

C LISTA DE PRECIO UNITARIO
(PAQUETE 1)

LISTA DE PRECIOS UNITARIOS, PAQUETE 1

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML,Total	Total,S/.	Equiv.US\$
Paquete 1								
Tunel de Derivacion								
Daule Peripa-La Esperanza								
Limpieza	m2	0.14	14	213	1	214	529	0.24
Excavacion, comun	m3	2.54	254	2,607	28	2,635	8,350	3.71
-do-, roca meteorizada	m3	3.25	325	3,198	35	3,233	10,546	4.69
-do-, roca	m3	7.80	780	7,818	188	8,006	25,556	11.36
-do-, tunel, subterranea	m3	43.46	4,346	43,144	400	43,544	141,329	52.81
-do-, zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Apoyos, H-125 x125mm	ton	1,223.55	122,355	135,949	2,465	138,414	2,891,402	1,285.07
Apoyos, H-300mm, 250mm	ton	1,095.76	109,576	217,796	2,303	220,099	2,685,559	1,193.58
Pernos de roca, 25mm	m	23.26	2,026	16,155	41	16,196	61,781	27.46
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Convertura de grava	m3	17.92	1,792	33,377	5,549	39,526	79,846	35.49
Relleno de grava	m3	17.36	1,736	38,971	5,549	44,520	83,580	37.15
Revestimiento de cesped	m2	0.03	3	4,622	0	4,622	4,690	2.08
Drenaje de 45mm	m	9.13	913	20,166	51	20,217	40,760	18.12
Inyeccion	m3	66.91	6,691	27,247	3,632	30,879	181,427	80.63
Tuberia de acero, 50mm	m	1.32	132	906	0	906	3,876	1.72
Hormigon, A, bloques	m3	69.32	6,932	71,218	17,003	88,221	244,191	108.53
Hormigon, C	m3	60.74	6,074	61,238	14,497	75,735	232,400	94.40
Hormigon, D	m3	61.41	6,141	62,022	14,696	76,718	214,831	95.51
Hormigon, D, tunel	m3	73.82	7,382	73,544	14,720	88,264	254,359	113.05
Hormigon, E	m3	59.17	5,917	59,468	14,034	73,502	236,635	91.84
Hormigon, F	m3	61.83	6,183	62,557	14,811	77,368	216,486	96.22
Hormigon, G	m3	52.81	5,281	54,681	12,909	67,590	186,413	82.85
Hormigon, G, anclaje	m3	52.81	5,281	54,681	12,909	67,590	186,413	82.85
Hormigon, H	m3	53.47	5,347	55,699	13,130	68,829	189,137	84.06
Encofrado, F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado, F1, drenaje	m2	0.25	25	15,001	277	15,278	15,841	7.04
Encofrado, F1, anclaje	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado, F2	m2	3.49	349	20,140	211	20,351	28,204	12.53
Encofrado, F3	m2	4.08	408	25,379	290	25,669	34,849	15.49
Encofrado, F3, drenaje	m2	4.08	408	25,379	290	25,669	34,849	15.49
Encofrado, F4, tunel	m2	23.38	2,338	5,312	45	5,357	57,962	25.76
Varillas de refuerzo	ton	357.97	35,797	943,005	111,023	1,054,028	1,859,461	826.43
Hormigon lanzado, tunel	m3	154.05	15,405	112,037	19,323	131,410	478,023	212.45
Malla de alambre	m2	3.97	397	1,929	131	2,060	10,993	4.89
Hormigon lanzado con malla, 100mm	m2	16.05	1,605	15,715	1,702	17,417	53,530	23.79
Hormigon lanzado con malla, 50mm	m2	8.02	802	7,858	851	8,709	26,754	11.89
Varilla de anclaje, 25mm	m	13.54	1,354	7,177	559	7,736	38,201	16.98
Tapajunta, tipo B, 200mm	m	17.23	1,723	7,248	0	7,248	46,016	20.45
Sello bituminoso	m2	0.03	3	3,945	41	3,986	4,054	1.80
Tuberia de PVC 50mm	m	4.17	417	1,277	0	1,277	10,660	4.74
Tuberia de PVC 75mm	m	8.16	816	1,726	0	1,726	20,086	8.93
Tuberia de PVC 150mm	m	23.19	2,319	4,932	0	4,932	57,110	25.38

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Metal espatrado	kg	0.56	56	1,121	77	1,198	2,458	1.09
Tuberia de acero, pasamanos	kg	1.81	181	1,057	0	1,057	5,130	2.28
Escalinata de acero	kg	0.46	46	1,300	135	1,435	2,470	1.10
Perdino de acero	kg	0.65	65	408	7	415	1,878	0.83
Tubrias de acero, indicadores	kg	1.48	148	278	1	279	3,609	1.60
Enrejado y cubierta	kg	3.61	361	813	0	813	8,936	3.97
Malla de alambre (Mediciones)	kg	0.86	86	935	102	1,037	2,972	1.32
Convergencia, horizontal	no	14.00	1,400	11,980	0	11,980	43,480	19.32
Convergencia, diagonal	no	14.00	1,400	11,980	0	11,980	43,480	19.32
Asentamiento del techo	no	0.00	0	30,000	0	30,000	30,000	13.33
Solevamiento del fondo	no	0.00	0	30,000	0	30,000	30,000	13.33
Pernos de roca	no	28.50	2,850	21,750	0	21,750	85,875	38.17
Hormigon lanzado	no	189.30	18,930	91,860	0	91,860	517,785	230.13
Apoyos de acero (Edificaciones)	no	23.80	2,380	20,060	0	20,060	73,610	32.72
Hormigon, C	m3	60.74	6,074	61,238	14,497	75,735	212,600	94.40
Hormigon, H	m3	53.47	5,347	55,699	13,130	68,829	189,137	84.06
Encofrado, F1	m2	4.67	467	40,074	1,999	42,073	52,581	23.37
Encofrado, F2	m2	4.67	467	40,074	1,999	42,073	52,581	23.37
Varilla de refuerzo	ton	357.97	35,797	943,005	111,023	1,054,028	1,859,461	826.43
Bloques aliviados de hormigon, 100mm	m2	0.00	0	16,205	0	16,205	16,205	7.20
Techado de asfalto, 3 capa	m2	20.00	2,000	45,000	0	45,000	90,000	40.00
Enlucido de mortero	m2	0.00	0	41,197	0	41,197	41,197	18.31
base de mortero de cemento, 20mm	m2	0.00	0	4,669	0	4,669	4,669	2.08
Mortero de cemento, zocalo interior, 100mm	m	0.00	0	467	0	467	467	0.21
Mortero de cemento, zocalo exterior, 200mm	m	0.00	0	934	0	934	934	0.42
Mortero de cemento, muro interior	m2	0.00	0	41,240	0	41,240	41,240	18.33
Mortero de cemento, prueba de agua	m2	0.00	0	65,488	0	65,488	65,488	29.11
Mortero de cemento, canaleta del techo	m2	0.00	0	271,295	0	271,295	271,295	120.58
Mortero de cemento paleteado	m2	0.00	0	14,008	0	14,008	14,008	6.23
Excavacion	m3	2.76	276	29	2,942	2,971	9,181	4.08
relleno	m3	3.09	309	3,030	26	3,116	10,069	4.47
relleno grava	m3	13.57	1,357	35,321	4,333	39,654	70,187	31.19
Gradificado	m2	0.00	0	2,419	0	2,419	2,419	1.08
Pintura de aceite	m2	0.00	0	3,052	0	3,052	3,052	1.36
Puertas y batientes, acero	m2	0.00	0	412,266	0	412,266	412,266	183.23
Ventanas de aluminio	m2	0.00	0	104,028	0	104,028	104,028	46.23
Celosias de aluminio	m2	0.00	0	96,900	0	96,900	96,900	43.07
Vidrio alabrado	m2	41.06	4,106	9,238	0	9,238	101,623	45.17

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(Ventilacion)								
Ventilador de aspas,20160	no	2,125.00	0	239,063	0	239,063	5,020,313	2,231.25
Celosis de captacion, 1800x 1500	no	1,015.00	0	114,188	0	114,188	2,397,938	1,065.75
Registros de ventilacion								
UR-VHS 400x200	no	42.50	0	4,781	0	4,781	100,406	44.62
UR-VHS 200x150	no	25.00	0	2,813	0	2,813	59,063	26.25
UR-VHS 200x150	no	25.00	0	2,813	0	2,813	59,063	26.25
Acero platinado	kg	0.03	0	6,500	0	6,500	6,500	2.89
(Obras Electricas)								
Panel de alumbrado	set	0.00	0	241,250	0	241,250	241,250	107.22
Lamparas								
Tipo A	set	401.25	40,125	90,281	0	90,281	993,094	441.37
Tipo B	set	287.50	28,750	60,198	0	60,198	662,073	294.25
Tipo F	set	200.63	20,063	45,142	0	45,142	496,560	220.69
Tasocorriente	set	0.00	0	13,725	0	13,725	13,725	6.10
Interruptor de volquete	set	0.00	0	11,363	0	11,363	11,363	5.05
Interruptor, tres direcciones	set	0.00	0	11,286	0	11,286	11,286	5.02
Tuberia de conductos,16mm	m	2.14	214	4,815	0	4,815	9,630	4.28
Tuberia de conductos,22mm	m	2.70	270	6,075	0	6,075	12,150	5.40
Cable IV,2mm2	m	0.00	0	1,120	0	1,120	1,120	0.50
Cable IV wire,3.5mm2	m	0.00	0	1,488	0	1,488	1,488	0.66
Cable CV,2c 8mm2	m	1.98	198	891	0	891	5,346	2.33
Conductor de cobre,50mm2	m	2.98	298	1,341	0	1,341	8,046	3.58
Placa de cobre	no	189.26	18,926	85,167	0	85,167	511,002	227.11
Excavacion	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	3.09	309	3,090	25	3,116	10,069	4.47
Linea de flotadores								
Dragado del canal	m3	34.36	8,436	7,508	0	7,508	197,318	87.70
Lianimetro	L.S.	264.00	26,400	79,596	0	79,596	673,596	299.38
Ventana de Acceso Conguillo								
Limpieza	m2	0.14	14	213	1	214	529	0.24
Excavacion, comun	m3	2.54	254	2,607	23	2,635	8,350	3.71
-do-,roca meteorizada	m3	3.25	325	3,198	35	3,233	10,546	4.69
-do-,roca	m3	7.80	780	7,818	188	8,006	25,556	11.36
-do-,tunel,subterranea	m3	25.64	2,564	75,266	2,276	78,142	135,832	60.37
-do-,zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Apoyo,H-125x125mm	ton	1,223.55	122,355	135,949	2,465	138,414	2,891,402	1,285.07
Pernos de roca,25mm	m	20.26	2,026	16,155	41	16,196	61,781	27.46
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Relleno de grava	m3	17.92	1,792	33,977	5,549	39,526	79,846	35.49
Revestimiento de grava	m3	17.36	1,736	38,971	5,549	44,520	83,580	37.15
Manposteria de piedra	m3	56.52	5,652	110,461	15,646	126,107	253,277	112.57
Revestimiento de grava	m2	0.03	3	4,622	0	4,622	4,690	2.08
Horraigon,D,tunel	m3	72.41	7,241	72,013	14,702	86,715	249,638	110.95
Horraigon,E,muro	m3	59.17	5,917	59,468	14,034	73,502	206,535	91.84
Horraigon,F,drenaje	m3	61.83	6,183	62,557	14,811	77,368	216,486	96.22

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Hormigon,E	m3	53.47	5,347	55,699	13,130	68,829	189,137	84.06
Encofrado,P1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado,F1,drenaje	m2	0.25	25	15,001	277	15,278	15,841	7.04
Encofrado,P2	m2	3.49	349	20,140	211	20,351	28,204	12.53
Encofrado,P3,drenaje	m2	4.08	408	25,379	290	25,669	34,849	15.49
Encofrado,P3,tunel	m2	14.95	1,495	12,268	82	12,350	45,988	20.44
Varillas de refuerzo	ton	357.97	35,797	943,005	111,023	1,054,028	1,859,461	826.43
Malla de alambre	m2	3.97	397	1,929	131	2,060	10,993	4.89
Varillas de anclaje,25mm	m	13.54	1,354	7,177	559	7,736	38,201	16.98
Tuberia PVC,50mm	m	4.17	417	1,277	0	1,277	10,660	4.74
Ventana de Acceso El Guasmo								
Excavacion,comun	m3	2.22	222	2,264	24	2,288	7,283	3.24
-do-,roca meteorizada	m3	2.92	292	2,854	31	2,885	9,455	4.20
-do-,roca	m3	7.42	742	7,424	183	7,607	24,362	10.80
-do-,tunel,subterranea	m3	27.35	2,735	78,484	2,909	81,393	142,931	63.52
-do-,zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Hormigon,D,tunel	m3	77.13	7,713	77,119	14,762	91,881	265,424	117.97
Hormigon,E,muro	m3	63.81	6,381	64,246	14,085	78,331	221,904	98.62
Hormigon,F,drenaje	m3	66.47	6,647	67,334	14,862	82,196	231,754	103.00
Hormigon,H	m3	58.11	5,811	60,477	13,187	73,664	204,412	90.85
Ventana de Acceso Mesbrillo								
Excavacion,comun	m3	2.54	254	2,607	28	2,635	8,350	3.71
-do-,roca meteorizada	m3	3.25	325	3,198	35	3,233	10,546	4.69
-do-,roca	m3	7.80	780	7,818	188	8,006	25,556	11.36
-do-,tunel,subterranea	m3	25.64	2,564	75,266	2,876	78,142	135,832	60.37
-do-,zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Hormigon,D,tunel	m3	72.41	7,241	72,013	14,702	86,715	249,638	110.95
Hormigon,E,muro	m3	60.11	6,011	60,439	14,045	74,484	209,732	93.21
Hormigon,F,drenaje	m3	62.77	6,277	63,528	14,821	78,349	219,582	97.59
Hormigon,H	m3	54.42	5,442	56,670	13,140	69,810	192,255	85.45
Camino de Acceso Conguillo								
Limpieza	m2	0.14	14	213	1	214	529	0.24
Excavacion,comun y roca meteorizada	m3	3.87	387	3,927	45	3,972	12,680	5.64
Excavacion,roca	m3	8.96	896	9,032	204	9,236	29,398	13.06
Terrapie,500m	m3	3.23	323	2,896	30	2,926	10,194	4.53
Terrapie,mayor a 500m	m3	4.42	442	4,142	46	4,188	14,133	6.28
Compactacion del suelo original	m3	0.58	58	543	2	545	1,850	0.82
Revestimiento de grana	m2	0.03	3	4,622	0	4,622	4,690	2.08
Colchon de gabiones	m3	62.71	6,271	30,023	2,627	32,650	173,748	77.22
Excavacion,de todo tipo	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno,seleccionado	m3	2.92	292	2,975	26	3,001	9,571	4.25
Relleno de drenaja libre	m3	18.13	1,813	25,183	5,550	30,733	71,526	31.79
Base de grava	m3	17.36	1,736	38,971	5,549	44,520	83,580	37.15

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Base de piedra triturada	m3	18.13	1,813	25,183	5,550	30,733	71,526	31.79
Tuberiade hormigon armado	m	25.15	2,515	125,884	3,798	129,682	186,270	82.79
600mm								
Tuberiade hormigon armado	m	36.31	3,631	178,265	5,948	184,213	265,911	118.18
800mm								
Tuberiade hormigon armado	m	47.58	4,758	216,340	8,070	224,410	331,465	147.32
1000mm								
PVC tuberia perforada,	m	9.15	915	50,221	1,288	51,509	72,097	32.04
200mm								
Material de drenaje libre	m3	18.13	1,813	25,183	5,550	30,733	71,526	31.79
Hormigon,E	m3	61.03	6,103	61,379	14,055	75,434	212,752	94.56
Hormigon,F	m3	63.69	6,369	64,468	14,831	79,299	222,602	98.93
Hormigon,H	m3	55.33	5,533	57,610	13,150	70,760	195,253	86.78
Encofrado,F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado,F3	m2	3.49	349	20,139	211	20,350	28,203	12.53
Varilla de refuerzo	ton	357.97	35,797	943,095	111,023	1,054,028	1,859,461	826.43
Colchon de gabiones,500mm	m3	62.71	6,271	30,023	2,627	32,650	173,748	77.22
Sellador de juntas,10mm	m2	12.15	1,215	4,408	0	4,408	31,746	14.11
Revestimiento bituminos	m2	0.03	3	3,945	41	3,986	4,054	1.80
Hormigon,A	m3	71.18	7,118	73,129	17,023	90,152	250,307	111.25
Hormigon,E	m3	61.03	6,103	61,379	14,055	75,434	212,752	94.56
Hormigon,E,alcantarillas	m3	61.03	6,103	61,379	14,055	75,434	212,752	94.56
Hormigon,H	m3	55.33	5,533	57,610	13,150	70,760	195,253	86.78
Hormigon ciclopeo	m3	40.29	4,029	40,117	10,170	50,287	140,340	62.64
Encofrado F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado F2	m2	4.37	437	15,230	102	15,332	25,165	11.18
Encofrado F3	m2	3.49	349	20,139	211	20,350	28,203	12.53
Sellador de juntas,20mm	m2	24.31	2,431	5,776	0	5,776	60,474	26.88
Sellador de juntas,10mm	m2	12.15	1,215	4,408	0	4,408	31,746	14.11
Material mejorado	m3	4.72	472	4,935	56	4,991	15,611	6.94
Pierda triturada	m3	21.24	2,124	20,616	6,645	27,261	75,051	33.36
Transporte de material	m3km	0.47	47	493	6	499	1,557	0.69
Guardariel	m	73.56	7,356	33,103	0	33,103	198,613	89.27
Avisos de precaucion	no	120.38	12,038	54,169	0	54,169	325,024	144.46
Soporte,tipo fijo	no	262.42	26,242	59,044	0	59,044	649,489	288.66
Soporte,tipo mobil	no	262.42	26,242	59,044	0	59,044	649,489	288.66
Pasamanos de acero	kg	1.81	181	1,057	0	1,057	5,130	2.28
Tubo de PVC,100mm	m	12.05	1,205	2,164	0	2,164	29,299	13.02
Tubo de PVC,75mm	m	8.16	816	1,726	0	1,726	20,086	8.93
Espigas	ton	336.00	33,600	959,970	116,550	1,076,520	1,832,520	814.45
Vara de anclaje	kg	0.37	37	1,056	128	1,184	2,017	0.90
Casino de Acceso El Guasao								
Excavacion,comun y roca meteorizada	m3	2.57	257	27	2,586	2,613	8,396	3.73
Excavacion,roca	m3	7.42	742	7,424	183	7,607	24,302	10.80
Terraplen,500m	m3	3.08	308	2,737	27	2,764	9,694	4.31
Terraplen,mayor a 500m	m3	3.82	382	3,517	38	3,555	12,150	5.40

LISTA DE PRECIOS UNITARIOS, PAQUETE 1

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML>Total	Total,S/.	Equiv.US\$
Camino de Acceso Membrillo								
Excavacion,comun y roca melorizada	m3	2.57	257	27	2,586	2,613	8,396	3.73
Excavacion,roca	m3	7.42	742	7,424	183	7,607	24,302	10.80
Terraplen,500m	m3	3.08	308	2,737	27	2,764	9,694	4.31
Terraplen,mayor a 500m	m3	3.23	323	2,896	30	2,926	10,194	4.53

D LISTA DE PRECIO UNITARIO
(PAQUETE 2)

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML>Total	Total,S/.	Equiv.US\$
Paquete 2								
Estacion de Bombeo Severino								
Limpieza	m2	0.14	14	213	1	214	529	0.24
Excavacion, comun	m3	2.88	288	2,956	32	2,988	9,468	4.21
-do-, roca meteorizada	m3	3.57	357	3,533	39	3,572	11,605	5.16
-do-, roca	m3	8.18	818	8,217	194	8,411	26,816	11.92
-do-, zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno de drenaje libre	ton	14.34	1,434	21,533	4,333	25,866	58,131	25.84
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Relleno grava	m3	13.57	1,357	35,321	4,333	39,654	70,187	31.19
Revestimiento de cesped	m2	0.03	3	4,622	0	4,622	4,690	2.08
Hormigon E, base	m3	56.86	5,686	57,306	12,993	70,304	198,239	88.11
Hormigon B, auros	m3	60.23	6,023	61,211	13,984	75,195	210,713	93.65
Hormigon B, columnas	m3	60.23	6,023	61,211	13,984	75,195	210,713	93.65
Hormigon B, losas y pozo	m3	60.23	6,023	61,211	13,984	75,195	210,713	93.65
Hormigon B, auros	m3	60.23	6,023	61,211	13,984	75,195	210,713	93.65
Hormigon B, columnas	m3	60.23	6,023	61,211	13,984	75,195	210,713	93.65
Hormigon B, vigas y losas	m3	60.23	6,023	61,211	13,984	75,195	210,713	93.65
Hormigon B, viga de grua	m3	60.23	6,023	61,211	13,984	75,195	210,713	93.65
Hormigon B, auros	m3	60.23	6,023	61,211	13,984	75,195	210,713	93.65
Hormigon 2da A	m3	67.16	6,716	69,198	16,014	85,212	236,322	105.03
Hormigon 2da A, boquetes	m3	67.16	6,716	69,198	16,014	85,212	236,322	105.03
Hormigon E, cubierta	m3	56.86	5,686	57,306	12,993	70,304	198,239	88.11
Hormigon de relleno G	m3	50.49	5,049	52,440	11,846	64,286	177,889	79.06
Hormigon F, drenaje	m3	59.57	5,957	60,441	13,790	74,231	208,264	92.56
Hormigon H	m3	51.17	5,117	53,544	12,096	65,640	180,773	80.34
Hormigon G, anclaje	m3	50.49	5,049	52,440	11,846	64,286	177,889	79.06
Encofrado F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado F1, drenaje	m2	0.25	25	15,001	277	15,278	15,841	7.04
Encofrado F1, anclaje	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado F2	m2	4.37	437	15,230	102	15,332	25,165	11.18
Encofrado F3	m2	4.08	408	25,378	290	25,668	34,848	15.49
Encofrado F3, drenaje	m2	3.49	349	20,139	211	20,350	28,203	12.53
Varillas de refuerzo	ton	357.97	35,797	943,005	111,023	1,054,028	1,859,461	826.43
Tapajunta, A, 300mm	m	33.62	3,362	9,091	0	9,091	84,736	37.66
Tapajunta, B, 200mm	m	17.23	1,723	7,248	0	7,248	46,016	20.45
Sello bituminoso	m2	0.03	3	3,945	41	3,986	4,054	1.80
Sellador de juntas, 10mm	m2	12.15	1,215	4,408	0	4,408	31,746	14.11
Baston, 22mm	ton	336.00	33,600	959,700	116,550	1,076,250	1,832,250	814.33
Varilla de anclaje, 25mm	m	13.54	1,354	7,177	559	7,736	38,201	16.98
Hormigon lanzado con salla 100mm	m2	16.05	1,605	15,715	1,792	17,417	53,530	23.79
Hormigon lanzado con salla 50mm	m2	8.02	802	7,858	851	8,709	26,754	11.89
Inyeccion de contacto	LS	0.00	0	0	0	0	0	0.00
Tuberia de PVC, 75mm	m	8.16	816	1,726	0	1,726	20,086	8.93
Tuberia de PVC, 50mm	m	4.17	417	1,277	0	1,277	10,660	4.74
Tuberia de PVC, 100mm	m	12.06	1,206	2,164	0	2,164	29,299	13.02

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
 IUS\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML>Total	Total,S/.	Equiv.US\$
Rodadura de hormigon asfaltico	m3	17.31	1,731	130,813	14,249	145,062	184,010	81.78
Subrasante asfaltico estabilizada	m3	8.65	865	65,406	7,125	72,531	91,994	40.89
Capa de imprimacion	lit	0.03	3	192	21	213	281	0.12
Capa ligante	lit	0.03	3	192	21	213	281	0.12
Metal esportado	kg	0.56	56	1,121	77	1,198	2,458	1.09
Enrejado de acero	kg	3.61	361	813	0	813	8,936	3.97
Enrejado de acero,drenaje	kg	3.61	361	813	0	813	8,936	3.97
Tuberia de acero,100mm	kg	1.33	133	1,232	0	1,232	4,225	1.88
Platina estriada	kg	0.97	97	219	0	219	2,402	1.07
Tuberia de acero, para indicadores	kg	1.48	148	278	1	279	3,609	1.60
Cerca de malla	kg	0.86	86	935	102	1,037	2,972	1.32
Steel step	kg	0.65	65	408	7	415	1,878	0.83
(Edificaciones)								
Hormigon,C	m3	58.41	5,841	59,065	13,458	72,523	203,946	90.64
Hormigon,A	m3	67.16	6,716	69,198	16,014	85,212	236,322	105.03
Hormigon,H	m2	51.17	5,117	53,544	12,096	65,640	180,773	80.34
Encofrado,F1	m2	4.68	468	40,074	1,999	42,073	52,603	23.38
Encofrado,F3	m2	4.68	468	40,074	1,999	42,073	52,603	23.38
Encofrado,F1	m2	4.68	468	40,074	1,999	42,073	52,603	23.38
Varilla de refuerzo	ton	357.97	35,797	943,005	111,023	1,054,028	1,859,461	826.43
Malla soldada	m2	0.60	0	25,944	0	25,944	25,944	11.53
Liston metalico	m2	0.00	0	26,601	0	26,601	26,601	11.82
Liston metalico	m2	0.00	0	23,903	0	23,903	23,903	10.62
Poliuretano tipo esponja	m2	0.00	0	15,379	0	15,379	15,379	6.84
Techado asfaltico,3 capa	m2	20.00	2,000	45,000	0	45,000	90,000	40.00
Techado asfaltico,2 capa	m2	30.00	3,000	67,500	0	67,500	135,000	60.00
Mortero de cemento impermeabilizante	m2	0.00	0	282,566	0	282,566	282,566	125.58
Parapeto de asfaltico	m	0.00	0	46,867	0	46,867	46,867	20.83
Carafateo de aceite	m	0.00	0	2,597	0	2,597	2,597	1.15
Sellador de junta asfalt	m	0.00	0	3,037	0	3,037	3,037	1.35
Carafateo de polisulfuro 20mm	m	9.27	927	1,897	0	1,897	22,755	10.11
Carafateo de polisulfuro 10x7mm	m	2.12	212	434	0	434	5,204	2.31
Bloques de hormigon,200mm	m2	0.00	0	51,949	0	51,949	51,949	23.09
Bloques de hormigon,150mm	m2	0.00	0	49,608	0	49,608	49,608	22.05
Bloques de hormigon,100mm	m2	0.00	0	46,570	0	46,570	46,570	20.70
Baldosin de ceramica	m2	0.00	0	33,616	0	33,616	33,616	14.94
Baldosas terrazo	m2	0.00	0	114,008	0	114,008	114,008	50.67
Azulejos	m2	0.00	0	113,382	0	113,382	113,382	50.39
Baldosas PVC	m2	0.00	0	45,176	0	45,176	45,176	20.08
Grafiado	m2	0.00	0	8,716	0	8,716	8,716	3.87
Mortero de cemento paleteado,e=20mm	m2	0.00	0	41,240	0	41,240	41,240	18.33
Muro de hormigon	m2	0.00	0	41,240	0	41,240	41,240	18.33

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML>Total	Total,S/.	Equiv.US\$
Muro de bloques	m2	0.00	0	41,240	0	41,240	41,240	18.33
Zacalo,100mm	m	0.00	0	668	0	668	668	0.30
Zacalo,200mm	m	0.00	0	1,135	0	1,135	1,135	0.50
Zacalo,300mm	m	0.00	0	1,602	0	1,602	1,602	0.71
Mortero de cemento paleteado,e=30mm								
Piso de hormigon	m2	0.00	0	8,846	0	8,846	8,846	3.93
Escaleras	m2	0.00	0	8,645	0	8,645	8,645	3.84
Mortero de cemento paleteado,20mm	m2	0.00	0	3,054	0	3,054	3,054	1.36
Base de mortero								
Baldosin de ceramica	m2	0.00	0	7,552	0	7,552	7,552	3.36
Baldosa de terrazo	m2	0.00	0	11,227	0	11,227	11,227	4.99
Adoquines de asfalto	m2	0.00	0	14,903	0	14,903	14,903	6.62
Baldosas PVC	m2	0.00	0	14,903	0	14,903	14,903	6.62
Azulejos	m2	0.00	0	14,903	0	14,903	14,903	6.62
Acabado a bailejo								
Piso	m2	0.00	0	14,008	0	14,008	14,008	6.23
Techo	m2	0.00	0	14,008	0	14,008	14,008	6.23
Bordes de terrazo	m	0.00	0	11,401	0	11,401	11,401	5.07
Zocalo de terrazzo,100mm	m	0.00	0	11,401	0	11,401	11,401	5.07
Terrazzo para marco esquinero	m	0.00	0	22,802	0	22,802	22,802	10.13
Grafiado de cemento coloreado	m2	0.00	0	2,419	0	2,419	2,419	1.08
Plancha de asbestos	m2	0.00	0	22,137	0	22,137	22,137	9.84
Plancha acustica	m2	0.00	0	34,927	0	34,927	34,927	15.52
Adoquines de asfalto	m2	0.00	0	44,307	0	44,307	44,307	19.69
Pintura de aceite								
Estructura de acero	m2	0.00	0	3,052	0	3,052	3,052	1.36
Pasamano de acero	m2	0.00	0	3,052	0	3,052	3,052	1.36
Escalinata con enrejado	m2	0.00	0	3,052	0	3,052	3,052	1.36
Hojas de puertas	m2	0.00	0	3,052	0	3,052	3,052	1.36
Superficies de madera	m2	0.00	0	3,052	0	3,052	3,052	1.36
Anaqueles y estantes	m2	0.00	0	3,052	0	3,052	3,052	1.36
Pintura de vinil								
Plancha de asbestos	m2	0.00	0	5,704	0	5,704	5,704	2.54
Enlucido de mortero	m2	0.00	0	5,704	0	5,704	5,704	2.54
Pintura prueba de acidos	m2	0.00	0	5,704	0	5,704	5,704	2.54
Puertas de madera	m2	0.00	0	119,966	0	119,966	119,966	53.32
Anaqueles y estantes	no	0.00	0	429,048	0	429,048	429,048	190.69
Caja ciega	m	0.00	0	243,422	0	243,422	243,422	108.19
Puerta de acero	m2	0.00	0	714,605	0	714,605	714,605	317.60
Cortina enrollable	no	0.00	0	6,824,726	0	6,824,726	6,824,726	3,033.21
Hojas de puerta,aluminio	m2	0.00	0	1,237,428	0	1,237,428	1,237,428	549.97
Ventana de aluminio	m2	0.00	0	768,826	0	768,826	768,826	341.70
Celosisia de aluminio	m2	0.00	0	315,480	0	315,480	315,480	140.21
Vidrio alabrado	m2	40.12	4,012	9,028	0	9,028	99,238	44.13
Planchas de vidrio figurado	m2	0.00	0	27,054	0	27,054	27,054	12.02

