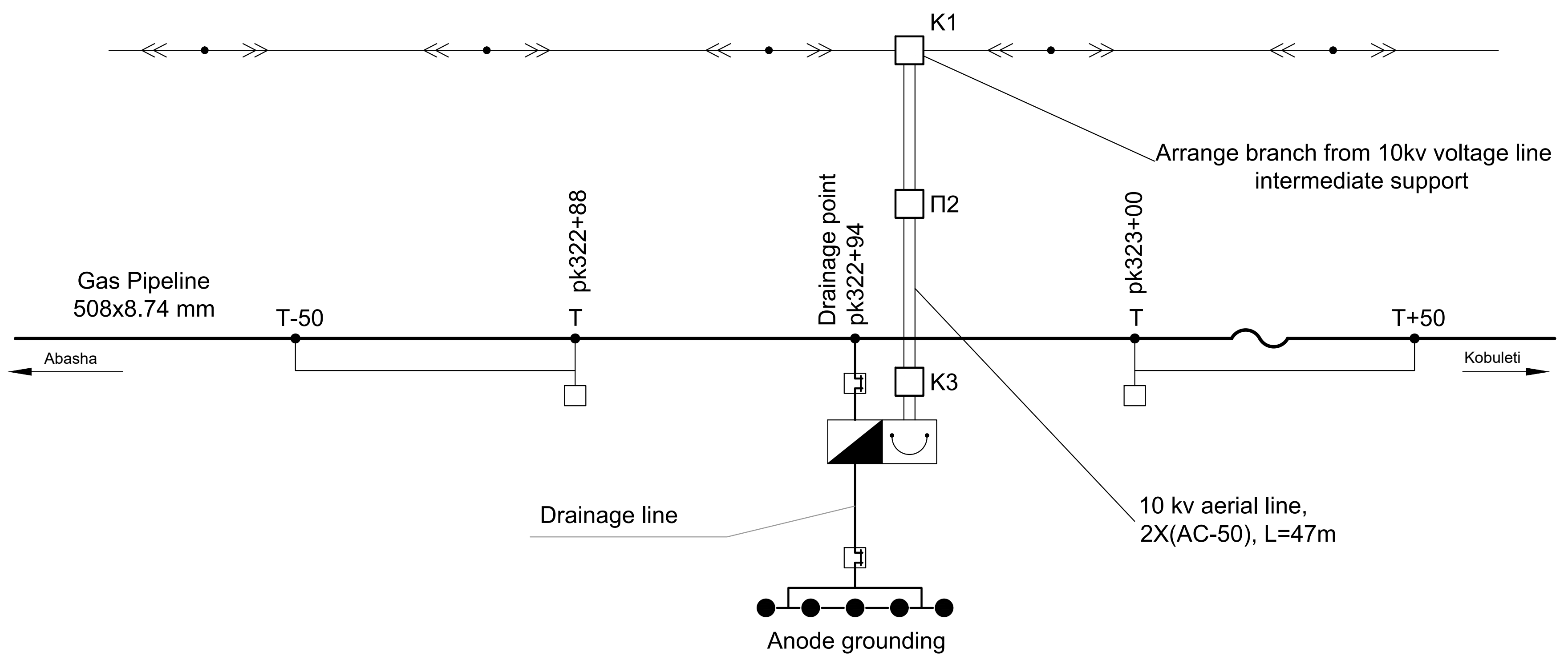
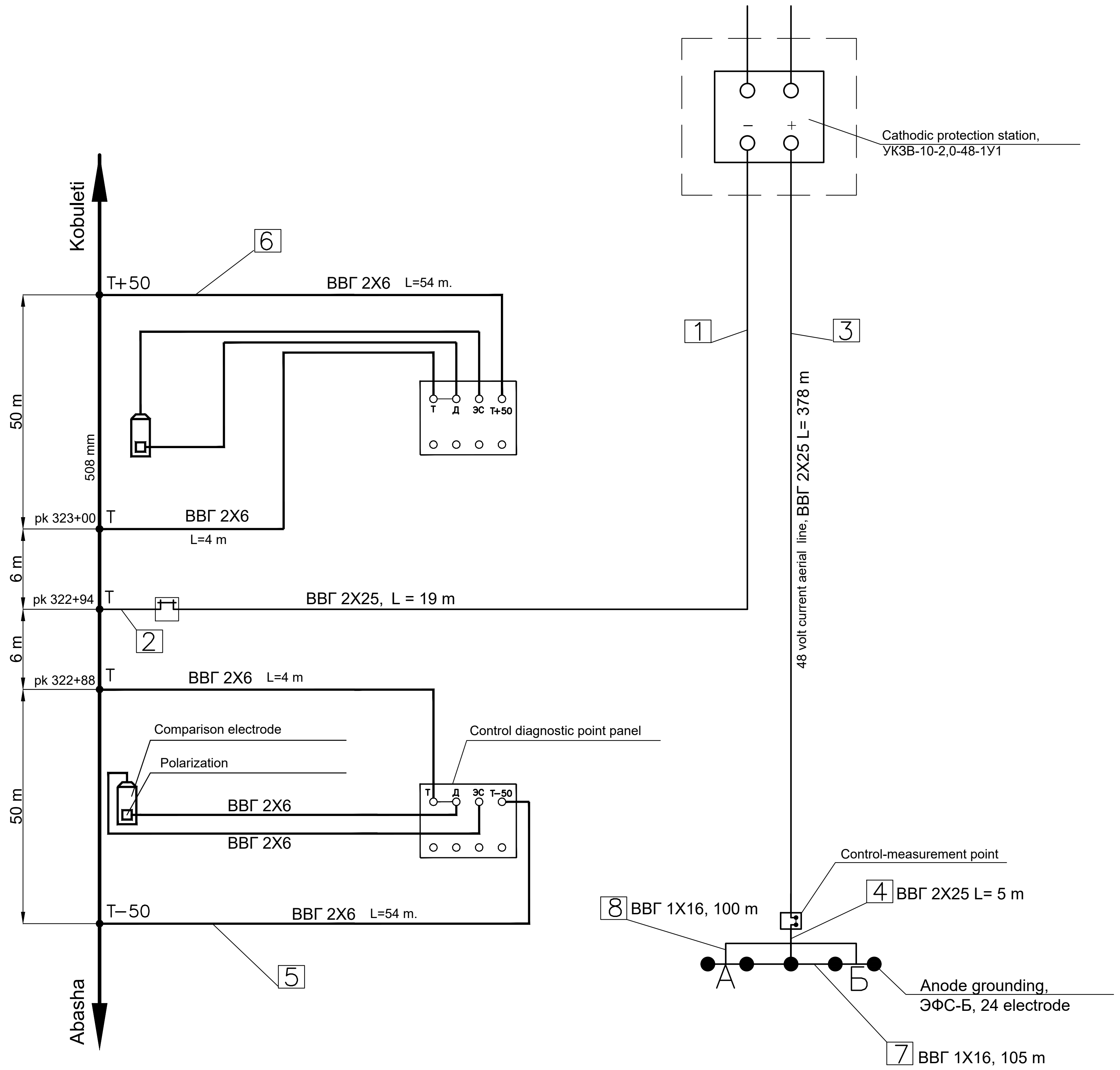
Plan of alignment of cathodic protection device and electricity supply on main gas pipeline pk322+94



