



FOURTEENTH KERALA LEGISLATIVE ASSEMBLY

**COMMITTEE
ON
PUBLIC UNDERTAKINGS
(2016-2019)**

TWENTY SEVENTH REPORT

(Presented on 9th March, 2017)

**SECRETARIAT OF THE KERALA LEGISLATURE
THIRUVANANTHAPURAM**

2017

FOURTEENTH KERALA LEGISLATIVE ASSEMBLY

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TWENTY SEVENTH REPORT

On

**Transformers and Electricals Kerala Limited
(Based on the Report of the Comptroller and Auditor General
of India for the year ended 31 March, 2012)**

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COMMITTEE ON PUBLIC UNDERTAKINGS (2016-2019)

COMPOSITION OF THE COMMITTEE

Chairman :

Shri C. Divakaran.

Members :

Shri T. A. Ahammed Kabeer

Shri K. B. Ganesh Kumar

Shri C. Krishnan

Shri S. Rajendran

Shri Thiruvanchoor Radhakrishnan

Shri P. T. A. Rahim

Shri Raju Abraham

Shri Sunny Joseph

Shri C. F. Thomas

Shri P. Unni.

Legislature Secretariat :

Shri V. K. Babu Prakash, Secretary

Smt. P. K. Girija, Additional Secretary

Shri P. B. Suresh Kumar, Deputy Secretary

Smt. Deepa, V., Under Secretary.

INTRODUCTION

I, the Chairman, Committee on Public Undertakings (2016-2019) having been authorised by the Committee to present the report on its behalf, present this Twenty Seventh Report on Transformers and Electricals Kerala Limited, based on the report of the Comptroller and Auditor General of India for the year ended 31 March, 2012 relating to the Public Sector Undertakings of the State of Kerala.

The Report of the Comptroller and Auditor General of India for the year ended on 31st March 2012, was laid on the Table of the House on 18-2-2013. The consideration of the audit paragraphs included in this report and the examination of the departmental witness in connection thereto were made by the Committee on Public Undertakings constituted for the years 2014-2016.

This Report was considered and approved by the Committee (2016-2019) at its meeting held on 2-3-2017.

The Committee places on record its appreciation for the assistance rendered by the Accountant General (Audit) Kerala, in the examination of the audit paragraphs included in this report.

The Committee wishes to express thanks to the officials of the Industries Department of the Government Secretariat and the Transformers and Electricals Kerala Limited for placing the materials and information solicited in connection with the examination of the subject. The Committee also wishes to thank in particular the Secretaries to Government-Industries and Finance Departments-and the officials of the Transformers and Electricals Kerala Limited who appeared for evidence and assisted the Committee by placing their views before it.

Thiruvananthapuram,
9th March, 2017.

C. DIVAKARAN,
Chairman,
Committee on Public Undertakings.

REPORT
ON
TRANSFORMERS AND ELECTRICALS KERALA LIMITED
(TELK)

AUDIT PARAGRAPH-4.2.(2011-12)

Avoidable Loss

Reckoning the gross weight including the weight of Kraft paper as the weight of copper conductor returned after fabrication resulted in loss of ₹1.08 crore

Transformers and Electricals Kerala Limited (company) is engaged in the manufacture of Power Transformers and one of the major raw materials used in the process is Paper Covered Copper Conductor (PCC). Annual requirement of PCC is around 900 MT. The Company procures Continuous Cast Copper Wire rod from copper manufacturing companies and gets it converted into PCC by insulating with imported kraft paper on a weight to weight basis through fabricating contractors. During the fabrication process, copper rod is converted into rectangular conductors of specified sizes by drawing, rolling, annealing and covering with imported kraft paper of specified number of layers. After completing the process, the PCC is returned on a weight to weight basis, ie, for 100 kg. of copper rod supplied, the contractor returns 100 kg. of PCC to the Company. This indicated that the process does not involve any loss/wastage of copper.

During the scrutiny of the contractors for fabrication of PCC for the period 2010-11 and 2011-12 we noticed (December 2011) that while returning the finished product (PCC) on a weight to weight basis, for every 100 kg. of copper rod supplied, the contractor returned 100kg. of PCC including the weight of the kraft paper ranging from 0.9 to 9.04 per cent of PCC resulting in advantage to the contractor and loss to the Company. The Company thus lost ₹1.08 crore in respect of 1127.37MT¹³ of PCC consumed in the manufacture of 127 power transformers during 2010-2012.

