



Pipeline Operating Partnership L.P.

NuStar Pipeline Operating Partnership, L.P.

Product Specifications

East Pipeline



Pipeline Operating Partnership L.P.

Table of Contents

	Page
<u>CONVENTIONAL GASOLINE</u>	
A GRADE GASOLINE	1
N GRADE GASOLINE	2
<u>DISTILLATES</u>	
D GRADE ULTRA LOW PREMIUM DIESEL	3,4
X GRADE ULTRA LOW SULFUR FUEL OIL Grade 37	5,6
Y GRADE No.1 FUEL OIL Grade 58	7,8
<u>SPECIALTY PRODUCTS</u>	
B GRADE BIO-DIESEL FUEL	9,10
E GRADE ETHANOL	11
L GRADE PROPANE Grade 12	12
55 NG GRADE NATURAL GASOLINE	13



Pipeline Operating Partnership L.P.

Page

ADDITIVE SPECIFICATIONS

GASOLINE ADDITIVES	14
CORROSION INHIBITORS	15
FUEL OIL AND DIESEL FUEL ADDITIVES	15

GASOLINE VOLATILITY SCHEDULES

A GRADE GASOLINE – EAST PIPELINE	16
N GRADE – EAST PIPELINE	17



Pipeline Operating Partnership L.P.

SPECIFICATIONS FOR A GRADE GASOLINE

(Conventional Gasoline - This product does not meet the requirements for reformulated gasoline and may not be used in any reformulated gasoline covered area.)

<u>Specification Points</u>	ASTM Test <u>Method</u> <u>Minimum</u>	Origin Shipments <u>Maximum</u>	Deliveries <u>(At Terminals)</u>
Gravity, Degrees API	D287	Report Only	
Color		Undyed	
Volatility <u>1/</u>			
Mercaptan Sulfur, wt % <u>2/</u>	D3227	0.004	
Hydrogen Sulfide	D3227	None	
Copper Corrosion	D 130	1	
Silver Corrosion	D4814	1	
Gum, Existent, mg/100ml	D 381	4	5
Oxidation Stability, min.	D 525	240	180
Phosphorous, g/gal	D3231	0.003	0.005
Lead, g/gal	D3237	0.010	0.05
Research Octane {R}	D2699	Report	
Motor Octane {M}	D2700	Report	
(R+M)/2	D4814	91.0	
Sulfur, ppm <u>3/</u>	D2622	80	
Oxygenates, wt %	D4815	0.33	
Haze rating <u>4/</u>	D4176	2	3
NACE Corrosion	TM0172	B+	
Odor <u>5/</u>		Nonoffensive	

1/ Refer to Seasonal Gasoline Volatility Schedule.

2/ Mercaptan Sulfur determination is waived if the result of the Doctor Test ASTM D4952 is negative.

3/ Gasoline exceeding the origin specification will be accepted from small refineries as defined in 40 CFR part 80 of the EPA regulations.

4/ Compliance with ASTM D4176 will be determined using Procedure 2 at the following temperatures, adjusted seasonally:

February 16 – September 30 55 F max

October 1 – February 15 45 F max

5/ Any gasoline exhibiting an offensive odor and/or containing more than 0.30 wt % dicyclopentadiene will not be accepted for shipment.

Rev. 1
3/13/09



Pipeline Operating Partnership, L.P.

SPECIFICATIONS FOR N GRADE GASOLINE

(Conventional Gasoline - This product does not meet the requirements for reformulated gasoline and may not be used in any reformulated gasoline covered area.)

<u>Specification Points</u>	ASTM Test <u>Method</u>	Origin Shipments		<u>Deliveries (At Terminals)</u>
		<u>Minimum</u>	<u>Maximum</u>	
Gravity, Degrees API	D287		Report Only	
Color			Undyed	
Volatility <u>1/</u>				
Mercaptan Sulfur, wt % <u>2/</u>	D3227		0.004	
Hydrogen Sulfide	D3227		None	
Copper Corrosion	D130		1	
Silver Corrosion	D4814		1	
Gum, Existent, mg/100ml	D381		4	5
Oxidation Stability, min.	D525	240		180
Phosphorous, g/gal	D3231		0.003	0.005
Lead, g/gal	D3237		0.010	0.05
Research Octane {R}	D2699	89.0		
Motor Octane {M}	D2700	82.0		
(R+M)/2	D4814	87.0		
Sulfur, ppm <u>3/</u>	D2622		80	
Oxygenates, wt %	D4815		0.33	
Haze rating <u>4/</u>	D4176		2	3
NACE Corrosion	TM0172	B+		
Odor <u>5/</u>			Nonoffensive	

