

Southern Star 2019 Planned Service Outage						Historical Average ID3 Scheduled Volume		
Work Activity						Operational Capacity Information		
Status	Projected Start Date	Projected Return to Normal Date	Location(s)	Type of Work	Map	Capacity After Reduction	% Reduction from Normal Operational Capacity	Constraint Area(s)
	August 12, 2019	August 17, 2019	Hoxie C/S	Hoxie Painting	Map	165,000 Dth/d Levant Station (Location 445577)	15% Reduction - (Location 445577)	Rawlins Hesston
NEW	August 14, 2019	August 17, 2019	Saginaw C/S	Saginaw Unit Maintenance	Map	175,000 Dth/d Saginaw Station (Location 444550)	27% Reduction - (Location 444550)	Springfield, Jane
	August 20, 2019	August 22, 2019	Woods Co, OK	Mainline Valve Repair	Map	0 Dth/d Canadian Blackwell Rec (Location 444580) 0 Dth/d Canadian Blackwell Del (Location 444586) This is a net zero constraint - Receipts and Deliveries Must Balance 0 Dth/d EOIT Alfalfa (Location 17068)	100% Reduction - (Location 17068)	Canadian Blackwell
	August 27, 2019	August 29, 2019	Cleveland Co, OK	Modernization HDD for Pipeline Exposure	Map	0 Dth/d Cement System Receipt (443403) 0 Dth/d Cement System Delivery (443400) This is a net zero constraint - Receipts and Deliveries Must Balance 0 Dth/d South Maysville Delivery (444003) Deliveries cannot exceed receipts 0 Dth/d Oklahoma Cogeneration Plant (Location 41)	100% Reduction - (Location 41)	South of Edmond
	September 3, 2019	September 27, 2019	Yuma, St. Francis and Otis C/S	Yuma Unit Maintenance and Modernization St. Francis / Otis NEC Panel Replacement	Map	165,000 Dth/d Levant Station (Location 445577)	15% Reduction - (Location 445577)	Rawlins Hesston
	September 9, 2019	September 14, 2019	Saginaw C/S	Saginaw Unit Maintenance	Map	200,000 Dth/d Saginaw Station (Location 444550)	17% Reduction - (Location 444550)	Springfield, Jane
	September 9, 2019	September 14, 2019	Riner C/S	Modernization AMOT Temperature Control Valve Installation and Echo Springs OPP Installation	Map	85,000 Dth/d Riner Station (Location 445569) 0 Dth/d Echo Springs (Location 16294) 0 Dth/d PSCO Chalk Bluffs (Location 52) 0 Dth/d Riner Delivery Constraint (444902) Deliveries cannot exceed receipts	56% Reduction - (Location 445569) 100% Reduction Echo Springs - (Location 16294) 100% Reduction - (Location 52)	Rawlins Hesston
	September 16, 2019	September 21, 2019	Peculiar C/S	Peculiar Unit Maintenance	Map	200,000 Dth/d Sedalia @ Ottawa (Location 442350)	13% Reduction - (Location 442350)	Sedalia, Carrollton
	September 17, 2019	September 26, 2019	Edmond C/S	Edmond Unit Maintenance	Map	100,000 Dth/d Edmond Station (Location 445535)	23% Reduction - (Location 445535)	South of Edmond, Oklahoma Other
	September 24, 2019	November 1, 2019	Levant C/S, Yuma C/S and St. Francis C/S	Levant Unit Maintenance, Modernization NEC Panel Replacement, Painting and Yuma Unit Maintenance, Modernization Install of Electronic Fuel Checks	Map	165,000 Dth/d Levant Station (Location 445577)	15% Reduction - (Location 445577)	Rawlins Hesston

