

**FORM 51-101F1**

**STATEMENT OF RESERVES DATA  
AND OTHER OIL AND GAS INFORMATION**

This Statement of reserves data and other oil and gas information has been prepared in accordance with the requirements of NI 51-101.

Tethys Petroleum Limited (the “Company”) engaged McDaniel & Associates Consultants Ltd. (“McDaniel”) to independently evaluate the Company’s oil and natural gas reserves in Kazakhstan.

McDaniel prepared an independent evaluation report (“McDaniel Reserves Report”) of the Company’s oil and natural gas reserves in respect of Kazakhstan. Relevant dates of the McDaniel Reserves Report are as follows:

Date of statement	April 25, 2023
Effective date of the information	December 31, 2022
Preparation date of the information	March 29, 2023

**Disclosure of Reserves Data**

***Kazakhstan***

The reserves data summarise the crude oil and natural gas reserves of the Company and the net present values of future net revenue for these reserves using forecast prices and costs. The reserves data set forth complies with the requirements of NI 51-101. The Company has included additional information not required by NI 51-101 which the Company believes to be pertinent to investors and to provide continuity with earlier disclosure. McDaniel was engaged by the Company to provide evaluations of proved, probable and possible crude oil and natural gas reserves.

In preparing the McDaniel Reserves Report, basic information was obtained from the Company, which included land data, well information, geological information, production data, estimates of on-stream dates, contract information, current hydrocarbon product prices, operating cost data, capital budget forecasts, financial data and future operating plans. Other engineering, geological or economic data required to conduct the evaluations and upon which the McDaniel Reserves Report are based was obtained from public records, other operators and from McDaniel non-confidential files. The extent and character of ownership and the accuracy of all factual data supplied for the independent evaluation, from all sources, was accepted by McDaniel as represented.

Estimated future net revenue based on the McDaniel Reserves Report is presented in USD (note: oil and gas sales and qualifying expenditure are subject to VAT at 12% in Kazakhstan; however, these are outside the scope of the NI 51-101 evaluation). All evaluations and reviews of future net cash flow are stated prior to any provision for interest costs or general and administrative costs (other than Kazakhstan-related general and administrative costs) and after the deduction of estimated future capital expenditures for wells to which reserves have been assigned. It should not be assumed that the estimated future net cash flow shown below is representative of the fair market value of the Company’s properties. There is no assurance that such price and cost assumptions will be attained and variances could be material. The recovery and reserve estimates of crude oil and natural gas reserves provided herein are estimates only and there is no guarantee that the estimated reserves will be recovered. Actual crude oil and natural gas reserves may be greater than or less than the estimates provided herein.

Throughout the following summary tables differences may arise due to rounding.

**Summary of Oil and Natural Gas Reserves<sup>(1)</sup>**  
**As of December 31, 2022**  
**Forecast Prices and Costs**

Reserves Category	Light and Medium Crude Oil		Natural Gas		Total	
	Gross (Mbbbl)	Net (Mbbbl)	Gross (MMcf)	Net (MMcf)	Gross (MBoe)	Net (MBoe)
<b>KAZAKHSTAN</b>						
Proved						
Developed Producing	1,210	1,210	11,128	11,072	3,065	3,055
Developed Non-Producing	-	-	5,976	5,946	996	991
Undeveloped	41,768	41,768	-	-	41,768	41,768
<b>Total Proved</b>	<b>42,978</b>	<b>42,978</b>	<b>17,104</b>	<b>17,018</b>	<b>45,828</b>	<b>45,814</b>
Probable	34,252	34,252	12,825	12,761	36,390	36,379
<b>Total Proved Plus Probable</b>	<b>77,230</b>	<b>77,230</b>	<b>29,929</b>	<b>29,780</b>	<b>82,218</b>	<b>82,193</b>
Possible	41,311	41,311	6,215	6,183	42,346	42,341
<b>Total Proved Plus Probable Plus Possible</b>	<b>118,541</b>	<b>118,541</b>	<b>36,144</b>	<b>35,963</b>	<b>124,565</b>	<b>124,534</b>

**Notes:**

- (1) Possible reserves are those additional reserves that are less certain to be recovered than probable reserves. There is a 10% probability that the quantities actually recovered will equal or exceed the sum of proved plus probable plus possible reserves.