Principial scheme of connections



List of cable installation

Cable marking	Installation location	Operating voltage	Cable mark	Cable length, m: In the trench	On the structure	In the pipe on the support	Total
1	Cathodic drainage line УКЗН from "minus" bond till drainage control measurement point	48	ВВГ 2×25	19	3	-	22
2	Cathodic drainage line from drainage point control measurement point to pipeline	48	ВВГ 2×25	5	-	-	5
3	Anode drainage line УКЗН from "plus" bond till Control measurement point	48	ВВГ 2×25	375	3	-	378
4	Control measurement point – anode grounding	48	ВВГ 2×25	5	-	-	5
5	Pipeline T+50 control diagnostic point.	-	ВВГ 2×6	54	-	-	54
6	Pipeline T+50 control diagnostic point.	-	ВВГ 2×6	54	-	-	54
7	Main cable for anode grounding	48	ВВГ 1×16	105	-	-	105
8	Anode grounding , points А-Б	48	ВВГ 1×16	100	-	-	100

Total numbers of cables is:

1. ВВГ 2x25 - 410 m;
2. ВВГ 1x16 - 205 m;
3. ВВГ 2x6 - 108 m .

Legend :

- Cathodic Protected station
- Main pipeline
- Anode grounding
- Control-measurement point
- 10 kv voltage areal line
- 48-96 v — 48-96 volt current drainage line
- K1, K3 - Iron-concrete side support
- П2 - Iron-concrete middle supports

List of activites for electrochemical devices

№	Name	Unit	pk322+94
1	Installation of УКЗВ-10-2,0-48-1У1 type cathodic protection station on horizontal iron-concrete foundation	pcs	1
2	Arrangement of foundation with iron-concrete set for cathodic protection device	"	1
3	10 kV transmission line construction 2X(AC-50) conductor	m	47
4	Connection of 2x(AC-50) conductor from 10 kv voltage line cathodic protection high voltage switch	pcs	1
5	Arrangement of fencing for CP station	"	1
6	Arrangement of 10/0,24 kv voltage set transformer , high voltage, cathodic protection device and grounding for switch using 15mm diameter 4x5mm long steel vertical electrodes to be connected in the trench at the depth of 0.5 meter on the 10mm diameter and 50 m long steel contour.	"	1
7	Linking of CP device ВВГ 2×25 drenage cabel to pipeline	"	1
8	Installation of 24 pcs of grounding rodes at the Depth of 1.5m	"	1
9	Arrangement iron-concrete intermediate supports on 10 kV voltage line	"	1
10	Arrangementot iron-concrete side supports on 10 kV voltage line in normal conditions by hanging two bare AC-50 conductor.	"	2
11	Linking of grounding anodes to DC drainage line	pcs	1
12	ВВГ 2×25-660 single cabel installation at depth of 1.1 m in a trench	m	404
14	Instalation at control-measuring point and concreting : no further than 1 m. from the pipeline and anode grounding location.	pcs	4
15	Enquip of control-measuring unit, with permanently operated ЭНЕС-1 comparison rode and linking of ВВГ 1×6-660 cabel to pipe at distance of 6 m. and 54 m. from drainage point	"	2
16	Installation of ВВГ 1×16-660 cabel in anode grounding trench	m	205
17	Arrangement of branch at 10 kv transmission line intermediate pillar	pcs	1
18	Painting of concrete pillars by ethinol lacquer	kg	6
19	Excavation of trench for anode and cabel installation	m^3	305
20	Putting of signal tape in the trench at depth of 0.75 m	m	404

Approved by	A. Dekanosidze	
Checked by	T. Javakhishvili	
Completed by	S. Tsintsadze	
Drawed by	A. Farii	
REV.	30/05/16	
თარიღი / DATE	C01	

საქართველოს ნავთობისა და გაზის კორპორაცია
Georgian Oil & Gas Corporation

East - West Gas Main Pipeline
Kobuleti Branch

Cathodic protection device pk 322+94

DCC NUMBER : KOBU60-GW05-PL-CPR-00005
SHEET No. 1(1)
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SCALE:
No: