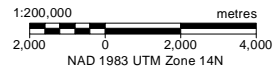


- New Flowline ROW 20m
- Existing Flowline ROW 20m
- Regional Study Area (RSA)
- Municipal Boundary
- Community
- Water Body
- Watercourse
- Highway
- Road



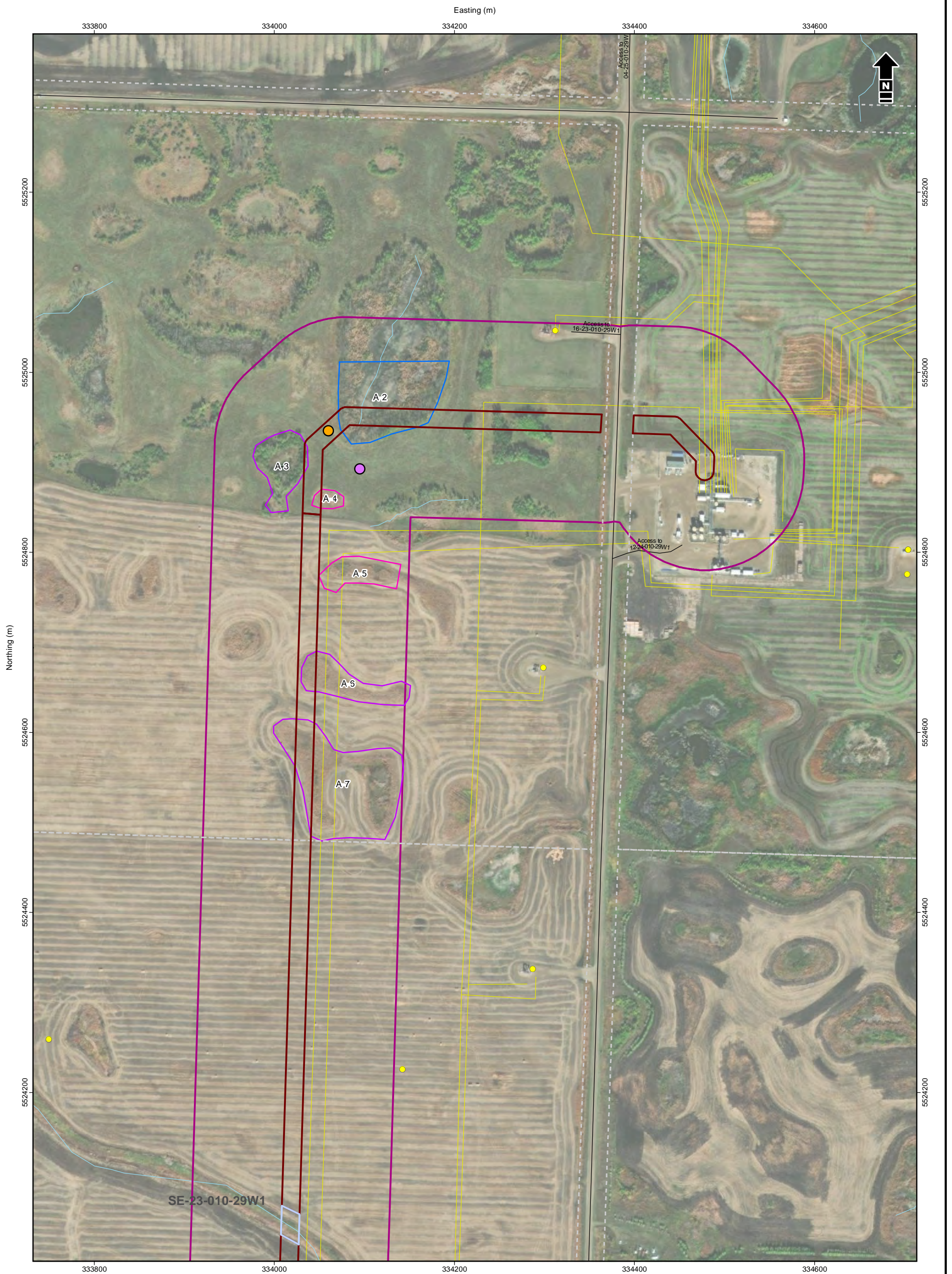
Tundra Oil & Gas Limited  
46 km Flowline Gas Gathering System

### Regional Study Area

Date: November 2021 Project: 29047 Submitter: D. Chranowski Reviewer: L. May

Disclaimer: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.

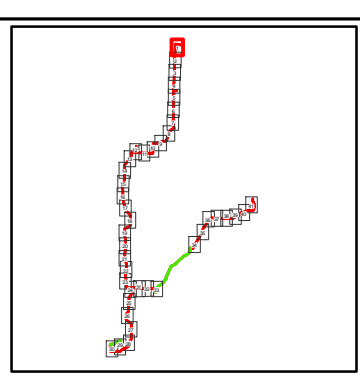
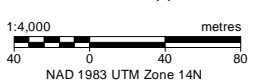
Reference: Manitoba Municipal Boundaries obtained from Manitoba Government (2021). Data obtained from GeoBase® used under license. GDM transportation infrastructure data provided by IHS © 2021 used under license.



- Local Study Area (LSA)
- ROW by Land Use**
- Cultivated
- Seasonal Waterway
- Wetland Class**
- Class I - Ephemeral Wetland
- Class II - Temporary Wetland
- Class III - Seasonal Pond or Lake

- Watercourse
- Road
- Pipeline
- Well (Surface Hole)
- Sharp-Tailed Grouse Survey
- Breeding Bird Survey

