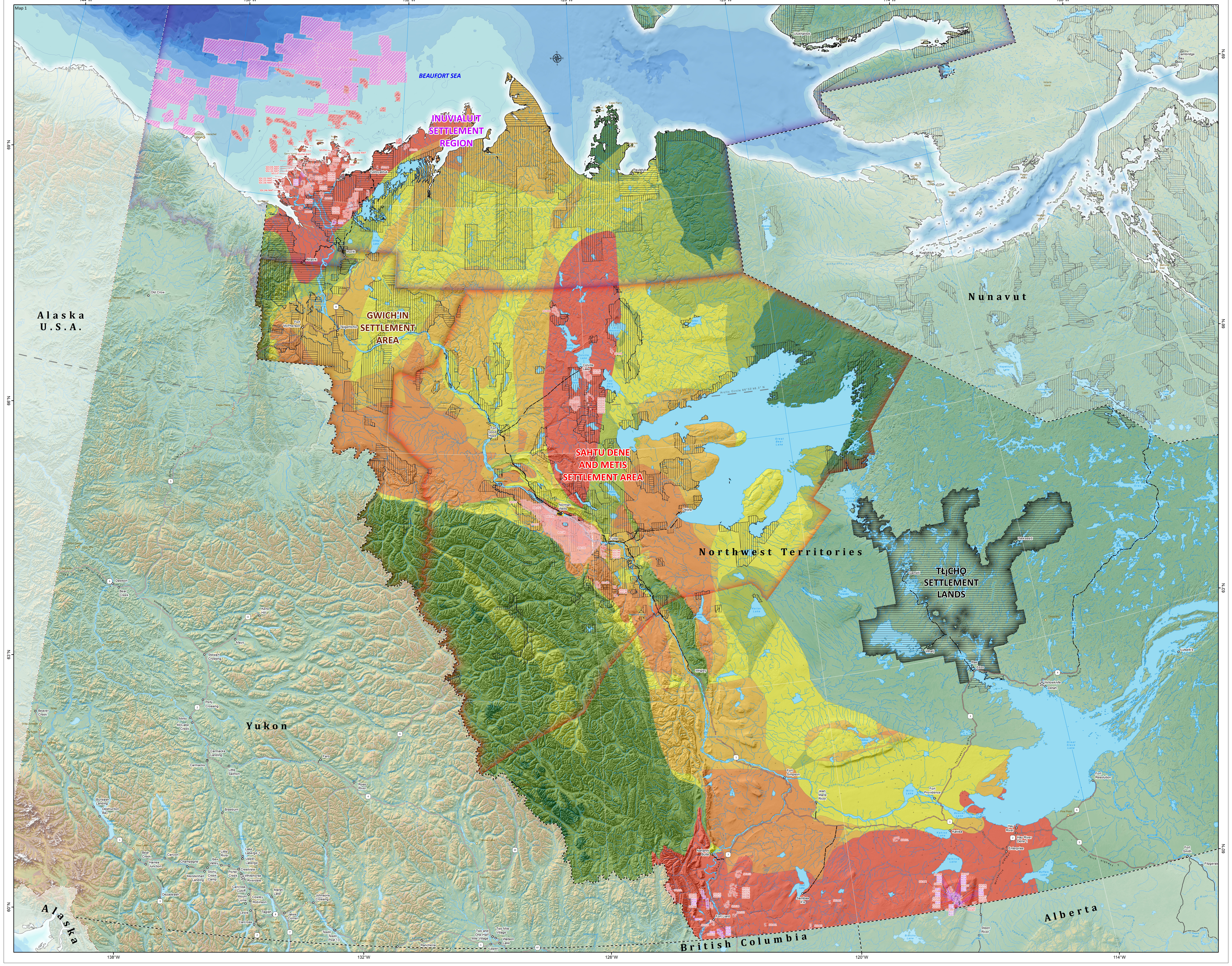


Northwest Territories Hydrocarbon Potential 2021

Natural Resources Canada
1:1,000,000 Atlas Basemap

- ☆ Provincial or Territorial Capital
- ○ Communities
- ○ Places
- Expressway / Highway
- Freeway
- Other
- Winter
- Inuvik to Tuktoyaktuk Highway
- River
- Limit of Exclusive Economic Zone 200 nautical miles offshore from baselines defined in Territorial Sea
- Limit of Exclusive Economic Zone pursuant to bilateral boundary agreement
- Limit of Exclusive Economic Zone pursuant to international agreement with Denmark
- International boundary
- Line extending from the 200 nautical mile limit to the North Pole
- Provincial or territorial boundary
- Lakes

Aboriginal Owned Lands - Property Rights

- ▤ Surface/Subsurface
- ▥ Surface

- Canada Engery Regulator (CER) Wells
- Office of the Regulator of Oil and Gas Operations (OROGO) Wells

Crown-Indigenous Relations and Northern Affairs Canada: Offshore Oil & Gas Rights

- ▨ Exploration Licence
- ▨ Pioneer Production Lease
- ▨ Significant Discovery Licence

Northwest Territories Onshore Oil and Gas Rights

- Production Licence
- ▨ Pioneer Production Lease
- Significant Discovery Licence
- Norman Wells Proven Area
- Inuvialuit Settlement Lands
- Gwich'in Settlement Area
- Sahtu, Dene and Metis Settlement Area
- Tłįchǫ Settlement Lands

NWT Hydrocarbon Potential

NTGO: NWT Open File Report 2005 - 004

- Very High
- High
- Moderate to High
- Moderate
- Low to Moderate
- Low
- Very Low

Depth in Metres

- -50 - 0
- -200 - -50
- -500 - -200
- -750 - -500
- -1,000 - -750
- -1,500 - -1,000
- -2,000 - -1,500
- -2,500 - -2,000
- -3,500 - -2,500
- -5,000 - -3,500

