S&P Global Ratings

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Orano

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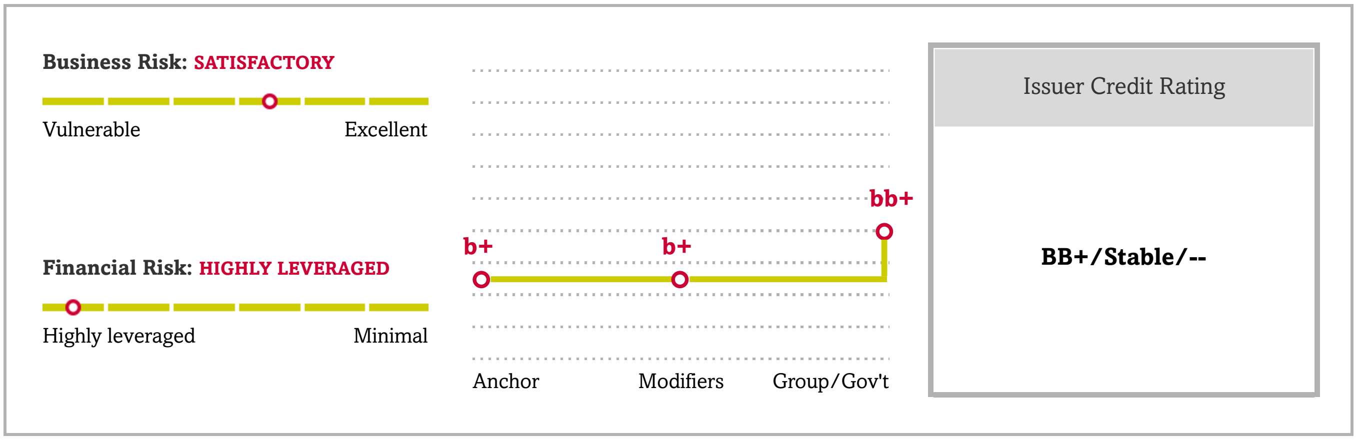


Rationale

Business Risk: Satisfactory	Financial Risk: Highly leveraged
• Top-three market position in all its key activities, and high-quality asset base comprising modern facilities, mining sites, and reserves. • Challenging industry conditions including low-price conditions and weak demand in uranium and enrichment, although there has been an uptick in uranium and conversion prices over the past few months. • Sizeable, long-term order backlog of about €33 billion (more than 8 years of revenue at current level). • Some geographic diversification (45% of revenue generated in France). • Inherent safety and security risk related to the nuclear cycle activities.	• Highly leveraged capital structure (after our sizeable adjustments) with a potential peak in debt to EBITDA of over 6x in 2018. • Positive free operating cash flow (FOCF) generation from 2018 on the back of continued cost saving initiatives and despite high recurring capital expenditure (capex) requirements. • Improved capital structure and liquidity position thanks to recent restructuring and capital increases over the last year, as well as a new syndicated credit line signed in July 2018.

Outlook: Stable

The stable outlook on France-based nuclear services group Orano reflects S&P Global Ratings' view that Orano's focus on improving its cost position and generating positive FOCF will enable it to reduce adjusted debt to EBITDA to less than 5.5x in 2019-2020. This is despite challenging industry conditions, and supported by its sizeable, long-term order backlog, as well as its continuing cost-saving initiatives.

Downside scenario

We could lower the rating if debt to EBITDA increased materially to over 6x in 2018, or if we no longer expected deleveraging in 2019-2020, leading to the ratio staying about 6x on average. This could happen if the weak market environment affected Orano's performance more than we currently expect, despite its long-term contract structure, or if it faced major, unexpected operational or quality issues, or if the revision of the French Multi-Year Energy Program (Programmation Pluriannuelle de l'Energie; PPE) had a significant negative impact on Orano.

Upside scenario

We do not expect an upgrade in the next 12 months, given our view that challenging industry conditions will limit EBITDA improvements and deleveraging. However, we would consider an upgrade over time if we forecast our adjusted debt to EBITDA at sustainably and comfortably between 4.0x and 5.0x, in conjunction with positive FOCF of at least €200 million. This would require better market conditions, including stronger demand for uranium and uranium enrichment that, in turn, would likely require an increase in global nuclear power production.

