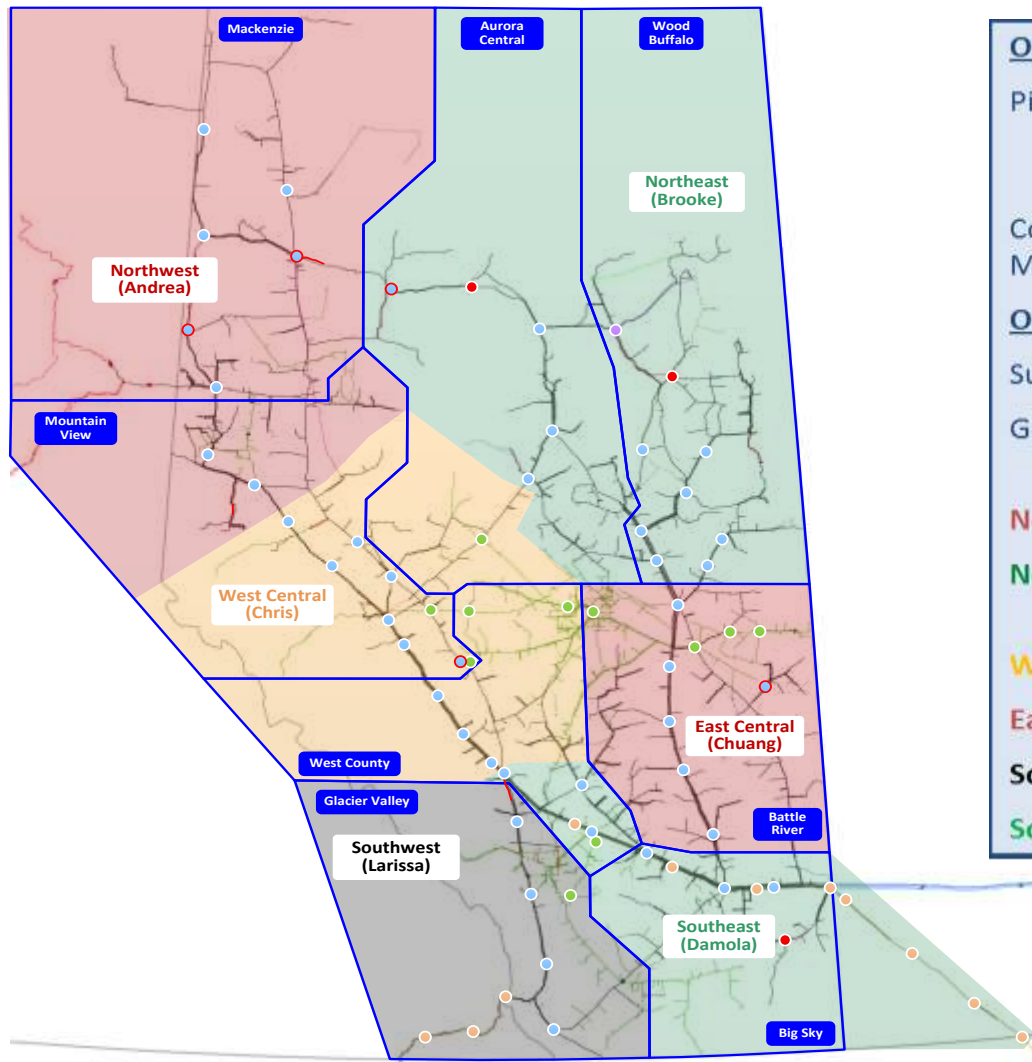


## NGTL System & Foothills Pipeline Monthly Outage Forecast February 2017



## February Monthly Outage Forecast

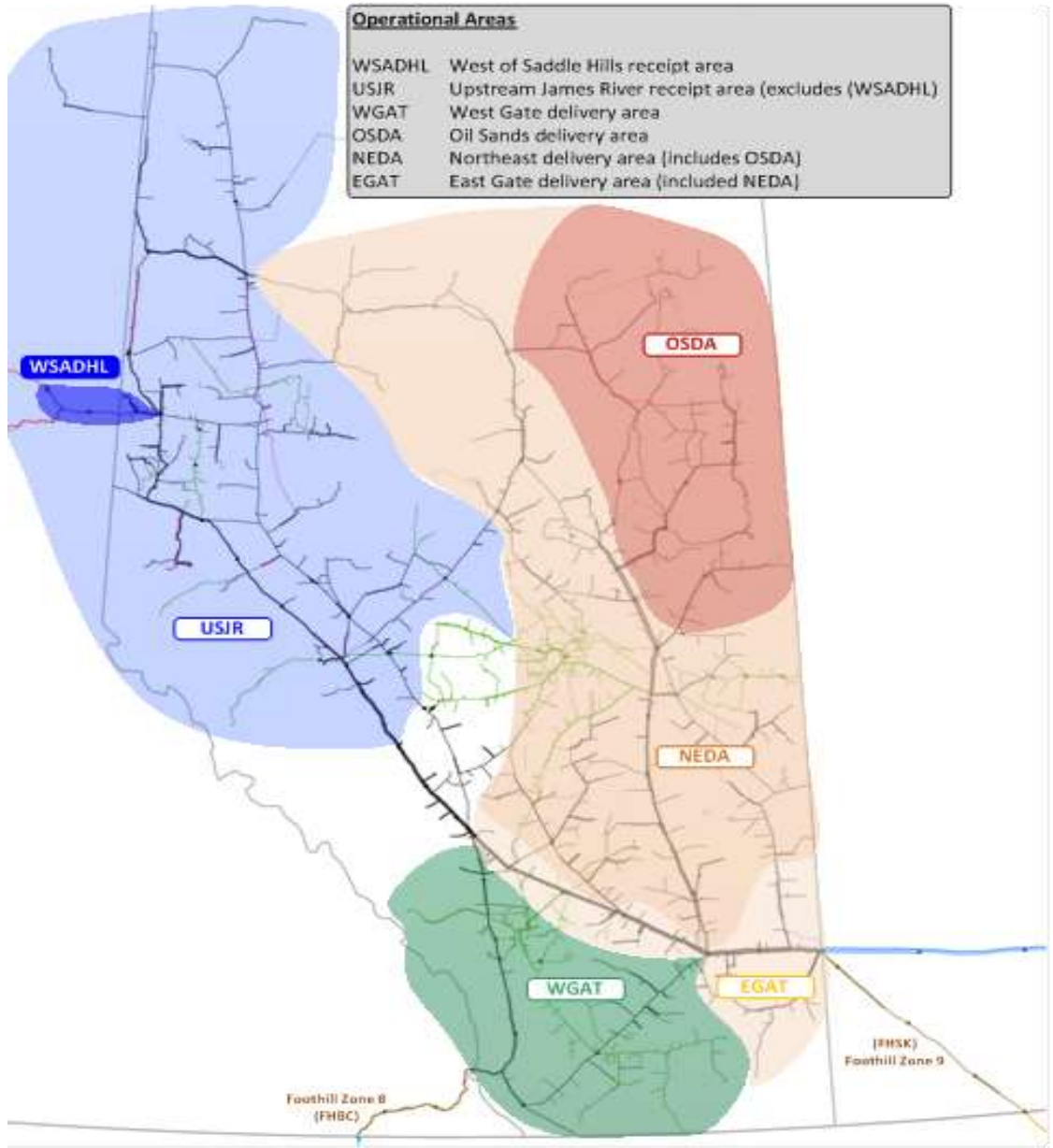
*The Monthly Outage Forecast is a tool provided by TransCanada to show the estimated operational capability. This information is provided for informational purposes only and is not to be relied upon for any other purpose whatsoever. The information is based upon certain assumptions that may or may not be accurate, and therefore is subject to various risks and uncertainties. TransCanada shall not be liable for damages sustained as a result of any use or reliance on such information. Please note, only known and planned outages at the time of publishing will be included in the Monthly Outage Forecast. As new outages are planned they will be added to subsequent MOF reports.*



