







KRYVYI RIH MINERAL WATER

^{*}Description of the investment proposal



PROJECT SUMMARY

Project content

Mineral water analysis and research of prospects of its production in Kryvyi Rih with the purpose of making the population healthier by means of restoration of table drinkable and therapeutic water production (water rich in radon, sulphuretted hydrogen, ferrous, iodine and bromine) for the external use; these waters are similar to waters of Pyatigorsk and Tshaltubo according to their chemical characteristics.

Attractiveness

- Great population size (as to 01.12.2017 poκy 632,7 thousand people). The city takes the seven place in Ukraine by the population size.
- Average wage in the city— 8247,0 UAN (as of 01.12.2017), that is 2,5 times more then the level of minimum wage guaranteed by the government.
- There aren't any enterprises producing drinkable mineral and table water in bottles.
- ☐ Stable demand for the consumption of mineral water.
- ☐ Local authorities' support of the Project.
- ☐ Nowadays producing of mineral and table waters in bottles is one of the most perspective segments of a consumer market in Ukraine

Degree of project development

The project needs carrying out of mineral water quality analysis to find out its chemical composition and compliance with government standards as well as health legislation of Ukraine.

Resources for project implementation

Investor's own funds.







IPA

Mineral water market analysis

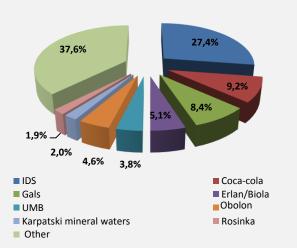
➤ Approximately 300 water producers are working at Ukrainian mineral water market.

- ➤ In general, mineral water market is enough consolidated. 10 large producers occupy only more than 50% of aerated water segment and more than 70% still mineral water one. The rest of the market is occupied by small local trademarks.
- Nowadays more than 3600 mineral water brands are in the world; they are owned by companies from over 140 countries of the world. In general, global branch of mineral water has become very profitable in recent 10-15 years. The worldwide leaders of mineral water production are still Nestle and Danone.

Leaders of mineral water production in Ukraine

Nº	Name of the produce	r Mineral water trademark
1.	IDS Group	«Myrgorodska», «Morshynska», «Alyaska», «Truskavetska»,and imported from Georgia mineral water «Borzhomi»
2.	«Coca-Cola Beverages»	«BonAqua»
3.	«Obolon»	«Obolonska», «Prosora»
4.	«Rosinka»	«Sophia Kyivska»
5.	«Erlan»	«Znamenivska»

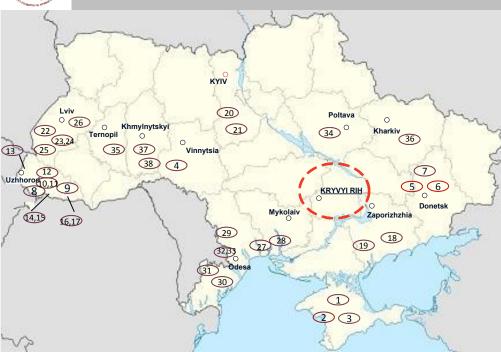
Main producers of mineral drinkable water in Ukraine (au naturel), %



- ➤ The leading importer of mineral water is Georgian water «Borzhomi». To Ukraine the following waters are imported: French waters «Vittel», «Evian», «Perrier», Italian water «SanPellegrino» and «SanBenedetto», Russian waters «Narzan» and «Essentuki».
- Mineral waters are exported from Dnipropetrovsk, Lviv, Ternopil, Chernigiv, Odesa regions. Still waters are exported from almost all administrative regions of Ukraine.
- ➤ At the domestic market of drinkable water delivery (HOD Home & Office Delivery) there are about 100 players producers and distributors and this number is constantly increasing. At the same time about 20 companies have their own production facilities
- The main countries-buyers of Ukrainian mineral waters are Azerbaijan (30,9% of all export), Great Britain (17,1%), Bulgaria (10,4%).