Our Base-Case Scenario

Our base-case scenario for Orano reflects constraints to the company's performance and credit metrics, common to all companies operating within the nuclear sector. Orano is facing challenging industry conditions characterized by low and volatile spot prices due to the uncertainty regarding the pace of the recovery in demand for uranium products globally. We acknowledge however that there has been an uptick in uranium and conversion prices over the past few months.

This is offset by the company's long-term contract profile, which limits its exposure to spot prices in the near term, as well as the management's new cost-savings plan through 2020.

In 2017, Orano made annual cost savings of about €480 million compared with 2014 and projects savings of another €250 million between 2018 and 2020, mainly through gains in operational efficiency, capex, and other cost optimization of dismantling and waste management projects. We believe this projection is realistic.

Orano's results in the first half of 2018 were in line with our expectations, including declining reported EBITDA of €429 million (compared with €476 million in the first half of 2017 and close to €600 million in the second half of 2017) and much improved FOCF generation (positive €215 million in the first half of 2018 compared with negative €44 million in the first half of 2017). We believe declining EBITDA is mostly due to the transition cost at Comurhex, and

Orano's backlog structure. We also believe that Orano's improving operational cash flow performance will continue into the second half of 2018, and 2019.

We understand Orano is currently negotiating with China National Nuclear Corporation (CNNC) to assist in the construction of a treatment and recycling plant for CNNC, and is aiming to sign a deal by the end of this year that could potentially amount to several billion in orders. However, in our base case we don't factor in any material new contracts in China because this is uncertain at this stage.

Assumptions

- Reported EBITDA (before our adjustments) of about €750 million in 2018, €750 million-€850 million in 2019, and €900 million-€1 billion in 2020, after €946 million in 2017. The assumed decline in 2018 reflects weaker mining and front-end segment EBITDA, due to a decline in volumes, pressure on pricing, the effect of the Comurhex transition, and remaining restructuring expenses linked to the past performance plan. Growth in 2019 and in 2020 will likely stem from lower restructuring expenses, the end of the industrial transition from the Comurhex I site to Comurhex II, new contracts, and international growth opportunities, particularly in the back-end segment.
- The effect of weak spot prices in uranium and uranium enrichment markets will be largely mitigated by long-term contracts with fixed prices and, to a lesser extent, cost cutting;
- Significant remaining restructuring expenses in 2018-2019 (although lower than in 2017 when they totaled more than €100 million) tied to the company's past cost-cutting performance plan, taking into consideration its recently announced new program aiming to achieve annual recurring cash gains of €250 million from 2020. We include these expenses in our EBITDA and funds from operations calculations;
- High recurring capex requirements of €600 million-€700 million per year on average in 2018-2019;
- Substantial positive working capital movements in 2018-2019 related to advance payments in the back-end segment, as well as some destocking in the front-end segment; and
- No dividends.

At this point we don't factor in any impact in our base case from PPE. France will decide by the end of this year how many nuclear reactors it wants to close in order to reduce the share of nuclear operations in power generation, which might negatively impact Orano's activities and financial performance over time.

Key Metrics

(Bil. €)	2017a	2018e	2019f	2020f
Revenues	3.9	3.5-4.0	3.75-4.25	4.0-4.5
EBITDA	1.0	0.7-0.8	0.7-0.8	0.8-1.0
FOCF	(0.1)	0.0-0.2	0.3-0.5	0.1-0.4
Unadjusted net financial debt	3.2	2.6-2.8	About 2.5	2.0-2.5
Adjusted debt	5.0	About 4.5	4.1-4.4	4.0-4.4
Debt/EBITDA (x)	4.8	6.0-6.5	5.5-6.0	4.0-5.0

a--Actual. e--Estimate. f--Forecast. FOCF--Free operating cash flow.

Note: all numbers above are S&P Global Ratings-adjusted unless otherwise stated.