- 1/ Refer to Seasonal Gasoline Volatility Schedule.
- 2/ Mercaptan Sulfur determination is waived if the result of the Doctor Test ASTM D4952 is negative.
- 3/ Gasoline exceeding the origin specification will be accepted from small refineries as defined in 40 CFR part 80 of the EPA regulations.
- 4/ Compliance with ASTM D4176 will be determined using Procedure 2 at the following temperatures, adjusted seasonally:
 - February 16 – September 30 55 F max
 - October 1 – February 15 45 F max
- 5/ Any gasoline exhibiting an offensive odor and/or containing more than 0.30 wt % dicyclopentadiene will not be accepted for shipment.

Rev. 1
3/13/09



Pipeline Operating Partnership, L.P.

SPECIFICATION FOR D GRADE ULTRA LOW PREMIUM DIESEL FUEL

<u>Specification Points</u>	ASTM	Shipments		Deliveries
	Test	(At Origin)		(At Terminals)
	<u>Methods</u>	<u>Minimum</u>	<u>Maximum</u>	<u>May Be</u>
Gravity, Degrees A.P.I.	D287	33.5	39.0	
Color	D1500		2.0	2.5
Distillation,	D86			
IBP		340		
50% Recovered, F		460		
90% Recovered, F		540	640	
Corrosion, Copper Strip @122 F	D130		1	
Cetane				
(1) Cetane Number	D613	47.5		
OR (2) Cetane Index, A or B	D4737	47.5		
Cetane Index <u>1/</u>	D976	40		
Flash, P.M., F	D93	145		140
Stability				
(1) Thermal, % reflectance	D6468 (W)	75		
	D6468(Y)	82		
OR (2) Potential Gum, mg/100ml <u>2/</u>			15	
Carbon Residue on 10% Bottoms, %	D524		0.20	
Cloud Point, F	D2500		<u>3/</u>	
Pour Point, F	D97		<u>3/</u>	
Viscosity, cSt @104 F	D445	1.9	4.1	
Ash, wt %	D482		0.01	
Haze Rating <u>4/</u>	D4176		2	3
Sulfur, ppm <u>5/</u>	D2622		8*	15
NACE Corrosion	TM0172	B+		



Pipeline Operating Partnership, L.P.

SPECIFICATION FOR D GRADE ULTRA LOW PREMIUM DIESEL FUEL

- 1/ ASTM D976 data is required for low sulfur fuel oils to demonstrate aromatics compliance per the EPA.
- 2/ The Potential Gum will be determined by ASTM method D381 modified (Steam Jet Evaporation at 485 F) after a 16 hour induction period by ASTM D525 modified.
- 3/
- | <u>Month</u> | <u>Pour Pt. F of Max.</u> | <u>Cloud Pt. of Max.</u> |
|--------------|---------------------------|--------------------------|
| January | 0 | +14 |
| February | 0 | +14 |
| March | 0 | +14 |
| April | +10 | +20 |
| May | +10 | +20 |
| June | +10 | +20 |
| July | +10 | +20 |
| August | 0 | +14 |
| September | 0 | +14 |
| October | 0 | +14 |
| November | 0 | +14 |
| December | 0 | +14 |
- 4/ The finished product shall be visually free of undissolved water, sediment, and suspended matter in proffered tankage and at the point of delivery. Compliance with this workmanship clause will be determined by ASTM D4176, Procedure 2 at 77 F or at actual conditions present at the point and time of sampling, whichever is lower.
- 5/ ASTM D7039 and D5453 may be used as an alternate method providing adequate correlation to ASTM D2622 is provided.
*Sulfur limit, 10 ppm for interconnecting pipelines.

Dyes: D-Grade diesel fuel shipments shall not be dyed.

Biodiesel: The use of any biodiesel as a blending component is prohibited.

Rev. 2
2/10/11



Pipeline Operating Partnership, L.P.

**SPECIFICATION FOR X GRADE ULTRA LOW SULFUR FUEL OIL DISTILLATE
Grade 37**

<u>Specification Points</u>	<u>ASTM Test Methods</u>	<u>Shipments (At Origin)</u>		<u>Deliveries (At Terminals)</u>	<u>Note</u>
		<u>Minimum</u>	<u>Maximum</u>	<u>May Be</u>	
Gravity, Degrees A.P.I.	D287		Report		
Color	D1500		2.5	3.0	
Distillation,	D86				
50% Recovered, F			Report		
90% Recovered, F		540	640		
OR					
Simulated distillation	D2887				
50% Recovered, F			Report		
90% Recovered, F		572	672		
Corrosion, Copper Strip @122 F	D130		1		
Cetane					
(1) Cetane Number	D613	40.0			
(2) Cetane Index, procedure B	D4737	40.0			
Cetane Index	D976	40			<u>1/</u>
Flash, F	D93	140		130	
Stability					
(1) Thermal, % reflectance	D6468 (W)	75			
	D6468 (Y)	82			
OR (2) Potential Color			6		<u>2/</u>
Potential Gum, mg/100ml			50		<u>3/</u>
OR (3) Oxidation, mg/100ml	D2274		2.5		
Carbon Residue on 10% Bottoms (Ramsbottom) - Percent	D524		0.35		
Cloud Point, F	D2500				<u>4/</u>
Pour Point, F	D97				<u>4/</u>
Viscosity, cSt @104 F	D445	1.9	4.1		
Haze Rating	D4176		2	3	<u>5/</u>
Ash, wt %	D482		0.01		
Sulfur, ppm	D2622		*10	15	<u>6/</u>
NACE Corrosion	TM0172	B+			
Conductivity, pS/m@70 F	D2624		250		<u>7/</u>



Pipeline Operating Partnership, L.P.

SPECIFICATION FOR X GRADE ULTRA LOW SULFUR FUEL OIL DISTILLATE Grade 37

- 1/ ASTM D976 data is required for low sulfur fuel oils to demonstrate aromatics compliance per the EPA.
- 2/ The Potential Color will be determined by ASTM Method D1500 on a filtered sample after a 16 hour induction period by ASTM Method D525 Modified.
- 3/ The Potential Gum will be determined by ASTM Method D381 Modified (Steam Jet Evaporated @ 485 F) after a 16 hour induction period by ASTM Method D525 Modified.

4/ Central East pipeline system:

<u>Month</u>	<u>Pour Pt. F, Max.</u>	<u>Cloud Pt. F, Max.</u>
January	0	+14
February	0	+14
March	0	+14
April	+10	+20
May	+10	+20
June	+10	+20
July	+10	+20
August	0	+14
September	0	+14
October	0	+14
November	0	+14
December	0	+14

All other regions:

Due to fungible specifications, the cloud/pour point for diesel products must comply with the ASTM specifications for the region in which the diesel is produced. It should be noted that diesel products distributed into colder climates may require lower cloud and/or pour points or suppressors, i.e., winterization.

- 5/ The finished product shall be visually free of undissolved water, sediment, and suspended matter in proffered tankage and at the point of delivery. Compliance with this workmanship clause will be determined by ASTM D4176, Procedure 2 at 77 F or at actual conditions present at the point and time of sampling, whichever is lower.
- 6/ ASTM D7039 and D5453 may be used as an alternate method providing adequate correlation to ASTM D2622 is provided.
*Sulfur limit, 12 ppm for interconnecting pipelines.
- 7/ Fuels with inherent conductivities above 250 pS/m will be accepted for shipment, provided shipper provides documentation that no additives were used.

Dyes: X-Grade ultra low sulfur fuel oil distillate shipments shall not be dyed

Biodiesel: The use of any biodiesel as a blending component is prohibited.

Rev.2
2/10/11



Pipeline Operating Partnership, L.P.