**Summary of  
Net Present Values of Future Net Revenue  
As of December 31, 2022  
Forecast Prices and Costs**

Reserves Category	Before Income Taxes Discounted at (%/year)					After Income Taxes Discounted at (%/year)					Unit Value Before Income Taxes Discounted at 10%/year (\$/boe)
	0	5	10	15	20	0	5	10	15	20	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	
<b>KAZAKHSTAN</b>											
<b>Proved</b>											
Developed Producing	52,568	49,771	47,409	45,383	43,621	34,303	32,283	30,594	29,159	27,922	15.52
Developed Non-Producing	17,217	15,070	13,335	11,913	10,733	12,609	11,010	9,719	8,662	7,785	13.46
Undeveloped	970,409	750,292	592,839	477,262	390,482	556,883	417,972	320,961	251,355	200,211	14.19
<b>Total Proved</b>	<b>1,040,193</b>	<b>815,133</b>	<b>653,583</b>	<b>534,558</b>	<b>444,836</b>	<b>603,795</b>	<b>461,265</b>	<b>361,274</b>	<b>289,176</b>	<b>235,918</b>	<b>14.27</b>
Probable	987,013	657,188	453,233	322,192	235,136	570,507	369,988	249,200	173,420	124,148	12.46
<b>Total Proved Plus Probable</b>	<b>2,027,206</b>	<b>1,472,320</b>	<b>1,106,815</b>	<b>856,750</b>	<b>679,972</b>	<b>1,174,301</b>	<b>831,253</b>	<b>610,474</b>	<b>462,596</b>	<b>360,066</b>	<b>13.47</b>
Possible	1,478,954	938,222	625,157	434,072	312,015	714,695	436,264	281,472	190,308	133,854	14.76
<b>Total Proved Plus Probable Plus Possible</b>	<b>3,506,160</b>	<b>2,410,542</b>	<b>1,731,973</b>	<b>1,290,822</b>	<b>991,987</b>	<b>1,888,997</b>	<b>1,267,516</b>	<b>891,946</b>	<b>652,904</b>	<b>493,920</b>	<b>13.91</b>

**Total Future Net Revenue  
(Undiscounted)  
As of December 31, 2022  
Forecast Prices and Costs<sup>(1)(2)</sup>**

Reserves Category	Revenue	Royalties	Export Rent Tax	Operating Costs	Development Costs	Abandonment and Reclamation Costs	Other Expenses	Future Net Revenue Before Income Taxes	Income Taxes	Future Net Revenue after Income Taxes
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>KAZAKHSTAN</b>										
Total Proved	1,993,263	(141,625)	(253,060)	(343,076)	(172,757)	(10,753)	(31,798)	1,040,194	(436,399)	603,795
Total Proved Plus Probable	3,834,925	(314,917)	(559,469)	(628,383)	(255,157)	(15,003)	(34,790)	2,027,206	(852,905)	1,174,301
Total Proved Plus Probable Plus Possible	6,089,921	(531,905)	(708,634)	(964,409)	(322,157)	(18,153)	(38,502)	3,506,161	(1,617,164)	1,888,997
<b>TOTAL</b>										
Total Proved	1,993,263	(141,625)	(253,060)	(343,076)	(172,757)	(10,753)	(31,798)	1,040,194	(436,399)	603,795
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Total Proved Plus Probable Plus Possible	6,089,921	(531,905)	(708,634)	(964,409)	(322,157)	(18,153)	(38,502)	3,506,161	(1,617,164)	1,888,997

**Notes:**

- (1) "Other expenses" refers to the repayment of historical costs.  
(2) "Royalties" include the Mineral Extraction Tax.

