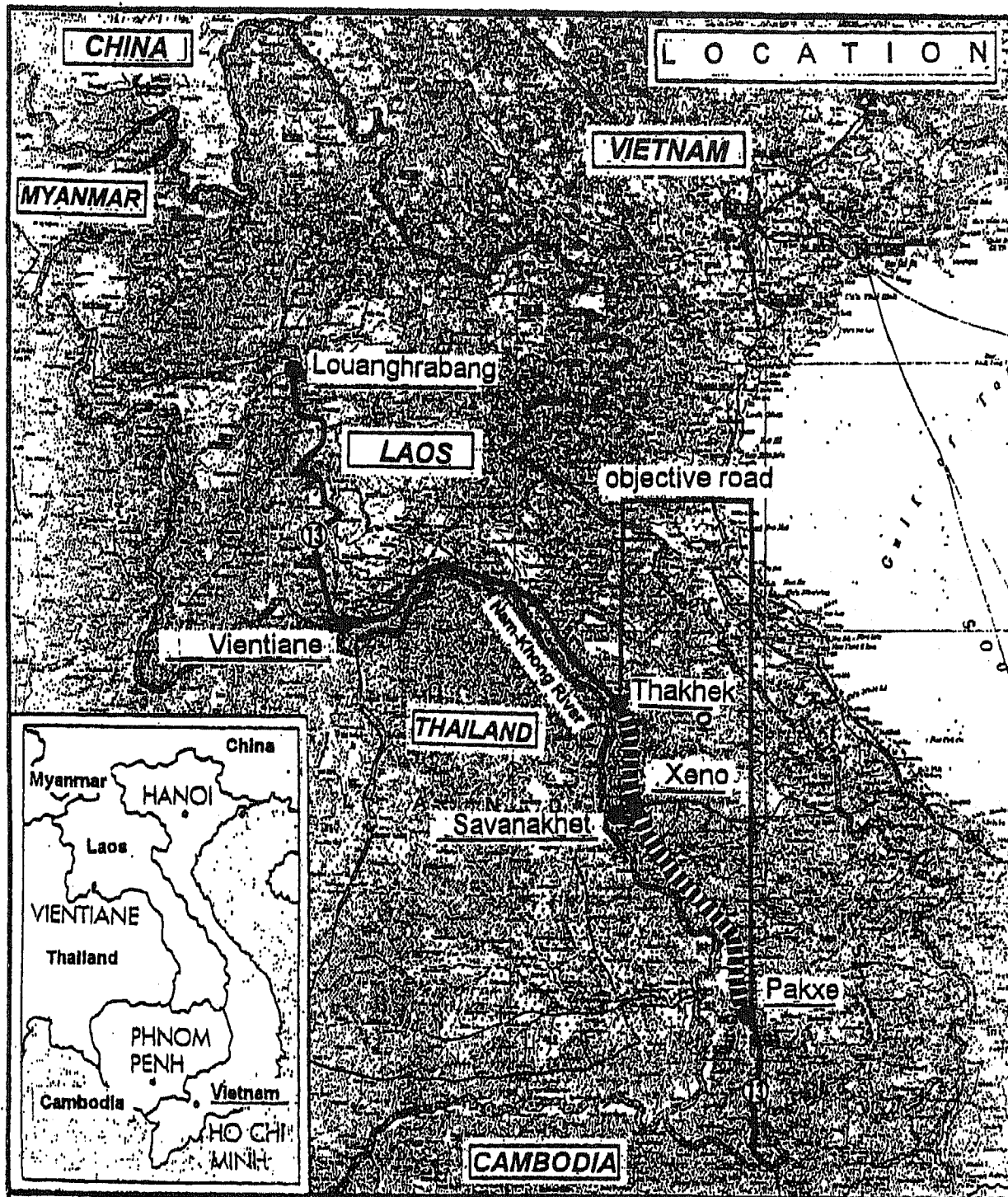


ANNEX-1: THE SITE OF THE PROPOSED BRIDGES



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(c) For Explanation Draft Final Report

Minutes of Discussions

on

The Basic Design Study

on

The Project for Reconstruction of Bridges on the National Road Route 13, Phase II
in

The Lao People's Democratic Republic

(Consultation on Draft basic Design Report (2))

In July 1997, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study team on The Project for Reconstruction of Bridges on the National Road Route 13, Phase II (hereinafter referred to as "the Project") to the Lao People's Democratic Republic (hereinafter referred to as "the Lao PDR"), and through discussions and second field survey; and technical examination of the results in Japan, has prepared the Draft Basic Design report (2) of the study.

In order to explain and to consult the Government of the Lao PDR on the components of the Draft Basic Design Report (2), JICA sent to the Lao PDR a study team (hereinafter referred to as "the Study Team"), which is headed by Mr. Makoto HANAOKA, Grant AID Division, Bureau of Economic Cooperation, Ministry of Foreign Affairs, Government of Japan, and is scheduled to stay in the country from August 18 to August 23, 1997.

As a result of discussions, both parties have confirmed the main items described in the attached sheets.

Vientiane, August 22, 1997

花岡 慎

Makoto HANAOKA
Leader
Study Team
JICA



Sommad PHOLSENA
Director
Communication Department
MCTPC

ATTACHMENT

1. COMPONENTS OF THE DRAFT BASIC DESIGN(2)

The Government of the Lao PDR has agreed and accepted in principle the components of the Draft Basic Design Report (2) proposed by the Study Team.

2. PROJECT SITE

The Project site is shown in ANNEX-1, for fifty-one bridges between Thakhek to Pakxe.

3. RESPONSIBLE ORGANIZATION AND IMPLEMENTING AGENCY

- 1) Responsible organization : Ministry of Communication, Transport, Post and Construction (MCTPC).
- 2) Implementing agency : Communication Department, MCTPC.

4. ROAD PROFILE

The components of the Draft Basic Design Report (2) will be incorporated into the addendum of the Contract Document of the IDA project which contract is scheduled to be offered by the end of December, 1997.

5. JAPAN'S GRANT AID SYSTEM

The Government of the Lao PDR has understood the system of Japan's Grant Aid explained in ANNEX-2 by the Study Team.

6. NECESSARY MEASURES TO BE TAKEN BY THE LAO PDR SIDE

The Government of the Lao PDR is responsible for the items such as; to secure the land for the new access road construction and necessary construction yards and will also take necessary measures described in ANNEX-3 for smooth implementation of the Project on condition that the Grant Aid by the Government of Japan is extended to the Project.

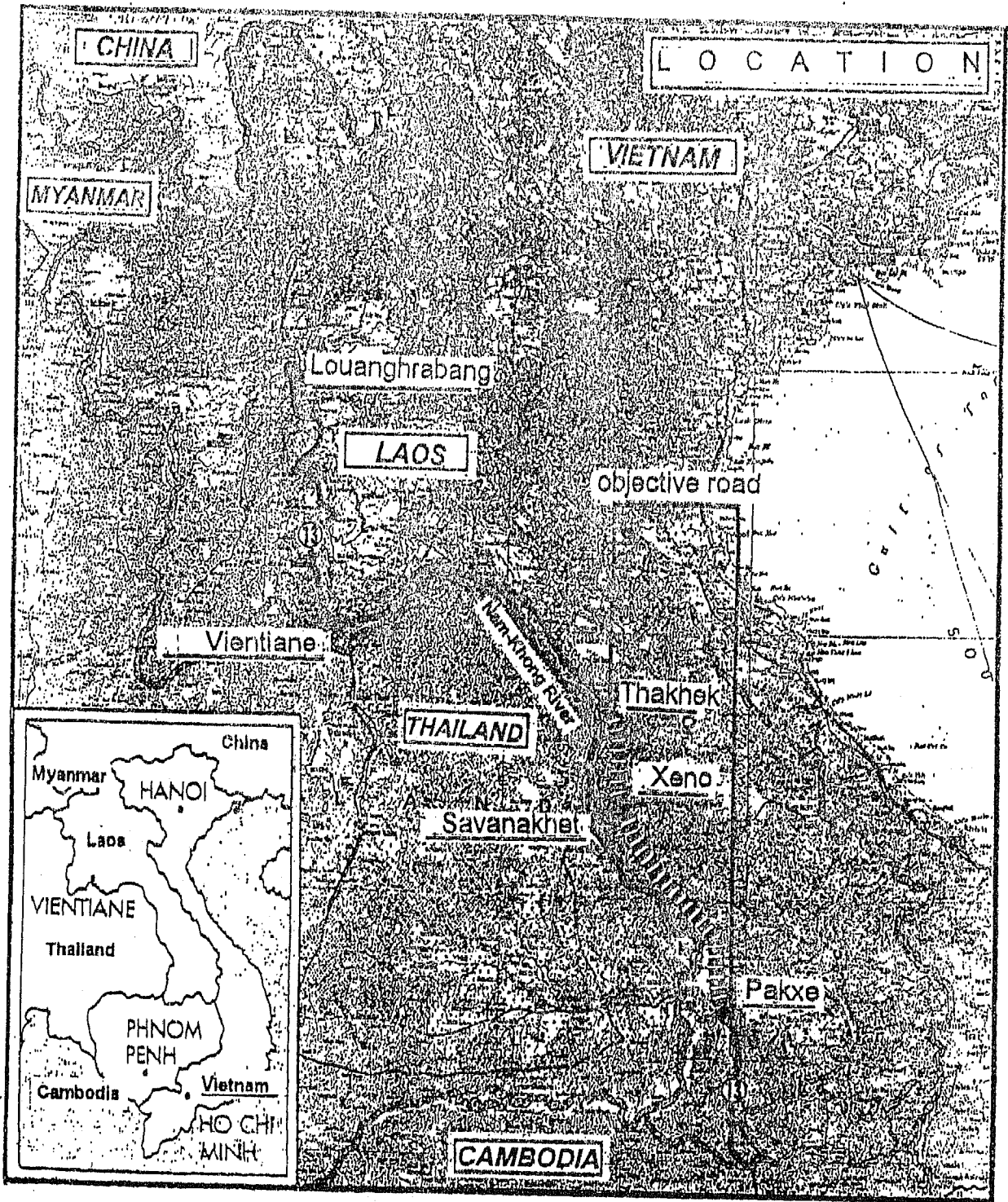
7. FURTHER SCHEDULE OF THE STUDY

JICA will complete the Final Report in accordance with the confirmed items and forward it to the Lao PDR by the end of November 1997.

8. MAINTENANCE AND MANAGEMENT

- 1) The Government of Lao PDR shall prepare enough budget and staff for the maintenance and management of project bridges after completion of the construction work.
- 2) Both sides confirmed the content and cost estimation of the required maintenance and management works of project bridges shown in the draft Basic Design Report (2).

ANNEX-1: THE SITE OF THE PROPOSED BRIDGES



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9. COUNTERPARTS TRAINING

The Government of Lao PDR requested the counterparts training in Japan during the implementation of the Project. The Study Team will convey this request to the Government of Japan.

10. OTHER RELEVANT ISSUE

The Government of the Lao PDR will take all possible measures to secure the safety of the concerned people during the implementation of the Project.



ANNEX-2: JAPANESE GRANT AID PROGRAMME

1. Grant Aid Procedures

- 1) Japan's Grant Aid Program is executed through the following procedures.

Application	(Request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
Determination of Implementation	(The Notes exchanged between the Governments of Japan and the recipient country)

- 2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

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2. Basic Design Study

1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as "the Study"), conducted by JICA on a requested project (hereinafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Japanese Government. The contents of the Study are as follows:

- a) Confirmation of the background, objectives, and benefits of the requested project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation,
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic points of view,
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project,
- d) Preparation of a basic design of the Project, and
- e) Estimation of costs of the Project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.

The consulting firm(s) used for the Study is (are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency and also to avoid any undue delay in implementation should the selection process be repeated.

3. Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanges by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

3) "The period of the Grant Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed.

However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However the prime contractors, namely, consulting, constructing and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"

The Government of recipient country or its designed authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

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6) Undertakings required of the Government of the Recipient Country

In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

- (1) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction,
- (2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- (3) To secure buildings prior to the procurement in case the installation of the equipment,
- (4) To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- (5) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- (6) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work,

(7) "Proper Use",

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

(8) "Re-export", and

The products purchased under the Grant Aid should not be re-exported from the recipient country.