**SPECIFICATION FOR Y GRADE No.1 FUEL OIL DISTILLATE
Grade 58**

<u>Specification Points</u>	ASTM	Shipments		Deliveries
	Test	(At Origin)		(At Terminals)
	<u>Methods</u>	<u>Minimum</u>	<u>Maximum</u>	<u>May Be</u>
Gravity, Degrees A.P.I.	D287	35.0		
Distillation,	D86			
10% Recovered, F			419	
90% Recovered, F			550	
OR				
Simulated Distillation	D2887			
10% Recovered, F			383	
90% Recovered, F			580	
Corrosion, Copper Strip @122 F	D130		1	
Cetane				
(1)Cetane Number	D613	40.0		
(2)Cetane Index, procedure A	D4737	40.0		
Cetane Index <u>1/</u>	D976	40		
Flash, F	D56	125	160	115
Carbon Residue on 10% Bottoms (Ramsbottom) - Percent	D524		0.15	
Pour Point, F	D97		-25	
Haze Rating <u>2/</u>	D4176		2	3
Sulfur - ppm <u>3/</u>	D2622		10*	15
Mercaptan Sulfur, wt % <u>4/</u>	D3227		0.004	
Viscosity at 104 F, cSt	D445	1.3	2.1	
Ash, wt %	D482		0.01	
NACE Corrosion	TM0172	B+		

1/ ASTM D976 data is required for low sulfur fuel oils to demonstrate aromatics compliance per the EPA.

2/ The finished product shall be visually free of undissolved water, sediment, and suspended matter in proffered tankage and at the point of delivery. Compliance with this workmanship clause will be determined by ASTM D4176, Procedure 2 at 77 F or at actual conditions present at the point and time of sampling, whichever is lower.

3/ ASTM D7039 and D5453 may be used as an alternate method providing adequate correlation to ASTM D2622 is provided. *Sulfur limit, 12 ppm for interconnecting pipelines.

4/ Mercaptan Sulfur determination is waived if the result of the Doctor Test ASTM D4952 is negative.



Pipeline Operating Partnership, L.P.

**SPECIFICATION FOR Y GRADE No.1 FUEL OIL DISTILLATE
Grade 58**

Dyes: Y-Grade petroleum fuel oil distillate shipments shall not be dyed.

Biodiesel: The use of any biodiesel as a blending component is prohibited.

Rev. 2
02/10/11



Pipeline Operating Partnership, L.P.

SPECIFICATION FOR B GRADE BIO-DIESEL FUEL

<u>Specification Points</u>	ASTM	Shipments		Deliveries <u>1/</u>
	* Test	(At Origin)		(At Terminals)
	<u>Methods</u>	<u>Minimum</u>	<u>Maximum</u>	<u>May Be</u>
Density, Kg/L	D4052	Report		
Distillation,	D1160			
Atmospheric equivalent temperature			680	
90% Recovered, F or				
Simulated Distillation (Modified)	D2887		680	
Corrosion, Copper Strip @122 F	D130		1	
Cetane Number	D613	47		
Flash, P.M., F	D93	200		
Alcohol control (Must meet one of the following)				
Methanol content, % mass	EN14110		0.2	
Flash, P.M., F	D93	266		
Oxidation Stability	EN14112	6 hrs		3 hrs
Carbon Residue on 100% sample, %	D4530		0.050	
Cloud Point, F	D2500		<u>3/</u>	
Viscosity, cSt @104 F	D445	1.9	6.0	
Sulfated Ash, % mass	D874		0.020	
Haze Rating @ 60 F	D4176		No. 2	No. 3
Sulfur, ppm	D5453		15	
NACE Corrosion	TM0172	B+		
Free Glycerin, % mass	D6584		0.020	
Monoglyceride, % mass	D6584		0.450	
Total Glycerin, % mass	D6584		0.240	
Acid Number, mgKOH/g	D664		0.40	0.50
Phosphorus content wt %	D4951		0.001	
Water & Sediment vol %	D2709		0.050	
Calcium and Magnesium, combined, ppm	EN14538		5.0	
Sodium and Potassium, combined, ppm	EN14538		5.0	
Minimum Delivery Temperature <u>4/</u>	MMP			
Workmanship <u>5/</u>	MMP			
Filtration, Seconds(modified),max <u>2/</u>	D6751 Annex A2			

Biodiesel Supplier must be BQ9000 certified. No Methyl Esters derived from yellow grease.



