

# FREE CASE

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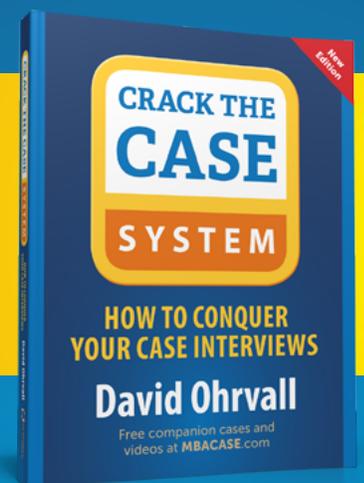
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CASE **407**

*RussoGaz*

**David Ohrvall**

FOUNDER OF **MBACASE.COM**



# RussoGaz

St. Petersburg, Russia

An investor group says RussoGaz will be the hot commodity in the energy sector. Do they have a plan to make it rise, or will it go down in flames?

**407**  
FULL  
★★★

**ST. PETERSBURG  
CITY FACTS**

- ▶ The capital of the Russian Empire from 1703 to 1918
- ▶ The city contains more than 200 museums
- ▶ As a port city, it has a strong commercial presence, particularly around oil and gas trading and finance
- ▶ The distillery owned by Russian Standard Vodka produces approximately 22,500 bottles of vodka per hour



**TRAIN Profile**

Type	Region	Analysis	Industry	Number
	<p>ST. PETERSBURG, RUSSIA Population: 4.6M Currency: Russian Rubles, RUB, руб. / P. / p.</p>	<p>Valuation</p>	<p>Oil &amp; Gas</p>	

**Solo Practice with Video Assist**

1. Find your videos
2. Set up
3. Listen to question
4. Recap
5. Create your plan
6. Present your plan
7. Stop and study
8. Reinforce



30 minutes

**Partner Practice**

1. Set up
2. Present the case question
3. Recap
4. Create your plan
5. Present your plan
6. Stop and study
7. Reinforce

## Interview Guide

### Case Situation and Question

Ex-Russian officials want to buy out RussoGaz, a \$500M state-run gas exploration company on the verge of privatization. It has 40 operating gas wells and 20 dormant wells. This group has lined up \$400M in debt financing to buy RussoGaz, and would like your firm to put up the remaining \$100M as private equity.

The officials claim that they can increase the value of the business by 50% over 5 years, by activating 20% of their dormant gas wells each year. After 5 years, they will sell the company.

Before you fly to St. Petersburg to meet the buyout group, the senior partner wants you to examine the group's financial projections and lay out key areas for due diligence.

Click or scan QR to see video.

## Feedback

### Physical Skills

	Weak		Strong
Body Language	①	②	③
Verbal	①	②	③
Listening	①	②	③

### Thinking Skills

Hypothesis Generation	①	②	③
Comfort with Ambiguity	①	②	③
Initial Plan & Output	①	②	③
Data Analysis	①	②	③
Basic Business Intuition	①	②	③
Integration	①	②	③
2nd Level Insights	①	②	③
Creativity	①	②	③

Total Score \_\_\_\_\_ / 33

### Intro Facts (Tell the Candidate if Asked)

**Management:** The buyout group comes from the Soviet/Russian Energy Ministry. They plan to hire an experienced manager to run operations at RussoGaz.

**Product:** The natural gas is similar in quality to that of other providers. Reports suggest there is plenty of natural gas in the active wells but levels at the dormant wells are unknown.

**Competitors:** Other state-run and private gas companies exist, but overall market size is growing, so competition has not been intense.

**Financing:** The syndicate is led by a major bank. Funding will be used to purchase all the assets from the Russian government, activate dormant wells, operate active wells, and manage overall operations.

**Operations:** The activation rate of gas wells depends on having new equipment and government approval.

### Key Insights (Do Not Tell the Candidate)

**Management:** The buyout group assumes that RussoGaz will be worth 50% more if it has 50% more active wells.

**Product:** Half the dormant wells have depleted natural gas reserves.

### Mid-case Data (Tell Only at Appropriate Time)

**Give Handout A:** A good candidate will calculate Free Cash Flow unprompted and forecast it for 5 years. Track his work against your answer sheet. When he finishes the forecast, GIVE HANDOUT B.

**Give Handout B and Prompt the Candidate:** Ask, "Can you tell me what's going on in this model?" Look for candidate to connect FCF from his work to that in Handout B. Ask, "Can you connect your projections to this analysis?" He should describe the debt repayment process.