**Future Net Revenue  
By Production Group  
As of December 31, 2022  
Forecast Prices and Costs <sup>(1)</sup>**

Reserves Category	Future Net Revenue Before Income Taxes (discounted at 10%/year) \$'000	Unit Value \$/boe
<b>Light and Medium Crude Oil:</b>		
Total Proved	624,350	14.53
Total Proved + Probable	1,063,231	13.77
Total Proved + Probable + Possible	1,680,386	14.18
<b>Associated Gas and Non-Associated Gas:</b>		
Total Proved	29,233	10.31
Total Proved + Probable	43,584	8.78
Total Proved + Probable + Possible	51,587	8.61

**Notes:**

(1) See table below "Summary of Pricing and Inflation Rate Assumptions" for pricing assumptions.

**Summary of Pricing and Inflation Rate Assumptions  
As of December 31, 2022  
Forecast Prices and Costs**

	KAZAKHSTAN				Inflation rate %/year
	Brent Crude Oil Price (\$/bbl)	Oil Export Crude Oil Price (\$/bbl)	Domestic Crude Oil Price (\$/bbl)	Natural Gas Domestic Gas Price (\$/Mcf)	
<b>Forecast</b>					
2023	84.00	60.95	35.28	3.60	2.00%
2024	80.58	57.53	33.84	3.67	2.00%
2025	79.59	57.17	33.43	3.75	2.00%
2026	78.53	56.11	32.98	3.82	2.00%
2027	80.10	57.05	33.64	3.90	2.00%
2028	81.70	58.66	34.31	3.97	2.00%
2029	83.34	60.29	35.00	4.05	2.00%
2030	85.00	61.33	35.70	4.14	2.00%
2031	86.70	63.03	36.42	4.22	2.00%
2032	88.44	64.76	37.14	4.30	2.00%
2033	90.21	65.90	37.89	4.39	2.00%
2034	92.01	67.71	38.64	4.48	2.00%
2035	93.85	69.55	39.42	4.57	2.00%
2036	95.73	70.80	40.21	4.66	2.00%
2037	97.64	72.71	41.01	4.75	2.00%
2038	99.59	74.66	41.83	4.85	2.00%
2039	101.59	76.03	42.67	4.94	2.00%
2040	103.62	78.06	43.52	5.04	2.00%
2041	105.69	78.25	44.39	5.14	2.00%
2042	107.80	80.36	45.28	5.24	2.00%

## Reserves Reconciliation

### Kazakhstan

The following table sets forth a reconciliation of Tethys' total gross proved, probable and proved plus probable reserves as at December 31, 2022, against such reserves as at December 31, 2021, based on forecast prices and cost assumptions.

Factors	Light and Medium Crude Oil			Associated and Non-Associated Natural Gas		
	Gross Proved (Mbbbl)	Gross Probable (Mbbbl)	Gross Proved Plus Probable (Mbbbl)	Gross Proved (MMcf)	Gross Probable (MMcf)	Gross Proved Plus Probable (MMcf)
<b>January 1, 2022</b>	<b>38,798</b>	<b>35,797</b>	<b>74,595</b>	<b>18,541</b>	<b>9,951</b>	<b>28,493</b>
Technical Revisions	5,839	(1,544)	4,295	1,534	(340)	1,194
Extensions	-	-	-	-	3,214	3,214
Production	(1,659)	-	(1,659)	(2,971)	-	(2,971)
<b>December 31, 2022</b>	<b>42,978</b>	<b>34,252</b>	<b>77,230</b>	<b>17,104</b>	<b>12,825</b>	<b>29,929</b>

## Additional Information Relating to Reserves Data

### Undeveloped Reserves

The following tables disclose the volumes of Proved and Probable Undeveloped Reserves as at the dates noted therein. The references to "First Attributed" refer to "Proved or Probable Undeveloped Reserves" as at the earliest date in the relevant year when such Undeveloped Reserves were first attributed to the Company. Undeveloped Reserves are those Reserves that are expected to be recovered from known accumulations where a significant expenditure is required to render them capable of production.