(9) Banking Arrangements(B/A).

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.
- b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.



4. Grant Aid Procedures

Japan's Grant Aid procedures are explained in Fig. 1 "Flow Chart of Japan's Grant Aid Procedures".

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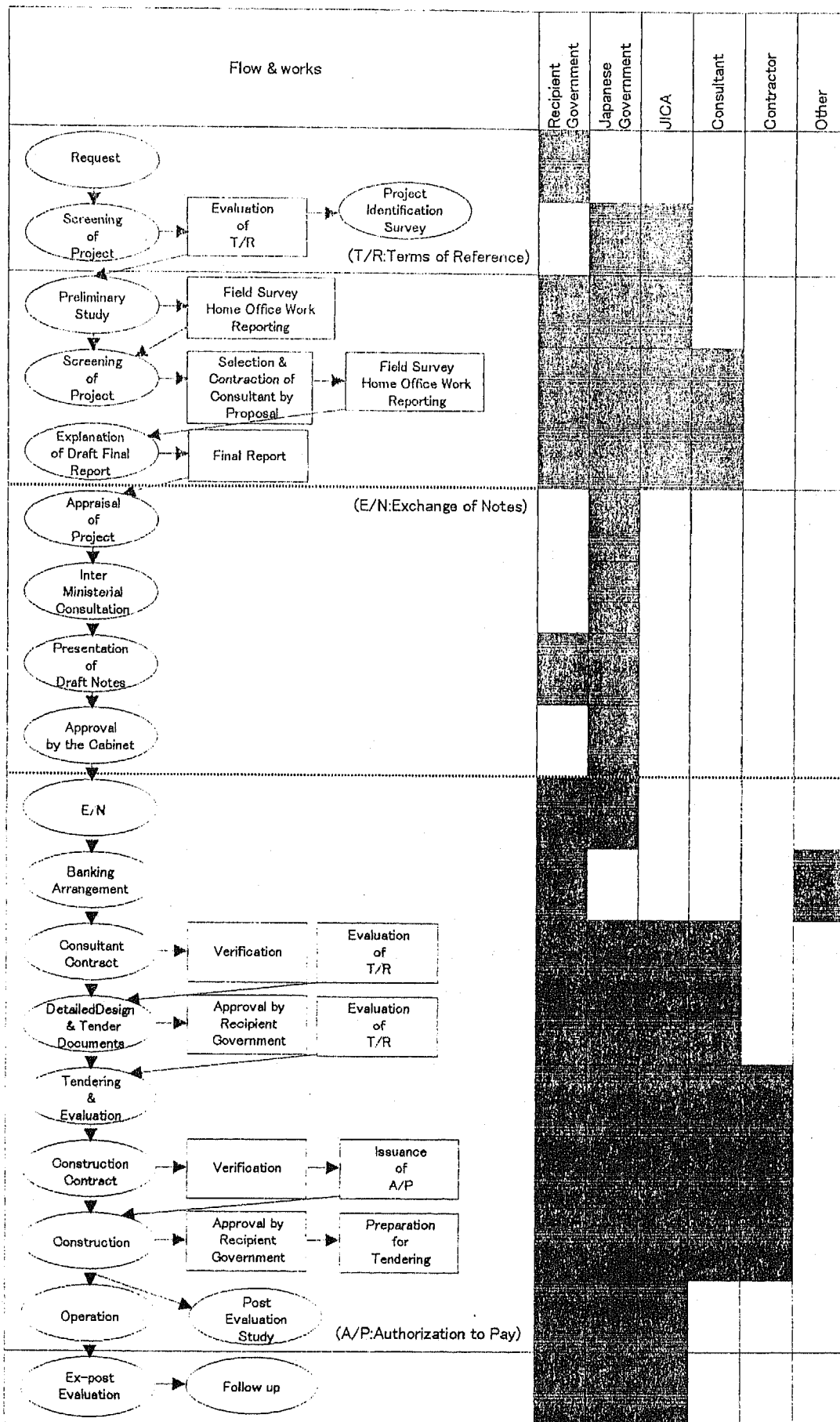


Fig. 1 Flow Chart of Japan's Grant Aid Procedures

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**ANNEX-3 NECESSARY MEASURES TO BE UNDERTAKEN
BY THE GOVERNMENT OF THE LAO PDR**

The following necessary measures should be taken by the Government of The Lao PDR on condition that the Grant Aid by the Government of Japan is extended to the Project.

1. To secure the land necessary for the execution of the Project, such as the land for bridges, working areas, storage yards and others;
2. To make all passable roads and bridges leading to the Project sites before the commencement of inland transportation of materials and equipment;
3. To undertake the incidental works, such as gardening, fencing, electric installations and other incidental facilities in and around the project sites, if necessary;
4. To ensure prompt unloading and customs clearance before entering in Laos and internal transportation therein of the products purchased under the Grant;
5. To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in Laos with respect to the supply of the products and services under the Verified Contracts;
6. To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts such facilities as may be necessary for their entry into Lao and stay therein for the performance of their work;
7. To maintain and use facilities constructed under the Grant properly and effectively for the Project;
8. To bear commissions to the Japanese foreign exchange bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commissions;
9. To bear all the expenses, other than those covered by the Grant, necessary for the Project; and
10. To coordinate and solve any issues related to the project which may be raised from third parties or inhabitants in the Project area during implementation of the Project.