Company Description

Orano (formerly New AREVA Holding) offers products and services for the entire nuclear fuel cycle, from raw materials to waste processing. Its activities, ranging from mining to decommissioning and including conversion, enrichment, recycling, logistics, and engineering, contribute to the production of low-carbon electricity. It has about 16,000 employees worldwide and is headquartered in Courbevoie, France. At year-end 2017, Orano's revenues totaled €3.9 billion, with S&P Global Ratings-adjusted EBITDA of €1.0 billion.

Orano operates mainly through three business divisions:

- Mining (33% of sales in 2017): This operates through three uranium mines, one in Canada, Niger, and Kazakhstan. The main activities comprise mineral exploration, mining project development, construction, extraction and sales of uranium ore, and site rehabilitation.
- Front end (23% of sales in 2017): This combines all of the operations required to convert natural uranium into enriched uranium to be used in nuclear fuel assemblies designed to generate electricity. Customers are primarily nuclear power plant operators.
- Back end (43% of sales in 2017): This includes treating and recycling used fuel for reuse in the reactor, developing storage systems, organizing the transportation of radioactive materials, and cleaning up and dismantling nuclear facilities.

Business Risk: Satisfactory

Orano is a spinoff of former France-headquartered nuclear services provider AREVA, focusing on key nuclear fuel cycle activities. In our view, these activities provide Orano with stable cash flows, backed by long-term contracts, supporting our view of Orano's satisfactory business risk profile.

We also take into account Orano's strong global market positions (top-three position in all of its key activities, high-quality asset base with mining sites and reserves (Orano has close to 200 thousand metric tonnes of uranium ore inventories that can feasibly be mined in the short term at a competitive economic cost), modern facilities, and asset and geographic diversification (55% of revenue came from outside France in 2017). We believe that the sector's high capital intensity, Orano's long-term customer relationships, technological know-how, and security and safety considerations create important barriers to entry.

The main constraints are the difficult low-price conditions in the nuclear industry and a challenging operating environment, which we think will persist because utility clients remain under pressure to contain capital and operating expenditures, with new builds being delayed or potentially cancelled because some governments, mostly in Western countries, make the decision to reduce the nuclear part of the energy mix. We note, however, that there has been an uptick in uranium and conversion prices over the past few months.

Peer comparison

Table 1

Orano -- Peer Comparison

Table 1

Orano -- Peer Comparison (cont.)			
	Orano	**Cameco Corp.**	**Urenco Ltd.**
Rating as of Oct. 5, 2018	BB+/Stable/--	BBB/Negative/A-2	BBB+/Stable/NR
	--Fiscal year ended Dec. 31, 2017--		
(Mil. €)			
Revenues	3,931.0	1,433.4	1,926.9
EBITDA	1,056.5	388.3	1,198.6
Funds from operations (FFO)	757.9	307.1	955.6
Net income from cont. oper.	(250.0)	(136.2)	514.9
Cash flow from operations	350.9	351.5	1,153.5
Capital expenditures	490.0	75.8	299.3
Free operating cash flow	(139.1)	275.8	854.2
Discretionary cash flow	(162.1)	170.6	554.2
Cash and short-term investments	1,950.0	393.2	59.1
Debt	4,970.9	1,080.2	3,455.6
Equity	952.7	3,229.6	1,824.3
Adjusted ratios			
EBITDA margin (%)	26.9	27.1	62.2
Return on capital (%)	1.1	3.6	15.9
EBITDA interest coverage (x)	4.3	5.2	6.4
FFO cash int. cov. (X)	4.8	8.3	5.4
Debt/EBITDA (x)	4.7	2.8	2.9
FFO/debt (%)	15.2	28.4	27.7
Cash flow from operations/debt (%)	7.1	32.5	33.4
Free operating cash flow/debt (%)	(2.8)	25.5	24.7
Discretionary cash flow/debt (%)	(3.3)	15.8	16.0

Orano's activities cover a wider range than Cameco (mainly uranium) and Urenco (mainly enrichment), its peers involved in the nuclear fuel cycle, because it comprises of a full spectrum of activities, ranging from mining, conversion, and enrichment, to recycling, storage, logistics, and dismantling.

These companies have strong market positions globally and benefit from strong barriers to entry and long-term contracts, giving them some revenue visibility. However, they have been hindered by low price levels due to the Fukushima accident in 2011, which has negatively affected global demand.

