1	Q.	Project C-64: Replace Aircraft Markers at Grand Lake Crossing - TL228 (Grand
2		Lake/Glover Island)
3		Volume I, Tab C, pages C-64 to C-65, cites Appendix, "Replace Aircraft Obstruction
4		Lighting" found in Volume III, Tab 20. On page 5 of this Appendix, it notes that since
5		1993, preventative and corrective maintenance has been performed, as required on
6		the existing marker systems. Please provide log of maintenance history for the
7		existing marker systems.
8		
9		
10	A.	The historical maintenance logs for the Grand Lake Crossing aircraft marker system
11		can be found in IC-NLH-032 Attachment 1.1

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 $^{^{\}rm 1}$ Maintenance queries are not generated in chronological order.

9/17/2015		Work Order Description & Actual Wo	IC-NLH-032, Attachment 1 Page: Page 1 of 29, NLH 2016 CBA		1
		s	Supervisor: SVL Station Mtce Dept		
WO#	Comp. Date	Description/Actual Work	Item Description	St	Pri
810038	9/7/2012		SOLAR SITE #1, LONG SPAN WEST	80	3
		REPLACE TWO BATTERIES IN SOLAR CABINET. BATTERIES FAILED. RECOMMEND CHANGING ENTIRE BANK AS THIS IS THE ONLY SITE WITH ORIGINAL BATTERIES.			
		SITE #1 NOT WORKING. INSTALLED TWO 12V DEEP CYCLE 115AH MARINE BATTERIES. THIS IS TEMPORARY UNTIL PROPER REPLACEMENT. COMPLETED BY: D. STIRLING/T. KEOUGH/P. CURTIS COMPLETED DATE: 12-09-07			
876634	11/23/2011		SOLAR SITE #1, LONG SPAN WEST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 1			
		LIGHT NOT WORKING. VOLTAGE TOO LOW ON BATTERY TO OPERATE CONTROLLER. BATTERY NEEDS TO BE REPLACED. FIVE CELLS LESS THAN TWO VOLTS. TWO OF THEM LESS THAN 1 VDC .6VDC, .9VDC. COMPLETED BY: T. KEOUGH/S. ROSE COMPLETED DATE: 11-11-23			
883932	1/11/2012		SOLAR SITE #1, LONG SPAN WEST	80	2
		GLE,SOLAR site replace battery's replace batterys found damaged during annual pm inspection tower lts not working.			

9/17/2015		Work Order Description & Actual W	IC-NLH-032, Attachment 1 Page: Ork Page 2 of 29, NLH 2016 CBA		2
			Supervisor: SVL Station Mtce Dept		
932765	9/6/2012		SOLAR SITE #1, LONG SPAN WEST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 1			
		UNABLE TO PERFORM PM DUE TO LOW BATTERY VOLTAGE 8.5 VOLTS (24 VOLTS REQUIRED). PURCHASED/INSTALLED TWO NEW DEEP CYCLE 12V MARINE BATTERIES. REPLACED MERCURY CONTACTOR AND PHOTOCELL. SITE #1 WORKING OK. ONE SIEMENS 60W PANEL BROKEN, VOLTAGE OUTPUT OK. COMPLETED BY: D. STIRLING/T. KEOUGH/P. CURTIS COMPLETED DATE: 12-09-07			
1000070	10/10/2013		SOLAR SITE #1, LONG SPAN WEST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 1			
		COMPLETED ALL CHECKS AS PER ATTACHED INSPECTION FORMS. NEED NEW BATTERY BANK. SITE WORKING ON TWO 12VDC MARINE BATTERIES. SITE WORKING OK. COMPLETED BY: D. STIRLING/T. KEOUGH/S. ROSE COMPLETED DATE: 13-10-10			
1072177	11/6/2014		SOLAR SITE #1, LONG SPAN WEST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 1			
		TRAVELLED TO SITE #1 TO FIND BATTERY VOLTAGE AT 7 VOLTS. REMOVED FROM SERVICE AND INSTALLED TWO NEW NAPA DEEP CYCLE BATTERIES, SERIAL #021190. PUT IN SERVICE. NIGHT LIGHT WORKING IN NIGHT MODE BUT NOT IN DAY MODE.			