Elevation in Metres

6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0

LAND_CODE	CURR_HECT	INIT_HECT	SHORT_DESC	AGREETYP	COORDINATE	STATUS_DTE	REGION_E	COMPANY_NM	ISSUE_DTE	EXPIRY_DTE	LANDTYPE_E	AGREETYP_E	Perimeter_km	Area_km2	ACRES	HECTARES
838-70	321	5132	POINTED MOUNTAIN	PPL	NAD27	11/3/2020	Mackenzie Valley	Prairie Provident Resources Canada Limited	11/26/1970	11/25/2033	Title	Pioneer Lease	7.175344	3.209519	793.089302	320.951854
PL03	80	80	CAMERON L-47	PL	NAD27	2/13/1990	Mackenzie Valley	Strategic Oil & Gas Ltd.	2/13/2015	2/13/2020	Title	Production Licence	3.597131	0.806845	199.375819	80.684531
PL04	323	323	CAMERON HILLS A-05	PL	NAD27	6/16/1992	Mackenzie Valley	Strategic Oil & Gas Ltd.	6/16/1992	6/16/2022	Title	Production Licence	7.201131	3.233868	799.106088	323.38676
PL05	322	322	CAMERON HILLS A-05	PL	NAD27	12/2/1992	Mackenzie Valley	Strategic Oil & Gas Ltd.	12/2/1992	12/2/2022	Title	Production Licence	7.190824	3.224136	796.701327	322.413588
PL06	2506	2506	IKHIL K-35	PL	NAD27	6/23/1999	Mackenzie Delta	AltaGas Ltd.	6/23/1999	6/22/2024	Title	Production Licence	21.278575	25.085266	6198.704228	2508.526602
PL07	1292	1292	LIARD F-36	PL	NAD27	1/18/2000	Mackenzie Valley	Paramount Resources Ltd.	1/18/2000	1/17/2025	Title	Production Licence	18.163502	12.91695	3191.847917	1291.695024
PL08	3230	3230	LIARD F-36	PL	NAD27	1/18/2000	Mackenzie Valley	Paramount Resources Ltd.	1/18/2000	1/17/2025	Title	Production Licence	43.530657	32.31111	7984.249139	3231.110991
PL09	4150	4150	FORT LIARD K-29	PL	NAD27	3/27/2000	Mackenzie Valley	Paramount Resources Ltd.	3/27/2000	3/26/2025	Title	Production Licence	36.564956	41.530148	10262.323039	4153.01479
PL10	3818	3818	NORTH LIARD P-66A	PL	NAD27	4/26/2000	Mackenzie Valley	Canadian Natural Resources Limited	4/26/2000	4/25/2025	Title	Production Licence	32.759648	38.211474	9442.260803	3821.147377
PL11	320	320	K-29 PROJECT	PL	NAD27	4/17/2001	Mackenzie Valley	Paramount Resources Ltd.	4/17/2001	4/16/2026	Title	Production Licence	7.163288	3.198134	790.276031	319.813363
PL12	1292	1292	FORT LIARD N-01	PL	NAD27	5/2/2001	Mackenzie Valley	Paramount Resources Ltd.	5/2/2001	5/1/2026	Title	Production Licence	14.407411	12.945195	3198.82723	1294.519452
PL13	1292	1292	CAMERON HILLS A-05	PL	NAD27	2/7/2002	Mackenzie Valley	Strategic Oil & Gas Ltd.	2/7/2002	2/6/2027	Title	Production Licence	14.39711	12.925742	3194.020285	1292.57415
PL14	4517	4517	CAMERON HILLS A-05	PL	NAD27	2/7/2002	Mackenzie Valley	Strategic Oil & Gas Ltd.	2/7/2002	2/6/2027	Title	Production Licence	35.970246	45.197463	11168.536242	4519.746262
PL15	3220	3220	CAMERON HILLS C-50	PL	NAD27	2/7/2002	Mackenzie Valley	Strategic Oil & Gas Ltd.	2/7/2002	2/6/2027	Title	Production Licence	28.058372	32.247913	7968.632819	3224.79129
PL16	1930	1930	SWEDE A-73	PL	NAD27	2/7/2002	Mackenzie Valley	Strategic Oil & Gas Ltd.	2/7/2002	2/6/2027	Title	Production Licence	21.557877	19.315593	4772.987	1931.55931
PL17	1292	1292	CAMERON HILLS	PL	NAD27	3/10/2003	Mackenzie Valley	Strategic Oil & Gas Ltd.	3/10/2003	3/9/2028	Title	Production Licence	25.368837	12.928986	3194.821997	1292.898592
PL18	966	966	CAMERON HILLS	PL	NAD27	3/27/2003	Mackenzie Valley	Strategic Oil & Gas Ltd.	3/27/2003	3/26/2028	Title	Production Licence	17.806047	9.675652	2390.905622	967.565177
PL19	1935	1935	CAMERON HILLS	PL	NAD27	5/11/2005	Mackenzie Valley	Strategic Oil & Gas Ltd.	2/5/2004	2/4/2029	Title	Production Licence	28.429161	19.35711	4783.245996	1935.710978
PL20	969	969	CAMERON HILLS	PL	NAD27	5/13/2004	Mackenzie Valley	Strategic Oil & Gas Ltd.	5/13/2004	5/12/2029	Title	Production Licence	14.404855	9.704159	2397.949926	970.415906
PL21	323	323	CAMERON HILLS	PL	NAD27	5/12/2004	Mackenzie Valley	Strategic Oil & Gas Ltd.	5/13/2004	5/12/2029	Title	Production Licence	7.202848	3.235489	799.506651	323.548863
PL22	322	322	CAMERON HILLS	PL	NAD27	5/12/2004	Mackenzie Valley	Strategic Oil & Gas Ltd.	5/13/2004	5/12/2029	Title	Production Licence	7.192543	3.225759	797.10229	322.575852
PL23	283	283	CAMERON HILLS	PL	NAD27	5/12/2004	Mackenzie Valley	Strategic Oil & Gas Ltd.	5/13/2004	5/12/2029	Title	Production Licence	8.05037	2.823958	697.815275	282.395823
PL24	966	966	CAMERON HILLS	PL	NAD27	5/12/2004	Mackenzie Valley	Strategic Oil & Gas Ltd.	5/13/2004	5/12/2029	Title	Production Licence	17.792192	9.662668	2387.697314	966.266821
PL25	917	917	NIGLINTGAK	PL	NAD27	12/5/2012	Mackenzie Delta	MGM Energy	9/17/2008	9/16/2033	Title	Production Licence	21.029025	9.17513	2267.22402	917.513009
SDL001	645	645	CELIBETA H-78	SDL	NAD27	2/15/1987	Mackenzie Valley	Paramount Resources Ltd.	2/15/1987	<Null>	Title	Significant Discovery Licence	10.963246	6.453139	1594.605495	645.313949
SDL002	1938	1938	SDA A0045 - EL169	SDL	NAD27	2/15/1987	Mackenzie Valley	Paramount Resources Ltd.	2/15/1987	<Null>	Title	Significant Discovery Licence	21.945058	19.410623	4796.469521	1941.062349
SDL003	642	642	SDA A0097 - EL170	SDL	NAD27	2/15/1987	Mackenzie Valley	Apache Canada Ltd.	2/15/1987	<Null>	Title	Significant Discovery Licence	10.944702	6.417411	1585.776915	641.741149
SDL004	321	321	SDA A0090 - EL171	SDL	NAD27	2/15/1987	Mackenzie Valley	Apache Canada Ltd.	2/15/1987	<Null>	Title	Significant Discovery Licence	7.175344	3.209519	793.089322	320.951861
SDL006	7367	7367	SDA A0091 - EL157	SDL	NAD27	2/15/1987	Mackenzie Valley	BP Canada Energy Resources Company	2/15/1987	<Null>	Title	Significant Discovery Licence	44.598526	73.737629	18220.964894	7373.76288
SDL007	1292	2261	SDA A0019 - EL213	SDL	NAD27	3/25/2010	Mackenzie Valley	Strategic Oil & Gas Ltd.	2/15/1987	<Null>	Title	Significant Discovery Licence	21.607665	12.941017	3197.795045	1294.101742