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	MS,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML>Total	Total,S/.	Equiv.US\$
Planchas de vidrio claro	m2	0.00	0	38,460	0	38,460	38,460	17.09
Pasamanos de acero,A	m	0.00	0	64,035	0	64,035	64,035	28.45
Pasamanos de acero,B	m	0.00	0	38,688	0	38,688	38,688	17.19
Pasamanos de acero,C	m	0.00	0	122,580	0	122,580	122,580	54.48
Pasamanos,tipo removible	m	0.00	0	102,941	0	102,941	102,941	45.75
Escalinata con enrejado	kg	0.00	0	3,665	0	3,665	3,665	1.63
Plancha de acero	no	0.00	0	265,910	0	265,910	265,910	118.18
Tuberia de acero ,100mm	m	16.29	1,629	15,027	0	15,027	51,680	22.97
Tuberia de acero ,125mm	m	17.99	1,799	8,095	0	8,095	48,573	21.59
Anillo de parapeto	no	73.80	7,380	18,450	0	18,450	184,500	82.00
Tapa de escotilla de varilla,2.5x 1.5x50mm	no	680.25	68,025	153,056	0	153,056	1,683,619	748.27
Tapa de junta,1.5mm,330mm	m	0.00	0	182,179	0	182,179	182,179	80.97
Tapa de junta,0.5mm,91mm	m	0.00	0	84,037	0	84,037	84,037	37.35
Tapa de junta,2.3mm,130mm	m	0.00	0	84,037	0	84,037	84,037	37.35
Tapa de junta,3mm,140mm	m	0.00	0	95,773	0	95,773	95,773	42.57
Cepillo de acero	m	30.63	3,063	6,892	0	6,892	75,810	33.69
Tuberia de PVC,100mm	m	12.06	1,206	2,164	0	2,164	29,299	13.02
Lavadero de cocina	no	0.00	0	351,622	0	351,622	351,622	156.28
Tabiqueria de madera	m2	0.00	0	239,247	0	239,247	239,247	106.33
Pozo de luz con celosias	set	0.00	0	825,169	0	825,169	825,169	366.74
Dren del techo,100mm	m	16.29	1,629	15,027	0	15,027	51,680	22.97
Dren del piso,75mm	m	10.57	1,057	4,766	0	4,766	28,549	12.69
Dren PVC,50mm	m	4.17	417	1,277	0	1,277	10,660	4.74
Extintidor de incendios	no	0.00	0	283,323	0	283,323	283,323	125.92
Letreros de puertas	no	0.00	0	75,748	0	75,748	75,748	33.67
Elevador	LS	33,750.00	3,375,000	8,437,500	0	8,437,500	84,375,000	37,500.00
Tanque cisterna,12m3	set	5,337.50	0	3,602,813	0	3,602,813	15,612,188	6,938.75
Tanque cisterna,4m3	set	2,912.50	0	1,965,938	0	1,965,938	8,519,063	3,786.25
Bomba centrifuga	no	2,937.50	0	660,938	0	660,938	7,270,313	3,231.25
Bomba de compresor	no	912.50	0	205,313	0	205,313	2,258,438	1,003.75
Unidad de filtro de agua	set	5,981.25	0	2,691,563	0	2,691,563	16,149,376	7,177.50
Clorinador	set	2,012.50	0	452,813	0	452,813	4,950,938	2,213.75
Tuberias de acero galvanizado								
80mm	m	17.86	1,786	8,037	0	8,037	48,222	21.43
65mm	m	14.91	1,491	6,710	0	6,710	40,258	17.89
50mm	m	10.38	1,038	4,671	0	4,671	28,026	12.46
40mm	m	7.58	758	3,411	0	3,411	20,466	9.10
32mm	m	6.59	659	2,965	0	2,965	17,793	7.91
25mm	m	4.96	496	2,232	0	2,232	13,392	5.95
20mm	m	3.54	354	1,593	0	1,593	9,553	4.25
Valvula de bronce de compuerta								
65mm	m	197.95	19,795	44,539	0	44,539	489,927	217.75
50mm	m	75.17	7,517	16,913	0	16,913	186,046	82.69
40mm	m	51.09	5,109	11,495	0	11,495	126,448	56.20
32mm	m	38.79	3,879	8,728	0	8,728	96,008	42.67
25mm	m	23.01	2,301	5,177	0	5,177	56,950	25.31
20mm	m	16.85	1,685	3,791	0	3,791	41,704	18.53

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML,Total	Total,S/.	Equiv.US\$
Junta flexible								
65mm	no	18.06	1,806	8,123	0	8,123	48,758	21.67
50mm	no	9.43	943	4,244	0	4,244	25,462	11.32
40mm	no	6.22	622	2,799	0	2,799	16,794	7.46
32mm	no	4.88	488	2,196	0	2,196	13,176	5.86
Tuberia de plomo,75mm	m	16.65	1,665	7,448	0	7,448	44,911	19.96
Tuberia de plomo,65mm	m	14.65	1,465	6,593	0	6,593	39,556	17.58
Tuberia de plomo,30mm	m	7.02	702	3,159	0	3,159	18,954	8.42
Tuberia de acero,100mm	m	16.29	1,629	15,027	0	15,027	51,680	22.97
Tuberia de acero,50mm	m	9.04	904	4,068	0	4,068	24,408	10.85
Tuberia de PVC,110mm	m	0.00	0	104,948	0	104,948	104,948	46.64
Tuberia de PVC,75mm	m	0.00	0	94,924	0	94,924	94,924	42.19
Tuberia de PVC,65mm	m	0.00	0	69,308	0	69,308	69,308	30.80
Tuberia de PVC,50mm	m	0.00	0	43,692	0	43,692	43,692	19.42
Trampa de piso,50mm	no	0.00	0	12,383	0	12,383	12,383	5.50
Boca de limpieza de piso, 100mm	no	61.90	6,190	13,928	0	13,928	153,203	68.09
Boca de limpieza de piso, 75mm	no	53.20	5,320	11,970	0	11,970	131,670	58.52
Boca de limpieza de piso, 50mm	no	44.50	4,450	10,013	0	10,013	110,138	48.95
Grifo de agua,13mm	no	0.00	0	137,456	0	137,456	137,456	61.09
Valvula de retencion,65mm	no	195.27	19,527	87,872	0	87,872	527,230	234.32
Valvula de retencion,40mm	no	58.45	5,845	19,665	0	19,665	151,178	67.19
Valvula de retencion,32mm	no	48.02	4,802	10,805	0	10,805	118,950	52.82
Valvula de retencion,25mm	no	27.69	2,769	12,461	0	12,461	74,764	33.23
Sanitario	no	0.00	0	512,668	0	512,668	512,668	227.85
Urinario	no	0.00	0	131,087	0	131,087	131,087	58.26
Lavamanos	no	0.00	0	215,120	0	215,120	215,120	95.61
Lavadero	no	212.60	21,200	47,700	0	47,700	524,700	233.20
Juego de ducha	no	0.00	0	137,995	0	137,995	137,995	61.33
Riel para toallas	no	0.00	0	56,546	0	56,546	56,546	25.13
Calentador electrico instantaneo de agua	no	1,070.00	107,000	240,750	0	240,750	2,648,250	1,177.00
Tanque septico	set	3,076.25	307,625	1,384,312	0	1,384,312	8,305,875	3,691.50
Suidero con tapa	set	68.20	6,820	196,044	16,786	212,830	366,280	162.79
Pozo ciego con tapa	set	66.83	6,683	165,620	13,988	179,608	329,976	146.66
Extintor portatil contra fabricado de platina	no	133.75	13,375	30,094	0	30,094	331,032	147.13
Hidrante de agua	no	468.13	46,813	105,329	0	105,329	1,158,622	514.94
Bomba de hidrante	no	8,025.00	802,500	3,611,250	0	3,611,250	21,667,500	9,630.00
Panel electrico de control	set	306.25	0	68,906	0	68,906	757,969	336.87
Medidor de flujo	no	655.38	65,538	147,461	0	147,461	1,622,066	720.92
Recipiente de presion	no	1,100.00	0	247,500	0	247,500	2,722,500	1,210.00
Alivio automatico	no	62.50	0	14,063	0	14,063	154,688	68.75
Medidor de presion	no	125.00	0	28,125	0	28,125	309,375	137.50
Valvula de prueba del hidrante,40mm	no	58.85	5,885	13,241	0	13,241	145,654	64.73

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
 US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML>Total	Total,S/.	Equiv.US\$
(Acondicionador de Aire y Obras de Ventilacion)								
Acondicionador de aire sellado,45600 kcal	set	7,482.50	0	841,731	0	841,731	17,677,356	7,856.60
Acondicionador de aire sellado,19700 kcal	set	3,181.25	0	357,891	0	357,891	7,515,704	3,340.31
Ventilador de aspas, 38000 CMH	no	2,507.50	0	282,094	0	282,094	5,923,969	2,632.88
Ventilador de helice, 1020 CMH	no	858.75	0	96,609	0	96,609	2,028,797	901.69
Ventilador de helice, 1020 CMH	no	630.00	0	70,785	0	70,785	1,488,285	661.46
Ventilador de helice, 540 CMH	no	543.75	0	61,172	0	61,172	1,284,610	570.94
Registadores de ventilacion,								
500 CMH	no	52.50	0	5,906	0	5,906	124,031	55.12
430 CMH	no	42.50	0	4,781	0	4,781	100,406	44.62
1790 CMH	no	135.00	0	15,188	0	15,188	318,938	141.75
1530 CMH	no	116.25	0	13,078	0	13,078	274,641	122.06
2200 CMH	no	142.50	0	16,031	0	16,031	336,656	149.62
1890 CMH	no	142.50	0	16,031	0	16,031	336,656	149.62
1540 CMH	no	118.75	0	13,359	0	13,359	280,547	124.69
1840 CMH	no	142.50	0	16,031	0	16,031	336,656	149.62
300 CMH	no	31.25	0	3,516	0	3,516	73,829	32.81
Rejillas de retorno								
RG-950	no	77.50	0	8,719	0	8,719	183,094	81.38
RG-900	no	73.75	0	8,297	0	8,297	174,235	77.44
RG-750	no	45.00	0	5,063	0	5,063	106,313	47.25
RG-750	no	45.00	0	5,063	0	5,063	106,313	47.25
RG-800	no	48.75	0	5,484	0	5,484	115,172	51.19
Difusores								
780 CMH	no	86.25	0	9,703	0	9,703	203,766	90.56
1020 CMH	no	86.25	0	9,703	0	9,703	203,766	90.56
1100 CMH	no	86.25	0	9,703	0	9,703	203,766	90.56
630 CMH	no	86.25	0	9,703	0	9,703	203,766	90.56
530 CMH	no	86.25	0	9,703	0	9,703	203,766	90.56
Regulador de tiro,850x200	no	41.25	0	4,641	0	4,641	97,454	43.31
Regulador de tiro,200x150	no	31.25	0	3,516	0	3,516	73,829	32.81
Amortiguador de fuego, 1100x 350	no	118.75	0	13,359	0	13,359	280,547	124.69
Amortiguador de fuego, 500x 350	no	81.25	0	9,141	0	9,141	191,954	85.31
Closias,37750 CMH	no	1,950.00	0	219,375	0	219,375	4,606,875	2,047.50
Celosias,300 CMH	no	250.00	0	28,125	0	28,125	590,625	262.50
Celosias,650 CMH	no	265.00	0	29,813	0	29,813	626,063	278.25
Ventilador de acero cromado,								
Tabado 22	kg	0.00	0	6,500	0	6,500	6,500	2.89
Tabado 24	kg	0.00	0	6,500	0	6,500	6,500	2.89

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
 IUS\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML,Total	Total,S/.	Equiv.US\$
De acero cromado para acondicionador de aire								
Tamado 22	kg	0.00	0	7,250	0	7,250	7,250	3.22
Tamado 24	kg	0.00	0	7,250	0	7,250	7,250	3.22
Tuberia de refrigerante								
19mm	m	8.13	0	915	0	915	19,208	8.54
16mm	m	9.75	0	1,097	0	1,097	23,035	10.24
(Casa de Generador a Diesel)								
Excavacion,roca	m3	8.13	818	8,217	194	8,411	26,816	11.92
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Base de grava	m3	13.57	1,357	35,321	4,333	39,654	70,187	31.19
Hormigon,C	m3	58.41	5,841	59,065	13,458	72,523	203,946	90.64
Hormigon,H	m3	51.17	5,117	53,544	12,096	65,640	180,773	80.34
Encofrado,F1	m3	4.68	468	40,074	1,999	42,073	52,603	23.38
Encofrado,F2	m3	4.68	468	40,074	1,999	42,073	52,603	23.38
Varilla de refuerzo	ton	357.97	35,797	943,005	111,023	1,054,028	1,859,461	826.43
Bloques alivianados de hormigon,100mm	m2	0.00	0	16,205	0	16,205	16,205	7.20
Techado de asfalto,3 capa	m2	20.00	2,000	45,000	0	45,000	90,000	40.00
Enlucido de mortero	m2	0.00	0	41,197	0	41,197	41,197	18.31
Base de mortero	m2	0.00	0	4,669	0	4,669	4,669	2.08
Mortero de cemento								
zacalo interior,100mm	m	0.00	0	467	0	467	467	0.21
zacalo exterior,200mm	m	0.00	0	934	0	934	934	0.42
muro	m2	0.00	0	41,240	0	41,240	41,240	18.33
enlucido	m2	0.00	0	65,488	0	65,488	65,488	29.11
Parapeto	m2	0.00	0	271,295	0	271,295	271,295	120.58
Paleta de piso	m2	0.00	0	14,008	0	14,008	14,008	6.23
Grafiado del hormigon	m2	0.00	0	2,419	0	2,419	2,419	1.08
Pintura de aceite	m2	0.00	0	3,052	0	3,052	3,052	1.36
Puertas de acero	m2	0.00	0	412,266	0	412,266	412,266	183.23
Ventanas de aluminio	m2	0.00	0	104,028	0	104,028	104,028	46.23
Celosias de aluminio	m2	0.00	0	96,900	0	96,900	96,900	43.07
Vidrio figurado	m2	41.06	4,106	9,238	0	9,238	101,623	45.17
Drenaje del techo,100mm	no	52.00	5,200	29,250	0	29,250	146,250	65.00
Viga de izaje	kg	0.88	88	397	0	397	2,377	1.06
Plancha de acero estriada	m2	181.37	18,137	40,808	0	40,808	448,891	199.51
Tubo de decaeso,100mm,PVC	m	12.06	1,206	2,164	0	2,164	29,299	13.02
Sellador de Junta,20mm	m2	24.31	2,431	5,776	0	5,776	60,474	26.88
(Obras de Electricas)								
Panel de alumbrado,A	set	0.00	0	295,750	0	295,750	295,750	131.44
Panel de alumbrado,B	set	0.00	0	241,250	0	241,250	241,250	107.22
Panel de alumbrado,C	set	0.00	0	210,000	0	210,000	210,000	93.33
Alumbrado								
Tipo A-1	set	401.25	40,125	90,281	0	90,281	993,094	441.37
Tipo A-2	set	267.50	26,750	60,188	0	60,188	662,063	294.25
Tipo B-1	set	334.38	33,438	75,235	0	75,235	827,590	367.82
Tipo B-2	set	267.50	26,750	60,198	0	60,198	662,073	294.25
Tipo C	set	133.75	13,375	30,094	0	30,094	331,032	147.13

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML,Total	Total,S/.	Equiv.US\$
Tipo D-1	set	334.38	33,438	75,236	0	75,236	827,591	367.82
Tipo D-2	set	267.50	26,750	60,188	0	60,188	662,063	294.25
Tipo E	set	133.75	13,375	30,094	0	30,094	331,032	147.13
Tipo F	set	200.63	20,063	45,142	0	45,142	496,560	220.69
Tipo G	set	468.13	46,813	105,329	0	105,329	1,158,622	514.94
Tipo H	set	2,675.00	267,500	601,875	0	601,875	6,620,625	2,942.50
Tomacorriente	set	0.00	0	13,725	0	13,725	13,725	6.10
Interruptor de volquete	set	0.00	0	11,363	0	11,363	11,363	5.05
Interruptor de seguridad	set	0.00	0	12,286	0	12,286	12,286	5.46
Interruptor de tres direcciones	set	20.00	2,000	9,000	0	9,000	54,000	24.00
Tubo de conductos,16mm	m	2.14	214	4,815	0	4,815	9,630	4.28
Tubo de conductos,22mm	m	2.70	270	6,075	0	6,075	12,150	5.40
Tubo de conductos,28mm	m	3.73	373	8,393	0	8,393	16,786	7.46
Tubo de conductos,42mm	m	5.48	548	12,330	0	12,330	24,660	10.96
Tubo de conductos,54mm	m	7.93	793	17,843	0	17,843	35,686	15.86
Cable IV,7mm2	m	0.00	0	1,120	0	1,120	1,120	0.50
Cable IV,3.5mm2	m	0.00	0	1,488	0	1,488	1,488	0.66
Cable IV,5.5mm2	m	0.00	0	1,862	0	1,862	1,862	0.83
Cable CV,2c,8mm2	m	1.98	198	891	0	891	5,346	2.38
2c,22mm2	m	4.19	419	1,886	0	1,886	11,314	5.03
2c,38mm2	m	6.51	651	2,930	0	2,930	17,578	7.81
4c,22mm2	m	7.73	773	3,479	0	3,479	20,872	9.28
Cable CV,2c,5.5mm2	m	1.60	160	720	0	720	4,320	1.92
4c,3.5mm2	m	2.07	207	932	0	932	5,590	2.48
4c,5.5mm2	m	2.68	268	1,206	0	1,206	7,236	3.22
Juegos PABX	set	40,125.00	4,012,500	9,028,125	0	9,028,125	99,309,375	44,137.50
Bateria y cargador	set	2,675.00	267,500	601,875	0	601,875	6,620,625	2,942.50
Marco de distribucion	set	6,687.50	668,750	1,504,688	0	1,504,688	16,551,563	7,356.25
Juego de telefonico	set	123.05	12,305	55,373	0	55,373	332,236	147.66
Alambre telefonico, interiores	m	1.89	189	851	0	851	5,104	2.27
Alambre telefonico, exteriores	m	2.68	268	1,206	0	1,206	7,236	3.22
Conductor a tierra,100mm2	m	5.35	535	2,408	0	2,408	14,446	6.42
Conductor a tierra,38mm2	m	1.95	195	878	0	878	5,266	2.34
Placa de cobre,1x1m,3mm	no	189.26	18,926	85,167	0	85,167	511,002	227.11
Varilla cobre,14mm,1.5m	no	27.69	2,769	12,461	0	12,461	74,764	33.23
Varilla cobre,19mm,2.4m	no	72.22	7,222	32,499	0	32,499	194,994	86.66
Abrasadera	no	7.36	736	3,312	0	3,312	19,872	8.83
Tuberia de PVC,25mm	m	1.85	185	833	0	833	4,996	2.22
Excavacion,comun	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	3.09	309	3,090	26	3,116	10,069	4.47
Linea de flotadores	m	684.33	68,433	153,974	0	153,974	1,693,717	752.76
Liniometro	LS	1,377.60	137,760	309,970	0	309,970	3,409,570	1,515.36
Tuberia de Carga								
Excavacion,comun	m3	2.54	254	2,607	28	2,635	8,350	3.71
-do-,roca meteorizada	m3	3.25	325	3,138	35	3,233	10,546	4.69
-do-,roca	m3	7.80	780	7,818	188	8,006	25,556	11.36

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
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Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML>Total	Total,S/.	Equiv.US\$
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Terraplen	m3	3.23	323	2,896	30	2,926	10,194	4.53
Enrocado, terraplen	m2	4.25	425	11,983	1,266	13,249	22,812	10.14
Enrocado	m3	28.30	2,830	79,889	8,443	88,332	152,007	67.56
Hormigon, E, fondo	m3	55.92	5,592	56,335	12,988	69,323	195,143	86.73
Hormigon, E, anclaje	m3	55.92	5,592	56,335	12,988	69,323	195,143	86.73
Hormigon, E, cimentacion	m3	55.92	5,592	56,335	12,988	69,323	195,143	86.73
Hormigon, E, cubierta	m3	55.92	5,592	56,335	12,988	69,323	195,143	86.73
Hormigon, F, drenaje	m3	58.63	5,863	59,470	13,780	73,250	205,168	91.19
Hormigon, F, ducto	m3	58.63	5,863	59,470	13,780	73,250	205,168	91.19
Hormigon, F, drenaje	m3	58.63	5,863	59,470	13,780	73,250	205,168	91.19
Hormigon, H	m3	50.23	5,023	52,573	12,086	64,659	177,677	78.97
Encofrado, F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado, F2	m2	3.49	349	20,140	210	20,350	28,203	12.53
Encofrado, F3	m2	4.08	408	25,378	290	25,668	34,848	15.49
Inyeccion de contacto	LS	0.00	0	0	0	0	0	0.00
Tanque de Carga								
Excavacion, comun	m3	2.54	254	2,607	28	2,635	8,350	3.71
-do-, roca meteorizada	m3	3.25	325	3,198	35	3,233	10,546	4.69
-do-, roca	m3	7.80	780	7,818	188	8,006	25,556	11.36
-do-, zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno de drenaje libre	m3	14.34	1,434	21,533	4,333	25,866	58,131	25.84
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Arena y grava de relleno	m3	14.13	1,413	30,326	4,333	34,659	66,452	29.53
Hormigon, B	m3	59.29	5,929	60,240	13,974	74,214	207,617	92.27
Hormigon, H	m3	50.23	5,023	52,573	12,086	64,659	177,677	78.97
Hormigon, G	m3	49.55	4,955	51,469	11,835	63,304	174,792	77.69
Encofrado, F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado, F3	m2	3.49	349	20,140	210	20,350	28,203	12.53
Sellador de junta	m2	24.31	2,431	5,776	0	5,776	60,474	26.88
Varilla de anclaje, 25mm	m	13.54	1,354	7,177	551	7,728	38,193	16.97
Tuberia perforada de hormigon, 150mm	m	7.23	723	42,039	1,016	43,055	59,323	26.37
Tuberia de hormigon 300mm	m	12.86	1,286	64,344	1,904	66,248	95,183	42.30
Subbase piedra triturada	m3	16.52	1,652	16,060	5,126	21,186	58,356	25.94
tuberia de acero, 100mm	kg	1.33	133	1,232	0	1,232	4,225	1.88
Pasavano de acero	kg	1.81	181	1,057	0	1,057	5,130	2.28
Varilla lisa, escalera	kg	0.46	46	1,300	135	1,435	2,470	1.10
Cerca de malla	kg	0.86	86	935	102	1,037	2,972	1.32
Manometro	LS	1,300.50	130,050	292,610	0	292,610	3,218,735	1,430.55
Subestacion Severino								
Excavacion, comun	m3	2.88	288	2,956	32	2,988	9,468	4.21
-do-, roca meteorizada	m3	3.57	357	3,533	40	3,573	11,606	5.16
-do-, roca	m3	8.18	818	8,217	194	8,411	26,816	11.92
-do-, zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Base de grava	m3	13.57	1,357	35,321	4,333	39,654	70,187	31.19

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
IUS\$=100Yen=2250S/.

Descripción de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML>Total	Total,S/.	Equiv.US\$
Revestimiento de grava	m3	14.13	1,413	30,326	4,333	34,659	66,452	29.53
Hormigon,E	m3	56.86	5,686	57,306	12,998	70,304	198,239	88.11
Hormigon,F	m3	59.57	5,957	60,441	13,790	74,231	208,264	92.56
Hormigon,G	m3	50.49	5,049	52,440	11,846	64,286	177,889	79.06
Hormigon,H	m3	51.17	5,117	53,544	12,096	65,640	180,773	80.34
Encofrado,F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado,F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado,F2	m2	3.49	349	20,140	210	20,350	28,203	12.53
Metales esportados	kg	0.56	56	1,121	77	1,198	2,458	1.09
Canal Abierto Severino								
Excavacion,comun,canal	m3	2.54	254	2,607	28	2,635	8,350	3.71
-do-,comun,estructuras	m3	2.76	276	2,913	29	2,942	9,152	4.07
-do-roca,meteorizada, canal	m3	3.25	325	3,198	35	3,233	10,546	4.69
-do-roca meteorizada, estructuras	m3	4.14	414	4,370	44	4,414	13,729	6.10
-do-,roca,canal	m3	7.80	780	7,818	188	8,006	25,556	11.36
-do-,roca,estructuras	m3	2.81	281	2,311	669	22,980	29,303	13.02
-do-,zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Terraplen	m3	3.23	323	2,896	30	2,926	10,194	4.53
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Base de arena y grava	m3	13.57	1,357	35,321	4,333	39,654	70,187	31.19
Base de grava	m3	13.57	1,357	35,321	4,333	39,654	70,187	31.19
Colechon de gablones	m3	62.71	6,271	30,023	2,627	32,650	173,748	77.22
Hormigon,A,losa	m3	68.07	6,807	70,138	16,024	86,162	239,320	106.36
Hormigon,A,bloques	m3	68.07	6,807	70,138	16,024	86,162	239,320	106.36
Hormigon,B,sifon	m3	61.14	6,114	62,152	13,994	76,146	213,711	94.98
Hormigon,B, valvulas	m3	61.14	6,114	62,152	13,994	76,146	213,711	94.98
Hormigon,E,transicion	m3	57.77	5,777	58,246	13,008	71,254	201,237	89.44
Hormigon,E,alcantarillas	m3	57.77	5,777	58,246	13,008	71,254	201,237	89.44
Hormigon,E	m3	57.77	5,777	58,246	13,008	71,254	201,237	89.44
Hormigon,F,canal	m3	60.48	6,048	61,381	13,801	75,182	211,262	93.89
Hormigon,F,drenaje	m3	60.48	6,048	61,381	13,801	75,182	211,262	93.89
Hormigon,G,cimentacion	m3	51.40	5,140	53,380	11,856	65,236	180,886	80.39
Hormigon,H	m3	52.08	5,208	54,484	12,106	66,590	183,770	81.68
Encofrado,F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado,F1,canal	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado,F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado,F2	m2	4.37	437	15,231	102	15,333	25,166	11.18
Encofrado,F3	m2	4.08	408	25,378	290	25,668	34,848	15.49
Encofrado,F3,canal	m2	12.21	1,221	16,706	914	17,620	45,093	20.04
Encofrado,F3	m2	4.08	408	25,378	290	25,668	34,848	15.49
Varillas de refuerzo,canal	ton	357.97	35,797	943,005	111,023	1,054,028	1,859,461	826.43
Varillas de refuerzo	ton	357.97	35,797	943,005	111,023	1,054,028	1,859,461	826.43
Baston,D16mm	ton	336.00	33,600	959,700	116,550	1,076,250	1,832,250	814.33
Baston,D22mm	ton	336.00	33,600	959,700	116,550	1,076,250	1,832,250	814.33
Tapajuntas,200mm,B	m	17.23	1,723	7,248	0	7,248	46,016	20.45
Tapajuntas,150mm,C	m	13.63	1,363	6,843	0	6,843	37,511	16.67
Sellador de juntas,20mm	m2	24.31	2,431	5,776	0	5,776	60,474	26.88

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML>Total	Total,S/.	Equiv.US\$
Sellador de juntas,10mm	m2	12.15	1,215	4,408	0	4,408	31,745	14.11
Tuberia perforada de PVC, 100mm	m	22.74	2,274	5,116	0	5,116	56,281	25.01
Tuberia de hormigon, 800mm	m	36.31	3,631	178,265	5,948	184,213	265,911	118.18
Tuberia de hormigon, 1000mm	m	47.58	4,758	216,340	8,070	224,410	331,465	147.32
Compactacion del suelo original	m2	0.17	17	163	1	164	547	0.24
material de subrasante	m3	4.72	472	4,935	56	4,991	15,611	6.94
Piedra triturada para subrasante	m3	16.52	1,652	16,059	5,127	21,186	58,356	25.94
Tuberia de acero,200mm	m3	1.43	143	599	0	599	3,817	1.70
Rejilla de acero	kg	5.40	540	1,350	0	1,350	13,500	6.00
Pasamanos de acero	kg	1.81	181	1,057	0	1,057	5,130	2.28
Cercado de malla	kg	0.86	86	935	102	1,037	2,972	1.32
Placa de soporte	no	262.42	26,242	59,044	0	59,044	649,489	288.66
Varillas de anclaje	kg	0.37	37	1,056	128	1,184	2,017	0.90
Tunel de derivacion								
La esperanza-Poza Honda								
Excavacion, comun	m3	2.54	254	2,607	28	2,635	8,350	3.71
-do-,roca meteorizada	m3	3.25	325	3,198	35	3,233	10,546	4.69
-do-,roca	m3	7.80	780	7,818	188	8,006	25,556	11.36
-do-,tunel,subterranea	m3	43.08	4,308	44,699	454	45,153	142,083	63.15
-do-,zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Colchon de gabiones	m3	62.71	6,271	30,023	2,627	32,650	173,748	77.22
Hormigon,B	m3	61.29	6,129	62,364	13,719	76,083	213,986	95.10
Hormigon,D,tunel	m3	69.99	6,999	69,785	13,366	83,151	240,629	106.95
Hormigon,E,muros	m3	57.86	5,786	58,405	12,715	71,120	201,305	89.47
Hormigon,F,drenaje	m2	60.62	6,062	61,589	13,524	75,113	211,508	94.00
Hormigon,H	m2	52.17	5,217	54,643	11,813	66,456	183,839	81.71
Encofrado,F1,muros	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado,F1,drenaje	m2	0.25	25	15,001	277	15,278	15,841	7.04
Encofrado,F3,muros	m2	4.08	408	25,379	290	25,669	34,849	15.49
Encofrado,F3,entrada	m2	4.08	408	25,379	290	25,669	34,849	15.49
Encofrado,F3,dren	m2	4.03	403	25,379	290	25,669	34,849	15.49
Encofrado,F4,tunel	m2	21.98	2,198	5,033	47	5,080	54,535	24.24
Hormigon lanzado,tunel	m3	149.58	14,958	107,789	17,890	125,679	462,234	205.44
Tapajunta,200mm B	m	17.23	1,723	7,248	0	7,248	46,016	20.45
Varilla de anclaje,D25mm	m	13.54	1,354	7,178	559	7,737	38,202	16.98
Baston	m	336.00	33,600	959,700	116,550	1,076,250	1,832,250	814.33
Tunel de derivacion								
Poza Honda-Mancha Grande								
Excavacion, comun	m3	2.12	212	2,160	22	2,182	6,952	3.09
-do-,roca meteorizada	m3	2.93	293	2,860	31	2,891	9,484	4.21
-do-,roca	m3	7.80	780	7,818	188	8,006	25,556	11.36
-do-,tunel,subterranea	m3	50.96	5,096	53,407	515	53,922	168,582	74.93

