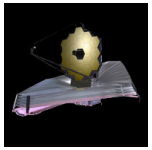

2416 - Measuring Volatile Production in Active Centaurs with JWST NIRSpec

Cycle: 1, Proposal Category: GO

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Active Centaurs				
	1	29P/SW1	NIRSpec IFU Spectroscopy	(1) 29P
	2	29P/SW1 Background	NIRSpec IFU Spectroscopy	(2) 29P-OFFSET
	3	39P/Oterma	NIRSpec IFU Spectroscopy	(3) 39P
	4	39P/Oterma Background	NIRSpec IFU Spectroscopy	(4) 39P-OFFSET
	5	C/2004 A1 (LONEOS)	NIRSpec IFU Spectroscopy	(5) LONEOS
	6	C/2004 A1 (LONEOS) Background	NIRSpec IFU Spectroscopy	(6) LONEOS-OFFSET

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
	7	C/2008 CL94 (Lemmon)	NIRSpec IFU Spectroscopy	(7) LEMMON
	8	C/2008 CL94 (Lemmon) Background	NIRSpec IFU Spectroscopy	(8) LEMMON-OFFSET
	9	C/2014 OG392 (PanSTARRS)	NIRSpec IFU Spectroscopy	(9) PANSTARRS
	10	C/2014 OG392 (PanSTARRS) Background	NIRSpec IFU Spectroscopy	(10) PANSTARRS-OFFSET
	11	C/2019 LD2 (ATLAS)	NIRSpec IFU Spectroscopy	(11) LD2ATLAS
	12	C/2019 LD2 (ATLAS) Background	NIRSpec IFU Spectroscopy	(12) LD2ATLAS-OFFSET

ABSTRACT

Centaurs are small bodies orbiting between the orbits of Jupiter and Neptune. These objects are transitioning from orbits in the Scattered Disk beyond Neptune to those of Jupiter Family Comets that enter the terrestrial planet region. Cometary activity has been observed in some of Centaurs, indicating the presence of volatiles. While studies of the dust comae surrounding active Centaurs have been performed, direct observations of the volatiles responsible for the activity are much more sparse. CO has been detected in a few active Centaurs, while CO2 has not been detected (mostly due to difficulties observing CO2 from ground-based facilities) and H2O has only been detected in one Centaur (29P). An inventory of H2O, CO2, and CO in active Centaurs is vital to understanding their composition and activity. We propose to use JWST NIRSpec to obtain observations of H2O, CO2, and CO in a sample of active Centaurs. We will also perform sensitive searches for water ice absorption in the coma. JWST NIRSpec is uniquely suited for this study because a) it has unsurpassed sensitivity at IR wavelengths, allowing for orders of magnitude better sensitivity than previous searches for these molecules, and b) JWST's space-borne nature allows it to observe the fundamental bands of H2O and CO2, which cannot be observed from the ground due to severe telluric absorption.