SDL008	1938	1938	SDA A0020 - EL213	SDL	NAD27	2/15/1987	Mackenzie Valley	Strategic Oil & Gas Ltd.	2/15/1987	<Null>	Title	Significant Discovery Licence	17.841491	19.417789	4798.240045	1941.778854
SDL010	646	646	SDA A0022 - EL213	SDL	NAD27	2/15/1987	Mackenzie Valley	Strategic Oil & Gas Ltd.	2/15/1987	<Null>	Title	Significant Discovery Licence	10.63952	6.474218	1599.814099	647.421796
SDL011	3771	3771	SDA A0080 - EL236	SDL	NAD27	2/15/1987	Mackenzie Valley	ConocoPhillips Canada Resources Corp.	2/15/1987	<Null>	Title	Significant Discovery Licence	27.996522	37.752513	9328.849191	3775.251326
SDL012	13025	13025	SDA A0062 - EL217	SDL	NAD27	2/15/1987	Mackenzie Valley	EnCana Corporation	2/15/1987	<Null>	Title	Significant Discovery Licence	66.615732	116.543219	28798.456499	11654.321864
SDL013	5688	5688	SDA A0070 - EL218	SDL	NAD27	2/15/1987	Mackenzie Valley	Canadian Natural Resources Limited	2/15/1987	<Null>	Title	Significant Discovery Licence	35.632504	56.949446	14072.514684	5694.944643
SDL014-NWT	1634	1824	SDA A0035 - EL228	SDL	NAD27	9/5/1987	Mackenzie Delta	Chevron Canada Limited	9/5/1987	<Null>	Title	Significant Discovery Licence	17.717421	16.363859	4043.597557	1636.385874
SDL015	304	304	SDA A0036 - EL228	SDL	NAD27	9/5/1987	Mackenzie Delta	Chevron Canada Limited	9/5/1987	<Null>	Title	Significant Discovery Licence	6.986757	3.037257	750.522463	303.725665
SDL016	610	610	SDA A0073 - EL228	SDL	NAD27	9/5/1987	Mackenzie Delta	Chevron Canada Limited	9/5/1987	<Null>	Title	Significant Discovery Licence	10.275488	6.102677	1508.004423	610.267738
SDL017	1866	1866	SDA A0060 - EL222	SDL	NAD27	8/18/1987	Mackenzie Delta	Shell Canada Limited	8/18/1987	<Null>	Title	Significant Discovery Licence	17.480672	18.694527	4619.518208	1869.452693
SDL018	3366	3366	SDA A0061 - EL222	SDL	NAD27	8/18/1987	Mackenzie Delta	Shell Canada Limited	8/18/1987	<Null>	Title	Significant Discovery Licence	28.055113	33.681169	8322.798235	3368.116949
SDL019	3665	3665	SDA A0073 - EL222	SDL	NAD27	8/18/1987	Mackenzie Delta	Shell Canada Limited	8/18/1987	<Null>	Title	Significant Discovery Licence	31.308213	36.686887	9065.527248	3668.688717
SDL023	18267	18267	SDA A0011 - EL302	SDL	NAD27	9/28/1987	Mackenzie Valley	Suncor Energy Inc.	9/28/1987	<Null>	Title	Significant Discovery Licence	64.976499	182.79065	45168.553262	18279.064986
SDL024	11420	11420	SDA A0100 - EL302	SDL	NAD27	9/28/1987	Mackenzie Valley	Suncor Energy Inc.	9/28/1987	<Null>	Title	Significant Discovery Licence	54.389839	114.316954	28248.334596	11431.695428
SDL025-NWT	646	1216	SDA A0036 - EL211	SDL	NAD27	2/9/1988	Mackenzie Delta	Nytis Exploration Company Canada Ltd.	2/9/1988	<Null>	Title	Significant Discovery Licence	11.530372	6.456559	1595.450544	645.655928
SDL026-NWT	608	912	SDA A0035 - EL211	SDL	NAD27	2/9/1988	Mackenzie Delta	Nytis Exploration Company Canada Ltd.	2/9/1988	<Null>	Title	Significant Discovery Licence	10.723688	6.090945	1505.105395	609.094543
SDL027	906	906	SDA A0050 - EL211	SDL	NAD27	2/9/1988	Mackenzie Delta	Nytis Exploration Company Canada Ltd.	2/9/1988	<Null>	Title	Significant Discovery Licence	14.419891	9.062444	2239.378705	906.244409
SDL029	626	3132	IKHIL K-35	SDL	NAD27	9/1/1987	Mackenzie Delta	AltaGas Ltd.	9/1/1987	<Null>	Title	Significant Discovery Licence	10.440359	6.261901	1547.349383	626.190079
SDL030	2173	2173	SDA A0053 - EL225	SDL	NAD27	6/17/1987	Mackenzie Delta	ConocoPhillips Canada Resources Corp.	6/17/1987	<Null>	Title	Significant Discovery Licence	24.917701	21.742142	5372.600323	2174.214212
SDL031	306	306	SDA A0061 - EL225	SDL	NAD27	6/17/1987	Mackenzie Delta	Shell Canada Limited	6/17/1987	<Null>	Title	Significant Discovery Licence	7.017302	3.065412	757.47971	306.541163
SDL032	30117	30117	SDA A0077 - EL225	SDL	NAD27	6/17/1987	Mackenzie Delta	ConocoPhillips Canada Resources Corp.	6/17/1987	<Null>	Title	Significant Discovery Licence	107.974935	301.402351	74478.142835	30140.235066
SDL033	3087	3087	SDA A0081 - EL224	SDL	NAD27	9/1/1987	Mackenzie Delta	Shell Canada Limited	9/1/1987	<Null>	Title	Significant Discovery Licence	24.861856	30.898001	7635.062219	3089.800057
SDL034	1232	1232	SDA A0096 - EL225	SDL	NAD27	6/17/1987	Mackenzie Delta	Shell Canada Limited	6/17/1987	<Null>	Title	Significant Discovery Licence	18.23133	12.331952	3047.2918	1233.195239
SDL035	2446	2446	SDA A0108 - EL225	SDL	NAD27	6/17/1987	Mackenzie Delta	Shell Canada Limited	6/17/1987	<Null>	Title	Significant Discovery Licence	21.480702	24.476389	6048.247395	2447.638881
SDL036	1842	1842	SDA A0109 - EL225	SDL	NAD27	6/17/1987	Mackenzie Delta	Shell Canada Limited	6/17/1987	<Null>	Title	Significant Discovery Licence	17.333021	18.41356	4550.089878	1841.356045
SDL042	2024	2024	SDA A0100 - EL304	SDL	NAD27	9/24/1987	Mackenzie Valley	BP Canada Energy Resources Company	9/24/1987	<Null>	Title	Significant Discovery Licence	20.99911	20.250566	5004.023785	2025.056579
SDL050-NWT	909	8197	SDA A0001 - EL104	SDL	NAD27	4/22/1987	Mackenzie Delta	Imperial Oil Resources Limited	4/22/1987	<Null>	Title	Significant Discovery Licence	13.961917	9.094511	2247.302634	909.45111
SDL052	2997	2997	SDA A0007 - EL103	SDL	NAD27	4/22/1987	Mackenzie Delta	Imperial Oil Resources Limited	4/22/1987	<Null>	Title	Significant Discovery Licence	27.773752	29.977788	7407.672689	2997.77878
SDL056	2410	2410	SDA A0049 - EL101	SDL	NAD27	5/1/1987	Mackenzie Delta	Imperial Oil Resources Limited	5/1/1987	<Null>	Title	Significant Discovery Licence	20.890191	24.128998	5962.40514	2412.899753