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML,Total	Total,S/.	Equiv.US\$
-do-,zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Superficie de grava	m3	14.13	1,413	30,326	4,333	34,659	66,452	29.53
Base de grava	m3	13.57	1,357	35,321	4,333	39,654	70,187	31.19
Inyeccion de contacto	kg	0.43	43	291	63	354	1,322	0.59
Tuberia de acero,40mm	kg	2.06	206	386	0	386	5,021	2.23
Tuberia de acero,25mm	kg	2.16	216	446	0	446	5,306	2.36
Hormigon lanzado,tunel	m3	149.58	14,958	107,789	17,830	125,679	462,234	205.44
Hormigon,A,bloquetes	m3	72.48	7,248	74,839	15,329	90,168	253,248	112.55
Hormigon,C,entrada	m3	63.60	6,360	64,571	12,727	77,298	220,398	97.95
Hormigon,D,entrada	m3	64.28	6,428	65,359	12,927	78,286	222,916	99.07
Hormigon,D,tunel	m3	76.56	7,656	75,195	12,880	88,075	260,335	115.70
Hormigon,E,10km	m3	62.07	6,207	62,838	12,778	75,616	215,274	95.68
Hormigon,E,1km	m3	53.41	5,341	53,911	12,181	66,092	186,265	82.78
Hormigon,F,drenaje,10km	m3	64.86	6,486	66,048	13,093	79,141	225,076	100.03
Hormigon,F,drenaje,1km	m3	56.19	5,619	57,121	12,998	70,119	196,547	87.35
Hormigon,G,anclaje	m3	55.68	5,568	57,951	11,117	69,068	194,348	86.38
Hormigon,H,10km	m3	56.38	5,638	59,078	11,375	70,453	197,308	87.69
Hormigon,H,1km	m3	47.72	4,772	50,152	11,279	61,431	168,801	75.02
Encofrado,F1,muros	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado,F1,drenaje	m2	0.25	25	15,001	277	15,278	15,841	7.04
Encofrado,F1,anclaje	m2	0.25	25	15,001	277	15,278	15,841	7.04
Encofrado,F2,muros	m2	3.49	349	20,140	210	20,350	28,203	12.53
Encofrado,F3,muros	m2	4.08	408	25,379	290	25,669	34,849	15.49
Encofrado,F3,drenaje	m2	4.08	408	25,379	290	25,669	34,849	15.49
Encofrado,F4,tunel	m2	25.09	2,509	5,523	66	5,589	62,042	27.57
Metal esportrado	kg	4.08	408	25,379	290	25,669	34,849	15.49
Pasamano de tubo de acero	kg	0.55	55	1,121	77	1,198	2,436	1.08
Escalinata con enrejado	kg	1.81	181	1,057	0	1,057	5,130	2.28
Peldano de acero	kg	0.46	46	1,300	135	1,435	2,470	1.10
Tubo de acero,indicadores	kg	0.65	65	408	7	415	1,878	0.83
Enrejado y tapa	kg	1.48	148	278	1	279	3,609	1.60
Cerca de malla	kg	3.61	361	813	0	813	8,936	3.97
(Edificaciones)								
Hormigon,C	m3	63.60	6,360	64,571	12,727	77,298	220,398	97.95
Hormigon,H	m3	56.38	5,638	59,078	11,375	70,453	197,308	87.69
Encofrado,F1	m2	4.68	468	40,074	1,999	42,073	52,603	23.38
Encofrado,F2	m2	4.68	468	40,074	1,999	42,073	52,603	23.38
Varilla de refuerzo	ton	357.97	35,797	943,005	111,023	1,054,028	1,859,461	826.43
Bloques alivianados 100mm	m2	0.00	0	16,205	0	16,205	16,205	7.20
Tachado asfaltico,3 capa	m2	20.00	2,000	45,000	0	45,000	90,000	40.00
Mortero de cementos	m2	0.00	0	41,197	0	41,197	41,197	18.31
Base de mortero cemento	m2	0.00	0	4,669	0	4,669	4,669	2.08
Enlucido de mortero,100mm	m	0.00	0	467	0	467	467	0.21
Enlucido de mortero,200mm	m	0.00	0	934	0	934	934	0.42
Enlucido de mortero	m2	0.00	0	41,240	0	41,240	41,240	18.33
Mortero impermeable	m2	0.00	0	65,488	0	65,488	65,488	29.11
Mortero impermeable,para.	m2	0.00	0	271,295	0	271,295	271,295	120.58

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML,Total	Total,S/.	Equiv.US\$
Mortero de cemento, bordes	m	0.00	0	467	0	467	467	0.21
Grafiado	m2	0.00	0	2,419	0	2,419	2,419	1.08
Pintura de aceite	m2	0.00	0	3,052	0	3,052	3,052	1.36
Puertas de acero	m2	0.00	0	412,266	0	412,266	412,266	183.23
Ventanas de aluminos	m2	0.00	0	104,028	0	104,028	104,028	46.23
Celosías de aluminos	m2	0.00	0	96,900	0	96,900	96,900	43.07
Vidrio alambrado, 6.8mm (Ventilacion)	m2	41.06	4,106	9,238	0	9,238	101,623	45.17
Ventilador de aspas, 15480 CMB	no	1,875.00	0	210,938	0	210,938	4,429,688	1,968.75
Celosia de capatacion, 1200x 1500	no	812.50	0	91,406	0	91,406	1,919,531	853.12
Registros de ventilacion								
UR-VHS, 400x200	no	42.50	0	4,781	0	4,781	100,406	44.62
UR-VHS, 800x150	no	25.00	0	2,813	0	2,813	59,063	26.25
UR-VHS, 200x150	no	25.00	0	2,813	0	2,813	59,063	26.25
Acero platinado de zinc (Obras electricas)	kg	0.00	0	6,500	0	6,500	6,500	2.89
Panel de alumbrado	set	0.00	0	241,250	0	241,250	241,250	107.22
Lamparas								
Tipo A	set	401.25	40,125	90,281	0	90,281	993,094	441.37
Tipo B-1	set	334.38	33,438	75,235	0	75,235	827,590	367.82
Tipo B-2	set	267.50	26,750	60,198	0	60,198	662,073	294.25
Tipo F	set	200.63	20,063	45,142	0	45,142	498,560	220.69
Tamacorriente	set	0.00	0	13,725	0	13,725	13,725	6.10
Interruptor de volquete	set	0.00	0	11,363	0	11,363	11,363	5.05
Conductos, 16mm	m	2.14	214	4,815	0	4,815	9,630	4.28
Conductos, 22mm	m	2.70	270	6,075	0	6,075	12,150	5.40
Cable IV, 2mm2	m	0.00	0	1,120	0	1,120	1,120	0.50
Cable IV, 3.5mm2	m	0.00	0	1,488	0	1,488	1,488	0.66
Cable CV, 2c, 8mm2	m	1.98	198	891	0	891	5,346	2.38
Conductor de cobre, 50mm2	m	2.98	298	1,341	0	1,341	8,046	3.58
Placa de cobre, 1x1x3mm	no	189.26	18,926	85,167	0	85,167	511,002	227.11
Excavacion, comun	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	3.09	309	3,090	26	3,116	10,069	4.47
Linea de flotadores	m	634.33	63,433	153,974	0	153,974	1,693,717	752.76
Limonetro	LS	1,200.50	120,050	540,240	0	540,240	3,241,365	1,440.61
Ventana de Acceso La Seca								
Excavacion, comun	m3	2.54	254	2,607	28	2,635	8,350	3.71
-do-, roca meteorizada	m3	3.25	325	3,198	35	3,233	10,546	4.69
-do-, roca	m3	7.80	780	7,818	188	8,006	25,556	11.36
-do-, tunel, subterranea	m3	28.64	2,864	80,280	2,925	83,205	147,645	65.62
-do-, zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Manposteria de piedra bruta hueca	m3	56.52	5,652	110,461	15,646	126,107	253,277	112.57
Hormigon, D, tunel	m3	71.18	7,118	71,360	13,386	84,746	244,901	108.84
Hormigon, E, muros	m3	57.86	5,786	58,405	12,715	71,120	201,305	89.47
Hormigon, F, drenaje	m3	60.62	6,062	61,589	13,524	75,113	211,508	94.00

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
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Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML>Total	Total,S/.	Equiv.US\$
Hormigon,H	m3	52.17	5,217	54,643	11,813	66,456	183,839	81.71
Revestimiento de grava	m3	14.13	1,413	30,326	4,333	34,659	66,452	29.53
Base de grava	m3	13.57	1,357	35,321	4,333	39,654	70,187	31.19
Encofrado,F1,muros	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado,F1,drenaje	m2	0.25	25	15,001	277	15,278	15,841	7.04
Encofrado,F2,muro	m2	3.49	349	20,140	211	20,351	28,204	12.53
Encofrado,F3,drenaje	m2	4.08	408	25,379	290	25,669	34,849	15.49
Encofrado,F3,tunel	m2	14.95	1,495	12,268	82	12,350	45,988	20.44
Varillas de refuerzo	ton	357.97	35,797	943,005	111,023	1,054,028	1,859,461	826.43
Varillas de anclaje	m	13.54	1,354	7,177	559	7,736	38,201	16.98
Tuberia de PVC,50mm	m	4.17	417	1,277	0	1,277	10,660	4.74
Ventana de Acceso Los Cuyuyes								
Excavacion,comun	m3	2.54	254	2,607	28	2,635	8,350	3.71
-do-,roca meteorizada	m3	3.25	325	3,198	35	3,233	10,546	4.69
-do-,roca	m3	7.80	780	7,818	188	8,006	25,556	11.36
-do-,tunel,subterranea	m3	25.64	2,564	75,266	2,876	78,142	135,832	60.37
-do-,zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Hormigon,D,tunel	m3	70.02	7,002	69,844	13,362	83,206	240,751	107.00
Hormigon,E,muros	m3	56.82	5,682	57,330	12,704	70,034	197,879	87.95
Hormigon,F,drenaje	m3	59.58	5,958	60,514	13,512	74,026	208,081	92.48
Hormigon,H	m3	51.13	5,113	53,567	11,802	65,369	180,412	80.18
Ventana de Acceso Poza Honda								
Excavacion,comun	m3	2.54	254	2,607	28	2,635	8,350	3.71
-do-,roca meteorizada	m3	3.25	325	3,198	35	3,233	10,546	4.69
-do-,roca	m3	7.80	780	7,818	188	8,006	25,556	11.36
-do-,tunel,subterranea	m3	26.07	2,607	76,250	2,887	79,137	137,795	61.24
-do-,zanjas	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Hormigon,D,tunel	m3	81.49	8,149	80,438	12,932	93,370	276,723	122.99
Hormigon,E,muros	m3	62.07	6,207	62,838	12,778	75,616	215,274	95.68
Hormigon,F,drenaje	m3	64.86	6,486	66,048	13,093	79,141	225,076	100.03
Hormigon,H	m3	56.38	5,638	59,078	11,375	70,453	197,308	87.69
Casino de Acceso Severino								
Excavacion,comun y meteorizada	m3	2.57	257	2,559	27	2,586	8,369	3.72
Excavacion,roca	m3	7.42	742	7,424	183	7,607	24,302	10.80
TerraplenEbank,500m	m3	3.08	308	2,737	27	2,764	9,694	4.31
Terraplen,mayor a 500m	m3	3.53	353	3,208	34	3,242	11,185	4.97
Compactacion de suelo	m2	0.17	17	163	1	164	547	0.24
Revestimiento de grama	m2	0.03	3	4,622	0	4,622	4,690	2.08
Gabiones	m3	62.71	6,271	30,023	2,627	32,650	173,748	77.22
Excavacion,de todo tipo	m3	2.76	276	2,913	29	2,942	9,152	4.07
Relleno	m3	2.92	292	2,975	26	3,001	9,571	4.25
Relleno de drenaje	m3	14.34	1,434	21,533	4,333	25,866	58,131	25.84
Base de grava	m3	13.57	1,357	35,321	4,333	39,654	70,187	31.19
Base de piedra triturada	m3	14.34	1,434	21,533	4,333	25,866	58,131	25.84

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML>Total	Total,S/.	Equiv.US\$
Tuberia de hormigon, 600mm	m	25.15	2,515	125,884	3,798	129,682	186,270	82.79
Tuberia de hormigon, 800mm	m	36.31	3,631	178,265	5,948	184,213	265,911	118.18
Tuberia de hormigon, 1000mm	m	47.58	4,758	216,340	8,070	224,410	331,465	147.32
Tuberia perforada, 200mm	m	9.15	915	50,221	1,288	51,509	72,097	32.04
Material de drenaje libre	m3	14.34	1,434	21,533	4,333	25,866	53,131	25.84
Hormigon, E, alcantarilla	m3	57.77	5,777	58,246	13,008	71,254	201,237	89.44
Hormigon, F, canaleta	m3	60.48	6,048	61,381	13,801	75,182	211,262	93.89
Hormigon, H, replantillo	m3	52.08	5,208	54,484	12,106	66,590	183,770	81.68
Encofrado, F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado, F3	m2	3.49	349	20,139	211	20,350	28,203	12.53
varillas de refuerzo	ton	357.97	35,797	943,005	111,023	1,054,028	1,859,461	826.43
Colchon de gabiones	m3	62.71	6,271	30,023	2,627	32,650	173,748	77.22
Sellador de juntas, 10mm	m2	12.15	1,215	4,408	0	4,408	31,746	14.11
Revestimiento bituminoso	m2	0.03	3	3,945	41	3,986	4,054	1.80
Hormigon, A, losa, vigas	m3	68.07	6,807	70,138	16,024	86,162	239,320	106.36
Hormigon, E, estribos, pilas	m3	57.77	5,777	58,246	13,008	71,254	201,237	89.44
Hormigon, E, alcantarilla	m3	57.77	5,777	58,246	13,008	71,254	201,237	89.44
Hormigon, H	m3	52.08	5,208	54,484	12,106	66,590	183,770	81.68
Hormigon ciclopeo	m3	37.26	3,726	37,200	9,197	46,397	130,232	57.88
Encofrado, F1	m2	3.56	356	11,314	205	11,519	19,529	8.68
Encofrado, F2	m2	4.37	437	15,230	102	15,332	25,165	11.18
Encofrado, F3	m2	3.49	349	20,139	211	20,350	28,203	12.53
Sellador de juntas, 20mm	m2	24.31	2,431	5,776	0	5,776	60,474	26.88
Material de subrasante	m3	4.72	472	4,935	56	4,991	15,611	6.94
Piedra triturada	m3	16.52	1,652	16,060	5,126	21,186	58,356	25.94
Transporte de material	m3	0.47	47	493	6	499	1,557	0.69
Guardariel	m	73.56	7,356	33,103	0	33,103	198,613	88.27
Avisos de precaucion	no	120.38	12,038	54,169	0	54,169	325,024	144.46
Soporte, tipo fijo	no	262.42	26,242	59,044	0	59,044	649,489	288.66
Soporte, tipo movil	no	262.42	26,242	59,044	0	59,044	649,489	288.66
Pasamanos de acero	kg	1.81	181	1,057	0	1,057	5,130	2.28
Tubo de PVC, 100mm	m	12.06	1,206	2,164	0	2,164	29,299	13.02
Tubo de PVC, 75mm	m	8.16	816	1,726	0	1,726	20,086	8.93
Baston, 22mm	ton	336.00	33,600	959,700	116,550	1,076,250	1,832,250	814.33
Barra de anclaje	kg	0.37	37	1,056	128	1,184	2,017	0.90
Camino de Acceso a Entrada a								
Cana Dulce								
Excavacion, comun y meteorizada	m3	2.57	257	2,559	27	2,586	8,369	3.72
Excavacion, roca	m3	7.42	742	7,424	163	7,607	24,302	10.80
Terraplen, bank, 500m	m3	3.08	308	2,737	27	2,764	9,694	4.31
Terraplen, mayor a 500m	m3	3.23	323	2,896	30	2,926	10,194	4.53
Camino de Acceso La Seca								
Excavacion, comun y meteorizada	m3	2.57	257	2,559	27	2,586	8,369	3.72

LISTA DE PRECIOS UNITARIOS, PAQUETE 2

Agosto de 1994
1US\$=100Yen=2250S/.

Descripcion de las Obras	Unidad	ME,US\$	ME,J.Yen	ML,S/.	ML,Tax	ML,Total	Total,S/.	Equiv.US\$
Excavacion,roca	m3	7.42	742	7,424	183	7,607	24,302	10.80
TerraplenEmbank,500m	m3	3.08	308	2,737	27	2,764	9,694	4.31
Terraplen,mayor a 500m	m3	3.23	323	2,896	30	2,926	10,194	4.55
Hormigon,A	m3	67.16	6,716	69,263	15,734	84,997	236,107	104.94
Hormigon,E	m3	56.82	5,682	57,330	12,704	70,034	197,879	87.95
Hormigon,?	m3	59.58	5,958	60,514	13,512	74,026	208,081	92.48
Hormigon,H	m3	51.13	5,113	53,567	11,802	65,369	180,412	80.18
Hormigon ciclopeo	m3	36.79	3,679	36,742	9,044	45,786	128,564	57.14
Casino de Acceso Los Cuyuyes								
Excavacion,comun y meteorizada	m3	2.57	257	2,559	27	2,586	8,369	3.72
Excavacion,roca	m3	7.42	742	7,424	183	7,607	24,302	10.80
TerraplenEmbank,500m	m3	3.08	308	2,737	27	2,764	9,694	4.31
Terraplen,mayor a 500m	m3	3.23	323	2,896	30	2,926	10,194	4.53
Casino de Acceso Poza Honda								
Excavacion,comun y meteorizada	m3	2.57	257	2,559	27	2,586	8,369	3.72
Excavacion,roca	m3	7.42	742	7,424	183	7,607	24,302	10.80
TerraplenEmbank,500m	m3	3.08	308	2,737	27	2,764	9,694	4.31
Terraplen,mayor a 500m	m3	3.23	323	2,896	30	2,926	10,194	4.53

E OBRAS DE TIERRA (1)

Precio Unitario	Unidad**	ME ** (Yen)	ML (S/.)	Tasas (S/.)	** ML ** (S/.)	**Total** (S/.)	Total (US\$)
Excavacion, comun, 500m	m3	205.42	2095.80	21.26	2117.06	6739.01	3.00
Excavacion, comun, 1000m	m3	221.70	2266.24	23.50	2289.74	7277.99	3.23
Excavacion, comun, 2000m	m3	254.21	2606.86	27.98	2634.84	8354.57	3.71
Excavacion, comun, 3000m	m3	287.53	2955.86	32.57	2988.43	9457.86	4.20
Excavacion, comun, 4000m	m3	320.48	3299.42	37.11	3336.53	10547.33	4.69
Excavacion, comun, 5000m	m3	352.19	3633.14	41.48	3674.62	11598.90	5.16
Excavacion, comun, 6000m	m3	384.71	3973.78	45.97	4019.75	12675.73	5.63
Excavacion, comun, 7000m	m3	417.11	4313.12	50.43	4363.55	13748.53	6.11
Excav, roca meteorizada, 500m	m3	275.49	2880.92	28.23	2709.15	8907.68	3.96
Excav, roca meteorizada, 1000m	m3	292.02	2854.01	30.51	2884.52	9454.97	4.20
Excav, roca meteorizada, 2000m	m3	324.90	3198.39	35.04	3233.43	10543.68	4.68
Excav, roca meteorizada, 3000m	m3	356.88	3533.45	39.45	3572.90	11602.70	5.16
Excav, roca meteorizada, 4000m	m3	389.48	3874.85	43.94	3918.79	12682.09	5.64
Excav, roca meteorizada, 5000m	m3	422.57	4221.45	48.50	4269.95	13777.78	6.12
Excav, roca meteorizada, 6000m	m3	455.65	4568.02	53.06	4621.08	14873.21	6.61
Excav, roca meteorizada, 7000m	m3	487.42	4900.74	57.44	4958.18	15925.13	7.08
Excavacion, roca, rutita, 500m	m3	268.86	2592.70	28.88	2621.58	8670.93	3.85
Excavacion, roca, rutita, 1000m	m3	287.69	2789.87	31.47	2821.34	9294.37	4.13
Excavacion, roca, rutita, 2000m	m3	325.51	3183.64	36.37	3220.01	10543.99	4.69
Excavacion, roca, rutita, 3000m	m3	363.39	3582.84	41.91	3624.75	11801.03	5.24
Segund acarreo, tunel, 500m	m3	228.38	2532.88	24.86	2557.54	7696.09	3.42
Segund acarreo, tunel, 1000m	m3	248.23	2743.52	27.45	2770.97	8356.15	3.71
Segund acarreo, tunel, 2000m	m3	286.50	3150.08	32.44	3182.52	9628.77	4.28
Segund acarreo, tunel, 3000m	m3	325.44	3563.66	37.52	3601.18	10923.58	4.85
Segund acarreo, tunel, 4000m	m3	366.77	4002.71	42.92	4045.63	12297.96	5.47
Segund acarreo, tunel, 5000m	m3	406.42	4423.90	48.09	4471.99	13616.44	6.05
Terraplen, meteorizada, J, 500m	m3	228.30	2188.63	22.79	2211.42	7348.17	3.27
Terraplen, meteorizada, C, 1000m	m3	243.21	2347.83	25.25	2373.08	7845.31	3.49
Terraplen, meteorizada, C, 2000m	m3	272.94	2659.23	29.34	2688.57	8829.72	3.92
Terraplen, meteorizada, C, 3000m	m3	302.49	2968.81	33.42	3002.23	9808.26	4.36
Terraplen, meteorizada, C, 4000m	m3	332.80	3286.28	37.59	3323.87	10811.87	4.81
Terraplen, meteorizada, C, 5000m	m3	362.08	3592.96	41.63	3634.59	11781.39	5.24
Terraplen, meteorizada, C, 6000m	m3	390.99	3895.79	45.61	3941.40	12738.68	5.66
Terraplen, meteorizada, C, 7000m	m3	420.31	4202.97	49.66	4252.63	13709.61	6.09
Excavacion, roca, rutita, 4000m	m3	401.66	3983.68	47.18	4030.86	13068.21	5.81
Excavacion, roca, rutita, 5000m	m3	441.20	4397.88	52.63	4450.51	14377.51	6.39
Voradura, Accarreo, Escarificado							
Excavacion, roca rutita, 500m	m3	723.54	7226.86	180.60	7407.46	23687.11	10.53
Excavacion, roca rutita, 1000m	m3	742.37	7424.03	183.19	7607.22	24310.55	10.80
Excavacion, roca rutita, 2000m	m3	780.19	7817.80	188.09	8005.89	25560.17	11.36
Excavacion, roca rutita, 3000m	m3	818.07	8217.00	193.63	8410.63	26817.21	11.92
Excavacion, roca rutita, 4000m	m3	856.34	8617.84	198.90	8816.74	28084.39	12.48
Excavacion, roca rutita, 5000m	m3	895.88	9032.04	204.35	9236.39	29393.69	13.06
Voradura, rutita	m3	386.34	4085.28	146.73	4232.00	12924.62	5.74
Escalificado, rutita	m3	68.34	548.88	4.99	553.87	2091.52	0.93

Precio Unitario	Unidad**	ME ** (Yen)	ML (S/.)	Tasas (S/.)	** ML ** (S/.)	**Total** (S/.)	Total (US\$)
Terraplen, compactacion, rutita, apisonador, 20t	m3	79.63	548.56	4.51	553.07	2344.75	1.04
Accareo, 500m	m3	307.93	2737.19	27.30	2764.49	9692.92	4.31
Accareo, 1000m	m3	322.84	2896.39	29.76	2926.15	10190.05	4.53
Accareo, 2000m	m3	352.57	3207.79	33.85	3241.64	11174.47	4.97
Accareo, 5000m	m3	441.71	4141.52	46.14	4187.66	14126.14	6.28
Accareo, 3000m	m3	382.12	3517.37	37.93	3555.30	12153.00	5.40
Relleno, 500m							
Rodillo vibratorio 4t, comp.	m3	64.05	786.85	3.16	790.01	2231.14	0.99
Accareo, 500m, rutita	m3	228.30	2188.63	22.79	2211.42	7348.17	3.27
Precio unitario	m3	292.35	2975.48	25.95	3001.43	9579.31	4.26
Excavacion, Poza Honda							
Comun, 2000m, entrada, 12.5%	m3	254.21	2606.86	27.98			
Comun, 500m, salida, 87.5%	m3	205.42	2095.80	21.26			
Precio unitario	m3	211.52	2159.68	22.10	2181.78	6940.98	3.08
Meteorizada, entrada, 34.6%	m3	324.90	3198.39	35.04			
Meteorizada, salida, 65.4%	m3	275.49	2680.92	28.25			
Precio unitario	m3	292.59	2859.96	30.59	2890.55	9473.83	4.21

Precio Unitario	Unidad	*ME, Yen*	ML, S/. Tasas, S/.	*ML, S/.*	Total, S/.	Total, US\$	
Relleno, 30ca	m3	64.05	786.85	3.16	790.01	2231.14	0.99
Terraplen, rutita, apisonador, 20t	m3	79.63	548.56	4.51	553.07	2344.75	1.04

Precio Unitario	Unidad	*ME, Yen*	ML, S/. Tasas, S/.	*ML, S/.*	Total, S/.	Total, US\$	
Chone Portoviejo Excavacion, roca, lutita	m3	386.34	4085.28	146.73	4232.01	12924.66	5.74

Rubro No.
 Obras:Excavacion,cosun
 Observaciones:1000m3,500m
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.703	0.00	0.00	20600.00	35081.80	0.00	0.00
Operador	md	4.257	0.00	0.00	25600.00	108979.20	0.00	0.00
Asistente operador	md	4.257	0.00	0.00	17900.00	76200.30	0.00	0.00
Chofer	md	5.077	0.00	0.00	18100.00	91893.70	0.00	0.00
Obrero	md	6.796	0.00	0.00	17300.00	117570.80	0.00	0.00
Subtotal				0.00		429725.80		0.00
Costo de materiales								
Aceite ligero	lit	1076.716	4.00	4306.86	353.00	380080.75	1.00	1076.72
Lubricante	lit	29.372	44.00	1292.37	4150.00	121893.80	500.00	14686.00
Grasa	kg	1.151	58.00	66.76	5395.00	6209.65	650.00	748.15
Miscelaneos(3%)				169.98		15245.53		495.33
Subtotal				5835.97		523429.72		17006.19
Costo de equipos								
Bulldozer, 21t	hr	7.874	4510.00	35511.74	21440.00	168818.56	0.00	0.00
Para cargadora, 2.2m3	hr	14.085	3578.00	50396.13	17010.00	239585.85	0.00	0.00
Volqueta, 11t	hr	33.003	1616.00	53332.85	6816.00	224948.45	0.00	0.00
Bulldozer, 11t	hr	5.714	2050.00	11713.70	9745.00	55682.93	0.00	0.00
Miscelaneos(5%)				7547.72		34451.79		0.00
Subtotal				158502.14		723487.58		0.00
Gastos generales(25%)				41084.53		419160.77		4251.55
Total				205422.64		2095803.87		21257.74
Precio unitario(m3)				205.42		2095.80		21.26

Rubro No.

Obras:Excavacion,comun

Observaciones:1000m3,1000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	nd	1.703	0.00	0.00	20600.00	35081.80	0.00	0.00
Operador	nd	4.257	0.00	0.00	25600.00	108979.20	0.00	0.00
Asistente operador	nd	4.257	0.00	0.00	17900.00	76200.30	0.00	0.00
Chofer	nd	6.203	0.00	0.00	18100.00	112274.30	0.00	0.00
Obrero	nd	7.358	0.00	0.00	17300.00	127293.40	0.00	0.00
Subtotal				0.00		459629.00		0.00
Costo de materiales								
Aceite ligero	lit	1186.501	4.00	4746.00	353.00	41834.85	1.00	1186.50
Lubricante	lit	32.446	44.00	1427.62	4150.00	134650.90	500.00	16223.00
Grasa	kg	1.297	58.00	75.23	5395.00	6997.32	650.00	843.05
Miscelaneos(3%)				187.47		16814.49		547.58
Subtotal				6436.32		577297.56		18800.13
Costo de equipos								
Bulldozer, 21t	hr	7.874	4510.00	35511.74	21440.00	168818.56	0.00	0.00
Para cargadora, 2.2m3	hr	14.085	3578.00	50396.13	17010.00	239585.85	0.00	0.00
Volqueta, 11t	hr	40.322	1616.00	65160.35	6816.00	274834.75	0.00	0.00
Bulldozer, 11t	hr	5.714	2050.00	11713.70	9745.00	55882.93	0.00	0.00
Miscelaneos(5%)				8139.10		36946.10		0.00
Subtotal				170921.02		775868.20		0.00
Gastos generales(25%)				44339.33		453248.69		4700.03
Total				221696.67		2266243.45		23500.16
Precio unitario(m3)				221.70		2266.24		23.50

Rubro No.
 Obras:Excavacion,comun
 Observaciones:1000m3,2000m
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.703	0.00	0.00	20600.00	35081.80	0.00	0.00
Operador	md	4.257	0.00	0.00	25600.00	108979.20	0.00	0.00
Asistente operador	md	4.257	0.00	0.00	17900.00	76200.30	0.00	0.00
Chofer	md	8.453	0.00	0.00	18100.00	152999.30	0.00	0.00
Obrero	md	8.484	0.00	0.00	17300.00	146773.20	0.00	0.00
Subtotal				0.00		520033.80		0.00
Costo de materiales								
Aceite ligero	lit	1405.846	4.00	5623.38	353.00	496263.64	1.00	1405.85
Lubricante	lit	38.588	44.00	1697.87	4150.00	160140.20	500.00	19294.00
Grasa	kg	1.590	58.00	92.22	5395.00	8578.05	650.00	1033.50
Miscelaneos(3%)				222.40		19949.46		652.00
Subtotal				7635.88		684931.34		22385.35
Costo de equipos								
Bulldozer, 21t	hr	7.874	4510.00	35511.74	21440.00	168818.56	0.00	0.00
Para cargadora, 2.2m3	hr	14.085	3578.00	50396.13	17010.00	239585.85	0.00	0.00
Volqueta, 11t	hr	54.945	1616.00	88791.12	6816.00	374505.12	0.00	0.00
Bulldozer, 11t	hr	5.714	2050.00	11713.70	9745.00	55682.93	0.00	0.00
Miscelaneos(5%)				9320.63		41929.62		0.00
Subtotal				195733.32		880522.08		0.00
Gastos generales(25%)				50842.30		521371.81		5596.34
Total				254211.51		2606859.03		27981.68
Precio unitario(m3)				254.21		2606.86		27.98

Rubro No.