OBSERVING DESCRIPTION

We propose observations with the NIRSpec IFU prism mode to measure production rates of H2O, CO2, and CO in a sample of active Centaurs, as well as search for water ice absorption in the coma. All observations have dedicated background observations. The science and background observations are sequenced together and non-interruptable to ensure the most accurate measure of the background.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(1)	29P	TYPE=COMET,Q=5.739892634168395,E=0.0434661 3000805747,I=9.376150824282941 ,O=312.5359239484386,W=50.68684546888016,T=13 -APR- 2019:02:08:10,TTimeScale=TDB,EQUINOX=J2000,E POCH=04-OCT-2012:00:00:00,EpochTimeScale=TDB		
Comments: Extended=YES				
(2)	29P-OFFSET	TYPE=COMET,Q=5.739892634168395,E=0.0434661 3000805747,I=9.376150824282941 ,O=312.5359239484386,W=50.68684546888016,T=13 -APR- 2019:02:08:10,TTimeScale=TDB,EQUINOX=J2000,E POCH=04-OCT-2012:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=360,ANG=90,REF=SUN	
Comments: Extended=YES				
(3)	39P	TYPE=COMET,Q=5.702220310895506,E=0.2293325 146529492,I=1.470359413259978 ,O=304.5833580651899,W=88.70051288508857,T=03 -APR- 2023:21:44:02,TTimeScale=TDB,EQUINOX=J2000,E POCH=10-SEP-2014:00:00:00,EpochTimeScale=TDB		
Comments: Extended=YES				
(4)	39P-OFFSET	TYPE=COMET,Q=5.702220310895506,E=0.2293325 146529492,I=1.470359413259978 ,O=304.5833580651899,W=88.70051288508857,T=03 -APR- 2023:21:44:02,TTimeScale=TDB,EQUINOX=J2000,E POCH=10-SEP-2014:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=60,ANG=90,REF=SUN	
Comments: Extended=YES				
(5)	LONEOS	TYPE=COMET,Q=5.447623845165791,E=0.3128581 877908795,I=10.57260444691801 ,O=124.9449744494116,W=21.55776945887206,T=12 -SEP- 2004:13:21:25,TTimeScale=TDB,EQUINOX=J2000,E POCH=01-APR-2015:00:00:00,EpochTimeScale=TDB		
Comments: Extended=YES				
(6)	LONEOS-OFFSET	TYPE=COMET,Q=5.447623845165791,E=0.3128581 877908795,I=10.57260444691801 ,O=124.9449744494116,W=21.55776945887206,T=12 -SEP- 2004:13:21:25,TTimeScale=TDB,EQUINOX=J2000,E POCH=01-APR-2015:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=60,ANG=90,REF=SUN	
Comments: Extended=YES				
(7)	LEMMON	TYPE=COMET,Q=5.418722185769401,E=0.1200582 010522598,I=8.348577038268255 ,O=33.34589214058776,W=80.68554990416403,T=23 -SEP- 2021:16:09:43,TTimeScale=TDB,EQUINOX=J2000,E POCH=06-APR-2020:00:00:00,EpochTimeScale=TDB		
Comments: Extended=YES				
(8)	LEMMON-OFFSET	TYPE=COMET,Q=5.418722185769401,E=0.1200582 010522598,I=8.348577038268255 ,O=33.34589214058776,W=80.68554990416403,T=23 -SEP- 2021:16:09:43,TTimeScale=TDB,EQUINOX=J2000,E POCH=06-APR-2020:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=60,ANG=90,REF=SUN	
Comments: Extended=YES				

(9)	PANSTARRS	TYPE=COMET,Q=9.964008902430162,E=0.1807211 910407635,I=9.042094452676146 ,O=145.8536403615219,W=254.4882879013189,T=13 -DEC- 2021:19:13:40,TTimeScale=TDB,EQUINOX=J2000,E POCH=14-FEB-2018:00:00:00,EpochTimeScale=TDB	
Comments: Extended=YES			
(10)	PANSTARRS-OFFSET	TYPE=COMET,Q=9.964008902430162,E=0.1807211 910407635,I=9.042094452676146 ,O=145.8536403615219,W=254.4882879013189,T=13 -DEC- 2021:19:13:40,TTimeScale=TDB,EQUINOX=J2000,E POCH=14-FEB-2018:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=60,ANG=90,REF=SUN
Comments: Extended=YES			
(11)	LD2ATLAS	TYPE=COMET,Q=4.578003705420829,E=0.1343149 249905379,I=11.56091733397255 ,O=179.6962012847745,W=123.4581925324429,T=10 -APR- 2020:01:50:25,TTimeScale=TDB,EQUINOX=J2000,E POCH=04-AUG- 2020:00:00:00,EpochTimeScale=TDB	
Comments: Extended=YES			
(12)	LD2ATLAS-OFFSET	TYPE=COMET,Q=4.578003705420829,E=0.1343149 249905379,I=11.56091733397255 ,O=179.6962012847745,W=123.4581925324429,T=10 -APR- 2020:01:50:25,TTimeScale=TDB,EQUINOX=J2000,E POCH=04-AUG- 2020:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=60,ANG=90,REF=SUN
Comments: Extended=YES			

Observation

Proposal 2416, Observation 1: 29P/SW1 Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observations:[29P/SW1 Background (Obs 2)]

Comments: Observations can be exectuted in either time window.

Diagnostics

(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(29P/SW1 (Obs 1)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(1)	29P	TYPE=COMET,Q=5.739892634168395,E=0.0434661 3000805747,I=9.376150824282941 ,O=312.5359239484386,W=50.68684546888016,T=13 -APR- 2019:02:08:10,TTimeScale=TDB,EQUINOX=J2000,E POCH=04-OCT-2012:00:00:00,EpochTimeScale=TDB		

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	5	6	false	true	NONE	4	24	2100.8	61455

Special Requirements

Sequence Observations 1, 2, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE 29P FROM JWST LESS THAN 0.03

Observation

Proposal 2416, Observation 2: 29P/SW1 Background Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observation For: [29P/SW1 (Obs 1)]

Diagnostics

(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(29P/SW1 Background (Obs 2)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(2)	29P-OFFSET	TYPE=COMET,Q=5.739892634168395,E=0.0434661 3000805747,I=9.376150824282941 ,O=312.5359239484386,W=50.68684546888016,T=13 -APR- 2019:02:08:10,TTimeScale=TDB,EQUINOX=J2000,E POCH=04-OCT-2012:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=360,ANG=90,REF=SUN	

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	5	6	false	true	NONE	4	24	2100.8	61455

Special Requirements

Sequence Observations 1, 2, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE 29P-OFFSET FROM JWST LESS THAN 0.03

Observation

Proposal 2416, Observation 3: 39P/Oterma Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observations:[39P/Oterma Background (Obs 4)]

Comments: Observations can be exectuted in either time window, though the second window is preferred due to slightly smaller heliocentric distance.