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Status	Projected Start Date	Projected Return to Normal Date	Location(s)	Type of Work	Map	Capacity After Reduction	% Reduction from Normal Operational Capacity	Constraint Area(s)
	September 30, 2019	October 4, 2019	Cheyenne C/S	Cheyenne Modernization NEC Panel Replacement	Map	0 Dth/d PSCO Chalk Bluffs (Location 52) Cheyenne Light Fuel & Power (Location 16998) available but upstream pressure may occasionally fall below 700 PSIG pressure commitment posted on EBB under "System Minimum Pressures"	100% Reduction - (Location 52)	Rawlins Hesston
	October 1, 2019	November 1, 2019	Saginaw C/S	Saginaw Turbine Maintenance and Modernization Upgrades	Map	150,000 Dth/d Saginaw Station (Location 444550)	37% Reduction - (Location 444550)	Springfield, Jane
	October 1, 2019	October 8, 2019	Blackwell C/S	Blackwell Unit Maintenance	Map	420,000 Dth/d Blackwell West (Location 449000) 100,000 Dth/d Edmond Blackwell (Location 443800) (If turbine is in service, posting will be removed due to no impact to customers)	15% Reduction - (Location 449000) 23% Reduction- (Location 443800)	Straight Blackwell, Canadian Blackwell, Blackwell Edmond, Oklahoma Other
	October 1, 2019	October 3, 2019	Ratliff C/S	Ratliff Unit Maintenance	Map	40,000 Dth/d NGPL Carter County (Location 17069)	53% Reduction - NGPL Carter County (Location 17069)	South of Edmond
	October 1, 2019	October 3, 2019	Montezuma C/S	Modernization - Replace PLC's at Montezuma	Map	250,000 Dth/d Kansas Hugoton (441300)	35% Reduction - (Location 441300)	Kansas Hugoton
	October 8, 2019	October 9, 2019	Edmond C/S	Edmond ESD Testing	Map	20,000 Dth/d Edmond CS (Location 445535) 0 Dth/d West Edmond CS (Location 444001) 0 Dth/d Oklahoma Cogen (Location 41)	85% Reduction - (Location 445535) 100% Reduction - (Location 444001) 100% Reduction - (Location 41)	South of Edmond, Oklahoma Other
	October 15, 2019	October 22, 2019	Blackwell C/S	Blackwell Unit Maintenance	Map	420,000 Dth/d Blackwell West (Location 449000) 100,000 Dth/d Edmond Blackwell (Location 443800) (If turbine is in service, posting will be removed due to no impact to customers)	15% Reduction - (Location 449000) 23% Reduction- (Location 443800)	Straight Blackwell, Canadian Blackwell, Blackwell Edmond, Oklahoma Other
	October 22, 2019	October 25, 2019	Oklahoma Co, OK	Smart Pigging	Map	30,000 Dth/d South Maysville Rec (Location 444002) 75,000 Dth/d NGPL Carter County (Location 17069) 0 Dth/d Oklahoma Cogen (Location 41)	76% Reduction - (Location 444002) 12% Reduction - (Location 17069) 100% Reduction - (Location 41)	South of Edmond
	October 23, 2019	October 24, 2019	Blackwell C/S & Grabham C/S	Blackwell North Station ESD Testing & Grabham Station ESD Testing	Map	320,000 Dth/d Blackwell CS (Location 445511)	49% Reduction - (Location 445511)	Straight Blackwell, Canadian Blackwell, Blackwell Edmond, South Edmond, Oklahoma Other
	October 24, 2019	October 25, 2019	Blackwell C/S	Blackwell South Station ESD Testing	Map	320,000 Dth/d Blackwell West (Location 449000) 100,000 Dth/d Edmond Blackwell (Location 443800) (If turbine is in service, posting will be removed due to no impact to customers)	35% Reduction - (Location 449000) 23% Reduction- (Location 443800)	Straight Blackwell, Canadian Blackwell, Blackwell Edmond, Oklahoma Other
	November 4, 2019	November 12, 2019	Blackwell C/S	Blackwell Unit Maintenance	Map	290,000 Dth/d Blackwell West (Location 449000) 420,000 Dth/d Blackwell Station (Location 445511) (If turbine is in service, posting will be removed due to no impact to customers)	40% Reduction - (Location 449000) 28% Reduction - (Location 445511)	Straight Blackwell, Canadian Blackwell, Blackwell Edmond, South Edmond, Oklahoma Other
REVISED	November 19, 2019	November 23, 2019	Noble Co, OK	Smart Pigging	Map	0 Dth/d ETC Crescent (Location 16999) 0 Dth/d EOIT Noble (Location 15011) 75,000 Dth/d NGPL Carter County (Location 17069) 40,000 Dth/d Edmond C/S (Location 445535)	100% Reduction - (Location 16999) 100% Reduction - (Location 15011) 12% Reduction - (Location 17069) 62% Reduction - (Location 445535)	Blackwell Edmond

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	December 3, 2019	December 10, 2019	Blackwell C/S	Blackwell Unit Maintenance	Map	290,000 Dth/d Blackwell West (Location 449000) 420,000 Dth/d Blackwell Station (Location 445511) (If turbine is in service, posting will be removed due to no impact to customers)	40% Reduction - (Location 449000) 28% Reduction - (Location 445511)	Straight Blackwell, Canadian Blackwell, Blackwell Edmond, South Edmond, Oklahoma Other

July																															August																														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

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A horizontal bar divided into 40 equal segments. The 10th segment is blue. The 15th through 22nd segments are blue.

Category	Percentage
1	5%
2	5%
3	5%
4	5%
5	5%
6	5%
7	5%
8	5%
9	5%
10	5%
11	5%
12	5%
13	5%
14	5%
15	5%
16	5%
17	5%
18	5%
19	5%
20	5%

July																															August																														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

* Shaded areas indicate a reduction in capacity

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Note: SB, CB, BE, OK (If turbine is in service, posting will be removed due to no impact to customers)

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