The Company stated (July 2012) that when copper rods were converted into rectangular conductors there was scrap, the amount of which may vary on case to case basis. It was further added that there was no loss to the Company and even the notional profit/loss was minimal after considering a scrap of 3 per cent of which 60 per cent was saleable. Further, the contractors were not willing to change the prevailing practice and return 103 kg. of PCC for every 100 kg. of copper rod supplied. The Government endorsed (August 2012) the reply of the Company.

13 2010-11 (708.33MT) and 2011-12 (419.04 MT).

The reply was not correct as the supply condition of 'weight to weight basis' itself indicated that the process did not involve any loss. No scientific assessment as to copper scrap, if any, generated vis a vis the quantity of paper used and its cost implication was carried out by the company. The Management, however, admitted that the realisable price of scrap was only notional and not actual. On being pointed out (October 2011) by us, the Company took up the matter and the contractors offered a reduced rate of ₹ 6.80 per kg. towards conversion charges in the subsequent tender (November 2011) as against ₹ 9.35 per kg. charged for the past three years.

[Audit paragraph 4.2 contained in the report of the Comptroller and Auditor General of India for the year ended March 2012.]

Notes furnished by Government on Audit paragraph is given in Appendix II.

1. Regarding the Audit objections on the avoidable loss occurred by fabrication of paper covered copper conductors for making power transformer, the Committee observed that by assuming the practice of weight to weight policy for making of 127 power transformers, TELK suffered a loss of ₹1.08 crore in respect of 1127.37 MT of PCC for the period of 2010-2012. The Committee enquired the reason for not taking any steps to get back PCC on a weight to weight basis excluding the weight of paper.

2. The witness explained that, the practice of weight to weight has been a universal industrial practice and TELK also followed that policy because of the tough competition prevailing in the industry. He added that the fabricators were not willing to quote separately for paper and copper. Moreover, the rate for the PCC on an outright purchase basis from fabricators was found to be higher than the rate incurred for conversion basis. Because of all these, the Company was forced to purchase PCC from fabricators due to scarcity of CC copper wire rods in the market.

3. During the process of conversion there was scrap and it varied from case to case. The cost of imported kraft paper is ₹ 150/kg. and during 2010-11, 3% loss was occurred during the process after considering paper cost and overall there was no loss to the company.

4. The Committee wanted further explanation regarding the reduction in conversion surcharges. The Principal Secretary replied that, the agreement between the Company and fabricators was that the Company get 100 kg. of PCC for 100 kg. Copper and it includes 97 kg. of copper and 3 kg. of paper and there was no notional loss. When the Committee enquired about the legal sanctity of the practice of weight to weight policy, the witness replied that as it was considered as a universal industrial practice, it was nothing illegal and it could only be considered as a Civil Contract between the two parties.

5. Considering the above explanation from the Principal Secretary, the Committee decided to drop the audit paragraph.

Conclusions/Recommendations

6. Considering the clarifications given by the Principal Secretary, Industries during the deliberation, the Committee has arrived at the conclusion that the loss that occurred during the fabrication of copper rod is minimal and is justifiable while calibrating in accordance with the universal industrial practice. The Committee, therefore, decides to drop pursuing action with the audit paragraph.

Thiruvananthapuram,
9th March, 2017.

C. DIVAKARAN,
Chairman,
Committee on Public Undertakings.

APPENDIX I

SUMMARY OF MAIN CONCLUSIONS/RECOMMENDATIONS

Sl. No.	Para No.	Department Concerned	Conclusions/Recommendations
(1)	(2)	(3)	(4)
1	6	Industries Department	Considering the clarifications given by the Principal Secretary, Industries during the deliberation, the Committee has arrived at the conclusion that the loss that occurred during the fabrication of copper rod is minimal and is justifiable while calibrating in accordance with the universal industrial practice. The Committee, therefore, decides to drop pursuing action with the audit paragraph.