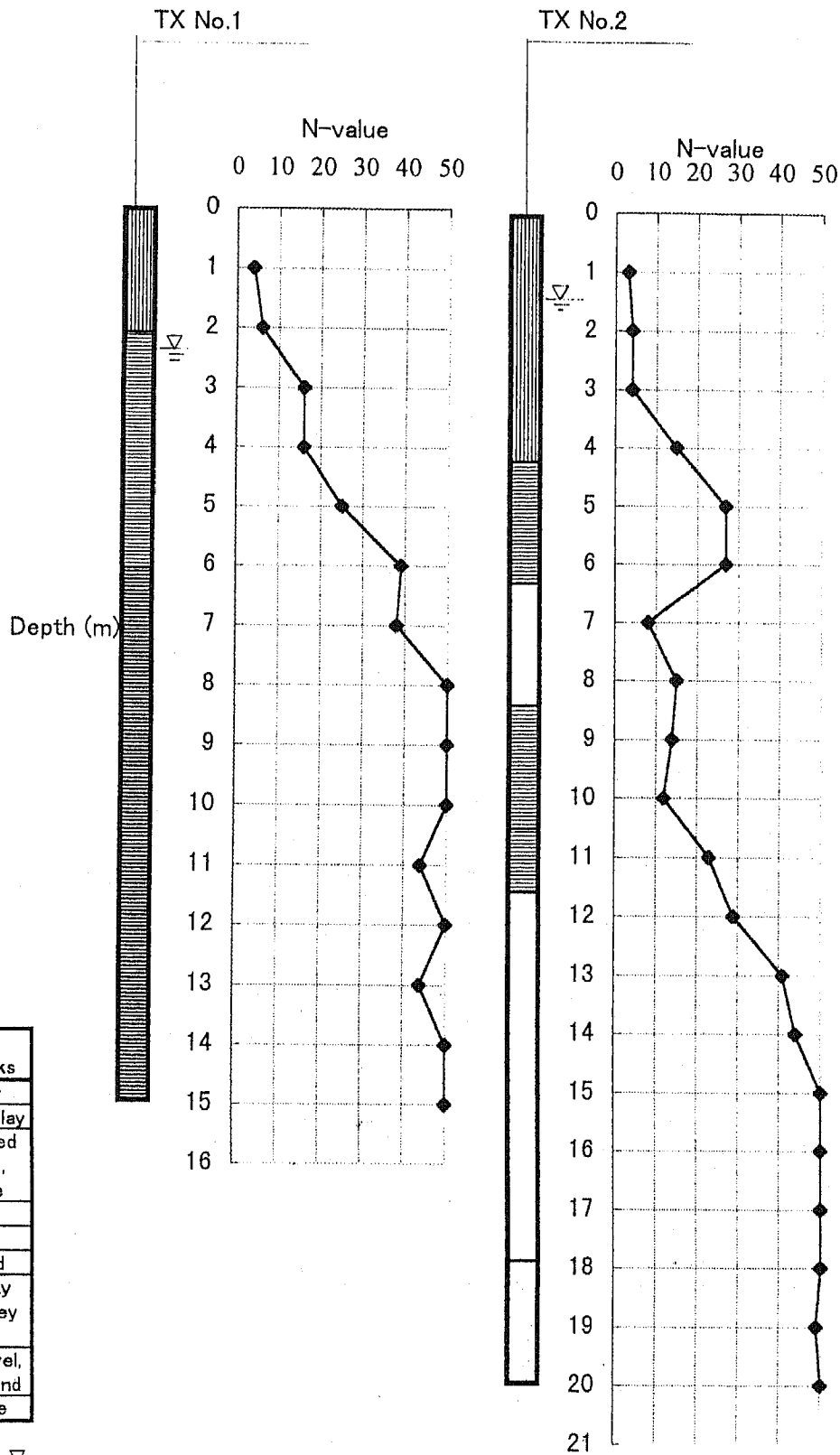


Appendix-5 Study Data SUMMARY OF BEARING LAYERS FOR BRIDGE LOCATION

BRIDGE NO.	LOCATION (KM) ¹	RIVER NAME	EXISTING BRIDGE LENGTH (M)	BEARING LAYER FOR FOUNDATION	ELEVATION OF BOREHOLE (M)	DEPTH OF BEARING LAYER (M)	ELEVATION OF BEARING LAYER (M)	DESCRIPTIONS
TX No.1	354.8	Saad	15.0	Decomposed Mudstone	150.9	6.0	144.9	Over N-value 30
TX No.2	360.6	Vanghing	15.0	Decomposed Sandstone	150.0	13.0	137.0	Over N-value 30
TX No.3	361.6	Hongnoy	5.5	Decomposed Sandstone	151.8	7.0	144.8	Over N-value 30
TX No.4	363.5	So	21.0	Sandy Gravel	153.9	6.0	147.9	Over N-value 50
TX No.5	366.8	Meuanpa-1	18.0	Decomposed Mudstone	154.2	2.0	152.2	Over N-value 30
TX No.6	367.1	Meuanpa-2	12.0	Decomposed Mudstone	153.8	5.0	148.8	Over N-value 30
TX No.7	371.1	Khamboune	18.0	Decomposed Mudstone	155.7	4.0	151.7	Over N-value 30
TX No.8	373.4	Langmeu	15.0	Decomposed Mudstone	154.5	3.0	151.5	Over N-value 30
TX No.9	375.3	Tad	27.0	Sandy Gravel	155.2	3.0	152.2	Over N-value 50
TX No.10	383.9	Ton	21.0	Decomposed Mudstone	152.0	6.0	146.0	Over N-value 30
TX No.11	386.1	Phao	27.0	Decomposed Mudstone	147.5	4.0	143.5	Over N-value 30
TX No.13	406.2	Sykhay	30.0	Sandy Gravel	153.1	12.0	141.1	Over N-value 50
TX No.14	413.2	Nakoktang	21.0	Decomposed Mudstone	153.2	4.0	149.2	Over N-value 30
TX No.15	422.2	Thahao	72.0	Decomposed Sandstone Decomposed Sandstone	150.3 148.0	4.0 11.0	146.3 137.0	Over N-value 50 Coring
XP No.1	436.0	Sompoi	9.0	Decomposed Mudstone	179.7	3.0	176.7	Over N-value 50
XP No.2	515.3	Enang	54.0	Sandstone Siltstone	137.6 136.5	6.0 6.0	131.6 130.5	Coring Coring
XP No.3	517.7	Katho	18.0	Mudstone	142.1	1.7	140.4	Coring
XP No.5	533.0	Piane	36.0	Decomposed Mudstone	131.4	4.0	127.4	Over N-value 50
XP No.7	568.1	Teaue	21.0	Sandstone	140.6	2.2	138.4	Coring
XP No.8	570.6	Naviene	9.0	Sandstone	141.7	0.3	141.4	Coring
XP No.9	571.5	Okad	21.0	Sandstone	140.7	2.1	138.6	Coring
XP No.10	512.6	Lamphong	45.0	Sandstone Sandstone	141.6 142.3	0.7 0.0	140.9 142.3	Coring Coring
XP No.11	575.4	Kennoy	21.0	Sandstone	147.9	3.4	144.5	Coring
XP No.12	578.7	Kapho	15.0	Sandstone	155.5	2.1	153.4	Coring
XP No.13	580.2	Hinsoung	18.0	Decomposed Mudstone	159.1	4.0	155.1	Over N-value 50
XP No.14	581.3	Va	21.0	Decomposed Mudstone	157.2	2.0	155.2	Over N-value 50
XP No.15	582.7	Muanxay	24.0	Decomposed Mudstone	161.3	2.0	159.3	Over N-value 50
XP No.16	585.5	Phabath	21.0	Sandstone	172.2	1.4	170.8	Coring
XP No.17	594.6	Makthane	21.0	Decomposed Mudstone	166.9	2.4	164.5	Over N-value 50
XP No.18	601.2	Mee	21.0	Decomposed Mudstone	156.6	2.0	154.6	Over N-value 30
XP No.19	607.3	Liao	27.0	Sandstone	159.4	3.9	155.5	Coring
XP No.20	607.4	Hinlath	18.0	Sandstone	152.9	0.2	152.7	Coring
XP No.21	608.8	Khene	27.0	Sandstone	150.1	2.4	147.7	Coring
XP No.22	609.2	Khay	18.0	Mudstone	134.0	4.0	130.0	Coring
XP No.23	619.8	Mone-1	18.0	Decomposed Mudstone	133.1	4.0	129.1	Over N-value 50
XP No.24	622.3	Mone-2	15.0	Sandstone	130.4	3.4	127.0	Coring
XP No.25	625.1	Phaneng	18.0	Stiff Clay	128.1	1.0	127.1	Over N-value 30
XP No.26	625.8	Kasong	18.0	Decomposed Mudstone	127.6	2.0	125.6	Over N-value 50
XP No.27	626.3	Katine	36.0	Stiff Clay	130.1	1.0	129.1	Over N-value 50
XP No.28	634.3	Sao	48.0	Mudstone Decomposed Mudstone	128.6 130.4	15.0 15.0	113.6 115.4	Coring Over N-value 30
XP No.29	635.9	Lane	42.0	Decomposed Mudstone Decomposed Mudstone	130.2 131.5	4.0 2.0	126.2 129.5	Over N-value 50 Over N-value 30
XP No.30	683.3	Nonesene	21.0	Sandstone	126.7	5.0	121.7	Coring
XP No.31	639.3	Khammuang	15.0	Decomposed Sandstone	126.7	3.0	123.7	Over N-value 50
XP No.32	639.9	Kok	15.0	Decomposed Sandstone	126.6	4.0	122.6	Over N-value 50
XP No.33	640.2	Vangmane	15.0	Sandstone	127.7	6.0	121.7	Coring
XP No.34	640.5	Kamphoon	12.0	Silty Sand	128.2	2.0	126.2	Over N-value 50
XP No.35	642.7	Huakhao	15.0	Silty Sand	128.7	2.0	126.7	Over N-value 30
XP No.36	643.7	Soa	27.0	Sandstone	128.0	2.9	125.1	Coring
XP No.37	648.4	Epeng	21.0	Decomposed Sandstone	124.0	3.0	121.0	Over N-value 50
XP No.38	649.0	Kadi	18.0	Stiff Clay	123.2	1.0	122.2	Over N-value 30
XP No.39	661.3	Sonenak	18.0	Decomposed Sandstone	115.4	4.0	111.4	Over N-value 50

*1---- from Vientiane

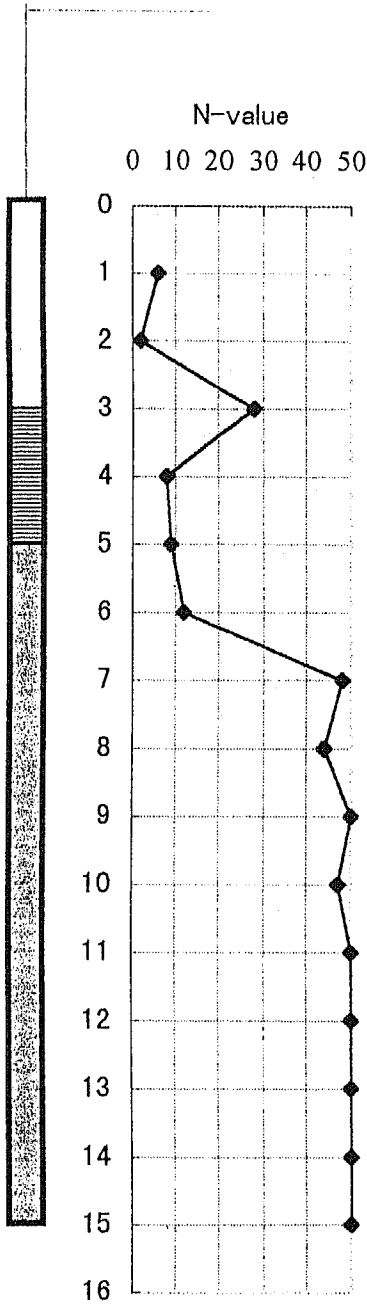
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THE NATIONAL ROAD ROUTE 13, PHASE II
IN
LAO PEOPLE'S DEMOCRATIC REPUBLIC



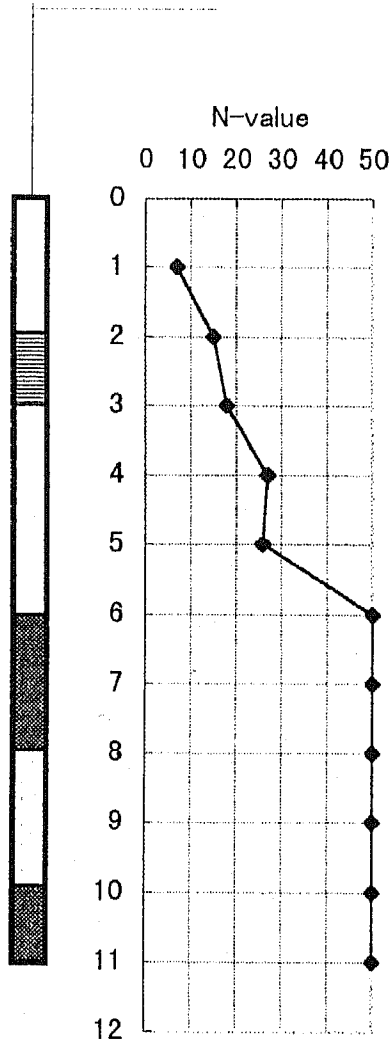
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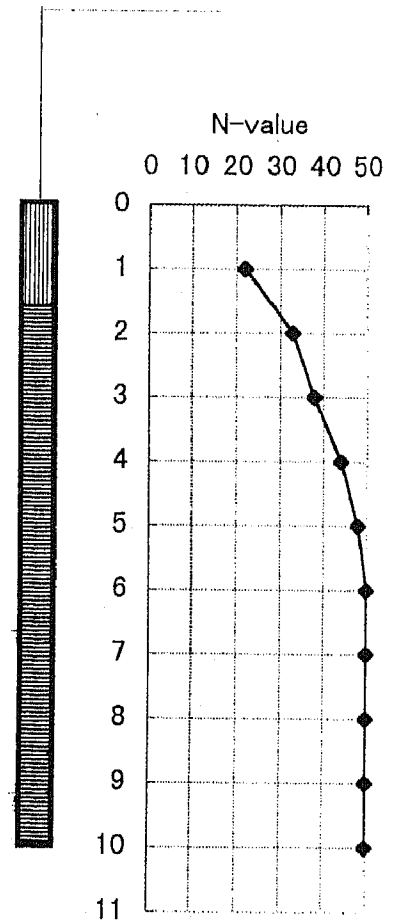
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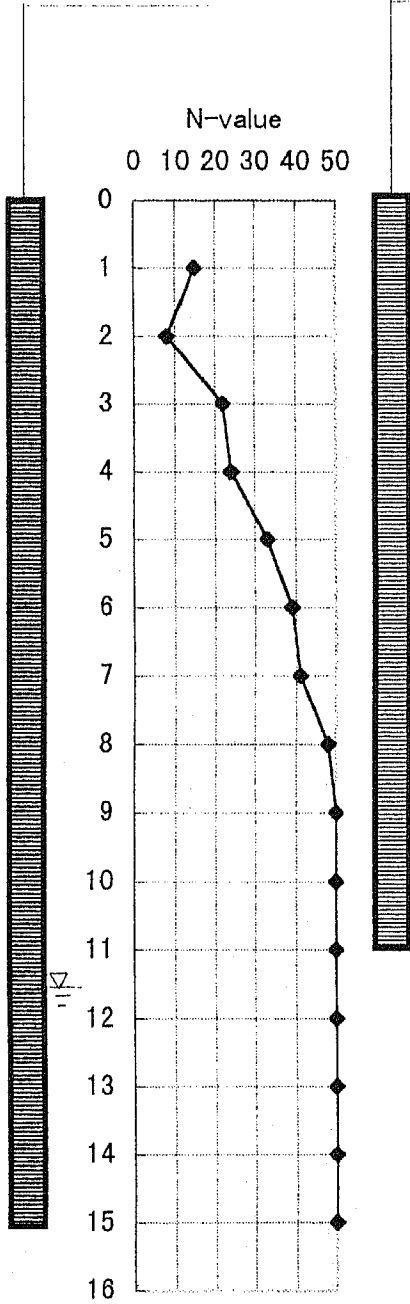


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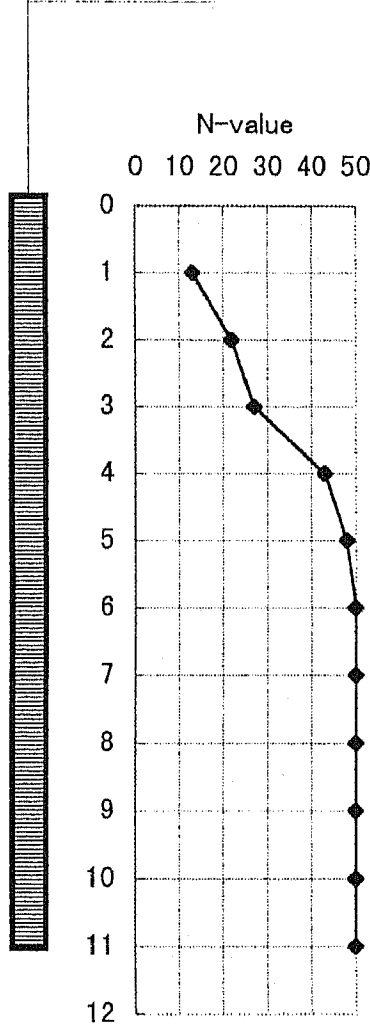