Obras:Excavacion,comun

Observaciones:1000m3,3000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.703	0.00	0.00	20600.00	35081.80	0.00	0.00
Operador	md	4.257	0.00	0.00	25600.00	108979.20	0.00	0.00
Asistente operador	md	4.257	0.00	0.00	17900.00	76200.30	0.00	0.00
Chofer	md	10.758	0.00	0.00	18100.00	194719.80	0.00	0.00
Obrero	md	9.636	0.00	0.00	17300.00	166702.80	0.00	0.00
Subtotal				0.00		581683.90		0.00
Costo de materiales								
Aceite ligero	lit	1630.636	4.00	6522.54	353.00	575614.51	1.00	1630.64
Lubricante	lit	44.882	44.00	1974.81	4150.00	186260.30	500.00	22441.00
Grasa	kg	1.890	58.00	109.62	5395.00	10196.55	650.00	1228.50
Miscelaneos(3%)				258.21		23162.14		759.00
Subtotal				8865.18		795233.50		26059.14
Costo de equipos								
Bulldozer, 2lt	hr	7.874	4510.00	35511.74	21440.00	168818.56	0.00	0.00
Para cargadora, 2.2m3	hr	14.085	3578.00	50396.13	17010.00	239585.85	0.00	0.00
Volqueta, 1lt	hr	69.931	1616.00	113008.50	6816.00	476649.70	0.00	0.00
Bulldozer, 1lt	hr	5.714	2050.00	11713.70	9745.00	55682.93	0.00	0.00
Miscelaneos(5%)				10531.50		47036.85		0.00
Subtotal				221161.57		987773.89		0.00
Gastos generales(25%)				57506.69		591172.82		6514.79
Total				287533.44		2955864.11		32573.93
Precio unitario(m3)				287.53		2955.86		32.57

Rubro No.

Obras:Excavacion,comun

Observaciones:1000m3,4000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.703	0.00	0.00	20600.00	35081.80	0.00	
Operador	md	4.257	0.00	0.00	25600.00	108979.20	0.00	
Asistente operador	md	4.257	0.00	0.00	17900.00	76200.30	0.00	
Chofer	md	13.038	0.00	0.00	18100.00	235987.80	0.00	
Obrero	md	10.706	0.00	0.00	17300.00	185213.80	0.00	
Subtotal				0.00		641462.90	0.00	
Costo de materiales								
Aceite ligero	lit	1852.861	4.00	7411.44	353.00	654059.93	1.00	
Lubricante	lit	51.104	44.00	2248.58	4150.00	212081.60	500.00	
Grasa	kg	2.186	58.00	126.79	5395.00	11793.47	650.00	
Miscelaneos(31)				293.60		26338.05	864.77	
Subtotal				10080.41		904273.05	29690.53	
Costo de equipos								
Bulldozer,2lt	hr	7.874	4510.00	35511.74	21440.00	168818.56	0.00	
Para cargadora,2.2m3	hr	14.085	3578.00	50396.13	17010.00	239585.85	0.00	
Volqueta,1lt	hr	84.746	1616.00	136949.54	6816.00	577628.74	0.00	
Bulldozer,1lt	hr	5.714	2050.00	11713.70	9745.00	55682.93	0.00	
Miscelaneos(5%)				11728.56		52085.80	0.00	
Subtotal				246299.66		1093801.88	0.00	
Gastos generales(25%)				64095.02		659884.46	7422.63	
Total				320475.09		3299422.29	37113.17	
Precio unitario(m3)				320.48		3299.42	37.11	

Rubro No.
 Obras:Excavacion,comun
 Observaciones:1000m3,5000m
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.703	0.00	0.00	20600.00	35081.80	0.00	0.00
Operador	md	4.257	0.00	0.00	25600.00	108979.20	0.00	0.00
Asistente operador	md	4.257	0.00	0.00	17900.00	76200.30	0.00	0.00
Chofer	md	15.232	0.00	0.00	18100.00	275699.20	0.00	0.00
Obrero	md	11.873	0.00	0.00	17300.00	205402.90	0.00	0.00
Subtotal				0.00		701363.40		0.00
Costo de materiales								
Aceite ligero	lit	2066.821	4.00	8267.28	353.00	729587.81	1.00	2066.82
Lubricante	lit	57.095	44.00	2512.18	4150.00	236944.25	500.00	28547.50
Grasa	kg	2.471	58.00	143.32	5395.00	13331.05	650.00	1606.15
Miscelaneos(31)				327.68		29395.89		966.61
Subtotal				11250.47		1009259.00		33187.09
Costo de equipos								
Bulldozer,21t	hr	7.874	4510.00	35511.74	21440.00	168818.56	0.00	0.00
Para cargadora,2.2m3	hr	14.085	3578.00	50396.13	17010.00	239585.85	0.00	0.00
Volqueta,11t	hr	99.010	1616.00	160000.16	6816.00	674852.16	0.00	0.00
Bulldozer,11t	hr	5.714	2050.00	11713.70	9745.00	55682.93	0.00	0.00
Miscelaneos(51)				12881.09		56946.98		0.00
Subtotal				270502.82		1195886.48		0.00
Gastos generales(25%)				70438.32		726627.22		8296.77
Total				352191.60		3633136.10		41483.86
Precio unitario(m3)				352.19		3633.14		41.48

Rubro No.
 Obras:Excavacion,comun
 Observaciones:1000m3,6000m
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.703	0.00	0.00	20600.00	35081.80	0.00	0.00
Operador	md	4.257	0.00	0.00	25600.00	108979.20	0.00	0.00
Asistente operador	md	4.257	0.00	0.00	17900.00	76200.30	0.00	0.00
Chofer	md	17.482	0.00	0.00	18100.00	316424.20	0.00	0.00
Obrero	md	12.998	0.00	0.00	17300.00	224865.40	0.00	0.00
Subtotal				0.00		761550.90		0.00
Costo de materiales								
Aceite ligero	lit	2286.211	4.00	9144.84	353.00	807032.48	1.00	2286.21
Lubricante	lit	63.238	44.00	2782.47	4150.00	262437.70	500.00	31619.00
Grasa	kg	2.764	58.00	160.31	5395.00	14911.78	650.00	1796.60
Miscelaneos(3%)				362.63		32531.46		1071.05
Subtotal				12450.26		1116913.42		36772.87
Costo de equipos								
Bulldozer,2lt	hr	7.874	4510.00	35511.74	21440.00	168818.56	0.00	0.00
Para cargadora,2.2m3	hr	14.085	3578.00	50396.13	17010.00	239585.85	0.00	0.00
Volqueta,1lt	hr	113.636	1616.00	183635.78	6816.00	774542.98	0.00	0.00
Bulldozer,1lt	hr	5.714	2050.00	11713.70	9745.00	55682.93	0.00	0.00
Miscelaneos(5%)				14062.87		61931.52		0.00
Subtotal				295320.21		1300561.83		0.00
Gastos generales(25%)				76942.62		794756.54		9193.22
Total				384713.09		3973782.69		45966.08
Precio unitario(m3)				384.71		3973.78		45.97

Rubro No.

Obras:Excavacion,comun

Observaciones:1000m3,7000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.703	0.00	0.00	20600.00	35081.80	0.00	0.00
Operador	md	4.257	0.00	0.00	25600.00	108979.20	0.00	0.00
Asistente operador	md	4.257	0.00	0.00	17900.00	76200.30	0.00	0.00
Chofer	md	19.724	0.00	0.00	18100.00	357004.40	0.00	0.00
Obrero	md	14.119	0.00	0.00	17300.00	244258.70	0.00	0.00
Subtotal				0.00		821524.40		0.00
Costo de materiales								
Aceite ligero	lit	2504.746	4.00	10018.98	353.00	884175.34	1.00	2504.75
Lubricante	lit	69.357	44.00	3051.71	4150.00	287831.55	500.00	34678.50
Grasa	kg	3.055	58.00	177.19	5395.00	16481.73	650.00	1985.75
Miscelaneos(3%)				397.44		35654.66		1175.07
Subtotal				13645.32		1224143.27		40344.07
Costo de equipos								
Bulldozer, 2lt	hr	7.874	4510.00	35511.74	21440.00	168818.56	0.00	0.00
Para cargadora, 2.2m3	hr	14.085	3578.00	50396.13	17010.00	239585.85	0.00	0.00
Volqueta, 1lt	hr	128.205	1616.00	207179.28	6816.00	873845.28	0.00	0.00
Bulldozer, 1lt	hr	5.714	2050.00	11713.70	9745.00	55682.93	0.00	0.00
Miscelaneos(5%)				15240.04		66896.63		0.00
Subtotal				320040.89		1404829.25		0.00
Gastos generales(25%)				83421.55		862624.23		10086.02
Total				417107.76		4313121.15		50430.08
Precio unitario(m3)				417.11		4313.12		50.43

Rubro No.

Obras:Excavacion,roca meteorizada

Observaciones:1000m3,500m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.937	0.00	0.00	20600.00	39902.20	0.00	0.00
Operador	md	4.842	0.00	0.00	25600.00	123955.20	0.00	0.00
Asistente operador	md	4.842	0.00	0.00	17900.00	86671.80	0.00	0.00
Chofer	md	5.850	0.00	0.00	18100.00	105885.00	0.00	0.00
Obrero	md	7.767	0.00	0.00	17300.00	134369.10	0.00	0.00
Subtotal				0.00		490783.30		0.00
Costo de materiales								
Aceite ligero	lit	1340.217	4.00	5360.87	353.00	473096.60	1.00	1340.22
Lubricante	lit	39.396	44.00	1733.42	4150.00	163493.40	500.00	19698.00
Grasa	kg	1.369	58.00	79.40	5395.00	7385.76	650.00	889.85
Miscelaneos(3%)				215.21		19319.27		657.84
Subtotal				7388.90		663295.03		22585.91
Costo de equipos								
Bulldozer con escarificador,32t	hr	8.772	7400.00	64912.80	36550.00	320616.60	0.00	0.00
Para cargadora,2.2m3	hr	19.608	3578.00	70157.42	17010.00	333532.08	0.00	0.00
Volqueta,11t	hr	38.023	1616.00	61445.17	6816.00	259164.77	0.00	0.00
Bulldozer,11t	hr	3.096	2050.00	6346.80	9745.00	30170.52	0.00	0.00
Miscelaneos(5%)				10143.11		47174.20		0.00
Subtotal				213005.30		990658.17		0.00
Gastos generales(25%)				55098.55		536184.12		5646.48
Total				275492.76		2680920.62		28232.39
Precio unitario(m3)				275.49		2680.92		28.23

Rubro No.

Obras:Excavacion,roca meteorizada

Observaciones:1000m3,1000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.937	0.00	0.00	20600.00	39902.20	0.00	0.00
Operador	md	4.842	0.00	0.00	25600.00	123955.20	0.00	0.00
Asistente operador	md	4.842	0.00	0.00	17900.00	86671.80	0.00	0.00
Chofer	md	6.993	0.00	0.00	18100.00	126573.30	0.00	0.00
Obrero	md	8.339	0.00	0.00	17300.00	144264.70	0.00	0.00
Subtotal				0.00		521367.20		0.00
Costo de materiales								
Aceite ligero	lit	1451.697	4.00	5806.79	353.00	512449.04	1.00	1451.70
Lubricante	lit	42.517	44.00	1870.75	4150.00	176445.55	500.00	21258.50
Grasa	kg	1.518	58.00	88.04	5395.00	8189.61	650.00	986.70
Miscelaneos(3%)				232.97		20912.53		710.91
Subtotal				7998.55		717996.73		24407.80
Costo de equipos								
Bulldozer con escarificador,32t	hr	8.772	7400.00	64912.80	36550.00	320616.60	0.00	0.00
Para cargadora,2.2m3	hr	19.608	3578.00	70157.42	17010.00	333532.08	0.00	0.00
Volqueta,11t	hr	45.455	1616.00	73455.28	6816.00	309821.28	0.00	0.00
Bulldozer,11t	hr	3.096	2050.00	6346.80	9745.00	30170.52	0.00	0.00
Miscelaneos(5%)				10743.62		49707.02		0.00
Subtotal				225615.92		1043847.50		0.00
Gastos generales(25%)				58403.62		570802.86		6101.95
Total				292018.08		2854014.29		30509.75
Precio unitario(m3)				292.02		2854.01		30.51

Rubro No.

Obras:Excavacion,roca meteorizada

Observaciones:1000m3,2000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.937	0.00	0.00	20600.00	39902.20	0.00	0.00
Operador	md	4.842	0.00	0.00	25600.00	123955.20	0.00	0.00
Asistente operador	md	4.842	0.00	0.00	17900.00	86671.80	0.00	0.00
Chofer	md	9.268	0.00	0.00	18100.00	167750.80	0.00	0.00
Obrero	md	9.476	0.00	0.00	17300.00	163934.80	0.00	0.00
Subtotal				0.00		582214.80		0.00
Costo de materiales								
Aceite ligero	lit	1673.487	4.00	6693.95	353.00	590740.91	1.00	1673.49
Lubricante	lit	48.727	44.00	2143.99	4150.00	202217.05	500.00	24363.50
Grasa	kg	1.814	58.00	105.21	5395.00	9786.53	650.00	1179.10
Miscelaneos(3%)				268.29		24082.33		816.48
Subtotal				9211.44		826826.83		28032.57
Costo de equipos								
Bulldozer con escarificador,32t	hr	8.772	7400.00	64912.80	36550.00	320616.60	0.00	0.00
Para cargadora,2.2m3	hr	19.608	3578.00	70157.42	17010.00	333532.08	0.00	0.00
Volqueta,11t	hr	60.241	1616.00	97349.46	6816.00	410602.66	0.00	0.00
Bulldozer,11t	hr	3.096	2050.00	6346.80	9745.00	30170.52	0.00	0.00
Miscelaneos(5%)				11938.32		54746.09		0.00
Subtotal				250704.80		1149667.95		0.00
Gastos generales(25%)				64979.06		639677.39		7008.14
Total				324895.31		3198386.97		35040.71
Precio unitario(m3)				324.90		3198.39		35.04

Rubro No.

Obras: Excavacion, roca meteorizada

Observaciones: 1000m³, 3000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.937	0.00	0.00	20600.00	39902.20	0.00	0.00
Operador	md	4.842	0.00	0.00	25600.00	123955.20	0.00	0.00
Asistente operador	md	4.842	0.00	0.00	17900.00	86671.80	0.00	0.00
Chofer	md	11.481	0.00	0.00	18100.00	207808.10	0.00	0.00
Obrero	md	10.583	0.00	0.00	17300.00	183085.90	0.00	0.00
Subtotal				0.00		641421.20		0.00
Costo de materiales								
Aceite ligero	lit	1889.277	4.00	7557.11	353.00	666914.78	1.00	1889.28
Lubricante	lit	54.769	44.00	2409.84	4150.00	227291.35	500.00	27384.50
Grasa	kg	2.102	58.00	121.92	5395.00	11340.29	650.00	1366.30
Miscelaneos(3%)				302.67		27166.39		919.20
Subtotal				10391.53		932712.81		31559.28
Costo de equipos								
Bulldozer con escarificador, 32t	hr	8.772	7400.00	64912.80	36550.00	320616.60	0.00	0.00
Para cargadora, 2.2m ³	hr	19.608	3578.00	70157.42	17010.00	333532.08	0.00	0.00
Volqueta, 11t	hr	74.627	1616.00	120597.23	6816.00	508657.63	0.00	0.00
Bulldozer, 11t	hr	3.096	2050.00	6346.80	9745.00	30170.52	0.00	0.00
Miscelaneos(5%)				13100.71		59648.84		0.00
Subtotal				275114.97		1252625.67		0.00
Gastos generales(25%)				71376.62		706689.92		7889.82
Total				356883.12		3533449.61		39449.10
Precio unitario(m ³)				356.88		3533.45		39.45

Rubro No.
 Obras:Excavacion,roca meteorizada
 Observaciones:1000x3,400m
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.937	0.00	0.00	20600.00	39902.20	0.00	0.00
Operador	md	4.842	0.00	0.00	25600.00	123955.20	0.00	0.00
Asistente operador	md	4.842	0.00	0.00	17900.00	86671.80	0.00	0.00
Chofer	md	13.736	0.00	0.00	18100.00	248621.60	0.00	0.00
Obrero	md	11.710	0.00	0.00	17300.00	202583.00	0.00	0.00
Subtotal				0.00		701733.80		0.00
Costo de materiales								
Aceite ligero	lit	2109.162	4.00	8436.65	353.00	744534.19	1.00	2109.16
Lubricante	lit	60.926	44.00	2680.74	4150.00	252842.90	500.00	30463.00
Grasa	kg	2.395	58.00	138.91	5395.00	12921.03	650.00	1556.75
Miscelaneos(3%)				337.69		30308.94		1023.87
Subtotal				11593.99		1040607.05		35152.78
Costo de equipos								
Bulldozer con escarificador,32t	hr	8.772	7400.00	64912.80	36550.00	320616.60	0.00	0.00
Para cargadora,2.2m3	hr	19.608	3578.00	70157.42	17010.00	333532.08	0.00	0.00
Volqueta,11t	hr	89.286	1616.00	144286.18	6816.00	608573.38	0.00	0.00
Bulldozer,11t	hr	3.096	2050.00	6346.80	9745.00	30170.52	0.00	0.00
Miscelaneos(5%)				14285.16		64644.63		0.00
Subtotal				299988.36		1357537.20		0.00
Gastos generales(25%)				77895.59		774969.51		8788.19
Total				389477.94		3874847.57		43940.97
Precio unitario(m3)				389.48		3874.85		43.94

Rubro No.

Obras:Excavacion,roca meteorizada

Observaciones:1000m3,5000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.937	0.00	0.00	20600.00	39902.20	0.00	0.00
Operador	md	4.842	0.00	0.00	25600.00	123955.20	0.00	0.00
Asistente operador	md	4.842	0.00	0.00	17900.00	86671.80	0.00	0.00
Chofer	md	16.026	0.00	0.00	18100.00	290070.60	0.00	0.00
Obrero	md	12.855	0.00	0.00	17300.00	222391.50	0.00	0.00
Subtotal				0.00		762991.30		0.00
Costo de materiales								
Aceite ligero	lit	2332.377	4.00	9329.51	353.00	823329.08	1.00	2332.38
Lubricante	lit	67.176	44.00	2955.74	4150.00	278780.40	500.00	33588.00
Grasa	kg	2.692	58.00	156.14	5395.00	14523.34	650.00	1749.80
Miscelaneos(3%)				373.24		33498.98		1130.11
Subtotal				12814.63		1150131.81		38800.28
Costo de equipos								
Bulldozer con escarificador,32t	hr	8.772	7400.00	64912.80	36550.00	320616.60	0.00	0.00
Para cargadora,2.2m3	hr	19.608	3578.00	70157.42	17010.00	333532.08	0.00	0.00
Volqueta,11t	hr	104.167	1616.00	168333.87	6816.00	710002.27	0.00	0.00
Bulldozer,11t	hr	3.096	2050.00	6346.80	9745.00	30170.52	0.00	0.00
Miscelaneos(5%)				15487.54		69716.07		0.00
Subtotal				325238.44		1464037.55		0.00
Gastos generales(25%)				84513.27		844290.16		9700.07
Total				422566.34		4221450.81		48500.35
Precio unitario(m3)				422.57		4221.45		48.50

Rubro No.

Obras:Excavacion,roca meteorizada

Observaciones:1000m3,6000m

Precio Unitario:

Descripción	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.937	0.00	0.00	20600.00	39902.20	0.00	0.00
Operador	md	4.842	0.00	0.00	25600.00	123955.20	0.00	0.00
Asistente operador	md	4.842	0.00	0.00	17900.00	86671.80	0.00	0.00
Chofer	md	18.315	0.00	0.00	18100.00	331501.50	0.00	0.00
Obrero	md	13.999	0.00	0.00	17300.00	242182.70	0.00	0.00
Subtotal				0.00		824213.40		0.00
Costo de materiales								
Aceite ligero	lit	2555.592	4.00	10222.37	353.00	902123.98	1.00	2555.59
Lubricante	lit	73.426	44.00	3230.74	4150.00	304717.90	500.00	36713.00
Grasa	kg	2.930	58.00	173.42	5395.00	16131.05	650.00	1943.50
Miscelaneos(3%)				408.80		36689.19		1236.36
Subtotal				14035.33		1259662.11		42448.45
Costo de equipos								
Bulldozer con escarificador,32t	hr	8.772	7400.00	64912.80	36550.00	320616.60	0.00	0.00
Para cargadora,2.2m3	hr	19.608	3578.00	70157.42	17010.00	333532.08	0.00	0.00
Volqueta,11t	hr	119.048	1616.00	192381.57	6816.00	811431.17	0.00	0.00
Bulldozer,11t	hr	3.096	2050.00	6346.80	9745.00	30170.52	0.00	0.00
Miscelaneos(5%)				16689.93		74787.52		0.00
Subtotal				350488.52		1570537.89		0.00
Gastos generales(25%)				91130.96		913603.35		10612.11
Total				455654.81		4568016.75		53060.57
Precio unitario(m3)				455.65		4568.02		53.06

Rubro No.

Obras: Excavacion, roca meteorizada

Observaciones: 1000m3, 7000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.937	0.00	0.00	20600.00	39902.20	0.00	0.00
Operador	md	4.842	0.00	0.00	25600.00	123955.20	0.00	0.00
Asistente operador	md	4.842	0.00	0.00	17900.00	86671.80	0.00	0.00
Chofer	md	20.513	0.00	0.00	18100.00	371285.30	0.00	0.00
Obrero	md	15.098	0.00	0.00	17300.00	261195.40	0.00	0.00
Subtotal				0.00		883009.90		0.00
Costo de materiales								
Aceite ligero	lit	2769.867	4.00	11079.47	353.00	977763.05	1.00	2769.87
Lubricante	lit	79.426	44.00	3494.74	4150.00	329617.90	500.00	39713.00
Grasa	kg	3.276	58.00	190.01	5395.00	17674.02	650.00	2129.40
Miscelaneos(3%)				442.93		39751.65		1338.37
Subtotal				15207.15		1364806.62		45950.64
Costo de equipos								
Bulldozer con escarificador, 32t	hr	8.772	7400.00	64912.80	36550.00	320616.60	0.00	0.00
Para cargadora, 2.2m3	hr	19.608	3578.00	70157.42	17010.00	333532.08	0.00	0.00
Volqueta, 11t	hr	133.333	1616.00	215466.13	6816.00	908797.73	0.00	0.00
Bulldozer, 11t	hr	3.096	2050.00	6346.80	9745.00	30170.52	0.00	0.00
Miscelaneos(5%)				17844.16		79655.85		0.00
Subtotal				374727.31		1672772.77		0.00
Gastos generales(25%)				97483.61		980147.32		11487.66
Total				487418.07		4900736.62		57438.29
Precio unitario(m3)				487.42		4900.74		57.44

Rubro No.
 Obras: Excavacion, roca
 Observaciones: 1000m3, 500m
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.534	0.00	0.00	20600.00	31600.40	0.00	0.00
Operador	md	3.836	0.00	0.00	25600.00	98201.60	0.00	0.00
Asistente operador	md	3.836	0.00	0.00	17900.00	68664.40	0.00	0.00
Chofer	md	6.838	0.00	0.00	18100.00	123767.80	0.00	0.00
Obrero	md	7.255	0.00	0.00	17300.00	125511.50	0.00	0.00
Subtotal				0.00		447745.70		0.00
Costo de materiales								
Aceite ligero	lit	1350.448	4.00	5401.79	353.00	476708.14	1.00	1350.45
Lubricante	lit	40.348	44.00	1775.31	4150.00	167444.20	500.00	20174.00
Grasa	kg	1.395	58.00	80.91	5395.00	7526.03	650.00	906.75
Miscelaneos(3%)				217.74		19550.35		672.94
Subtotal				7475.75		671228.72		23104.13
Costo de equipos								
Bulldozer con escarificador, 32t	hr	5.988	7400.00	44311.20	36550.00	218861.40	0.00	0.00
Para cargadora, 2.2m3	hr	21.277	3578.00	76129.11	17010.00	361921.77	0.00	0.00
Volqueta, 11t	hr	44.444	1616.00	71821.50	6816.00	302930.30	0.00	0.00
Bulldozer, 11t	hr	2.667	2050.00	5467.35	9745.00	25989.92	0.00	0.00
Miscelaneos(5%)				9886.46		45485.17		0.00
Subtotal				207615.62		955188.56		0.00
Gastos generales(25%)				53772.84		518540.74		5776.03
Total				268864.22		2592703.72		28880.17
Precio unitario(m3)				268.86		2592.70		28.88

Rubro No.

Obras:Excavacion,roca

Observaciones:1000m3,1000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.534	0.00	0.00	20600.00	31600.40	0.00	0.00
Operador	md	3.836	0.00	0.00	25600.00	98201.60	0.00	0.00
Asistente operador	md	3.836	0.00	0.00	17900.00	68664.40	0.00	0.00
Chofer	md	8.140	0.00	0.00	18100.00	147334.00	0.00	0.00
Obrero	md	7.906	0.00	0.00	17300.00	136773.80	0.00	0.00
Subtotal				0.00		482574.20		0.00
Costo de materiales								
Aceite ligero	lit	1477.438	4.00	5909.75	353.00	521535.61	1.00	1477.44
Lubricante	lit	43.904	44.00	1931.78	4150.00	182201.60	500.00	21952.00
Grasa	kg	1.564	58.00	90.71	5395.00	8437.78	650.00	1016.60
Miscelaneos(3%)				237.97		21365.25		733.38
Subtotal				8170.21		733540.24		25179.42
Costo de equipos								
Bulldozer con escarificador,32t	hr	5.988	7400.00	44311.20	36550.00	218861.40	0.00	0.00
Para cargadora,2.2m3	hr	21.277	3578.00	76129.11	17010.00	361921.77	0.00	0.00
Volqueta,11t	hr	52.910	1616.00	85502.56	6816.00	360634.56	0.00	0.00
Bulldozer,11t	hr	2.667	2050.00	5467.35	9745.00	25989.92	0.00	0.00
Miscelaneos(5%)				10570.51		48370.38		0.00
Subtotal				221980.73		1015778.03		0.00
Gastos generales(25%)				57537.73		557973.12		6294.85
Total				287688.67		2789865.59		31474.27
Precio unitario(m3)				287.69		2789.87		31.47

Rubro No.
 Obras:Excavacion,roca
 Observaciones:1000m3,2000m
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	nd	1.534	0.00	0.00	20600.00	31600.40	0.00	0.00
Operador	nd	3.836	0.00	0.00	25600.00	98201.60	0.00	0.00
Asistente operador	nd	3.836	0.00	0.00	17900.00	68664.40	0.00	0.00
Chofer	nd	10.758	0.00	0.00	18100.00	194719.80	0.00	0.00
Obrero	nd	9.215	0.00	0.00	17300.00	159419.50	0.00	0.00
Subtotal				0.00		552605.70		0.00
Costo de materiales								
Aceite ligero	lit	1732.738	4.00	6930.95	353.00	611656.51	1.00	1732.74
Lubricante	lit	51.053	44.00	2246.33	4150.00	211869.95	500.00	25526.50
Grasa	kg	1.527	58.00	88.57	5395.00	8238.17	650.00	992.55
Miscelaneos(3%)				277.98		24952.94		847.55
Subtotal				9543.83		856717.57		29099.34
Costo de equipos								
Bulldozer con escarificador,32t	hr	5.988	7400.00	44311.20	36550.00	218861.40	0.00	0.00
Para cargadora,2.2m3	hr	21.277	3578.00	76129.11	17010.00	361921.77	0.00	0.00
Volqueta,11t	hr	69.930	1616.00	113006.88	6816.00	476642.88	0.00	0.00
Bulldozer,11t	hr	2.667	2050.00	5467.35	9745.00	25989.92	0.00	0.00
Miscelaneos(5%)				11945.73		54170.80		0.00
Subtotal				250860.26		1137586.76		0.00
Gastos generales(25%)				65101.02		636727.51		7274.84
Total				325505.11		3183637.54		36374.18
Precio unitario(m3)				325.51		3183.64		36.37

Rubro No.
 Obras: Excavacion, roca
 Observaciones: 1000m³, 3000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.534	0.00	0.00	20600.00	31600.40	0.00	0.00
Operador	md	3.836	0.00	0.00	25600.00	98201.60	0.00	0.00
Asistente operador	md	3.836	0.00	0.00	17900.00	68664.40	0.00	0.00
Chofer	md	13.378	0.00	0.00	18100.00	242141.80	0.00	0.00
Obrero	md	10.525	0.00	0.00	17300.00	182082.50	0.00	0.00
Subtotal				0.00		622690.70		0.00
Costo de materiales								
Aceite ligero	lit	1988.143	4.00	7952.57	353.00	701814.48	1.00	1988.14
Lubricante	lit	58.204	44.00	2560.98	4150.00	241546.60	500.00	29102.00
Grasa	kg	2.245	58.00	130.21	5395.00	12111.78	650.00	1459.25
Miscelaneos(3%)				319.31		28664.19		976.48
Subtotal				10963.07		984137.04		33525.87
Costo de equipos								
Bulldozer con escarificador, 32t	hr	5.988	7400.00	44311.20	36550.00	218861.40	0.00	0.00
Para cargadora, 2.2m ³	hr	21.277	3578.00	76129.11	17010.00	361921.77	0.00	0.00
Volqueta, 11t	hr	86.957	1616.00	140522.51	6816.00	592698.91	0.00	0.00
Bulldozer, 11t	hr	2.667	2050.00	5467.35	9745.00	25989.92	0.00	0.00
Miscelaneos(5%)				13321.51		59973.60		0.00
Subtotal				279751.68		1259445.60		0.00
Gastos generales(25%)				72678.89		716568.33		8381.47
Total				363393.43		3582841.67		41907.34
Precio unitario(m ³)				363.39		3582.84		41.91

Rubro No.

Obras:Accareo de roca para tunel

Observaciones:500m3,500m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.656	0.00	0.00	20600.00	13513.60	0.00	0.00
Operador	md	3.282	0.00	0.00	25600.00	84019.20	0.00	0.00
Asistente operador	md	3.282	0.00	0.00	17900.00	58747.80	0.00	0.00
Chofer	md	5.233	0.00	0.00	18100.00	94717.30	0.00	0.00
Obrero	md	2.359	0.00	0.00	17300.00	40810.70	0.00	0.00
Subtotal				0.00		291808.60		0.00
Costo de materiales								
Aceite ligero	lit	672.135	4.00	2688.54	353.00	237263.66	1.00	672.14
Lubricante	lit	16.264	44.00	715.62	4150.00	67495.80	500.00	8132.00
Grasa	kg	1.307	58.00	75.81	5395.00	7051.27	650.00	849.55
Miscelaneos(3%)				104.40		9354.32		289.61
Subtotal				3584.36		321164.84		9943.30
Costo de equipos								
Para cargadora,1.2m3	hr	20.000	1985.00	39700.00	9037.00	180740.00	0.00	0.00
Volqueta,8t	hr	34.014	1210.00	41156.94	5507.00	187315.10	0.00	0.00
Bulldozer,11t	hr	1.333	2050.00	2732.65	9745.00	12990.09	0.00	0.00
Miscelaneos(5%)				4179.48		19052.26		0.00
Subtotal				87769.07		400097.44		0.00
Gastos generales(25%)				22838.36		253267.72		2485.82
Total				114191.79		1266338.60		12429.12
Precio unitario(m3)				228.38		2532.68		24.86

Rubro No.