SDL057	1812	1812	SDA A0050 - EL101	SDL	NAD27	5/1/1987	Mackenzie Delta	Imperial Oil Resources Limited	5/1/1987	<Null>	Title	Significant Discovery Licence	17.663284	18.124885	4478.756738	1812.488547
SDL059	612	612	SDA A0061 - EL101	SDL	NAD27	5/7/1987	Mackenzie Delta	Imperial Oil Resources Limited	5/7/1987	<Null>	Title	Significant Discovery Licence	10.743124	6.123789	1513.221256	612.378916
SDL060	1515	1515	SDA A0064 - EL101	SDL	NAD27	4/22/1987	Mackenzie Delta	Imperial Oil Resources Limited	4/22/1987	<Null>	Title	Significant Discovery Licence	17.223123	15.167376	3747.940115	1516.737552
SDL062	4012	4012	SDA A0077 - EL101	SDL	NAD27	5/7/1987	Mackenzie Delta	Imperial Oil Resources Limited	5/7/1987	<Null>	Title	Significant Discovery Licence	36.478356	40.153464	9922.137055	4015.346406
SDL063	6089	6089	SDA A0088 - EL101	SDL	NAD27	4/22/1987	Mackenzie Delta	Imperial Oil Resources Limited	4/22/1987	<Null>	Title	Significant Discovery Licence	34.530529	60.959915	15063.523016	6095.991486
SDL064	5854	5854	SDA A0096 - EL101	SDL	NAD27	5/7/1987	Mackenzie Delta	Imperial Oil Resources Limited	5/7/1987	<Null>	Title	Significant Discovery Licence	34.763715	58.633951	14488.764846	5863.395107
SDL079-NWT	10719	70784	SDA A0039-EL129/130	SDL	NAD27	3/19/1987	Arctic Islands	Suncor Energy Inc.	3/19/1987	<Null>	Title	Significant Discovery Licence	59.487598	107.28286	26510.172002	10728.285983
SDL090	319	319	SDA A0129 - EL311	SDL	NAD27	1/10/1990	Mackenzie Valley	Canadian Natural Resources Limited	1/10/1990	<Null>	Title	Significant Discovery Licence	7.154666	3.189993	788.264405	318.999287
SDL092-NWT	2830	3915	SDA A0112-EL340/344	SDL	NAD27	5/4/1990	Mackenzie Delta	Imperial Oil Resources Limited	5/4/1990	<Null>	Title	Significant Discovery Licence	38.416025	28.267454	6985.039905	2826.74536
SDL093	2462	2462	SDA A0043 - EL340	SDL	NAD27	5/4/1990	Mackenzie Delta	Imperial Oil Resources Limited	5/4/1990	<Null>	Title	Significant Discovery Licence	21.530493	24.64516	6089.951634	2464.515988
SDL094	607	607	SDA A0067 - EL341	SDL	NAD27	5/4/1990	Mackenzie Delta	Imperial Oil Resources Limited	5/4/1990	<Null>	Title	Significant Discovery Licence	10.712547	6.072166	1500.464783	607.216554
SDL098	2547	2547	SDA A0129 - EL311	SDL	NAD27	1/10/1990	Mackenzie Valley	Canadian Natural Resources Limited	1/10/1990	<Null>	Title	Significant Discovery Licence	21.454524	25.493507	6299.582797	2549.35071
SDL099	640	5110	SDA A0115 - EL320	SDL	NAD27	11/29/1990	Mackenzie Valley	Paramount Resources Ltd.	11/29/1990	<Null>	Title	Significant Discovery Licence	10.563107	6.402775	1582.160217	640.277524
SDL100	2763	2763	SDA A0133 - EL335	SDL	NAD27	11/29/1990	Mackenzie Delta	Shell Canada Limited	11/29/1990	<Null>	Title	Significant Discovery Licence	21.074768	27.651983	6832.953912	2765.198342
SDL101	323	323	SDA A0022 - EL312	SDL	NAD27	12/7/1990	Mackenzie Valley	Strategic Oil & Gas Ltd.	12/7/1990	<Null>	Title	Significant Discovery Licence	7.202848	3.235489	799.506675	323.548872
SDL103	2260	3227	Cameron Hills	SDL	NAD27	3/12/2004	Mackenzie Valley	Strategic Oil & Gas Ltd.	12/7/1990	<Null>	Title	Significant Discovery Licence	43.521118	22.607883	5586.529564	2260.788304
SDL104	968	1290	SDA A0135 - EL312	SDL	NAD27	5/12/2004	Mackenzie Valley	Strategic Oil & Gas Ltd.	12/7/1990	<Null>	Title	Significant Discovery Licence	14.38768	9.679838	2391.940038	967.98379
SDL105	283	566	SDA A0134 - EL312	SDL	NAD27	5/12/2004	Mackenzie Valley	Strategic Oil & Gas Ltd.	12/7/1990	<Null>	Title	Significant Discovery Licence	8.05037	2.823958	697.815294	282.395831
SDL106	1612	5798	SDA A0127 - EL312	SDL	NAD27	12/7/1990	Mackenzie Valley	Strategic Oil & Gas Ltd.	12/7/1990	<Null>	Title	Significant Discovery Licence	18.155824	16.129732	3985.743701	1612.973249
SDL107	966	1932	SDA A0127 - EL327	SDL	NAD27	5/12/2004	Mackenzie Valley	Strategic Oil & Gas Ltd.	12/7/1990	<Null>	Title	Significant Discovery Licence	14.372176	9.660099	2387.062561	966.009946
SDL108	322	322	SDA A0132 - EL312	SDL	NAD27	12/7/1990	Mackenzie Valley	Strategic Oil & Gas Ltd.	12/7/1990	<Null>	Title	Significant Discovery Licence	7.189105	3.222513	796.30024	322.251274
SDL109	5139	7069	SDA A0132 - EL327	SDL	NAD27	12/7/1990	Mackenzie Valley	Strategic Oil & Gas Ltd.	12/7/1990	<Null>	Title	Significant Discovery Licence	43.098521	51.460475	12716.160218	5146.047465
SDL119	636	636	FORT LIARD P-66A	SDL	NAD27	2/22/2000	Mackenzie Valley	Canadian Natural Resources Limited	2/22/2000	<Null>	Title	Significant Discovery Licence	10.915902	6.36206	1572.099234	636.205988
SDL120	636	636	FORT LIARD P-66A	SDL	NAD27	2/22/2000	Mackenzie Valley	Canadian Natural Resources Limited	2/22/2000	<Null>	Title	Significant Discovery Licence	10.5144	6.357167	1570.890239	635.716725
SDL121	1270	1268	ARROWHEAD G-69	SDL	NAD27	1/21/2002	Mackenzie Valley	Canadian Natural Resources Limited	1/21/2002	<Null>	Title	Significant Discovery Licence	17.649171	12.704548	3139.362194	1270.454806
SDL122	1605	1605	BOVIE J-76	SDL	NAD27	4/30/2003	Mackenzie Valley	Paramount Resources Ltd.	4/30/2003	<Null>	Title	Significant Discovery Licence	17.762748	16.060992	3968.757571	1606.099206
SDL123	969	969	SDL123	SDL	NAD27	10/25/2005	Mackenzie Valley	Paramount Resources Ltd.	10/25/2005	<Null>	Title	Significant Discovery Licence	14.406535	9.708772	2399.089744	970.877174
SDL124	2571	2571	SDL124	SDL	NAD27	10/25/2005	Mackenzie Valley	Canadian Natural Resources Limited	4/4/2008	<Null>	Title	Significant Discovery Licence	25.322685	25.74506	6361.742937	2574.506026
SDL125	2238	2238	SDL125	SDL	NAD27	10/25/2005	Mackenzie Valley	Canadian Natural Resources Limited	4/8/2003	<Null>	Title	Significant Discovery Licence	25.638718	22.388561	5532.333841	2238.856073