Note: The land use is mapped to ROW

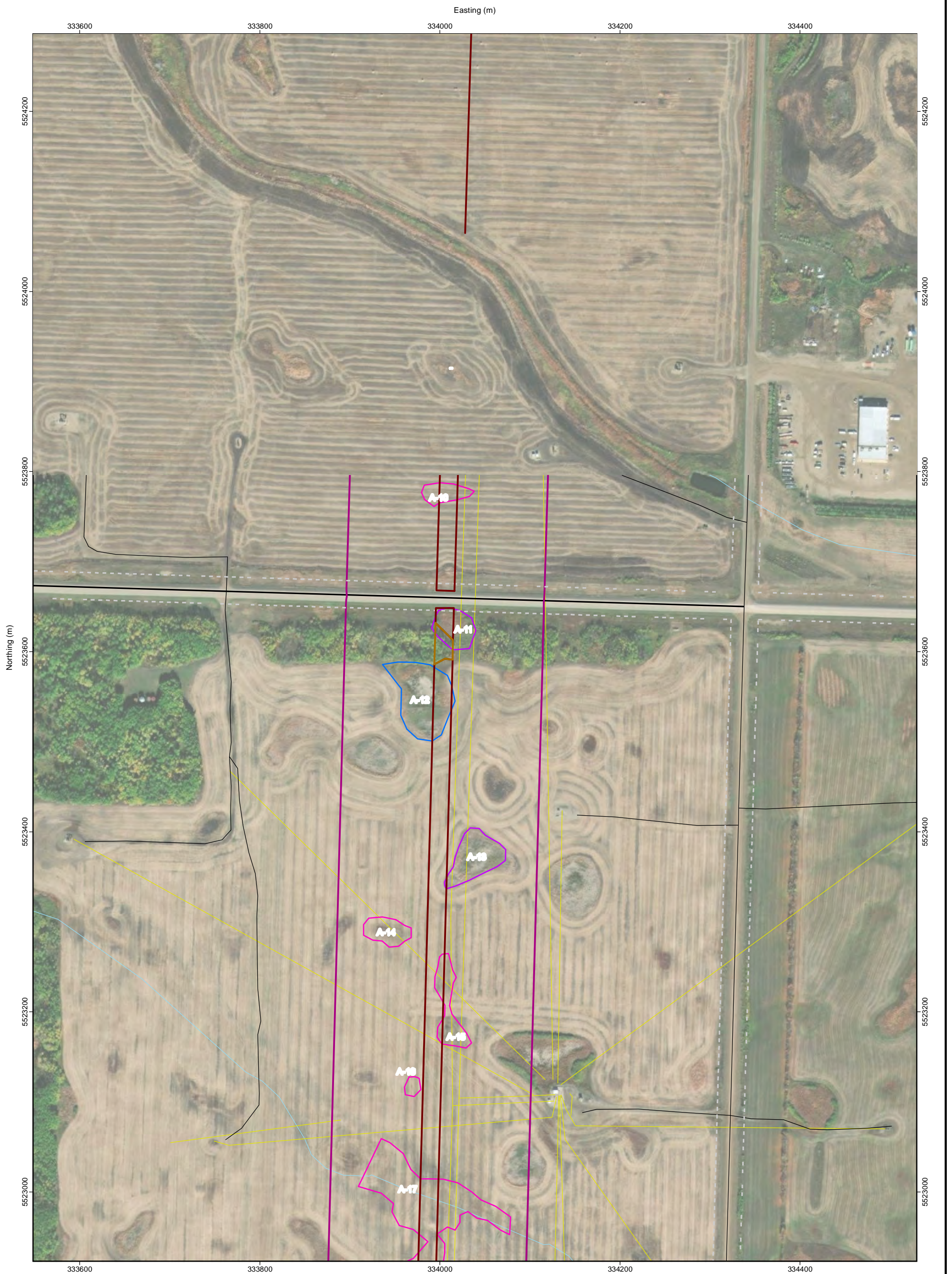


Tundra Oil & Gas Limited  
46 km Flowline Gas Gathering System

### Detailed Routing

Date: November 2021 Project: 29047 Submitter: D. Chranowski Reviewer: L. May

Reference: GDM midstream, transportation infrastructure data and IHS well data provided by IHS© 2021. Imagery (2018) Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User



- Local Study Area (LSA)
- ROW by Land Use**
- ▬ Cultivated
- ▬ Woodland
- ▬ Seasonal Waterway
- ▬ Wetland Class
- ▭ Class I - Ephemeral Wetland
- ▭ Class II - Temporary Wetland
- ▭ Class III - Seasonal Pond or Lake
- ~ Watercourse
- ▬ Highway
- ▬ Road
- ▬ Pipeline
- Well (Surface Hole)

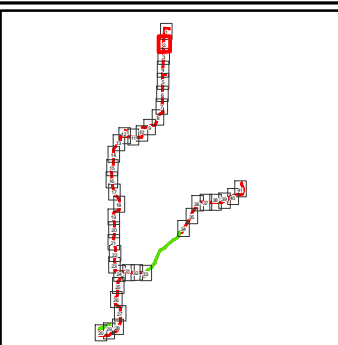
Reference: GDM midstream, transportation infrastructure data and IHS well data provided by IHS © 2021. Imagery (2018)  
 Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User

