KVARELI

NUMBER OF REGISTRATION: 798

DATE OF REGISTRATION: 10/12/2007

APPELLATION OF ORIGIN: KVARELI

GOOD FOR WHICH REGISTRATION IS REQUIRED: Wine

NAME AND ADDRESS OF APPLICANT: LEPL - National Wine Agency; Marshal Gelovani Av. 32, 0159, Georgia, Tbilisi

1. NAME: "KVARELI"

2. ADDITIONAL SIGNS:

3. TYPE, COLOR AND MAIN REQUIREMENTS:

Red dry wine "Kvareli" shall satisfy the following requirements:

- Color – dark red;
- Aroma and taste – perfect, full, extracted, velvet, harmonized, with fruity tones developed with aging;
- Actual volumetric spirit content – no less than 11 %;
- Concentration of finished extract mass – no less than 22 g/l;
- Sugar content – 4 g/l;
- **Titratable acidity in young wine should be – no less than 4.5 g/l, and in aged wine - no less than 4.0 g/l;**

- Other characteristics shall meet requirements provided by the legislation of Georgia.

4. SPECIFIC ZONE AVAILABLE AREAS

The micro-zone Kvareli is located in administrative territory of the village Kvareli, on the Southern slope of Caucasus branch, on the coordinates – 41° 30' of Northern longitude and 45° 50' of Eastern latitude, on left terrace of the River Alazani and bordering Southern foothills of Caucasus Mountain from the North side.

The micro-zone from city Kvareli Western direction includes the following villages: Shildi, Eniseli, Gremi and Shakriani middle and upper parts, situated on second terrace of the River Alazani, and from the Eastern – Patmasuri, Sanavardo, Kuchatani, Seri, Chantlis Kuri, ZInobiani, Akhalsopeli, Tkhilis Tskaro, Mtis Dziri, and mostly the part of territories of Gavazi and Balghojiani of the village Chikaani, till first terrace of the River Alazani.

5. VINE VARIETIES:

Wine "Kvareli" shall be prepared from the grapes of Saperavi, vintage takes place in the micro-zone Kvareli. Usage of other grape varieties is prohibited

6. VINEYARD CULTIVATION, SHAPE OF PRUNING AND CARE:

The micro-zone Kvareli vineyards for wine "Kvareli" shall be situated on 250-550 m above sea level.

- Distance between the rows in the vineyards – 1-3 m;
- Distance between the vines in the row – 0.8-1.5 m;
- Height of stem – 60-90 cm;
- Shape of pruning – one-sided or Georgian two-sided or free.

Vine cultivation, shape and puring, pests and diseases control, and soil treatment, fertilization, and other operations, shall be provided according to agro-technical activities selected by wine-makers.

7. GRAPE MATURITY, VINTAGE, TRANSPORTATION

"Kvareli"shall be produced only with ripe grapes:

- Sugar content shall be no less than 19%, at the vintage;
- Grapes transportation is permitted only with wooden or plastic boxes, with bodyworks made of stainless steel or painted with special colour;
- Usage of polyethylene packages and/or bags is not allowed;
- The grapes shall be protected from dirtying at the transportation.

8. VINTAGE AND WINE PRODUCTION:

Vintage on 1 ha vineyard shall be 10 tons.

Wine production shall be no more than:

- 650 liters – from 1 ton grapes;
- 6500 liters – from 1 ha vineyard.

9. GRAPE PROCESSING, WINEMAKING AND BOTTLING

Grapes for producing wine "Kvareli" shall be only from the vineyards cultivated in the micro-zone Kvareli. At that, adding 15% of Saperavi brought from outside of Kvareli borders, but situated in Kakheti is permitted.

Grapes processing and winemaking shall be provided exclusively inside of Kakheti, bottling is permitted outside Kakheti, but only on the territory of Georgia.

At the same time, the grapes can be got from the micro-zone Kvareli and the wine can be withdrawn from Kakheti viticulture zone only under strict accounting and control.

"Kvareli" is made by whole alcoholic fermentation of must.

"Kvareli" shall be represented on consumer market only packed in the consumer vessels.

In the production of wine "Kvareli" it is permissible to use only the operations, materials and substances provided by the legislation of Georgia.

