Net Pipelines ACE \$0 red font indicates that there is not an existing base case assumption

Abandonment Method

Enter the requested data into the light blue cells

	Dark grey cells are into	entionally blank.					Assu	mption													
	-	nd Use along Pipeline System and Unit Costs: Small (<14")		Length of Pipe - Gas (km)		Total Pipeline Length (km)	Abandon In-Place (%)	Pipe Removal (%)	Abandon In-Place (km)	Pipe Removal (km)	Land Access (\$/km)	1	Purging & Clear (\$/km)	ning	Abandonment In-Place (\$/km)	Pipeline Removal (\$/km)		Land Remediati (\$/km)	on	Land Restoration (\$/km)	Cost - By Land Use
		( ,			(KIII)							Oil	Gas	Commodity			Oil	Gas	Commodity		
		Cultivated				0.0 km	80%	20%	0.0 km	0.0 km											\$0
	Agricultural	Non-Cultivated				0.0 km	80%	20%	0.0 km	0.0 km											\$0
		With Special Features				0.0 km	0%	100%	0.0 km	0.0 km											\$0
	Existing Developed	Higher Density				0.0 km	100%	0%	0.0 km	0.0 km											\$0
	⊆ Lands	Lower Density				0.0 km	100%	0%	0.0 km	0.0 km											\$0
4	it.	Industrial				0.0 km	0%	100%	0.0 km	0.0 km											\$0
7	Prospective Future	Commercial				0.0 km	0%	100%	0.0 km	0.0 km											\$0
_ <u>~</u>	Development	Residential				0.0 km	0%	100%	0.0 km	0.0 km											\$0
=	ate	Timber Harvesting Areas				0.0 km	0%	100%	0.0 km	0.0 km											\$0
a	Protected Areas					0.0 km	100%	0%	0.0 km	0.0 km											\$0
12	Non-Developed Lands	Native Prairie				0.0 km	100%	0%	0.0 km	0.0 km											\$0
Ξ	6 Indir-peveloped callds	Forested Land				0.0 km	80%	20%	0.0 km	0.0 km											\$0
S	2	Watercourses				0.0 km	100%	0%	0.0 km	0.0 km											\$0
		Wetlands & Peatlands				0.0 km	100%	0%	0.0 km	0.0 km											\$0
	Crossings	Railways				0.0 km	100%	0%	0.0 km	0.0 km											\$0
		Paved Roads and Highways				0.0 km	100%	0%	0.0 km	0.0 km											\$0
		Gravel Roads				0.0 km	100%	0%	0.0 km	0.0 km											\$0
	Total Length of Pipeline Sy	stem by Size	0.0 km	0.0 km	0.0 km	0.0 km			0.0 km	0.0 km											
		Contingency (%)																			
	Tot	al Salvage Value of Removed Small Pipe																			\$0
		Net Cost per Category									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