Note: The land use is mapped to ROW

1:4,000 metres

40 0 40 80

NAD 1983 UTM Zone 14N

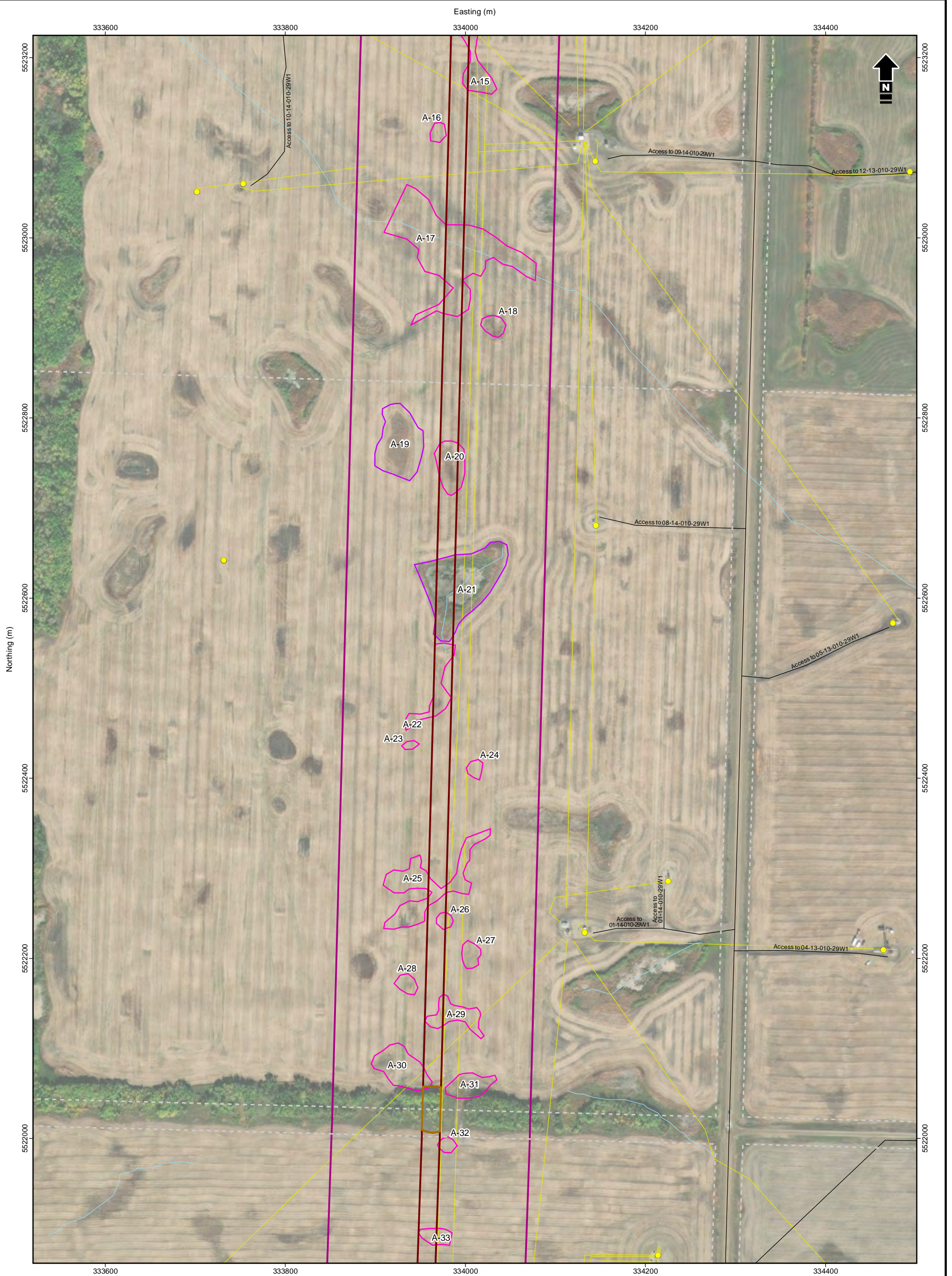


Tundra Oil & Gas Limited  
 46 km Flowline Gas Gathering System

### Detailed Routing

Date: November 2021 Project: 29047 Submitter: D. Chranowski Reviewer: L. May

Disclaimer: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.



□ Local Study Area (LSA)  
**ROW by Land Use**  
 Cultivated  
 Woodland  
**Wetland Class**  
 Class I - Ephemeral Wetland  
 Class II - Temporary Wetland

~ Watercourse  
— Road  
— Pipeline  
● Well (Surface Hole)

Note: The land use is mapped to ROW

1:4,000 metres

40 0 40 80

NAD 1983 UTM Zone 14N

**Matrix Solutions Inc.**  
ENVIRONMENT & ENGINEERING

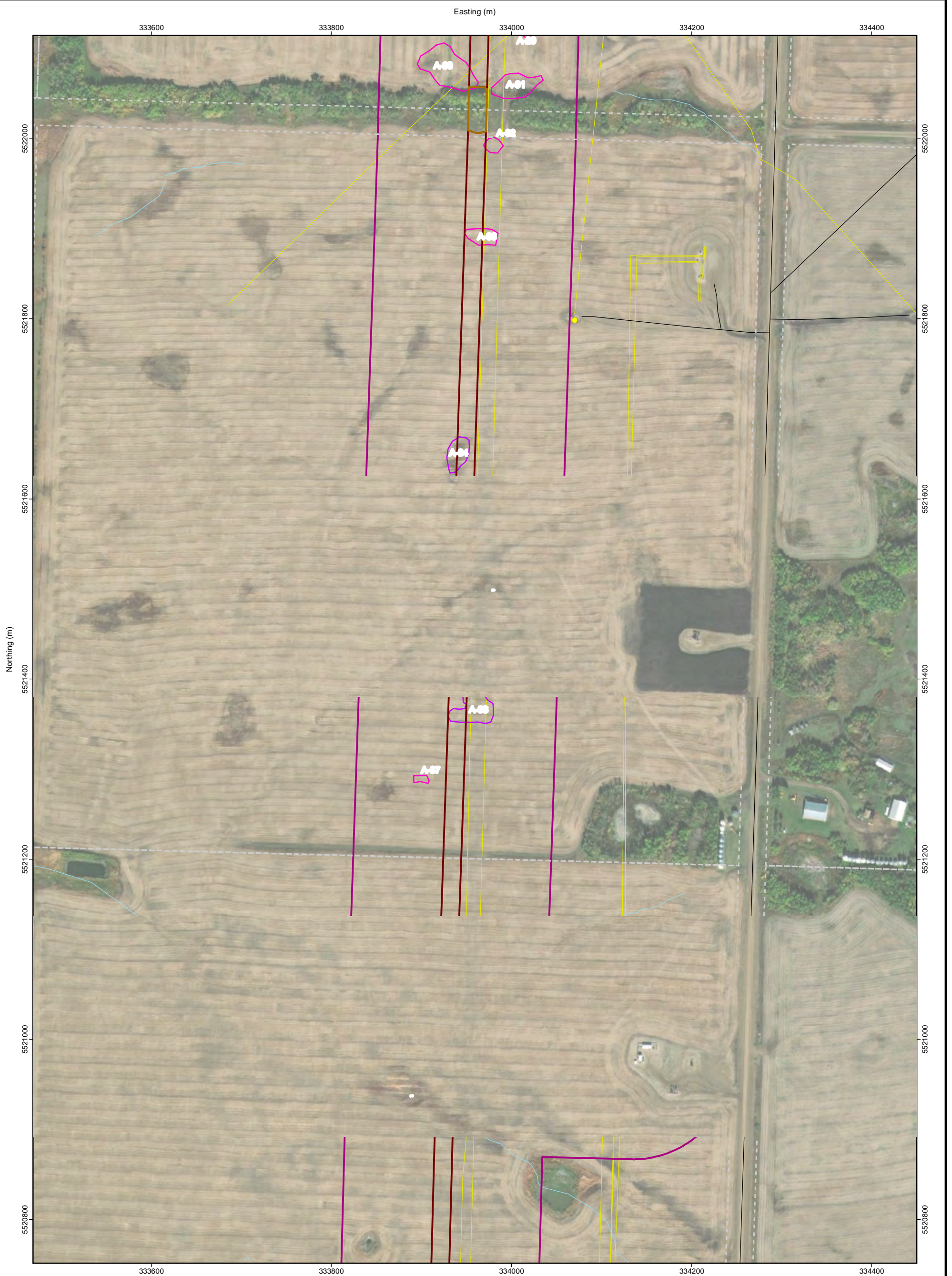
**Tundra Oil & Gas Limited**  
 46 km Flowline Gas Gathering System