We regard Orano's business risk profile as satisfactory, in line with Cameco's, because we view its stronger business diversity as somewhat offset by less predictable cash flows and more volatile profitability as a whole. By our calculations, in the last three years Cameco achieved both a higher EBITDA margin and return on capital (respectively 28% and 4.6x compared with 24% and 3.6x for Orano). We believe Orano's business risk profile remains weaker than that of Urenco, despite its more diversified activities (about 90% of Urenco's profits come from uranium enrichment only) because it suffers from lower and more volatile profitability (Urenco's EBITDA margin is about 60% on average and its return on capital is about 10%, while Orano's are 20%-30% on average and lower than 10x, respectively).

Orano's weaker rating on both a stand-alone and overall basis reflects comparatively weaker credit metrics, including S&P Global ratings-adjusted debt to EBITDA of more than 5x on average, while Urenco and Cameco's leverage is typically lower, at less than 3x, and a poorer track record of positive FOCF generation.

Financial Risk: Highly leveraged

Orano's highly leveraged financial risk profile reflects its high adjusted debt, which largely comprises bonds. In our debt calculation, we take into account about €1.8 billion of debt adjustments related to pension-related liabilities and asset-retirement obligations.For the latter, we note that the company is using fair-market-value calculations to meet French regulatory requirements, and that using such methodology results in debt-adjustment figures that differ from ours by several hundred million euros. Such methods would also result in lower debt levels compared with our adjusted number as of Dec. 31, 2017. However, we use the International Financial Reporting Standards numbers presented in the company's financial accounts in our calculations in order to easily compare all rated entities with similar obligations. We note that our adjustments related to end-of-cycle obligations increased in the first half of 2018, mainly due to the negative performance of the financial markets. However, we expect the coverage ratio (end-of-life-cycle assets to liabilities) will remain relatively stable over time. We nonetheless consider this as a risk moving forward because fluctuations in equity markets and interest rates can have significant impact on the assets' value (e.g. in 2017 a 10% decline in equity prices would have resulted in an about €275 million negative impact on the valuation of Orano's assets earmarked for end-of-cycle obligations).

After our adjustments, we calculate that debt to EBITDA was 4.8x in 2017. We expect that this ratio will deteriorate to about 6.0x-6.5x in 2018, due to one-time effects linked to the industrial transition at the Comurhex I site to Comurhex II, remaining expenses related to the past performance plan, and lower volumes.

Orano's recent restructuring and a capital increases in 2017 and 2018 improved its capital structure. Orano's restructuring was completed after two Japanese shareholders, Japan Nuclear Fuel Ltd. and Mitsubishi Heavy Industries, contributed an additional €500 million of new equity in total in February 2018, after NEW NP's (now Framatome) was sold to Electricite de France.

Financial summary

Table 2

Orano--Financial Summary			
	--Fiscal year ended Dec. 31--		
	2017	**2016**	**2015**
(Mil. €)			
Revenues	3,931.0	4,404.0	4,662.0
EBITDA	1,056.5	1,342.5	929.5
Funds from operations (FFO)	757.9	1,025.7	619.6
Net income from continuing operations	(250.0)	(309.0)	(536.0)
Cash flow from operations	350.9	805.7	879.6
Capital expenditures	490.0	542.0	633.0
Free operating cash flow	(139.1)	263.7	246.6

Table 2

Orano--Financial Summary (cont.)

	--Fiscal year ended Dec. 31--		
	2017	**2016**	**2015**
(Mil. €)			
Discretionary cash flow	(162.1)	153.7	111.6
Cash and short-term investments	1,950.0	1,434.0	2,646.0
Debt	4,970.9	8,374.7	4,353.9
Equity	952.7	(1,056.3)	1,953.0
Adjusted ratios			
EBITDA margin (%)	26.9	30.5	19.9
Return on capital (%)	1.1	9.1	3.7
EBITDA interest coverage (x)	4.3	5.1	4.0
FFO cash int. cov. (x)	4.8	9.6	5.2
Debt/EBITDA (x)	4.7	6.2	4.7
FFO/debt (%)	15.2	12.2	14.2
Cash flow from operations/debt (%)	7.1	9.6	20.2
Free operating cash flow/debt (%)	(2.8)	3.1	5.7
Discretionary cash flow/debt (%)	(3.3)	1.8	2.6

Liquidity: Strong

We assess Orano's liquidity as strong. This is supported by our estimate that the company's liquidity sources will cover uses by more than 1.5x in the 24 months started Jan. 1, 2018. We also take into account the company's prudent liquidity management and solid bank relationships as demonstrated by a new €780 million revolving credit facility (RCF) signed in July 2018.