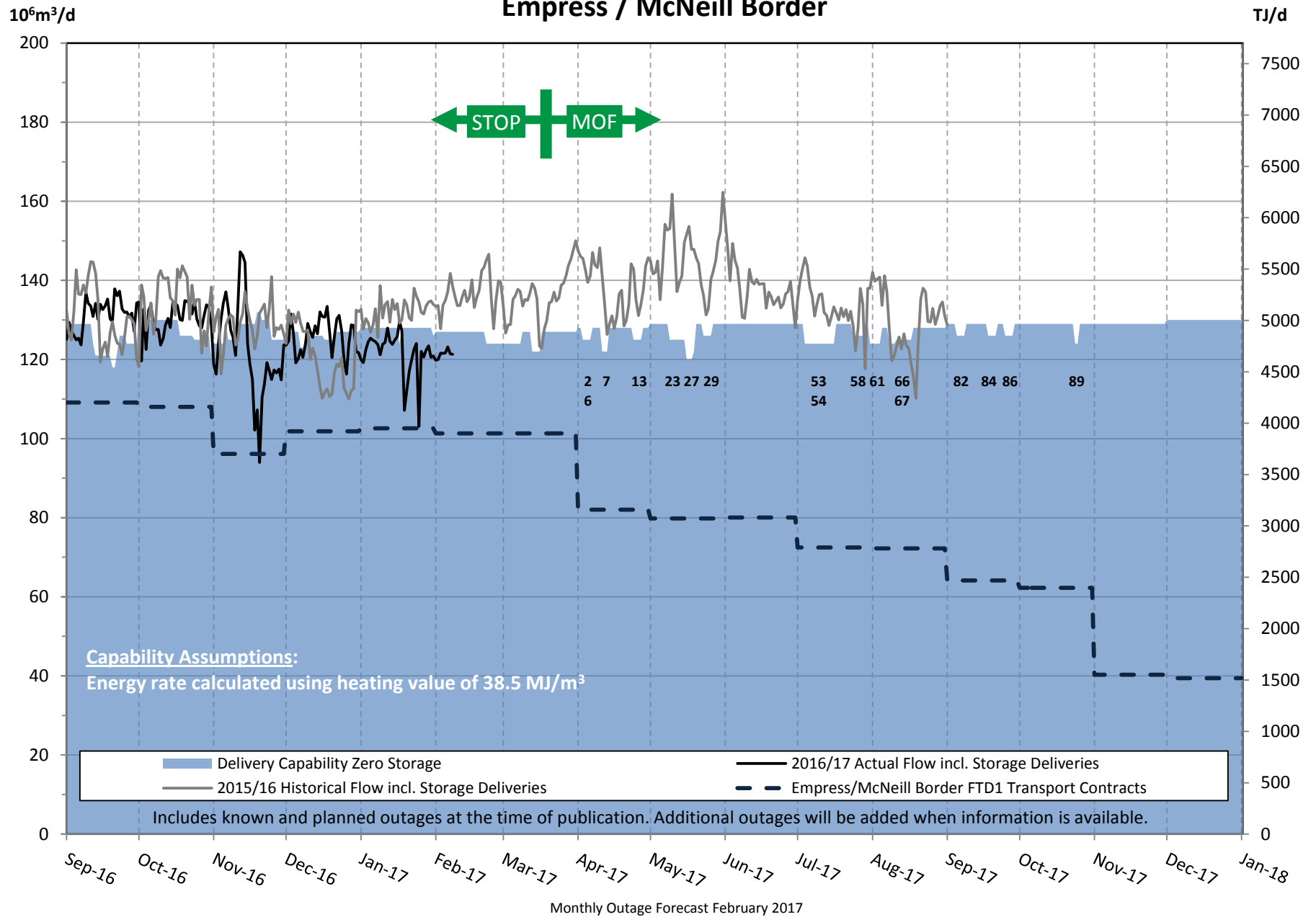
<u>Outage Planning</u>		
Pipeline	Mike Wylie	403.920.7346
	Rahim Ruda	403.920.6360
	Chau Johnston	403.920.6061
Compression/ Measurement	Bruce Hansen	403.920.5613
<u>Outage Coordination</u>		
Supervisor	Jeff Stoffregen	403.920.6337
General	Chuang Li	403.920.5291
	Ashley Lim	403.920.6669
<b>Northwest</b>	Andrea Watters	403.920.7638
<b>Northeast</b>	Brooke Penner (Dillabough)	403.920.5144
<b>West Central</b>	Chris Pho	403.920.6016
<b>East Central</b>	Chuang Li	403.920.5291
<b>Southwest</b>	Larissa Zhang	587.933.0784
<b>Southeast</b>	Damola Daramola	403.920.6604