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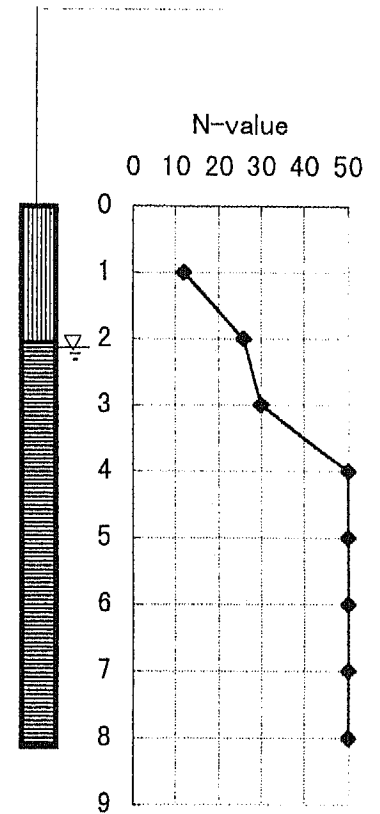
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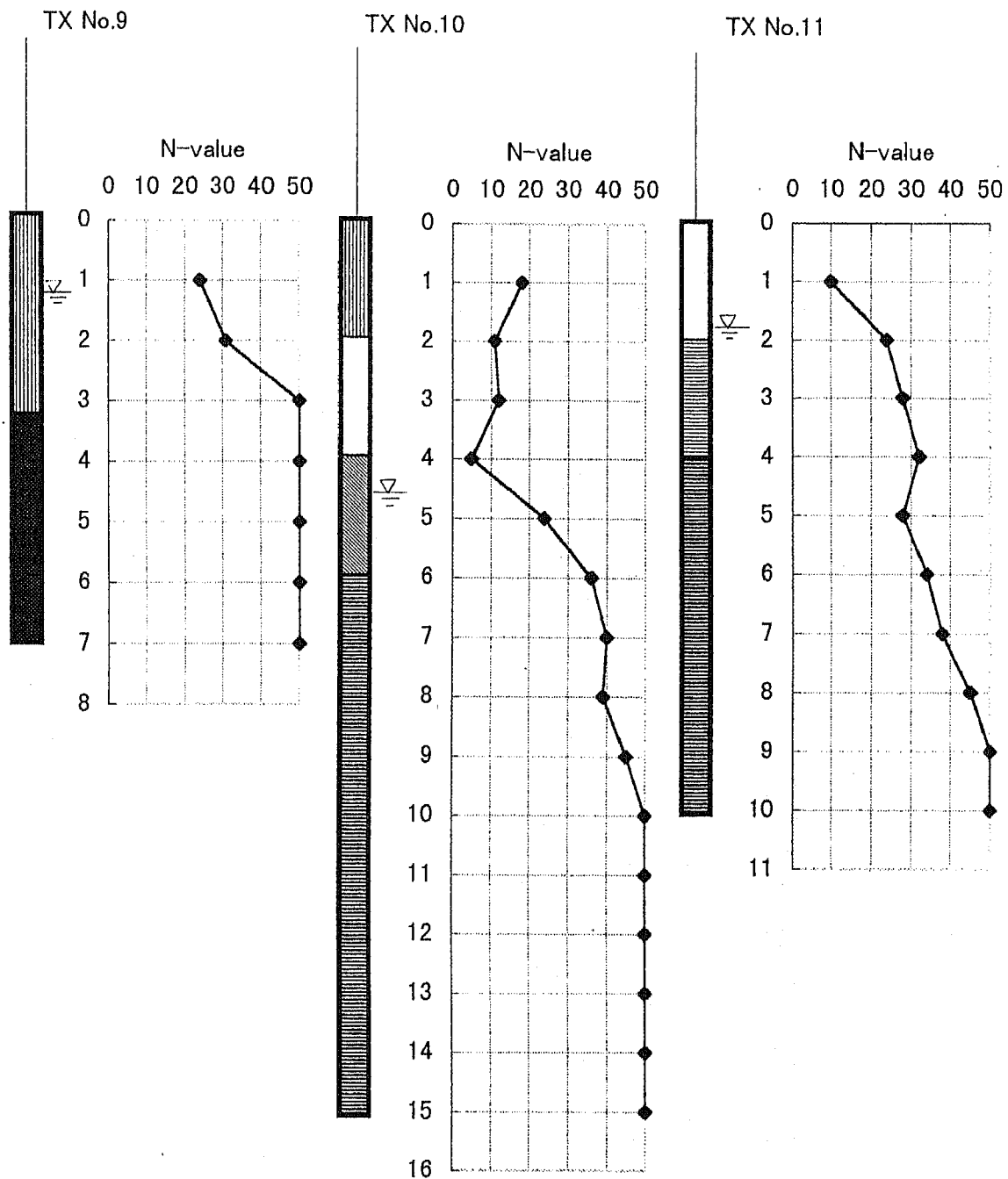
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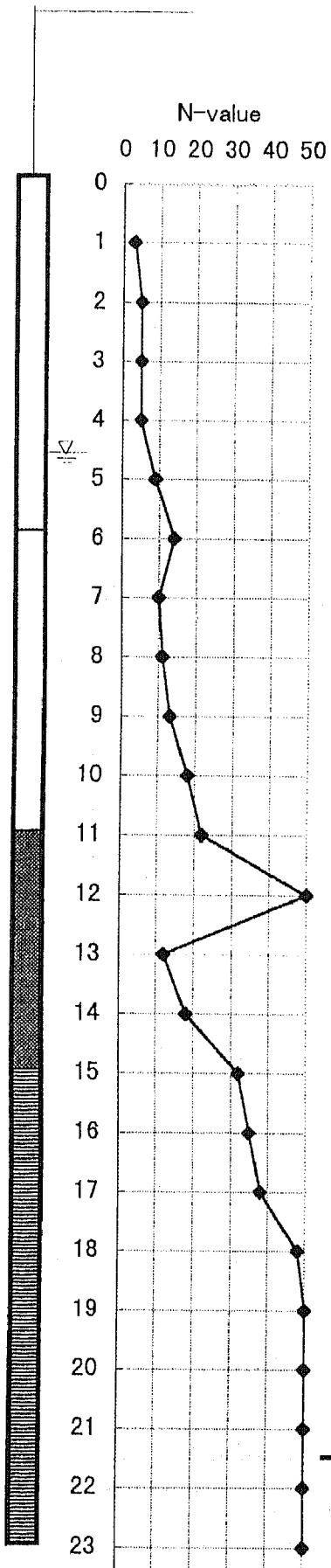


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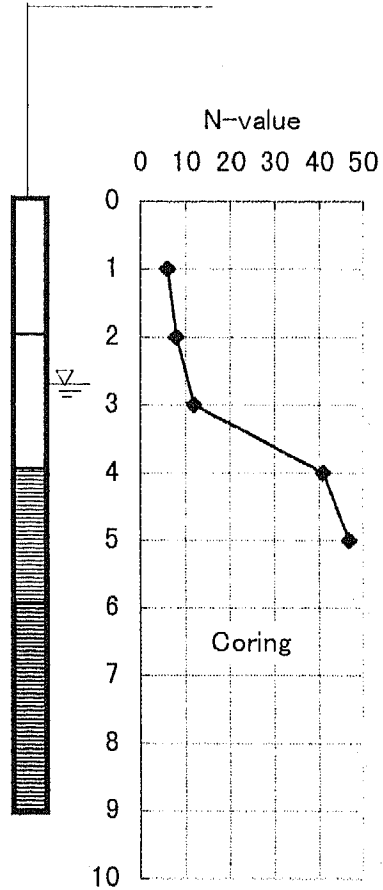


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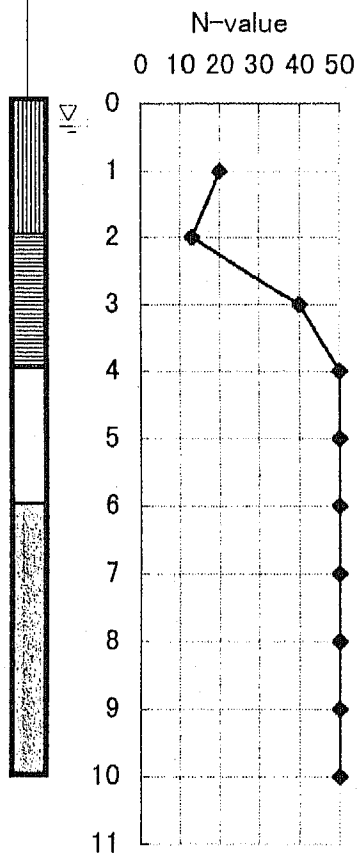
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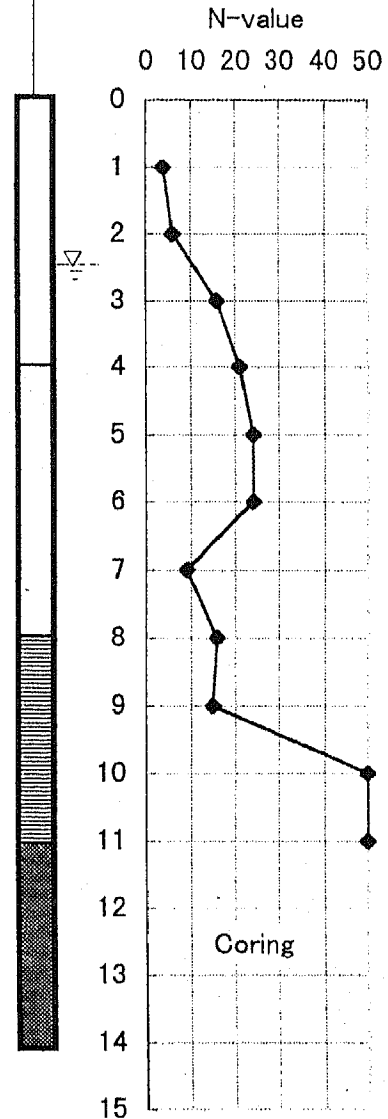
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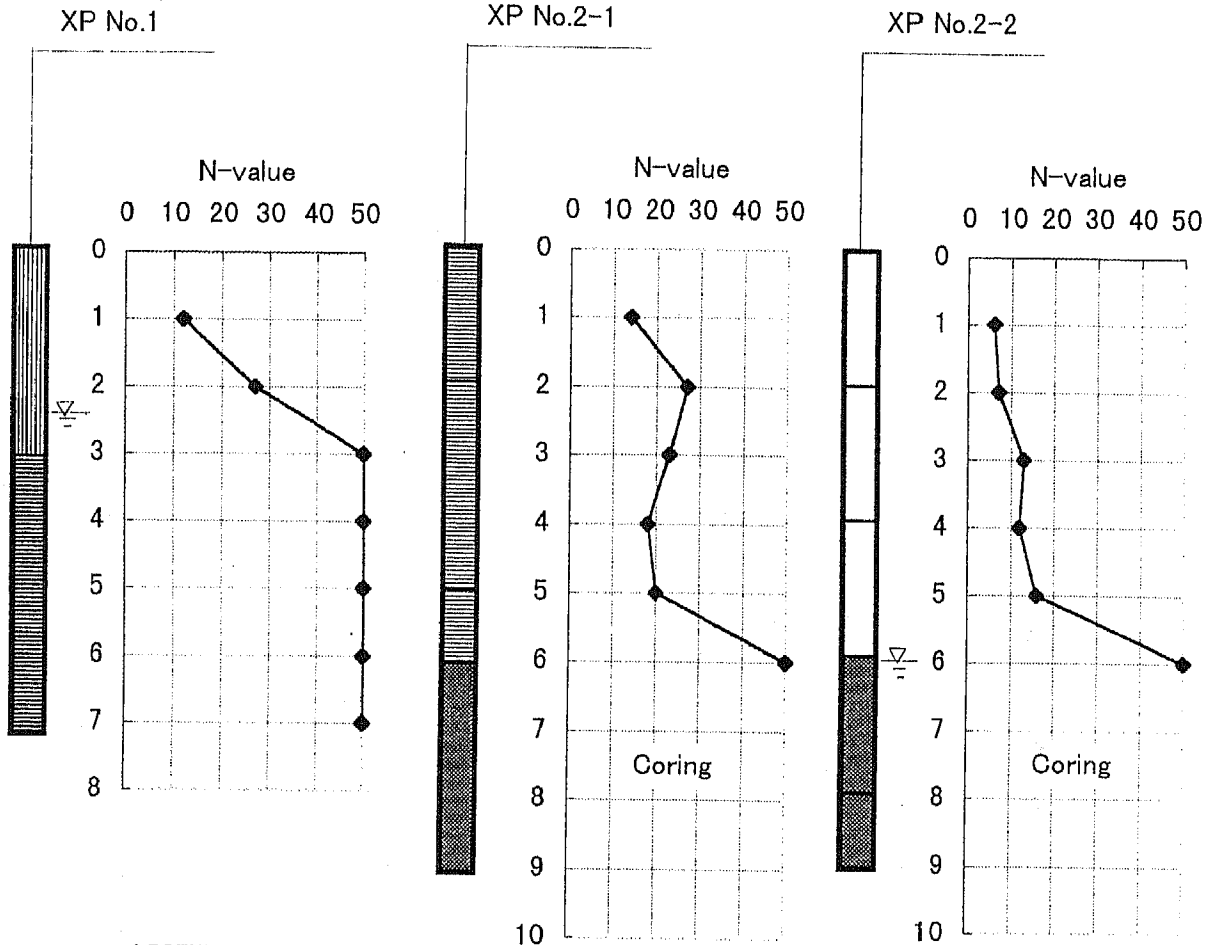
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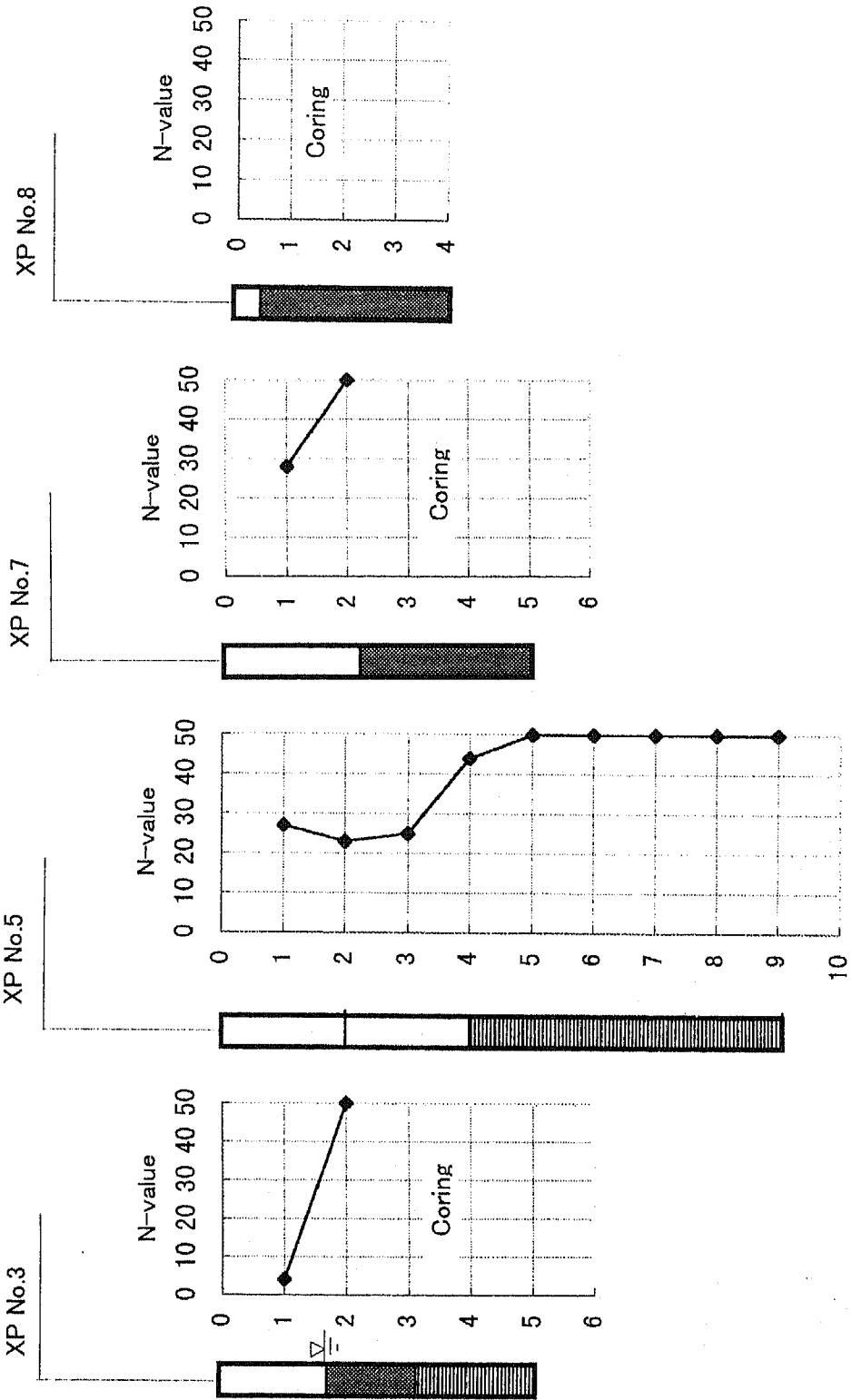


