

Improving bottom-line profits means working with an experienced team of Process, Equipment, and Reliability specialists who are priority driven, quick to focus, and support practical implementation.

We'll suit up.

Experience Based Profit Improvement

It does not take a million-dollar effort to achieve a multi-million dollar profit improvement. What it takes is an experienced team of engineers who can quickly focus in on what can be achieved and is practical to implement – the *Carmagen Engineering Team*.

<p>Approach</p> <ul style="list-style-type: none"> 🏗️ Operate as a joint Carmagen/Refinery Team 🏗️ Generate a prioritized list of opportunities <ul style="list-style-type: none"> ⇒ Expect 50 – 75% of credits @ NO/MIN investment 🏗️ Hard-to-Quantify credits normally addressed in a follow-on study <p>Typical Parameters</p> <table border="0"> <tr> <td>🏗️ Duration (elapsed), Weeks</td> <td>4 – 8</td> </tr> <tr> <td>🏗️ Cost, K \$ (excluding expenses)</td> <td>100 – 250</td> </tr> <tr> <td>🏗️ Number of Consultants</td> <td>3 – 5</td> </tr> </table>	🏗️ Duration (elapsed), Weeks	4 – 8	🏗️ Cost, K \$ (excluding expenses)	100 – 250	🏗️ Number of Consultants	3 – 5	<p>Consulting Team Makeup</p> <ul style="list-style-type: none"> 🏗️ Planning (Lead) 🏗️ Process (Fuels/Lubes) 🏗️ R&M/Turnaround 🏗️ Offsites <p>Expected Benefits (Typical)</p> <table border="0"> <tr> <td>🏗️ Profit Improvement</td> <td></td> </tr> <tr> <td>⇒ ¢/B</td> <td>25 – 50</td> </tr> <tr> <td>⇒ M\$ annually (100 KBD Refinery)</td> <td>10 – 20</td> </tr> <tr> <td>🏗️ Typical Categories, %</td> <td></td> </tr> <tr> <td>⇒ Yield Improvement/Operational Changes</td> <td>50</td> </tr> <tr> <td>⇒ Energy Management</td> <td>30</td> </tr> <tr> <td>⇒ Other</td> <td>20</td> </tr> </table>	🏗️ Profit Improvement		⇒ ¢/B	25 – 50	⇒ M\$ annually (100 KBD Refinery)	10 – 20	🏗️ Typical Categories, %		⇒ Yield Improvement/Operational Changes	50	⇒ Energy Management	30	⇒ Other	20
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Interested?

Carmagen's staff of over 180 skilled specialists in all Process, Non-Process (Equipment), and Project Management disciplines is available to support client's implementation plans.

Contact Jerry Lacatena (jlacatena@carmagen.com) to discuss your needs.

All the right people in all the right places.SM



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