9/17/2015		Work Order Description & Actual Work	IC-NLH-032, Attachment 1 Page: Page 3 of 29, NLH 2016 CBA		3
		Supe	rvisor: SVL Station Mtce Dept		
		NEEDS NEW DC CONVERTER BOARD. COMPLETED BY: S. ROSE/D. STAPLETON COMPLETED DATE: 14-11-06			
1116967	5/1/2015	SOL	AR SITE #1, LONG SPAN WEST	80	3
		GLE SOLAR SITE BEACON LT Beacon tower light not working,repalce charge boards			
		TRAVELLED TO SITE #1 TO FIND FLASH HEAD NOT WORKING. VOLTAGE TEST ON BATTERY BANK SHOWED 11.3 VDC WITH ARRAYS OPENED. CHANGED OUT BATTERIES WITH TWO NEW. COMPLETED BY: S. ROSE/T. KEOUGH COMPLETED DATE: 15-05-01			

9/17/2015		Work Order Description & Actual Work	IC-NLH-032, Attachment 1 Page: Page 4 of 29, NLH 2016 CBA		1
		Se	upervisor: SVL Station Mtce Dept		
WO#	Comp. Date	Description/Actual Work	Item Description	St	Pri
11448	4/5/2000	•	SOLAR SITE #1, LONG SPAN WEST	90	3
		STORAGE CABINET, CONSTRUCT FOR SOLAR SITE. 10138 - Reported by: MATERIALS REQUIRED: ONE 24 D.C. PHOTOCELL.			
		COMPLETED BY R. COMPTON.			
11459	3/21/2000	5	SOLAR SITE #1, LONG SPAN WEST	90	3
		SC-PVL CONTROLLER, MODIFY. REPLACE COMPONENTS IN CONTROLLER AS PER DRAWINGS AND INSTRUCTIONS FROM NORTHERN PORT 10161 - Reported by: TRADES CODE: EM-A, REQ. 2, EST. HOURS: 4. REFER TO SOLS MANUAL AND NORTHERN POWER SCHEMATICS & INSTRUCTIONS. MATERIALS & PARTS: WIRE AS REQUIRED. SPECIAL TOOLS & EQUIPMENT: PROPANE SOLDERING IRON, MODIFY SPARE BOARD AT S'VILLE, SET UP SHOP AT CAMP, CHANGE ONE SITE WITH MODIFIED BOARD, BRING REMAINING BOARDS TO CAMP FOR MODE ATION, AND REINSTALL AND CHANGE WIRING.	C		

COMPLETED BY R. COOK/G. HILLIER.

9/17/2015		Work Order Description & Actual Wo	IC-NLH-032, Attachment 1 Page: Page 5 of 29, NLH 2016 CBA		2
		Supervisor: SVL Station Mtce Dept			
338369	6/14/2004		SOLAR SITE #1, LONG SPAN WEST	90	3
		GLE,DIODES/RESISTORS,INSTALL HELICOPTER NOT REQUIRED TO ACCESS SITES.			
428347	4/28/2006		SOLAR SITE #1, LONG SPAN WEST	90	3
		GLE,DIODE BOARD,REPLACE REPLACE DIODE BOARD IN FLASH GUARD CABINET.			
		REPLACED GLE DIODE BOARD. COMPLETED BY: T.KEOUGH COMPLETED DATE: 06-04-28			
428348	4/28/2006		SOLAR SITE #1, LONG SPAN WEST	90	3
		GLE,HIGH VOLTAGE CABLE,REPAIR 1. INSTALL JUNCTION BOX ON STRUCTURE 2. TERMINATE EXISTING CABLE IN BOX 3. INSTALL 1" CONDUIT FROM BOX TO CABINET 4. INSTALL AND TERMINATE NEW CABLE			
		REPLACED HIGH VOLTAGE CABLE. COMPLETED BY: T.KEOUGH/D.STIRLING COMPLETED DATE: 06-04-28			
507450	4/28/2006		SOLAR SITE #1, LONG SPAN WEST	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 1,LONG SPAN WEST CROSSING.			
		COMPLETED GLE SOLAR ANNUAL PM INSPECTION. COMPLETED BY: T.KEOUGH/D.STIRLING COMPLETED DATE: 06-04-28			

9/17/2015		Work Order Description & Actual Wo	IC-NLH-032, Attachment 1 Page: Page 6 of 29, NLH 2016 CBA		3
			Supervisor: SVL Station Mtce Dept		
530262	8/22/2007		SOLAR SITE #1, LONG SPAN WEST	90	4
		GLE,REPLACE PHOTO CELL			
		INSTALLED NEW 24V RELAY ALONG WITH PHOTO CELL TO ACCOMMODATE FOR HIGH SWITCHING CURRENTS. COMPLETED BY: D. STIRLING/T. PARK COMPLETED DATE: 07-08-22			
601532	8/22/2007		SOLAR SITE #1, LONG SPAN WEST	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 1			
		COMPLETED CHECKS AS PER INSPECTION FORMS. INSTALLED NEW 24V RELAY IN DAY/NIGHT SWITCHING CIRCUIT. COMPLETED BY: D. STIRLING/T. PARK COMPLETED DATE: 07-08-22			
658623	6/28/2008		SOLAR SITE #1, LONG SPAN WEST	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 1			
		COMPLETED PM INSPECTION. COMPLETED BY: T. KEOUGH/M. CANNING/S. ROSE COMPLETED DATE: 08-06-28			
720306	6/19/2009		SOLAR SITE #1, LONG SPAN WEST	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			

