Case 1:
Quest Resource Holding (QRHC)

Profit Mastery®

QRHC is a publicly traded company. All figures are from its SEC filings. QRHC manages waste and recycling programs for large national customers. It uses a network of independent vendors to do the hauling: it bills the customer, pays the vendor, and keeps a fee.

It's early 2017. Here are the last three years of financials (2014–2016).

Profit & loss statement

Years ended December 31, $000s

$000s	2014	2015	2016
Revenue	**174,454**	**170,139**	**183,811**
Cost of revenue	(160,186)	(156,498)	(169,402)
Gross profit	**14,268**	**13,641**	**14,409**
SG&A	(14,384)	(16,300)	(18,170)
Depreciation and amortization	(3,827)	(4,568)	(4,044)
Operating profit	**(3,943)**	**(7,227)**	**(7,805)**
Interest, taxes and other items	(5,955)	(219)	(241)
Net profit	**(9,898)**	**(7,446)**	**(8,046)**

Balance sheet

As of December 31, $000s

$000s	2014	2015	2016
Cash	3,155	2,990	1,328
Receivables	29,632	33,299	34,828
Total current assets	**33,471**	**37,235**	**38,827**
Goodwill and intangibles	73,453	70,165	66,827
Total assets	**107,677**	**109,009**	**108,069**
Payables and accrued	26,622	34,847	35,306
Total current liabilities	**32,154**	**35,176**	**35,712**
Line of credit	5,250	4,000	4,750
Total liabilities	**32,199**	**39,517**	**40,797**
Equity	**75,478**	**69,492**	**67,272**
Total liabilities and equity	**107,677**	**109,009**	**108,069**

Notes: Cost of revenue = revenue − gross profit. "Interest, taxes and other items" = net profit − operating profit. Some smaller balance sheet lines are not shown, so subtotals won't add up exactly. QRHC is a service business, so it holds no inventory. Source: Quest Resource Holding Corp. Form 10-K (2014–2016) and Form 8-K (Q4 2014).

Part 1: Common-Sizing

Turn every line into a **% of revenue** so the years are easy to compare. 2014 and 2015 are done for you. Fill in the yellow 2016 column for both statements.

Formula: $\frac{\text{Line item}}{\text{Revenue}} \times 100$

Example (Cash, 2014): $\frac{3{,}155}{174{,}454} \times 100 = 1.8\%$

Costs and losses stay in parentheses, e.g. (8.2%). Round to one decimal.

Profit & loss statement

% of revenue	2014	2015	2016
Revenue	**100.0%**	**100.0%**	**100.0%**
Cost of revenue	(91.8%)	(92.0%)	
Gross profit	**8.2%**	**8.0%**	
SG&A	(8.2%)	(9.6%)	
Depreciation and amortization	(2.2%)	(2.7%)	
Operating profit	**(2.3%)**	**(4.2%)**	
Interest, taxes and other items	(3.4%)	(0.1%)	
Net profit	**(5.7%)**	**(4.4%)**	

Balance sheet

Balance sheet lines are also divided by that year's revenue.

% of revenue	2014	2015	2016
Cash	1.8%	1.8%	
Receivables	17.0%	19.6%	
Total current assets	**19.2%**	**21.9%**	
Goodwill and intangibles	42.1%	41.2%	
Total assets	**61.7%**	**64.1%**	
Payables and accrued	15.3%	20.5%	
Total current liabilities	**18.4%**	**20.7%**	
Line of credit	3.0%	2.4%	
Total liabilities	**18.5%**	**23.2%**	
Equity	**43.3%**	**40.8%**	
Total liabilities and equity	**61.7%**	**64.1%**	

Part 2: Review Trends

Review the trends from 2014 to 2016 on both statements. Pick 3 trends that are positive or neutral, and 3 that are negative. Put a number next to each one.

Look for: Use both the $ financials given and your common-size %s from Part 1

#	Positive or neutral trend	Evidence: which line(s) and which numbers?
1		
2		
3		

#	Negative trend	Evidence: which line(s) and which numbers?
1		
2		
3		

Part 3: Build the QRHC scorecard

1 Calculate each ratio for **2016** in the yellow box (2014 and 2015 are already done for you).
2 Skip the gray rows because the data isn't there to calculate them.
3 Mark the trend from 2014 to 2016: ↑ better, ↓ worse, or → flat.