KAZAKHSTAN					
Proved Undeveloped	Associated and Non-Associated Gas(1)		Light and Medium Crude Oil		
	First Attributed (MMcf)	Total at Year End (MMcf)	First Attributed (Mbbbl)	Total at Year End (Mbbbl)	
Prior	-	6,194	-	-	4,156
2018	-	5,262	-	-	3,960
2019	-	647	-	-	2,048
2020	-	-	33,076	-	33,076
2021	-	-	3,880	-	35,677
2022	-	-	-	-	41,768
<b>Probable Undeveloped</b>	<b>First Attributed (MMcf)</b>	<b>Total at Year End (MMcf)</b>	<b>First Attributed (Mbbbl)</b>	<b>Total at Year End (Mbbbl)</b>	
Prior	-	12,820	419	-	5,062
2018	-	2,639	418	-	5,480
2019	17,028	19,667	2,697	-	8,177
2020	-	4,995	40,451	-	40,451
2021	-	2,434	-	-	35,797
2022	3,214	3,290	-	-	32,740

#### Note:

- (1) Based on the forecast prices and costs evaluations carried out by McDaniel and reflected in the McDaniel Reserves Report.

With respect to the Company's Undeveloped Reserves in Kazakhstan, the Company is currently developing its plans with regard to developing its Proved Undeveloped and Probable Undeveloped Reserves. For the shallow gas and the oil reserves, the Company plans further development from 2023 onwards.

**Significant Factors or Uncertainties**

*Kazakhstan*

There are numerous uncertainties inherent in estimating quantities of proved reserves, including many factors beyond the control of the Company. The reserve data included herein represent estimates only. In general, estimates of economically recoverable oil and gas reserves and the future net cash flows therefrom are based upon a number of variable factors and assumptions, such as test rate production from the properties, the assumed effects of regulation by governmental agencies and future operating costs, all of which may vary considerably from actual results. The actual production, revenues, taxes and development and operating expenditures of the Company with respect to these reserves will vary from such estimates, and such variances could be material.

Estimates with respect to reserves that may be developed and produced in the future are often based upon volumetric calculations and upon analogy to similar types of reserves rather than actual production history. Estimates based on these methods are generally less reliable than those based on actual production history. Subsequent evaluation of the same reserves based upon production history will result in variations, which may be substantial, in the estimated reserves.

Consistent with the securities disclosure legislation and policies of Canada, the Company has used forecast prices and costs in calculating reserve quantities included herein. Actual future net cash flows will also be affected by other factors such as actual production levels, supply and demand for oil and gas, curtailments or increases in consumption by oil and gas purchasers, changes in governmental regulation or taxation, currency exchange rates and the impact of inflation on costs.

**Future Development Costs**

The following table sets forth the estimated future development capital expenditure costs based upon the McDaniel Reserves Report. Future development costs are expected to be funded by internally generated cash flow from production and/or through equity financing or debt issuance. Future development costs are associated with reserves as disclosed in the McDaniel Reserves Report and do not necessarily represent the Company's full exploration and development budget.

Year	Total Proved Estimated Using Forecast Prices and Costs	Total Proved Plus Probable Estimated Using Forecast Prices and Costs	Total Proved Plus Probable Plus Possible Estimated Using Forecast Prices and Costs
	\$'000	\$'000	\$'000
<b>KAZAKHSTAN</b>			
2023	12,913	12,913	12,913
2024	56,594	58,994	58,994
2025	34,500	49,500	57,500
2026	29,500	42,500	47,500
2027	29,500	37,500	45,500
Thereafter	9,750	53,750	99,750
<b>Total</b>	<b>172,757</b>	<b>255,157</b>	<b>322,157</b>



## Other Oil and Gas Information

### Oil and Gas Properties

#### Kazakhstan

There are certain relinquishment requirements under the Akkulka, Kyzylai and Kul-Bas exploration and production contracts.

### Oil and Gas Wells

The number of producing and non-producing wells in which the Company had an interest as of December 31, 2022 is presented in the table below. The number of net wells corresponds to the number of gross wells as the Company has a 100% working interest in each well, subject to revenue sharing and royalties under the relevant contracts.