9/17/2015	i	Work Order Description & Actual Work	IC-NLH-032, Attachment 1 Page: Page 7 of 29, NLH 2016 CBA		4
		Supe	rvisor: SVL Station Mtce Dept		
		2. SOLAR SITE # 1			
		COMPLETED PM INSPECTION.			
		COMPLETED BY: D. STIRLING/M. CANNING			
		COMPLETED DATE: 09-06-19			
784601	10/27/2010	SOL	AR SITE #1, LONG SPAN WEST	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 1			
		COMPLETED PM INSPECTION. JARS 10 AND 12 HAVE FAILED.			
		REPLACED PHOTOCELL. NEW ONE NOT WORKING EITHER. SITE			
		LEFT IN NIGHT MODE BUT WORKING.			
		COMPLETED BY: D. STIRLING/T. KEOUGH/S. ROSE			
		COMPLETED DATE: 10-10-14			

9/17/20	15	Work Order Description & Actual Wo	IC-NLH-032, Attachment 1 Page: Page 8 of 29, NLH 2016 CBA		1
			Supervisor: SVL Station Mtce Dept		
WO#	Comp. Date	Description/Actual Work	Item Description	St	Pri
876635	11/23/2011		SOLAR SITE #2, LONG SPAN EAST.	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 2,LONG SPAN EAST CROSSING.			
		HALF THE SOLAR PANELS NOT WORKING.			
		COMPLETED BY: T. KEOUGH/S. ROSE			
		COMPLETED DATE: 11-11-23			
932763	9/6/2012		SOLAR SITE #2, LONG SPAN EAST.	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 2,LONG SPAN EAST CROSSING.			
		SITE WORKING IN DAY MODE ONLY. TWO 20 AMP FUSES			
		BLOWN IN PV ARRAYS (REPLACED). TWO BATTERIES NEED			
		TO BE REPLACED. SITE REQUIRES FIRST AID KIT.			
		COMPLETED BY: D. STIRLING/S. ROSE/T. KEOUGH			
		COMPLETED DATE: 12-09-07			
1000071	10/10/2013		SOLAR SITE #2, LONG SPAN EAST.	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 2,LONG SPAN EAST CROSSING.			
		COMPLETED PM INSPECTION ON SITE #2. REPLACED PHOTOCELL. SITE WORKING OK.			
		COMPLETED BY: D. STIRLING/T. KEOUGH/S. ROSE			

COMPLETED DATE: 13-10-11

9/17/2015	;	Work Order Description & Actual Work	IC-NLH-032, Attachment 1 Page: Page 9 of 29, NLH 2016 CBA		2
		Supe	rvisor: SVL Station Mtce Dept		
1072175	11/6/2014	SOL	AR SITE #2, LONG SPAN EAST.	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 2,LONG SPAN EAST CROSSING.			
		TRAVELLED TO SITE #3 AND FOUND NO LIGHT WORKING ON TOWER.			
		OPENED CABINET AND FOUND ONE BATTERY TERMINAL COMPLETELY			
		CORRODED OFF. MANAGED TO GET A JUMPER TO CONTINUE POWER			
		ON AND CHANGED A SETTING ON THE TRIGGER BOARD AND LIGHT			
		WORKS GREAT.			
		COMPLETED BY: S. ROSE/D. STAPLETON			
		COMPLETED DATE: 14-11-05			

9/17/2015		Work Order Description & Actua	IC-NLH-032, Attachment 1 Page: Page 10 of 29, NLH 2016 CBA		1
			Supervisor: SVL Station Mtce Dept		
WO#	Comp. Date	Description/Actual Work	Item Description	St	Pri
11446	4/5/2000		SOLAR SITE #2, LONG SPAN EAST.	90	3
		PHOTOCELL, SOLAR LIGHT, REPLACE. 10136 - Reported by: MATERIALS REQUIRED: ONE 24 D.C. PHOTOCELL			
		1. REPLACE PHOTOCELL. 2. CHECK OPERATION OF SYSTEM.			
		COMPLETED BY R. COOK/R. COMPTON.			
11447	4/5/2000		SOLAR SITE #2, LONG SPAN EAST.	90	3
		FIRST AID KIT, REPLENISH SUPPLIES. PLACE SPARE PHOTOCELL IN CABINET. 10137 - Reported by: MATERIALS REQUIRED: ONE CPR RESUE BREATHER, ONE PAIR SURGICAL GLOVES, AND ONE 24 D.C. PHOTOCELL.			
		1. ON NEXT TRIP TO SITE PLACE ABOVE ITEMS IN FIRST AID KIT AND PLACE SPARE PHOTOCELL IN CABINET.			
		COMPLETED BY R. COMPTON.			
11449	4/5/2000		SOLAR SITE #2, LONG SPAN EAST.	90	3
		STORAGE CABINET, CONSTRUCT FOR SOLAR SITE. 10139 - Reported by: MATERIALS REQUIRED: ONE 24 D.C. PHOTOCELL.			