Principal Liquidity Sources	Principal Liquidity Uses
Orano's sources of liquidity in the 12 months started July 1, 2018, include: • Our estimate of about €1.8 million of unrestricted cash on the balance sheet; • €780 million available under the new undrawn RCF; and • Moderately positive FOCF of about €200 million.	These sources compare with the following uses of liquidity: • About €120 million of short-term debt maturing in 2018 and about €750 million in relation to a bond due in November 2019; • Some moderate intrayear working capital swings that we don't expect will exceed €200 million. We note there are no covenants in the debt documentation.

Debt maturities

As of Dec. 31, 2017:

- 2018: €0.4 billion
- 2019: €0.8 billion
- 2020: €0.6 billion
- 2021: €0.9 billion
- 2022: €0.3 billion
- Thereafter: €2.1 billion

Other Credit Considerations

We view Orano's credit ratios, including leverage and limited FOCF generation (excluding capital injection), as comparatively weaker than those of peers in the same rating category, which is reflected in our negative view of Orano under our comparable ratings analysis.

Government Influence

We believe that there is a high likelihood of Orano receiving support from the French government, which is reflected in a three-notch uplift in the rating above the company's stand-alone credit profile.

We consider Orano to be a government-related entity (GRE). The French government directly owns 70% of Orano (including a direct stake of 45.2% and an indirect stake through AREVA SA and the Atomic Energy Commission). We view the government as committed to ensuring that any potential liquidity pressure will be addressed in a timely manner, demonstrated by its recent commitment to providing Orano new equity and intermediate funding.

We view Orano as a GRE with a high likelihood of receiving government support because of its:

- Important role as France's leading nuclear services provider and the country's largest power producer. Orano ensures supplies of uranium and enriched uranium for France, which generates about 75% of its electricity from nuclear plants; and
- Very strong link with the French government. The group's ties with the government are reinforced by the politically sensitive nature of its enrichment and back-end recycling activities, and its strategic importance to France's energy policies. As a commercial enterprise, Orano operates autonomously. The French government follows Orano's performance closely and authorizes strategic investments and acquisitions. Orano also has to provide the government with its analysis of events and answer questions from specific parliamentary committees.

Ratings Score Snapshot

Issuer Credit Rating

BB+/Stable/--

Business risk: Satisfactory

- **Country risk:** Low
- **Industry risk:** Intermediate
- **Competitive position:** Satisfactory

Financial risk: Highly leveraged

- **Cash flow/Leverage:** Highly leveraged

Anchor: b+

Modifiers

- **Diversification/Portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Strong (+1 notch)
- **Management and governance:** Fair (no impact)
- **Comparable rating analysis:** Negative (-1 notch)

Stand-alone credit profile : b+

- **Related government rating:** AA
- **Likelihood of government support:** High (+3 notches from SACP)

Issue Ratings--Recovery Analysis

Key analytical factors

- The issue ratings on Orano's various senior unsecured obligations are 'BB+'. We cap the recovery rating at '3' according to our methodology for unsecured financial instruments of companies rated in the 'BB' category. We expect recovery for noteholders of 85% in the event of a payment default. The ratings are supported by the company's robust asset base and minor prior-ranking debt claims, but constrained by the substantial amount of pari passu unsecured debt.
- Under our hypothetical default scenario for Orano, we assume a combination of loss of key customers and a prolonged downturn in the industry, leading to lower pricing and operational issues.
- We value Orano as a going concern, given its market-leading position and diversified product offering.