**For NGTL System Facilities Segment codes please view link below**

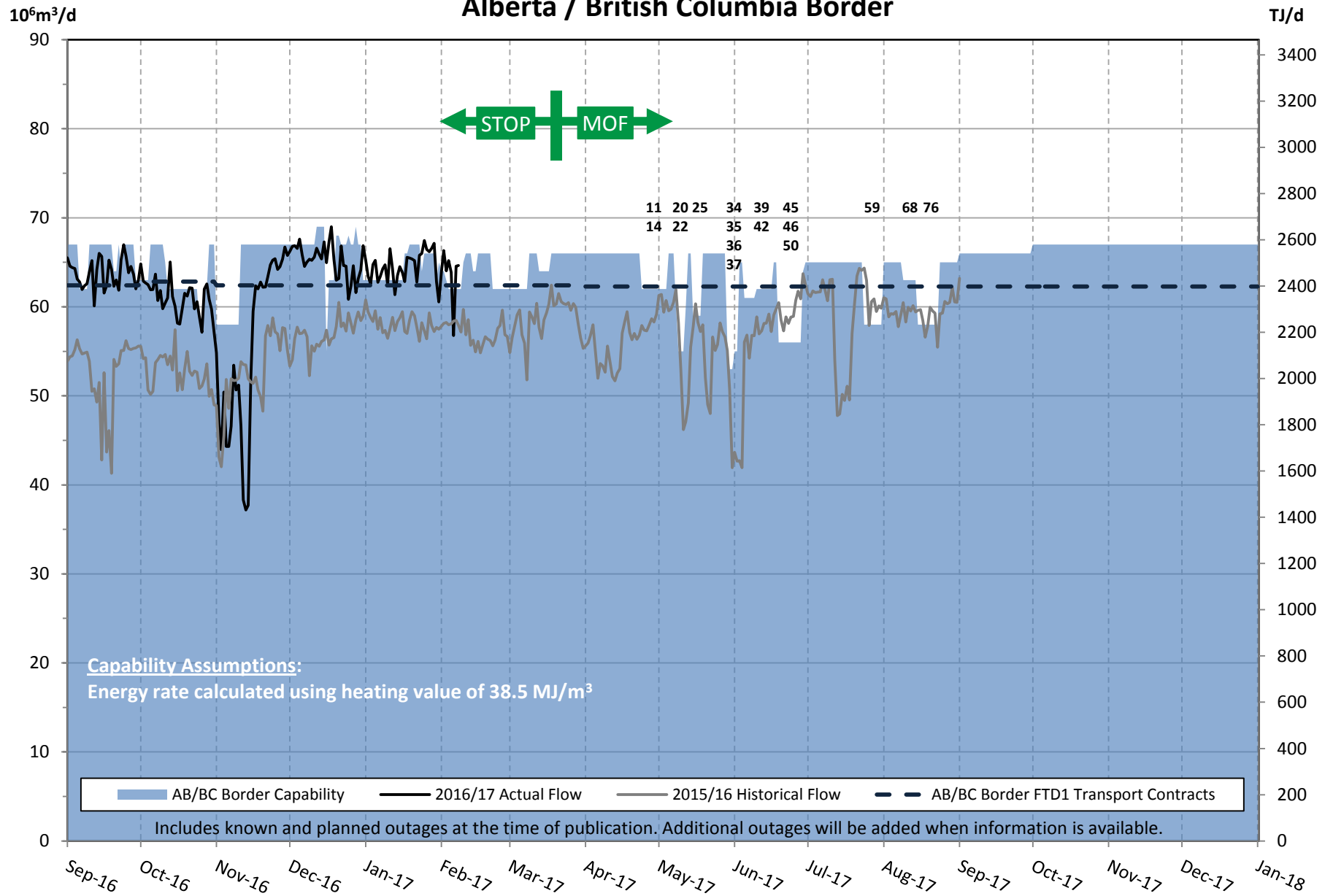
[http://www.transcanada.com/customerexpress/docs/fh\\_system\\_maps/AB\\_System\\_Map\\_2015\\_Segments\\_Rev18.pdf](http://www.transcanada.com/customerexpress/docs/fh_system_maps/AB_System_Map_2015_Segments_Rev18.pdf)



# Empress / McNeill Border



# Alberta / British Columbia Border



Monthly Outage Forecast February 2017

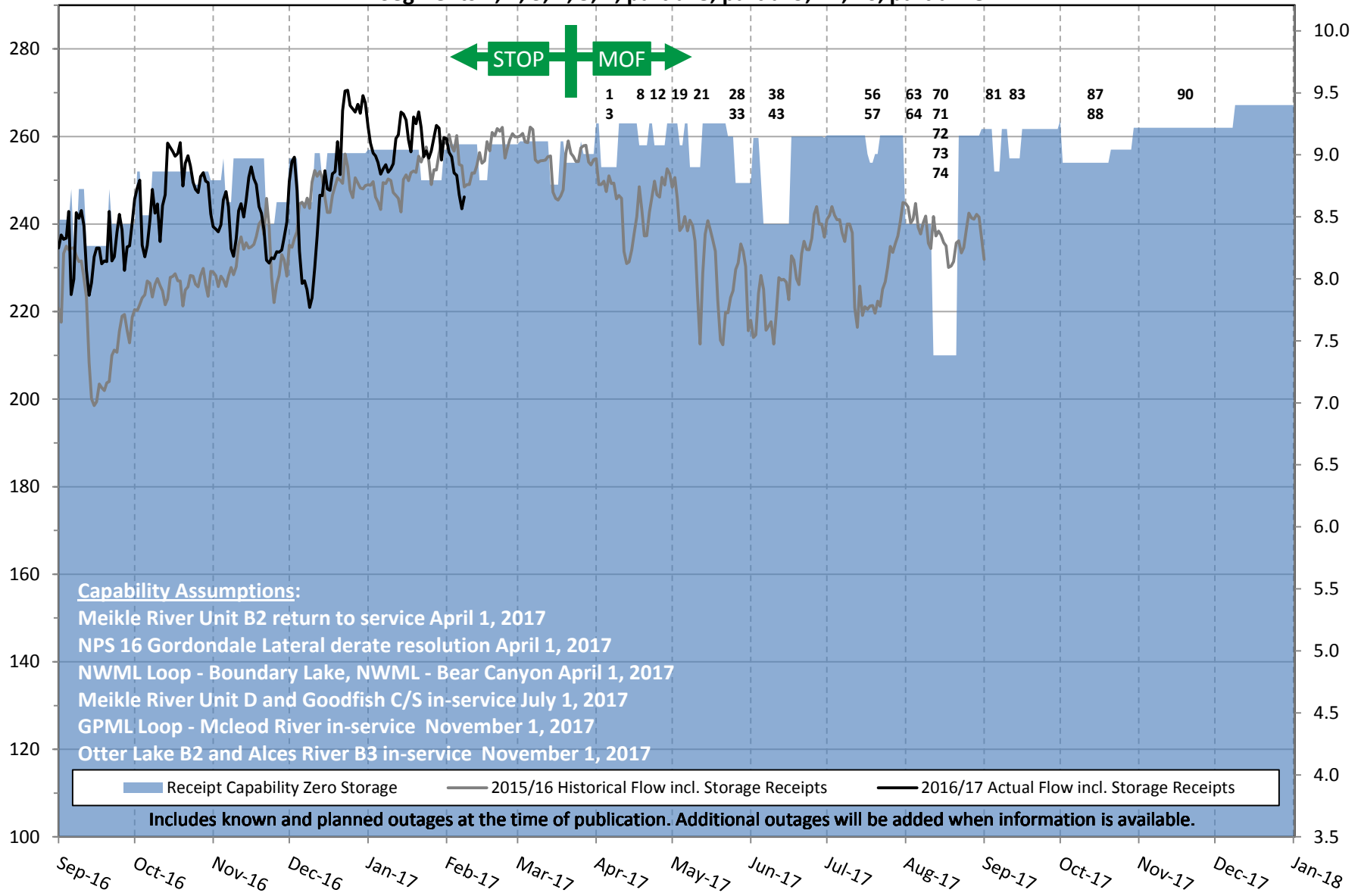


# Upstream James River Receipt Area

Segments 1, 2, 3, 4, 5, 7, partial 8, partial 9, 24, 26, partial 28

10<sup>6</sup>m<sup>3</sup>/d

Bcf/d



**Capability Assumptions:**

- Meikle River Unit B2 return to service April 1, 2017
- NPS 16 Gordondale Lateral derate resolution April 1, 2017
- NWML Loop - Boundary Lake, NWML - Bear Canyon April 1, 2017
- Meikle River Unit D and Goodfish C/S in-service July 1, 2017
- GPML Loop - Mcleod River in-service November 1, 2017
- Otter Lake B2 and Alces River B3 in-service November 1, 2017