Worked example (Gross Margin, 2016): $\frac{14{,}409}{183{,}811}$ = 7.8%. Down from 8.2%, so the trend is ↓.

Handy: COGS = Cost of revenue = Revenue − Gross profit (2016: 169,402). Show losses in parentheses, e.g. (4.2%). Days use a 360-day year.

★	Ratio	Formula (from your cheat sheet)	2014	2015	2016	Trend ↑ ↓ →
Growth & Profitability (Earnings Power)						
	Sales Growth	$\frac{\text{Current Period Sales}}{\text{Last Year Period Sales}} - 1$	n/a	(2.5%)		
	Profit Growth	$\frac{\text{Current Period Profit}}{\text{Last Year Period Profit}}$	*Can't calculate: Losses every year, so a growth % isn't meaningful*			
	Gross Margin (%)	$\frac{\text{Gross Profit}}{\text{Sales}}$	8.2%	8.0%	**7.8%**	↓
	Operating Margin (%)	$\frac{\text{Operating Profit}}{\text{Sales}}$	(2.3%)	(4.2%)		
	Contribution Margin (%)	$\frac{\text{Contribution Margin}}{\text{Sales}}$	*Can't calculate: No split between variable and fixed costs*			
	Net Margin (%) *Use net profit*	$\frac{\text{Net Profit Before Tax}}{\text{Sales}}$	(5.7%)	(4.4%)		
Liquidity & Solvency (Staying Power)						
	Current Ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	1.04x	1.06x		
	Quick Ratio	$\frac{\text{Cash + A/R}}{\text{Current Liabilities}}$	1.02x	1.03x		
	Debt to Equity	$\frac{\text{Total Liabilities}}{\text{Total Equity}}$	0.43x	0.57x		
	Leverage	$\frac{\text{Total Liabilities}}{\text{Operating Profit}}$	*Can't calculate: Operating losses, so the result isn't meaningful*			
	Interest Coverage	$\frac{\text{Operating Profit}}{\text{Interest Expense}}$	*Can't calculate: Interest expense not broken out*			
	Debt Service Coverage (DSCR)	$\frac{\text{Operating Profit}}{\text{Principal + Interest}}$	*Can't calculate: Loan payments not given*			
Efficiency						
	Return on Assets *Use net profit*	$\frac{\text{Net Profit Before Tax}}{\text{Assets}}$	(9.2%)	(6.8%)		
	Return on Equity *Use net profit*	$\frac{\text{Net Profit Before Tax}}{\text{Equity}}$	(13.1%)	(10.7%)		
	Return on Invested Capital *Debt = line of credit*	$\frac{\text{Operating Profit}}{\text{Debt + Equity}}$	(4.9%)	(9.8%)		
	Asset Turnover	$\frac{\text{Sales}}{\text{Assets}}$	1.62x	1.56x		
	Marketing Efficiency	$\frac{\text{Marketing Expense}}{\text{Sales}}$	*Can't calculate: Marketing spend not given*			
Working Capital (Asset Management)						
	Receivables Turnover *Assume all sales are on credit*	$\frac{\text{Credit Sales}}{\text{Receivables}}$	5.89x	5.11x		
	Days Sales Outstanding (DSO)	$\frac{360}{\text{Receivables Turnover}}$	61	70		
	Inventory Turnover / DOH	$\frac{\text{COGS}}{\text{Inventory}}$	*Can't calculate: Service business with no inventory (count DOH as 0)*			
	Payables Turnover	$\frac{\text{COGS}}{\text{Payables}}$	6.02x	4.49x		
	Days Payable Outstanding (DPO)	$\frac{360}{\text{Payables Turnover}}$	60	80		
	Cash Conversion Cycle	DSO + DOH − DPO	1	(10)		

Part 4: What matters most?

A. Rank your top 3 ratios.

Of the ratios on your scorecard, which ones matter most for QRHC right now? Put a ★ next to them on the scorecard, then rank them below (1 = most important).

Rank	Ratio	Why it matters most for this business
1		
2		
3		

B. Where would you dig in next?

List the next 2 to 3 areas of the business you'd investigate or actions to take, and what you'd want to find out.

Think about: customers and pricing · vendor costs · overhead · collections and cash · debt and funding · the acquisition (goodwill)

#	Action	What you'd want to find out (question to ask or data to request)
1		
2		
3		