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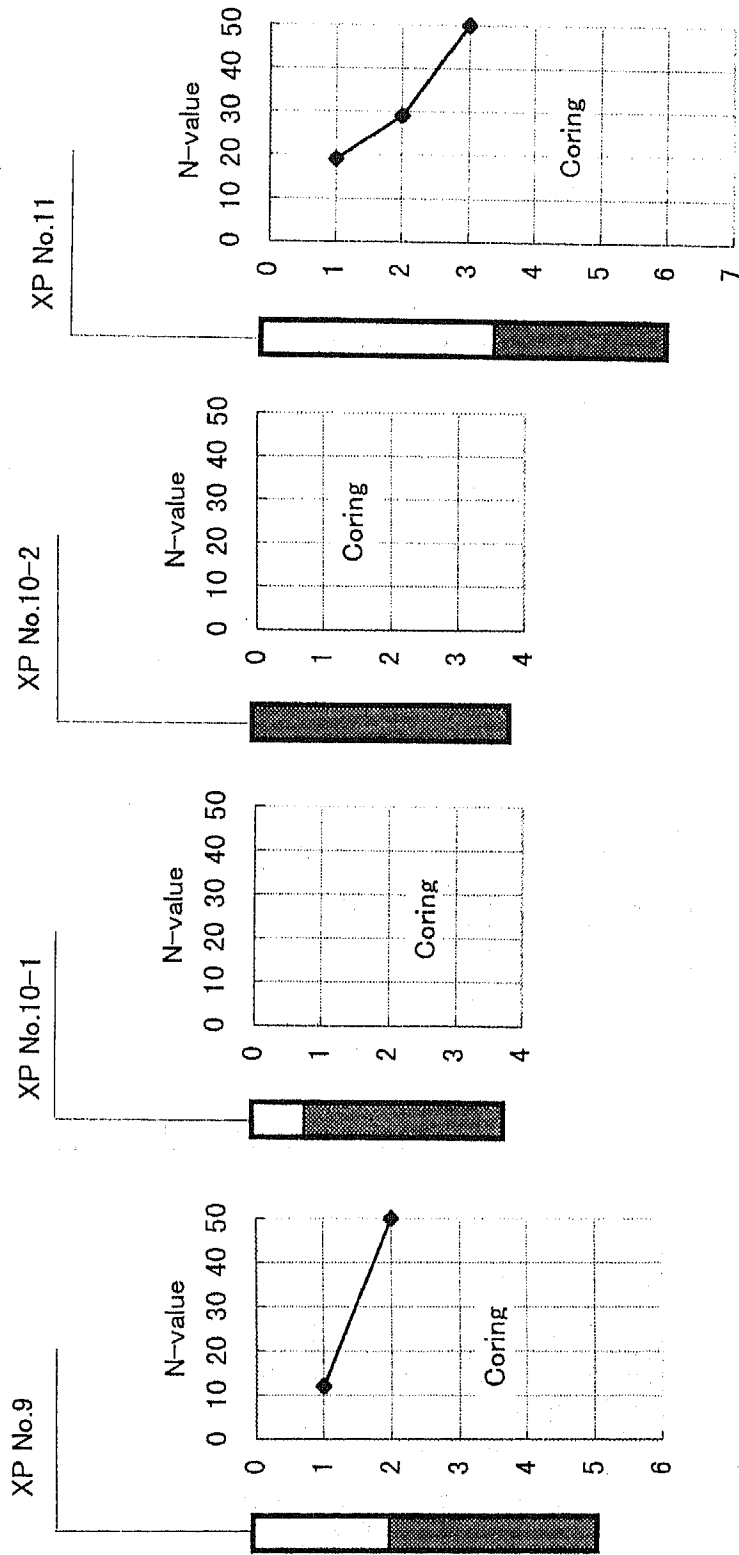
Symbolic Column	Type of Soils/Rocks
	Silty Clay
	Clay, Stiff Clay
	Decomposed Mudstone, Mudstone
	Sand
	Silty Sand
	Dense Silty Sand, Clayey Sand
	Sandy Gravel, Gravelly Sand, Sandstone

No indication of water table (∇) means that no water table was found in drilling March 1997.