9/17/20	15	Work Order Description & Actual Wo	IC-NLH-032, Attachment 1 Page: Page 11 of 29, NLH 2016 CBA		2
		S	Supervisor: SVL Station Mtce Dept		
		1. CONSTRUCT OR OBTAIN STORAGE CABINET TO STORE ITEMS INSIDE THE SITE CABINETS. 2. MOUNT CABINETS USING HOLLOW WIRE ANCHORS TO RIGHT SIDE OF CABINET. 3. ITEMS TO BE STORED ARE MANUAL, FIRST AID KIT, AND SPARE PHOTOCELL.			
		COMPLETED BY R. COMPTON.			
11460	3/21/2000		SOLAR SITE #2, LONG SPAN EAST. 9	0	3
		SC-PVL CONTROLLER, MODIFY. REPLACE COMPONENTS IN CONTROLLER AS PER DRAWINGS AND INSTRUCTIONS FROM NORTHERN P 10162 - Reported by: TRADES CODE: EM-A, REQ. 2, EST. HOURS: 4. REFER TO SOLS MANUAL AND NORTHERN POWER SCHEMATICS & INSTRUCTIONS. MATERIALS & PARTS: WIRE AS REQUIRED. SPECIAL TOOLS & EQUIPMENT: PROPANE SOLDERING IRON, MODIFY SPARE BOARD AT S'VILLE, SET UP SHOP AT CAMP, CHANGE ONE SITE WITH MODIFIED BOARD, BRING REMAINING BOARDS TO CAMP FOR MODE ATION, AND REINSTALL AND CHANGE WIRING.	PC		
301945	4/22/2003		SOLAR SITE #2, LONG SPAN EAST. 9	0	2
		GRAND LAKE CROSSING,TL228,SOLAR LIGHT,REPAIR HELICOPTER REQUIRED FOR TRANSPORTATION TO SITE			
		INSTALLED TEMPORARY BATTERY BANK. PARALLELED WITH EXISTING BANK TO INCREASE CAPACITY. COMPLETED BY: R.COOK/T.KEOUGH COMPLETED DATE: 03-04-22			

9/17/201	5	Work Order Description & Actual Wo	IC-NLH-032, Attachment 1 Page: Page 12 of 29, NLH 2016 CBA		3
		•	Supervisor: SVL Station Mtce Dept		
336688	9/28/2004		SOLAR SITE #2, LONG SPAN EAST.	90	2
		GRAND LAKE CROSSING,TL228,SOLAR LIGHT,REMOVE OLD BATTERY AND REPLACE WITH NEW			
		INSTALLED TEMPORARY BATTERY BANK. PARALLELED WITH EXISTING BANK TO INCREASE CAPACITY. COMPLETED BY: R.COOK/T.KEOUGH COMPLETED DATE: 03-04-22 INSTALLED NEW BATTERY. COMPLETED BY: E/M WEST CREW COMPLETED DATE: 04-09-28			
428345	10/29/2004		SOLAR SITE #2, LONG SPAN EAST.	90	3
		GLE,PV-HVD RELAY,INSTALL HELICOPTER REQUIRED			
		INSTALLED RELAY. COMPLETED BY: R. COOK/T. PARK			
507452	4/28/2006		SOLAR SITE #2, LONG SPAN EAST.	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		2. SOLAR SITE # 2,LONG SPAN EAST CROSSING.			
		COMPLETED GLE SOLAR ANNUAL PM INSPECTION. COMPLETED BY: T.KEOUGH/D.STIRLING COMPLETED DATE: 06-04-28			
582683	8/20/2007		SOLAR SITE #2, LONG SPAN EAST.	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			