Diagnostics

(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(39P/Oterma (Obs 3)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(3)	39P	TYPE=COMET,Q=5.702220310895506,E=0.2293325146529492,I=1.470359413259978,O=304.5833580651899,W=88.70051288508857,T=03-APR-2023:21:44:02,TTimeScale=TDB,EQUINOX=J2000,EPOCH=10-SEP-2014:00:00:00,EpochTimeScale=TDB		

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	70	1	false	true	NONE	4	4	4143.245	61455

Special Requirements

Sequence Observations 3, 4, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE 39P FROM JWST LESS THAN 0.03

Observation

Proposal 2416, Observation 4: 39P/Oterma Background Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observation For: [39P/Oterma (Obs 3)]

Diagnostics

(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(39P/Oterma Background (Obs 4)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(4)	39P-OFFSET	TYPE=COMET,Q=5.702220310895506,E=0.2293325146529492,I=1.470359413259978,O=304.5833580651899,W=88.70051288508857,T=03-APR-2023:21:44:02,TTimeScale=TDB,EQUINOX=J2000,EPOCH=10-SEP-2014:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=60,ANG=90,REF=SUN	

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	70	1	false	true	NONE	4	4	4143.245	61455

Special Requirements

Sequence Observations 3, 4, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE 39P-OFFSET FROM JWST LESS THAN 0.03

Observation

Proposal 2416, Observation 5: C/2004 A1 (LONEOS) Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observations:[C/2004 A1 (LONEOS) Background (Obs 6)]

Comments: Observations can be exectuted in either time window, though the second window is preferred due to slightly smaller heliocentric distance.

Diagnostics

(Visit 5:1) Warning (Form): Data Excess over lower threshold

(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(C/2004 A1 (LONEOS) (Obs 5)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(5)	LONEOS	TYPE=COMET,Q=5.447623845165791,E=0.3128581877908795,I=10.57260444691801,O=124.9449744494116,W=21.55776945887206,T=12-SEP-2004:13:21:25,TTimeScale=TDB,EQUINOX=J2000,EPOCH=01-APR-2015:00:00:00,EpochTimeScale=TDB		

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	75	2	false	true	NONE	4	8	8870.045	61455

Special Requirements

Sequence Observations 5, 6, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE LONEOS FROM JWST LESS THAN 0.03

Observation

Proposal 2416, Observation 6: C/2004 A1 (LONEOS) Background Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observation For: [C/2004 A1 (LONEOS) (Obs 5)]

Diagnostics

(Visit 6:1) Warning (Form): Data Excess over lower threshold

(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(C/2004 A1 (LONEOS) Background (Obs 6)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(6)	LONEOS-OFFSET	TYPE=COMET,Q=5.447623845165791,E=0.3128581877908795,I=10.57260444691801,O=124.9449744494116,W=21.55776945887206,T=12-SEP-2004:13:21:25,TTimeScale=TDB,EQUINOX=J2000,EPOCH=01-APR-2015:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=60,ANG=90,REF=SUN	

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	75	2	false	true	NONE	4	8	8870.045	61455

Special Requirements

Sequence Observations 5, 6, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE LONEOS-OFFSET FROM JWST LESS THAN 0.03

Observation

Proposal 2416, Observation 7: C/2008 CL94 (Lemmon) Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observations:[C/2008 CL94 (Lemmon) Background (Obs 8)]

Comments: Observations can be exectuted in either time window, though the first window is preferred due to slightly smaller heliocentric distance.