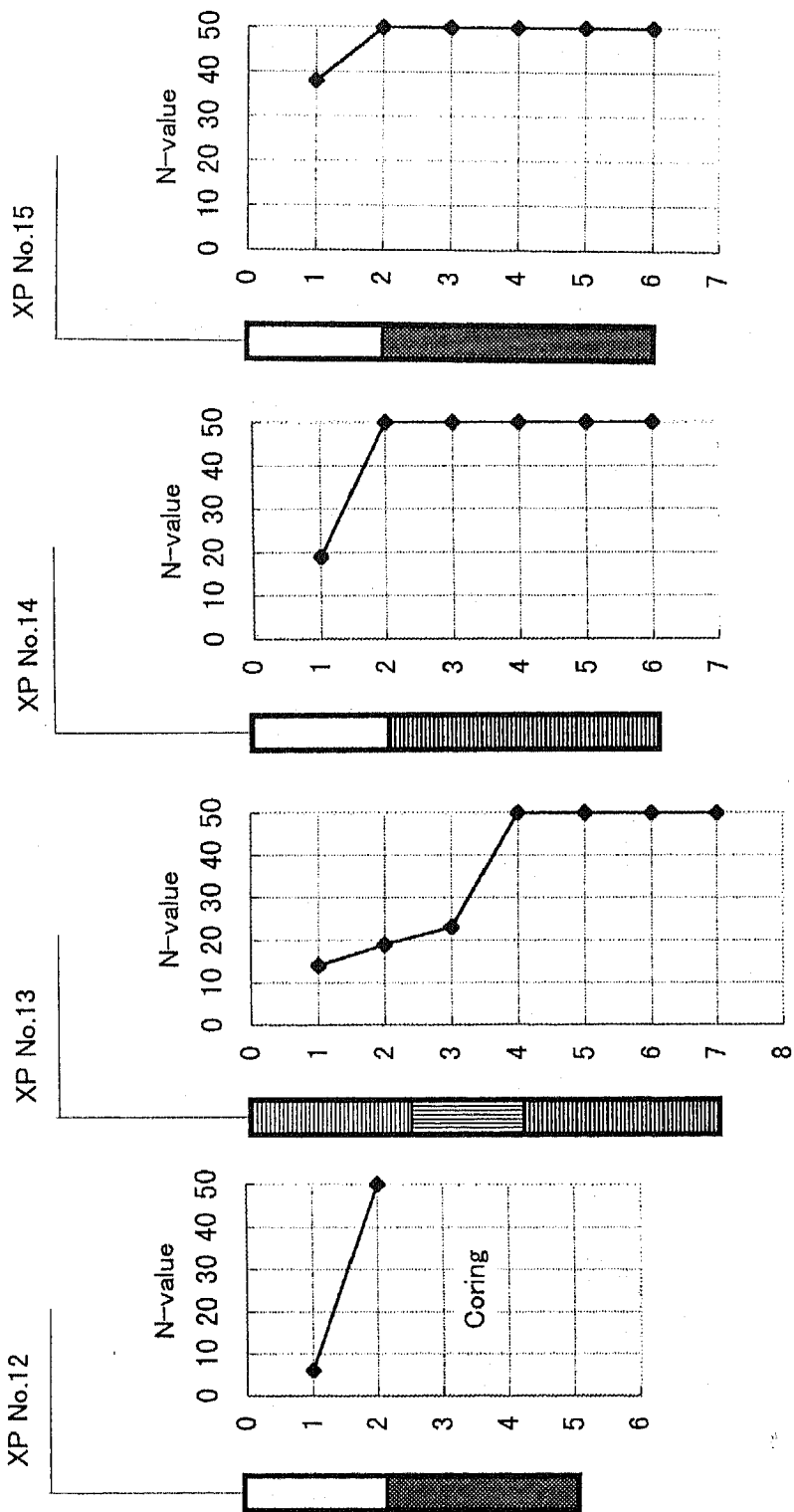
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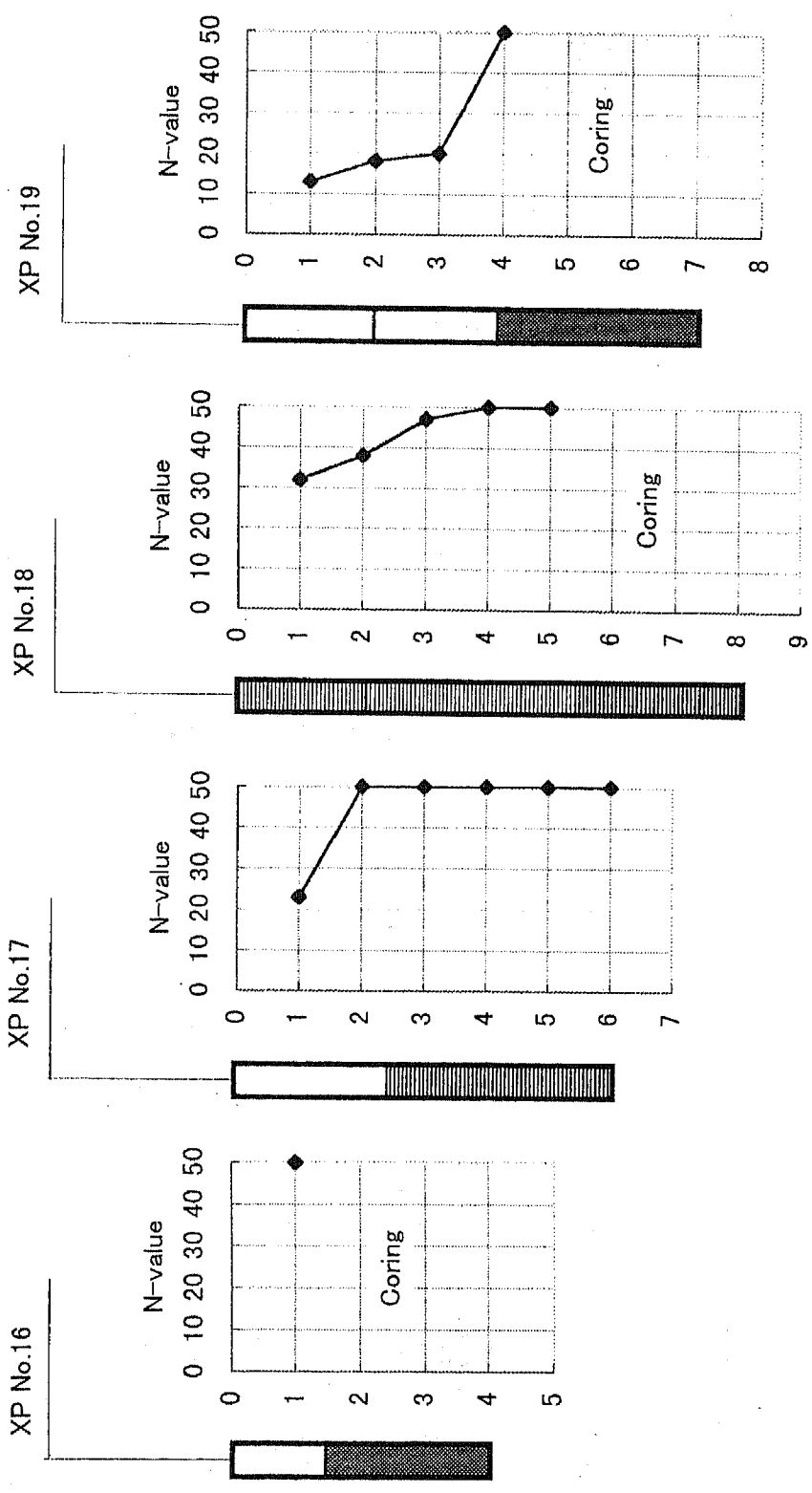
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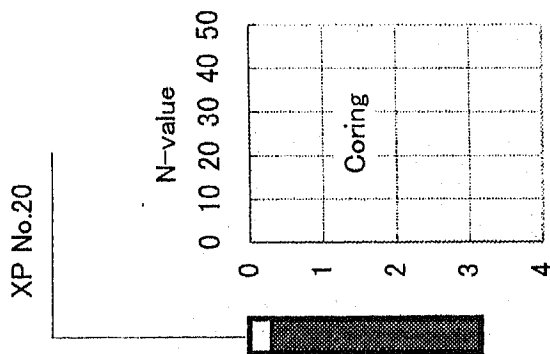
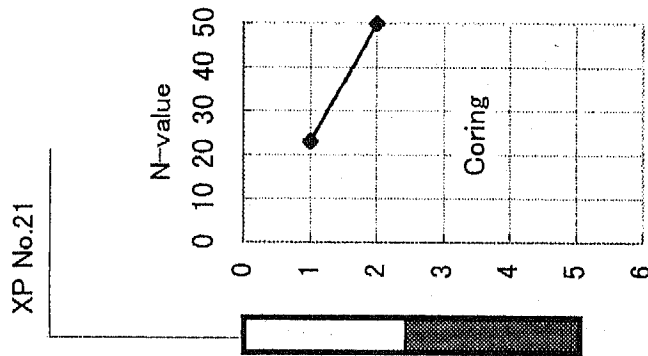
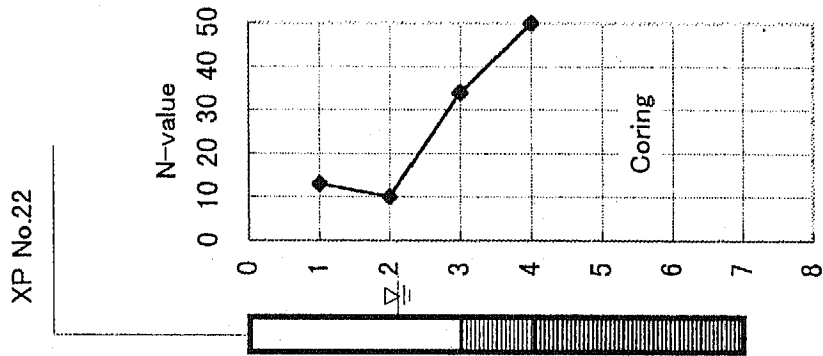
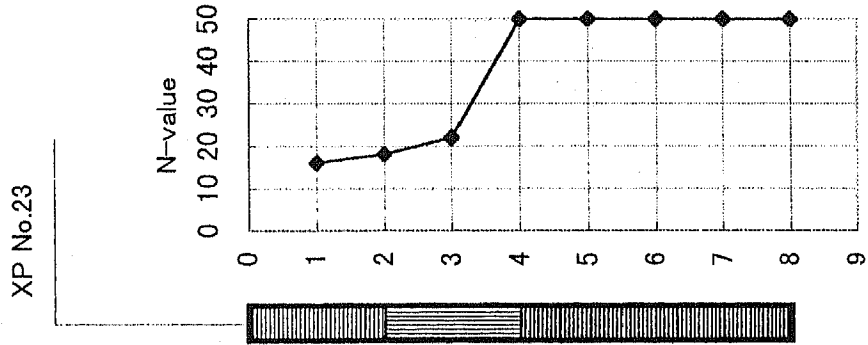
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 THE NATIONAL ROAD ROUTE 13, PHASE II
 IN
 LAO PEOPLE'S DEMOCRATIC REPUBLIC



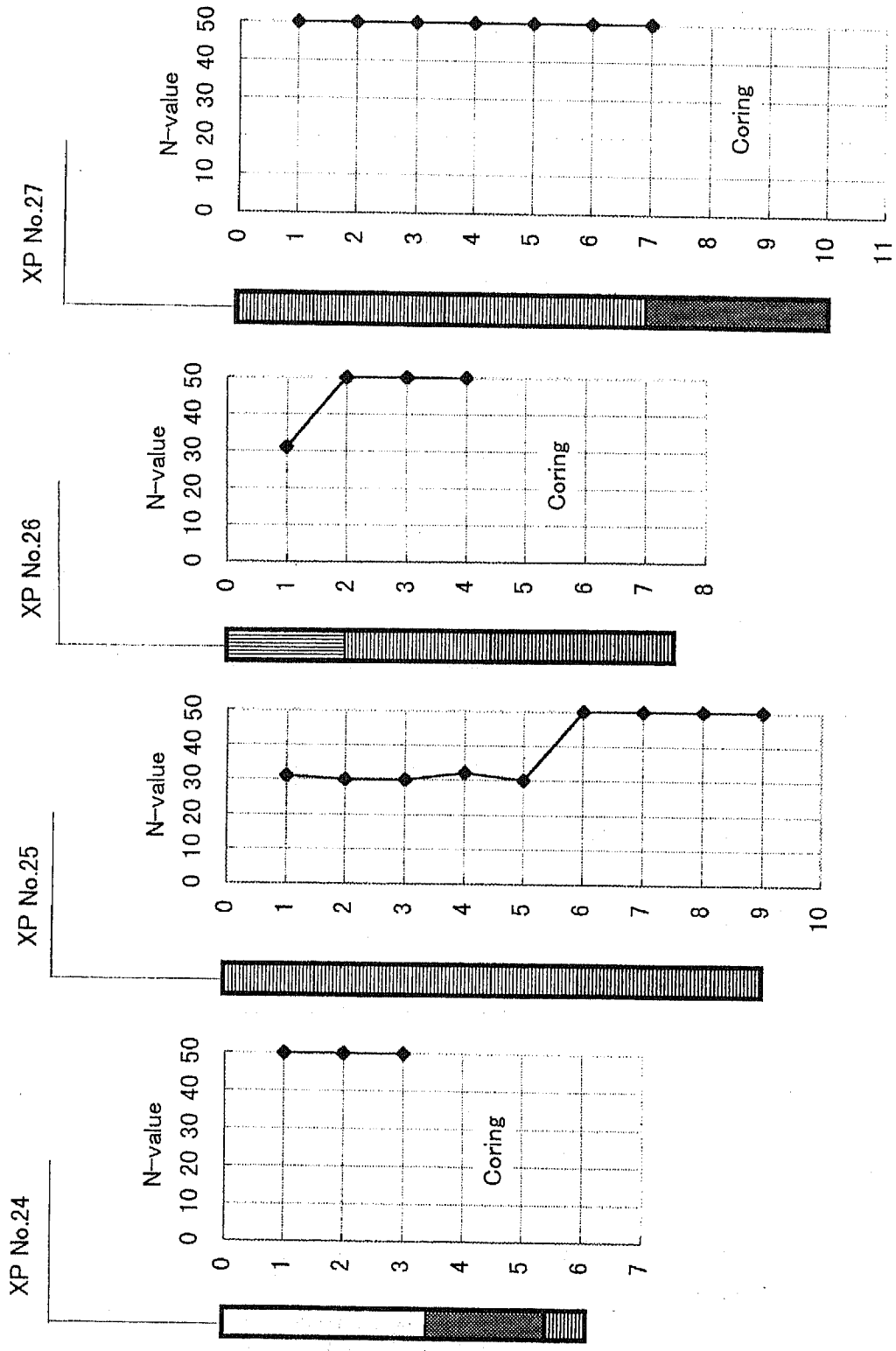
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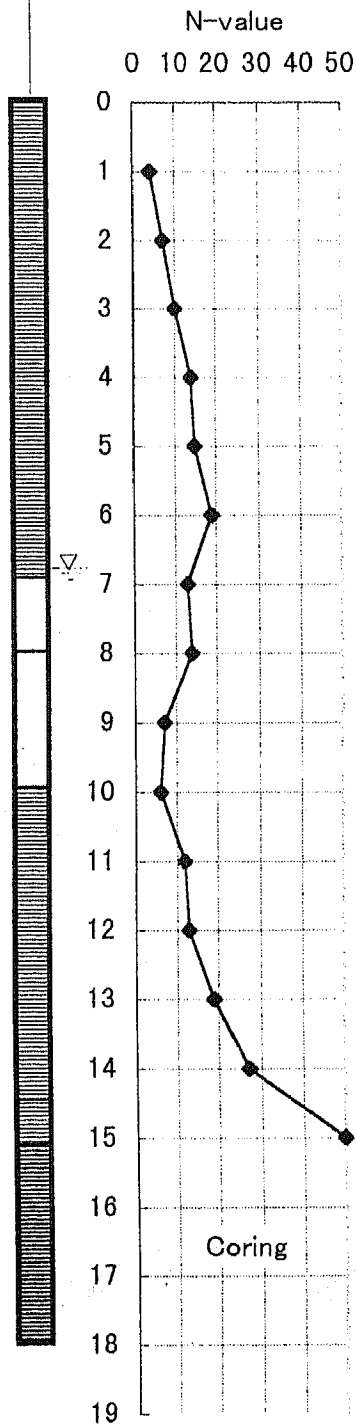


