



# LOOP ROUTE PLANNING & OPTIMIZATION CASE STUDY

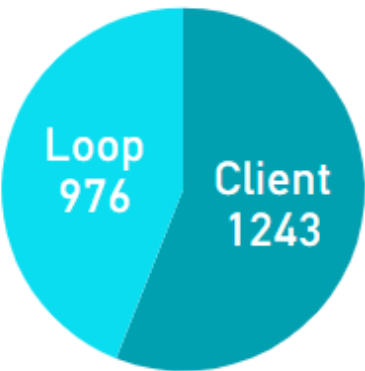
Loop recently submitted a tender for a logistics company who delivers bottled water. The client provided a list of 8 trips or routes. Each route had 4-15 stops and a total of 79 stops. The routes and number of stops for each route were generated from their current planning and delivery platform. The test case was to compare their distances traveled with our distances using our Route Planning and Optimization Algorithm taking into account some constraints such as vehicle tonnage. We also visually compared their routes planned by their platform with the routes planned by our Route Planning Algorithm.

## ROUTE OPTIMIZATION ONLY

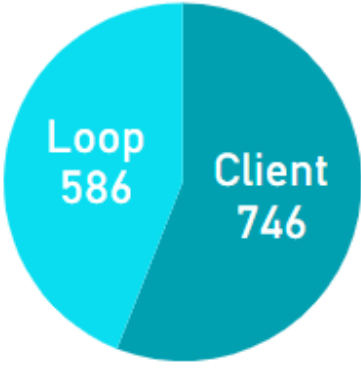
Total Reduction (km) <b>266.52</b> 21.4%	AVG. Reduction per Trip (km) <b>38.07</b>
Total Minutes Saved <b>160</b>	AVG. Minutes Saved <b>23</b>
Total Fuel Saved (L) <b>20.50</b>	AVG. Fuel Saved per Trip (L) <b>2.93</b>
Total Fuel Cost Saved <b>R479.74</b>	AVG. Fuel Cost Saved per Trip <b>R68.53</b>

Total Distance KMS

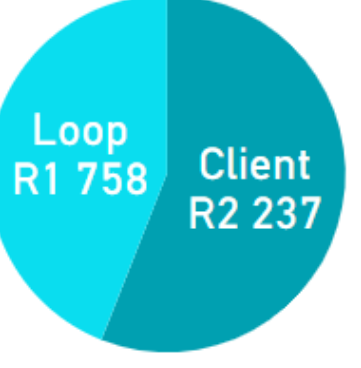
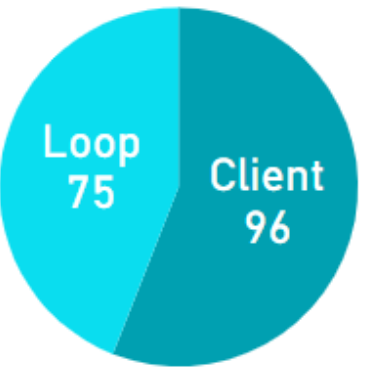
Total Minutes Driving



Total Fuel Consumption (L)



Total Fuel Cost

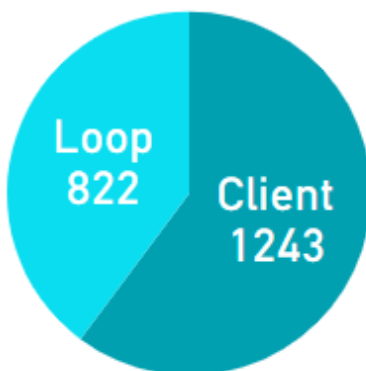


## ROUTE PLANNING & ROUTE OPTIMIZATION

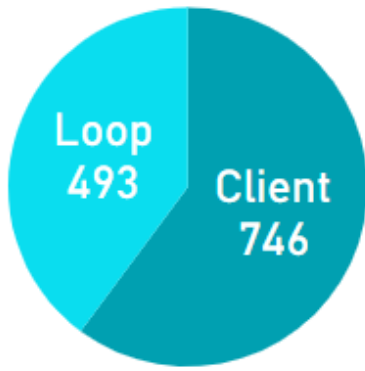
Total Reduction (km) <b>420.93</b> 33.9%	AVG. Reduction per Trip (km) <b>60.13</b>
Total Minutes Saved <b>253</b>	AVG. Minutes Saved <b>36</b>
Total Fuel Saved (L) <b>32.38</b>	AVG. Fuel Saved per Trip (L) <b>4.63</b>
Total Fuel Cost Saved <b>R757.67</b>	AVG. Fuel Cost Saved per Trip <b>R108.24</b>

Total Distance KMS

Total Minutes Driving



Total Fuel Consumption (L)



Total Fuel Cost