APPENDIX II

NOTES FURNISHED BY GOVERNMENT ON THE AUDIT PARAGRAPHS

Serial No.	Audit Paragraph	Reply furnished by Government						
1	2							
1	4.2	<p data-bbox="862 308 1362 408">The cost @ Rs.150/Kg for Kraft paper used for the three years 2010-11 and 2011-12 after loading paper scrap factor of 6.5% as informed to the company by the fabricators is as follows:-</p> <table border="1" data-bbox="977 431 1270 509"> <thead> <tr> <th>Year</th> <th>Rs.</th> </tr> </thead> <tbody> <tr> <td>2010-11</td> <td>30.93 Lakhs</td> </tr> <tr> <td>2011-12</td> <td>14.67 Lakhs</td> </tr> </tbody> </table> <p data-bbox="862 532 1362 930">The details are being attached as Annexure-A. The cost of Kraft paper used in TELK during the period averaged from Rs.85/- to Rs.100/-. It was also submitted that the Kraft paper used in TELK is of different thickness from the paper used by fabricator for covering purpose and the rates varies. The loss figure of 3% was based on an average percentage of paper replaced for copper and it has not been able to procure any scientific assessment as to copper scrap generated. But it has been informed by the fabricators that there is loss in the process and scrap exists. Bases on the above, there is no notional loss and infact, there is a notional profit in year 2010-11, after considering Paper cost and 3% process loss. The details are being attached as Annexure-B.</p>	Year	Rs.	2010-11	30.93 Lakhs	2011-12	14.67 Lakhs
Year	Rs.							
2010-11	30.93 Lakhs							
2011-12	14.67 Lakhs							

1	2	3
		<p>It was also submitted that the industry practice is on "weight to weight" basis is being followed by other Transformer manufacturers like BHEL, SEIMENS, CGL etc.</p> <p>Regarding Fabrication rates, it was submitted that negotiation on rates started much before the C&AG has pointed out this matter. Actually, the fabrication rates got reduced not only to TELK, but all over the industry due to increased competition. Presently, the rates have been further negotiated as an on going process and the fabricators have agreed to reduce rate of Rs.6.75/Kg. from Rs.6.80/Kg pointed out by the C&AG Audit.</p> <p>TELK also tried out right purchase of PCC from the fabricators in the context of non availability of CC copper rods in the market. The rate for PCC on out right purchase basis from fabricators is found to be higher than the rate incurred for conversion basis. For the month of April 2013, the rates for out right purchase for PCC quoted by M/s.KSH were Rs.450.42/Kg whereas the present rate on conversion basis was Rs.436.85/Kg. In the case of outright purchase also the fabricators are unwilling to quote separately for paper and copper and had quoted an all inclusive price. Considering the above the audit para may be dropped.</p>