Detailed Routing

Date: November 2021	Project: 29047	Submitter: D. Chranowski	Reviewer: L. May
---------------------	----------------	--------------------------	------------------

Disclaimer: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.

2-3



<p> Local Study Area (LSA)</p> <p><b>ROW by Land Use</b></p> <p> Cultivated</p> <p> Woodland</p> <p><b>Wetland Class</b></p> <p> Class I - Ephemeral Wetland</p> <p> Class II - Temporary Wetland</p>	<p> Watercourse</p> <p> Road</p> <p> Pipeline</p> <p> Well (Surface Hole)</p>	<p>Note: The land use is mapped to ROW</p> <p>1:4,000 metres</p> <p>40 0 40 80</p> <p>NAD 1983 UTM Zone 14N</p>		<p> <b>Matrix Solutions Inc.</b> ENVIRONMENT &amp; ENGINEERING</p> <p>Tundra Oil &amp; Gas Limited 46 km Flowline Gas Gathering System</p> <p><b>Detailed Routing</b></p>	<p>Date: November 2021 Project: 29047 Submitter: D. Chranowski Reviewer: L. May</p> <p>Disclaimer: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.</p>
---	---	---	--	---	--



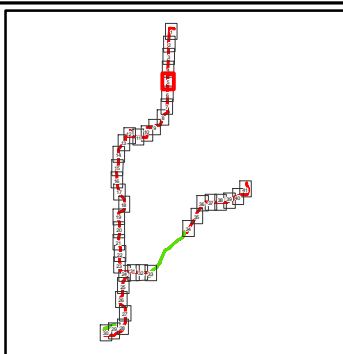
- Local Study Area (LSA)
- ROW by Land Use**
- Cultivated
- Wetland Class**
- Class I - Ephemeral Wetland
- Class II - Temporary Wetland
- Watercourse
- Road
- Pipeline
- Well (Surface Hole)