Pipeline Operating Partnership, L.P.
SPECIFICATION FOR B GRADE BIO-DIESEL FUEL

- 1/ Delivered products meet all applicable requirements at time and place of delivery.
- 2/ Compliance with ASTM D6751 Annex A2 will be adjusted seasonally at the following filtration times:

April 1 st through September 30 th	360 seconds, maximum
October 1 st through March 31 st	200 seconds, maximum

<u>Month</u>	<u>Cloud Pt. of Max.</u>
January	+36
February	+36
March	+36
April	+50
May	+50
June	+50
July	+50
August	+50
September	+50
October	+36
November	+36
December	+36

- 4/ Minimum delivery temperature of +60 F for acceptance for delivery.
- 5/ **Workmanship:** At the time of acceptance, the finished fuel shall be visually free from undissolved water, sediment, or suspended matter and shall be clear and bright.

Additives:

- BioExtend 30
- Eastman – Tenox 21
- Kemin BF 320
- Nalco EC5609A

* Alternative methods found in association the D6751 the ASTM specification for biodiesel are accepted.

Revision date: February 10, 2011



Pipeline Operating Partnership, L.P.

SPECIFICATIONS FOR E GRADE ETHANOL

Specification Points	Test Method	Shipments	Deliveries
Apparent proof, 60 F	Hydrometer		
Minimum		200	
Maximum		203	
Or Density, 60F	D4052		
Minimum		0.787	
Maximum		0.794	
Water, Mass %, max	E203 or E1064	0.82	1
Ethanol, Volume %, min	D5501	93.5	93.0
Methanol, Volume %, max	D5501	0.5	
Sulfur, ppm (wt/wt), max	D5453	10	
Solvent Washed Gum, D381			
Mg/100ml, max	Air jet method	5	
Chloride, mg/L, D512-81			
Max	Procedure C, Modified per D4806	32	
Copper, mg/L, D1688			
Max	Procedure A, Modified per D4806	0.08	
Acidity (as Acetic Acid), D1613			
Mass %, max		0.007	
pHe D6423			
Minimum		6.5	
Maximum		9.0	
Appearance @ 60 F	Visual examination	Visibly free of suspended or precipitated contaminants. Must be clear and bright.	
Denaturant Content and Type	Only approved denaturants and amounts listed in D4806		
Corrosion Inhibitor Additive,	Minimum treat rate	Vendor	Additive
One of the following is required:	20 lbs./1000 bbls.	Octel	DCI-11
	20 lbs./1000 bbls.	Petrolite	Tolad 3222
	20 lbs./1000 bbls.	Nalco	5403
	20 lbs./1000 bbls.	Betz	ACN 13
	20 lbs./1000 bbls.	Midcontinental	MCC5011E
	13 lbs./1000 bbls.	Midcontinental	MCC5011PHE
	13 lbs./1000 bbls.	Petrolite	Tolad 3224
	13 lbs./1000 bbls.	US Water Services	Corrpro 654

Rev. 1
3/13/09



Pipeline Operating Partnership, L.P.

**SPECIFICATIONS FOR L GRADE PROPANE
Grade 12**

<u>Specification Points</u>	<u>ASTM Test Methods</u>	<u>Shipments (At Origin)</u>		<u>Deliveries</u>
		<u>Minimum</u>	<u>Maximum</u>	<u>1/</u>
Composition				
Chromatograph analysis	D2163			
Percent by liquid volume:				
Propane		90		
Propylene			5.0	
Butanes and heavier			2.5	
Pentanes and heavier		None		
Specific gravity, at 60/60 F	D1657	0.500	0.510	
Vapor pressure, psig at 100 F	D1267	175	208	D2598, D6897
Weathering, 95% evaporated Temp., F (corrected)	D1837		-37	
Residues,	D2158			
Nonvolatile residue at 100 F, ml			0.05	
Oil, no oil stain observation, ml		0.3		
Sulfur,	D2784, D6667			
grains per hundred cubic feet			10	(or 123 ppmw)
Corrosion, copper strip at 100 F	D1838		No. 1	
Dryness				
Valve freeze, seconds	D2713	60		

1/ Same as shipment specifications except for normal testing and handling tolerances.