	(operating, deac pipelin	and Use along Pipeline System tivated and decommissioned les) and Unit Costs: dium (14" to 24")	Length of Pipe - Oil (km)	Length of Pipe - Gas (km)	Length of Pipe - Other Commodity (km)	Total Pipeline Length (km)	Abandon In-Place (%)	Pipe Removal (%)	Abandon In-Place (km)	Pipe Removal (km)	Land Access (\$/km)		Purging & Clear (\$/km)	ning	Abandonment In-Place (Segmentation) (\$/km)	Pipeline Removal (\$/km)		Land Remediat (\$/km)	ion	Land Restoration (\$/km)	Cost - By Land Use
	IVICO	nam (14 to 24 )										Oil	Gas	Commodity			Oil	Gas	Commodity		<u> </u>
1 = 1		Cultivated				0.0 km	80%	20%	0.0 km	0.0 km											\$0
4	Agricultural	Non-Cultivated				0.0 km	80%	20%	0.0 km	0.0 km											\$0
7		With Special Features				0.0 km	0%	100%	0.0 km	0.0 km											\$0
to	Existing Developed	Higher Density				0.0 km	100%	0%	0.0 km	0.0 km											\$0
<u> </u>	⊆ Lands	Lower Density				0.0 km	100%	0%	0.0 km	0.0 km											\$0
=	atio atio	Industrial				0.0 km	0%	100%	0.0 km	0.0 km											\$0
4	Prospective Future	Commercial				0.0 km	0%	100%	0.0 km	0.0 km											\$0
H	Development	Residential				0.0 km	0%	100%	0.0 km	0.0 km											\$0
)	ate	Timber Harvesting Areas				0.0 km	0%	100%	0.0 km	0.0 km											\$0
_	Protected Areas					0.0 km	100%	0%	0.0 km	0.0 km											\$0
ш	Non-Developed Lands	Native Prairie				0.0 km	100%	0%	0.0 km	0.0 km											\$0
.⊇ .	Non-Developed Lands	Forested Land				0.0 km	80%	20%	0.0 km	0.0 km											\$0
<del></del>	2	Watercourses				0.0 km	100%	0%	0.0 km	0.0 km											\$0
Med		Wetlands & Peatlands				0.0 km	100%	0%	0.0 km	0.0 km											\$0
=	Crossings	Railways				0.0 km	100%	0%	0.0 km	0.0 km											\$0
2		Paved Roads and Highways				0.0 km	100%	0%	0.0 km	0.0 km											\$0
		Gravel Roads				0.0 km	100%	0%	0.0 km	0.0 km											\$0
	Total Length of Pipeline Sys	stem	0.0 km	0.0 km	0.0 km	0.0 km			0.0 km	0.0 km				•				•			
		Contingency				•															
	Total S	alvage Value of Removed Medium Pipe												•				•			\$0
		Net Cost per Category									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

	(operating, deact pipelin	and Use along Pipeline System tivated and decommissioned es) and Unit Costs: Large (>24")		Length of Pipe - Gas (km)	Length of Pipe - Other Commodity (km)	Total Pipeline Length (km)	Abandon In-Place (%)	Pipe Removal (%)	Abandon In-Place (km)	Pipe Removal (km)	Land Access (\$/km)		Purging & Clear (\$/km)		Abandonment In-Place (Segmentation) (\$/km)	Pipeline Removal (\$/km)		Land Remediati (\$/km)		Land Restoration (\$/km)	Cost - By Land Use
												Oil	Gas	Commodity			Oil	Gas	Commodity		
		Cultivated				0.0 km	80%	20%	0.0 km	0.0 km											\$0
	Agricultural	Non-Cultivated				0.0 km	80%	20%	0.0 km	0.0 km											\$0
		With Special Features				0.0 km	0%	100%	0.0 km	0.0 km											\$0
("	Existing Developed	Higher Density				0.0 km	100%	0%	0.0 km	0.0 km											\$0
_4	E Lands	Lower Density				0.0 km	100%	0%	0.0 km	0.0 km											\$0
5	iti	Industrial				0.0 km	0%	100%	0.0 km	0.0 km											\$0
Α΄	Prospective Future	Commercial				0.0 km	0%	100%	0.0 km	0.0 km											\$0
<b>(</b>	Development	Residential				0.0 km	0%	100%	0.0 km	0.0 km											\$0
a	ate	Timber Harvesting Areas				0.0 km	0%	100%	0.0 km	0.0 km											\$0
g	Protected Areas	*				0.0 km	100%	0%	0.0 km	0.0 km											\$0
_	Non-Developed Lands	Native Prairie				0.0 km	100%	0%	0.0 km	0.0 km											\$0
а	2 Non-Developed Lands	Forested Land				0.0 km	80%	20%	0.0 km	0.0 km											\$0
	La	Watercourses				0.0 km	100%	0%	0.0 km	0.0 km											\$0
		Wetlands & Peatlands				0.0 km	100%	0%	0.0 km	0.0 km											\$0
	Crossings	Railways				0.0 km	100%	0%	0.0 km	0.0 km											\$0
		Paved Roads and Highways				0.0 km	100%	0%	0.0 km	0.0 km											\$0
		Gravel Roads				0.0 km	100%	0%	0.0 km	0.0 km											\$0
	Total Length of Pipeline Sys	tem	0.0 km	0.0 km	0.0 km	0.0 km			0.0 km	0.0 km											
		Contingency			•																
	Tota	I Salvage Value of Removed Large Pipe																			\$0
		Net Cost per Category									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Net Special	ćo
Treatment ACE	ŞU

