Elliott Company

DIVISION OF CARRIER CORPORATION Chicago, Illinois 60646

6100 NORTH PULASKI ROAD, 312-267-7800

September 5, 1973

Marathon Oil Company
Robinson, Illinois

Attention: Mr. Leroy Gockenbach

Subject: March, April 1973 Turnaround

Marathon 2K1 Compressor String
Elliott S.O. H-8804
Elliott S.O. H-8805
Elliott S.O. H-4107

Marathon 3K1 Compressor String
Elliott S.O. H-8027

Marathon 4K1 Compressor String
Elliott S.O. H-8028

Gentlemen:

Enclosed are two (2) copies of our Service Representative's report covering the subject turnaround for your records. Additional copies have also been forwarded to those Marathon personnel shown below.

We appreciate this opportunity to be of service to you and trust that you will not hesitate to contact us if you should have any questions or if we may be of any further assistance.

Respectfully,

Daniel H. Barrett
Senior Service Engineer

DHB/pn
Attach.

cc: Mr. Roger Evans (2 copies)
Marathon Oil
Robinson, Illinois

cc: Mr. Herb Norton (2 copies)
Marathon Oil
Robinson, Illinois

cc: Mr. Laird Holmes (1 copy
Marathon Oil
Robinson, Illinois

BULLINGTON 000461

Exhibit 7 Facelli

SC-ETM-3965

II 2K1 Turbine Inspection (S.O. H-4107)

Removed turbine insulation, piping and split line bolts.

Removed steam end bearing cover and governor drive.

Removed thrust bearing from retainer and found that brass slingers had been turning with shaft. One on thrust stub shaft was completely machined away.

There are indications of moisture being carried in the oil.

Removed steam end journal bearing and there seems to be a lack of oil. The journal surface on rotor appears to be etched. Coupling end bearing journal area not as bad. The appearance is that the oil is not lubricating as should be.

Rigged and lifted turbine casing. Transported top half of casing and rotor to machine shop.

First and second turbine wheels were heavily coated with carry over from boiler. Buckets of third wheel were partially plugged. Build-up on third wheel does not have same appearance as the coating on first and second wheel which had a powdered appearance. Fourth and fifth wheel buckets have approximately 1/16" build-up on them.

Removed diaphragms. Cleaned casings and diaphragms.

Existing interstage labyrinths are not in the best of condition but are being reused. Strong consideration should be directed towards their replacement when the turbine is opened next.

Set diaphragms in top half of turbine. Repaired labyrinths for turbine diaphragms.

Replacement rotor was check balanced by Marathon.

Delivered spare turbine rotor to platform for making a check with the old bearing retainers before installing the new bearing retainer

Made up brackets to sweep casing. Swept casing and centered bearings. Installed diaphragms, labyrinths and rotor.

Found that shaft was riding on the interstage labyrinths. Removed rotor. Added shims in bearing retainers as follows to raise rotor.

Added .010" to the exhaust end bearing retainer.
Added .015" to steam end bearing retainer.

Centered turbine shaft with new bearing retainers.

Catalog no. of bearings removed were 836246-1 and 836246-2.