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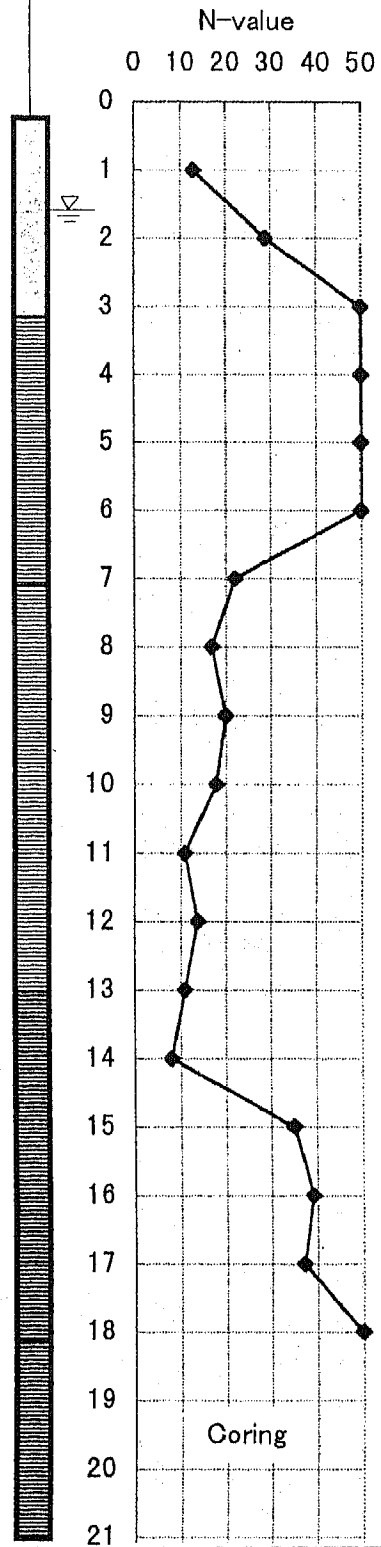


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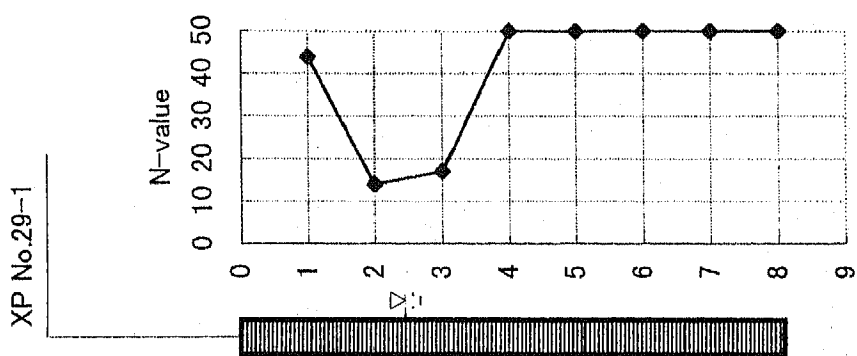
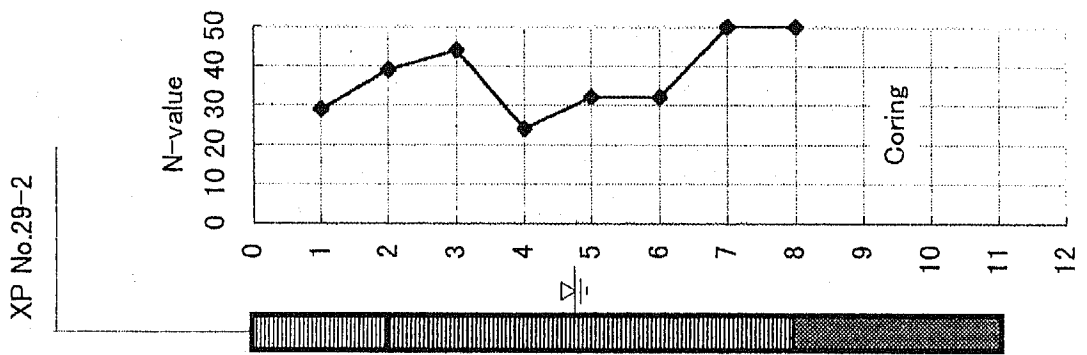
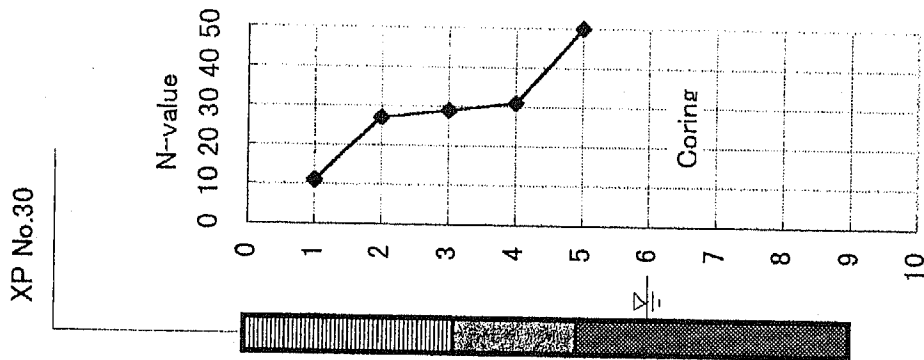
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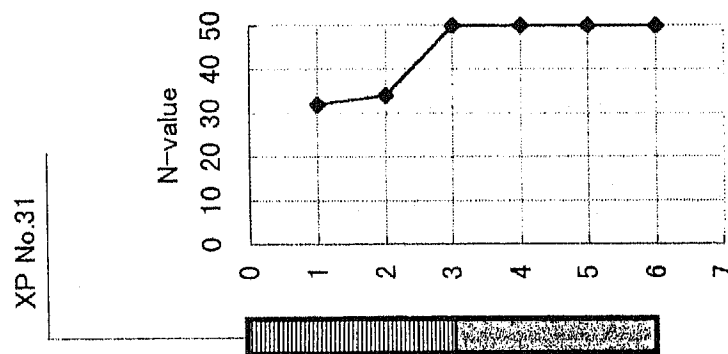
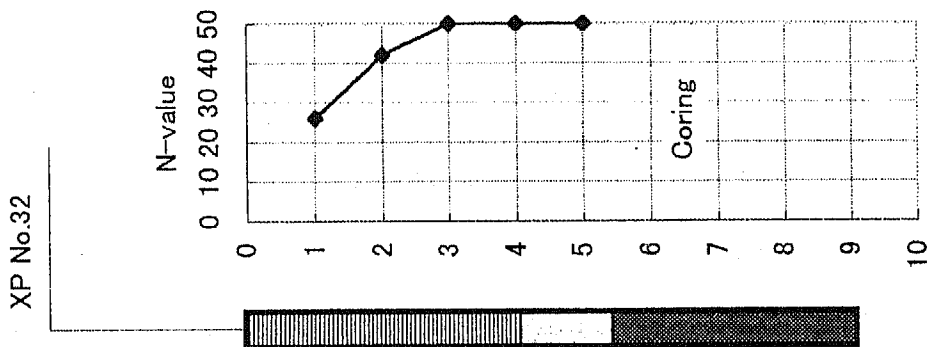
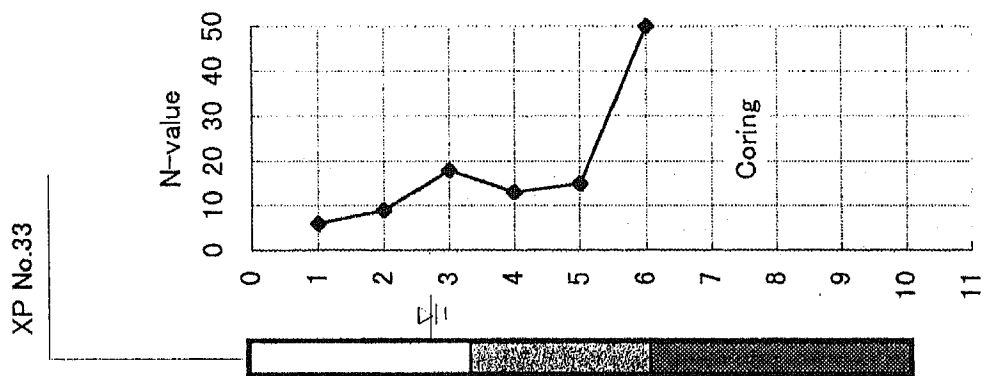
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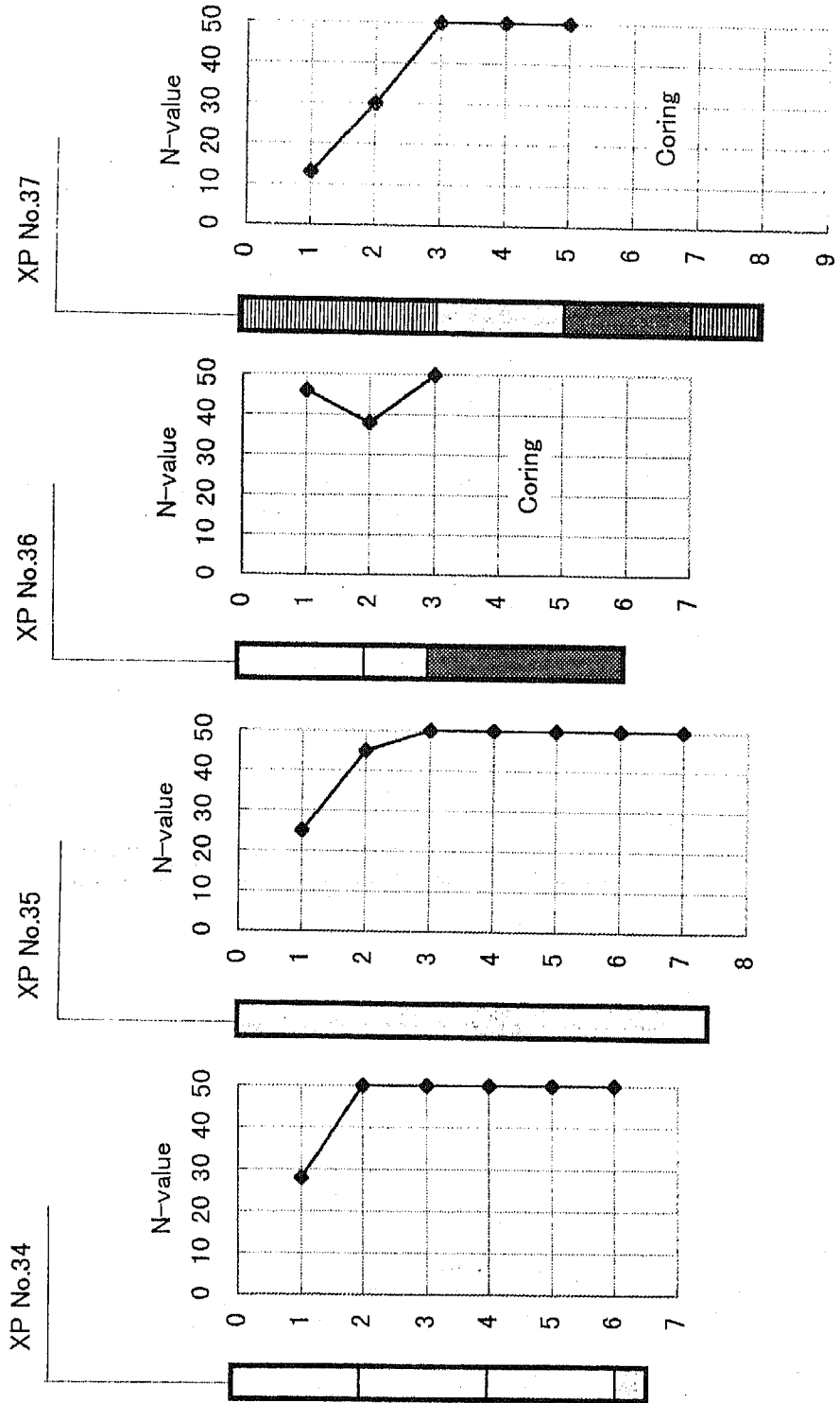
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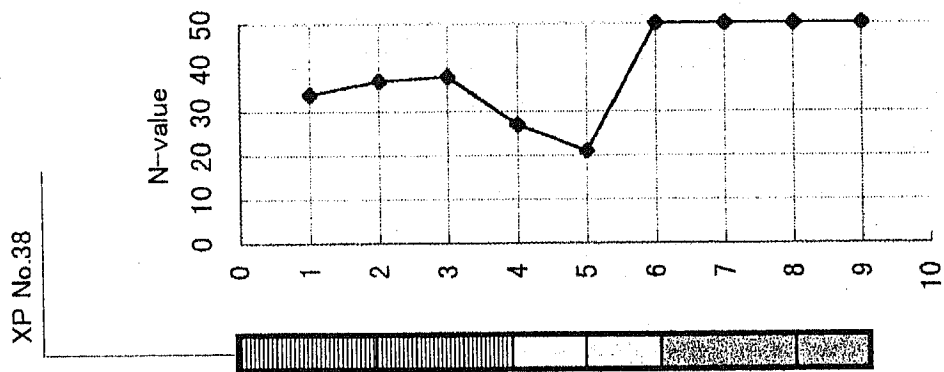
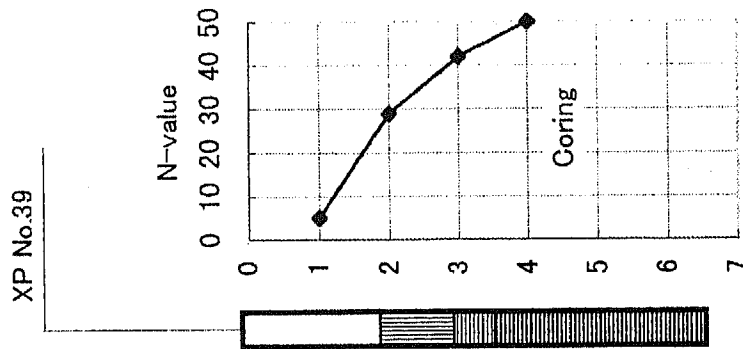
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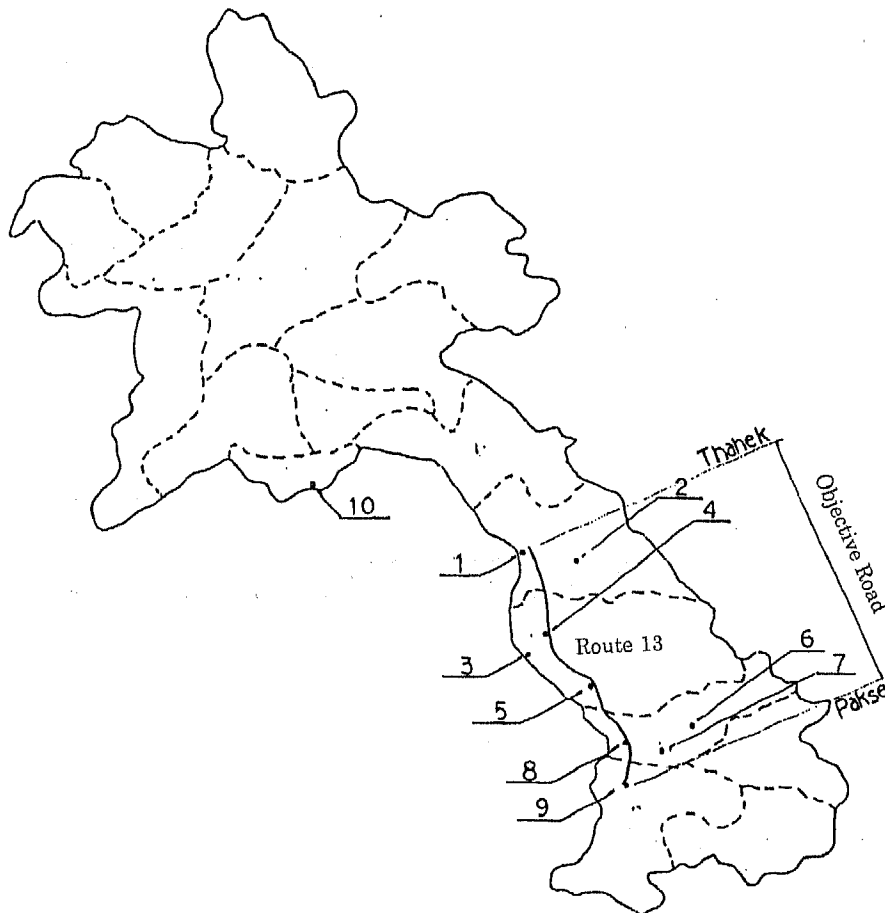
APPENDIX-6 RAINFALL DATA