SDL127	640	0	M-35 Well on El383	SDL	NAD27	2/12/2008	Mackenzie Valley	Canadian Natural Resources Limited	4/8/2003	<Null>	Title	Significant Discovery Licence	10.934557	6.397895	1580.954163	639.789451
SDL128	3517	3517	from EL383	SDL	NAD27	11/21/2007	Mackenzie Valley	Canadian Natural Resources Limited	4/8/2003	<Null>	Title	Significant Discovery Licence	29.03246	35.183678	8694.076244	3518.367828
SDL129	6362	6362	from EL383	SDL	NAD27	11/21/2007	Mackenzie Valley	Canadian Natural Resources Limited	4/8/2003	<Null>	Title	Significant Discovery Licence	53.798999	63.66337	15731.561295	6366.336986
SDL131	8508	8508	from EL384	SDL	NAD27	6/17/2009	Mackenzie Delta	MGM Energy	1/5/2006	<Null>	Title	Significant Discovery Licence	48.926529	85.130723	21036.259723	8513.072276
SDL132-NWT	1190	1228	Chevron et al Olivier H-01from EL427	SDL	NAD27	4/30/2008	Beaufort Sea	MGM Energy	11/13/2007	<Null>	Title	Significant Discovery Licence	18.218644	11.910706	2943.199621	1191.070629
SDL133-NWT	1209	1228	Chevron et al Olivier H-01 from EL427	SDL	NAD27	4/30/2008	Beaufort Sea	MGM Energy	11/13/2007	<Null>	Title	Significant Discovery Licence	18.218572	12.102559	2990.607369	1210.255864
SDL134-NWT	973	1220	Chevron et al Langley K-30	SDL	NAD27	4/30/2008	Beaufort Sea	MGM Energy	11/13/2007	<Null>	Title	Significant Discovery Licence	14.012658	9.737821	2406.268049	973.782131
SDL136-NWT	788	924	Chevron et al Ellice I-48	SDL	NAD27	4/30/2008	Beaufort Sea	MGM Energy	1/17/2008	<Null>	Title	Significant Discovery Licence	14.574496	7.899146	1951.921517	789.914613
SDL137	612	612	LANGLEY E-07	SDL	NAD27	1/21/2009	Mackenzie Delta	MGM Energy	9/11/2008	<Null>	Title	Significant Discovery Licence	10.294916	6.121443	1512.641518	612.144304
SDL138	1405	1405	STEWART D-57	SDL	NAD27	9/11/2008	Mackenzie Valley	Husky Oil Operations Limited	2/20/2008	<Null>	Title	Significant Discovery Licence	16.503848	14.077874	3478.718454	1407.787412
SDL139	1122	1122	STEWART D-57	SDL	NAD27	9/12/2008	Mackenzie Valley	Husky Oil Operations Limited	2/20/2008	<Null>	Title	Significant Discovery Licence	13.492822	11.222306	2773.092226	1122.230608
SDL140	4480	4480	SUMMIT CREEK B-44	SDL	NAD27	9/12/2008	Mackenzie Valley	Husky Oil Operations Limited	7/25/2008	<Null>	Title	Significant Discovery Licence	30.737634	44.825099	11076.52309	4482.50986
SDL141	1800	1800	NOGHA C-49	SDL	NAD27	2/9/2009	Mackenzie Valley	MGM Energy	8/5/2008	<Null>	Title	Significant Discovery Licence	34.526777	18.005603	4449.281385	1800.560295
SDL142	2051	2051	NOGHA C-49	SDL	NAD27	2/10/2009	Mackenzie Valley	MGM Energy	8/5/2008	<Null>	Title	Significant Discovery Licence	32.446652	20.530224	5073.128945	2053.022445
SDL143	1757	1757	Lac Maunoir C-34	SDL	NAD27	2/16/2009	Mackenzie Valley	MGM Energy	7/29/2008	<Null>	Title	Significant Discovery Licence	23.040514	17.578784	4343.812057	1757.878372
SDL144	5862	5862	PC Anderson KurK M-15	SDL	NAD27	2/16/2009	Mackenzie Delta	Suncor Energy Inc.	9/16/2008	<Null>	Title	Significant Discovery Licence	35.63102	58.670777	14497.864628	5867.077658
SDL145	1032	1032	BELE O-35	SDL	NAD27	7/9/2009	Mackenzie Valley	Suncor Energy Inc.	6/18/2009	<Null>	Title	Significant Discovery Licence	13.004694	10.314035	2548.653495	1031.403476
SDL146-NWT	6583	7090	Ellice J-27	SDL	NAD27	8/31/2009	Mackenzie Delta	MGM Energy	4/23/2009	<Null>	Title	Significant Discovery Licence	45.10826	65.973532	16302.414732	6597.353176
SDL147	1379	1379	East Mackay I-78	SDL	NAD27	4/1/2016	Mackenzie Valley	Husky Oil Operations Limited	2/22/2016	<Null>	Title	Significant Discovery Licence	21.765932	13.803389	3410.891807	1380.338942
SDL148	6335	6335	EL466B	SDL	NAD27	4/1/2016	Mackenzie Valley	MGM Energy	2/22/2016	<Null>	Title	Significant Discovery Licence	47.715536	63.433345	15674.720994	6343.334532
SDL149	275	275	East Mackay I-78	SDL	NAD27	4/1/2016	Mackenzie Valley	MGM Energy	2/22/2016	<Null>	Title	Significant Discovery Licence	6.692955	2.755584	680.919694	275.558424
SDL150	1936	1936	East Mackay I-78	SDL	NAD27	8/10/2016	Mackenzie Valley	Shell Canada Energy	8/6/2016	<Null>	Title	Significant Discovery Licence	20.115265	19.370375	4786.523888	1937.037494
SDL151	42713	42713	Dodo Canyon E-76	SDL	NAD27	7/24/2017	Mackenzie Valley	MGM Energy	9/19/2016	<Null>	Title	Significant Discovery Licence	121.004859	427.2902	105585.70797	42729.020041
SDL152	50262	50262	DODO Canyon E-76	SDL	NAD27	1/21/2021	Mackenzie Valley	MGM Energy	9/19/2016	<Null>	Title	Significant Discovery Licence	124.734889	502.79084	124242.322321	50279.084002
SDL153	149618	149618	Dodo Canyon E-76	SDL	NAD27	1/20/2021	Mackenzie Valley	Husky Oil Operations Limited	8/21/2020	8/20/2035	Title	Significant Discovery Licence	195.201673	1497.201375	369966.516992	149720.137536
SDL154	83927	83927	Dodo Canyon E-76	SDL	NAD27	1/21/2021	Mackenzie Valley	ConocoPhillips Canada Resources Corp.	10/20/2016	<Null>	Title	Significant Discovery Licence	175.081399	839.779211	207513.962387	83977.921142
SDL155	19028	19028	Dodo Canyon E-76	SDL	NAD27	1/21/2021	Mackenzie Valley	Shell Canada Energy	11/22/2016	<Null>	Title	Significant Discovery Licence	83.617977	190.503035	47074.325011	19050.30345
SDL156	25276	25276	Dodo Canyon E-76	SDL	NAD27	1/21/2021	Mackenzie Valley	Shell Canada Energy	11/22/2016	<Null>	Title	Significant Discovery Licence	123.419219	252.96581	62509.21293	25296.58098
SDL157	538	538	Dodo Canyon E-76	SDL	NAD27	7/25/2017	Mackenzie Valley	Shell Canada Energy	11/22/2016	<Null>	Title	Significant Discovery Licence	10.392181	5.390277	1331.966538	539.027734