10. LINK BETWEEN EXCLUSIVE QUALITY, REPUTATION AND GEOGRAPHICAL AREA:

CLIMATE – In the micro-zone Kvareli weather formation mainly is affected with air masses flown from the West and East, caused by the influence of high-mountain systems developed in subtropical and moderate areas. Wind speed is not great as a result of peculiarity of the gorge. The climate is moderately humid, with mild winter and warm long-term summer.

Main agro-climatic factors, such as sun radiation, the heat, the moderate summer temperature, humidity of the location, complexly create favorable conditions to receive Saperavi high quality product.

Air average annual temperature is 12.5°C, the average temperature of the warmest months VII-VIII is 23.6°C, and the coldest month – + 1,0°C. Depending on the multiyear data, annual absolute minimum temperature is -10, -11°C, and the absolute maximum is – 35°C. Extreme temperatures are – 23 and + 38°C.

In the spring the average day-night temperature has been increased above 10°C since 5 April. In the autumn it has been fallen below 10°C from 4 November, i. e. warm period is continued 212 days. Saperavi bud opening is begun in mid-April, flowering – in the end of May, grape maturity – in second half of August. Grapes technical maturation takes place at the end of September.

In the micro-zone Kvareli the sum of active temperatures (> 100°C) ranges within 4100-37000°C on 350-550 m above sea level.

In the micro-zone Kvareli the annual sum of atmospheric precipitations is 1070 mm, and 800 mm – in the vegetation period.

Annual air relative humidity is 72%. It is less (66-64%) in the summer months (June, July, August), and relatively more at the end of autumn (80%) and early winter.

Snow cover is created in the last decade of December, and continued till mid-March. Hailing days amount is in average 2,1 per year. May is the mostly hailing time of the year (0,9 days); In April, June and July, in each separately, the hail does not exceed 0.3 days.

SOIL – On the basis of existing materials and researches conducted by us in 2005, in the micro-zone is distinguished two varieties of alluvial, with nine sub-varieties and two types of deluvial, with five sub-varieties of soils.

1. Alluvial, free from carbonates, very thick, loam;
2. Alluvial, free from carbonates, very thick, slightly leptsol, loam;
3. Alluvial, free from carbonates, very thick, moderately leptsol, moderately and slightly loam;
4. Alluvial, free from carbonates, very thick, hard leptsol, loam;
5. Alluvial, slightly carbonated, very thick, loam;
6. Alluvial, slightly carbonated, very thick, slightly leptsol, loam;
7. Alluvial, slightly carbonated, very thick, moderately leptsol, loam;
8. Alluvial, free from carbonates, very thick, very moisture and bogy, clay and loam;

9. Alluvial, slightly carbonated, very moisture and bogy, loam and clay;
10. Deluvial, free from carbonates, very thick, loam;
11. Deluvial, free from carbonates, very thick, slightly leptsol, loam;
12. Deluvial, slightly carbonated, very thick, clay;
13. Deluvial, slightly carbonated, very thick, slightly leptsol, loam;
14. Deluvial, slightly carbonated, very thick, very moisture, clay.

First ten varieties of above-mentioned soils are alluvial soils created in Alazani second terrace, and are mainly characterized with flat relief, while 11th, 12th, 13th and 14th varieties are deluvial and presented on the Southern foothills bordering the Southern slopes, on 400-500 m above sea level, relief of the area creates trails slightly inclined from the South and South-West.

First ten varieties of alluvial soils are characterized with deep thickness and different to each other with the range of mechanical content, carbonate content, moisture and bogy. First seven varieties of soils therefrom are characterized with deep thickness of profile, which is mostly varies within 1-1.5 m, and active humus layer is 50-70 cm. They are characterized mostly with loamy mechanical content, in exceptional cases in some genealogical horizons are changed to slightly clay or moderately loamy and sandy. Furthermore, above-mentioned soils are different from each other with grade of leptosol and stone content. Leptosol and stony soil is mostly occurred on the new terraces and nearby banks of rivers. The 8th and 9th varieties of soils are characterized with great moisture and bog, which are mainly represented in small areas, in lowlands and along flowing waters. With mechanical content, these soils are mostly clay and loamy.

Soil producing rocks in first nine varieties of soils are mainly of alluvial origin with stony-loamy and stony-sandy layers, consisting with destructed materials mostly brought from the Southern slopes of Caucasus, presented as black stone plates of sea-origin, with a high capacity of heat absorption and having some influence on soil temperature regime. This also provides the growth of grape sugar content and product quality.

