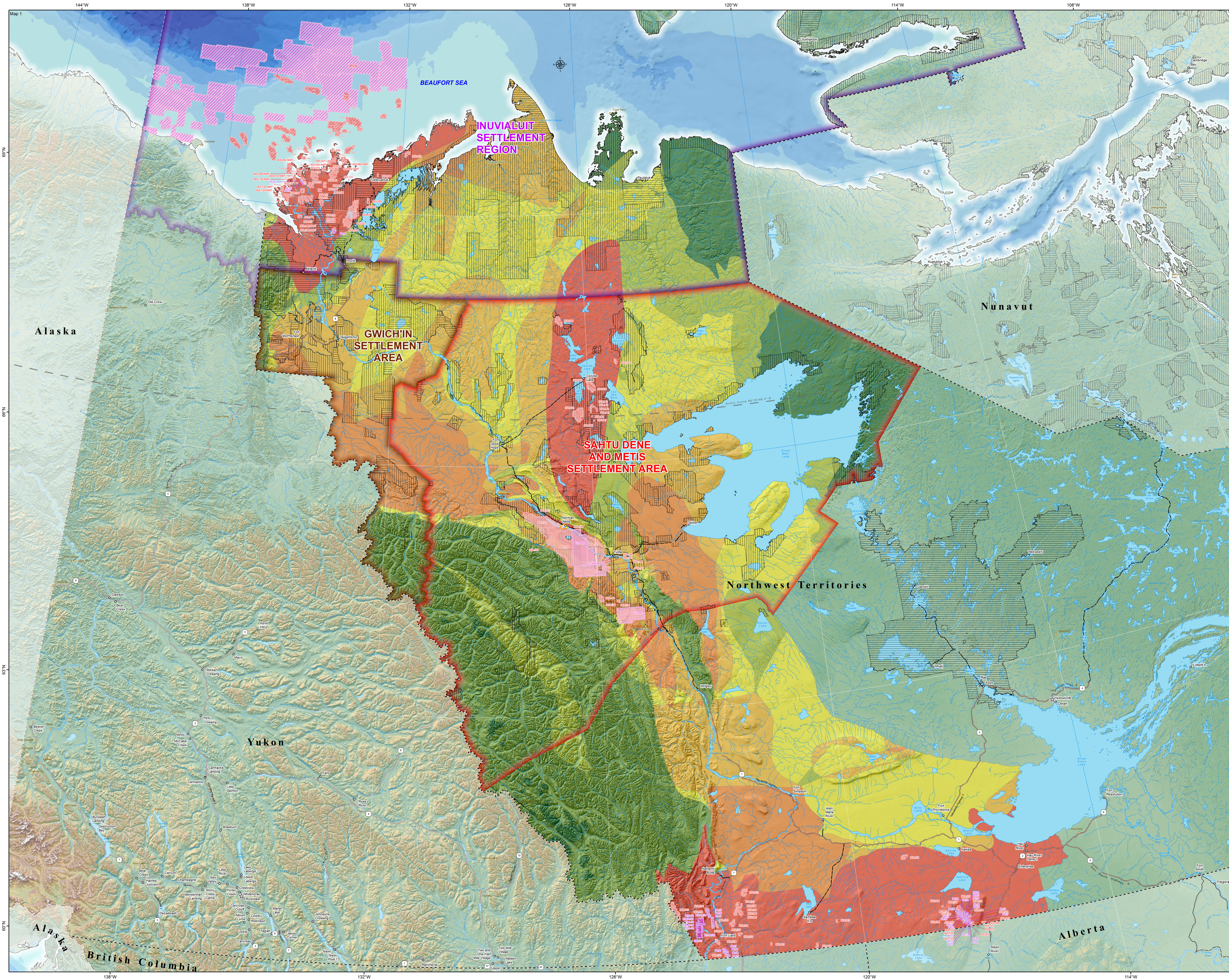




Northwest Territories Hydrocarbon Potential 2018

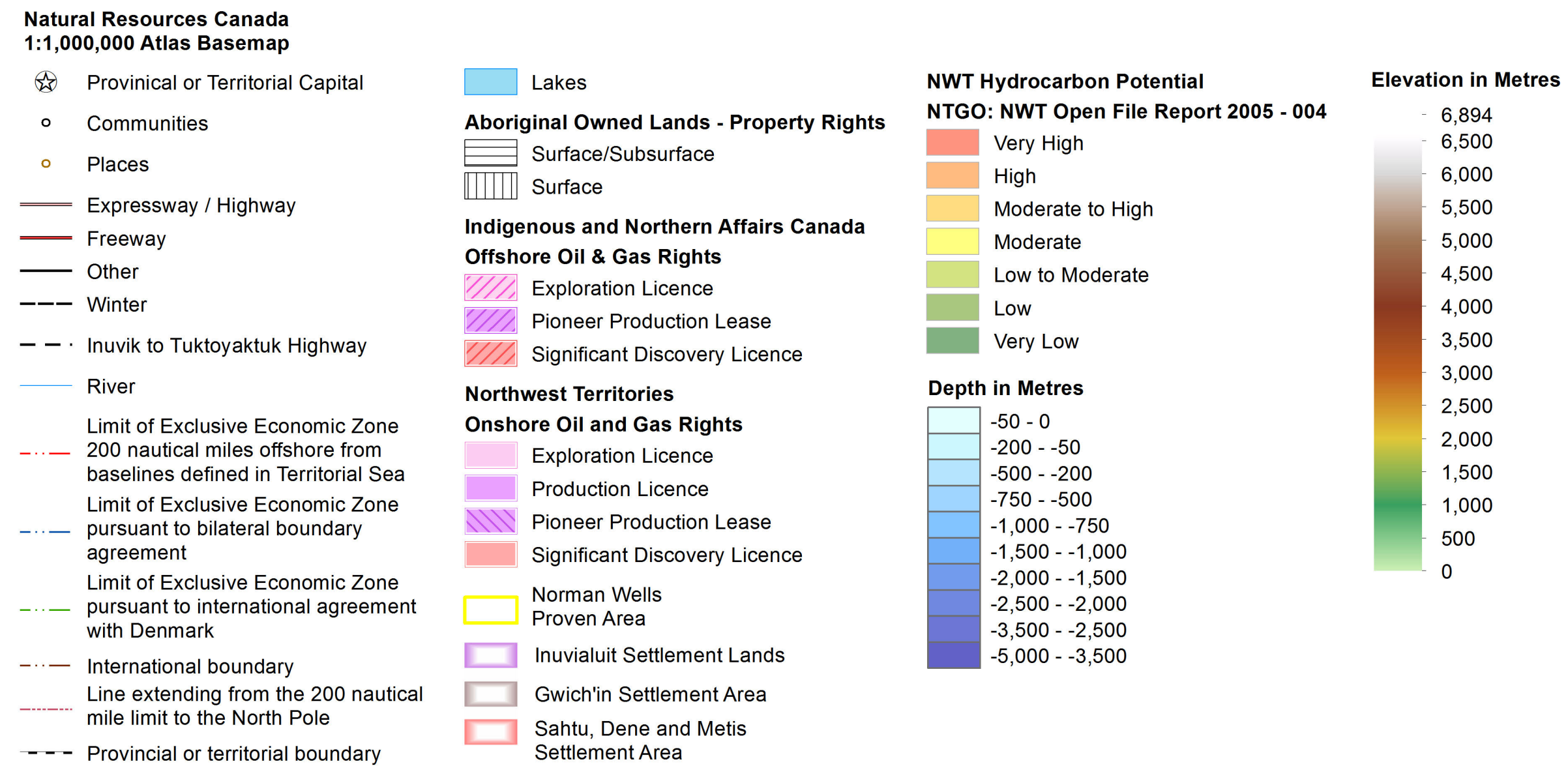
