MAR 19680088: ALBERTA

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REPORT ON EXPLORATION OF

SULPHUR PROSPECTING PERMIT NO. 95

Introduction:

During the summer of 1968 Texaco Exploration Company, during the course of seismic operations, evaluated the sulphur potential of Sulphur Prospecting Permit Number 95 which was optioned from Alaska - Canadian Corporation. Seismic shot holes, ranging in depth from 40 to 60 feet, were drilled at 330 foot intervals along two east-west and two north-south lines. Ten foot samples were collected from 231 shot holes for a total of approximately 1,150 samples.

Sample Treatment:

Industry experience in sulphur exploration during the winter of 1967-1968 indicated that many thousands of samples were needlessly analysed quantitatively for sulphur since a simple, reliable qualitative test would screen out the many samples that contained little or no sulphur. It was decided to use a flame test for this purpose - pass a flame from a gas torch over a dry and crushed cut of the sample. Sulphur is readily detected by its blue flame and diagnostic odor of sulphur dioxide. Sulphur bearing samples were subsequently analysed quantitatively. In addition semi quantitative determinations were made of soluble sulphate content in each sample as a possible indirect clue to the presence of sulphur. This test consists of washing a sample cut in distilled water, filtering and adding a barium chloride solution to the filtrate. The degree of opaqueness caused by precipitation of white barium sulphate was estimated visually. The test is essentially identical to that used by the Alberta Research Council in its soil testing programs.

Results:

The soluble sulphate content of the shot hole samples collected from Sulphur Permit No. 95 forms too high a background to enable utilization of this method as an indicator of the nearby presence of sulphur. The flame testing indicates a lack of sulphur except in the southern portion of Line #1 (shot holes 13-16, 22-25) and the western portion of Line #6 (shot holes 96 and 106). Analysis of samples from these shot holes shows a maximum sulphur content of 1.75%. All but two of the samples contain less than 0.5% sulphur.

It was concluded that the sulphur content in these two areas is insufficient to justify follow-up exploration.

[redacted]

TD/dl

W. H. Rimmer,
Chief Geologist

Calgary, Alberta,
January 14, 1968.

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Laboratory Report Number C69-4444

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TEXACO EXPLORATION COMPANY
660 - 6th. Ave.S.W.,
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Attention: Mr. T. Davies

	SAMPLE NUMBER	DEPTH	% ELEMENTAL SULPHUR BASED on DRY WEIGHT
LINE #6	193-6-96	10'	0.46
	193-6-96	20'	0.22
	193-6-96	30'	Trace
	193-6-96	40'	Trace
	193-6-96	50'	0.18
	193-6-106	10'	Trace
	193-6-106	20'	Trace
	193-6-106	30'	Trace
	193-6-106	40'	0.35
	193-6-106	50'	Trace
LINE #1	191- L-1-13	40'	0.20
	191- L-1-13	50'	Trace
	191- L-1-14	50'	0.49
	191- L-1-15	40'	Trace
	191- L-1-16	40'	1.75
	191- L-1-16	50'	0.79
	191- L-1-16	60'	Trace
	191- L-1-22	30'	0.36
	191- L-1-22	40'	0.30
	191- L-1-23	20'	0.21
	191- L-1-23	40'	0.23
	191- L-1-24	20'	0.21
	191- L-1-25	30'	Trace

The numbers 191 & 193 above refer to your Permit 95.