ANNEXURE-A
2010-11

Customer	MVA	Voltage Class	MO No.	Conductor Specification	Qty of copper conductor (Kgs)	Weight % of Kull Paper (Kgs)	Weight of Copper required (Kg) after loading 3.5% paper core factor	Weighted average % of copper replaced for copper	Quantity (Nos)	Total Value of kull paper @ Rs.1000kg
AARMA	318	300	140184	15.5*3.5*1.78	7800.0	7.39	865.0			
				11.5*3.5*1.78	2217.0	4.19	250.0			
				13.5*3.5*2.42	7000.0	4.19	290.0			
				13.5*3.5*3.06	4600.0	4.19	200.0			
					18277.0		1380.0	3	39750.0	
MPL	280	240	140140	11.5*3.5*0.8	18000.0	1.11	2000.0			
				8.5*4*4.4	2000.0	4.95	18.0			
					19800.0		2018.0	1.9	1	36113.0
LAT Green	220	140183	11.5*3.5*0.8	2211.0	0.82	180.0				
				10.5*3.5*1.51	1000.0	2.0	200.0			
				10.5*3.5*1.52	4000.0	0.82	320.0			
				17251.0		380.0	4.0	2	30720.0	
DPPCO	180	220	140150	11.5*3.5*0.8	2710.0	1.19	310.0			
				10.5*3.5*1.52	7000.0	1.19	810.0			
				8.5*3.5*1.52	10500.0	2.02	210.0			
				10.5*3.5*2.4	7787.0	1.50	110.0			
				25817.0		1340.0	2.7	2	100000.0	
LAT Green	120	150	140140	11.5*3.5*0.8	9700.0	1.20	1150.0			
				11.5*3.5*1.52	1800.0	1.20	210.0			
				11.5*3.5*2.4	8700.0	1.20	105.0			
				10.5*3.5*1.52	2100.0	1.20	250.0			
				10.5*3.5*1.51	3000.0	1.20	360.0			
				22000.0		2330.0	2.0	0	60000.0	
DPPCO	100	220	140160	10.5*3.5*0.8	2000.0	1.20	240.0			
				10.5*3.5*1.52	6000.0	1.20	720.0			
				10.5*3.5*2.4	3000.0	1.20	360.0			
				14.0*3.5*3	700.0	2.04	84.0			
				17100.0		1344.0	1.0	10	60000.0	
Maha	80	150	140170	10.5*3.5*0.8	5000.0	1.20	600.0			
				10.5*3.5*1.52	2000.0	1.20	240.0			
				10.5*3.5*2.4	1000.0	1.20	120.0			
				8000.0		960.0	0.7	0	10000.0	
CORAL	80.4	150	120588	12.5*3.5*0.8	2070.0	1.02	210.0			
				12.5*3.5*1.52	1200.0	1.02	120.0			
				12.5*3.5*1.78	1200.0	1.02	120.0			
				4470.0		450.0	1.0	3	12197.0	
RUBB	20	110	120586	8.5*3.5*0.8	1800.0	1.20	216.0			
				8.5*3.5*1.52	2000.0	1.20	240.0			
				12.5*3.5*2.4	800.0	1.20	96.0			
				4600.0		552.0	1.0	4	60000.0	
DIAL	20	110	120586	8.5*3.5*0.8	1810.0	1.20	217.2			
				8.5*3.5*1.52	2000.0	1.20	240.0			
				11.5*3.5*3	1000.0	1.50	150.0			
				4810.0		607.2	4.7	2	7500.0	
LAT Green	20	150	120586	12.5*3.5*0.8	2210.0	1.39	305.4			
				11.5*3.5*0.8	2000.0	1.39	278.0			
				8.5*3.5*1.78	1000.0	1.39	139.0			
				5210.0		722.4	1.0	3	60000.0	
LAT Green	20	50	120587	12.5*3.5*0.8	3000.0	1.47	441.0			
				11.5*3.5*0.8	2100.0	1.39	291.0			
				8.5*3.5*1.78	588.0	2.01	114.0			
				5688.0		846.0	1.0	16	90000.0	
LAT Green	15	50	120587	10.5*3.5*0.8	2500.0	1.39	346.5			
				10.5*3.5*0.8	1810.0	1.39	251.4			
				12.5*3.5*1.78	570.0	2.10	100.8			
				4880.0		700.0	1.0	2	11000.0	
APR Green	10	50	120586	8.5*3.5*0.8	1200.0	1.18	141.6			
				12.5*3.5*1.78	600.0	2.30	138.0			
				1800.0		279.6	2.0	2	3100.0	
TOTAL							368516.4			368516.4