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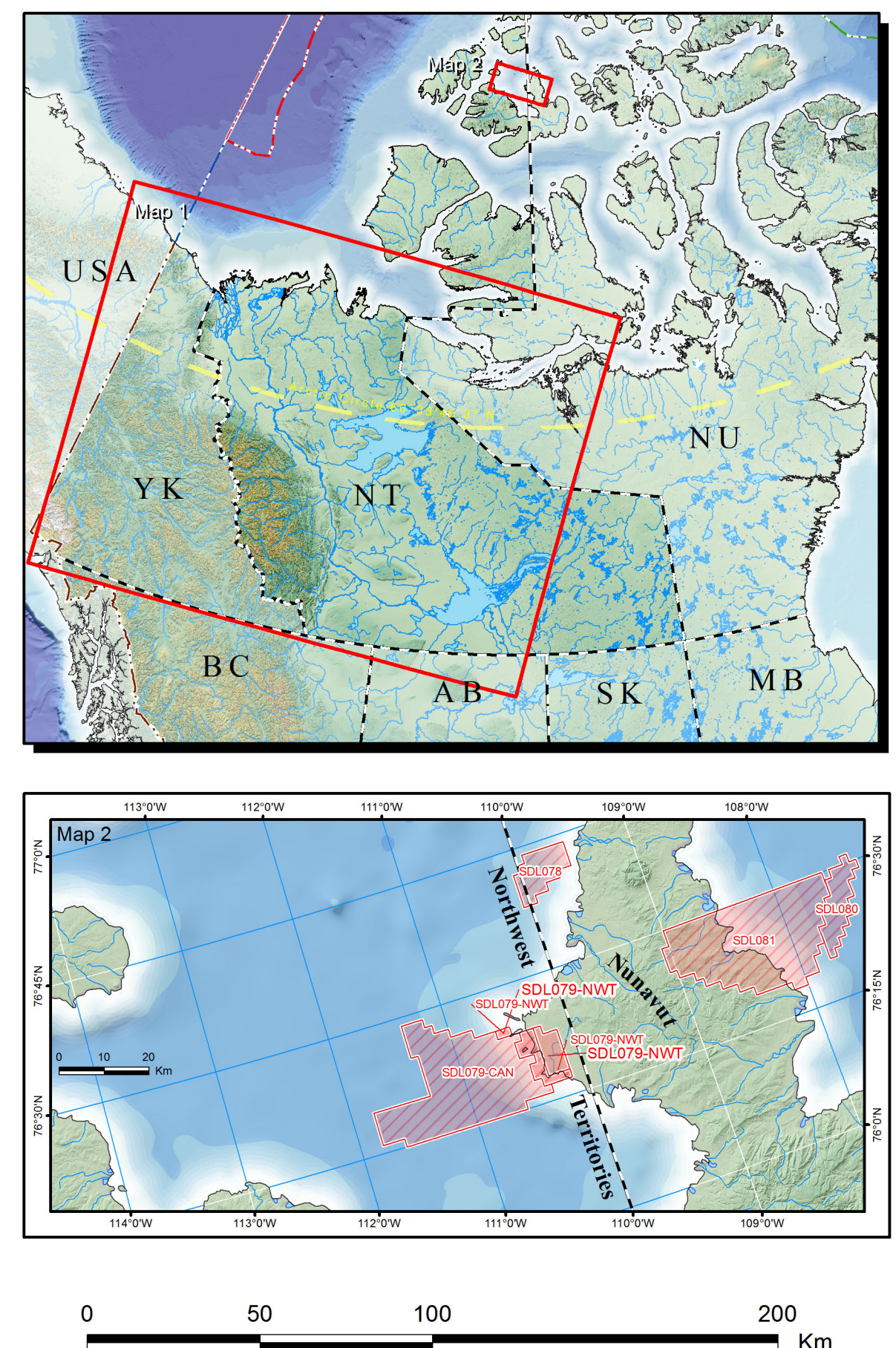
Table 1. Potential Ranking Criteria