Marketing research of mineral water deposits



**See list of the largest mineral water deposits in the Appendix.

- Overall, in Ukraine there are 119 mineral water deposits and 117 areas of mineral waters.
- Total balance reserves of the A+B+C1 and C2 categories are 78 065 m3/day.
- Table waters constitute 86,79%. Among the waters with specific components and characteristics the following mineral waters are defined radon ones (12,72%) and bromine ones (11,92%).
- The largest part of balance reserves is concentrated in Autonomous Republic of Crimea (30,22%), Odesa (9,69%), Zaporizhzhya (7,39%), Transcarpathian (6,60%) regions. 53% of balance reserves of table waters are located in Donetsk region.

➤ 15 deposits have been explored in Dnipropetrovsk region. There are all possibilities to satisfy the demand of population in therapeutic and table mineral waters.



Novotroitske source, Dnipropetrovsk region, Novotroitske village, Novomoskovsk subregion (mineral natural table water TM «Dzherela Prydniprovya» (Dnipropetrovsk region sources))



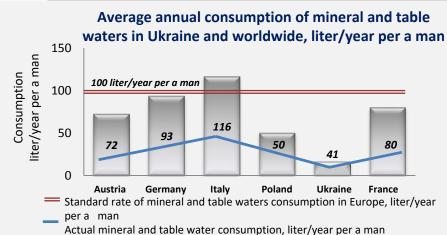
Morshynska mineral water, Morshyn town, Lviv region

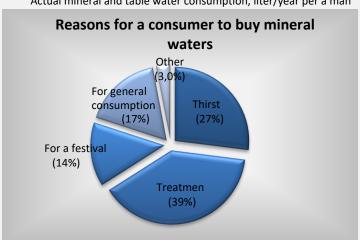


Myrgorodska mineral water, Myrgorod town, Poltava region

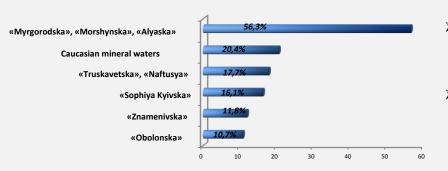
- Kryvyi Rih is rich not only in iron-ore deposits but also in drinkable therapeutic and table mineral water springs. As early as in the year 1935 the scientists worked on the Kryvyi Rih mineral water usage in balneological issues.
- ➤ Maximum mineralization of Kryvyi Rih underground waters at depth of up to 2 km does not exceed 160-170 g/l.

Mineral water consumption analysis





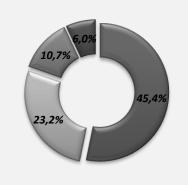
Preferences of Kryvyi Rih consumers in choosing mineral water, %



Comments

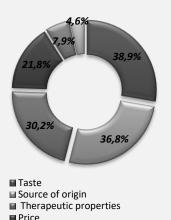
- By actual consumption of mineral water Ukraine considerably falls behind European countries (annual rate of mineral and table water consumption in Europe is 100 liters per a man, actual consumption is 41 liters per a man).
- In Kryvy Rih mineral water consumption by a man is about 3 liters per a week (73 liters per a year).