3/2/2017

ANNEXURE-B
2011-12

Customer	NEVA	Voltage Class	MO No.	Conductor Specification	Qty of copper consumed (Kgs)	LIME Cost of copper consumed per kg. (Rs)	Total cost of Copper consumed	Weight % of Kraft Paper	Weight of Paper consumed/Copper replaced (Kg) after loading 8.8% paper scrap factor	Weighted average % of copper replaced for copper	Quantity (Nos)	Total value of kraft paper @ Rs. 180/kg	Total scrap @ 3% of total copper used in Kgs	Salable scrap Kgs @ 80% of total scrap	Scrap realizable price @ 84% LIME	Cost after considering realizable scrap value and kraft paper cost	
					538.95	452.2	243683.2	1.28	87.9				182	87	28873		
APTRANS CO	315	400	140185	11.8*3.44+0.86 12.5*1+4.4	614.3	452.2	277788.46	1.28	7.7		1.3	24187.3	15	11	3250	34578	
					6823.25				39.8								
					2974.8	419.8	1242142.2	1.30	47.3					86	54	14375	
DTL NV	180	220	140158	14*2.8+0.85 8.5*1+4.4	323.1	411.11	133646.61	2.37	7.4		1.8	36263.4	10	6	1540	2351	
					3399.7				56.2								
					9174.3	478.5	4382378.7	1.49	136.7					275	185	50263	
S&Y Oman	126	532	140180	11.8*2.5+0.86 14*3.5+2.2 11.5*2*2.5+1.32 12*2*2.2+1.54	1062.7	474.5	5027518.34	1.81	34.3					67	34	10399	
					9110.6	473.8	4317513.3	3.21	282.0					273	164	48738	
					5415.8	476	2582626.6	3.85	130.0					162	81	18720	
					23484.3				832.8		2.7	284781.2					-102403
					782.4	484.4	377861.39	4.57	35.2					24	14	4230	
BGR	165	400	140186	8.5*2*1+1.78 10*2*2+1.78 10*2*2+1.42 10*2*2+1.88	1782	484.4	859268.39	4.57	30.1					63	32	8573	
					3002	484.4	1457280.51	5.32	126.6					60	38	10710	
					1098.5	484.4	525257.72	5.64	49.9		8.2	149754.3		31	19	5844	
					8882.7				347.3								86287
					937.4	484.3	453326.82	1.28	12.1					28	17	5238	
KREB	88.7	320	130189	7.5*3.5+0.86 14*3+1.32 14*3*2+1.32 14*3*2+2.84	2180.3	483.8	1058073.1	2.47	56.1					98	30	12453	
					1982.2	483.1	958333.13	2.34	48.7					80	28	11321	
					780.4	483.1	376746.34	4.74	37.8					24	14	4460	
					8843.3				180.1		2.7	284194.8					-108558
					4394	472.6	2078827.6	1.33	68.0					131	78	25727	
L&T Oman	50	132	120805	7*3.5+0.48 10*2+1.54 10*3.5+1.78	8847.1	472.5	4181189.5	4.37	288.4					309	125	37822	
					821.4	472.5	388288.82	3.2	28.5		3.4	133808.0		28	17	8824	
					12827.5				412.8								9524
					2218.7	412.5	915215.75	0.91	39.2					67	40	10543	
CORE	30.2	110	120588	12.5*3.7+0.48 11.8*3.5+0.45 8.5*3.5+1.78	2184.9	412.8	902021.26	0.9	18.3					86	35	8208	
					718.2	412.8	298020	3.28	23.2					21	13	3388	
					8888.8				87.9		1.3	28183.8					-42853
					2882.8	418.7	1208111.2	1.24	35.7					88	52	13828	
SC RLY	30.2	132	120818	10.5*3.2+0.86 8*2.5+1.84 15*3+1.84 13.5*4.5+2.2	2887.8	418.4	1207817.58	3.28	200.1					186	90	28511	
					1180.6	418.2	493884.48	2.84	42.7					48	27	7388	
					82.8	414.7	34171.78	3.86	1.8					2	1	281	
					3888.8				298.3		3.8	134281.2					9558
					2230.1	447.6	997970.64	0.81	20.9					87	40	11467	
L&T Oman	50	55	120807	12.5*2.7+0.48 11.8*2.8+0.48 8.5*3.5+1.78	1184.4	447.0	528382.89	0.8	18.5					85	38	11155	
					717.8	447.0	321064.245	3.28	23.3					22	13	3880	
					8112.8				87.2		1.8	282248.8					-471840
Orchid	18	110	120588	8.5*3.5+0.45	2918.7	484.8	1414888.8	0.8	26.3					88	63	8801	