Obras:Accareo de roca para Tunel

Observaciones:500m3,1000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.656	0.00	0.00	20600.00	13513.60	0.00	0.00
Operador	md	3.282	0.00	0.00	25600.00	84019.20	0.00	0.00
Asistente operador	md	3.282	0.00	0.00	17900.00	58747.80	0.00	0.00
Chofer	md	6.154	0.00	0.00	18100.00	111387.40	0.00	0.00
Obrero	md	2.544	0.00	0.00	17300.00	44011.20	0.00	0.00
Subtotal				0.00		311679.20		0.00
Costo de materiales								
Aceite ligero	lit	731.995	4.00	2927.98	353.00	258394.24	1.00	732.00
Lubricante	lit	18.000	44.00	792.00	4150.00	74700.00	500.00	9000.00
Grasa	kg	1.427	58.00	82.77	5395.00	7698.67	650.00	927.55
Miscelaneos(3%)				114.08		10223.79		319.79
Subtotal				3916.83		351016.69		10979.33
Costo de equipos								
Para cargadora, 1.2m3	hr	20.000	1985.00	39700.00	9037.00	180740.00	0.00	0.00
Volqueta, 8t	hr	40.000	1210.00	48400.00	5507.00	220280.00	0.00	0.00
Bulldozer, 11t	hr	1.333	2050.00	2732.65	9745.00	12990.09	0.00	0.00
Miscelaneos(5%)				4541.63		20700.50		0.00
Subtotal				35374.28		434710.59		0.00
Gastos generales(25%)				24822.78		274351.62		2744.83
Total				124113.89		1371758.10		13724.16
Precio unitario(m3)				248.23		2743.52		27.45

Rubro No.
 Obras: Accareo de roca para tunel
 Observaciones: 500m³, 2000m
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	nd	0.658	0.00	0.00	20600.00	13513.60	0.00	0.00
Operador	nd	3.282	0.00	0.00	25600.00	84019.20	0.00	0.00
Asistente operador	nd	3.282	0.00	0.00	17900.00	58747.80	0.00	0.00
Chofer	ad	7.930	0.00	0.00	18100.00	143533.00	0.00	0.00
Obrero	nd	2.899	0.00	0.00	17300.00	50152.70	0.00	0.00
Subtotal				0.00		349966.30		0.00
Costo de materiales								
Aceite ligero	lit	847.455	4.00	3389.82	353.00	299151.62	1.00	847.46
Lubricante	lit	21.348	44.00	939.31	4150.00	88594.20	500.00	10674.00
Grasa	kg	1.658	58.00	96.16	5395.00	8944.91	650.00	1077.70
Miscelaneos(3%)				132.76		11900.72		377.97
Subtotal				4558.05		408591.45		12977.13
Costo de equipos								
Para cargadora, 1.2m ³	hr	20.000	1985.00	39700.00	9037.00	180740.00	0.00	0.00
Volqueta, 8t	hr	51.546	1210.00	62370.66	5507.00	283863.82	0.00	0.00
Bulldozer, 11t	hr	1.333	2050.00	2732.65	9745.00	12990.09	0.00	0.00
Miscelaneos(5%)				5240.17		23879.70		0.00
Subtotal				110043.48		501473.60		0.00
Gastos generales(25%)				28650.38		315007.84		3244.28
Total				143251.91		1575039.19		16221.41
Precio unitario(m ³)				286.50		3150.08		32.44

Rubro No.

Obras: Accareo de roca para tunel

Observaciones: 500m³, 3000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.656	0.00	0.00	20600.00	13513.60	0.00	0.00
Operador	md	3.282	0.00	0.00	25600.00	84019.20	0.00	0.00
Asistente operador	md	3.282	0.00	0.00	17900.00	58747.80	0.00	0.00
Chofer	md	9.737	0.00	0.00	18100.00	176239.70	0.00	0.00
Obrero	md	3.260	0.00	0.00	17300.00	56398.00	0.00	0.00
Subtotal				0.00		388918.30		0.00
Costo de materiales								
Aceite ligero	lit	964.905	4.00	3859.62	353.00	340611.47	1.00	964.91
Lubricante	lit	24.754	44.00	1089.18	4150.00	102729.10	500.00	12377.00
Grasa	kg	1.893	58.00	109.79	5395.00	10212.74	650.00	1230.45
Miscelaneos(3%)				151.76		13606.60		437.17
Subtotal				5210.35		467159.90		15009.53
Costo de equipos								
Para cargadora, 1.2m ³	hr	20.000	1985.00	39700.00	9037.00	180740.00	0.00	0.00
Volqueta, 8t	hr	63.291	1210.00	76582.11	5507.00	348543.54	0.00	0.00
Bulldozer, 11t	hr	1.333	2050.00	2732.65	9745.00	12990.09	0.00	0.00
Miscelaneos(5%)				5950.74		27113.68		0.00
Subtotal				124965.50		569387.30		0.00
Gastos generales(25%)				32543.96		356366.38		3752.38
Total				162719.81		1781831.88		18761.91
Precio unitario(m ³)				325.44		3563.66		37.52

Rubro No.

Obras:Accareo de roca para tunel

Observaciones:500m3,4000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.856	0.00	9.00	26600.00	13513.60	0.00	0.00
Operador	md	3.282	0.00	0.00	25600.00	84019.20	0.00	0.00
Asistente operador	md	3.282	0.00	0.00	17900.00	58747.80	0.00	0.00
Chofer	md	11.655	0.00	0.00	18100.00	210955.50	0.00	0.00
Obrero	md	3.644	0.00	0.00	17300.00	63041.20	0.00	0.00
Subtotal				0.00		430277.30		0.00
Costo de materiales								
Aceite ligero	lit	1089.575	4.00	4358.30	353.00	384619.98	1.00	1089.58
Lubricante	lit	28.370	44.00	1248.28	4150.00	117735.50	500.00	14185.00
Grasa	kg	2.142	58.00	124.24	5395.00	11556.09	850.00	1392.30
Miscelaneos(3%)				171.92		15417.35		500.01
Subtotal				5902.74		529328.91		17166.88
Costo de equipos								
Para cargadora,1.2m3	hr	20.000	1985.00	39700.00	9037.00	180740.00	0.00	0.00
Volqueta,8t	hr	75.758	1210.00	91667.18	5507.00	417199.31	0.00	0.00
Bulldozer,11t	hr	1.333	2050.00	2732.65	9745.00	12990.09	0.00	0.00
Miscelaneos(5%)				6704.99		30546.47		0.00
Subtotal				140804.82		641475.86		0.00
Gastos generales(25%)				36676.89		400270.52		4291.72
Total				183384.45		2001352.59		21458.60
Precio unitario(m3)				366.77		4002.71		42.92

Rubro No.

Obras:Accreo de roca para tunel

Observaciones:500m3,5000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.656	0.00	0.00	20600.00	13513.60	0.00	0.00
Operador	md	3.282	0.00	0.00	25600.00	84019.20	0.00	0.00
Asistente operador	md	3.282	0.00	0.00	17900.00	58747.80	0.00	0.00
Chofer	md	13.495	0.00	0.00	18100.00	244259.50	0.00	0.00
Obrero	md	4.012	0.00	0.00	17300.00	69407.60	0.00	0.00
Subtotal				0.00		469947.70		0.00
Costo de materiales								
Aceite ligero	lit	1209.185	4.00	4836.74	353.00	426842.31	1.00	1209.19
Lubricante	lit	31.839	44.00	1400.92	4150.00	132131.85	500.00	15919.50
Grasa	kg	2.381	58.00	138.10	5395.00	12845.50	650.00	1547.65
Miscelaneos(3%)				191.27		17154.59		560.29
Subtotal				6567.03		588974.24		19236.63
Costo de equipos								
Para cargadora,1.2m3	hr	20.000	1985.00	39700.00	9037.00	180740.00	0.00	0.00
Volqueta,8t	hr	87.719	1210.00	106139.99	5507.00	483068.53	0.00	0.00
Bulldozer,11t	hr	1.333	2050.00	2732.65	9745.00	12990.09	0.00	0.00
Miscelaneos(5%)				7428.63		33839.93		0.00
Subtotal				156001.27		710638.55		0.00
Gastos generales(25%)				40642.07		442390.12		4809.16
Total				203210.37		2211950.61		24045.78
Precio unitario(m3)				406.42		4423.90		48.09

Rubro No.
 Obras:Excavacion,roca
 Observaciones:1000m3,4000m
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.534	0.00	0.00	20600.00	31600.40	0.00	0.00
Operador	md	3.836	0.00	0.00	25600.00	98201.60	0.00	0.00
Asistente de operador	md	3.836	0.00	0.00	17900.00	68664.40	0.00	0.00
Chofer	md	16.026	0.00	0.00	18100.00	290070.60	0.00	0.00
Obrero	md	11.849	0.00	0.00	17300.00	204987.70	0.00	0.00
Subtotal				0.00		693524.70		0.00
Costo de materiales								
Aceite ligero	lit	2246.293	4.00	8985.17	353.00	792941.43	1.00	2246.29
Lubricante	lit	65.432	44.00	2879.01	4150.00	271542.80	500.00	32716.00
Grasa	kg	2.589	58.00	150.16	5395.00	13967.66	650.00	1682.85
Miscelaneos(3%)				360.43		32353.56		1099.35
Subtotal				12374.77		1110805.44		37744.50
Costo de equipos								
Bulldozer con escarificador,32t	hr	5.988	7400.00	44311.20	36550.00	218861.40	0.00	0.00
Para cargadora,2.2m3	hr	21.277	3578.00	76129.11	17010.00	361921.77	0.00	0.00
Volqueta,11t	hr	104.167	1616.00	168333.87	6816.00	710002.27	0.00	0.00
Bulldozer,11t	hr	2.667	2050.00	5467.35	9745.00	25989.92	0.00	0.00
Miscelaneos(5%)				14712.08		65838.77		0.00
Subtotal				308953.60		1382614.12		0.00
Gastos generales(25%)				80332.09		796736.07		9436.12
Total				401660.47		3983680.33		47180.62
Precio unitario(m3)				401.66		3983.68		47.18

Rubro No.

Obras:Excavacion,roca

Observaciones:1000m3,5000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.534	0.00	0.00	20600.00	31600.40	0.00	0.00
Operador	md	3.836	0.00	0.00	25600.00	98201.60	0.00	0.00
Asistente de operador	md	3.836	0.00	0.00	17900.00	68664.40	0.00	0.00
Chofer	md	18.762	0.00	0.00	18100.00	339592.20	0.00	0.00
Obrero	md	13.217	0.00	0.00	17300.00	228654.10	0.00	0.00
Subtotal				0.00		766712.70		0.00
Costo de materiales								
Aceite ligero	lit	2513.053	4.00	10052.21	353.00	887107.71	1.00	2513.05
Lubricante	lit	72.901	44.00	3207.64	4150.00	302539.15	500.00	36450.50
Grasa	kg	2.945	58.00	170.81	5395.00	15888.28	650.00	1914.25
Miscelaneos(3%)				402.92		36166.05		1226.33
Subtotal				13833.59		1241701.19		42104.14
Costo de equipos								
Bulldozer con escarificador,32t	hr	5.988	7400.00	44311.20	36550.00	218861.40	0.00	0.00
Para cargadora,2.2m3	hr	21.277	3578.00	76129.11	17010.00	361921.77	0.00	0.00
Volqueta,11t	hr	121.951	1616.00	197072.82	6816.00	831218.02	0.00	0.00
Bulldozer,11t	hr	2.667	2050.00	5467.35	9745.00	25989.92	0.00	0.00
Miscelaneos(5%)				16149.02		71899.56		0.00
Subtotal				339129.50		1509890.66		0.00
Gastos generales(25%)				88240.77		879576.14		10526.03
Total				441203.85		4397880.68		52630.17
Precio unitario(m3)				441.20		4397.88		52.63

Rubro No.

Obras:Excavacion,escarificado de roca meteorizada

Observaciones:1000m3,1-escarificador

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Ven)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.000	0.00	0.00	20600.00	0.00	0.00	0.00
Operador	md	1.054	0.00	0.00	25600.00	26982.40	0.00	0.00
Asistente de operador	md	1.054	0.00	0.00	17900.00	18866.60	0.00	0.00
Chofer	md	0.000	0.00	0.00	18100.00	0.00	0.00	0.00
Obrero	md	0.000	0.00	0.00	17300.00	0.00	0.00	0.00
Subtotal				0.00		45849.00		0.00
Costo de materiales								
Aceite ligero	lit	273.960	4.00	1095.84	353.00	96707.88	1.00	273.96
Lubricante	lit	6.849	44.00	301.36	4150.00	28423.35	500.00	3424.50
Grasa	kg	0.274	58.00	15.89	5395.00	1478.23	650.00	178.10
Miscelaneos(3%)				42.39		3798.28		116.30
Subtotal				1455.48		130407.74		3992.86
Costo de equipos								
Bulldozer con escarificador,32t	hr	6.849	7400.00	50682.60	36550.00	250330.95	0.00	0.00
Para cargadora,2.2m3	hr	0.000	3578.00	0.00	17010.00	0.00	0.00	0.00
Volqueta,11t	hr	0.000	1616.00	0.00	6816.00	0.00	0.00	0.00
Bulldozer,11t	hr	0.000	2050.00	0.00	9745.00	0.00	0.00	0.00
Miscelaneos(5%)				2534.13		12516.55		0.00
Subtotal				53216.73		262847.50		0.00
Gastos generales(25%)				13668.05		109776.06		998.21
Total				68340.26		548880.30		4991.07
Precio unitario(m3)				68.34		548.88		4.99

Rubro No.

Obras:Accareo de roca meteorizada

Observaciones:1000m3,500m (compactacion),excluye compactacion

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.535	0.00	0.00	20600.00	31621.00	0.00	0.00
Operador	md	3.838	0.00	0.00	25600.00	98252.80	0.00	0.00
Asistente de operador	md	3.838	0.00	0.00	17900.00	68700.20	0.00	0.00
Chofer	md	4.606	0.00	0.00	18100.00	83368.60	0.00	0.00
Obrero	md	6.141	0.00	0.00	17300.00	106239.30	0.00	0.00
Subtotal				0.00		388181.90		0.00
Costo de materiales								
Aceite ligero	lit	1091.131	4.00	4364.52	353.00	385169.24	1.00	1091.13
Lubricante	lit	32.439	44.00	1427.32	4150.00	134621.85	500.00	16219.50
Grasa	kg	0.599	58.00	34.74	5395.00	3231.61	650.00	389.35
Miscelaneos(3%)				174.80		15890.68		531.00
Subtotal				6001.38		538713.38		18230.98
Costo de equipos								
Bulldozer con escarificador,32t	hr	8.000	7400.00	59200.00	36550.00	292400.00	0.00	0.00
Para cargadora,2.2m3	hr	16.949	3578.00	60643.52	17010.00	288302.49	0.00	0.00
Volqueta,11t	hr	29.940	1616.00	48383.04	6816.00	204071.04	0.00	0.00
Miscelaneos(5%)				8411.33		39238.68		0.00
Subtotal				176637.89		824012.21		0.00
Gastos generales(25%)				45659.82		437726.87		4557.75
Total				228299.09		2188634.35		22788.73
Precio unitario(m3)				228.30		2188.63		22.79

Rubro No.

Obras:Accareo de roca meteorizada

Observaciones:1000m3,1000m (compactacion),excluye compactacion

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.535	0.00	0.00	20600.00	31621.00	0.00	0.00
Operador	md	3.838	0.00	0.00	25600.00	98252.80	0.00	0.00
Asistente de operador	md	3.838	0.00	0.00	17900.00	68700.20	0.00	0.00
Chofer	md	5.635	0.00	0.00	18100.00	101993.50	0.00	0.00
Obrero	md	6.655	0.00	0.00	17300.00	115131.50	0.00	0.00
Subtotal				0.00		415699.00		0.00
Costo de materiales								
Aceite ligero	lit	1191.480	4.00	4765.92	353.00	420592.44	1.00	1191.48
Lubricante	lit	35.249	44.00	1550.96	4150.00	146283.35	500.00	17624.50
Grasa	kg	1.222	58.00	70.88	5395.00	6592.69	650.00	794.30
Miscelaneos(3%)				191.63		17204.05		588.31
Subtotal				6579.38		590672.53		20198.59
Costo de equipos								
Bulldozer con escarificador,32t	hr	8.000	7400.00	59200.00	36550.00	292400.00	0.00	0.00
Para cargadora,2.2a3	hr	16.949	3578.00	60643.52	17010.00	288302.49	0.00	0.00
Volqueta,11t	hr	36.630	1616.00	59194.08	6816.00	249670.08	9.00	0.00
Miscelaneos(5%)				3951.88		41518.63		0.00
Subtotal				187939.48		871891.20		0.00
Gastos generales(25%)				48642.22		469565.68		5049.65
Total				243211.08		2347828.42		25248.24
Precio unitario(m3)				243.21		2347.93		25.25

Rubro No.

Obras:Accareo de roca meteorizada

Observaciones:1000m3,2000m (compactacion),excluye compactacion

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.535	0.00	0.00	20600.00	31621.00	0.00	0.00
Operador	md	3.838	0.00	0.00	25600.00	98252.80	0.00	0.00
Asistente de operador	md	3.838	0.00	0.00	17900.00	68700.20	0.00	0.00
Chofer	md	7.692	0.00	0.00	18100.00	139225.20	0.00	0.00
Obrero	md	7.684	0.00	0.00	17300.00	132933.20	0.00	0.00
Subtotal				0.00		470732.40		0.00
Costo de materiales								
Aceite ligero	lit	1392.031	4.00	5568.12	353.00	491386.94	1.00	1392.03
Lubricante	lit	40.864	44.00	1798.02	4150.00	169585.60	500.00	20432.00
Grasa	kg	1.489	58.00	86.36	5395.00	8033.16	650.00	957.85
Miscelaneos(3%)				223.58		20070.17		683.76
Subtotal				7676.08		689075.87		23475.64
Costo de equipos								
Bulldozer con escarificador,32t	hr	8.000	7400.00	59200.00	36550.00	292400.00	0.00	0.00
Para cargadora,2.2m3	hr	16.949	3578.00	60643.52	17010.00	288302.49	0.00	0.00
Volqueta,11t	hr	50.000	1616.00	80800.00	6816.00	340800.00	0.00	0.00
Miscelaneos(5%)				10032.18		46075.12		0.00
Subtotal				210675.70		967577.61		0.00
Gastos generales(25%)				54587.94		531846.47		5868.91
Total				272939.72		2659232.35		29344.55
Precio unitario(m3)				272.94		2659.23		29.34

Rubro No.

Obras:Accareo de roca meteorizada

Observaciones:1000m³,3000m (compactacion),excluye compactacion

Precio Unitario:

Descripción	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.535	0.00	0.00	20600.00	31621.00	0.00	0.00
Operador	md	3.838	0.00	0.00	25600.00	93252.80	0.00	0.00
Asistente de operador	md	3.838	0.00	0.00	17900.00	68700.20	0.00	0.00
Chofer	md	9.737	0.00	0.00	18100.00	176239.70	0.00	0.00
Obrero	md	8.707	0.00	0.00	17300.00	150631.10	0.00	0.00
Subtotal				0.00		525444.80		0.00
Costo de materiales								
Aceite ligero	lit	1591.396	4.00	6365.58	353.00	561762.79	1.00	1591.40
Lubricante	lit	46.446	44.00	2043.62	4150.00	192750.90	500.00	23223.00
Grasa	kg	1.755	58.00	101.79	5395.00	9468.22	650.00	1140.75
Miscelaneos(3%)				255.33		22919.46		778.65
Subtotal				8766.33		786901.37		26733.80
Costo de equipos								
Bulldozer con escarificador,32t Para cargadora,2.2m ³	hr	8.000	7400.00	59200.00	35550.00	292400.00	0.00	0.00
Volqueta,11t	hr	16.949	3578.00	60643.52	17010.00	288302.49	0.00	0.00
Miscelaneos(5%)	hr	83.291	1616.00	102278.26	6816.00	431391.46	0.00	0.00
Subtotal				11106.09		50604.70		0.00
				233227.87		1062698.64		0.00
Gastos generales(25%)				60498.55		593761.20		6683.45
Total				302492.74		2968806.02		33417.25
Precio unitario(m ³)				302.49		2968.81		33.42

Rubro No.

Obras:Accareo de roca meteorizada

Observaciones:1000m3,4000m (compactacion),excluye compactacion

Precio Unitario:

Descripción	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.535	0.00	0.00	20600.00	31621.00	0.00	0.00
Operador	md	3.838	0.00	0.00	25600.00	98252.80	0.00	0.00
Asistente de operador	md	3.838	0.00	0.00	17900.00	68700.20	0.00	0.00
Chofer	md	11.834	0.00	0.00	18100.00	214195.40	0.00	0.00
Obrero	md	9.755	0.00	0.00	17300.00	168761.50	0.00	0.00
Subtotal				0.00		581530.90		0.00
Costo de materiales								
Aceite ligero	lit	1795.876	4.00	7183.50	353.00	633944.23	1.00	1795.88
Lubricante	lit	52.172	44.00	2295.57	4150.00	216513.80	500.00	26086.00
Grasa	kg	2.027	58.00	117.57	5395.00	10935.67	650.00	1317.55
Miscelaneos(3%)				287.90		25841.81		875.98
Subtotal				9884.54		887235.50		30075.41
Costo de equipos								
Bulldozer con escarificador,32l Para cargadora,2.2m3	hr	8.000	7400.00	59200.00	36550.00	292400.00	0.00	0.00
Volqueta,11l	hr	16.949	3578.00	60643.52	17010.00	288302.49	0.00	0.00
Miscelaneos(5%)		76.923	1616.00	124307.57	6816.00	524307.17	0.00	0.00
Subtotal				12207.55		55250.48		0.00
				256358.64		1160260.14		0.00
Gastos generales(25%)				66560.80		657256.64		7518.85
Total				332803.98		3286283.18		37594.26
Precio unitario(m3)				332.80		3286.28		37.59

Rubro No.

Obras:Accareo de roca meteorizada

Observaciones:1000m3,5000m (compactacion),excluye compactacion

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yea)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	ad	1.535	0.00	0.00	20600.00	31821.00	0.00	0.00
Operador	ad	3.838	0.00	0.00	25600.00	98252.80	0.00	0.00
Asistente de operador	ad	3.838	0.00	0.00	17900.00	68700.20	0.00	0.00
Chofer	ad	13.860	0.00	0.00	18100.00	250868.00	0.00	0.00
Obrero	ad	10.768	0.00	0.00	17300.00	186286.40	0.00	0.00
Subtotal				0.00		635726.40		0.00
Costo de materiales								
Aceite ligero	lit	1993.381	4.00	7973.52	353.00	703663.49	1.00	1993.38
Lubricante	lit	57.702	44.00	2538.89	4150.00	239463.30	500.00	28851.00
Grasa	kg	2.291	58.00	132.88	5395.00	12359.95	650.00	1489.15
Miscelaneos(3%)				319.36		28664.60		970.01
Subtotal				10964.65		984151.34		33303.54
Costo de equipos								
Bulldozer con escarificador,32t	hr	8.000	7400.00	59200.00	36550.00	292400.00	0.00	0.00
Para cargadora,2.2m3	hr	16.949	3578.00	60643.52	17010.00	288302.49	0.00	0.00
Volqueta,11t	hr	90.090	1616.00	145585.44	6816.00	614053.44	0.00	0.00
Miscelaneos(5%)				13271.45		59737.80		0.00
Subtotal				278700.41		1254493.73		0.00
Gastos generales(25%)				72416.26		718592.87		8325.88
Total				362081.32		3592964.33		41629.42
Precio unitario(m3)				362.08		3592.96		41.63

Rubro No.

Obras: Accreo de roca meteorizada

Observaciones: 1000m³, 6000m (compactacion), excluye compactacion

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.535	0.00	0.00	20600.00	31621.00	0.00	
Operador	md	3.838	0.00	0.00	25600.00	98252.80	0.00	
Asistente de operador	md	3.838	0.00	0.00	17900.00	68700.20	0.00	
Chofer	md	15.860	0.00	0.00	18100.00	287066.00	0.00	
Obrero	md	11.768	0.00	0.00	17300.00	203586.40	0.00	
Subtotal				0.00		689226.40	0.00	
Costo de materiales								
Aceite ligero	lit	2188.426	4.00	8753.70	353.00	772514.38	1.00	
Lubricante	lit	63.163	44.00	2779.17	4150.00	262126.45	500.00	
Grasa	kg	2.551	58.00	147.96	5395.00	13762.65	650.00	
Miscelaneos(3%)				350.43		31452.10	1062.84	
Subtotal				12031.26		1079855.58	36490.92	
Costo de equipos								
Bulldozer con escarificador, 32t	hr	8.000	7400.00	59200.00	36550.00	292400.00	0.00	
Para cargadora, 2.2m ³	hr	16.949	3578.00	60643.52	17010.00	288302.49	0.00	
Volqueta, 11t	hr	103.093	1616.00	166598.29	6816.00	702681.89	0.00	
Miscelaneos(5%)				14322.09		64169.22	0.00	
Subtotal				300763.90		1347553.60	0.00	
Gastos generales(25%)				78198.79		779158.89	9122.73	
Total				390993.95		3895794.47	45613.65	
Precio unitario(m ³)				390.89		3895.79	45.61	

Rubro No.

Obras:Accreco de roca meteorizada

Observaciones:1000m3,7000m (compactacion),excluye compactacion

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	1.535	0.00	0.00	20600.00	31621.00	0.00	0.00
Operador	md	3.838	0.00	0.00	25600.00	98252.80	0.00	0.00
Asistente de operador	md	3.838	0.00	0.00	17900.00	68700.20	0.00	0.00
Chofer	md	17.889	0.00	0.00	18100.00	323790.90	0.00	0.00
Obrero	md	12.783	0.00	0.00	17300.00	221145.90	0.00	0.00
Subtotal				0.00		743510.80		0.00
Costo de materiales								
Aceite ligero	lit	2386.216	4.00	9544.86	353.00	842334.25	1.00	2386.22
Lubricante	lit	68.708	44.00	3023.15	4150.00	285138.20	500.00	34354.00
Grasa	kg	2.815	58.00	163.27	5395.00	15186.93	650.00	1829.75
Miscelaneos(3%)				381.94		34279.78		1157.10
Subtotal				13113.22		1176939.15		39727.06
Costo de equipos								
Bulldozer con escarificador,32t	hr	8.000	7400.00	59200.00	36550.00	292400.00	0.00	0.00
Para cargadora,2.2m3	hr	16.949	3578.00	60643.52	17010.00	288302.49	0.00	0.00
Volqueta,11t	hr	116.279	1616.00	187906.86	6816.00	792557.66	0.00	0.00
Miscelaneos(5%)				15387.52		68663.01		0.00
Subtotal				323137.91		1441923.16		0.00
Gastos generales(25%)				84062.78		840593.28		9931.77
Total				420313.91		4202966.39		49658.83
Precio unitario(m3)				420.31		4202.97		49.66

Rubro No.

Obras: Terraplen

Observaciones: 1000m3 (compactacion), apisonador, 20t

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.609	0.00	0.00	20600.00	12545.40	0.00	0.00
Operador	md	1.397	0.00	0.00	25600.00	35763.20	0.00	0.00
Asistente operador	md	1.397	0.00	0.00	17900.00	25006.30	0.00	0.00
Chofer	md	0.250	0.00	0.00	18100.00	4525.00	0.00	0.00
Obrero	md	4.000	0.00	0.00	17300.00	69200.00	0.00	0.00
Subtotal				0.00		147039.90		0.00
Costo de materiales								
Aceite ligero	lit	307.322	4.00	1229.29	353.00	108484.67	1.00	307.32
Lubricante	lit	5.811	44.00	255.68	4150.00	24115.65	500.00	2905.50
Grasa	kg	0.448	58.00	25.98	5395.00	2416.96	650.00	291.20
Miscelaneos(3%)				45.33		4050.52		105.12
Subtotal				1556.28		139067.79		3609.14
Costo de equipos								
Bulldozer, 21t	hr	6.493	4510.00	29283.43	2144.00	13920.99	0.00	0.00
Apisonador, 20t	hr	2.681	9825.00	26340.83	43684.00	117116.80	0.00	0.00
Apisonador, 100kg	day	0.000	846.00	0.00	2738.00	0.00	0.00	0.00
Rodillo vibratorio, 1t	hr	2.000	602.00	1204.00	2226.00	4452.00	0.00	0.00
Rodillo de ilantas, 10t	hr	1.000	1295.00	1295.00	5143.00	5143.00	0.00	0.00
Rociador, 5.5kl	hr	1.000	1062.00	1062.00	4833.00	4833.00	0.00	0.00
Miscelaneos(5%)				2959.26		7273.29		0.00
Subtotal				62144.52		152739.09		0.00
Gastos generales(25%)				15925.20		109711.70		902.29
Total				79626.00		548558.48		4511.43
Precio unitario				79.63		548.56		4.51

Rubro No.
 Obras: Relleno
 Observaciones: 500m3 (compactacion, 0.3m)
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.736	0.00	0.00	20600.00	15161.60	0.00	0.00
Operador	md	1.791	0.00	0.00	25600.00	45849.60	0.00	0.00
Asistente operador	md	1.791	0.00	0.00	17900.00	32058.90	0.00	3.00
Chofer	md	0.100	0.00	0.00	18100.00	1810.00	0.00	0.00
Obrero	md	4.000	0.00	0.00	17300.00	69200.00	0.00	0.00
Subtotal				0.00		164080.10		0.00
Costo de materiales								
Aceite ligero	lit	95.010	4.00	380.04	353.00	33538.53	1.00	95.01
Lubricante	lit	2.016	44.00	88.70	4150.00	8366.40	500.00	1008.00
Grasa	kg	0.192	58.00	11.14	5395.00	1035.84	650.00	124.80
Miscelaneos(3%)				14.40		1288.22		36.83
Subtotal				494.28		44228.99		1264.64
Costo de equipos								
Bulldozer, 11t	hr	2.381	2050.00	4881.05	9745.00	23202.85	0.00	0.00
Rodillo vibratorio, 4t	hr	9.259	1368.00	12666.31	6081.00	56303.98	0.00	0.00
Apisonador, 100kg	day	6.000	846.00	5076.00	2738.00	16428.00	0.00	0.00
Rodillo vibratorio, manual 0.5t	hr	1.300	475.00	617.50	1758.00	2285.40	0.00	0.00
Rociador, 5.5kl	hr	0.650	1062.00	690.30	4833.00	3141.45	0.00	0.00
Miscelaneos(5%)				1196.56		5068.08		0.00
Subtotal				25127.72		106429.76		0.00
Gastos generales(25%)				6405.50		78684.71		316.16
Total				32027.50		393423.56		1580.81
Precio unitario				64.05		786.85		3.16

Rubro No.