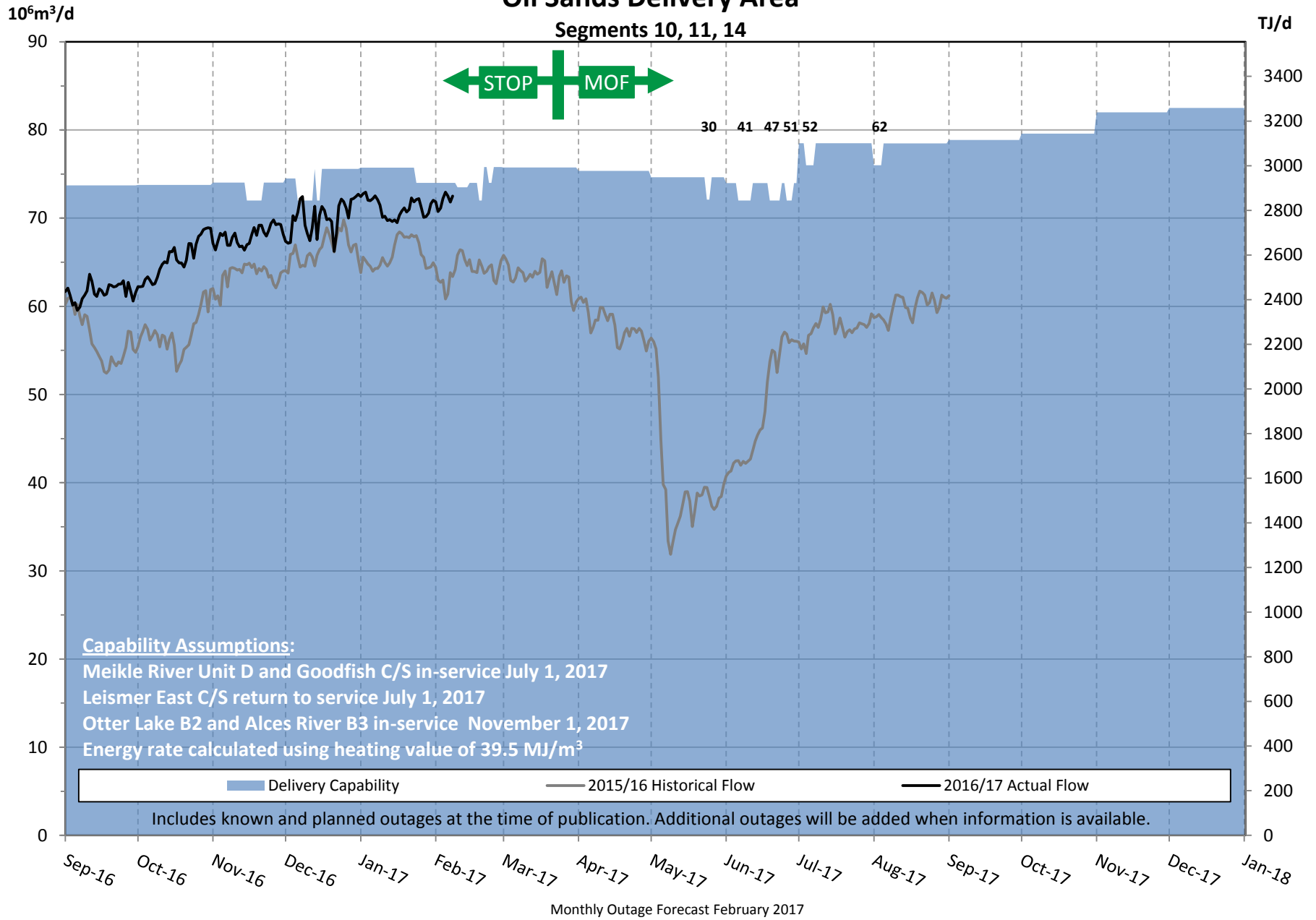
Receipt Capability Zero Storage      2015/16 Historical Flow incl. Storage Receipts      2016/17 Actual Flow incl. Storage Receipts

**Includes known and planned outages at the time of publication. Additional outages will be added when information is available.**

Monthly Outage Forecast February 2017

# Oil Sands Delivery Area

Segments 10, 11, 14





## NGTL System & Foothills Pipeline - Monthly Outage Forecast February 2017

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**EGAT** East Gate Delivery Area: Empress, McNeill, Unity, Cold Lake, Aeco C, Warwick Southeast, Chancellor, Carbon, Severn Creek, and Crossfield interconnects, and all delivery locations in Segments 6, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, partial 21, 22, 23, partial 28.

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- **OSDA** Oil Sands Delivery Area: Cold Lake interconnect, and all delivery locations in Segments 10, 11, 14.

**WGAT** West Gate Delivery Area: Alberta B.C. and Alberta Montana interconnects, and delivery locations in partial Segment 21 and Segment 22.

**FHBC** Foothills Zone 8

**FHSK** Foothills Zone 9

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
1	8	<b>Clearwater #5</b> - Unit Maintenance (5 days). <b>Dates Revised</b>	04/03/17	04/07/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 256 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
2	18	<b>Red Deer C/S</b> - Station Maintenance (3 days).	04/03/17	04/05/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 125 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
3	7	<b>Latornell C/S</b> - Station Maintenance (7 days).	04/03/17	04/09/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 253 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
4	16	<b>NPS 16 Leming Lake Sales Lateral</b> - Pipeline Modifications (6 days).	04/04/17	04/09/17	Potential IT/FT delivery restriction at Mahihkan and Tucker Lake Sales. Capability 7500 E3m3/d. Typical Flow 6000-8000 E3m3/d. Nil required at Jackfish Creek meter station. Typical Flow 30 E3m3/d	Brooke Penner (Dillabough)	Local
5	16	<b>NPS 10 Irish Lateral</b> - Pipeline Maintenance (7 days) - <b>New</b>	04/04/17	04/11/17	Nil required at Irish meter station. Typical Flow 90 E3m3/d.	Chris Pho	Local
6	18	<b>Acme C/S</b> - Station Maintenance (1 day).	04/06/17	04/06/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 125 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
7	20	<b>Jenner C/S</b> - Station Maintenance (3 days). <b>Dates Revised</b>	04/11/17	04/13/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 122 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
8	8	<b>Vetchland C/S</b> - Station Maintenance (4 days).	04/18/17	04/21/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 258 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
9	14	<b>NPS 10 Saddle Lake Lateral</b> - Pipeline Maintenance (11 days). <b>Dates Revised</b>	04/19/17	04/29/17	Potential IT/FT delivery restriction at Cold Lake Border meter station. Capability 1400 E3m3/d. Typical Flow 1200-1800 E3m3/d.	Brooke Penner (Dillabough)	Local
10	16	<b>NPS 18 East Lateral</b> - Pipeline Maintenance (5 days). <b>Dates Revised</b>	04/19/17	04/23/17	Delivery restriction at Unity Border meter station. Capability 1800 e3m3/d. Typical Flow 2900 e3m3/d.	Chris Pho	Local
11	22	<b>NPS 24 South Lateral</b> - Pipeline Maintenance (11 days). <b>Dates and Duration Revised</b>	04/24/17	05/04/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 62 E6m3/d, Typical Flow 57-64 E6m3/d.	Damola Daramola	WGAT