ANNEXURE-B
2810-11

Customer	MVA	Voltage Class	MO No.	Conductor Specification	Qty of copper consumed (Kgs)	LME Cost of copper consumed/kg (Rs.)	Total cost of Copper consumed	Weight % of Kraft Paper Kgs	Weight of Paper consumed/Copper replaced (Kg) after loading 6.6% paper scrap factor	Weighted average % of copper replaced for copper	Quantity (Nos)	Total Value of Kraft paper @ Rs.150/kg	Total scrap @ 3% of total copper used in Kgs	Saleable scrap Kgs @ 50% of total scrap	Scrap realizable price @ 64% LME	Loss after considering realizable scrap value and kraft paper cost	
AREVA	315	400	140154	13*2.3+1.76	7604.9	376.26	2861343.6	7.37	560.5				228	137	32653		
				11*2.4+1.76	3337.9	376.26	1255864.8	4.18	139.9					100	60	14468	
				13*2.3+2.42	7488.85	383.85	2849623	5.77	432.1					225	135	33079	
				13*2.3+3.08	4948.1	382.35	1892895.7	4.18	206.9					148	89	21805	
					23378.85				1428.3	6.1	2	427900.6					204330
PGCL	250	240	140148	12*3-0.46	12036.8	366.56	4412622.1	1.7	204.7				361	217	50838		
				9.5*1+4	358.5	366.95	124579.83	4.46	15.1					10	6	1435	
					12378.3				234.1	1.9	1	36113.3					52271
LAT Oman	160	220	140153	9*4.2+3.96	2211	385.25	867567.75	6.82	150.8				68	40	8903		
				10.5*2.1+1.32	10648.2	348.15	4930579.8	3.6	383.2					328	197	49342	
				10.5*2.2+1.20	4079.7	367.85	1500717.8	5.68	238.9					122	73	17288	
				17238.9						824.2	4.8	3	247348.4		101200		
MPPCL	165	220	140150	11*3.5+0.46	2718.9	379.85	1032774.2	1.15	31.3				62	49	11886		
				15.5*2.1+1.32	7623.8	377.28	2878078.8	2.56	195.2					229	137	33132	
				8.3*3.5+1.32	10581.6	368.65	3632541.7	2.42	251.5					312	197	44155	
				15.5*2.8+2.2	2787.4	375.55	1056170.3	4.29	119.8					84	50	12156	
				23629.7						636.3	2.7	2	190889.0		282532	-11780	
LAT Oman	125	132	140149	11.5*2.5+0.66	9186.7	337.55	3100870.6	1.49	136.9				276	165	36723		
				14*3.5+2.2	1897.1	337.35	640368.11	3.96	66.4					57	34	7377	
				11.5*2.3+0.66	5773.7	336.55	1959459.8	1.59	91.8					173	104	22584	
				10.5*2.2.5+0.98	3183.9	338.85	1084469.7	2.93	64.8					96	57	12493	
				13*2.2+1.54	3515.4	339.95	1193654.1	3.69	138.2					105	63	13751	
				23966.8						633.7	2.3	6	640417.3		735431	-95014	
RRVPL	100	220	130188	10.5*3.3+0.46	2656	292.05	775944.8	1.22	32.4				90	48	8936		
				15.5*2.7+1.32	8453.1	283.15	2393495.3	2.64	223.2					264	152	27573	
				15.5*2.7+2.2	5021.4	283.18	1665068.41	4.42	133.5					81	54	9855	
				14*3.7+3.3	2321.2	292.05	679068.48	5.34	124.0					70	42	7809	
					719.4	243.45	172946.68	2.84	18.8					21	13	1642	
				17182.1						866.4	3.3	10	149578.5		861663	287910	
Beimont	80	132	130167	13.5*2.8+0.46	5900.1	333.05	1965002.6	1.36	83.3				180	108	22682		
				16*3+2.2	1333.75	334.35	445839.31	3.93	52.4					40	24	5137	
				10.5*2.2+1.13	8278.8	334.38	2787348.1	3.03	250.8					248	149	31880	
					1053.7	336.56	354822.74	3.03	31.9					32	19	4083	
				18864.36						446.6	2.7	2	133678.5		128170	6507	
CORE	30.2	110	120066	14*3.3+0.46	2378.7	375.85	89374.77	1.52	36.2				71	43	10186		
				16*2.5+1.78	4487.8	376.85	1687299.2	4.16	186.4					134	80	19092	
				14*3.3+1.76	1432.9	376.85	531534.28	3.06	43.8					43	26	8123	

				8278.3				282.7	3.4	3	127187.0		106140	2.06
QSEB	25	130585	9°2'3+0.88	1877.6	358.55	714910.13	1.44	28.5				59	36	8151
			9°2'1+1.32	2386.4	358.55	858280.12	3.83	86.6				72	43	9652
			12°4.5+2.2	417.8	358.55	222129.98	3.17	18.6				19	11	2569
				4981.7				143.4	2.9	4	89064.7			82637
QIAL	20	120482	8°2'8-0.98	1814.8	357.18	848182.80	5.34	80.6				54	33	7457
			9°2'+1.54	2250.65	357.18	814862.85	4.30	111.2				77	46	10494
			11°2'+2.84	782.35	358.25	282224.88	7.29	97.8				24	14	3252
				6167.8				344.6	4.7	2	73382.4			42428
LAT Oman	20	132	120590	12.5°2.7+0.46	2218.7	374.35	830670.35	1.87				67	40	8558
					2160.3	374.35	808708.31	1.35				65	39	9316
					713.8	375.35	257924.83	2.00				21	15	3085
				6982.8				78.7	1.6	5	89033.7			908828
LAT Oman	20	33	120587	12.5°2.7+0.46	2203.3	368.55	814228.52	1.87				68	40	9380
					2193.3	367.55	792091.41	1.35				65	38	9125
					588.7	367.05	205328.14	2.01				17	10	2388
				4826.3				76.3	1.8	18	183380.4			313063
LAT Oman	15	33	120667	10.8°2.4+0.86	2328.4	405.05	843118.22	1.57				78	42	10685
					1818.4	405.05	730542.82	1.19				65	39	8485
					377.9	405.05	153068.4	2.78				11	7	1783
				4524.7				72.8	1.8	2	21781.4			42228
AHE Oman	10	33	120592	8°1'2.2+0.48	1291.6	349.85	451886.28	1.75				38	28	5205
					987.7	349.85	349045.36	1.27				30	18	4021
					303.3	349.85	157689.01	3.58				12	7	1585
				2682.6				62.6	2.0	4	31862.3			43248

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