The following introduction and methodology are taken directly from the NTGO: NWT Open File Report 2005 - 004, for the purposes of clarity and preservation of the contextual material. Hydrocarbon potential map citations are also directly taken from the original publication.

Introduction

This is a qualitative map of comparative hydrocarbon potential in the Northwest Territories. It is not meant to be, nor should it be interpreted as, a rigorous, detailed, or quantitative resource assessment of hydrocarbon potential. The main purpose of this map is to complement ecological-themed maps in broad scale planning for, and identification of, potential protected areas (Northwest Territories Protected Areas Strategy, 2003). Industry users and community groups may also find it generally informative.

Methodology

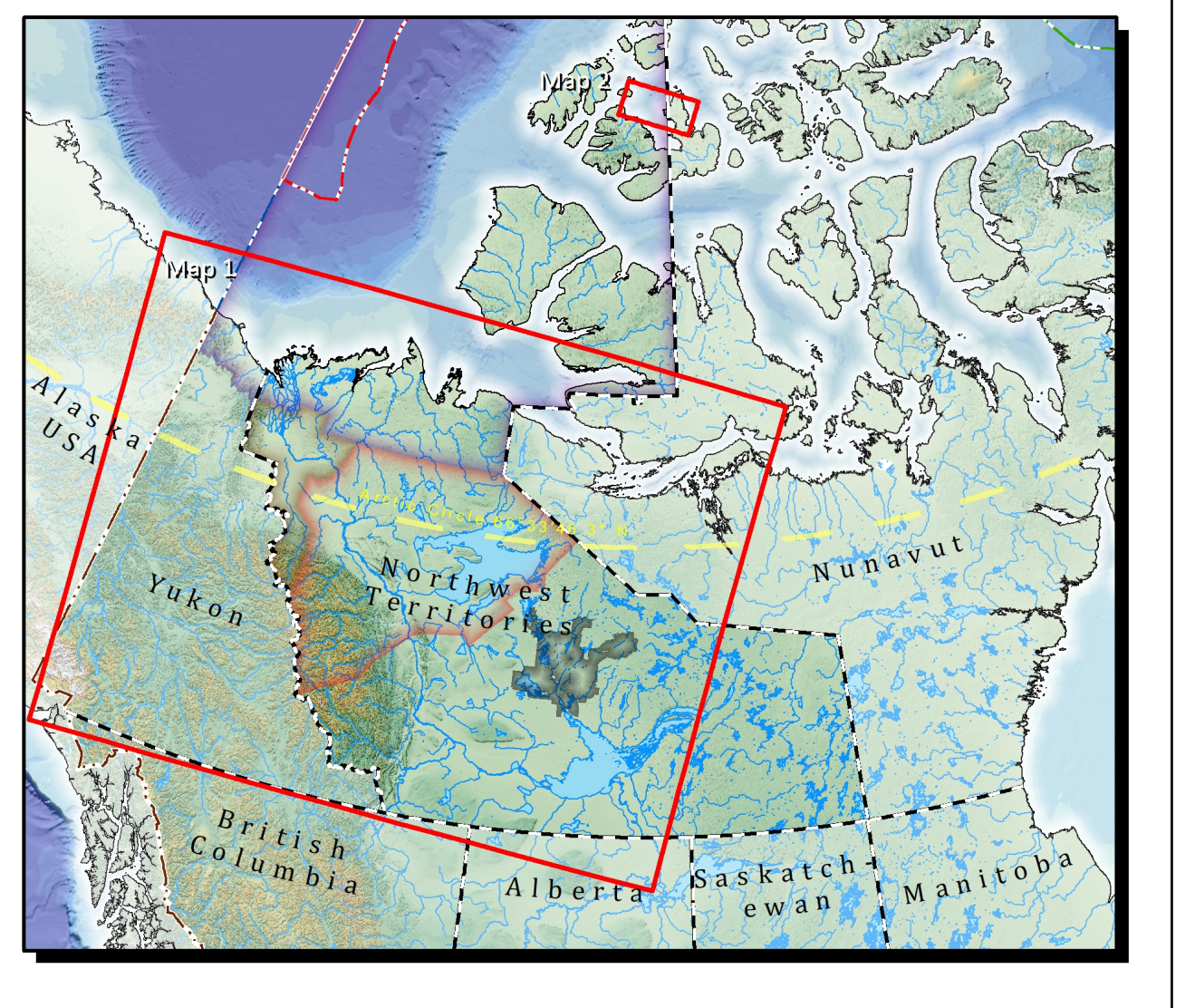
The basic methodology used in this study is similar to Gal and Jones (2003).
It is entirely qualitative and, because it is knowledge-based, is somewhat subjective in nature. Established and conceptual hydrocarbon plays were identified primarily from existing literature. A hydrocarbon play is defined as a family of hydrocarbon pools and/or prospects that share common geological characteristics and history of hydrocarbon generation, migration, reservoir development, and trap configuration (Reinson et al., 1993). Established plays are demonstrated to exist by virtue of discovered pools with established reserves. Conceptual plays do not yet have any associated discoveries, but geological analyses indicate the possibility of their existence (Reinson et al., 1993).
In this study, the identified plays are represented by and mapped according to the subsurface extent of possible reservoir rock. The reservoir rock is thus a proxy for the entire petroleum system. It is recognized that this is an oversimplification. However, mapping possible reservoir strata allows for a quick regional reconnaissance, using a relatively reliable dataset in a region that is largely under-explored, and in which few petroleum systems are fully understood or defined. The play areas are bounded by (near) horizontal planes (generally coincident with stratigraphic boundaries) and vertical boundaries are defined at faults, facies changes, erosional, or depositional subcrop limits. In map space, the plays are two-dimensional polygons. Individual play polygons are likely to overlap, as several possible reservoir formations may be layered within the sedimentary rock succession at a particular location. The overlaps and intersections of play polygons are then used to define smaller polygons. Each of these will include a number of (overlapped) plays. The number of plays and the play type (established or conceptual) included in a given polygon area is at the core of this assessment methodology. Simply put, if all other factors are equal, an area with three conceptual plays has more potential than an area with only one conceptual play. Established plays are given a higher weighting than conceptual plays.
The assessment criteria partly follow those of the Mineral and Energy Resource Assessment (MERA) process used by the Geological Survey of Canada (Scoates et al., 1986; Jones et al., 1992). These criteria are based on the overall geological favourability for the presence of oil and / or natural gas; the occurrence of established and conceptual hydrocarbon plays, indications of hydrocarbons (shows), and known accumulations. The presence or probability of mapped structural closures or other trapping features is accounted for, but only in a general sense in this broad based study. Equal weighting is given to both oil and gas. For a reconnaissance-scale study such as this, it is the number and type of plays present that dominantly contribute to the assignment of hydrocarbon potential. The criteria for rankings of very low to very high potential (Table 1) follow Gal and Jones (2003) and Gal and Lariviere (2004).