Note: The land use is mapped to ROW

1:4,000 metres

40 0 40 80

NAD 1983 UTM Zone 14N

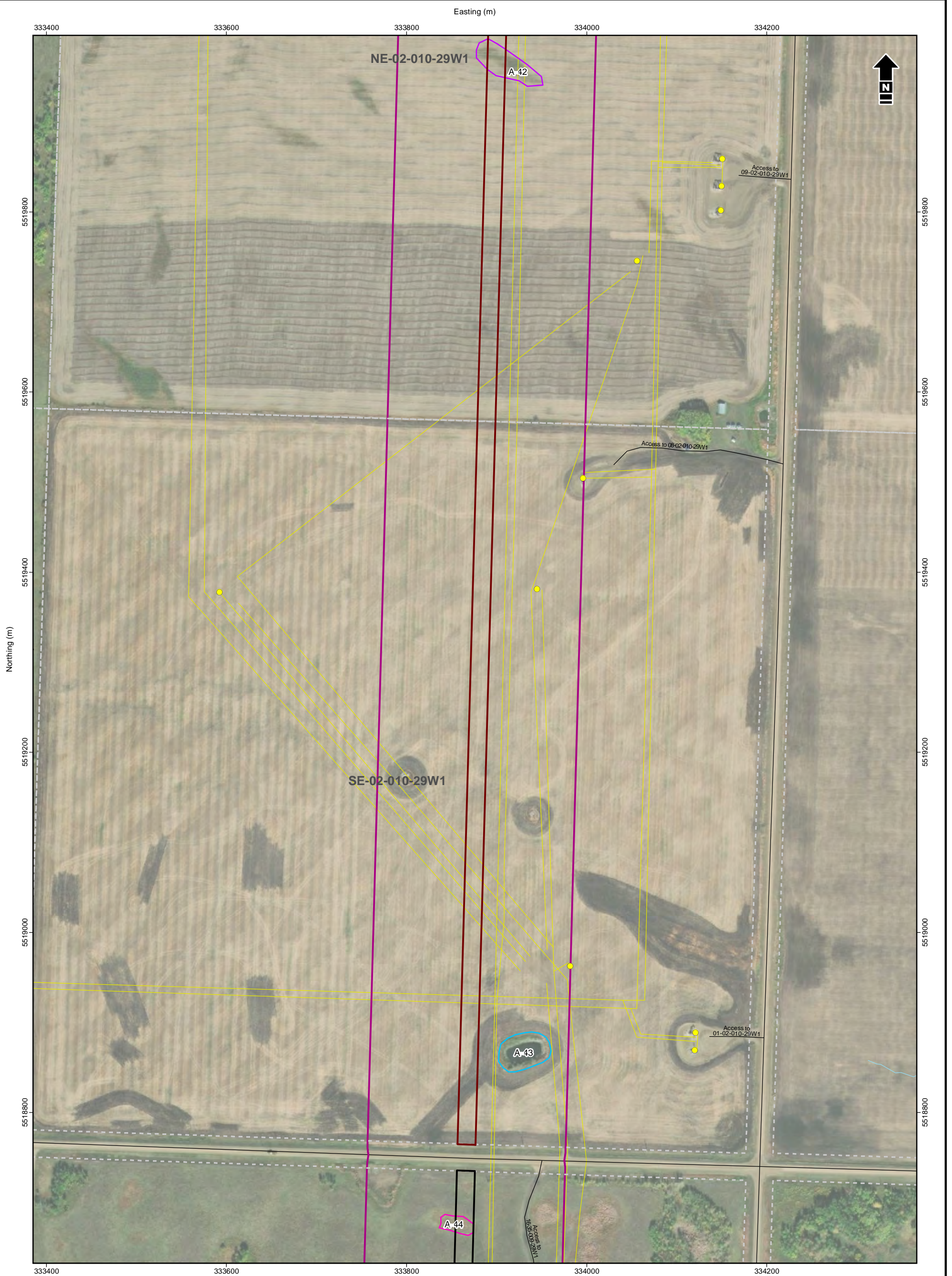


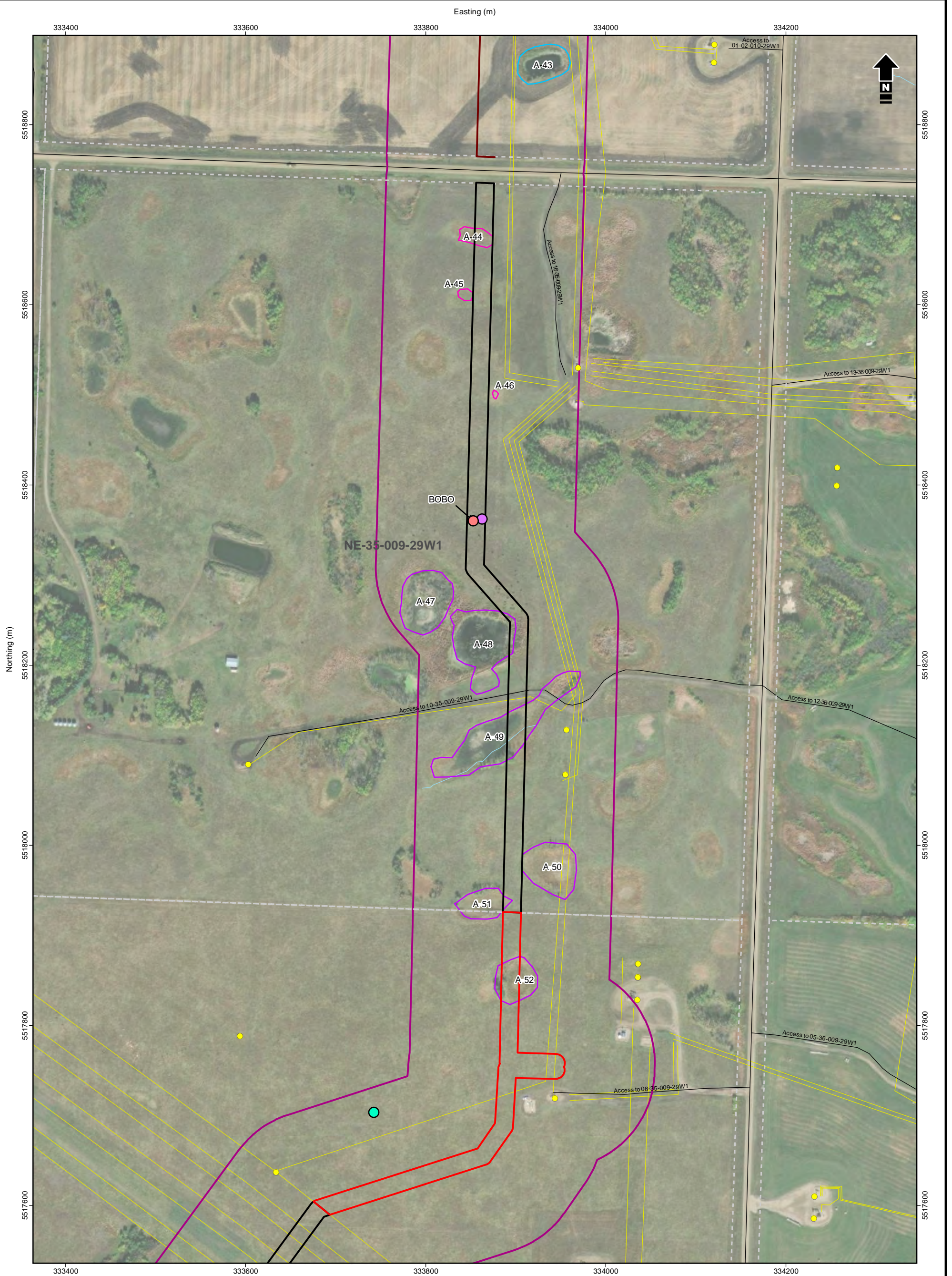
Tundra Oil & Gas Limited  
46 km Flowline Gas Gathering System

### Detailed Routing

Date: November 2021 Project: 29047 Submitter: D. Chranowski Reviewer: L. May

Disclaimer: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.