Obras:Excavacion de roca,con voladura,rutita

Observaciones:1000m³,20m³/hr

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	3.125	0.00	0.00	20600.00	64375.00	0.00	0.00
Operador	md	6.250	0.00	0.00	25600.00	160000.00	0.00	0.00
Asistente operador	md	6.250	0.00	0.00	17900.00	111875.00	0.00	0.00
Dinamitero	md	10.000	0.00	0.00	17300.00	173000.00	0.00	0.00
Perforador	md	2.500	0.00	0.00	17300.00	43250.00	0.00	0.00
Obrero	md	18.750	0.00	0.00	17300.00	324375.00	0.00	0.00
Subtotal				0.00		876875.00		0.00
Costo de materiales								
Dinamita	kg	15.000	0.00	0.00	8343.00	125145.00	810.00	12150.00
ANFO	kg	135.000	0.00	0.00	1854.00	250290.00	180.00	24300.00
Detonator	No	158.730	0.00	0.00	4017.00	637618.41	390.00	61904.70
Broca,65mm	No	0.926	43442.00	40227.29	48872.00	45255.47	0.00	0.00
Varilla,3m	No	0.695	52430.00	36438.85	58984.00	40993.88	0.00	0.00
Barrena	No	0.463	39590.00	18330.17	44539.00	20621.56	0.00	0.00
Manguito	No	0.463	10593.00	4904.56	11917.00	5517.57	0.00	0.00
Broca,36mm	No	0.250	7383.00	1845.75	8306.00	2076.50	0.00	0.00
Vastago,22mm,2m	No	0.250	9737.00	2434.25	10954.00	2738.50	0.00	0.00
Aceite ligero	lit	850.000	4.00	3400.00	353.00	300050.00	1.00	850.00
Lubricante	lit	27.500	44.00	1210.00	4150.00	114125.00	500.00	13750.00
Grasa	kg	1.550	58.00	89.90	5395.00	8362.25	650.00	1007.50
Miscelaneos(3%)				3266.42		46583.82		3418.87
Subtotal				112147.19		1599377.96		117381.07
Costo de equipos								
Perforadora de oruga, 10m ³ /min	hr	50.000	2007.00	100350.00	8223.00	411150.00	0.00	0.00
Compresor de aire, 13.5m ³ /min	day	6.250	13143.00	82143.75	52186.00	326162.50	0.00	0.00
Martillo de pie,30kg	day	1.250	1308.00	1635.00	2699.00	3373.75	0.00	0.00
Compresor de aire, 5m ³ /min	day	0.625	5468.00	3417.50	21710.00	13568.75	0.00	0.00
Miscellaneous(5%)				9377.31		37712.75		0.00
Subtotal				196923.56		791967.75		0.00
Gastos generales(25%)				77267.69		817055.18		29345.27
Total				386338.45		4085275.89		146726.33
Precio unitario(m ³)				386.34		4085.28		146.73

F OBRAS DE TIERRA (2)

Precio Unitario	Unidad	**YE** (Yen)	HL (S/.)	Tasas (S/.)	**ML** (S/.)	Total (S/.)	Total (US\$)
Remocion de capa vegetal, 200m	m3	214.34	2032.21	21.33	2053.54	6876.19	3.06
Remocion de capa vegetal, 500m	m3	226.99	2155.64	23.07	2178.71	7285.99	3.24
Remocion de capa vegetal, 30m	m3	64.88	580.74	4.09	584.83	2044.63	0.91
Compaccion in situ de subrasante, taludes	m3 m2	57.77 17.33	542.51 162.72	2.57 0.77	545.03 163.49	1844.91 553.42	0.82 0.25
Material de subrasante mejorado, talud, 10km	m3	471.62	4934.96	56.49	4991.45	15602.90	6.93
Revestimiento de grama	m2	3.05	496.58	0.02	496.60	565.22	0.25
Césped	m2	0.00	4125.25	0.00	4125.25	4125.25	1.83
Rodadura asfaltica	m3	1730.98	130813.16	14249.07	145062.23	184009.28	81.78
Capa de imprimacion	lit	2.68	191.51	21.07	212.58	272.88	0.12
Subrasante, Paquete 2	m3	1651.73	16059.67	5126.60	21186.27	58350.20	25.93

Paquete 1
Daule Peripa-Esperanza

Subrasante, acceso Conguillo	m3	2124.23	20615.92	6645.35	27261.27	75056.45	33.36
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Rubro No.

Obras: Remoción de capa vegetal

Observaciones: 200m, 1000 m3

Precio Unitario

Descripción	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitrio	Monto (Yen)	Unitrio	Monto (S/.)	Unitrio	Monto (S/.)
Costo laboral								
Capataz	md	2.782	0.00	0.00	20600.00	57309.20	0.00	0.00
Operador	md	4.595	0.00	0.00	25600.00	117632.00	0.00	0.00
Asistente operador	md	4.595	0.00	0.00	17900.00	82250.50	0.00	0.00
Chofer	md	4.719	0.00	0.00	18100.00	85413.90	0.00	0.00
Obrero	md	6.955	0.00	0.00	17300.00	120321.50	0.00	0.00
Sub total				0.00		462927.10		0.00
Costo de materiales								
Aceite ligero	lit	1111.103	4.00	4444.41	353.00	392219.36	1.00	1111.10
Lubricante	lit	29.377	44.00	1292.59	4150.00	0.00	500.00	14688.50
Grasa	kg	1.182	58.00	68.56	5395.00	0.00	650.00	768.30
Miscelaneos				174.17		11766.58		497.04
Sub total				5979.72		403985.94		17064.94
Costo de equipos								
Bulldozer, 21t	hr	10.638	4510.00	47977.38	21440.00	228078.72	0.00	0.00
Gargadora, 2.3m3	hr	13.514	3578.00	48353.09	17010.00	229373.14	0.00	0.00
Volqueta, 11t	hr	30.675	1616.00	49570.80	6816.00	209080.80	0.00	0.00
Bulldozer, 11t	hr	5.714	2050.00	11713.70	9745.00	55682.93	0.00	0.00
Miscelaneos				7880.75		36135.78		0.00
Sub total				165495.72		758851.37		0.00
Gastos generales								
Total				42868.86		406441.10		4266.24
Total				214344.30		2032205.51		21331.18
Precio Unitario				214.34		2032.21		21.33

Rubro No.
 Obras:Remocion de capa vegetal
 Observaciones:500m,1000 m3
 Precio Unitario

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitrio	Monto (Yen)	Unitrio	Monto (S/.)	Unitrio	Monto (S/.)
Costo laboral								
Capataz	md	2.957	0.00	0.00	20600.00	60914.20	0.00	0.00
Operador	md	4.595	0.00	0.00	25600.00	117632.00	0.00	0.00
Asistente operador	md	4.595	0.00	0.00	17900.00	82250.50	0.00	0.00
Chofer	md	5.594	0.00	0.00	18100.00	101251.40	0.00	0.00
Obrero	md	7.392	0.00	0.00	17300.00	127881.60	0.00	0.00
Sub total				0.00		489929.70		0.00
Cocto de materiales								
Acelte ligero	lit	1196.438	4.00	4785.75	353.00	422342.61	1.00	1196.44
Lubricante	lit	31.766	44.00	1397.70	4150.00	0.00	500.00	15883.00
Grasa	kg	1.296	58.00	75.17	5395.00	0.00	650.00	342.40
Miscelaneos				187.76		12670.28		537.66
Sub total				6446.38		435012.89		18459.49
Costo de equipos								
Bulldozer,21t	hr	10.638	4510.00	47977.38	21440.00	228078.72	0.00	0.00
Gargadora,2.3m3	hr	13.514	3578.00	48353.09	17010.00	229873.14	0.00	0.00
Volqueta,11t	hr	36.364	1616.00	58764.22	6816.00	247857.02	0.00	0.00
Bulldozer,11t	hr	5.714	2050.00	11713.70	9745.00	55682.93	0.00	0.00
Miscelaneos				8340.42		38074.59		0.00
Sub total				175148.82		799566.40		0.00
Gastoa generales				45398.80		431127.25		4614.87
Total				226994.00		2155636.25		23074.37
Precio Unitario				226.99		2155.64		23.07

Rubro No.

Obras:Remocion de capa vegetal

Observaciones:30m Bulldozer,500 m3

Precio Unitario

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitrio	Monto (Yen)	Unitrio	Monto (S/.)	Unitrio	Monto (S/.)
Costo laboral								
Capataz	md	0.327	0.00	0.00	20600.00	6736.20	0.00	0.00
Operador	md	0.818	0.00	0.00	25600.00	20940.80	0.00	0.00
Asistente operador	md	0.818	0.00	0.00	17900.00	14642.20	0.00	0.00
Obrero	md	0.818	0.00	0.00	17300.00	14151.40	0.00	0.00
Sub total			0.00	0.00		56470.60		0.00
Cocto de materiales								
Aceite ligero	lit	154.251	4.00	617.00	353.00	54450.60	1.00	154.25
Lubricante	lit	2.660	44.00	117.04	4150.00	0.00	500.00	1330.00
Grasa	kg	0.160	58.00	9.28	5395.00	0.00	650.00	104.00
Miscelaneos				22.30		1633.52		47.65
Sub total				765.62		56084.12		1635.90
Equipment								
Bulldozer,21t	hr	5.319	4510.00	23988.69	21440.00	114039.36	0.00	0.00
Miscelaneos				1199.43		5701.97		0.00
Sub total				25188.12		119741.33		0.00
Gastos generales				6488.44		58074.01		408.97
Total				32442.19		290370.06		2044.87
Precio Unitario				64.88		580.74		4.09

Rubro No.
 Obras;Compaccion in situ subrasante,talud
 Observaciones:500 m3,1667 m2

Precio Unitario

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitrio	Monto (Yen)	Unitrio	Monto (S/.)	Unitrio	Monto (S/.)
Costo laboral								
Capataz	md	0.494	0.00	0.00	20600.00	10176.40	0.00	0.00
Operador	md	1.235	0.00	0.00	25600.00	31616.00	0.00	0.00
Asistente operador	md	1.235	0.00	0.00	17900.00	22106.50	0.00	0.00
Obrero	md	1.235	0.00	0.00	17300.00	21365.50	0.00	0.00
Sub total				0.00		85264.40		0.00
Costo de materiales								
Aceite ligero	lit	65.530	4.00	262.12	353.00	23132.09	1.00	65.53
Lubricante	lit	1.647	44.00	72.47	4150.00	6835.05	500.00	823.50
Grasa	kg	0.169	58.00	9.80	5395.00	911.76	650.00	109.85
Miscelaneos				10.33		926.37		29.97
Sub total				354.72		31805.26		1028.85
Costo de equipos								
Niveladora,3.7 m	hr	3.049	2644.00	8061.56	12040.00	36709.96	0.00	0.00
Radillo de ruedas, 20t	hr	2.604	1647.00	4288.79	6538.00	17024.95	0.00	0.00
Rodillo vibratorio 10t	hr	2.380	3916.00	9320.08	17412.00	41440.56	0.00	0.00
Miscelaneos				1983.52		4758.77		0.00
Sub total				22753.95		99934.25		0.00
Gastos generales				5777.17		54250.98		257.21
Total				28885.83		271254.88		1286.06
Precio Unitario				57.77		542.51		2.57
Unidad(m2)				17.33		162.72		0.77

Rubro No.

Obras: Material de subrasante mejorado, taludes

Observaciones: 500 m3, (promedio 10 km desde de prestamo)

Precio Unitario

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitrio	Monto (Yen)	Unitrio	Monto (S/.)	Unitrio	Monto (S/.)
Costo laboral								
Capataz	md	3.078	0.00	0.00	20600.00	63406.80	0.00	0.00
Operador	md	2.122	0.00	0.00	25600.00	54323.20	0.00	0.00
Asistente operador	md	2.122	0.00	0.00	17900.00	37983.80	0.00	0.00
Chofer	md	11.148	0.00	0.00	18100.00	201778.80	0.00	0.00
Obrero	md	7.696	0.00	0.00	17300.00	133140.80	0.00	0.00
Sub total				0.00		490633.40		0.00
Costo de materiales								
Aceite ligero	lit	1412.298	4.00	5649.19	353.00	498541.19	1.00	1412.30
Lubricante	lit	38.823	44.00	1708.21	4150.00	161115.45	500.00	19411.50
Grasa	kg	1.714	58.00	99.41	5395.00	9247.03	650.00	1114.10
Miscelaneos				223.70		20067.11		658.14
Sub total				7680.52		688970.78		22596.03
Equioment								
Bulldozer, 21t	hr	6.329	4510.00	28543.79	21440.00	135693.76	0.00	0.00
Gargadora, 2.3 m3	hr	7.463	3578.00	26702.61	17010.00	126945.63	0.00	0.00
Volqueta, 11t	hr	72.464	1616.00	117101.82	5816.00	493914.62	0.00	0.00
Bulldozer, 11t	hr	0.000	2050.00	0.00	9745.00	0.00	0.00	0.00
Miscelaneos				8617.41		37827.70		0.00
Sub total				180965.64		794381.71		0.00
Gastos generales				47161.54		493496.47		5649.01
Total				235807.70		2467482.37		28245.04
Precio Unitario				471.62		4934.96		56.49

Rubro No.
 Obras:Revestimiento de grana
 Observaciones:1 m2

Precio Unitario

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitrio	Monto (Yea)	Unitrio	Monto (S/.)	Unitrio	Monto (S/.)
Costo laboral								
Capataz	md	0.002	0.00	0.00	20600.00	41.20	0.00	0.00
Obrero calificado	md	0.003	0.00	0.00	20900.00	62.70	0.00	0.00
Obrero	md	0.016	0.00	0.00	17300.00	276.80	0.00	0.00
Sub total				0.00		380.70		0.00
Costo de materiales								
Gasolina	lit	0.015	6.00	0.09	581.00	8.72	1.00	0.02
Miscelaneos				0.00		0.26		0.00
Sub total				0.09		8.98		0.02
Costo de equipos								
Compactador, 90kg	dia	0.003	744.00	2.23	2410.00	7.23	0.00	0.00
Miscelaneos				0.11		0.36		0.00
Sub total				2.34		7.59		0.00
Gastoo generales				0.61		99.32		0.00
Total				3.05		496.58		0.02
Precio Unitario				3.05		496.58		0.02

Rubro No.
 Obras:Césped
 Observaciones:1 m2
 Precio Unitario

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitrio	Monto (Yen)	Unitrio	Monto (S/.)	Unitrio	Monto (S/.)
Cost laboral								
Capataz	md	0.007	0.00	0.00	20600.00	144.20	0.00	0.00
Obrero calificado	md	0.015	0.00	0.00	20900.00	313.50	0.00	0.00
Obrero	md	0.075	0.00	0.00	17300.00	1297.50	0.00	0.00
Sub total				0.00		1755.20		0.00
Costo de materiales								
Césped	m2	0.500	0.00	0.00	3000.00	1500.00	0.00	0.00
Fertizante	kg	0.600		0.00		0.00		0.00
Miscelaneos				0.00		45.00		0.00
Sub total				0.00		1545.00		0.00
Gastos generales				0.00		825.05		0.00
Total				0.00		4125.25		0.00

Rubro No.
 Obras: Rodadura asfáltico
 Observaciones: 5cm, 100 m²
 Precio Unitario

Descripción	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitrio	Monto (Yen)	Unitrio	Monto (S/.)	Unitrio	Monto (S/.)
Costo laboral								
Capataz	ad	0.018	0.00	0.00	20600.00	370.80	0.00	0.00
Operador	md	0.088	0.00	0.00	25600.00	2252.80	0.00	0.00
Asistente operador	md	0.088	0.00	0.00	17900.00	1575.20	0.00	0.00
Obrero de pavimento	md	1.500	0.00	0.00	19000.00	28500.00	0.00	0.00
Obrero	md	1.500	0.00	0.00	17300.00	25950.00	0.00	0.00
Sub total				0.00		58648.80		0.00
Costo de materiales								
Mezcla de asfalto	ton	11.750	428.00	5029.00	38546.00	452915.50	4818.00	56611.50
Emulsion	lit	20.000	1.00	20.00	131.00	2620.00	16.00	320.00
Aceite ligero	lit	3.440	4.00	13.76	353.00	1214.32	1.00	3.44
Lubricante	lit	0.086	44.00	3.78	4150.00	356.90	500.00	43.00
Grasa	kg	0.011	58.00	0.64	5395.00	59.35	650.00	7.15
Miscelaneos				1.15		127.52		11.21
Sub total				5068.33		457293.58		56996.30
Costo de equipos								
Rodillo de macadam	hr	0.125	1882.00	235.25	7471.00	933.88	0.00	0.00
Rodillo de ruedas	hr	0.139	1647.00	228.93	6538.00	908.78	0.00	0.00
Rodillo tandem	hr	0.125	1281.00	160.13	5087.00	635.88	0.00	0.00
Maquina rociadora	hr	0.185	5947.00	1100.20	23612.00	4368.22	0.00	0.00
Distribuidor	dia	0.060	712.00	42.72	1923.00	115.38	0.00	0.00
Miscelaneos				88.36		348.11		0.00
Sub total				1855.58		7310.24		0.00
Gastos generales				1730.98		130813.16		14249.07
Total				8654.89		654065.78		71245.37
OPrecio unitario				86.55		6540.66		712.45
Unidad(1 m ³)				1730.98		130813.16		14249.07

Rubro No.

Obras:Capa de imprimacion

Observaciones:1000 m2,800 lit

Precio Unitario

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitrio	Monto (Yen)	Unitrio	Monto (S/.)	Unitrio	Monto (S/.)
Costo laboral								
Capataz	md	0.031	0.00	0.00	20600.00	638.60	0.00	0.00
Operador	md	0.046	0.00	0.00	25600.00	1177.60	0.00	0.00
Asistente operador	md	0.046	0.00	0.00	17900.00	823.40	0.00	0.00
Obrero de paviment	md	0.082	0.00	0.00	19000.00	1178.00	0.00	0.00
Obrero	md	0.154	0.00	0.00	17300.00	2664.20	0.00	0.00
Sub total				0.00		6481.80		0.00
Costo de materiales								
Emulsion de asfalt	lit	816.000	1.00	816.00	131.00	106896.00	16.00	13055.00
Aceite ligero	lit	1.800	4.00	7.20	353.00	635.40	1.00	1.80
Lubricante	lit	0.045	44.00	1.98	4150.00	186.75	500.00	22.50
Grasa	kg	0.010	58.00	0.58	5395.00	53.95	650.00	6.50
Gasolina	lit	2.960	6.00	17.76	581.00	1719.76	1.00	2.96
Kelosene	lit	1.280	0.00	0.00	0.00	0.00	0.00	0.00
Miscelaneos				25.31		3284.76		392.69
Sub total				868.83		112776.62		13482.45
Costo de equipos								
Distribuidor,4000	hr	0.300	2550.00	765.00	10124.00	3037.20	0.00	0.00
Distribuidor,200	dia	0.060	712.00	42.72	1923.00	115.38	0.00	0.00
Miscelaneos				40.39		157.63		0.00
Sub total				848.11		3310.21		0.00
Costos generales				429.23		30642.16		3370.61
Total				2146.16		153210.78		16853.07
Precio unitario				2.15		153.21		16.85
Unidad(1 lit)				2.68		191.51		21.07

Rubro No.

Obras:Subrasante(Triturado sin criba)

Observacion:100 m²,20 m³,1.35m³/m³

Precio Unitario

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitrio	Monto (Yen)	Unitrio	Monto (S/.)	Unitrio	Monto (S/.)
Costo laboral								
Capataz	m ^d	0.027	0.00	0.00	20600.00	556.20	0.00	0.00
Operador	m ^d	0.062	0.00	0.00	25600.00	1587.20	0.00	0.00
Asistente operador	m ^d	0.062	0.00	0.00	17900.00	1109.80	0.00	0.00
Chofer	m ^d	0.009	0.00	0.00	18100.00	162.90	0.00	0.00
Obrero	m ^d	0.133	0.00	0.00	17300.00	2300.90	0.00	0.00
Sub total				0.00		5717.00		0.00
Costo de materiales								
Trituradora, gradad	m ³	27.000	944.00	25488.00	9105.00	245835.00	3035.00	81945.00
Aceite ligero	lit	2.384	4.00	9.54	353.00	841.55	1.00	2.38
Lubricante	lit	0.136	44.00	5.98	4150.00	564.40	500.00	68.00
Grasa	kg	0.012	58.00	0.70	5395.00	64.74	650.00	7.80
Miscelaneos				0.49		44.12		2.35
Sub total				25504.70		247349.81		82025.53
Costo de equipos								
Explanadora	hr	0.115	2644.00	304.06	12040.00	1384.60	0.00	0.00
Rodillo macadam	hr	0.152	1882.00	286.06	7471.00	1135.59	0.00	0.00
Rodillo de ruedas	hr	0.138	1647.00	227.29	6538.00	902.24	0.00	0.00
Rociador	hr	0.058	1062.00	61.60	4833.00	280.31	0.00	0.00
Miscelaneos				43.95		185.14		0.00
Sub total				922.96		3887.89		0.00
Gastos generales				6606.91		64238.68		20506.38
Total				33034.57		321193.38		102531.91
Precio unitario				1651.73		16059.67		5126.60

Rubro No.

Obras: Subrasante (Triturado sin criba), Paquete 1,

Camino de acceso Conguillo

Observaciones: 100 m², 20 m³, 1.35m³/m³

Precio Unitario

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitrio	Monto (Yen)	Unitrio	Monto (S/.)	Unitrio	Monto (S/.)
Costo laboral								
Capataz	md	0.027	0.00	0.00	20600.00	556.20	0.00	0.00
Operador	md	0.062	0.00	0.00	25600.00	1587.20	0.00	0.00
Asistente operador	md	0.062	0.00	0.00	17900.00	1109.80	0.00	0.00
Chofer	md	0.009	0.00	0.00	18100.00	162.90	0.00	0.00
Obrero	md	0.133	0.00	0.00	17300.00	2300.90	0.00	0.00
Sub total				0.00		5717.00		0.00
Costo de materiales								
Trituradora, gradad	m ³	27.000	1224.00	33048.00	11805.00	318735.00	3935.00	106245.00
Aceite ligero	lit	2.384	4.00	9.54	353.00	841.55	1.00	2.38
Lubricante	lit	0.136	44.00	5.98	4150.00	564.40	500.00	68.00
Grasa	kg	0.012	58.00	0.70	5395.00	64.74	650.00	7.80
Miscelaneos				0.49		44.12		2.35
Sub total				33064.70		320249.81		106325.53
Costo de equipos								
Explanadora	hr	0.115	2644.00	304.06	12040.00	1384.60	0.00	0.00
Rodillo sacadam	hr	0.152	1882.00	286.06	7471.00	1135.59	0.00	0.00
Rodillo de ruedas	hr	0.138	1647.00	227.29	6538.00	902.24	0.00	0.00
Rociador	hr	0.058	1062.00	61.60	4833.00	280.31	0.00	0.00
Miscelaneos				43.95		185.14		0.00
Sub total				922.96		3887.89		0.00
Gastos generales								
Total				8496.91		82463.68		26581.38
Precio unitario				42484.57		412318.38		132906.91
				2124.23		20615.92		6645.35

G OBRAS DE TIERRA (3)

Precio Unitario	Unidad	** ME ** (Yen)	ML (S/.)	Tasas (S/.)	** ML ** (S/.)	Total (S/.)	Total (US\$)
Relleno a mano, arena y grava	m3	1357.07	16082.88	4332.84	20415.72	50949.80	22.64
Compactacion, apisonador	m3	77.02	5450.36	0.44	5450.80	7183.75	3.19
Revestimiento de grava	m3	1413.24	30326.58	4332.76	34659.34	66457.24	29.54
Base de grava	m3	1357.07	35320.75	4332.84	39653.59	70187.67	31.19
Base de arena	m3	1357.07	35320.75	4332.84	39653.59	70187.67	31.19
Excavaciones de zanjas y drenaje retroexcavadora, 0.2m3	m3	92.17	944.89	7.79	952.68	3026.51	1.35
Excavacion de zanjas, 1000m	m3	276.40	2913.40	28.99	2942.39	9161.39	4.07
Corte de zanjas, roca, retroexcavadora, 0.2m3	m3	280.66	22310.63	669.10	22979.73	29294.58	13.02
Paquete 1							
Relleno a mano, arena y grava	m3	1735.60	19732.94	5549.52	25282.46	64333.46	28.59
Revestimiento de grava	m3	1791.77	33976.65	5549.45	39526.10	79840.93	35.48
Base de grava	m3	1735.60	38970.82	5549.52	44520.34	83571.34	37.14
Base de arena	m3	1735.60	38970.82	5549.52	44520.34	83571.34	37.14
Arena y grava, Paquete 1 Arena y grava Apisonador	m3	1434.09	21533.23	4333.27	25866.50	58133.53	25.84
Arena y grava, Paquete 2 Arena y grava Apisonador	m3	1812.62	25183.30	5549.96	30733.26	71517.21	31.79

Rubro No.

Obras: Relleno de mano, arena y grava

Observaciones: 1m3 (agregados del hormigon, drenaje, base)

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.007	0.00	0.00	20800.00	144.20	0.00	
Obrero calificado	md	0.014	0.00	0.00	20900.00	292.60	0.00	
Obrero	md	0.114	0.00	0.00	17300.00	1972.20	0.00	
Subtotal				0.00		2409.00	0.00	
Costo de materiales								
Arena y grava	m3	1.050	997.00	1046.85	9615.00	10095.75	3205.00	
Gasolina	lit	0.060	6.00	0.36	581.00	34.86	1.00	
Miscelaneos(3%)				31.42		303.92	100.96	
Subtotal				1078.83		10434.53	3466.27	
Costo de equipos								
Compactador, 90kg	dia	0.009	744.00	6.70	2410.00	21.69	0.00	
Miscelaneos(5%)				0.33		1.08	0.00	
Subtotal				7.03		22.77	0.00	
Gastos generales(25%)				271.41		3216.58	866.57	
Total				1357.07		16082.88	4332.84	

Rubro No.

Obras: Compaccion a mano

Observaciones: 1m3, apisonador

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.007	0.00	0.00	20600.00	144.20	0.00	0.00
Obrero calificado	md	0.100	0.00	0.00	20900.00	2090.00	0.00	0.00
Obrero	md	0.100	0.00	0.00	17300.00	1730.00	0.00	0.00
Subtotal				0.00		3964.20		0.00
Costo de materiales								
Arena y grava	lit	0.340	6.00	2.04	581.00	197.54	1.00	0.34
Gasolina				0.06		5.93		0.01
Miscelaneos(3%)				2.10		203.47		0.35
Costo de equipos								
Apisonador	dia	0.067	846.00	56.68	2738.00	183.45	0.00	0.00
Miscelaneos(5%)				2.83		9.17		0.00
Subtotal				59.52		192.62		0.00
Gastos generales(25%)				15.40		1090.07		0.09
Total				77.02		5450.36		0.44

Rubro No.
 Obras:Revestimiento de grava
 Observaciones:1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.050	0.00	0.00	20600.00	1030.00	0.00	0.00
Obrero calificado	md	0.120	0.00	0.00	20900.00	2508.00	0.00	0.00
Obrero	md	0.587	0.00	0.00	17300.00	10155.10	0.00	0.00
Subtotal				0.00		13693.10		0.00
Costo de materiales								
Grava	m3	1.050	997.00	1046.85	9615.00	10095.75	3205.00	3365.25
Miscelaneos(3%)				31.41		302.87		100.96
Subtotal				1078.26		10398.62		3466.21
Costo de equipos								
Compactador,80kg	dia	0.067	744.00	49.85	2410.00	161.47	0.00	0.00
Miscelaneos(5%)				2.49		8.07		0.00
Subtotal				52.34		169.54		0.00
Gastos generales(25%)				282.65		6065.32		866.55
Total				1413.24		30326.58		4332.76

Rubro No.

Obras: Base de grava y mano

Observaciones: 1m3, agregado del hormigon

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.065	0.00	0.00	20800.00	1339.00	0.00	0.00
Obrero calificado	md	0.156	0.00	0.00	20900.00	3260.40	0.00	0.00
Obrero	md	0.763	0.00	0.00	17300.00	13199.90	0.00	0.00
Subtotal				0.00		17799.30		0.00
Costo de materiales								
Arena y grava	m3	1.050	997.00	1046.85	9615.00	10095.75	3205.00	3365.25
Gasolina	lit	0.060	6.00	0.36	581.00	34.86	1.00	0.06
Miscelaneos(3%)				31.42		303.92		100.96
Subtotal				1078.63		10434.53		3466.27
Costo de equipos								
Compactador, 90kg	dia	0.009	744.00	6.70	2410.00	21.69	0.00	0.00
Miscelaneos(5%)				0.33		1.08		0.00
Subtotal				7.03		22.77		0.00
Gastos generales(25%)				271.41		7064.15		866.57
Total				1357.97		35320.75		4332.84

Rubro No.

Obras: Base de arena

Observaciones: 1m3, agregado hormigon

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.065	0.00	0.00	20600.00	1339.00	0.00	0.00
Obrero calificado	md	0.156	0.00	0.00	20900.00	3260.40	0.00	0.00
Obrero	md	0.763	0.00	0.00	17300.00	13199.90	0.00	0.00
Subtotal				0.00		17799.30		0.00
Costo de materiales								
Arena y grava	m3	1.050	997.00	1046.85	9615.00	10095.75	3205.00	3365.25
Gasolina	lit	0.060	6.00	0.36	581.00	34.86	1.00	0.06
Miscelaneos(3%)				31.42		303.92		100.96
Subtotal				1078.63		10434.53		3466.27
Costo de equipos								
Compactador, 90kg	dia	0.009	744.00	6.70	2410.00	21.69	0.00	0.00
Miscelaneos(5%)				0.33		1.08		0.00
Subtotal				7.03		22.77		0.00
Gastos generales(25%)				271.41		7064.15		866.57
Total				1357.07		35320.75		4332.84

Rubro No.
 Obras:Revestimiento de grana a mano
 Observaciones:1a2
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.003	0.00	0.00	20600.00	61.80	0.00	0.00
Obrero calificado	md	0.005	0.00	0.00	20900.00	104.50	0.00	0.00
Obrero	md	0.024	0.00	0.00	17300.00	415.20	0.00	0.00
Subtotal				0.00		581.50		0.00
Gastos generales(25%)				0.00		145.38		0.00
Total				0.00		726.88		0.00

Rubro No.

