

## I-19.03

Canada Quarries processes large pieces of granite into finely finished countertop material. Production occurs in two phases - sawing and polishing. The sawing phase is almost entirely automated and costs are largely driven by processing time on a computerized sawing machine. Polishing is a labor intensive process, and the amount of time on a particular job varies considerably based on the intrinsic stone quality and the desired sheen for a particular job.

The Sawing Department applies factory overhead based on sawing machine hours. The Polishing Department applies factory overhead based on direct labor hours. The following table reveals estimates for the upcoming year. These estimates were used to determine the applicable factory overhead application rates:

	<u>Sawing</u>	<u>Polishing</u>
Direct labor	\$ 125,000	\$ 800,000
Direct materials	\$ 75,000	\$ 6,000
Factory overhead	\$ 275,000	\$ 180,000
Direct labor hours	10,000	60,000
Sawing machine hours	50,000	n/a

During the year, the company received and processed a granite order for a countertop to be used in the Washington County court house. The following table reveals information extracted from the materials requisition forms and daily time sheets relating to this particular job:

	<u>Sawing</u>	<u>Polishing</u>
Direct labor	\$ 300	\$ 1,770
Direct materials	\$ 185	\$ 20
Direct labor hours	24	130
Sawing hours	126	n/a

Looking back at the end of the year, the company determined that actual data were as follows:

	<u>Sawing</u>	<u>Polishing</u>
Direct labor	\$ 121,000	\$ 802,000
Direct materials	\$ 73,400	\$ 8,000
Factory overhead	\$ 290,000	\$ 188,000
Direct labor hours	9,600	60,500
Sawing machine hours	44,500	n/a

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- (a) Determine the factory overhead application rates for each department.
- (b) Compute the cost to be assigned to the Washington County job. The job had been bid to the customer at a sales price of \$35 per square foot, and the final dimensions are 4' by 25'. Did the company make a profit on this job?
- (c) Determine if overhead was underapplied or overapplied, and reassess the profit on the Washington County job.