Very High	Geological environment is favourable for oil and/or gas. Multiple plays, at least one established. Closures identified and mapped. Significant accumulations and/or known occurrences.
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 synthesized into a single extraction category: significant discovery and production likelihood. The polygons are also colour-coded for Inland, Offshore and Gwich'in are indicated with gradational boundary shading. Polygons indicated by line pattern fill boundary depict the locations where first nations surface and surface / sub-surface rights are located. The shaded relief component of the map is a 30 arc-second digital elevation model (DEM) derived from a satellite spatial resolution of 1 arc-second for the land portion and the IBCAO product, which has spatial resolution of 30 arc-seconds in offshore areas.

The locator map uses the GMTED 2010 product which has 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 Larviere, J.M., 2004. Edzhizhie candidate protected area non-renewable resource assessment (Phase I), Northwest Territories; C.S. Lord Northern Geoscience Centre, Yellowknife, NWT. NWT Open File 2003-03, 88 p.

Progress Report: Summit (Wlma) 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

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., Walters, W., Osadetz, K.G., Bell, L.L., Price, P.R., Trollope, F., Campbell, R.I., and Barclay, J.E., 1993. *Developing an overview of the Western Canada Sedimentary*

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. Gargill and S.B. Green;
 U.S. Geological Survey, Circular 908, p. 111-139.
 Unocal Corporation, 2005. Unocal announces discovery in Northwest

TABLE 1

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, 28 p. <http://pubs.usgs.gov/of/2011/>

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, doi:10.7306/1.509379

Jakobsson, M., L. A. Mayer, B. Coakley, J. A. Dowdeswell, S. Forbes, B. Fridman, H. Hodnesdal, R. Noormets, R. Pedersen, M. Rebesc, 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. Rebesc, H.-W. Schenke, Y. Zarayskaya A. D. Accettella, A. Armstrong, R. M. Anderson, P. A. Camerlenghi, I. Church, M. Edwards, J. V. Gardner, J. K. Hall,

S. V. Ignat'ev, M. I. Pedrosa, P. G. Travaglini, and P. Wesmaler, 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/AuxiliaryMaterial.pdf>
URL: <http://www.ibcao.org>

Archuleta, C.M., Constance, E.W., Arundel, S.T., Lowe, A.J., Mantey, and Phillips, L.A., 2017, The National Map seamless digital elevation model specifications: U.S. Geological Survey Techniques and Methods 11, chap. B9, 39 p., <https://doi.org/10.3133/tm11B9>

U.S. Geological Survey, The National Map, 2016, 3DEP products and The National Map, 3D Elevation Program Web page, accessed September 6, 2018 at http://nationalmap.gov/3DEP/3dep_products.html

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