Kazakhstan		Producing		Non-Producing <sup>(1)</sup>	
		Gross	Net	Gross	Net
Natural Gas	Kyzylai Gas Field	9	9	5	5
Natural Gas	Akkulka Gas Field	8	8	9	9
Light and Medium Crude Oil	Kul-Bas (Klymene) Field	4	4	4	4
<b>Total</b>		<b>21</b>	<b>21</b>	<b>18</b>	<b>18</b>

#### Notes:

(1) "Non-Producing" wells means wells which are not producing but which are considered capable of production.

### Properties with No Attributed Reserves

On August 22, 2022, the Company announced that it participated in a subsoil use rights auction for a license that lies adjacent on the east side of the Company's existing Kul-Bas license. The Company has successfully obtained the rights to this Aralsky 4 block that consists of approximately 3,350 square kilometers. The area has had very little exploration work done to date and has no current production or proven reserves. The plan is to shoot seismic when the approval is received and have the work interpreted to identify prospects to potentially drill in 2023.

On December 23, 2002 Kazakhstan conducted an auction for a number of oil and gas exploration blocks. The Company participated and secured the rights to three relatively unexplored blocks covering approximately 5,500 square kilometers or 1.4 million acres. The licenses (Dyir, Nurzhau and Zhanasu) are contiguous with each other but are to the west of Kulbas and are not contiguous to the Company's current operations.

### Forward Contracts

#### Kazakhstan

As of 31 December, 2022, there were no forward contracts.

### Abandonment and Reclamation Costs

The Company estimates well abandonment and reclamation costs area-by-area by taking into consideration the costs associated with remediation, decommissioning, abandonment and reclamation, as well as salvage values of existing equipment. These costs are adjusted to reflect working interests held and are time discounted in accordance with NI 51-101.

#### Kazakhstan

The Company is responsible at the present time for costs associated with abandoning and reclaiming wells, processing facilities and pipelines which it may use for production of hydrocarbons. Abandonment and reclamation of such facilities and the costs associated therewith is often referred

to as “decommissioning”. The Company pays 1% of its total annual investments into an abandonment fund and the costs of decommissioning are expected to be paid from these proceeds. Abandonment and reclamation costs were estimated for all legal obligations associated with the retirement of long lived tangible assets such as wells, facilities and plants based on market prices or on the best information available where no market price was available. The asset retirement obligation is recorded at fair value and accretion expense, recognised over the life of the property, increases the liability to its expected settlement value. If the fair value of the estimated asset retirement obligation changes, an adjustment is recorded for both the asset retirement obligation and the asset retirement cost. The Company’s asset retirement obligations consist of costs related to the plugging of wells, the removal of facilities and equipment and site restoration on oil and gas properties. The Company has estimated these costs to be an average of \$38,000 per well. An accretion cost is added each year in respect of asset retirement obligations. Accretion expense is calculated by multiplying the balance of the recorded liability by the Company’s credit-adjusted discount rate each year, and is simply the amortization of the present value discount associated with the asset retirement obligation’s initial recording.

The Company has recorded a provision for abandonment and reclamation costs, net of estimated salvage value, for surface leases, wells, facilities and pipelines, discounted at 11.23%, of \$2.4 million. This assumes that all wells will be remediated at the end of the current contract periods, i.e. by the end of 2029.

### ***Tax Horizon***

#### ***Kazakhstan***

The tax system applied to the Company’s operations in subsoil activity in Kazakhstan is mainly based on a combination of corporate income tax, excess profit tax, Mineral Extraction Tax (“MET”) and property tax.

Capital equipment and wells are depreciated at various rates, and corporate income tax is applied at the rate of 20% on the taxable income.

Excess profit tax is applicable to income after corporate income tax, calculated using tax rates on a sliding scale ranging from 0% to 60% on income exceeding a tax allowable base.

MET ranges from 0.5% to 1.5% of the value of produced volumes of natural gas being sold to domestic market and at a rate of 10% of the value of produced gas volumes being sold for export. Currently, both KyzylOI and Akkulka gas is sold on the domestic market and so is subject to the domestic sales rate of 0.5%.

MET for crude oil is differentiated not only by production volumes but also by whether sales are on the domestic or export markets. For domestic sales MET is calculated on operating costs, including depreciation, plus 20% at rates ranging from 2.5% for annual volumes of less than 250,000 tons up to 9% for annual volumes above 10,000 tone. For export sales MET is calculated on sales at double the rates for domestic sales.