Mineral water consumption by a Kryvyi Rih resident, liter per week



■ up to 3-x I■ 4-6 I■ 7-9 I■ 10 I and more

Mineral water consumption by a Kryvyi Rih resident, liter per



■ Recommendations of a doctor

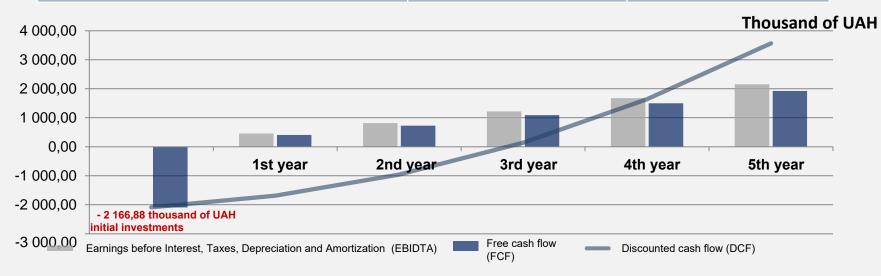
■ Brand awareness and advertising

- 61,8% of Kryvyi Rih residents consume mineral water to satisfy thirst, 28,8% -for treatment. 24.9% for health benefit.
- Key criteria at mineral water selection by the city residents are taste (38,9%), source of origin (36,8%), therapeutic properties (30,2%) and price (21,8%).

Key project indicators

Project efficiency indicators

Indicator	Unit of measurement	Values566	
Discounted payback period, DPP	month	45,1	
Net present value, NPV	Thousand of UAH	784	
Internal rate of return, IRR	%	45,1	
Profitability index, PI		1,95	
Budget (own capital)	Thousand of UAH	2 166,88	

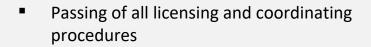


Indicator	1st year	2nd year	3rd year	4th year	5th year
EBITDA	689,65	1165,29,11	1 747,94	2 418,13	3 114,59
FCF	602,49	1025,22	1 537,83	2 123,98	2 732,19
DCF (cumulative)	-1 555,58	-530,36	1007,47	3 131,45	5 863,64



Project budget





Thousand of UAH.





Drilling of the well and its formalization

212,1

Chemical and biological expertises

2,006

 Construction of administrative, manufacturing and storage areas. 808,0



Purchase of equipment for mineral water production

161,6

Payment for labor of a personnel

608,2

•

Transport expenses

374,47



Project cost,
Total: thousand of UAH

2166,88

COOPERATION CONDITIONS



MUNICIPAL AUTHORITY

CITY DEVELOPMENT INSTITUTION

PRIVATE SECTOR

- Assisting in passing of licensing procedures
- Assisting in organizing of research activities to find out a compliance of mineral water with Ukrainian governmental standards and health legislation.
- Providing an investor with information for making optimal decisions
- Support at getting all approval documents and assistance at investment project implementation
- > Expert knowledge and technologies
- Business risk-analysis
- Investment in therapeutic and table mineral water production
- > Competence at business management



- > New job places creation
- Providing the city residents with qualitative therapeutic and table drinkable water
- Extra proceeds to budgets by means of payment of taxes and charges



PROFITS



- Profit from successfully functioning business
- Opportunity of intensive growth and expanding production capacity that will enable increasing profits, sales volumes and sales markets



Zaporizhia Region

19.