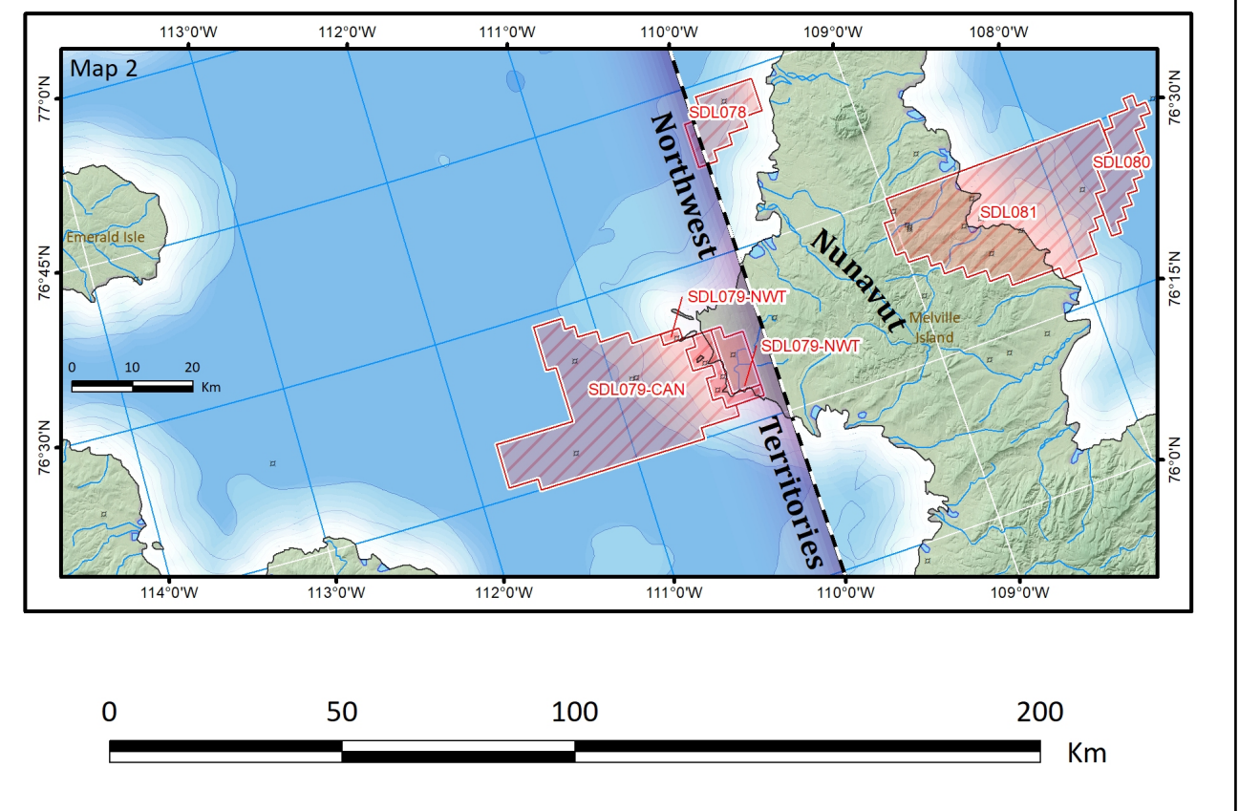
Table 1. Potential Ranking Criteria

Very High	Geological environment is favourable for oil and/or gas. Multiple plays, at least one is established. Closures identified and mapped. Significant accumulations are known.
High	Geological environment is favourable for oil and / or gas. Multiple plays. Closures identified and mapped. Known hydrocarbon occurrences.
Moderate to High	Geological environment is favourable for oil and/or gas. At least three plays. Closures identified and mapped for at least one play.
Moderate	Geological environment is favourable for oil and/or gas. One or two plays. High probability of blind structural / stratigraphic closures.
Low to Moderate	Geological environment is mainly favourable for oil and / or gas. At least one conceptual play. High probability of blind structural / stratigraphic closures.
Low	Some aspects of geological environment are favourable for oil and / or gas. Significant probability of blind structural / stratigraphic closures.
Very Low	Unfavourable geological environment.