**Ask About Valuation:** Prompt the candidate to discuss valuation measure. Ask, "What does IRR tell you about this investment?" and "What does Cash Return tell you?" Check that his answers are more than just definitions of terms.

**Case Flow and Milestones**

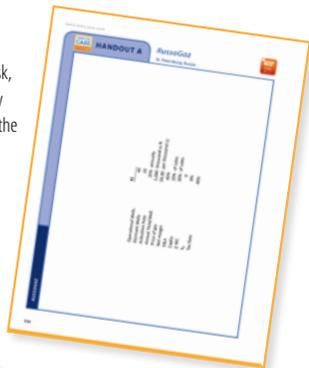
1 Present Main Question	2 Assess Structure	3 Look for Specifics	4 Guide Discussion	5 Get Recommendation
Interviewer should read through the case and know the timing for questions, data, and hints. Take on a personality (friendly, firm, or foe). Present the case question. Candidate will then likely recap and clarify, ask for time to think, form a plan on paper, and present his plan.	Candidate should address how the buyout group will increase company value. If he jumps right into valuation, push back by asking, "Explain how the buyout group will increase company value" and look for his reasoning. When discussing FCF, he should have a precise answer (See Mid-Case Data).	FCF growth depends on each part of Handout A except for interest and taxes. The candidate should discuss how Revenue is a function of the amount of gas pumped per active well x price. The amount pumped is a function of the number of active wells and their yield. Depreciation is an accounting function. CapEx is how much is spent on the business to activate wells.	Follow the Mid-Case data tips. When examining Handout B, candidate should explain what IRR and Cash Return are and why they are used in financial analysis.	Strong candidates will explain whether the group's projections make sense based on forecasts of full use of all wells and also based on certain wells not yielding natural gas (and cash flow). A good answer will highlight these risks. Also, good answers will highlight how the activation rate, price of gas, and net margin could change and affect FCF. Finally, the projected 50% increase in terminal value is not justified by the buyout group and needs further analysis.

**GIVE  
HANDOUT A**

**Handout and Data Guide**

**Handout A:**

Give Handout A after reading the case question. Ask, "Do you have any questions about the company before you begin your analysis?"



**Handout B:**

Give Handout B when candidate completes Free Cash Flow projections.



**Re-routers**

**Questions to Keep Things on Track**

- For Handout A, a good candidate should calculate Free Cash Flow and forecast it 5 years out. If not, ask, "What calculations can you make with these data?" If he calculates FCF and stops, ask, "Do you need to forecast anything?"
- For Handout B, expect a good candidate to explain the model and the valuation measure unprompted. If not, ask, "Why doesn't RussoGaz pay the full interest on debt?" If necessary, also ask, "Tell me what is going on in Year 5."

**Additional Info**

**Likely question from Candidate:** "Do you have any more financial or company info than what you presented?"

**Interviewer:** "This is everything the buyout group has provided to you. Do you have particular concerns that you want to raise?"

**What to look for:** A good candidate would point out that the 50% increase in terminal value is too high or is based on weak assumptions. Look for the candidate to propose different valuation methods (e.g., comps) and to propose examining the gas reserves more closely.

- **Interest:** Interest on debt is tax deductible, hence "interest tax savings" entry on Handout B.
- **Cash Return:** A ratio of terminal equity value to initial equity investment, without accounting for the time value of money.
- **IRR (Internal Rate of Return):** The discount rate that makes the net present value of current and future cash flows from a project equal to zero.



**RussoGaz**  
St. Petersburg, Russia



## Post Case Review

### Case Insights & Takeaways

- This is a leveraged buyout question, so valuation must address debt repayment and terminal value. That means you will comment on debt service, interest, and tax savings on interest.
- Understand simple valuation measures for investing in projects, such as cash return and IRR.

### Math Tips

- Know how to calculate Free Cash Flow.
- Organize your paper so that you can manually write financial projections.
- Use percentages for easier forecasting. In this case, FCF is assumed as 30% of revenue, so once you calculate revenue, you can calculate FCF without interim steps.

### What to Expect with Cases Like These

- Understand which assets in the company drive cash flow. Ensure that you account for the risk of the asset NOT contributing to cash flow. This will ultimately affect your recommendation.

## My Takeaways

To build skills and improve, you must apply what you learned to future cases. Take a few moments and review the interviewer feedback and jot down some key insights about your performance in the space below.