Additives: L-grade propane shipments at origin shall be unstenched and contain no additives. Unless otherwise notified in writing by shipper, L-grade propane deliveries will be odorized at the rate of 1 ½ pounds Ethyl Mercaptan/10,000 gallons.

Method of Inspection: Inspection shall be in accordance with MSTI, "Instructions Governing the Measurement, Sampling and Testing of Products for Acceptance and Delivery," currently in effect on inspection date.

Rev.1
3/13/09



Pipeline Operating Partnership, L.P.

SPECIFICATIONS FOR 55 NG GRADE NATURAL GASOLINE

Compliance: This material must comply with the allowable denaturants outlined in the latest edition of ASTM D4806.

<u>Specification Points</u>	<u>ASTM Test Methods</u>	<u>Shipments (At Origin)</u>		<u>Deliveries (At Terminals)</u>
		<u>Minimum</u>	<u>Maximum</u>	<u>May Be</u>
Specific Gravity	D1657	0.654	0.685	
Gravity, API	D287	75.0	85.0	
Color, Saybolt	D156	+20		
Copper Corrosion	D130		1	
Sulfur, ppm	D2622, D5453, D7039		120	
Doctor	D484	Negative		
Reid Vapor Pressure, psi	D5191	12.0	14.0	
Distillation,	D86			
% Evaporated at 140 F		25	85	
90% Recovery, Vol. %			365 F	
Final Boiling Point			437 F	
Dryness, Free Water by Inspection			None	
Benzene, Vol. %	D3606, D5580		1.10	
Aromatics, %	D5580		35.0	
Olefins, %	D5580		10.0	

Additives: 55 NG Grade shipments may not contain additives.

Rev. 1
3/13/09



Pipeline Operating Partnership, L.P.

Gasoline, Fuel Oil and Diesel Fuel Additive Specifications

(From origin or interconnecting pipeline.)

The following additive specifications apply to all grades except aviation products, LPG's, and Natural Gasoline.

Gasoline Additives

Gum Inhibitors and Metal Deactivators

Gasoline shipments may, but are not required to, contain any of the following gum inhibitors and/or metal deactivators:

N, N'di-secondary butyl ortho-phenylenediamine
N, N'di-secondary butyl para-phenylenediamine
N, N'disalicylidene-1, 2 propanediamine
N, N'di(1-ethyl-3-methylpentyl)-para-phenylenediamine
N, N'di-isopropyl-para-phenylenediamine
N,n'bis-(1, 4-demethylpentyl)-p-phenylenediamine n-butyl-para-aminophenol
2-6-di-tert-butylphenol
2, 4,6-tri-tert-butylphenol
Ortho-tert-butylphenol

UOP12P

UOP3455

Octel AO-33

Ethyl 733

HiTech4740

Specaid 8Q202

Pitt-Concol M-56

IPC 4690

UOP12S

UOP5S

Octel AO-35

HiTech 4776

Tolad 3905

Naco 88BU-118

IPC 4695

UOP17P

Octel AO-31

Octel AO-36

HiTech 4720

Tolad 3910

IPC 4650

Unichem 7529



Pipeline Operating Partnership, L.P.

Corrosion Inhibitors - Products requiring compliance with NACE standard TM0172 may contain any of the following corrosion inhibitors:

Nalco 5403	Welchem 91120	Nalco 5405
Welchem 91121	Nalco Visco 3554	Specaid8Q103
Apollo PRI-19	Lubrizol 541	Baypros 853
UOP Unicor	Octel DCI-4A	Unichem 7504
UOP UnicorPL	Octel DCI-6A	UOP Unicor J
Tolad 245	Hitec E-534	Tolad 249
Hitech 580	IPC 4410	Unichem 7501
Tolad 9719	Tolad 9715	

Fuel Oil and Diesel Fuel additives

Stability

Fuel oil and/or diesel fuel shipments may contain one or more of the following stability additives as required to achieve compliance with the stability characteristics outlined in the applicable grade specification.