Enter the requested data into the light blue cells

	Dark grey cells are intentionally blank.		Fill Assu	umption		
Sp	ecial Treatment - Length of Pipe Requiring Fill Small (<14")	Total Distance of Pipe Requiring Fill (km)	Abandon in Place - No Fill (%)	Abandon in Place - Fill (%)	Unit Costs for Filling Pipe by Crossing Type (\$/km of fill)	Total Cost by Crossing Type
	Watercourses		100%	0%		\$0
SS	Wetlands/Peatlands		100%	0%		\$0
sings	Railways		0%	100%		\$0
Cross	Paved Roads & Highways		0%	100%		\$0
ō	Gravel Roads		0%	100%		\$0
	Utilities (buried)		100%	0%		\$0
	Contingency (%)					
	TOTAL	0.0 km				\$0

			Fill Assu	umption		
S	pecial Treatment - Length of Pipe Requiring Fill Medium (14" to 24")	Total Distance of Pipe Requiring Fill (km)	Abandon in Place (no fill)	Abandon in Place (Fill)	Unit Costs for Filling Pipe by Crossing Type (\$/km of fill)	Total Cost by Crossing Type
	Watercourses		100%	0%		\$0
2	Wetlands/Peatlands		100%	0%		\$0
ssings	Railways		0%	100%		\$0
Cross	Paved Roads & Highways		0%	100%		\$0
Ū	Gravel Roads		0%	100%		\$0
	Utilities (buried)		0%	100%		\$0
	Contingency (%)					
	TOTAL	0.0 km				\$0

			Fill Assu	ımption		
Sp	ecial Treatment - Length of Pipe Requiring Fill Large (>24")	Total Distance of Pipe Requiring Fill (km)	Abandon in Place (no fill)	Abandon in Place (Fill)	Unit Costs for Filling Pipe by Crossing Type (\$/km of fill)	Total Cost by Crossing Type
	Watercourses		100%	0%		\$0
S	Wetlands/Peatlands		100%	0%		<b>\$0</b>
sings	Railways		0%	100%		<b>\$0</b>
SS.	Paved Roads & Highways		0%	100%		<b>\$0</b>
ō	Gravel Roads		0%	100%		\$0
	Utilities (buried)		0%	100%		\$0
	Contingency (%)					
	TOTAL	0.0 km				\$0

Net Above Ground Facilities ACE:

\$0

Enter the requested data into the light blue cells

Dark grey cells are intention	onally blank.		Meter	Stations			Pump	Stations			Compress	sor Stations	
Unit Costs for Restora Meter Stations, Pump Stations	Meter Stations - Footprint in Square Metres (m²)	Meter Stations - Land Restoration (\$/m²)	Meter Stations - Land Remediation (\$/m²)	Meter Station Land Restoration and Remediation Total Cost - by land use	Footprint in	Pump Stations - Land Restoration (\$/m²)	Pump Stations - Land Remediation (\$/m²)	Pump Station Land Restoration and Remediation Total Cost - by land use	Compressor Stations - Footprint in Stations (m²)	Compressor Stations - Land Restoration (\$/m²)	Compressor Stations - Land Remediation (\$/m²)	Compressor Station Land Restoration and Remediation Total Cost - by land use	
	Cultivated				\$0				\$0				\$0
Agricultural	Non-Cultivated				\$0				\$0				\$0
	With Special Features				\$0				\$0				\$0
Existing Developed Lands	Higher Density				\$0				\$0				\$0
ii.	Lower Density				\$0				\$0				\$0
10 80	Industrial				\$0				\$0				\$0
Prospective Future	Commercial				\$0				\$0				\$0
Development	Residential				\$0				\$0				\$0
Development	Aboriginal Land Claims Areas				\$0				\$0				\$0
anc	Timber Harvesting Areas				\$0				\$0	•			\$0
Protected Areas	_				\$0				\$0	•			\$0
New Daysland Lands	Native Prairie				\$0				\$0	•			\$0
Non-Developed Lands	Forested Land				\$0				\$0				\$0
•	Contingency (%)												
	TOTAL	0 m²			\$0	0 m²			\$0	0 m²			\$0