C/S Compressor Station  
M/S Meter Station  
Light Shade Changed Entry  
Dark Shade New Entry

## NGTL System & Foothills Pipeline - Monthly Outage Forecast February 2017

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**FHBC** Foothills Zone 8

**FHSK** Foothills Zone 9

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
12	4	<b>NPS 36 NWML Loop # 2 - Boundary Lake Section - Pipeline Modifications (5 days).</b>	04/24/17	04/28/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 258 E6m3/d. Typical Flow 230-265 e6m3/d.	Andrea Watters	USJR
13	18	<b>Princess B #6 - Station Maintenance (4 days).</b>	04/24/17	04/27/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 125 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
14	21	<b>Elko C/S - Station Maintenance (3 days).</b>	04/25/17	04/27/17	Potential IT/FT receipt restriction on Foothills Zone 8. Capability 62 E6m3/d. Typical Flow 40 - 65 E6m3/d.	Larissa Zhang	FHBC
15	10	<b>NPS 30 Fort McKay Mainline - Pipeline Maintenance (4 days).</b>	04/27/17	04/30/17	IT/FT delivery restriction required for Horizon Sales, Aurora Sales, Aurora # 2 Sales, Jackpine Creek Sales, Aspen Sales, Wapasu Creek Sales, Kearn Sales and Firebag Sales meter stations. Capability = 13000 E3m3/d. Typical Flow 15000 to 16000 E3m3/d.	Brooke Penner (Dillabough)	Local
16	15	<b>Dusty Lake, Gadsby A &amp; B C/S - Station Maintenance (3 days).</b>	05/01/17	05/03/17	Potential IT/FT delivery restriction in the North and East Delivery Area. Capability 90 E6m3/d. Typical Flow 60-100 E6m3/d.	Chuang Li	NEDA
17	13	<b>NPS 10 Redwater Lateral - Pipeline Modifications (6 days within window).</b>	05/01/17	05/15/17	Nils required at Big Bend, Lawrence Lake North and Dancing Lake meter stations. Typical Flow 150 E3m3/d.	Rahim Ruda	Local
18	10	<b>NPS 24 Fort McKay Mainline - Pipeline Maintenance (4 days).</b>	05/03/17	05/06/17	IT/FT delivery restriction required for Aspen Sales, Wapasu Creek Sales, Kearn Sales and Firebag Sales meter stations. Capability = 8500 E3m3/d. Typical Flow 10000 to 13000 E3m3/d.	Brooke Penner (Dillabough)	Local
19	6	<b>Woodenhouse B2 C/S - Station Maintenance (2 days).</b>	05/04/17	05/05/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 258 E6m3/d. Typical Flow 230-265 e6m3/d. Potential IT/FT delivery restriction in the North and East Delivery Area. Capability 95 E6m3/d. Typical Flow 60-100 E6m3/d.	Brooke Penner (Dillabough)	USJR NEDA
20	21	<b>Moyie C/S - Station Maintenance (5 days).</b>	05/08/17	05/12/17	Potential IT/FT receipt restriction on Foothills Zone 8. Capability 60 E6m3/d. Typical Flow 40 - 65 E6m3/d.	Larissa Zhang	FHBC
21	7	<b>Berland River C/S - Station Maintenance (5 days).</b>	05/08/17	05/12/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 253 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
22	21	<b>Turner Valley C/S - Station Maintenance (3 days).</b>	05/09/17	05/11/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 55 E6m3/d. Typical Flow 57-64 E6m3/d.	Larissa Zhang	WGAT

C/S Compressor Station  
M/S Meter Station  
Light Shade Changed Entry  
Dark Shade New Entry

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**FHBC** Foothills Zone 8

**FHSK** Foothills Zone 9

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
23	19	<b>NPS 34 Eastern Alberta System Mainline Loop &amp; Central Alberta System Mainline</b> - Pipeline Maintenance (10 days).	05/09/17	05/18/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill Capability 125 E6m3/d. Typical Flow 125-135 E6m3/d.	Damola Daramola	EGAT
24	5	<b>NPS 20 Kaybob Lateral</b> - Pipeline Maintenance (1 day). <b>New</b>	05/11/17	05/11/17	Partial FT receipt restriction at Chickadee Creek West, Clark Lake, Kaybob, Two Creeks, Two Creeks East meter stations. Capability 1300 E3m3/d. Typical 2600 E3m3/d.	Chris Pho	Local
25	21	<b>Turner Valley #1</b> - Unit Maintenance (4 days).	05/15/17	05/18/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 59 E6m3/d. Typical Flow 57-64 E6m3/d.	Larissa Zhang	WGAT
26	13	<b>NPS 10 Redwater Lateral</b> - Pipeline Modifications (6 days within window).	05/15/17	05/31/17	Nils required at Redwater and Redwater B Sales meter stations. Typical Flow 1000 E3m3/d. Nil required at Opal meter station. Typical Flow 0 E3m3/d.	Rahim Ruda	Local
27	18	<b>Hussar C/S</b> - Station Maintenance (4 days).	05/16/17	05/19/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 122 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
28	5	<b>Fox Creek C/S</b> - Station Maintenance (3 days).	05/23/17	05/25/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 260 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
29	18	<b>Schrader Creek East #3</b> - Unit Maintenance (4 days).	05/23/17	05/26/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 126 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
30	11	<b>Field Lake A &amp; B C/S</b> - Station Maintenance (2 days).	05/24/17	05/25/17	Potential IT/FT delivery restriction in the Oil Sands Delivery Area. Capability 72 E6m3/d. Typical Flow 60-70 E6m3/d.	Brooke Penner (Dillabough)	OSDA
31	20	<b>NPS 10 Etzikom Lateral</b> - Pipeline Maintenance (8 days).	05/25/17	06/01/17	Nils required at South Saskatchewan River; Bullshead; Murray Lake; Etzikom A; Etzikom B; Etzikom D. Typical Flow 350 E3m3/d.	Damola Daramola	Local
32	7	<b>NPS 16 Demmitt Lateral</b> - Pipeline Maintenance (6 days). <b>New</b>	05/26/17	05/31/17	Potential IT/FT receipt restriction to Demmitt, Demmitt # 2, Brainard Lake, Goodfare. Capability 13 E6m3/d. Typical Flow 13-15 E6m3/d	Andrea Watters	Local
33	7	<b>Gold Creek C/S</b> - Station Maintenance (7 days).	05/26/17	06/01/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 249 E6m3/d. Typical Flow 230-265 e6m3/d.	Andrea Watters	USJR