Diagnostics

(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(C/2008 CL94 (Lemmon) (Obs 7)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(7)	LEMMON	TYPE=COMET,Q=5.418722185769401,E=0.1200582 010522598,I=8.348577038268255 ,O=33.34589214058776,W=80.68554990416403,T=23 -SEP- 2021:16:09:43,TTimeScale=TDB,EQUINOX=J2000,E POCH=06-APR-2020:00:00:00,EpochTimeScale=TDB		

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	60	1	false	true	NONE	4	4	3559.689	61455

Special Requirements

Sequence Observations 7, 8, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE LEMMON FROM JWST LESS THAN 0.03

Observation

Proposal 2416, Observation 8: C/2008 CL94 (Lemmon) Background Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observation For: [C/2008 CL94 (Lemmon) (Obs 7)]

Diagnostics

(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(C/2008 CL94 (Lemmon) Background (Obs 8)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(8)	LEMMON-OFFSET	TYPE=COMET,Q=5.418722185769401,E=0.1200582010522598,I=8.348577038268255,O=33.34589214058776,W=80.68554990416403,T=23-SEP-2021:16:09:43,TTimeScale=TDB,EQUINOX=J2000,EPOCH=06-APR-2020:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=60,ANG=90,REF=SUN	

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	60	1	false	true	NONE	4	4	3559.689	61455

Special Requirements

Sequence Observations 7, 8, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE LEMMON-OFFSET FROM JWST LESS THAN 0.03

Observation

Proposal 2416, Observation 9: C/2014 OG392 (PanSTARRS) Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observations:[C/2014 OG392 (PanSTARRS) Background (Obs 10)]

Comments: Observations can be exectuted in either time window.

Diagnostics

(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(C/2014 OG392 (PanSTARRS) (Obs 9)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(9)	PANSTARRS	TYPE=COMET,Q=9.964008902430162,E=0.1807211910407635,I=9.042094452676146,O=145.8536403615219,W=254.4882879013189,T=13-DEC-2021:19:13:40,TTimeScale=TDB,EQUINOX=J2000,EPOCH=14-FEB-2018:00:00:00,EpochTimeScale=TDB		

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	80	1	false	true	NONE	4	4	4726.8	61455

Special Requirements

Sequence Observations 9, 10, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE PANSTARRS FROM JWST LESS THAN 0.03

Observation

Proposal 2416, Observation 10: C/2014 OG392 (PanSTARRS) Background Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observation For: [C/2014 OG392 (PanSTARRS) (Obs 9)]

Diagnostics

(Visit 10:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(C/2014 OG392 (PanSTARRS) Background (Obs 10)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(10)	PANSTARRS-OFFSET	TYPE=COMET,Q=9.964008902430162,E=0.1807211910407635,I=9.042094452676146,O=145.8536403615219,W=254.4882879013189,T=13-DEC-2021:19:13:40,TTimeScale=TDB,EQUINOX=J2000,EPOCH=14-FEB-2018:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=60,ANG=90,REF=SUN	

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	80	1	false	true	NONE	4	4	4726.8	61455

Special Requirements

Sequence Observations 9, 10, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE PANSTARRS-OFFSET FROM JWST LESS THAN 0.03

Observation

Proposal 2416, Observation 11: C/2019 LD2 (ATLAS) Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observations:[C/2019 LD2 (ATLAS) Background (Obs 12)]

Comments: Observations can be exectuted in either time window, though the first window is preferred due to slightly smaller heliocentric distance.

Diagnostics

(Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(C/2019 LD2 (ATLAS) (Obs 11)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(11)	LD2ATLAS	TYPE=COMET,Q=4.578003705420829,E=0.1343149249905379,I=11.56091733397255,O=179.6962012847745,W=123.4581925324429,T=10-APR-2020:01:50:25,TTimeScale=TDB,EQUINOX=J2000,EPOCH=04-AUG-2020:00:00:00,EpochTimeScale=TDB		

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	20	1	false	true	NONE	4	4	1225.467	61455

Special Requirements

Sequence Observations 11, 12, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE ATLAS FROM JWST LESS THAN 0.03

Observation

Proposal 2416, Observation 12: C/2019 LD2 (ATLAS) Background Fri Aug 04 21:01:00 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Background Observation For: [C/2019 LD2 (ATLAS) (Obs 11)]

Diagnostics

(Visit 12:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(C/2019 LD2 (ATLAS) Background (Obs 12)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(12)	LD2ATLAS-OFFSET	TYPE=COMET,Q=4.578003705420829,E=0.1343149249905379,I=11.56091733397255,O=179.6962012847745,W=123.4581925324429,T=10-APR-2020:01:50:25,TTimeScale=TDB,EQUINOX=J2000,EPOCH=04-AUG-2020:00:00:00,EpochTimeScale=TDB	TYPE=POS_ANGLE,RAD=60,ANG=90,REF=SUN	

Comments: Extended=YES

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	20	1	false	true	NONE	4	4	1225.467	61455

Special Requirements

Sequence Observations 11, 12, Non-interruptible

DEFAULT WINDOW: ANGULAR RATE LD2ATLAS-OFFSET FROM JWST LESS THAN 0.03