The 10th-14th soils are deluvial that are presented on deluvial-proluvial originated loamy-sandy-rocky layers. These soils are characterized with deep thickness, as well – 80-150 cm, and active humus layer is 50-60 cm. Said soil varieties are different from each other with mechanical content, range of leptosol, content of carbonates and moisture. The 10th-11th soils are free from carbonates and have loamy mechanical content, exceptionally the 11th is slightly leptosol. The 12th, 13th and 14th are slightly carbonated, having loamy and clay content. Exceptionally the 13th is slightly leptosol and 14th is very moisture.

Based on the analyses data, said soils mechanical content is mainly loamy. In exceptional cases, they are characterized with slightly clay content. According to humus content, they are characterized with average index and in soil active layer, in 50-70 cm depth, it ranges within 5,5-2.5%, and bellow it is gradually decreased to 2,5-0,5%. Hydrolyzed nitrogen is mainly presented in small and medium amounts, and it is within 9,36-2,24 mg in 100 g soil. In most cases the soil is very poor with soluble phosphorous represented as a trace. The exchange potassium content is also low and it is within the range of 17.0-2.0 mg in 100 g. First, 2nd, 3rd, 4th, 8th, 10th and 11th soil varieties do not contain calcium carbonates at all, and in the 5th, 6th, 7th, 9th, 12th, 13th and 14th it is in small amount, and mostly within 0.2-5.0%. Soil area reaction (pH) is neutral and weak alkaline.

HUMAN FACTOR – In Kvareli viticulture and -winemaking fieldsdeveloped in a different way as compared with Tsinandali, Napareuli and Mukuzani. Here the vineyards were not included in the Princes Estates Department, and therefore, they were not affected by the positive influence playing a major role in the growth of the quantity and quality of these fields in the said estates. Despite the fact that viticulture and winemaking originated from ancient times, the field was still backward and mainly based on farming.

Industrial development of the field began in the 1920s following the foundation and development sectoral scientific centers in parallel to the development and strengthening of Soviet viticulture farms. At the end of the 1920s and early 1930s, the modern and well-equipped wineries were built in Kvareli ("Tsiteli Marani" (red cellar), Shilda and Akhalsopeli. The new wave of the field development was observable at the end of 1950s, as a result of which of the area of vineyards in Kvareli micro-zone increased in 3,5, times and at the end of the 1960s itreached 8700 hectares. New, productive, well-equipped wineries were built in

Kvareli, Eniseli, Shilda and Chikaani, where the existing technologies were improved and new technologies were introduced systematically.

"Kvareli" has been produced since 1966 and received 3 gold and 2 silver medals.

Geographical location of micro-zone Kvareli, regional climate: mild winter and hot summer, moderate amount of precipitations, diversity of soils, special features of Saperavi grape variety characteristic only for that microzone and local centuries-old tradition of viticulture and winemaking define the unique organoleptic features of wine KVARELI, characteristic only of this wine.

11. SPECIAL LABELING RULES

With Latin font – KVARELI

Protected Designation of Origin and/or PDO

Cyrillic font – КВАРЕЛИ

Защищённое наименование места происхождения

12. ACCOUNTING AND NOTIFICATION

Accounting and notification of production and storage technological processes of "Kvareli" is carried out, in accordance with the rules established by the legislation of Georgia.