**Local Study Area (LSA)**

**ROW by Land Use**

- Native Grassland
- Modified Grassland
- Cultivated

**Wetland Class**

- Class I - Ephemeral Wetland
- Class II - Temporary Wetland
- Class IV - Semi-permanent Pond or Lake

**Watercourse**

- Road
- Pipeline

**Well (Surface Hole)**

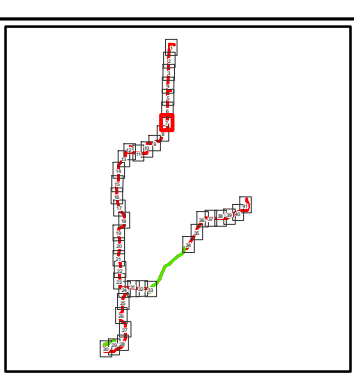
- Breeding Bird and Sharp-tailed Grouse Survey
- Sharp-Tailed Grouse Lek

**Species at Risk Observations**

- BOBO Bobolink

Note: The land use is mapped to ROW

1:4,000 metres  
NAD 1983 UTM Zone 14N



**Matrix Solutions Inc.**  
ENVIRONMENT & ENGINEERING

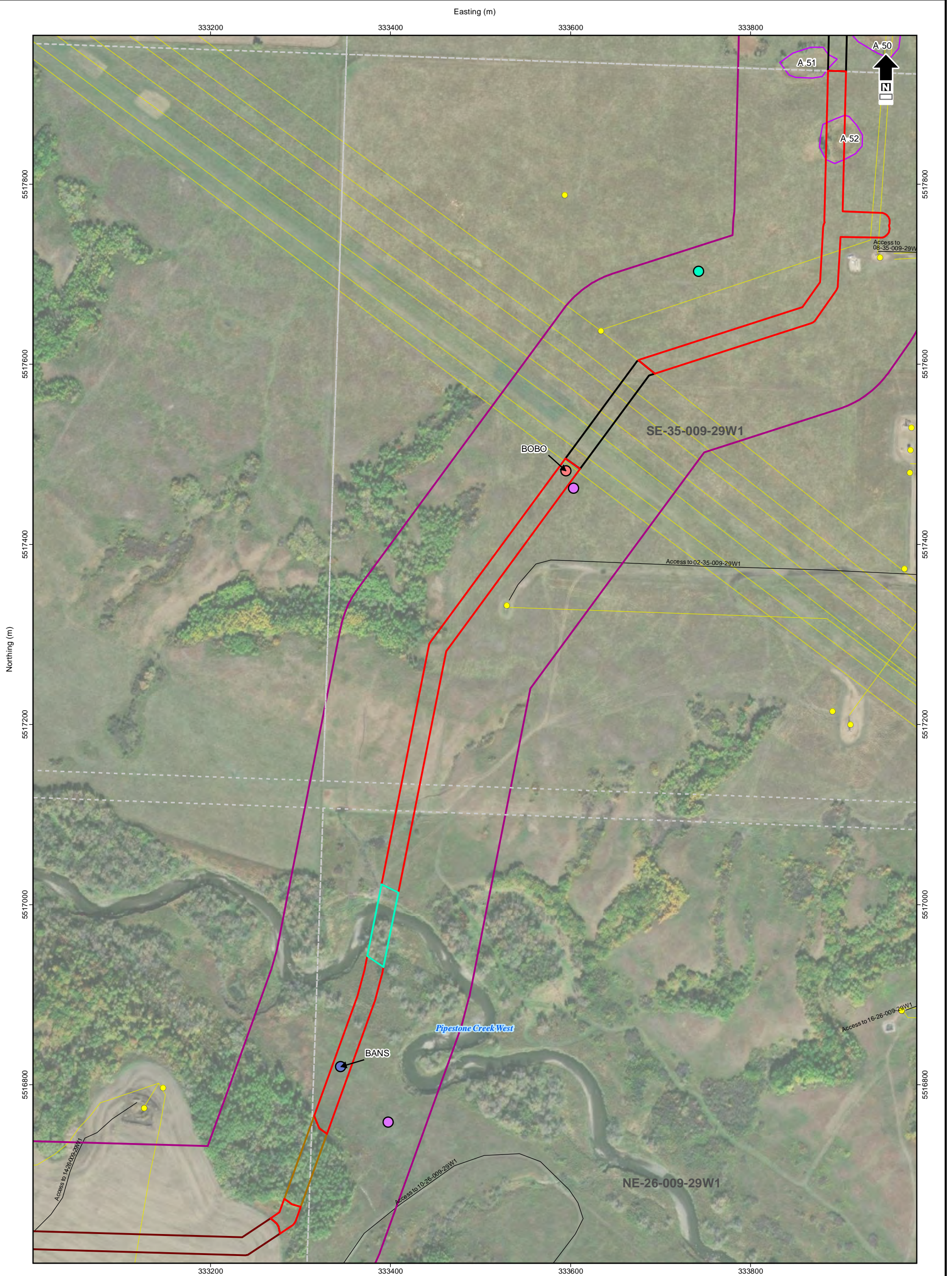
Tundra Oil & Gas Limited  
46 km Flowline Gas Gathering System

**Detailed Routing**

Date: November 2021	Project: 29047	Submitter: D. Chranowski	Reviewer: L. May
---------------------	----------------	--------------------------	------------------

Disclaimer: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.

**2-7**



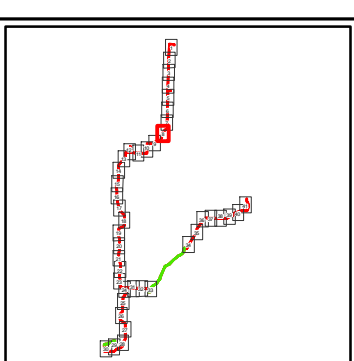
<ul style="list-style-type: none"> <li><span style="color: purple;">□</span> Local Study Area (LSA)</li> <li><b>ROW by Land Use</b></li> <li><span style="color: red;">▬</span> Native Grassland</li> <li><span style="color: black;">▬</span> Modified Grassland</li> <li><span style="color: brown;">▬</span> Cultivated</li> <li><span style="color: orange;">▬</span> Woodland (cleared)</li> <li><span style="color: cyan;">▬</span> Riparian, Pipestone Creek West</li> <li><b>Wetland Class</b></li> <li><span style="color: purple;">▬</span> Class II - Temporary Wetland</li> </ul>	<ul style="list-style-type: none"> <li><span style="color: blue;">▬</span> Watercourse</li> <li><span style="color: black;">▬</span> Road</li> <li><span style="color: yellow;">▬</span> Pipeline</li> <li><span style="color: yellow;">●</span> Well (Surface Hole)</li> <li><span style="color: purple;">●</span> Breeding Bird and Sharp-tailed Grouse Survey</li> <li><span style="color: cyan;">●</span> Sharp-Tailed Grouse Lek</li> <li><b>Species at Risk Observations</b></li> <li><span style="color: blue;">●</span> BANS Bank Swallow</li> <li><span style="color: red;">●</span> BOBO Bobolink</li> </ul>
---	--