9/17/2015	i	Work Order Description & Actual Wo	IC-NLH-032, Attachment 1 Page: Page 13 of 29, NLH 2016 CBA	4
			Supervisor: SVL Station Mtce Dept	
		2. SOLAR SITE # 2,LONG SPAN EAST CROSSING.		
		COMPLETED CHECKS ARE PER INSPECTION FORMS. PHOTO CELL NOT WORKING. COMPLETED BY: D. STIRLING/T. PARK COMPLETED DATE: 07-08-20		
658624	6/27/2008		SOLAR SITE #2, LONG SPAN EAST. 90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.		
		2. SOLAR SITE # 2,LONG SPAN EAST CROSSING.		
		COMPLETED PM INSPECTION. COMPLETED BY: T. KEOUGH/M. CANNING/S. ROSE COMPLETED DATE: 08-06-27		
720307	6/19/2009		SOLAR SITE #2, LONG SPAN EAST. 90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.		
		2. SOLAR SITE # 2,LONG SPAN EAST CROSSING.		
		COMPLETED PM INSPECTION. COMPLETED BY: D. STIRLING/M. CANNING COMPLETED DATE: 09-06-19		
784602	10/27/2010		SOLAR SITE #2, LONG SPAN EAST. 90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.		
		2. SOLAR SITE # 2,LONG SPAN EAST CROSSING.		
		COMPLETED ANNUAL PM INSPECTION. SITE IN GOOD WORKING ORDER. COMPLETED BY: D. STIRLING/T. KEOUGH/S. ROSE		

9/17/2015

Work Order Description & Actual Work

Supervisor: SVL Station Mtce Dept

COMPLETED DATE: 10-10-14

9/17/2015		Work Order Description & Actual W	IC-NLH-032, Attachment 1 Page: Ork Page 15 of 29, NLH 2016 CBA		1
			Supervisor: SVL Station Mtce Dept		
WO#	Comp. Date	Description/Actual Work	Item Description	St	Pri
784603	11/23/2011		SOLAR SITE #3, SHORT SPAN WEST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 3,SHORT SPAN WEST CROSSING.			
		COMPLETED PM INSPECTION. COMPLETED BY: T. KEOUGH/S. ROSE COMPLETED DATE: 11-11-23			
932764	9/6/2012		SOLAR SITE #3, SHORT SPAN WEST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 3,SHORT SPAN WEST CROSSING.			
		PERFORMED PM ON SITE #3. ONLY TWO PV ARRAYS WERE WORKING DUE TO THEFT. MANAGED TO REPAIR ANOTHER GROUP OF PV ARRAYS CIRCUIT. CHANGED PHOTO CELL SYSTEM. KEEPS GOING ON LVD. THREE PV CIRCUITS WORKING. SHOULD			
		BE ABLE TO MAINTAIN SYSTEM. COMPLETED BY: D. STIRLING/T. KEOUGH/S. ROSE COMPLETED DATE: 12-09-06			
1000072	10/10/2013		SOLAR SITE #3, SHORT SPAN WEST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 3,SHORT SPAN WEST CROSSING.			
		COMPLETED SOLAR ANNUAL INSPECTION. NEED TO RE-VISIT SITE ARRAY CIRCUIT #3 DISCONNECTED. REPLACED PHOTOCELL. SITE LEFT IN NIGHT MODE. DIODE BOARD BURNT OUT, NO			

9/17/2015		Work Order Description & Actual Wo	IC-NLH-032, Attachment 1 Page: Page 16 of 29, NLH 2016 CBA		2
			Supervisor: SVL Station Mtce Dept		
		SPARES. COMPLETED BY: D. STIRLING/T. KEOUGH/S. ROSE COMPLETED DATE: 13-10-11			
1072179	11/6/2014		SOLAR SITE #3, SHORT SPAN WEST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 3,SHORT SPAN WEST CROSSING.			
		SITE WORKING GOOD. COMPLETED BY: S. ROSE/D. STAPLETON COMPLETED DATE: 14-11-06			