C/S Compressor Station  
M/S Meter Station  
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**FHSK** Foothills Zone 9

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			START	FINISH			
34	21	<b>Crowsnest A C/S</b> - Station Maintenance (3 days).	05/29/17	05/31/17	Potential IT/FT receipt restriction on Foothills Zone 8. Capability 60 E6m3/d. Typical Flow 40 - 65 E6m3/d.	Larissa Zhang	FHBC
35	21	<b>Winchell Lake C/S</b> - Station Maintenance (5 days). <b>Dates Capacity Revised</b>	05/29/17	06/02/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 56 E6m3/d. Typical Flow 57-64 E6m3/d.	Larissa Zhang	WGAT
36	21	<b>Crowsnest A &amp; B C/S</b> - Station Maintenance (2 days).	05/30/17	05/31/17	Potential IT/FT receipt restriction on Foothills Zone 8. Capability 53 E6m3/d. Typical Flow 40 - 65 E6m3/d.	Larissa Zhang	FHBC
37	21	<b>Crowsnest B C/S</b> - Station Maintenance (1 day).	06/01/17	06/01/17	Potential IT/FT receipt restriction on Foothills Zone 8. Capability 61 E6m3/d. Typical Flow 40 - 65 E6m3/d.	Larissa Zhang	FHBC
38	8	<b>Wolf Lake C/S</b> - Station Maintenance (5 days).	06/05/17	06/09/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 250 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
39	21	<b>Burton Creek C/S</b> - Station Maintenance (5 days). <b>Dates and Capacity Revised</b>	06/05/17	06/09/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 61 E6m3/d. Typical Flow 57-64 E6m3/d.	Larissa Zhang	WGAT
40	15	<b>NPS 16 North Lateral Extension</b> - Pipeline Maintenance (9 days).	06/05/17	06/13/17	Potential IT/FT delivery restriction in in the North and East Delivery Area. Capability 95 E6m3/d. Typical flow 60-100 E6m3/d.	Chuang Li	NEDA
41	16	<b>NPS 16 Leming Lake Sales Lateral</b> - Pipeline Modifications (6 days).	06/06/17	06/11/17	Potential IT/FT delivery restriction in the Oil Sands Delivery Area. Capability 72 E6m3/d. Typical Flow 60-70 E6m3/d.	Brooke Penner (Dillabough)	OSDA
42	21	<b>NPS 42 Western Alberta System Mainline Loop</b> - Pipeline Maintenance (11 days). <b>Capacity Revised</b>	06/06/17	06/16/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 62 E6m3/d. Typical Flow 57-64 E6m3/d.	Larissa Zhang	WGAT
43	8	<b>NPS 42 Edson M/L Loop (Edson to Clearwater)</b> - Pipeline Maintenance (11 days). <b>Dates Revised</b>	06/06/17	06/16/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 240 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
44	15	<b>NPS 6 Sullivan Lateral</b> - Pipeline Modifications (6 days within window).	06/15/17	06/30/17	Niis required at Bloor Lake and Sullivan meter stations. Typical Flow 200 E3m3/d.	Rahim Ruda	Local

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**FHBC** Foothills Zone 8

**FHSK** Foothills Zone 9

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
45	21	<b>NPS 36 Foothills Zone 8 Segment 2</b> - Pipeline Maintenance (5 days).	06/19/17	06/23/17	Potential IT/FT receipt restriction on Foothills Zone 8. Capability 58 E6m3/d. Typical Flow 40 - 65 E6m3/d.	Larissa Zhang	FHBC
46	21	<b>NPS 36 Western Alberta System Mainline</b> - Pipeline Maintenance (10 days).	06/19/17	06/28/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 56 E6m3/d, Typical Flow 57-64 E6m3/d.	Larissa Zhang	WGAT
47	11	<b>Behan C/S</b> - Station Maintenance (5 days).	06/19/17	06/23/17	Potential IT/FT delivery restriction in Segments 11 & 14. Capability 38 E6m3/d. Typical Flow 30-40 E6m3/d.	Brooke Penner (Dillabough)	OSDA
48	20	<b>NPS 8 Vale East Lateral</b> - Pipeline Modifications (7 days within window).	06/19/17	06/27/17	Nil required at Vale East meter station. Typical Flow 330 E3m3/d.	Rahim Ruda	Local
49	20	<b>NPS 10 Vale Lateral</b> - Pipeline Modifications (7 days within window).	06/19/17	06/27/17	Nils required at Vale and Vale East meter stations. Typical Fow 500 E3m3/d.	Rahim Ruda	Local
50	21	<b>NPS 36 Foothills Zone 8 Segment 3</b> - Pipeline Maintenance (5 days).	06/25/17	06/29/17	Potential IT/FT receipt restriction on Foothills Zone 8. Capability 64 E6m3/d. Typical Flow 40 - 65 E6m3/d.	Larissa Zhang	FHBC
51	11	<b>Behan C/S</b> - Station Maintenance (3 days).	06/26/17	06/28/17	Potential IT/FT delivery restriction in Segments 11 & 14. Capability 38 E6m3/d. Typical Flow 30-40 E6m3/d.	Brooke Penner (Dillabough)	OSDA
52	12	<b>Hanmore Lake B &amp; C C/S</b> - Station Maintenance (4 days).	07/04/17	07/07/17	Potential IT/FT delivery restriction in the Oil Sands Delivery Area. Capability 76 E6m3/d. Typical Flow 60-70 E6m3/d.	Brooke Penner (Dillabough)	OSDA
53	18	<b>Acme C/S</b> - Station Maintenance (11 days). <b>Dates and Duration Revised</b>	07/04/17	07/14/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 124 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
54	19	<b>NPS 42 Foothills Zone 6 Alberta</b> - Pipeline Maintenance (12 days).	07/05/17	07/16/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill Capability 124 E6m3/d. Typical Flow 125-135 E6m3/d.	Damola Daramola	EGAT
55	16	<b>NPS 14 Flat Lake Lateral</b> - Pipeline Maintenance (11 days).	07/05/17	07/15/17	Nil required at West Viking meter station. Typical Flow 60 E3m3/d.	Chuang Li	Local

C/S Compressor Station  
M/S Meter Station  
Light Shade Changed Entry  
Dark Shade New Entry

## NGTL System & Foothills Pipeline - Monthly Outage Forecast February 2017

### Area Definitions

**USJR** Upstream James River Receipt Area: Groundbirch East, Gordondale, Big Eddy, January Creek, and Rat Creek West interconnects, and all receipt locations in Segments 1, 2, 3, 4, 5, 7, partial 8, partial 9, 24, 26, partial 28.

**EGAT** East Gate Delivery Area: Empress, McNeill, Unity, Cold Lake, Aeco C, Warwick Southeast, Chancellor, Carbon, Severn Creek, and Crossfield interconnects, and all delivery locations in Segments 6, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, partial 21, 22, 23, partial 28.

- **NEDA** North and East Delivery Area: Unity, Cold Lake, Warwick Southeast interconnects, and all delivery locations in Segments 6, 10, 11, 12, 13, 14, 15, 16, 17, 23, partial 28:
- **OSDA** Oil Sands Delivery Area: Cold Lake interconnect, and all delivery locations in Segments 10, 11, 14.