Note: The land use is mapped to ROW

1:4,000 metres

40 0 40 80

NAD 1983 UTM Zone 14N





**Matrix Solutions Inc.**  
ENVIRONMENT & ENGINEERING

Tundra Oil & Gas Limited  
46 km Flowline Gas Gathering System

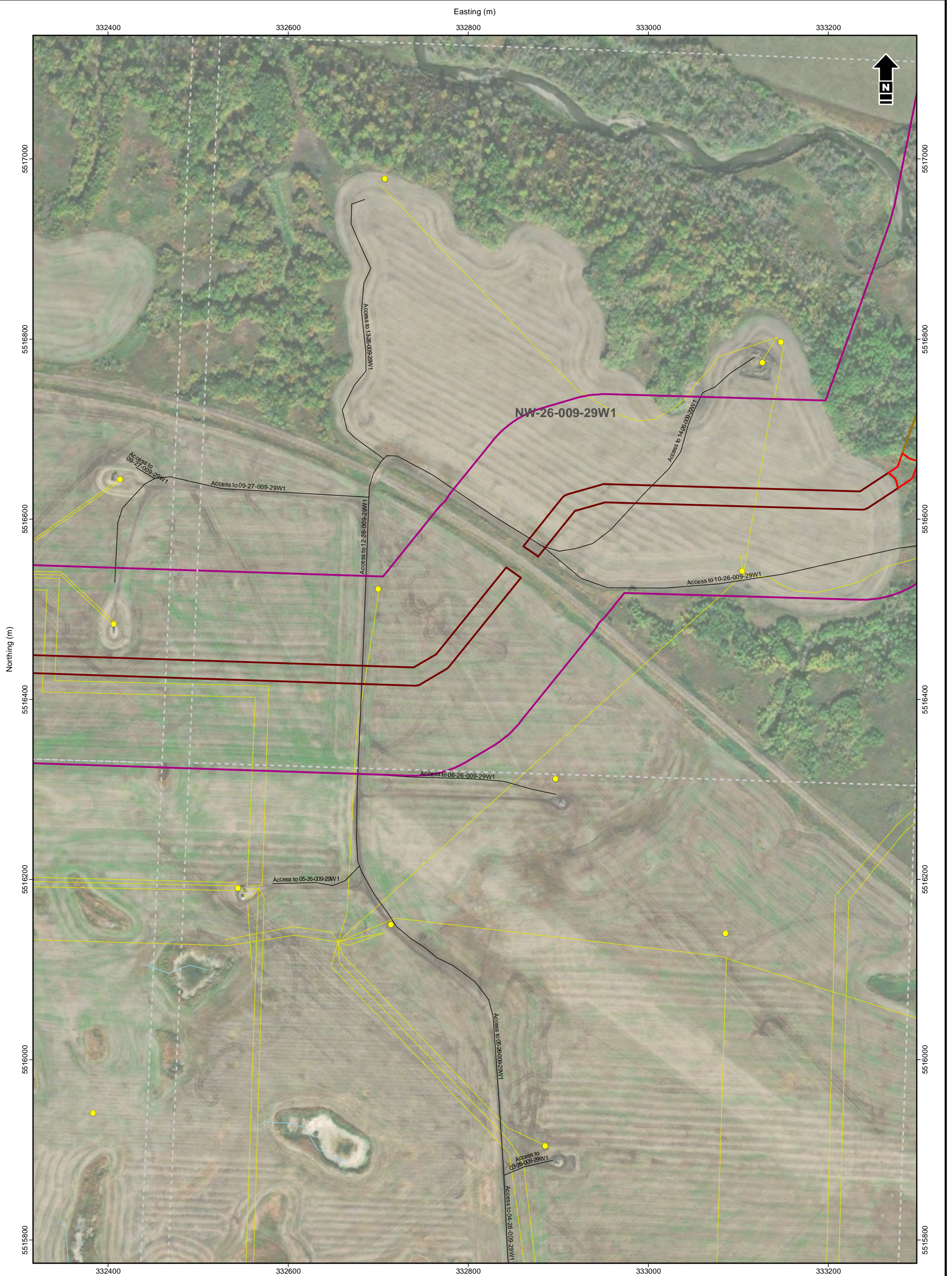
## Detailed Routing

Date:	Project:	Submitter:	Reviewer:
November 2021	29047	D. Chranowski	L. May

Disclaimer: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.

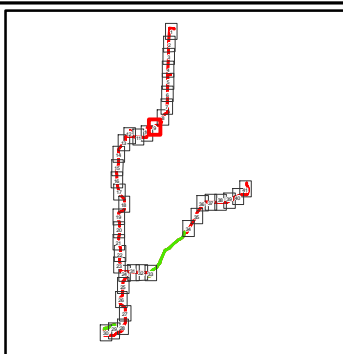
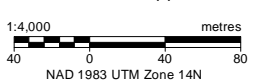
2-8

Reference: GDM midstream, transportation infrastructure data and IHS well data provided by IHS© 2021. Imagery (2018) Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User



- █ Local Study Area (LSA)
- █ Native Grassland
- █ Cultivated
- █ Woodland (cleared)
- Watercourse
- Road
- Pipeline
- Well (Surface Hole)

Note: The land use is mapped to ROW



Tundra Oil & Gas Limited  
46 km Flowline Gas Gathering System

### Detailed Routing

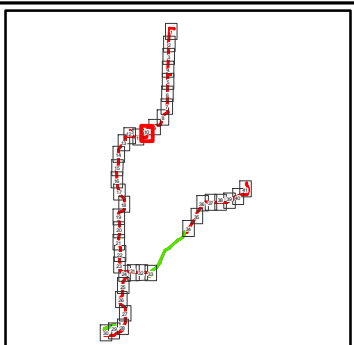
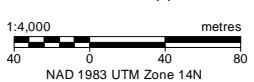
Date: November 2021 Project: 29047 Submitter: D. Chranowski Reviewer: L. May