9/17/20	15	Work Order Description & Actual Wo	IC-NLH-032, Attachment 1 Page: Page 17 of 29, NLH 2016 CBA		1
		•	Supervisor: SVL Station Mtce Dept		
WO#	Comp. Date	Description/Actual Work	Item Description	St	Pri
490101	4/27/2006		SOLAR SITE #3, SHORT SPAN WEST	90	3
		INVESTIGATE AND REPAIR HVD RELAY ON SITE #3 GRAND LAKE LIGHTS. VOLTAGE NOT REGULATED ON BATTERY WHEN THREE CIRCUITS ARRAYS (SOLAR PANEL) ENTER INTO CHARGING CURRENTS.			
		COMPLETED GLE SOLAR #3 HVD RELAY. COMPLETED BY: T.KEOUGH/D.STIRLING COMPLETED DATE: 06-04-27			
522385	4/27/2006		SOLAR SITE #3, SHORT SPAN WEST	90	4
		GLE,REPLACE BATTERY BANK			
		INSTALLED GNB 12 CELL BATTERIES, SITE #3. OLD BATTERIES DISPOSED OF AT K & J METALS. COMPLETED BY: T. KEOUGH/D. STIRLING COMPLETED DATE: 06-04-27			
507454	4/27/2006		SOLAR SITE #3, SHORT SPAN WEST	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 3,SHORT SPAN WEST CROSSING.			
		COMPLETED GLE SOLAR ANNUAL PM INSPECTION. COMPLETED BY: T.KEOUGH/D.STIRLING COMPLETED DATE: 06-04-27			
582684	8/22/2007		SOLAR SITE #3, SHORT SPAN WEST	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			

9/17/2015	5	Work Order Description & Actual W	IC-NLH-032, Attachment 1 Page: Page 18 of 29, NLH 2016 CBA		2
			Supervisor: SVL Station Mtce Dept		
		1. SOLAR SITE # 3,SHORT SPAN WEST CROSSING.			
		COMPLETED INSPECTIONS AS PER INSPECTION FORMS. LEFT IN NIGHT MODE TO SAVE BATTERY LIFE. PHOTO CELL NOT WORKING. THREE PV PANELS MISSING. BATTERIES NOT RECEIVING PROPER CHARGE. COMPLETED BY: T. PARK/D. STIRLING COMPLETED DATE: 07-08-22			
658626	6/28/2008		SOLAR SITE #3, SHORT SPAN WEST	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 3,SHORT SPAN WEST CROSSING.			
		COMPLETED PM INSPECTION. COMPLETED BY: T. KEOUGH/M. CANNING/S. ROSE COMPLETED DATE: 08-06-28			
720308	6/19/2009		SOLAR SITE #3, SHORT SPAN WEST	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 3,SHORT SPAN WEST CROSSING.			
		COMPLETED ANNUAL PM INSPECTION. COMPLETED BY: D. STIRLING/M. CANNING COMPLETED DATE: 09-06-19			
11450	4/5/2000		SOLAR SITE #3, SHORT SPAN WEST	90	3
1450		STORAGE CABINET, CONSTRUCT FOR SOLAR SITE. 10140 - Reported by: MATERIALS REQUIRED: ONE 24 D.C. PHOTOCELL.			

9/17/2015	Work Order Description & Actual Work C-NLH-032, Attachment 1 Page: 3 Page 19 of 29, NLH 2016 CBA Page 19 of 29, NLH 201
	Supervisor: SVL Station Mtce Dept
	 CONSTRUCT OR OBTAIN STORAGE CABINET TO STORE ITEMS INSIDE THE SITE CABINETS. MOUNT CABINETS USING HOLLOW WIRE ANCHORS TO RIGHT SIDE OF CABINET. ITEMS TO BE STORED ARE MANUAL, FIRST AID KIT, AND SPARE PHOTOCELL.
	COMPLETED BY R. COMPTON.

9/17/2015		Work Order Description & Actual W	IC-NLH-032, Attachment 1 Page: Page 20 of 29, NLH 2016 CBA		1
			Supervisor: SVL Station Mtce Dept		
WO#	Comp. Date	Description/Actual Work	Item Description	St	Pri
876636	11/23/2011		SOLAR SITE #4, SHORT SPAN EAST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.			
		COMPLETED PM INSPECTION. COMPLETED BY: T. KEOUGH/S. ROSE COMPLETED DATE: 11-11-23			
932766	9/6/2012		SOLAR SITE #4, SHORT SPAN EAST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.			
		SITE NOT WORKING. REPLACED DIODE BOARD AND PHOTOCELL. ALSO, REPLACED THREE 20 OHM RESISTORS. COMPLETED BY: D. STIRLING/S. ROSE/T. KEOUGH COMPLETED DATE: 12-09-05			
1000073	10/10/2013		SOLAR SITE #4, SHORT SPAN EAST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.			
		PERFORMED PM INSPECTION ON SOLAR SITE #4. REPLACED PHOTOCELL. SITE WORKING OKAY. COMPLETED BY: D. STIRLING/T. KEOUGH/S. ROSE COMPLETED DATE: 13-10-11			

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		Supo	ervisor: SVL Station Mtce Dept		
1072180	11/5/2014	SO	LAR SITE #4, SHORT SPAN EAST	80	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.			
		SITE ONLY WORKING IN NIGHT. BOARD SEEMS TO BE DC CONVERTER BOARD FAULTY. COMPLETED BY: S. ROSE/D. STAPLETON COMPLETED DATE: 14-11-06			