Berdianske, Berdiansk city

Lazurne, Berdiansk city

1989

1976

1156,0

2376,0

balneological

balneological

therapeutic and drinkable /

APPENDIX

The largest deposits of mineral water in Ukraine

Region/ Name of mineral water deposit and place	Commencement of operation	Reserves, m³/day	Usage water type	Nº	Region/ Name of mineral water deposit and place	Commence- ment of operation	Reserves, m³/day	Usage water type
Autonomous Republic of Crimea			Kyiv region					
Sakske, Saki town	1957	1745,0	balneological	20.	Bilotherkivske, Bila Tserkva town	1955	1485,0	balneological
Yevpatoriyske (marine).	1975	16403.0	balneological	21.	Myronivske, Myronivka town	1945	423,0	balneological
Yevpatoriya city				<u>Lviv region</u>				
Yevpatoriyske (subthermal), City of Yevpatoriya	1969	2174,0	herapeutic and drinkable/ balneological	22.	Velykolyubenske, Velykyi Lyubin village	XV century	576,0	balneological
Vinnytsya region			23.	Ckhidnytske, Drogobych city	1964	64,6	therapeutic and drinkable	
Khmilnyk, Town of Khmilnyk	1961	2237,0	balneological	24.	Naftusya, Truskavets town	1827	47,2	therapeutic and drinkable
Donetsk region				25.	Truskavetske, Truskavets town	1833	495,8	therapeutic and drinkable / balneological
West-Slowanske	1860	89 N	theraneutic and drinkable	26.	Morshynske, Morshyn town	1877	30,0	therapeutic and drinkable / balneological
Slovyansk town	1000	65,0	·	Mykolaiv region				
Slovyanske, Slovyansk towm	1978	620,0	therapeutic and drinkable / balneological	27.	Koblevska, Koblevo village	1996	532,0	balneological
Svyatogorskyi, Svyatogirsk city	1955	143,0	therapeutic and drinkable / balneological	28.	Ochakivske, Ochakiv town	1994	898,0	balneological
Zakarpatska Region			Odesa region					
Beregivske, Beregovo town	1973	871,0	balneological	29.	Karolino-Bugazke, Zatoka village	-	1800,0	balneological
Gornotisovske, Rakhiv town	1958	422,0	therapeutic and drinkable /	30.	Sergiivske, Sergiivka village	1979	729,0	therapeutic and drinkable / balneological
Nova Polyana, Khust town	1952	303,0	therapeutic and drinkable /	31.	Kuyalnytske, Kuyalnyk village	1904	1385,0	therapeutic and drinkable / balneological
Shayanske, Khust town	1957	252,0	therapeutic and drinkable /	32.	Odeske (thermal), Odesa city	1986	173,0	balneological
Soimenskoe. Mizhgirva village	1958	743.0	therapeutic and drinkable /	33.	Odeske, Odesa city	1966	2212,0	balneological
				Poltava region				
				34.	Myrgorodske, Myrhorod town	1914	2127,0	therapeutic and drinkable
Polyanske, Polyana village	1946	535,0	·	<u>Ternopil region</u>				
Golubynske, Golubyne village	1956	342,0	therapeutic and drinkable / balneological	35.	Novo-Zbruchanske, Husyatyn village	1983	152,0	therapeutic and drinkable / balneological
Ploskivska, Ploske village	1965	88,0	therapeutic and drinkable	Kharki	v region			Danieological
Tysovskogo, Bushtyna village	1986	103,0	balneological	36.	Berezivske, Derhachi town	1862	1065,0	therapeutic and drinkable
	Name of mineral water deposit and place Dimous Republic of Crimea Sakske, Saki town Yevpatoriyske (marine), Yevpatoriya city Yevpatoriyske (subthermal), City of Yevpatoriya Sya region Khmilnyk, Town of Khmilnyk Sk region West-Slovyanske, Slovyansk town Slovyansk town Slovyanske, Slovyansk towm Svyatogorskyi, Svyatogirsk city atska Region Beregivske, Beregovo town Gornotisovske, Rakhiv town Nova Polyana, Khust town Shayanske, Khust town Soimenskoe, Mizhgirya village Synyakske, Synyak village Polyanske, Polyana village Golubynske, Golubyne village Ploskivska, Ploske village	Name of mineral water deposit and place Dimous Republic of Crimea Sakske, Saki town Yevpatoriyske (marine), Yevpatoriya city Yevpatoriyaske (subthermal), City of Yevpatoriya Sya region