Reference: GDM midstream, transportation infrastructure data and IHS well data provided by IHS© 2021. Imagery (2018) Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User



- █ Local Study Area (LSA)
- ROW by Land Use**
- █ Cultivated
- Wetland Class**
- █ Class I - Ephemeral Wetland
- █ Class II - Temporary Wetland
- █ Class III - Seasonal Pond or Lake
- █ Class IV - Semi-permanent Pond or Lake
- ~ Watercourse
- Road
- Pipeline
- Well (Surface Hole)

Note: The land use is mapped to ROW



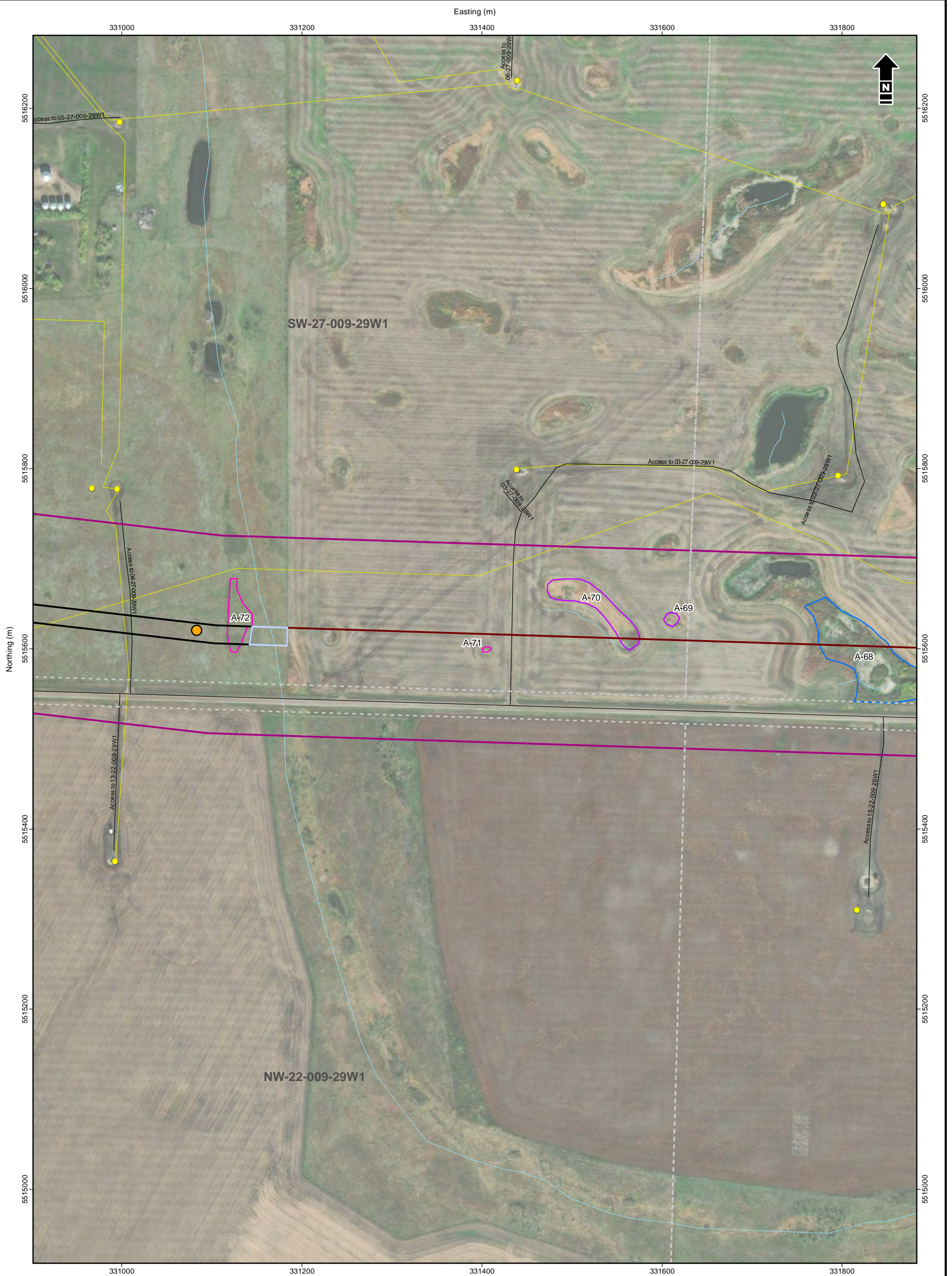
Tundra Oil & Gas Limited  
46 km Flowline Gas Gathering System

### Detailed Routing

Date: November 2021 Project: 29047 Submitter: D. Chranowski Reviewer: L. May

Reference: GDM midstream, transportation infrastructure data and IHS well data provided by IHS© 2021. Imagery (2018)  
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User

Disclaimer: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.



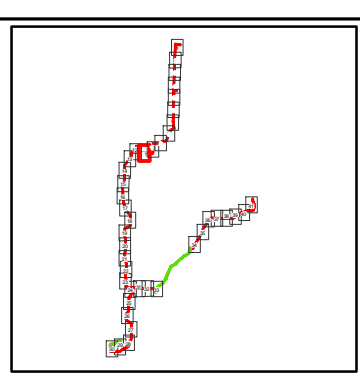
- Local Study Area (LSA)
- ROW by Land Use**
- Modified Grassland
- Cultivated
- Seasonal Waterway
- Wetland Class**
- Class I - Ephemeral Wetland
- Class II - Temporary Wetland
- Class III - Seasonal Pond or Lake
- ~ Watercourse
- Road
- Pipeline
- Well (Surface Hole)
- Breeding Bird Survey

Note: The land use is mapped to ROW

1:4,000 metres

40 0 40 80

NAD 1983 UTM Zone 14N



Tundra Oil & Gas Limited  
46 km Flowline Gas Gathering System

### Detailed Routing

Date: November 2021	Project: 29047	Submitter: D. Chranowski	Reviewer: L. May
---------------------	----------------	--------------------------	------------------

Reference: GDM midstream, transportation infrastructure data and IHS well data provided by IHS© 2021. Imagery (2018) Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User