Octel FOA-3	Chemtec 7220	Octel FOA-11
UOP Polyflo-121	Nalco 5303	Nalco 5301
UOP Polyflo-122	Tretolite Tolad 260	Specaid8Q401
UOP Polyflo-128	Petrolite T-9022	Specaid8Q403
UOP Polyflo-195	Unichem 7530	Specaid8Q72
Tolad 9076		

Pour depressants

Fuel oil and/or diesel fuel shipments requiring additives to achieve compliance with low temperature properties may, but are not required to, contain one or more of the following pour point depressant additives:

Hitec 4518	Tolad 35	Hitec 4541
Tolad 345	Paradyne 25	Nalco 5375
Unichem 8094	Exxon ECA 7305	Tolad 3005
Octel PDD-7450	UOP Polyflo 6000	Betz 8Q12
Betz Specaid 8Q72	Specaid Dearborn 8Q30	

Revision date: 2/23/11



Pipeline Operating Partnership, L.P.

**SEASONAL GASOLINE VOLATILITY
SHIPMENTS FROM ORIGIN
EAST PIPELINE**

A-GRADE

	Jan. 1-15	Jan. 16-31	Feb. 1-15	Feb. 16-28	Mar. 1-31	Apr. 1-30	May 1-31	June 1-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-31	Nov. 1-30	Dec. 1-31
KANSAS	13.50 D-5	11.50 C-5	10.00 B-5	10.00 B-5	8.50 A-4	8.50 A-3	9.00 A-3	9.00 A-2	9.00 A-2	9.00 A-2	9.00 A-2	10.00 B-2	11.50 C-3	13.50 D-4	15.00 E-5
NEBRASKA	13.50 D-5	11.50 C-5	10.00 B-5	10.00 B-5	8.50 A-5	8.50 A-4	9.00 A-3	9.00 A-2	9.00 A-2	9.00 A-2	9.00 A-2	10.00 B-2	11.50 C-3	13.50 D-4	15.00 E-5
OKLAHOMA	13.50 D-5	11.50 C-5	10.00 B-4	10.00 B-4	8.50 A-4	8.50 A-3	9.00 A-3	9.00 A-2	9.00 A-2	9.00 A-2	9.00 A-2	10.00 B-2	11.50 C-3	13.50 D-4	15.00 E-5
N. DAKOTA	13.50 D-5	11.50 C-5	10.00 B-5	10.00 B-5	8.50 A-5	8.50 A-4	9.00 A-4	9.00 A-3	9.00 A-3	9.00 A-3	9.00 A-3	11.50 C-3	13.50 D-4	15.00 E-5	15.00 E-5



Pipeline Operating Partnership, L.P.

**SEASONAL GASOLINE VOLATILITY
SHIPMENTS FROM ORIGIN
EAST PIPELINE**

N-GRADE

	Jan. 1-15	Jan. 16-31	Feb. 1-15	Feb. 16-28	Mar. 1-31	Apr. 1-30	May 1-31	June 1-30	July 1-31	Aug. 1-31	Sept. 1-15	Sept. 16-30	Oct. 1-31	Nov. 1-30	Dec. 1-31
KANSAS	15.00 E-5	13.50 D-5	13.50 D-4	11.50 C-4	8.50 A-4	8.50 A-3	9.00 A-3	9.00 A-2	9.00 A-2	9.00 A-2	9.00 A-2	10.00 B-2	11.50 C-3	13.50 D-4	15.00 E-5
NEBRASKA	15.00 E-5	13.50 D-5	13.50 D-5	11.50 C-5	8.50 A-5	8.50 A-4	9.00 A-3	9.00 A-2	9.00 A-2	9.00 A-2	9.00 A-2	10.00 B-2	11.50 C-3	13.50 D-4	15.00 E-5
OKLAHOMA	15.00 E-5	13.50 D-5	13.50 D-4	11.50 C-3	8.50 A-4	8.50 A-3	9.00 A-3	9.00 A-2	9.00 A-2	9.00 A-2	9.00 A-2	10.00 B-2	11.50 C-3	13.50 D-4	15.00 E-5
N. DAKOTA	15.00 E-5	13.50 D-5	13.50 D-5	11.50 C-5	8.50 A-5	8.50 A-4	9.00 A-4	9.00 A-3	9.00 A-2	9.00 A-2	9.00 A-2	11.50 C-3	13.50 D-4	15.00 E-5	15.00 E-5