Khmilnyk, Town of Khmilnyk Slovyanske, Slovyanske, Slovyansk town Slovyanske, Slovyansk towm Slovyanske, Svyatogirsk city Beregivske, Beregovo town 1973 Gornotisovske, Rakhiv town 1952 Shayanske, Khust town 1957 Soimenskoe, Mizhgirya village Polyanske, Golubyne village 1956 Ploskivska, Ploske village 1955	Name of mineral water deposit and place Dimous Republic of Crimea Sakske, Saki town Yevpatoriyske (marine), Yevpatoriya city Yevpatoriyske (subthermal), City of Yevpatoriya Saya region Khmilnyk, Town of Khmilnyk Slovyanske, Slovyanske, Slovyansk town Slovyanske, Slovyansk town Slovyanske, Slovyansk town Slovyanske, Slovyansk town Seregion Beregivske, Beregovo town Gornotisovske, Rakhiv town 1973 Soya Polyana, Khust town 1957 Soimenskoe, Mizhgirya village Polyanske, Polyana village 1946 Sak, O Solubynske, Golubyne village 1956 342,0 Ploskivska, Ploske village 1965 88,0	Name of mineral water deposit and place Sakske, Saki town 1957 1745,0 balneological Yevpatoriyske (marine), Yevpatoriyske (subthermal), City of Yevpatoriya Khmilnyk, Town of Khmilnyk 1961 2237,0 balneological Sexa region West-Slovyanske, Slovyanske, Slovyansk town 1978 620,0 therapeutic and drinkable / balneological Svyatogorskyi, Svyatogirsk city 1955 143,0 balneological therapeutic and drinkable / balneological Beregivske, Beregovo town 1973 871,0 Beregivske, Rakhiv town 1958 422,0 balneological Therapeutic and drinkable / balneological Shayanske, Khust town 1957 252,0 Shayanske, Khust town 1957 Soimenskoe, Mizhgirya village 1956 90,0 balneological therapeutic and drinkable / balneological	Name of minoral water deposit and place Sakske, Saki town 1957 1745,0 balneological 20. Yevpatoriyske (marine), Yevpatoriyske (marine), Yevpatoriya city Yevpatoriyske (subthermal), City of Yevpatoriya Khmilnyk, Town of Khmilnyk 1961 2237,0 balneological 24. 25. Saya region West-Slovyanske, Slovyanske, Slovyanske, Slovyansk town 1978 620,0 Solvyanske, Slovyanske, Slovyansk town 1978 620,0 Svyatogorskyi, Svyatogirsk city 1955 143,0 balneological therapeutic and drinkable / balneological 28. 28. 28. 29. Solvyanske, Beregovo town 1973 871,0 balneological therapeutic and drinkable / balneological Solvyanske, Rakhiv town 1958 422,0 Solvyanske, Khust town 1957 252,0 Solvyanske, Khust town 1957 252,0 Solmenskoe, Mizhgirya village 1956 90,0 balneological therapeutic and drinkable / balneological therapeutic and drinkable / balneological 33. Poltyanske, Solvyanske village 1956 90,0 balneological Ternog 342,0 therapeutic and drinkable / balneological therapeutic and drinkable / balneological Ternog 35. Poltyanske, Golubyna village 1956 1946 1956 1	Name of mineral water deposit and place Sakske, Saki town 1957 1745,0 balneological Yevpatoriyske (marine), Yevpatoriyske (subthermal), City of Yevpatoriya Yevpatoriya	Name of mineral vater deposit and place Name of mineral vater deposit and place	Name of mineral water deposit and place and place and place and place and place are supported by the place and place are supported by the place and place are supported by the place

Khmelnytsk region

Zbruchanske, Sataniv town

Makivske, Makiv village

1976

1982

257,0

103,0

therapeutic and drinkable

therapeutic and drinkable

37.

38.





Kasianenko Kostiantyn Volodymyrovych

Director of PU "Kryvyi Rih City Development Institution"

Vovchenko Natalia Andriivna

Expert on Foreign Economic Issues Investment and Local Economic Development Program PU "Kryvyi Rih City Development Institution" 50101, Kryvyi Rih, 30 Heroiv ATO street

Tel: +38 056 492 29 79

Fax: +38 056 492 29 79

E-mail: cdi.irm@gmail.com

50101, Kryvyi Rih, 30 Heroiv ATO street

Tel: +38 056 492 29 49

E-mail: cdi.irm@gmail.com