### Thinking Skills

My top 2 strengths are:

My top 2 soft spots are:

To address these problems I'll begin to:

Click or scan QR to see video.

## My Performance During the Case

Add up your points. → Total Score: \_\_\_\_\_ / 15

S Strategy	A Assets	V Value	E Expectations	D Delivery
points ③ Identifies group's strategy and rationale ② Identifies strategy but no rationale ① Fails to identify strategy or rationale	points ③ Identifies all target's key assets ② Identifies at least one key asset ① Fails to identify any key assets	points ③ Links assets to value drivers and 2 valuation methods ② Links assets to value drivers and < 2 methods ① Fails to link assets to value drivers or methods	points ③ Explains how valuation and value drivers work ② Explains how some valuation and value drivers work ① Fails to explain how any valuation and value drivers work	points ③ Identifies contradictions and next steps ② Identifies contradictions but no next steps ① No contradictions or next steps

**RussoGaz  
 Handout A**

	<u>t1</u>
Operational Wells	40
Dormant Wells	20
Activation Rate	20% annually
Annual Yield/Well	1,000 thousand cc ft
Price of gas	\$4.00 per thousand cc
Net margin	40%
D&A	20% of sales
CapEx	30% of sales
$\Delta$ WC	0
$k_D$	8%
Tax Rate	40%

# RUSSOGAZ

CRACK THE  
CASE  
SYSTEM

## HANDOUT B

**Russogaz**  
St. Petersburg, Russia

### RussoGaz Handout B

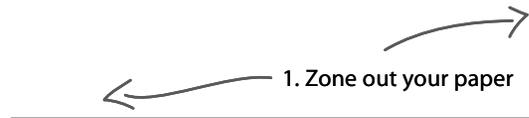
	t0	t1	t2	t3	t4	t5
Equity Participation	(\$100,000.0)					
Total Debt, beg balance		\$400,000.0	\$371,200.0	\$336,217.6	\$294,756.0	\$246,504.3
FCF beg		\$48,000.0	\$52,800.0	\$57,600.0	\$62,400.0	\$67,200.0
Interest Expense		\$32,000.0	\$29,696.0	\$26,897.4	\$23,580.5	\$19,720.3
Interest Tax Savings		\$12,800.0	\$11,878.4	\$10,759.0	\$9,432.2	\$7,888.1
<b>FCF ending</b>	(\$100,000.0)	\$28,800.0	\$34,982.4	\$41,461.6	\$48,251.7	\$55,367.8
<b>Total Debt, ending</b>	\$400,000.0	\$371,200.0	\$336,217.6	\$294,756.0	\$246,504.3	\$191,136.5
Sale Price						\$750,000.0
Less: Total Debt						400,000.0
Plus: Cumulative FCF						208,863.5
<b>Equity Value at Exit</b>						\$ 558,863.5
Cash Return						5.6
IRR						27.0%

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★★★★

Today's date:

2. Be original with your data

4. Leave ample room for a structure and additional notes as the case progresses



3. Take clean and simple notes

**RUSSOGAZ**

**Potential Plan and Output**



**WORKSHEET**

**Russogaz**  
St. Petersburg, Russia

Data		T1	T2	T3	T4	T5
RussoGaz \$500M	Dormant wells	20	16	12	8	4
- 400 debt	Active rate (20%)			—		
- 100 equity	Active Wells	40	44	48	52	56
	Gas Yield (1,000)					
Sales price in T5 = \$750M	Total Gas	40,000	44,000	48,000	52,000	56,000
40 wells now	Gas Price (\$4)					
20 wells dormant	Total Rev	160,000	176,000	192,000	208,000	224,000
60 total in T5	Net Margin (40%)					
	Net Income	64,000	70,400	76,800		
Mgt team former Soviet/Russian officials	+D&A (20%)	32,000	35,200	38,400		
	-CapEx (30%)	48,000	52,800	57,600		
	-ΔWC (0%)	0	0	0		
	FCF	48,000	52,800	57,600	62,400	67,200

Questions

Faster activation rate?

Wells have good reserves?

Competent management?

#Yield/well?

Buyer in T5?

Strategy	Assets	Value	Expectations	Delivery
• Activate wells	• Govt contacts • Equipment • Wells	• Activation rate • Activation rate • Gas yield	• Clearance for wells • Equip does the job • Enough reserves	• Anticipate holdups/corrupt officials • Assess equipment • Investigate dormant wells

Click or scan QR to see video.

Additional Study: For more questions to consider, review Section 13: Roadmaps.