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			Supervisor: SVL Station Mtce Dept			
WO#	Comp. Date	Description/Actual Work	Item Description	St	Pri	
507455	4/28/2006		SOLAR SITE #4, SHORT SPAN EAST	90	3	
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.				
		1. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.				
		COMPLETED GLE SOLAR ANNUAL PM INSPECTIONS.				
		COMPLETED BY: T.KEOUGH COMPLETED DATE: 06-04-28				
582685	8/22/2007		SOLAR SITE #4, SHORT SPAN EAST	90	3	
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.				
		1. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.				
		COMPLETED CHECKS AS PER INSPECTION FORMS. PHOTO CELL				
		NOT WORKING. UNIT LEFT IN DAY MODE.				
		COMPLETED BY: D. STIRLING/T. PARK				
		COMPLETED DATE: 07-08-27				
658627	6/26/2008		SOLAR SITE #4, SHORT SPAN EAST	90	3	
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.				
		1. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.				
		COMPLETED PM INSPECTION.				
		COMPLETED BY: M. CANNING/T. KEOUGH/S. ROSE				
		COMPLETED DATE: 08-06-26				

SOLAR SITE #4, SHORT SPAN EAST

90

3

6/19/2009

720309

9/17/201	5	Work Order Description & Actual Wo	IC-NLH-032, Attachment 1 Page: Page 23 of 29, NLH 2016 CBA		2
			Supervisor: SVL Station Mtce Dept		
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.			
		COMPLETED PM INSPECTION. COMPLETED BY: D. STIRLING/M. CANNING COMPLETED DATE: 09-06-19			
784604	10/27/2010		SOLAR SITE #4, SHORT SPAN EAST	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.			
		REPLACED PHOTOCELL, DIODE BOARD. SIX SOLAR PANELS NEED TO BE REPLACED. NO FIRST AID KIT ON SITE. SITE WORKING OK. COMPLETED BY: D. STIRLING/T. KEOUGH/S. ROSE COMPLETED DATE: 10-10-14			
11451	4/5/2000		SOLAR SITE #4, SHORT SPAN EAST	90	3
		STORAGE CABINET, CONSTRUCT FOR SOLAR SITE. 10141 - Reported by: MATERIALS REQUIRED: ONE 24 D.C. PHOTOCELL. 1. CONSTRUCT OR OBTAIN STORAGE CABINET TO STORE ITEMS INSIDE THE SITE CABINETS. 2. MOUNT CABINETS USING HOLLOW WIRE ANCHORS TO RIGHT SIDE OF CABINET. 3. ITEMS TO BE STORED ARE MANUAL, FIRST AID KIT, AND SPARE PHOTOCELL.			
		COMPLETED BY R. COMPTON.			

9/17/201	15	Work Order Description & Actual Work	IC-NLH-032, Attachment 1 Page: Page 24 of 29, NLH 2016 CBA		3
		Supervisor: SVL Station Mtce Dept			
428343	10/29/2004	SO	LAR SITE #4, SHORT SPAN EAST	90	3
		GLE,TEMP. BATTERIES,INSTALL OBTAIN TEMP. BATTERIES FROM SITE #2. PARALLEL TWO BATTERIES IN TEMPORARY BANK. SUBSTITUTE TEMP. BANK FOR TWO MODULES WITH BAD CELLS.			
		INSTALL BATTERIES. COMPLETED BY: R. COOK/T. PARK			

9/17/2015		Work Order Description & Actua	IC-NLH-032, Attachment 1 Page: I Work Page 25 of 29, NLH 2016 CBA		1
	Supervisor: SVL Station Mtce Dept				
WO#	Comp. Date	Description/Actual Work	Item Description	St	Pri
810035	10/19/2010		SOLAR SITES,	71	3
		INSTALL TWO FIRST AID KITS AT SITES #1 AND #4.			

9/17/2015		Work Order Description & Actual W	IC-NLH-032, Attachment 1 Page: Ork Page 26 of 29, NLH 2016 CBA		1
			Supervisor: SVL Station Mtce Dept		
WO#	Comp. Date	Description/Actual Work	Item Description	St	Pri
140091	4/5/2000		SOLAR SITES,	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 1,LONG SPAN WEST CROSSING.			
		2. SOLAR SITE # 2,LONG SPAN EAST CROSSING.			
		3. SOLAR SITE # 3,SHORT SPAN WEST CROSSING.			
		4. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.			
		COMPLETED BY R. COOK/R. COMPTON.			
176490	10/16/2000		SOLAR SITES,	90	3
		CHECK OPERATION OF SOLAR LIGHTS. THREE LOCATIONS			
		REPORTED NOT WORKING, GRAND LAKE.			
		COMPLETED BY R. COOK/T. PARK.			
176501	10/17/2000		SOLAR SITES,	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.			
		1. SOLAR SITE # 1,LONG SPAN WEST CROSSING.			
		2. SOLAR SITE # 2,LONG SPAN EAST CROSSING.			
		3. SOLAR SITE # 3,SHORT SPAN WEST CROSSING.			
		4. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.			
		COMPLETED BY R. COOK/T. PARK.			
177071	10/16/2000		SOLAR SITES,	90	3

REPLACE PATIO ON GRAND LAKE CABIN.