Obras:Excavacion de zanjas y drenajes

Observaciones:10m3,retroexcavadora 0.2m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.001	0.00	0.00	20600.00	20.60	0.00	
Operador	md	0.067	0.00	0.00	25600.00	1715.20	0.00	
Asistente operador	md	0.000	0.00	0.00	17900.00	0.00	0.00	
Obrero	md	0.067	0.00	0.00	17300.00	1159.10	0.00	
Subtotal				0.00		2894.90	0.00	
Costo de materiales								
Aceite ligelo	lit	2.418	4.00	9.67	353.00	853.55	1.00	
Lubricante	lit	0.098	44.00	4.31	4150.00	406.70	500.00	
Grasa	kg	0.014	58.00	0.81	5395.00	75.53	650.00	
Miscelaneos(3%)				0.44		40.07	1.82	
Subtotal				15.24		1375.86	62.33	
Costo de equipos								
Retroexcavadora,0.2m3	hr	0.465	1479.00	687.74	6735.00	3131.78	0.00	
Miscelaneos(5%)				34.39		156.59	0.00	
Subtotal				722.12		3288.36	0.00	
Gastos generales(25%)				184.34		1889.78	15.58	
Total				921.70		9448.90	77.92	
Precio unitario				92.17		944.89	7.79	

Rubro No.

Obras:Excavacion de zanjas incluyendo transporte

Observaciones:500m3,1000m

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yea)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	2.128	0.00	0.00	20600.00	43836.80	0.00	
Operador	md	3.398	0.00	0.00	25600.00	86988.80	0.00	
Asistente operador	md	3.398	0.00	0.00	17900.00	60824.20	0.00	
Chofer	md	3.846	0.00	0.00	18100.00	69612.60	0.00	
Obrero	md	5.321	0.00	0.00	17300.00	92053.30	0.00	
Subtotal				0.00		353315.70	0.00	
Costo de materiales								
Aceite ligelo	lit	648.627	4.00	2594.51	353.00	228965.33	1.00	
Lubricante	lit	19.242	44.00	846.65	4150.00	79854.30	500.00	
Grasa	kg	1.519	58.00	88.10	5395.00	8195.01	650.00	
Miscelaneos(3%)				105.88		9510.44	337.71	
Subtotal				3635.14		326525.08	11594.69	
Costo de equipos								
Bulldozer,21t	hr	0.000	4510.00	0.00	21440.00	0.00	0.00	
Retroexcavador,0.6m3	hr	19.231	2890.00	55577.59	13736.00	264157.02	0.00	
Volqueta,11t	hr	25.000	1616.00	40400.00	6816.00	170400.00	0.00	
Bulldozer,11t	hr	2.857	2050.00	5856.85	9745.00	27841.47	0.00	
Miscelaneos(5%)				5091.72		23119.92	0.00	
Subtotal				106926.16		485518.41	0.00	
Gastos generales(25%)				27640.32		291339.80	2898.67	
Total				138201.62		1456698.98	14493.36	
Precio unitario(m3)				276.40		2913.40	28.99	

Rubro No.

Obras;Corte de zanjas,excavacion en roca

Observaciones:10m3,retroexcavadora 0.2m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.051	0.00	0.00	20600.00	1050.60	0.00	0.00
Perforador	md	3.000	0.00	0.00	17300.00	51900.00	0.00	0.00
Dinamitero	md	1.000	0.00	0.00	17300.00	17300.00	0.00	0.00
Operador	md	0.084	0.00	0.00	25600.00	2150.40	0.00	0.00
Obrero	md	2.684	0.00	0.00	17300.00	36053.20	0.00	0.00
Subtotal				0.00		108454.20		0.00
Costo de materiales								
Barra ahusada,22mm,2m	No	0.050	9737.00	486.85	10954.00	547.70	0.00	0.00
Barreno de fino en cruz,36mm	No	0.050	7383.00	369.15	8306.00	415.30	0.00	0.00
Dinamita	kg	1.000	0.00	0.00	8343.00	8343.00	810.00	810.00
Detonador	No	10.000	0.00	0.00	4017.00	40170.00	390.00	3900.00
Aceite ligelo	lit	27.381	4.00	109.52	353.00	9665.49	1.00	27.38
Lubricante	lit	0.893	44.00	39.29	4150.00	3705.95	500.00	446.50
Grasa	kg	0.020	58.00	1.16	5395.00	107.90	650.00	13.00
Miscelaneos(3%)				30.18		1888.86		155.91
Subtotal				1036.16		64844.00		5352.79
Costo de equipos								
Martillo hidraulico,30kg	dia	0.070	1000.00	70.00	2063.00	144.41	0.00	0.00
Compresor de aire,7m3/min	dia	0.030	7408.00	222.24	29413.00	882.39	0.00	0.00
Retroexcavadora,0.2m3	hr	0.581	1479.00	859.30	6735.00	3913.04	0.00	0.00
Miscelaneos(5%)				57.58		246.99		0.00
Subtotal				1209.12		5186.83		0.00
Gastos generales(25%)				561.32		44621.26		1338.20
Total				2806.59		223106.29		6690.98
Precio unitario(m3)				280.66		22310.63		669.10

Rubro No.

Obras: Relleno a mano, arena y grava

Observaciones: 1m3 (agregado del hormigon, drenaje, base)

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Ven)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.007	0.00	0.00	20600.00	144.20	0.00	0.00
Obrero calificado	md	0.014	0.00	0.00	20900.00	292.60	0.00	0.00
Obrero	md	0.114	0.00	0.00	17300.00	1972.20	0.00	0.00
Subtotal				0.00		2409.00		0.00
Costo de materiales								
Arena y grava	m3	1.050	1277.00	1340.85	12315.00	12930.75	4105.00	4310.25
Gasolina	lit	0.060	6.00	0.36	581.00	34.86	1.00	0.06
Miscelaneos(3%)				40.24		388.97		129.31
Subtotal				1381.45		13354.58		4439.62
Costo de equipos								
Compactador, 90kg	dia	0.009	744.00	6.70	2410.00	21.69	0.00	0.00
Miscelaneos(5%)				0.33		1.08		0.00
Subtotal				7.03		22.77		0.00
Gastos generales(25%)				347.12		3946.59		1109.90
Total				1735.60		19732.94		5549.52

Rubro No.
 Obras;Revestimiento de grava.
 Observaciones:1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.050	0.00	0.00	20600.00	1030.00	0.00	0.00
Obrero calificado	md	0.120	0.00	0.00	20900.00	2508.00	0.00	0.00
Obrero	md	0.587	0.00	0.00	17300.00	10155.10	0.00	0.00
Subtotal				0.00		13693.10		0.00
Costo de materiales								
Grava	m3	1.050	1277.00	1340.85	12315.00	12930.75	4105.00	4310.25
Miscelaneos(3%)				40.23		387.92		129.31
Subtotal				1381.08		13318.67		4439.56
Costo de equipos								
Compactador,90kg	dia	0.067	744.00	49.85	2410.00	161.47	0.00	0.00
Miscelaneos(5%)				2.49		8.07		0.00
Subtotal				52.34		169.54		0.00
Gastos generales(25%)				358.35		6795.33		1109.89
Total				1791.77		33976.65		5549.45

Rubro No:

Obras: Base de grava a mano

Observaciones: 1m3, agregado del hormigon

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.065	0.00	0.00	20600.00	1339.00	0.00	0.00
Obrero calificado	md	0.156	0.00	0.00	20900.00	3260.40	0.00	0.00
Obrero	md	0.763	0.90	0.00	17300.00	13199.90	0.00	0.00
Subtotal				0.00		17799.30		0.00
Costo de materiales								
Arena y grava	m3	1.050	1277.00	1340.85	12315.00	12930.75	4105.00	4310.25
Gasolina	lit	0.060	6.00	0.36	581.00	34.86	1.00	0.06
Miscelaneos(3%)				40.24		388.97		129.31
Subtotal				1381.45		13354.58		4439.62
Costo de equipos								
Compactador, 90kg	dia	0.009	744.00	6.70	2410.00	21.69	0.00	0.00
Miscelaneos(5%)				0.33		1.08		0.00
Subtotal				7.03		22.77		0.00
Gastos generales(25%)				347.12		7794.16		1109.90
Total				1735.60		38970.82		5549.52

Rubro No.

Obras: Base de arena

Observaciones: 1m³, agregado del hormigon

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	nd	0.065	0.00	0.00	20600.00	1339.00	0.00	
Obrero calificado	nd	0.156	0.00	0.00	20900.00	3260.40	0.00	
Obrero	nd	0.763	0.00	0.00	17300.00	13199.90	0.00	
Subtotal				0.00		17799.30	0.00	
Costo de materiales								
Arena y grava	m ³	1.050	1277.00	1340.85	12315.00	12930.75	4105.00	
Gasolina	lit	0.060	6.00	0.36	581.00	34.86	1.00	
Miscelaneos(3%)				40.24		388.97	129.31	
Subtotal				1381.45		13354.58	4439.62	
Costo de equipos								
Compactador, 90kg	dia	0.009	744.00	6.70	2410.00	21.69	0.00	
Miscelaneos(5%)				0.33		1.08	0.00	
Subtotal				7.03		22.77	0.00	
Gastos generales(25%)				347.12		7794.16	1109.90	
Total				1735.60		38970.82	5549.52	

H OBRAS DE TIERRA (4)

Precio Unitario	Unidad ** ME ** (Yen)	ML (S/.)	Tasas (S/.)	** ML ** (S/.)	Total (S/.)	Total (US\$)
Limpieza	m2 14.19	213.21	0.70	213.91	533.19	0.24
Nivelacion del terreno	m2 14.79	164.33	1.20	165.53	498.31	0.22

Rubro No.
 Obras: Limpieza y desbroce
 Observaciones: 500m2
 Precio Unitario

Descripcion	Unitar	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.040	0.00	0.00	20600.00	824.00	0.00	0.00
Operador	md	0.200	0.00	0.00	25600.00	5120.00	0.00	0.00
Asistente operador	md	0.200	0.00	0.00	17900.00	3580.00	0.00	0.00
Obrero	md	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Subtotal				0.00		44124.00		0.00
Costo de materiales								
Aceite ligero	lit	35.647	4.00	142.59	353.00	12583.39	1.00	35.65
Lubricante	lit	0.329	44.00	14.48	4150.00	1365.35	500.00	164.50
Grasa	kg	0.110	58.00	6.38	5395.00	593.45	650.00	71.50
Miscelaneos(3%)				4.90		436.27		8.15
Subtotal				168.35		14978.46		279.80
Costo de equipos								
Bulldozer, 21t	hr	1.163	4510.00	5245.13	21440.00	24934.72	0.00	0.00
Miscelaneos(5%)				262.26		1246.74		0.00
Subtotal				5507.39		26181.46		0.00
Gastos generales(25%)				1418.93		21320.98		69.95
Total				7094.67		106604.89		349.75
Precio unitario(m2)				14.19		213.21		0.70

Rubro No.
 Obras: Nivelacion del terreno
 Observaciones: 100m2
 Precio Unitario

Descripcion	Unitar	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Monto (Yen)	Unitario	Monto (S/.)	Unitario	Monto (S/.)
Costo laboral								
Capataz	md	0.006	0.00	0.00	20600.00	123.60	0.00	0.00
Operador	md	0.057	0.00	0.00	25600.00	1459.20	0.00	0.00
Asistente operador	md	0.057	0.00	0.00	17900.00	1020.30	0.00	0.00
Obrero	md	0.086	0.00	0.00	17300.00	1487.80	0.00	0.00
Subtotal				0.00		4990.90		0.00
Costo de materiales								
Aceite ligero	lit	7.960	4.00	31.84	353.00	2809.88	1.00	7.96
Lubricante	lit	0.160	44.00	7.04	4150.00	664.00	500.00	80.00
Grasa	kg	0.008	58.00	0.46	5395.00	43.16	650.00	5.20
Miscelaneos(3%)				1.18		105.51		2.79
Subtotal				40.52		3622.55		95.95
Costo de equipos								
Bulldozer, 15t	hr	0.400	2721.00	1088.40	12935.00	5174.00	0.00	0.00
Miscelaneos(5%)				54.42		258.70		0.00
Subtotal				1142.82		5432.70		0.00
Gastos generales(25%)				295.84		3286.54		23.99
Total				1479.18		16432.69		119.94
Unit price(#2)				14.79		164.33		1.20

I OBRAS DE HORMIGON (1)

****Daule Peripa-La Esperanza****

Precio Unitario	Unidad	** ME ** (Yen)	ML (S/.)	Tasas (S/.)	** ML ** (S/.)	Total (S/.)	Total (US\$)
Hornigon A, 20mm	m3	5532.22	58969.17	16941.06	75910.23	200385.18	89.06
Hornigon B, 40mm	m3	4848.23	51065.35	14938.35	66003.70	175088.88	77.82
Hornigon C, 20mm	m3	4673.66	48988.87	14435.77	63424.64	168581.99	74.93
Hornigon D, 40mm	m3	4741.47	49773.60	14634.15	64407.75	171090.83	76.04
Hornigon E, 40mm	m3	4517.28	47219.44	13972.32	61191.76	162830.56	72.37
Hornigon F, 20mm	m3	4783.25	50307.83	14749.03	65056.86	172679.99	76.75
Hornigon G, 40mm	m3	3888.31	42432.18	12846.60	55278.78	142765.76	63.45
Hornigon H, 20mm	m3	3947.34	43450.34	13067.83	56518.17	145333.32	64.59
Hornigon A, 20mm, 3km, bomba	m3	6742.09	71514.14	17019.90	88534.04	240231.07	106.77
Hornigon A, 20mm, 3km, balde	m3	7117.70	73129.08	17023.31	90152.39	250300.64	111.24
Hornigon A, 20mm, 3km	m3	6424.61	67597.59	17002.92	84600.51	229154.24	101.85
Hornigon B, 40mm, 3km, bomba	m3	6058.10	63610.32	15017.19	78627.51	214934.76	95.53
Hornigon B, 40mm, 3km, balde	m3	6433.71	65225.26	15020.60	80245.86	225004.34	100.00
Hornigon B, 40mm, 3km	m3	5740.62	59693.77	15000.21	74693.98	203857.93	90.60
Hornigon C, 20mm, 3km, bomba	m3	5883.53	61533.84	14514.61	76048.45	208427.88	92.63
Hornigon C, 20mm, 3km, balde	m3	6259.14	63148.78	14518.02	77566.80	218497.45	97.11
Hornigon C, 20mm, 3km	m3	5566.05	57617.29	14497.63	72114.92	197351.05	87.71
Hornigon D, 40mm, 3km, bomba	m3	5951.34	62318.57	14712.99	77031.56	210936.71	93.75
Hornigon D, 40mm, 3km, balde	m3	6326.95	63933.51	14716.40	78649.91	221006.29	98.23
Hornigon D, 40mm, 3km	m3	5633.86	58402.02	14696.01	73098.03	199859.88	88.83
Hornigon E, 40mm, 3km, bomba	m3	5727.15	59764.41	14051.16	73815.57	202676.45	90.08
Hornigon E, 40mm, 3km, balde	m3	6102.76	61379.35	14054.57	75433.92	212746.02	94.55
Hornigon E, 40mm, 3km	m3	5409.67	55847.86	14034.18	69882.04	191599.62	85.16
Hornigon F, 20mm, 3km, bomba	m3	5993.12	62852.80	14827.87	77680.67	212525.87	94.46
Hornigon F, 20mm, 3km, balde	m3	6368.73	64467.74	14831.28	79299.02	222595.45	98.93
Hornigon F, 20mm, 3km	m3	5675.64	58936.25	14810.89	73747.14	201449.04	89.53
Hornigon G, 40mm, 3km, bomba	m3	5091.18	54977.15	12925.44	67902.59	182454.14	81.09
Hornigon G, 40mm, 3km, balde	m3	5466.79	56592.09	12928.85	69520.94	192523.72	85.57
Hornigon G, 40mm, 3km	m3	4773.70	51060.60	12908.46	63869.06	171377.31	76.17
Hornigon H, 20mm, 3km, bomba	m3	5157.21	55995.31	13146.67	69141.98	185179.21	82.30
Hornigon H, 20mm, 3km, balde	m3	5532.82	57610.25	13150.08	70760.33	195248.78	86.78
Hornigon H, 20mm, 3km	m3	4839.73	52078.76	13129.69	65208.45	174102.38	77.38
Hornigon A, 20mm, 1km, bomba	m3	6556.59	69603.08	16999.52	86602.60	234125.88	104.06
Hornigon A, 20mm, 1km, balde	m3	6932.20	71218.02	17002.93	88220.95	244195.45	108.53
Hornigon A, 20mm, 1km	m3	6239.11	65686.53	16982.54	82669.07	223049.05	99.13
Hornigon B, 40mm, 1km, bomba	m3	5872.60	61699.26	14996.81	76696.07	208829.57	92.81
Hornigon B, 40mm, 1km, balde	m3	6248.21	63314.20	15000.22	78314.42	218899.15	97.29
Hornigon B, 40mm, 1km	m3	5555.12	57782.71	14979.83	72762.54	197752.74	87.89
Hornigon C, 20mm, 1km, bomba	m3	5698.03	59622.78	14494.23	74117.01	202322.69	89.92
Hornigon C, 20mm, 1km, balde	m3	6073.64	61237.72	14497.64	75735.36	212392.26	94.40
Hornigon C, 20mm, 1km	m3	5380.55	55706.23	14477.25	70183.48	191245.86	85.00
Hornigon D, 40mm, 1km, bomba	m3	5765.84	60407.51	14692.61	75100.12	204831.52	91.04
Hornigon D, 40mm, 1km, balde	m3	6141.45	62022.45	14696.02	76718.47	214901.10	95.51
Hornigon D, 40mm, 1km	m3	5448.36	56490.96	14675.63	71166.59	193754.69	86.11
Hornigon E, 40mm, 1km, bomba	m3	5541.65	57853.35	14030.78	71884.13	196571.26	87.37
Hornigon E, 40mm, 1km, balde	m3	5917.26	59468.29	14034.19	73502.48	206640.83	91.84
Hornigon E, 40mm, 1km	m3	5224.17	53936.80	14013.80	67950.60	185494.43	82.44
Hornigon F, 20mm, 1km, bomba	m3	5807.62	60341.74	14807.49	75749.23	206420.68	91.74
Hornigon F, 20mm, 1km, balde	m3	6183.23	62556.68	14810.90	77367.58	216490.26	96.22
Hornigon F, 20mm, 1km	m3	5490.14	57025.19	14790.51	71815.70	195343.85	86.82

****Daule Peripa-La Esperanza****

Precio Unitario	Unidad	** ME ** (Yen)	NL (S/.)	Tasas (S/.)	** NL ** (S/.)	Total (S/.)	Total (US\$)
Hornigon G, 40mm, 1km, bomba	m3	4905.68	53066.09	12905.06	65971.15	176348.95	78.38
Hornigon G, 40mm, 1km, balde	m3	5281.29	54681.03	12908.47	67589.50	186418.53	82.85
Hornigon G, 40mm, 1km	m3	4588.20	49149.54	12888.08	62037.62	165272.12	73.45
Hornigon H, 20mm, 1km, bomba	m3	4971.71	54084.25	13126.29	67210.54	179074.02	79.59
Hornigon H, 20mm, 1km, balde	m3	5347.32	55699.19	13129.70	68828.89	189143.59	84.06
Hornigon H, 20mm, 1km	m3	4654.23	50167.70	13109.31	63277.01	167997.19	74.67
Hornigon A, 20mm, 6km, bomba	m3	7020.32	74380.71	17050.45	91431.16	249388.36	110.84
Hornigon A, 20mm, 6km, balde	m3	7395.93	75995.65	17053.86	93049.51	259457.94	115.31
Hornigon A, 20mm, 6km	m3	6702.84	70454.16	17033.47	87497.63	238311.53	105.92
Hornigon B, 40mm, 6km, bomba	m3	6336.33	66476.89	15047.74	81524.63	224092.06	99.60
Hornigon B, 40mm, 6km, balde	m3	6711.94	68091.83	15051.15	83142.88	234161.63	104.07
Hornigon B, 40mm, 6km	m3	6018.85	62560.34	15030.76	77591.10	213015.23	94.67
Hornigon C, 20mm, 6km, bomba	m3	6161.76	64400.41	14545.16	78945.57	217585.17	96.70
Hornigon C, 20mm, 6km, balde	m3	6537.37	66015.35	14548.57	80563.92	227654.75	101.18
Hornigon C, 20mm, 6km	m3	5844.28	59483.86	14528.18	75012.04	206508.34	91.78
Hornigon D, 40mm, 6km, bomba	m3	6229.57	65185.14	14743.54	79928.68	220094.01	97.82
Hornigon D, 40mm, 6km, balde	m3	6605.18	68800.08	14746.95	81547.03	230163.58	102.29
Hornigon D, 40mm, 6km	m3	5912.99	61268.59	14726.56	75995.15	209017.18	92.90
Hornigon E, 40mm, 6km, bomba	m3	6005.38	62630.98	14081.71	76712.69	211833.74	94.15
Hornigon E, 40mm, 6km, balde	m3	6380.99	64245.92	14085.12	78331.04	221903.32	98.62
Hornigon E, 40mm, 6km	m3	5687.90	58714.43	14064.73	72779.16	200756.91	89.23
Hornigon F, 20mm, 6km, bomba	m3	6271.35	55719.37	14858.42	80577.79	221683.17	98.53
Hornigon F, 20mm, 6km, balde	m3	6646.96	67334.31	14861.83	82196.14	231752.74	103.00
Hornigon F, 20mm, 6km	m3	5953.87	51802.82	14841.44	76644.26	210606.34	93.60
Hornigon G, 40mm, 6km, bomba	m3	5369.41	57843.72	12955.99	70799.71	191611.44	85.16
Hornigon G, 40mm, 6km, balde	m3	5745.02	59458.66	12959.40	72418.06	201681.01	89.64
Hornigon G, 40mm, 6km	m3	5051.93	53927.17	12939.01	66866.18	189534.61	80.24
Hornigon H, 20mm, 6km, bomba	m3	5435.44	58861.88	13177.22	72039.10	194336.50	86.37
Hornigon H, 20mm, 6km, balde	m3	5811.05	60476.82	13180.63	73657.45	204406.08	90.85
Hornigon H, 20mm, 6km	m3	5117.96	54945.33	13160.24	68105.57	183259.67	81.45

****Daule Peripa-La Esperanza****

Rubro No.

Obras:Hormigon tipo A,20mm

Observaciones:1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.430	4969.00	2136.67	65360.00	28104.80	17260.00	7396.00
Agregados,finos	ton	0.711	903.00	642.03	8710.00	6192.81	2904.00	2064.74
Agregados,gruesos	ton	1.138	1011.00	1150.52	9745.00	11089.81	3249.00	3697.36
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	1.075	342.00	367.65	385.00	413.88	0.00	0.00
Miscelaneos(3%)				128.91		1374.04		394.74
Subtotal				4425.78		47175.33		13552.85
Gastos generales				1106.44		11793.83		3388.21
Total				5532.22		58969.17		16941.06

Rubro No.

Obras:Hormigon tipo B,40mm

Observaciones:1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.330	4969.00	1639.77	65360.00	21568.80	17200.00	5676.00
Agregados,finos	ton	0.771	903.00	696.21	8710.00	6715.41	2904.00	2238.98
Agregados,gruesos	ton	1.135	1011.00	1147.49	9745.00	11060.58	3249.00	3687.62
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.825	342.00	282.15	385.00	317.63	0.00	0.00
Miscelaneos(3%)				112.97		1189.87		348.08
Subtotal				3878.59		40852.28		11950.68
Gastos generales				969.65		10213.07		2987.57
Total				4848.23		51065.35		14938.35

Rubro No.
 Obras: Hormigon tipo C, 20mm
 Observaciones: 1a3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Moneda (Yen)	Unitario	Moneda (S/.)	Unitario	Moneda (S/.)
Costo de materiales								
Cemento Portland	ton	0.300	4969.00	1490.70	65360.00	19608.00	17200.00	5160.00
Agregados, finos	ton	0.727	903.00	656.48	8710.00	6332.17	2904.00	2111.21
Agregados, gruesos	ton	1.213	1011.00	1226.34	9745.00	11820.69	3249.00	3941.04
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.750	342.00	256.50	385.00	288.75	0.00	0.00
Miscelaneos(3%)				108.90		1141.49		336.37
Subtotal				3738.92		39191.09		11548.61
Gastos generales				934.73		9797.77		2887.15
Total				4673.66		48988.87		14435.77

Rubro No.
 Obras: Hormigon, tipo D, 40mm
 Observaciones: 1a3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Moneda (Yen)	Unitario	Moneda (S/.)	Unitario	Moneda (S/.)
Costo de materiales								
Cemento Portland	ton	0.310	4969.00	1540.39	65360.00	20261.60	17200.00	5332.00
Agregados, finos	ton	0.713	903.00	643.84	8710.00	6210.23	2904.00	2070.55
Agregados, gruesos	ton	1.220	1011.00	1233.42	9745.00	11888.90	3249.00	3963.78
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.775	342.00	265.05	385.00	298.38	0.00	0.00
Miscelaneos(3%)				110.48		1159.77		340.99
Subtotal				3793.18		39818.88		11707.32
Gastos generales				948.29		9954.72		2926.83
Total				4741.47		49773.60		14634.15

Rubro No.
 Obras: Hormigon, tipo E, 40mm
 Observaciones: 1a3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Moneda (Yen)	Unitario	Moneda (S/.)	Unitario	Moneda (S/.)
Costo de materiales								
Cemento Portland	ton	0.280	4969.00	1391.32	65360.00	18300.80	17200.00	4816.00
Agregados, finos	ton	0.745	903.00	672.74	8710.00	6488.95	2904.00	2163.48
Agregados, gruesos	ton	1.192	1011.00	1205.11	9745.00	11616.04	3249.00	3872.81
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.700	342.00	239.40	385.00	269.50	0.00	0.00
Miscelaneos(3%)				105.26		1100.26		325.57
Subtotal				3613.82		37775.55		11177.86
Gastos generales				303.46		9443.89		2794.46
Total				4517.28		47219.44		13972.32

Rubro No.

Rubro No.
 Obras: Hormigon tipo F, 20mm
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.320	4969.00	1590.08	65360.00	20915.20	17200.00	5504.00
Agregados, finos	ton	0.774	993.00	698.92	8710.00	6741.54	2904.00	2247.70
Agregados, gruesos	ton	1.140	1011.00	1152.54	9745.00	11109.30	3249.00	3703.86
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.800	342.00	273.60	385.00	308.00	0.00	0.00
Miscelaneos(3%)				111.45		1172.22		343.67
Subtotal				3826.60		40246.26		11799.22
Gastos generales				956.65		10061.57		2949.81
Total				4783.25		50307.83		14749.93

Rubro No.
 Obras: Hormigon tipo G, 40mm
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.220	4969.00	1093.18	65360.00	14379.20	17200.00	3784.00
Agregados, finos	ton	0.806	903.00	727.82	8710.00	7020.26	2904.00	2340.62
Agregados, gruesos	ton	1.186	1011.00	1199.05	9745.00	11557.57	3249.00	3853.31
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.000	342.00	0.00	385.00	0.00	0.00	0.00
Miscelaneos(3%)				90.60		988.71		299.34
Subtotal				3110.65		33945.74		10277.28
Gastos generales				777.66		8486.44		2569.32
Total				3888.31		42432.18		12846.60

Rubro No.
 Obras: Hormigon tipo H, 20mm
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.240	4969.00	1192.56	65360.00	15686.40	17200.00	4128.00
Agregados, finos	ton	0.740	903.00	668.22	8710.00	6445.40	2904.00	2148.96
Agregados, gruesos	ton	1.192	1011.00	1205.11	9745.00	11616.04	3249.00	3872.81
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.000	342.00	0.00	385.00	0.00	0.00	0.00
Miscelaneos(3%)				91.98		1012.44		304.49
Subtotal				3157.87		34760.28		10454.26
Gastos generales				789.47		8690.07		2613.57
Total				3947.34		43450.34		13067.83

Rubro No.
 Obras: Hormigon, A, 20mm, 3000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		5532.22		58969.17		16941.06
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 3000m	m3	1.000		417.36		4300.14		45.84
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				6742.09		71514.14		17019.90
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				7117.70		73129.08		17023.31
Excluye colocacion	m3	1.000		6424.61		67597.59		17002.92

Rubro No.
 Obras: Hormigon, B, 40mm, 3000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4848.23		51065.35		14938.35
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 3000m	m3	1.000		417.36		4300.14		45.84
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				6058.10		63610.32		15017.19
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6433.71		65225.26		15020.60
Excluye colocacion	m3	1.000		5740.62		59693.77		15000.21

Rubro No.
 Obras: Hormigon, C, 20mm, 3000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4673.66		48988.87		14435.77
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 3000m	m3	1.000		417.36		4300.14		45.84
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5883.53		61533.84		14514.61
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6259.14		63148.78		14518.02
Excluye colocacion	m3	1.000		5566.05		57617.29		14497.63

Rubro No.
 Obras: Hormigon, D, 40mm, 3000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4741.47		49773.60		14634.15
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 3000m	m3	1.000		417.36		4300.14		45.84
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5951.34		62318.57		14712.99
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5326.95		63933.51		14716.40
Excluye colocacion	m3	1.000		5633.86		58402.02		14696.01

Rubro No.
 Obras: Hormigon, E, 40mm, 3000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4517.28		47219.44		13972.32
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 3000m	m3	1.000		417.36		4300.14		45.84
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5727.15		59764.41		14051.16
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6102.76		61379.35		14054.57
Excluye colocacion	m3	1.000		5409.67		55847.86		14034.18

Rubro No.
 Obras: Hormigon, F, 20mm, 3000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4783.25		50307.83		14749.03
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 3000m	m3	1.000		417.36		4300.14		45.34
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5993.12		62852.80		14827.87
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6368.73		64467.74		14831.28
Excluye colocacion	m3	1.000		5675.64		58936.25		14810.89

Rubro No.

Obras: Hormigon, G, 40cm, 3000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3881.31		42432.18	12846.60	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 3000m	m3	1.000		417.36		4300.14	45.84	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				5091.18		54977.15	12925.44	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				5466.79		56592.09	12928.85	
Excluye colocacion	m3	1.000		4773.70		51060.60	12908.46	

Rubro No.

Obras: Hormigon, R, 20cm, 3000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3947.34		43450.34	13067.83	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 3000m	m3	1.000		417.36		4300.14	45.84	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				5157.21		55995.31	13146.67	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				5532.82		57610.25	13150.98	
Excluye colocacion	m3	1.000		4839.73		52078.76	13129.69	

Rubro No.
 Obras: Hormigon, A, 20cm, 1000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		5532.22		58969.17		16941.06
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 1000m	m3	1.000		231.86		2389.08		25.46
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				6556.59		69603.08		16999.52
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6932.20		71218.02		17002.93
Excluye colocacion	m3	1.000		6239.11		65686.53		16982.54

Rubro No.
 Obras: Hormigon, B, 40cm, 1000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4848.23		51065.35		14938.35
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 1000m	m3	1.000		231.86		2389.08		25.46
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5872.60		61699.26		14996.81
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6248.21		63314.20		15000.22
Excluye colocacion	m3	1.000		5555.12		57782.71		14979.83

Rubro No.
 Obras: Hormigon, C, 20cm, 1000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4673.66		48988.87		14435.77
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 1000m	m3	1.000		231.86		2389.08		25.46
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5698.03		59622.78		14494.23
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6073.64		61237.72		14497.64
Excluye colocacion	m3	1.000		5380.55		55706.23		14477.25

Rubro No.