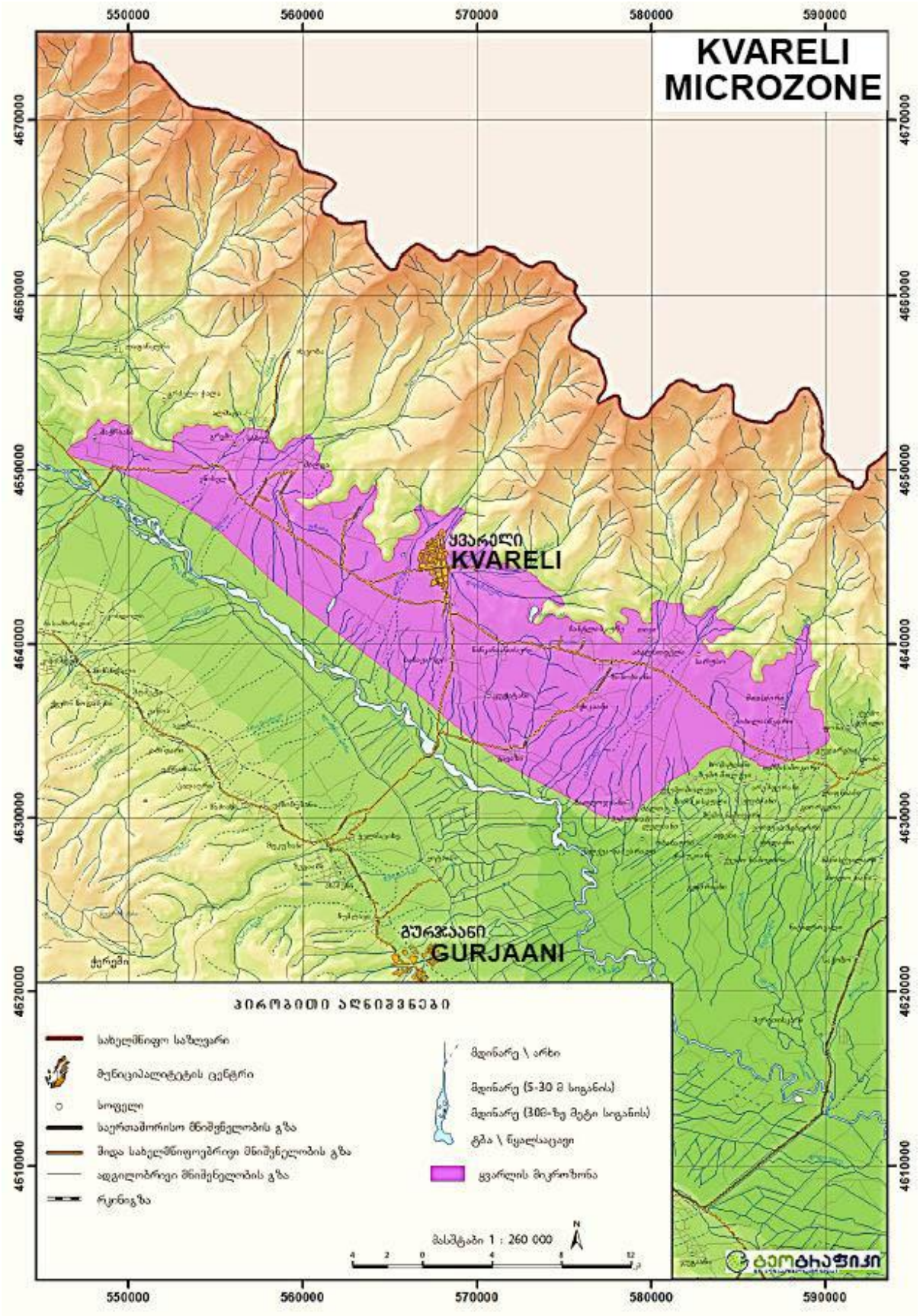
13. MAIN CONTROLLABLE POINTS

During control of the PDO wine "Kvareli" production process the producer shall satisfy the requirements established by LEPL National Wine Agency and shall comply with the following parameters.

Main Controllable Points	**Evaluation Methods**
Vineyard location	Cadaster map, control on the place
Area	Vineyard accounting magazine, cadaster
Vine variety	Vineyard accounting journal, control on the place
Cultivation methods	Journal of registration of Agrotechnical Measures, treating journal, control on the place
Vintage and transportation	Vintage journal
Grape harvest per ha	Vintage journal
Grape harvest in total	Vintage journal
Grape processing and winemaking	Grape receiving journal, grape processing journal, product turnover calculation journal, laboratory analysis journals, notifications, control on the place
Wine bottling, packaging and storage place and conditions	Bottling journal, journal for motion of ready product in the

	storehouse, laboratory analysis journals
Physico-chemical characteristics of the wine at winemaking, before and after bottling	Laboratory analysis journals
Organoleptic characteristics of the wine	Tasting commission protocols
Traceability	Technological and laboratory records

14. CONTROL BODY OF PRODUCTION
State control for observance of production specification and lawful usage of the appellation of origin PDO shall be carried out by LEPL National Wine Agency, according to the rules established by the legislation of Georgia.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