**WGAT** West Gate Delivery Area: Alberta B.C. and Alberta Montana interconnects, and delivery locations in partial Segment 21 and Segment 22.

**FHBC** Foothills Zone 8

**FHSK** Foothills Zone 9

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
56	8	<b>Clearwater #1</b> - Unit Maintenance (5 days).	07/17/17	07/21/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 256 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
57	8	<b>Clearwater C/S</b> - Station Maintenance (2 days). <b>Dates Revised</b>	07/18/17	07/19/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 254 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
58	18	<b>Schrader Creek West #2</b> - Unit Maintenance (5 days).	07/24/17	07/28/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 126 E6m3/d. Typical Flow 125-135 e6m3/d.	Larissa Zhang	EGAT
59	21	<b>NPS 36 Foothills Zone 7</b> - Pipeline Maintenance (8 days).	07/24/17	07/31/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 58 E6m3/d, Typical flow 57-64 E6m3/d.	Larissa Zhang	WGAT
60	16	<b>NPS 6 Killam Lateral</b> - Pipeline Modifications (6 days).	07/24/17	07/29/17	Nils required at Killam meter station. Typical Flow 100 E3m3/d.	Rahim Ruda	Local
61	19	<b>NPS 36 Eastern Alberta System Mainline Loop #2</b> - Pipeline Maintenance (5 days).	07/31/17	08/04/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill Capability 124 E6m3/d. Typical Flow 125-135 E6m3/d.	Damola Daramola	EGAT
62	12	<b>Hanmore Lake B &amp; C C/S</b> - Station Maintenance (4 days).	08/01/17	08/04/17	Potential IT/FT delivery restriction in the Oil Sands Delivery Area. Capability 76 E6m3/d. Typical Flow 60-70 E6m3/d.	Brooke Penner (Dillabough)	OSDA
63	7	<b>NPS 36 Grande Prairie Mainline Loop</b> - Pipeline Modifications (6 days within window).	08/01/17	08/11/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 240 E6m3/d. Typical Flow 230-265 e6m3/d.	Andrea Watters	USJR
64	7	<b>NPS 42 Grande Prairie Mainline Loop</b> - Pipeline Modifications (6 days within window).	08/01/17	08/11/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 240 E6m3/d. Typical Flow 230-265 e6m3/d. Nil required at Gold Creek South meter station. Typical Flow 1300 E3m3/d,	Chris Pho	USJR Local
65	21	<b>NPS 12 Burnt Timber Lateral</b> - Pipeline Modifications (6 days within window).	08/05/17	08/15/17	Nils required at Burnt Timber Sales meter station. Typical Flow 100 E3m3/d.	Rahim Ruda	Local
66	18	<b>Schrader Creek East &amp; West C/S</b> - Station Maintenance (3 days).	08/08/17	08/10/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 124 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT

C/S Compressor Station  
M/S Meter Station  
Light Shade Changed Entry  
Dark Shade New Entry

## NGTL System & Foothills Pipeline - Monthly Outage Forecast February 2017

### Area Definitions

**USJR** Upstream James River Receipt Area: Groundbirch East, Gordondale, Big Eddy, January Creek, and Rat Creek West interconnects, and all receipt locations in Segments 1, 2, 3, 4, 5, 7, partial 8, partial 9, 24, 26, partial 28.

**EGAT** East Gate Delivery Area: Empress, McNeill, Unity, Cold Lake, Aeco C, Warwick Southeast, Chancellor, Carbon, Severn Creek, and Crossfield interconnects, and all delivery locations in Segments 6, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, partial 21, 22, 23, partial 28.

- **NEDA** North and East Delivery Area: Unity, Cold Lake, Warwick Southeast interconnects, and all delivery locations in Segments 6, 10, 11, 12, 13, 14, 15, 16, 17, 23, partial 28:
- **OSDA** Oil Sands Delivery Area: Cold Lake interconnect, and all delivery locations in Segments 10, 11, 14.

**WGAT** West Gate Delivery Area: Alberta B.C. and Alberta Montana interconnects, and delivery locations in partial Segment 21 and Segment 22.

**FHBC** Foothills Zone 8

**FHSK** Foothills Zone 9

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
67	19	<b>NPS 42 Eastern Alberta System Mainline Loop #3</b> - Pipeline Maintenance (9 days).	08/09/17	08/17/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill Capability 125 E6m3/d. Typical Flow 125-135 E6m3/d.	Damola Daramola	EGAT
68	21	<b>NPS 36 Foothills Zone 8 Segment 4</b> - Pipeline Maintenance (6 days).	08/09/17	08/14/17	Potential IT/FT receipt restriction on Foothills Zone 8. Capability 63 E6m3/d. Typical Flow 40 - 65 E6m3/d.	Larissa Zhang	FHBC
69	19	<b>NPS 42 Foothills Pipeline Zone 9</b> - Pipeline Maintenance (9 days).	08/09/17	08/17/17	Potential IT/FT receipt restriction on Foothills Zone 9. Capability 35-50 E6m3/d. Typical Flow 40-45 E6m3/d.	Damola Daramola	FHSK
70	7	<b>NPS 48 Edson Mainline Loop 3</b> - Pipeline Modifications (10 days). <b>Area of Impact Revised</b>	08/12/17	08/21/17	Partial FT receipt restriction in Segments 1, 2, 3, 4, 5, 7, 24, 26, partial 8 (upstream of Vetchland C/S), partial 9 (upstream of Schrader Creek C/S), and partial 28. Capability 210 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
71	7	<b>NPS 36/42 Grande Prairie Mainline Loop</b> - Pipeline Modifications (6 days within window).	08/12/17	08/21/17	No expected additional impact due to alignment with NPS 48 Edson Mainline Loop 3 (Outage 70).	Andrea Watters	USJR
72	7	<b>NPS 36 Grande Prairie Mainline Loop</b> - Pipeline Modifications (6 days within window).	08/12/17	08/21/17	No expected additional impact due to alignment with NPS 48 Edson Mainline Loop 3 (Outage 70).	Andrea Watters	USJR
73	8	<b>Swartz Creek C/S</b> - Station Maintenance (5 days).	08/14/17	08/18/17	No expected additional impact due to alignment with NPS 48 Edson Mainline Loop 3 (Outage 70).	Chris Pho	USJR
74	7	<b>Latornell C/S</b> - Station Maintenance (7 days). <b>Dates Revised</b>	08/14/17	08/20/17	No expected additional impact due to alignment with NPS 48 Edson Mainline Loop 3 (Outage 70).	Chris Pho	USJR
75	21	<b>Drywood C/S</b> - Station Maintenance (5 days).	08/14/17	08/18/17	Potential IT/FT delivery restriction at Alberta Montana Border. Capability 2500 E3m3/d. Typical flow 1500- 2500 E3m3/d.	Larissa Zhang	Local
76	21	<b>NPS 42 Western Alberta System Mainline</b> - Pipeline Maintenance (9 days).	08/15/17	08/23/17	Potential IT/FT delivery restriction in the West Gate Delivery Area. Alberta B. C. Capability 58 E6m3/d, Typical flow 57-64 E6m3/d.	Larissa Zhang	WGAT
77	20	<b>NPS 8 Dorothy Lateral and NPS10 Cessford-Burfield Lateral</b> - Pipeline Modifications (8 days). <b>Dates Revised</b>	08/21/17	08/28/17	Nils required at Dorothy, Lone Butte, Cessford Burfield West, Cessford Burfield West #2, Bullpound, Cessford North meter stations. Typical Flow 600 E3m3/d.	Rahim Ruda	Local