Maximum Rainfall Record per Day

unit : mm

Location	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	Max	Remark
1. Thakhek	149.6(8)	157.9(8)	152.1(8)	136.3(7)	216.9(8)	151.1(8)	74.0(8)	202.3(7)	156.6(8)	271.4(8)	121.3(9)	202.3	1983. 6. 25 Max 450.3mm
2. Mahaxay						182.5(8)	166.0(4)	100.0(5)	129.2(8)	124.0(8)	200.0(7)	200.0	
3. Savanokhet	96.1(7)	96.7(8)	69.3(8)	70.9(7)	83.0(8)	184.8(9)	120.8(8)	73.1(5)	92.2(8)	81.3(8)	93.2(9)	184.8	
4. Seno						137.6(9)	74.8(7)	179.6(8)	126.0(8)	63.2(5)	69.7(8)	137.6	
5. B. Kengdone						243.1(9)	126.5(7)	65.2(8)	112.1(7)	111.7(8)	113.7(9)	243.1	
6. Saravane						152.5(8)	184.5(8)	190.5(8)	86.5(9)	156.6(7)	299.2(9)	299.2	
7. Laongam						105.6(8)	219.2(6)	72.5(8)	73.5(9)	75.0(6)	168.5(9)	219.2	
8. Kongsedone						204.2(7)	163.7(7)	95.6(6)	108.3(9)	72.0(8)	143.7(9)	204.2	
9. Pakse	105.8(8)	226.4(8)	115.7(8)	81.2(7)	54.3(8)	87.6(9)	81.2(8)	86.4(8)	178.1(9)	95.9(7)	93.6(8)	178.1	
10. Vientiane						80.6(7)	151.5(6)	150.4(6)	77.6(6)	134.6(8)	123.5(7)	151.5	

() ; month



SURVEY POINT

Discharge Volume and Discharge Capacity

Bridge No.	Catchment Area C. A km ²	River Length L km	Height from Riverbed H m	Riverbed Grade l	Discharge Volume m ³ /S	Op	Discharge Capacity m ³ /S	H. W. L. m	Remark
TX - Na 1	8.2	3.5	50	1/200	143.0	<	155.0	150.980	
Na 2	4.0	3.0	50	"	77.6	<	99.8	150.239	
Na 3	3.6	3.0	50	"	70.0	<	110.0	153.622	
Na 4	8.0	3.0	60	"	161.8	<	164.0	153.886	
Na 5	11.0	4.0	50	"	176.1	<	204.8	155.709	
Na 6	2.5	2.0	25	"	54.8	<	94.6	154.357	
Na 7	18.0	5.0	30	1/100	234.8	<	474.0	156.426	
Na 8	3.5	2.0	40	"	85.5	<	124.8	155.800	
Na 9	5.4	3.0	25	1/200	89.2	<	419.0	156.750	
Na 10	6.3	3.0	30	"	108.6	<	280.6	151.045	
Na 11	8.4	4.0	40	"	127.0	<	560.3	149.847	
Na 13	112.0	20.0	150	"	753.2	<	1507.5	154.371	
Na 14	19.2	5.0	20	1/400	213.2	<	521.8	155.833	
Na 15	530.0	70.0	200	1/600	1598.0	<	4633.0	154.817	
XP - Na 1	2.0	—	—	"	49.6	<	54.1	180.389	
Na 2	97.5	20.0	30	"	452.0	<	2061.0	141.362	
Na 3	2.4	—	—	1/400	59.5	<	153.8	143.238	
Na 5	25.8	6.0	20	1/600	250.9	<	840.0	132.728	
Na 7	4.0	2.0	30	1/400	91.5	<	184.8	142.900	
Na 8	4.0	2.5	30	1/200	78.5	<	93.9	143.158	
Na 9	3.2	2.0	20	1/600	66.6	<	200.6	142.604	
Na 10	116.0	15.0	260	1/200	1080.0	<	1131.0	144.502	
Na 11	8.7	7.0	130	1/600	117.1	<	266.7	149.553	
Na 12	6.0	4.5	130	1/400	109.8	<	225.5	157.323	
Na 13	7.8	4.0	130	1/600	154.8	<	408.4	160.624	
Na 14	2.2	—	—	1/400	54.6	<	184.8	158.097	
Na 15	13.8	5.0	110	"	225.5	<	494.9	162.226	
Na 16	7.6	4.0	230	1/600	172.1	<	184.0	171.491	
Na 17	9.2	5.0	290	1/200	188.1	<	325.4	167.939	
Na 18	14.8	5.0	110	"	241.9	<	602.7	157.855	
Na 19	1.2	—	—	1/600	29.8	<	510.3	162.233	
Na 20	1.0	—	—	"	24.8	<	55.8	154.023	
Na 21	15.0	5.0	340	1/200	318.1	<	451.0	151.996	
Na 22	19.9	7.0	340	"	341.0	<	750.0	137.052	
Na 23	19.6	7.0	340	1/400	338.0	<	376.1	135.260	
Na 24	5.1	2.5	280	1/600	167.5	<	303.0	134.086	
Na 25	3.0	15.0	180	1/1000	25.7	—	—	133.198	
Na 26	0	—	—	"	14.9	—	—	133.062	
Na 27	17.8	7.0	270	"	284.6	<	928.0	132.805	
Na 28	78.2	14.0	350	"	818.9	<	1438.0	130.582	
Na 29	8.7	7.0	500	"	159.8	<	871.9	130.940	
Na 30	3.2	2.0	80	"	91.8	<	292.8	130.149	
Na 31	1.5	—	—	"	42.5	<	115.8	129.799	
Na 32	2.1	—	—	1/600	59.5	<	102.0	129.153	
Na 33	4.0	2.0	480	"	173.6	<	228.5	130.276	
Na 34	1.5	—	—	"	42.5	<	102.0	131.260	
Na 35	1.2	—	—	"	34.0	<	112.0	130.055	
Na 36	5.2	3.0	440	"	167.5	<	211.0	129.248	
Na 37	9.4	5.0	500	"	217.9	<	258.8	126.969	
Na 38	19.3	8.5	500	"	323.4	<	373.2	128.437	
Na 39	13.5	6.5	500	1/400	261.4	<	312.2	117.758	

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