Removal of Above Ground Facilities (type of unit)	Total Units	\$/unit	Contingency (%)	Total Cost
Processing Plants (by MMcf)				\$0
Oil Terminal & Storage Facilities (by bbl)				\$0
Compressors (by MW)				\$0
Meter stations (by Number of stations)				\$0
Pumps by Horse Power (HP)				\$0
Total Removal Costs				\$0
Total Salvage Value				
Net Removal Costs				\$0

## Post-Abandonment Total

Real Return on Funds for calculating Present Value 1.50%

	Type of Expense	Number	Unit	Unit Cost	Unit	Annual Total (\$/year)	Year Zero Value For Entire Period (2017 \$)
ЭG	Aerial Patrols (Flights)		Flights/year		\$/flight	\$0	\$0
Ξ	Signage Maintenance (Days)		Days/year		\$/day	\$0	\$0
onitoring	Environmental Remediation of Disturbed Areas, Years 1-5 (Events)		Days/year		\$/day	\$0	\$0
Mon	Environmental Remediation of Disturbed Areas, Years 6-10 (Events)		Days/year		\$/day	\$0	\$0
≥ő	Database Maintenance				\$/year	\$0	\$0
la ,	Property Taxes & Insurance				\$/year	\$0	\$0
Annual	Security				\$/year	\$0	\$0
Ā	Management Fee				% of total		\$0
	Total Requirement to Fund Post-Abandonment Monitoring						\$0

	Post /	Abandonment Other	Period Start (year)	Period End (year)	Estimated Annual Frequency of Events per Kilometre (events/km)	Remaining Pipeline Length (km)	Annual Number of Events (#)	Length of Pipe Removed per Event (km/event)	Cost per Event (\$/event)	Annual Cost (Nominal \$)	
4.		Event - requiring pipe removal	1	5		0.0 km				\$0	
me	Period 1	Event - pipe remains	1	5						\$0	
⊑		Period Totals on Annual Basis					0			\$0	
<u>n</u>		Event - requiring pipe removal	6	10		0.0 km				\$0	
ш	Period 2	Event - pipe remains	6	10						\$0	
<u>e</u>		Period Totals on Annual Basis					0			\$0	
Tim		Event - requiring pipe removal	11	40		0.0 km				\$0	
	Period 3	Event - pipe remains	11	40						\$0	, ,
ب		Period Totals on Annual Basis					0			\$0	\$0
L		Event - requiring pipe removal	41	80		0.0 km				\$0	
1 &	Period 4	Event - pipe remains	41	80						\$0	
andonment		Period Totals on Annual Basis					0			\$0	
Ιō		Event - requiring pipe removal	81	140		0.0 km				\$0	
Ö	Period 5	Event - pipe remains	81	140						\$0	
_ ⊑		Period Totals on Annual Basis					0			\$0	
29		Event - requiring pipe removal	141	260		0.0 km				\$0	
Ab	Period 6	Event - pipe remains	141	260						\$0	
st ,		Period Totals on Annual Basis					0			\$0	
OS		Event - requiring pipe removal	261	1000		0.0 km				\$0	
l A	Period 7	Event - pipe remains	261	1000						\$0	\$0
		Period Totals on Annual Basis					0			\$0	
·	Total Requiren	nent to Fund Post-Abandonment Events									\$0
	Remaining Pipe	e in Year 1000	0		•	•	•		•		

\$0

Abandonment Cost Summary	Pipeline Length	Costs by Category
Abandonment Activities (excluding Contingency)	0.0 km	\$0
Engineering & Project Management		\$0
Land Access		\$0
Purging and Cleaning		\$0
Land Remediation		\$0
Land Restoration		\$0
Pipeline Abandonment-in-Place (excluding Contingency)	0.0 km	\$0
Segmentation		\$0
Special treatment	0.0 km	\$0
Pipeline Removal (excluding Salvage & Contingency)	0.0 km	\$0
Above-ground facilities (excluding Salvage & Contingency)		\$0
Post Abandonment		\$0
Post Abandonment Monitoring		\$0
Post Abandonment Other		\$0
Contingency		\$0
Pipelines (incl. Special Treatment)		\$0
Above Ground Facilities		\$0
Salvage		\$0
Removed Pipe		\$0
Above Ground Facilities		\$0
Total Abandonment Cost Estimate		\$0
Total Salvage Value		\$0
Net Abandonment Cost Estimate		\$0.00