Property tax is levied on certain immovable assets at a rate of 1.5%.

### ***Costs Incurred***

Capital expenditures related to the Company’s oil & gas properties for the year ended December 31, 2022 totalled \$11,720,000 (2021: \$15,491,000).

### **Exploration and Development Activities**

The Company is working towards obtaining a commercial production licence in 2024. Total capital expenditure in 2023 is forecast at \$32.6 million and \$33.8 million in 2024 which mainly comprises the cost of equipment for gas utilization, cost of drilling new wells, as well as the cost of construction of a new railway terminal at Sagyr railway station that the Company plans to use to support transportation of oil production that is expected to rise above 2,000 metric tons a day upon commercial production

### **Production Estimates**

The following discloses the estimated production of the Company in 2023 by product type associated with the future net revenue estimates reported in the McDaniel Reserves Report.

	<b>Natural Gas (MMcf)</b>	<b>Crude Oil (Mbbbl)</b>
<b>KAZAKHSTAN</b>		
Gross Proved	3,357	1,347
Gross Proved plus Probable	3,382	1,347

The following table sets forth the volume of production estimated in the McDaniel Reserves Report for the Kyzylai and Akkulka gas fields and the Kul-bas (Klymene) oil field in Kazakhstan being fields that account for 100% of the estimated production disclosed under the above table, for the year ending December 31, 2023:

<b>Reserves Category</b>	<b>Natural Gas (MMcf)</b>	<b>Light and Medium Crude Oil (Mbbbl)</b>
<b>KAZAKHSTAN</b>		
<b>Kyzylai</b>		
- Gross Proved	2,146	-
- Gross Proved plus Probable	2,158	-
<b>Akkulka</b>		
- Gross Proved	1,211	-
- Gross Proved plus Probable	1,224	-
<b>Kul-bas (Klymene) Oil</b>		
- Gross Proved	-	1,347
- Gross Proved plus Probable	-	1,347

### Production History

The following tables show the Company's average daily production volume (based on 365 day year), before deduction of royalties, by major producing region for each of the last four fiscal quarters and the year ended December 31, 2022.

	Natural Gas (Mcmpd)	Light and Medium Crude Oil (bopd)
<b>KAZAKHSTAN</b>		
Daily Production Volume (Gross Mcmpd for natural gas and gross bopd for oil)		
Year Ended December 31, 2022	229	4,154
Quarter ended March 31, 2022	294	4,658
Quarter ended June 30, 2022	257	3,852
Quarter ended September 30, 2022	187	3,757
Quarter ended December 31, 2022	181	4,358

	Natural Gas \$/Mcm	Light and Medium \$/bbl
<b>KAZAKHSTAN</b>		
Prices Received <sup>(1)</sup>	62.30	39.94
Royalties Paid	-	-
Production Costs <sup>(1)</sup>	63.98	9.44
Resulting Netback <sup>(1)</sup>	(1.68)	30.50

#### Notes:

- (1) With respect to oil and gas, net of VAT. In accordance with local practice production costs include Mineral Extraction Tax (MET).

### Production Volume by Field

The following table indicates the Company's total sales production for the year ended December 31, 2022 from each important field (before taxes, royalties and State take unless otherwise noted):

	Natural Gas (Mcm)	Light and Medium Crude Oil (bbl)	Barrels of Oil Equivalent (boe)	Boepd
<b>KAZAKHSTAN</b>				
Kyzyloi Gas Field	62,316	-	366,751	1,005
Akkulka Gas Field	21,398	-	125,933	345
Kul-bas (Klymene) Oil Field <sup>(1)</sup>	-	1,516,301	1,516,301	4,154
<b>Total</b>	<b>83,713</b>	<b>1,516,301</b>	<b>2,008,985</b>	<b>5,504</b>

#### Notes:

- (1) Boepd is calculated on total days in year including non-production days, and also discounts the smaller volumes of gas used for power generation and a small volume of flared gas from the Kul-bad (Klymene) oil field