Obras: Hormigon, D, 40mm, 1000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Moneto (Yen)	Unitario	Moneto (S/.)	Unitario	Moneto (S/.)
Hormigon	m3	1.000		4741.47		49773.60	14634.15	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 1000m	m3	1.000		231.86		2389.08	25.46	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				5765.84		60407.51	14692.61	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				6141.45		62922.45	14696.02	
Excluye colocacion	m3	1.000		5448.36		56490.96	14675.63	

Rubro No.

Obras: Hormigon, E, 40mm, 1000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Moneto (Yen)	Unitario	Moneto (S/.)	Unitario	Moneto (S/.)
Hormigon	m3	1.000		4517.28		47219.44	13972.32	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 1000m	m3	1.000		231.86		2389.08	25.46	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				5541.65		57853.35	14030.78	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				5917.26		59468.29	14034.19	
Excluye colocacion	m3	1.000		5224.17		53936.80	14013.80	

Rubro No.

Obras: Hormigon, F, 20mm, 1000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Moneto (Yen)	Unitario	Moneto (S/.)	Unitario	Moneto (S/.)
Hormigon	m3	1.000		4783.25		50307.83	14749.03	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 1000m	m3	1.000		231.86		2389.08	25.46	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				5807.62		60941.74	14807.49	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				6183.23		62556.68	14810.90	
Excluye colocacion	m3	1.000		5490.14		57025.19	14790.51	

Rubro No.
 Obras: Hormigon, 6, 40cm, 1000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3881.31		42432.18		12846.60
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 1000m	m3	1.000		231.86		2389.08		25.46
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				4905.68		53066.09		12905.06
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5281.29		54681.03		12908.47
Excluye colocacion	m3	1.000		4588.20		49149.54		12888.08

Rubro No.
 Obras: Hormigon, H, 20cm, 1000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3947.34		43450.34		13067.83
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 1000m	m3	1.000		231.86		2389.08		25.46
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				4971.71		54084.25		13126.29
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5347.32		55699.19		13129.70
Excluye colocacion	m3	1.000		4654.23		50167.70		13109.31

Rubro No.
 Obras: Hormigon, A, 20mm, 6000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		5532.22		58969.17		16941.06
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 6000m	m3	1.000		695.59		7166.71		76.39
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				7020.32		74380.71		17050.45
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				7395.93		75995.65		17053.86
Excluye colocacion	m3	1.000		6702.84		70464.16		17033.47

Rubro No.
 Obras: Hormigon, B, 40mm, 6000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4848.23		51065.35		14938.35
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 6000m	m3	1.000		695.59		7166.71		76.39
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				6336.33		65476.89		15047.74
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5711.94		58091.83		15051.15
Excluye colocacion	m3	1.000		6018.85		62560.34		15030.76

Rubro No.
 Obras: Hormigon, C, 20mm, 6000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4673.66		48988.87		14435.77
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 6000m	m3	1.000		695.59		7166.71		76.39
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				6161.75		64400.41		14545.16
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6537.37		66015.35		14548.57
Excluye colocacion	m3	1.000		5844.28		60483.86		14528.18

Rubro No.
 Obras:Hormigon,D,40mm,6000a
 Observaciones:1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4741.47		49773.60		14634.15
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte,6000m	m3	1.000		695.59		7166.71		76.39
Colocacion,bomba	m3	1.000		317.48		3916.55		16.98
Total				6229.57		65185.14		14743.54
Colocacion,balde	m3	1.000		693.09		5531.49		20.39
Total				6605.18		66800.08		14746.95
Excluye colocacion	m3	1.000		5912.09		61268.59		14726.56

Rubro No.
 Obras:Hormigon,E,40mm,6000m
 Observaciones:1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4517.28		47219.44		13972.32
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte,6000a	m3	1.000		695.59		7166.71		76.39
Colocacion,bomba	m3	1.000		317.48		3916.55		16.98
Total				6005.38		62630.98		14081.71
Colocacion,balde	m3	1.000		693.09		5531.49		20.39
Total				6380.99		64245.92		14085.12
Excluye colocacion	m3	1.000		5687.90		58714.43		14064.73

Rubro No.
 Obras:Hormigon,F,20mm,6000a
 Observaciones:1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4783.25		50307.83		14749.03
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte,6000m	m3	1.000		695.59		7166.71		76.39
Colocacion,bomba	m3	1.000		317.48		3916.55		16.98
Total				6271.35		65719.37		14858.42
Colocacion,balde	m3	1.000		693.09		5531.49		20.39
Total				6646.96		67334.31		14861.83
Excluye colocacion	m3	1.000		5953.87		61802.82		14841.44

Rubro No.

Obras: Hormigon, G, 40mm, 6000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3881.31		42432.18		12846.60
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 6000m	m3	1.000		695.59		7166.71		76.39
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5369.41		57843.72		12955.99
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5745.02		59458.66		12959.40
Excluye colocacion	m3	1.000		5051.93		53927.17		12939.01

Rubro No.

Obras: Hormigon, H, 20mm, 6000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3947.34		43450.34		13067.83
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 6000m	m3	1.000		695.59		7166.71		76.39
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5435.44		58861.88		13177.22
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5811.05		60476.82		13180.63
Excluye colocacion	m3	1.000		5117.96		54945.33		13160.24

J OBRAS DE HORMIGON (2)

****Estacion de Bombeo, Canal Abierto****

Precio Unitario	Unidad	** ME *	ML	Tasas	** ML **	Total	Total
		(Yen)	(S/.)	(S/.)	(S/.)	(S/.)	(US\$)
Horaigon A, 20mm	m3	5221.46	55978.01	15942.12	71920.13	189402.98	84.18
Horaigon B, 40mm	m3	4528.97	47991.74	13911.84	61903.58	163805.41	72.80
Horaigon C, 20mm	m3	4347.06	45845.63	13386.04	59231.67	157040.52	69.80
Horaigon D, 40mm	m3	4415.74	46638.79	13587.25	60226.04	159580.19	70.92
Horaigon E, 40mm	m3	4191.73	44085.96	12925.85	57011.81	151325.74	67.26
Horaigon F, 20mm	m3	4462.63	47221.26	13718.20	60939.46	161348.64	71.71
Horaigon G, 40mm	m3	3554.64	39219.94	11773.79	50993.73	130973.13	58.21
Horaigon H, 20mm	m3	3622.54	40324.17	12023.79	52347.96	133855.11	59.49
Horaigon A, 20mm, 3km, bomba	m3	6431.33	68522.98	16020.96	84543.94	229248.87	101.89
Horaigon A, 20mm, 3km, balde	m3	6806.94	70137.92	16024.37	86162.29	239318.44	106.36
Horaigon A, 20mm, 3km	m3	6113.85	64606.43	16003.98	80610.41	218172.04	96.97
Horaigon B, 40mm, 3km, bomba	m3	5738.84	60536.71	13990.68	74527.39	203651.29	90.51
Horaigon B, 40mm, 3km, balde	m3	6114.45	62151.65	13994.09	76145.74	213720.87	94.99
Horaigon B, 40mm, 3km	m3	5421.36	56620.16	13973.70	70593.86	192574.46	85.59
Horaigon C, 20mm, 3km, bomba	m3	5556.93	58390.60	13464.88	71855.48	196886.41	87.51
Horaigon C, 20mm, 3km, balde	m3	5932.54	60005.54	13468.29	73473.83	206955.98	91.98
Horaigon C, 20mm, 3km	m3	5239.45	54474.05	13447.90	67921.95	185809.58	82.58
Horaigon D, 40mm, 3km, bomba	m3	5625.61	59183.76	13666.09	72849.85	199426.08	88.63
Horaigon D, 40mm, 3km, balde	m3	6001.22	60798.70	13669.50	74468.20	209495.65	93.11
Horaigon D, 40mm, 3km	m3	5308.13	55267.21	13649.11	68916.32	188349.25	83.71
Horaigon E, 40mm, 3km, bomba	m3	5401.60	56630.93	13004.69	69635.62	191171.62	84.97
Horaigon E, 40mm, 3km, balde	m3	5777.21	58245.87	13008.10	71253.97	201241.20	89.44
Horaigon E, 40mm, 3km	m3	5084.12	52714.38	12987.71	65702.09	180094.79	80.04
Horaigon F, 20mm, 3km, bomba	m3	5672.50	59766.23	13797.04	73563.27	201194.52	89.42
Horaigon F, 20mm, 3km, balde	m3	6048.11	61381.17	13800.45	75181.62	211264.10	93.90
Horaigon F, 20mm, 3km	m3	5355.02	55849.68	13780.06	69629.74	190117.69	84.50
Horaigon G, 40mm, 3km, bomba	m3	4764.51	51764.91	11852.63	63617.54	170819.02	75.92
Horaigon G, 40mm, 3km, balde	m3	5140.12	53379.85	11856.04	65235.89	180888.59	80.39
Horaigon G, 40mm, 3km	m3	4447.03	47848.36	11835.65	59684.01	159742.19	71.00
Horaigon H, 20mm, 3km, bomba	m3	4832.41	52869.14	12102.63	64971.77	173701.00	77.20
Horaigon H, 20mm, 3km, balde	m3	5208.02	54484.08	12106.04	66590.12	183770.57	81.68
Horaigon H, 20mm, 3km	m3	4514.93	48952.59	12085.65	61038.24	162624.17	72.28
Horaigon A, 20mm, 2km, bomba	m3	6340.03	67582.66	16010.94	83593.60	226244.28	100.55
Horaigon A, 20mm, 2km, balde	m3	6715.64	69197.60	16014.35	85211.95	236313.85	105.03
Horaigon A, 20mm, 2km	m3	6022.55	63666.11	15993.96	79660.07	215167.45	95.63
Horaigon B, 40mm, 2km, bomba	m3	5647.54	59596.39	13980.66	73577.05	200646.70	89.18
Horaigon B, 40mm, 2km, balde	m3	6023.15	61211.33	13984.07	75195.40	210716.28	93.65
Horaigon B, 40mm, 2km	m3	5330.06	55679.84	13963.68	69643.52	189569.87	84.25
Horaigon C, 20mm, 2km, bomba	m3	5465.63	57450.28	13454.86	70905.14	193881.82	86.17
Horaigon C, 20mm, 2km, balde	m3	5841.24	59065.22	13458.27	72523.49	203951.39	90.65
Horaigon C, 20mm, 2km	m3	5148.15	53533.73	13437.88	66971.61	182804.99	81.25
Horaigon D, 40mm, 2km, bomba	m3	5534.31	58243.44	13656.07	71899.51	196421.49	87.30
Horaigon D, 40mm, 2km, balde	m3	5909.92	59858.38	13659.48	73517.86	208491.06	91.77
Horaigon D, 40mm, 2km	m3	5216.83	54326.89	13639.09	67965.98	185344.66	82.38
Horaigon E, 40mm, 2km, bomba	m3	5310.30	55690.61	12994.67	68685.28	188167.03	83.63
Horaigon E, 40mm, 2km, balde	m3	5685.91	57305.55	12998.08	70303.63	198236.61	88.11
Horaigon E, 40mm, 2km	m3	4992.82	51774.06	12977.69	64751.75	177090.20	78.71
Horaigon F, 20mm, 2km, bomba	m3	5591.20	58825.91	13787.02	72612.93	198189.93	88.08
Horaigon F, 20mm, 2km, balde	m3	5956.81	60440.85	13790.43	74231.28	208259.51	92.56
Horaigon F, 20mm, 2km	m3	5263.72	54909.36	13770.04	68679.40	187113.10	83.16

Precio Unitario	Unidad	** NE *	ML	Tasas	** ML **	Total	Total
		(Yen)	(S/.)	(S/.)	(S/.)	(S/.)	(US\$)
Hornigon G, 40mm, 2km, bomba	m3	4673.21	50824.59	11842.61	62667.20	167814.43	74.58
Hornigon G, 40mm, 2km, balde	m3	5048.82	52439.53	11846.02	64285.55	177884.00	79.06
Hornigon G, 40mm, 2km	m3	4355.73	46908.04	11825.63	58733.67	156737.60	69.66
Hornigon H, 20mm, 2km, bomba	m3	4741.11	51928.82	12092.61	64021.43	170696.41	75.87
Hornigon H, 20mm, 2km, balde	m3	5116.72	53543.76	12096.02	65639.78	180765.98	80.34
Hornigon H, 20mm, 2km	m3	4423.63	48012.27	12075.63	60087.90	159619.58	70.94
Hornigon A, 20mm, 1km, bomba	m3	6245.83	66611.92	16000.58	82612.50	223143.68	99.17
Hornigon A, 20mm, 1km, balde	m3	6621.44	68226.86	16003.99	84230.85	233213.25	103.65
Hornigon A, 20mm, 1km	m3	5928.35	62695.37	15983.60	78678.97	212066.85	94.25
Hornigon B, 40mm, 1km, bomba	m3	5553.34	58625.65	13970.30	72595.95	197546.10	87.80
Hornigon B, 40mm, 1km, balde	m3	5928.95	60240.59	13973.71	74214.30	207615.68	92.27
Hornigon B, 40mm, 1km	m3	5235.86	54709.10	13953.32	68662.42	186469.27	82.88
Hornigon C, 20mm, 1km, bomba	m3	5371.43	56479.54	13444.50	69924.04	190781.22	84.79
Hornigon C, 20mm, 1km, balde	m3	5747.04	58094.48	13447.91	71542.39	200850.79	89.27
Hornigon C, 20mm, 1km	m3	5053.95	52562.99	13427.52	65990.51	179704.39	79.87
Hornigon D, 40mm, 1km, bomba	m3	5440.11	57272.70	13645.71	70918.41	193320.89	85.92
Hornigon D, 40mm, 1km, balde	m3	5815.72	58887.64	13649.12	72536.76	203390.46	90.40
Hornigon D, 40mm, 1km	m3	5122.63	53356.15	13628.73	66984.88	182244.06	81.00
Hornigon E, 40mm, 1km, bomba	m3	5216.10	54719.87	12984.31	67704.18	185066.43	82.25
Hornigon E, 40mm, 1km, balde	m3	5591.71	56334.81	12987.72	69322.53	195136.01	86.73
Hornigon E, 40mm, 1km	m3	4898.62	50803.32	12967.33	63770.65	173989.60	77.33
Hornigon F, 20mm, 1km, bomba	m3	5487.00	57855.17	13776.66	71631.83	195089.33	86.71
Hornigon F, 20mm, 1km, balde	m3	5862.61	59470.11	13780.07	73250.18	205158.91	91.18
Hornigon F, 20mm, 1km	m3	5169.52	53938.62	13759.68	67698.30	184012.50	81.78
Hornigon G, 40mm, 1km, bomba	m3	4579.01	49853.85	11832.25	61686.10	164713.83	73.21
Hornigon G, 40mm, 1km, balde	m3	4954.62	51468.79	11835.66	63304.45	174783.40	77.68
Hornigon G, 40mm, 1km	m3	4261.53	45937.30	11815.27	57752.57	153637.00	68.28
Hornigon H, 20mm, 1km, bomba	m3	4646.91	50958.08	12082.25	63040.33	167595.81	74.49
Hornigon H, 20mm, 1km, balde	m3	5022.52	52573.02	12085.66	64658.68	177665.38	78.96
Hornigon H, 20mm, 1km	m3	4329.43	47041.53	12065.27	59106.80	156518.98	69.56

****Estacion de Bombeo, Canal Abierto****

Rubro No.

Obras: Hormigon tipo A, 20mm

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.430	4969.00	2136.67	65360.00	28104.80	17200.00	7396.00
Agregado, finos	ton	0.711	786.00	558.85	7576.00	5386.54	2525.00	1795.28
Agregado, gruesos	ton	1.138	872.00	992.34	8412.00	9572.86	2804.00	3190.95
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	1.075	342.00	367.65	385.00	413.88	0.00	0.00
Miscelaneos(3%)				121.67		1304.34		371.47
Subtotal				4177.17		44782.41		12753.69
Gastos generales				1044.29		11195.60		3188.42
Total				5221.46		55978.01		15942.12

Rubro No.

Obras: Hormigon tipo B, 40mm

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.330	4969.00	1639.77	65360.00	21568.80	17200.00	5676.00
Agregado, finos	ton	0.771	786.00	606.01	7576.00	5841.10	2525.00	1946.78
Agregado, gruesos	ton	1.135	872.00	989.72	8412.00	9547.62	2804.00	3182.54
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.825	342.00	282.15	385.00	317.63	0.00	0.00
Miscelaneos(3%)				105.53		1118.25		324.16
Subtotal				3623.18		38393.40		11129.47
Gastos generales				905.79		9598.35		2782.37
Total				4528.97		47991.74		13911.84

Rubro No.
 Obras:Hormigon tipo C,20mm
 Observaciones:1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.300	4969.00	1490.70	65360.00	19608.00	17200.00	5160.00
Agregado, finos	ton	0.727	786.00	571.42	7576.00	5507.75	2525.00	1835.68
Agregado, gruesos	ton	1.213	872.00	1057.74	8412.00	10203.76	2804.00	3401.25
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.750	342.00	256.50	385.00	288.75	0.00	0.00
Miscelaneos(3%)				101.29		1068.25		311.91
Subtotal				3477.65		36676.51		16708.83
Gastos generales				869.41		9169.13		2677.21
Total				4347.06		45845.63		13386.04

Rubro No.
 Obras:Hormigon tipo D,40mm
 Observaciones:1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.310	4969.00	1540.39	65360.00	20261.60	17200.00	5332.00
Agregado, finos	ton	0.713	786.00	560.42	7576.00	5401.69	2525.00	1800.33
Agregado, gruesos	ton	1.220	872.00	1063.84	8412.00	10262.64	2804.00	3420.88
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.775	342.00	265.05	385.00	298.38	0.00	0.00
Miscelaneos(3%)				102.89		1086.73		316.60
Subtotal				3532.59		37311.03		16869.80
Gastos generales				883.15		9327.76		2717.45
Total				4415.74		46638.79		13587.25

Rubro No.
 Obras:Hormigon tipo E,40mm
 Observaciones:1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.280	4969.00	1391.32	65360.00	18300.80	17200.00	4816.00
Agregado, finos	ton	0.745	786.00	585.57	7576.00	5644.12	2525.00	1881.13
Agregado, gruesos	ton	1.192	872.00	1039.42	8412.00	10027.10	2804.00	3342.37
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.700	342.00	239.40	385.00	269.50	0.00	0.00
Miscelaneos(3%)				97.67		1027.25		301.18
Subtotal				3353.39		35268.77		10340.68
Gastos generales				838.35		8817.19		2585.17
Total				4191.73		44085.96		12925.85

Rubro No.
 Obras: Hormigon tipo F, 20mm
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.320	4969.00	1590.08	65360.00	20915.20	17200.00	5504.00
Agregado, finos	ton	0.774	786.00	608.36	7576.00	5863.82	2525.00	1954.35
Agregado, gruesos	ton	1.140	872.00	994.08	8412.00	9589.68	2804.00	3196.56
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.800	342.00	273.60	385.00	308.00	0.00	0.00
Miscelaneos(3%)				103.98		1100.30		319.65
Subtotal				3570.11		37777.01		10974.56
Gastos generales				892.53		9444.25		2743.64
Total				4462.63		47221.26		13718.20

Rubro No.
 Obras: hormigon tipo G, 40mm
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.220	4969.00	1093.18	65360.00	14379.20	17200.00	3784.00
Agregado, finos	ton	0.806	786.00	633.52	7576.00	6106.26	2525.00	2035.15
Agregado, gruesos	ton	1.186	872.00	1034.19	8412.00	9976.63	2804.00	3325.54
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.000	342.00	0.00	385.00	0.00	0.00	0.00
Miscelaneos(3%)				82.83		913.86		274.34
Subtotal				2843.71		31375.95		9419.03
Gastos generales				710.93		7843.99		2354.76
Total				3554.64		39219.94		11773.79

Rubro No.
 Obras: Hormigon tipo H, 20mm
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Costo de materiales								
Cemento Portland	ton	0.240	4969.00	1192.56	65360.00	15686.40	17200.00	4128.00
Agregado, finos	ton	0.740	786.00	581.64	7576.00	5606.24	2525.00	1868.50
Agregado, gruesos	ton	1.192	872.00	1039.42	8412.00	10027.10	2804.00	3342.37
Agente reductor de aire	kg	0.000	257.00	0.00	289.00	0.00	0.00	0.00
Agente reductor de agua	kg	0.000	342.00	0.00	385.00	0.00	0.00	0.00
Miscelaneos(3%)				84.41		939.59		280.17
Subtotal				2898.03		32259.34		9619.03
Gastos generales				724.51		8064.83		2404.76
Total				3622.54		40324.17		12023.79

Rubro No.
 Obras: Hormigon, A, 20mm, 3000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		5221.46		55978.01		15942.12
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 3000m	m3	1.000		417.36		4300.14		45.84
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				6431.33		68522.98		16020.96
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6806.94		70137.92		16024.37
Excluye colocacion	m3	1.000		6113.85		64606.43		16003.98

Rubro No.
 Obras: Hormigon, B, 40mm, 3000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4528.97		47991.74		13911.84
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 3000m	m3	1.000		417.36		4300.14		45.84
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5738.84		60536.71		13990.68
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6114.45		62151.65		13994.09
Excluye colocacion	m3	1.000		5421.35		56620.16		13973.70

Rubro No.
 Obras: Hormigon, C, 20mm, 3000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4347.06		45845.63		13386.04
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 3000m	m3	1.000		417.36		4300.14		45.84
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5556.93		58390.60		13464.88
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5932.54		60005.54		13468.29
Excluye colocacion	m3	1.000		5239.45		54474.05		13447.90

Rubro No.

Obras:Hormigon,D,40mm,3000m

Observaciones:1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4415.74		46638.79		13587.25
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte,3000m	m3	1.000		417.36		4300.14		45.84
Colocacion,bomba	m3	1.000		317.48		3916.55		16.98
Total				5625.61		59183.76		13666.09
Colocacion,balde	m3	1.000		693.09		5531.49		20.39
Total				6001.22		60798.70		13669.50
Excluye colocacion	m3	1.000		5308.13		55267.21		13649.11

Rubro No.

Obras:Hormigon,E,40mm,3000m

Observaciones:1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4191.73		44085.96		12925.85
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte,3000m	m3	1.000		417.36		4300.14		45.84
Colocacion,bomba	m3	1.000		317.48		3916.55		16.98
Total				5401.60		56630.93		13004.69
Colocacion,balde	m3	1.000		693.09		5531.49		20.39
Total				5777.21		58245.87		13008.10
Excluye colocacion	m3	1.000		5084.12		52714.38		12987.71

Rubro No.

Obras:Hormigon,F,20mm,3000m

Observaciones:1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4462.63		47221.26		13718.20
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte,3000m	m3	1.000		417.36		4300.14		45.84
Colocacion,bomba	m3	1.000		317.48		3916.55		16.98
Total				5672.50		59766.23		13797.04
Colocacion,balde	m3	1.000		693.09		5531.49		20.39
Total				6048.11		61381.17		13800.45
Excluye colocacion	m3	1.000		5355.02		55849.68		13780.06

Rubro No.

Obras: Hormigon, G, 40mm, 3000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3554.64		39219.94	11773.79	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 3000m	m3	1.000		417.36		4300.14	45.84	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				4764.51		51764.91	11852.63	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				5140.12		53379.85	11856.04	
Excluye colocacion	m3	1.000		4447.03		47848.36	11835.65	

Rubro No.

Obras: Hormigon, H, 20mm, 3000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3622.54		40324.17	12023.79	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 3000m	m3	1.000		417.36		4300.14	45.84	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				4832.41		52869.14	12102.63	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				5203.02		54484.08	12106.04	
Excluye colocacion	m3	1.000		4514.93		48952.59	12085.65	

Rubro No.
 Obras: Hormigon, A, 20mm, 2000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		5221.46		55978.91		15942.12
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 2000m	m3	1.000		326.06		3359.82		35.82
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				6340.03		67582.66		16010.94
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6715.64		69197.60		16014.35
Excluye colocacion	m3	1.000		6022.55		63666.11		15993.96

Rubro No.
 Obras: Hormigon, B, 40mm, 2000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4528.97		47991.74		13911.84
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 2000m	m3	1.000		326.06		3359.82		35.82
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5647.54		59596.39		13980.66
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				6023.15		61211.33		13984.07
Excluye colocacion	m3	1.000		5330.06		55679.84		13963.68

Rubro No.
 Obras: Hormigon, C, 20mm, 2000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4347.06		45845.63		13386.04
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 2000m	m3	1.000		326.06		3359.82		35.82
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5465.63		57450.28		13454.86
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5841.24		59065.22		13458.27
Excluye colocacion	m3	1.000		5148.15		53533.73		13437.88

Rubro No.

Obras: Hormigon, D, 40mm, 2000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4415.74		46638.79	13587.25	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 2000m	m3	1.000		326.06		3359.82	35.82	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				5534.31		58243.44	13656.07	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				5909.92		59858.38	13659.48	
Excluye colocacion	m3	1.000		5216.83		54326.89	13639.09	

Rubro No.

Obras: Hormigon, E, 40mm, 2000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4191.73		44085.96	12925.85	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 2000m	m3	1.000		326.06		3359.82	35.82	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				5310.30		55690.61	12994.67	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				5685.91		57305.55	12998.08	
Excluye colocacion	m3	1.000		4992.82		51774.06	12977.69	

Rubro No.

Obras: Hormigon, F, 20mm, 2000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4462.63		47221.26	13718.20	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 2000m	m3	1.000		326.06		3359.82	35.82	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				5581.20		58825.91	13787.02	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				5956.81		60440.85	13790.43	
Excluye colocacion	m3	1.000		5263.72		54909.36	13770.04	

Rubro No.
 Obras: Hormigon, 6, 40mm, 2000m
 Observaciones: 1m3
 Precio Unitario

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3554.84		39219.94		11773.79
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 2000m	m3	1.000		326.06		3359.82		35.82
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				4673.21		50824.59		11842.61
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5048.82		52439.53		11846.02
Excluye colocacion	m3	1.000		4355.73		46908.04		11825.63

Rubro No.
 Obras: Hormigon, 8, 20mm, 2000m
 Observaciones: 1m3
 Precio Unitario

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3622.54		40324.17		12023.79
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 2000m	m3	1.000		326.06		3359.82		35.82
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				4741.11		51928.82		12092.61
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5116.72		53543.76		12096.02
Excluye colocacion	m3	1.000		4423.63		48012.27		12075.63

Rubro No.

Obras: Hormigon, A, 20mm, 1000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Moneda Amonto (Yen)	Unitario	Moneda Amonto (S/.)	Unitario	Moneda Amonto (S/.)
Hormigon	m3	1.000		5221.46		55978.01	15942.12	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 1000m	m3	1.000		231.86		2389.08	25.46	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				6245.83		66611.92	16000.58	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				6621.44		68226.86	16003.99	
Excluye colocacion	m3	1.000		5928.35		62695.37	15983.60	

Rubro No.

Obras: Hormigon, B, 40mm, 1000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Moneda Amonto (Yen)	Unitario	Moneda Amonto (S/.)	Unitario	Moneda Amonto (S/.)
Hormigon	m3	1.000		4528.97		47991.74	13911.84	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 1000m	m3	1.000		231.86		2389.08	25.46	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				5553.34		58625.65	13970.30	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				5928.95		60240.59	13973.71	
Excluye colocacion	m3	1.000		5235.86		54709.10	13953.32	

Rubro No.

Obras: Hormigon, C, 20mm, 1000m

Observaciones: 1m3

Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Moneda Amonto (Yen)	Unitario	Moneda Amonto (S/.)	Unitario	Moneda Amonto (S/.)
Hormigon	m3	1.000		4347.06		45845.63	13386.04	
Mezcla	m3	1.000		475.03		4328.28	16.02	
Transporte, 1000m	m3	1.000		231.86		2389.08	25.46	
Colocacion, bomba	m3	1.000		317.48		3916.55	16.98	
Total				5371.43		56479.54	13444.50	
Colocacion, balde	m3	1.000		693.09		5531.49	20.39	
Total				5747.04		58994.48	13447.91	
Excluye colocacion	m3	1.000		5053.95		52562.99	13427.52	

Rubro No.
 Obras: Hormigon, D, 40mm, 1000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4415.74		46638.79		13587.25
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 1000m	m3	1.000		231.86		2389.08		25.46
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5440.11		57272.70		13645.71
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5815.72		58887.64		13649.12
Excluye colocacion	m3	1.000		5122.63		53356.15		13628.73

Rubro No.
 Obras: Hormigon, E, 40mm, 1000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4191.73		44085.96		12925.85
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 1000m	m3	1.000		231.86		2389.08		25.46
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5216.10		54719.87		12934.31
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5591.71		56334.81		12987.72
Excluye colocacion	m3	1.000		4898.62		50803.32		12967.33

Rubro No.
 Obras: Hormigon, F, 20mm, 1000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		4462.53		47221.26		13719.20
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 1000m	m3	1.000		231.86		2389.08		25.46
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				5487.00		57855.17		13776.66
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5862.61		59470.11		13780.07
Excluye colocacion	m3	1.000		5169.52		53938.62		13759.68

Rubro No.
 Obras: Hormigon, G, 40cm, 1000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3554.64		39219.94		11773.79
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 1000m	m3	1.000		231.86		2389.08		25.46
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				4579.01		49853.85		11832.25
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				4954.62		51468.79		11835.66
Excluye colocacion	m3	1.000		4261.53		45937.30		11815.27

Rubro No.
 Obras: Hormigon, H, 20cm, 1000m
 Observaciones: 1m3
 Precio Unitario:

Descripcion	Unidad	Cantidad	Moneda Extranjera		Moneda Local		Obligaciones	
			Unitario	Amonto (Yen)	Unitario	Amonto (S/.)	Unitario	Amonto (S/.)
Hormigon	m3	1.000		3622.54		40324.17		12023.79
Mezcla	m3	1.000		475.03		4328.28		16.02
Transporte, 1000m	m3	1.000		231.86		2389.08		25.46
Colocacion, bomba	m3	1.000		317.48		3916.55		16.98
Total				4646.91		50958.08		12082.25
Colocacion, balde	m3	1.000		693.09		5531.49		20.39
Total				5022.52		52573.02		12085.66
Excluye colocacion	m3	1.000		4329.43		47041.53		12065.27