Simulated default assumptions

- Year of default: 2023
- Jurisdiction: France

Simplified waterfall

- Gross recovery value: €4.79 billion
- Net recovery value after administrative expenses (5%): €4.55 billion
- Prior-ranking claims: €86 million*
- Remaining recovery value: €4.46 billion
- Senior unsecured debt claims: €4.188 billion*
- Recovery range: 70%-90% (rounded estimate 85%)
- Recovery rating: 3

*All debt amounts include six months of prepetition interest. Assuming some refinancing of the debt.

Reconciliation

Table 3

Reconciliation Of Orano Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €)

	--Fiscal year ended Dec. 31, 2017--						
Orano reported amounts							
	Debt	**Shareholders' equity**	**EBITDA**	**Operating income**	**Interest expense**	**EBITDA**	**Cash flow from operations**
Reported	5105.0	1144.0	1044.0	(34.0)	221.0	1044.0	312.0
S&P Global Ratings' adjustments							
Interest expense (reported)	--	--	--	--	--	(221.0)	--
Interest income (reported)	--	--	--	--	--	141.0	--
Current tax expense (reported)	--	--	--	--	--	(149.0)	--
Operating leases	34.6	--	15.0	2.3	2.3	12.7	12.7
Postretirement benefit obligations/deferred compensation	1257.0	0.7	(8.0)	(8.0)	23.0	(44.8)	26.2
Surplus cash	(1893.5)	--	--	--	--	--	--
Asset retirement obligations	519.8	--	--	--	--	--	--
Exploration costs	--	--	30.5	--	--	--	--
Non-operating income (expense)	--	--	--	137.0	--	--	--
Non-controlling Interest/Minority interest	--	(192.0)	--	--	--	--	--
Debt - Derivatives	(52.0)	--	--	--	--	--	--
EBITDA - Gain/(Loss) on disposals of PP&E	--	--	(31.0)	(31.0)	--	(31.0)	--
EBITDA - Other	--	--	6.0	6.0	--	6.0	--
Total adjustments	(134.1)	(191.3)	12.5	106.3	25.3	(286.1)	38.9

Table 3

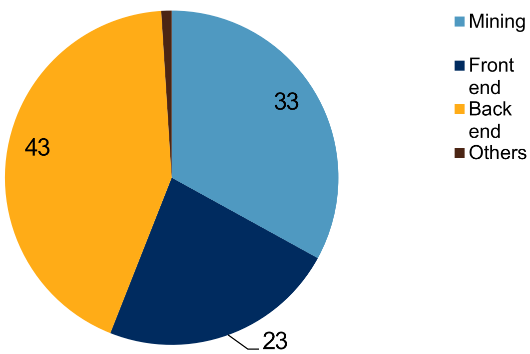
Reconciliation Of Orano Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €) (cont.)

S&P Global Ratings' adjusted amounts

	Debt	Equity	EBITDA	EBIT	Interest expense	Funds from operations	Cash flow from operations
Adjusted	4,970.9	952.7	1,056.5	72.3	246.3	757.9	350.9

Chart 1

2017 Revenue Breakdown (%)



Related Criteria

- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria - Corporates - General: Recovery Rating Criteria For Speculative-Grade Corporate Issuers, Dec. 7, 2016
- Criteria - Corporates - Recovery: Methodology: Jurisdiction Ranking Assessments, Jan. 20, 2016
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria - Corporates - Industrials: Key Credit Factors For The Specialty Chemicals Industry, Dec. 31, 2013
- Criteria - Corporates - Industrials: Key Credit Factors For The Metals And Mining Upstream Industry, Dec. 20, 2013
- Criteria - Corporates - Industrials: Key Credit Factors For The Engineering And Construction Industry, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Stand-Alone Credit Profiles: One Component Of A Rating, Oct. 1, 2010

- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009

Business And Financial Risk Matrix

	Financial Risk Profile					
Business Risk Profile	Minimal	Modest	Intermediate	Significant	Aggressive	**Highly leveraged**
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	**b+**
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

Ratings Detail (As Of October 5, 2018)

Orano	
Issuer Credit Rating	BB+/Stable/--
Senior Unsecured	BB+
Issuer Credit Ratings History	
05-Apr-2018	BB+/Stable/--
31-Jul-2017	BB/Positive/--
06-Jul-2017	B+/Watch Pos/--
18-Jan-2017	B/Developing/--
24-Nov-2016	B+/Developing/--

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

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