C/S Compressor Station  
M/S Meter Station  
Light Shade Changed Entry  
Dark Shade New Entry



## NGTL System & Foothills Pipeline - Monthly Outage Forecast February 2017

### Area Definitions

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**EGAT** East Gate Delivery Area: Empress, McNeill, Unity, Cold Lake, Aeco C, Warwick Southeast, Chancellor, Carbon, Severn Creek, and Crossfield interconnects, and all delivery locations in Segments 6, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, partial 21, 22, 23, partial 28.

- **NEDA** North and East Delivery Area: Unity, Cold Lake, Warwick Southeast interconnects, and all delivery locations in Segments 6, 10, 11, 12, 13, 14, 15, 16, 17, 23, partial 28:
- **OSDA** Oil Sands Delivery Area: Cold Lake interconnect, and all delivery locations in Segments 10, 11, 14.

**WGAT** West Gate Delivery Area: Alberta B.C. and Alberta Montana interconnects, and delivery locations in partial Segment 21 and Segment 22.

**FHBC** Foothills Zone 8

**FHSK** Foothills Zone 9

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
78	15	<b>NPS 24/30 North Lateral Extension Loop 2</b> - Pipeline Maintenance (9 days).	08/21/17	08/29/17	Potential IT/FT delivery restriction in the North and East Delivery Area. Capability 80 E6m3/d. Typical flow 60-100 E6m3/d.	Chuang Li	NEDA
79	19	<b>NPS 42 Foothills Pipeline Zone 9</b> - Pipeline Maintenance (7 days).	08/22/17	08/28/17	Potential IT/FT receipt restriction on Foothills Zone 9. Capability 35-50 E6m3/d. Typical Flow 40-45 E6m3/d.	Damola Daramola	FHSK
80	5	<b>NPS 12 Bigstone Lateral</b> - Pipeline Maintenance (6 days). <b>Dates Revised</b>	08/23/17	08/28/17	Nil required at Grizzly meter station. Typical Flow 85 E3m3/d	Chris Pho	Local
81	5	<b>Knight C/S</b> - Station Maintenance (3 days).	09/05/17	09/07/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 252 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
82	18	<b>Beiseker #1</b> - Station Maintenance (4 days).	09/05/17	09/08/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 126 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
83	6	<b>Woodenhouse A1 &amp; B2 C/S</b> - Station Maintenance (5 days).	09/11/17	09/15/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 255 E6m3/d. Typical Flow 230-265 e6m3/d. Potential IT/FT delivery restriction in the North and East Delivery Area. Capability 93 E6m3/d. Typical Flow 60-100 E6m3/d.	Brooke Penner (Dillabough)	USJR NEDA
84	18	<b>Schrader Creek East #1</b> - Unit Maintenance (4 days).	09/18/17	09/21/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 126 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
85	7	<b>NPS 42 Grande Prairie Mainline Loop</b> - Pipeline Modifications (12 days).	09/20/17	10/01/17	Nil required at Mayberne #2 meter station. Typical Flow 550 E3m3/d.	Chris Pho	Local
86	18	<b>Beiseker #2</b> - Station Maintenance (4 days).	09/25/17	09/28/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 126 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
87	8	<b>Nordegg C/S</b> - Station Maintenance (19 days).	10/02/17	10/20/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 254 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
88	6	<b>Paul Lake B2 C/S</b> - Station Maintenance (14 days).	10/16/17	10/29/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 257 E6m3/d. Typical Flow 230-265 E6m3/d. Potential IT/FT delivery restriction in the North and East Delivery Area. Capability 95 E6m3/d. Typical Flow 60-100 E6m3/d.	Brooke Penner (Dillabough)	USJR NEDA

C/S Compressor Station  
M/S Meter Station  
Light Shade Changed Entry  
Dark Shade New Entry

## NGTL System & Foothills Pipeline - Monthly Outage Forecast February 2017

### Area Definitions

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- **NEDA** North and East Delivery Area: Unity, Cold Lake, Warwick Southeast interconnects, and all delivery locations in Segments 6, 10, 11, 12, 13, 14, 15, 16, 17, 23, partial 28:
- **OSDA** Oil Sands Delivery Area: Cold Lake interconnect, and all delivery locations in Segments 10, 11, 14.

**WGAT** West Gate Delivery Area: Alberta B.C. and Alberta Montana interconnects, and delivery locations in partial Segment 21 and Segment 22.

**FHBC** Foothills Zone 8

**FHSK** Foothills Zone 9

OUTAGE #	SEG #	OUTAGE DESCRIPTION	DATES		RECEIPT/DELIVERY IMPACT	CONTACT	AREA
			START	FINISH			
89	18	<b>Beiseker C/S</b> - Station Maintenance (2 days).	10/24/17	10/25/17	Potential IT/FT delivery restriction in the East Gate Delivery Area. Empress/McNeill delivery Capability 124 E6m3/d. Typical Flow 125-135 e6m3/d.	Damola Daramola	EGAT
90	8	<b>Clearwater #5</b> - Unit Modifications (40 days).	10/30/17	12/08/17	Potential IT/FT receipt restriction in the Upstream James River Receipt Area. Capability 262 E6m3/d. Typical Flow 230-265 e6m3/d.	Chris Pho	USJR
91	17	<b>NPS 12 Ghostpine Lateral</b> - Pipeline Modifications (6 days within window).	11/01/17	11/15/17	Nils required at Carbon West & Gatine meter stations. Typical Flow 600 E3m3/d.	Rahim Ruda	Local
92	16	<b>NPS 8 Kessler Lateral</b> - Pipeline Modifications (6 days). <b>Dates Revised</b>	11/20/17	11/25/17	Nils required at Provost Kessler and Provost West meter stations. Typical Flow 130 E3m3/d.	Rahim Ruda	Local
93	23	<b>NPS 8 Wainwright East Lateral</b> - Pipeline Modifications (6 days within window).	12/01/17	12/15/17	Nil required at Wainwright East meter station. Typical Flow 35 E3m3/d.	Rahim Ruda	Local
94	21	<b>NPS 10 Olds Lateral</b> - Pipeline Modifications (6 days within window). <b>Deferred to 2018</b>	2018	2018	Nils required at Olds, Netook meter stations. Typical Flow 1050 E3m3/d. Nil required at Deadrick Creek Sales meter station. Typical Flow 20 E3m3/d.	Rahim Ruda	Local

C/S Compressor Station  
M/S Meter Station  
Light Shade Changed Entry  
Dark Shade New Entry