The Map

The polygons representing hydrocarbon potential are thematically coloured to reflect comparative hydrocarbon potential from very high to very low. Oil and gas land parcels administered by both the Government of the Northwest Territories (GNWT) and Federal Government (Indigenous and Northern Affairs Canada - INAC) are thematically symbolized into categories for exploration, significant discovery and production licences. The settled land claim areas for the Inuvialuit, Sahtu and Gwich'in are indicated with gradational boundary shading. Polygons indicated by a line pattern fill boundary depict the locations where first nations surface and surface / sub-surface rights are located. The shaded relief component of the main map and inset maps 2 and 3, utilize the USGS NED product which has a spatial resolution of 1 arc-second for the land portion and the IBCAO product, which has a spatial resoluton of 30 arc-seconds in offshore areas.





The locator map uses the GMTED 2010 product which as a spatial resolution of 7.5 arc-seconds for the land shaded relief, and the ETOPO1 product which has a spatial resolution of 1 arc-minute for the offshore areas.

Hydrocarbon Potential Map Citation:

Gal, L.P., 2005. Hydrocarbon Potential Ranking Map of the Sahtu and Gwich'in Settlement Areas, Map 1 of 2; Northwest Territories Geoscience Office, NWT Open File 2005-04, 2 maps, scale 1:1,000,000.

Original NTGO Hydrocarbon Potential Map Reference Citations:

Fischbuch, N.R., 1984. Facies and reservoir analysis, Kee Scarp Formation, Norman Wells area, Northwest Territories; Geological Survey of Canada, Open File 1116.
Gal, L.P. and Jones, A.L., 2003. Evaluation of oil and gas potential in the Deh Cho territory; C.S. Lord Northern Geoscience Center, Yellowknife, NWT. NWT Open File 2003-03, 88 p.
Gal, L.P. and Lariviere, J.M., 2004. Edehzhie candidate protected area non-renewable resource assessment (Phase I), Northwest Territories; C.S. Lord Northern Geoscience Centre., Yellowknife, NWT. NWT Open File 2004-01, 125 p.
International Frontier Resources Corporation, 2004. Progress Report; Summit (Wilma) B-44 Production Testing. News release dated October 8, 2004.
Janicki, E.P., 2004. Hydrocarbon pool studies of the Colville Hills; Northwest Territories Geoscience Office. NWT Open Report 2004-006.
Jones, T.A., Jefferson, C.W., and Morrell, G.R., 1992. Assessment of mineral and energy resource potential in the Brock Inlier-Bluenose Lake area, N.W.T.; Geological Survey of Canada, Open File 2434.
Northwest Territories Protected Areas Strategy, 2003. Mackenzie Valley Five-Year Action Plan (2004-2009). Conservation planning for pipeline development. Report prepared by NWT Protected Areas Strategy Secretariat.
Paramount Resources Ltd., 2004. Paramount Resources Ltd. updates its Northwest Territories Activities. Press release dated September 8, 2004.
Reinson, G.E., Lee, P.J., Wafters, W., Osadetz, KG., Bell, L.L.,
Price, P.R., Trollope, F., Campbell, R.I., and Barclay, J.E., 1993. Devonian gas resources of the Western Canada Sedimentary Basin. Part I: Geological play analysis and resource assessment; Geological Survey of Canada, Bulletin 452, p. 10-127.
Scoates, R.F.J., Jefferson, C.W., and Findlay, D.C., 1986. Northern Canada mineral resource assessment; in Prospects for mineral resource assessment on public lands: Proceedings of the Leesburg Workshop; edited by S.M. Cargilll and S.B. Green; U.S. Geological Survey, Circular 908, p. 111-139.
Unocal Corporation, 2005. Unocal announces discovery in Northwest Territories, Canada. News Release dated March 30, 2005.

Digital Elevation Model Citations:

Danielson, J.J., and Gesch, D.B., 2011, Global multi-resolution terrain elevation data 2010 (GMTED2010): U.S. Geological Survey Open-File Report 2011–1073, 26 p. http://pubs.usgs.gov/of/2011/1073/
Amante, C. and B.W. Eakins, 2009. ETOPO1 1 Arc-Minute Global Relief Model: Procedures, Data Sources and Analysis. NOAA Technical Memorandum NESDIS NGDC-24. National Geophysical Data Center, NOAA. doi:10.7289/V5C8276M [access date]. http://www.ngdc.noaa.gov/mgg/global/global.html
Jakobsson, M., L. A. Mayer, B. Coakley, J. A. Dowdeswell, S. Forbes, B. Fridman, H. Hodnesdal, R. Noormets, R. Pedersen, M. Rebesco, H.-W. Schenke, Y. Zarayskaya A, D. Accettella, A. Jakobsson, M., L. A. Mayer, B. Coakley, J. A. Dowdeswell, S. Forbes, B. Fridman, H. Hodnesdal, R. Noormets, R. Pedersen, M. Rebesco, H.-W. Schenke, Y. Zarayskaya A, D. Accettella, A. Armstrong, R. M. Anderson, P. Bienhoff, A. Camerlenghi, I. Church, M. Edwards, J. V. Gardner, J. K. Hall, B. Hell, O. B. Hestvik, Y. Kristoffersen, C. Marcussen, R. Mohammad, D. Mosher, S. V. Nghiem, M. T. Pedrosa, P. G. Travaglini, and P. Weatherall, The International Bathymetric Chart of the Arctic Ocean (IBCAO) Version 3.0, Geophysical Research Letters, doi: 10.1029/2012GL052219 https://www.ngdc.noaa.gov/mgg/bathymetry/arctic/2012GL052219.pdf. Auxiliary Material: https://www.ngdc.noaa.gov/mgg/bathymetry/arctic/2012GL052219AuxiliaryMaterial.pdf URL: http://www.ibcao.org maintained by: NOAA/NCEI & World Data Service for Geophysics
Archuleta, C.M., Constance, E.W., Arundel, S.T., Lowe, A.J., Mantey, K.S., and Phillips, L.A., 2017, The National Map seamless digital elevation model specifications: U.S. Geological Survey Techniques and Methods, book 11, chap. B9, 39 p., https://doi.org/10.3133/tm11B9
U.S. Geological Survey, The National Map, 2016, 3DEP products and services: The National Map, 3D Elevation Program Web page, accessed September 6, 2016 at https://nationalmap.gov/3DEP/3dep_prodserv.html.

Document Title: Hydrocarbon_Potential_Map_Landscape_v46_Mar25_2021.mxd
Source: Mineral and Petroleum Resources Division Industry Tourism and Investment
Document Status: FINAL
Document Security Level: PUBLIC
Date: March 25, 2021
Projection: UTM, Zone 9
Datum: NAD 27