9/17/2015		IC-NLH-032, Attachment 1 Page: 2 Work Order Description & Actual Work Page 27 of 29, NLH 2016 CBA				
			Supervisor: SVL Transmission Line Mtce Dept			
		COMPLETED BY S'VILLE LINE CREW.				
191527	3/30/2001		SOLAR SITES, 90	3		
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.				
		 SOLAR SITE # 1,LONG SPAN WEST CROSSING. SOLAR SITE # 2,LONG SPAN EAST CROSSING. SOLAR SITE # 3,SHORT SPAN WEST CROSSING. SOLAR SITE # 4,SHORT SPAN EAST CROSSING. 				
		COMPLETED SOLAR PM INSPECTIONS.				
		COMPLETED BY: R.COOK/P. KEOUGH/D. BLAKE COMPLETED DATE: 01-03-30				
235825	10/25/2001		SOLAR SITES, 90	3		
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.				
		 SOLAR SITE # 1,LONG SPAN WEST CROSSING. SOLAR SITE # 2,LONG SPAN EAST CROSSING. SOLAR SITE # 3,SHORT SPAN WEST CROSSING. SOLAR SITE # 4,SHORT SPAN EAST CROSSING. 				
		COMPLETED SOLAR PM INSPECTIONS. REPLACED PHOTO CELLS. COMPLETED BY: R.COOK/D.BLAKE				
		COMPLETED DATE: 01-10-25				
241131	12/10/2001		SOLAR SITES, 90	3		
		GLE,SOLAR SITE#1,REPAIRS				

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			Supe	rvisor: SVL Station Mtce Dept		
270869	9/19/2002		SOL	AR SITES,	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW.				
		 SOLAR SITE # 1,LONG SPAN WEST CROSSING. SOLAR SITE # 2,LONG SPAN EAST CROSSING. SOLAR SITE # 3,SHORT SPAN WEST CROSSING. SOLAR SITE # 4,SHORT SPAN EAST CROSSING. 				
		COMPLETED SOLAR PM INSPECTIONS. COMPLETED BY: R.COMPTON/T.KEOUGH COMPLETED DATE: 02-09-19				
335204	4/13/2004		SOL	AR SITES,	90	3
		COMPLETE THE PM INSPECTIONS ON THE SOLAR SITES LISTED BELOW. 1. SOLAR SITE # 1,LONG SPAN WEST CROSSING. 2. SOLAR SITE # 2,LONG SPAN EAST CROSSING. 3. SOLAR SITE # 3,SHORT SPAN WEST CROSSING. 4. SOLAR SITE # 4,SHORT SPAN EAST CROSSING.				
		TWO CELLS #7 AND #9 BELOW ONE VOLT. SEVEN CELL POSTS CRACKED AND CELL SWOLLEN. #1 CELL BELOW ONE VOLT. COMPLETED BY: T. PARK/P. MCKAY				
466159	9/29/2005		SOL	AR SITES,	90	4
		Grand Lake Crossing-Repl Batt Bank				
		INSTALLED BATTERY BANK AT SITE #4 GNB ABSOLYTE, MOD. #50A27. AMP HOUR RATING - 680. SALES ORDER #324703. OLD BATTERY BANK SCRAPPED (K&J METALS) COMPLETED BY: T. PARK/T. KEOUGH/D. STIRLING COMPLETED DATE: 05-09-29				

9/17/2015	5	Work Order Description & Actual Work	IC-NLH-032, Attachment 1 Page: Page 29 of 29, NLH 2016 CBA		4
Supervisor: SVL Station Mtce Dept					
606900	6/27/2008	SOLAR SITES,		90	3
		CONSTRUCT THE THREE REMAINING CIRCUITS FOR GLE DAY/NIGHT SWITCHING CIRCUIT. SITES 2, 3 AND 4.			
		INSTALLED RELAY CIRCUITS. COMPLETED BY: T. KEOUGH/M. CANNING/S. ROSE COMPLETED DATE: 08-06-27			